Status Codes

3270 Information Display System

IBM
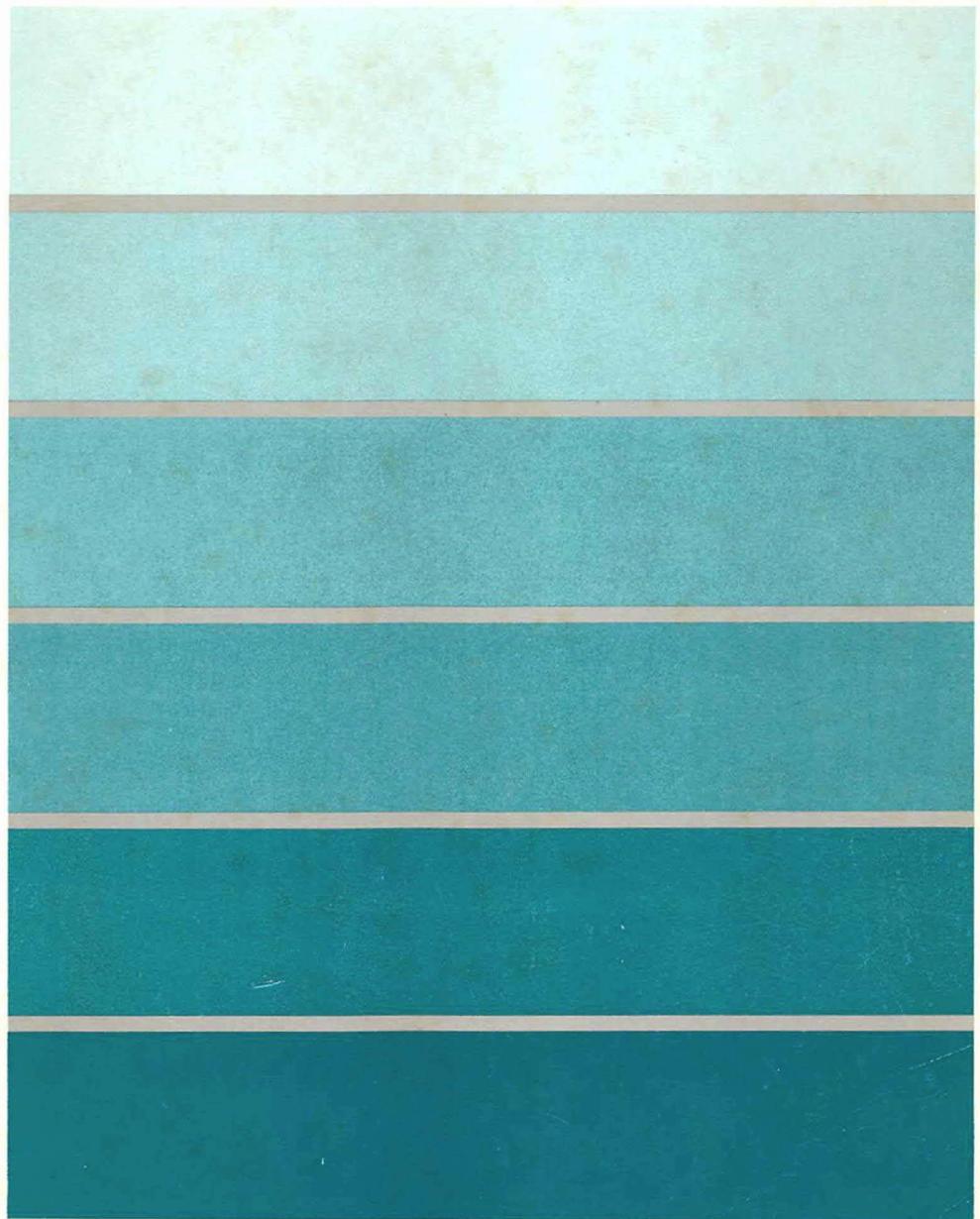
3174 Establishment Controller

GA27-3832-04

Status Codes

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Preface

Chapter 1 provides descriptions and recovery actions for 3174 status codes.

Chapter 2 provides reference information that defines some of the additional fields in the status codes. It also provides some of the commonly used procedures, such as Alt 2 IML, Fixed Disk Media Tests, Fixed Disk Full Format, and Restoring Your Data.

Who This Book Is For

This book is for anyone who needs to determine what a 3174 status code means and how to recover from a particular problem.

How to Use This Book

Customers

Use the first part of Chapter 1 to learn how to use the status code chart. It explains the format of the status codes, how to display the status codes, and some of the commonly used abbreviations in the status codes.

Most of Chapter 1 is devoted to the status codes themselves. When you locate a particular status code, you will find a description of the code and a list of actions. Do the actions one at a time until you find the statement "*For service personnel only.*" The actions following this statement are intended only for trained service personnel.

Chapter 2 contains reference information that you may need. This information is provided to support the status code chart and you will be directed to this information from the status code chart. This chapter is included to minimize the number of times you might need to go to another book.

Service personnel

All of the statements about the status codes stated above apply. It is recommended that you verify that the customer has performed customer actions. Also find out what the results were. For example, sometimes the customer is directed to do an Alt 2 IML. Find out if the Alt 2 was successful. This will save you time because you will not be repeating activities the customer has already done. For status codes that have the statement "*For service personnel only,* " continue with the remainder of the actions listed. If you complete all of the actions and the controller is still failing, you should contact the next level of your support structure for assistance.

Choosing the Right Book from the 3174 Library

The 3174 library contains information for installing, customizing, operating, maintaining, and programming the data stream for the 3174 controller. The list below shows the manuals you need to perform these tasks.

To Find Translations of Safety Notices:

    Safety Notices, GA27-3824

To Organize Library Materials:

    Binders and Inserts, SBOF-0089
        Binder, SX23-0331
        Inserts, SX23-0332

To Become Familiar with the 3174:

    Master Index, GC30-3515
    3174 Introduction, GA27-3850

To Prepare Your Site for the 3174:

    Site Planning, GA23-0213
    Physical Planning Template, GX27-2999

To Set Up and Operate the 3174:

    Models 1L, 1R, 2R, 3R, 11L, 11R, 12R, and 13R User's Guide, GA23-0337
    Models 21L and 21R User's Guide, GA27-3874
    Models 51R, 52R, 53R, 61R, 62R, and 63R User's Guide, GA23-0333
    Models 81R, 82R, 90R, 91R, and 92R User's Guide, GA23-0313

To Plan for and Customize the 3174:

Configuration Support A and S

    Planning Guide, GA27-3844
    Utilities Guide, GA27-3853
    Central Site Customizing User's Guide, GA23-0342
    Asynchronous Emulation Adapter Description and Reference, GA27-3872

Configuration Support B

    Planning Guide, GA27-3862
    Model 90R Tokenway Planning, GD21-0036
    Utilities Guide, GA27-3863
    Central Site Customizing User's Guide, GA27-3868
    Asynchronous Emulation Adapter Description and Reference, GA27-3872

To Perform Problem Determination:

    Customer Problem Determination, GA23-0217
    Status Codes, GA27-3832

To Install Features or Convert Models on the 3174:

Fixed Disk Installation and Removal Instructions, GA27-3864
Diskette Drive Installation and Removal Instructions, GA23-0263
Terminal Multiplexer Adapter and Fiber Optic Terminal Adapter Installation and Removal Instructions, GA23-0265
Model Conversion Instructions, GA23-0295
Token-Ring Network Feature Installation and Removal Instructions, GA23-0329
Storage Expansion Feature Installation and Removal Instructions, GA23-0330
Communication Adapter Installation and Removal Instructions, GA27-3830
Asynchronous Emulation Adapter Installation and Removal Instructions, GA23-0341
Concurrent Communication Adapter Installation and Removal Instructions, GA27-3851
Models 21L and 21R Feature Installation and Removal Instructions, GA27-3875

To Use the Asynchronous Emulation Adapter Feature:

Asynchronous Emulation Adapter Description and Reference, GA27-3872
Terminal User's Reference for Expanded Functions, GA23-0332

To Use the Multiple Logical Terminals Function:

Terminal User's Reference for Expanded Functions, GA23-0332

To Obtain Data Stream Programming and Reference Information:

Functional Description, GA23-0218
Data Stream Programmer's Reference, GA23-0059
Asynchronous Emulation Adapter Description and Reference, GA27-3872
3174 Reference Summary, GX27-3872
3174 Character Set Reference, GA27-3831
3270 X.25 Operation, GA23-0204

To Perform Maintenance (Service Personnel):

Models 1L, 1R, 2R, 3R, 11L, 11R, 12R, and 13R Maintenance Information, SY27-2572
Models 21L and 21R Maintenance Information, SY27-0323
Models 51R, 52R, 53R, 61R, 62R, and 63R Maintenance Information, SY27-2573
Models 81R, 82R, 90R, 91R, and 92R Maintenance Information, SY27-2584
CE Reference Summary, SX27-3873
Status Codes, GA27-3832

Contents

Tables

Summary of Changes

Fifth Edition (September 1990)

This edition includes support of Configuration Support A Release 5, Configuration Support S Release 5, and Configuration Support B Release 3.

This edition includes information for X.25 single link multi-host support, the Fiber Optic Terminal Adapter, and the 3299 Model 32.

The alert sent field has been changed to reflect what type of alert, if any, has been sent.

Technical changes or additions to the text and illustrations are indicated by a vertical line to the left of the change.

Fourth Edition (June 1990)

This edition includes support of Configuration Support A Release 5, Configuration Support S Release 5, and Configuration Support B Release 2.

This edition includes *3174 Establishment Controller Model 90R Supplement*, GD21-0036.

Where applicable, information has been added for new models 21L, 21R, and 90R.

Third Edition (March 1990)

This edition includes support of Configuration Support A Release 5, Configuration Support S Release 5, and Configuration Support B Release 2.

An entry has been added to status codes 2%% through 890 to indicate whether an alert is reported to the host.

Second Edition (May 1989)

This edition includes support of Configuration Support A Release 5.0, Configuration Support S Release 5.0, and Configuration Support B Release 1.0. Also, this edition reflects the name change from 3174 Subsystem Control Unit to 3174 Establishment Controller.

Where applicable, information has been added for:

- New Models 11L, 11R, 12R, 13R, 61R, 62R, 63R, 91R, and 92R
- 16/4Mbps Token-Ring Adapter
- Single Link Multi-Host Support
- Type 1 and Type 2 Concurrent Communication Adapters
- 2MB Storage and Storage Expansion.

Chapter 1. 3174 Status Codes

Status codes help you identify and locate a failing subsystem component. Status codes may appear in the Status display on the 3174 operator panel, in the 3174 event log, on attached terminals, or in all three. To display and use the event log, see Test 1 in the online test section of the *IBM 3174 Customer Problem Determination* manual. A status code that appears on attached terminals may also be sent to the host as an alert.

Status Code Description

| The base status code is 1 to 4 characters. It is the first number that is displayed in the Status display, in the event log, or on the terminal. The base status code is the number in the first column of the Status Code Chart.

The base status code may have additional numbers following it; you can display these additional numbers at the operator panel by pressing Advance.

Some status codes are normal progress status codes or completion messages. If a progress status code remains in the display more than 30 seconds, the code indicates an error.

The base status code and the associated additional numbers identify the type of problem and its source.

| Status codes 2%% through 890 have information stating whether or not alerts have been sent to the host.
| Alerts are high-priority notifications that warrant immediate attention and are directed to the NetView*
| program operator. Alerts fall into five categories:

| **Permanent** errors disable a device or cause the loss of a critical resource.

| **Temporary** errors are recoverable with some loss of productivity and cause the loss of a non-critical
| resource.

| **Performance** errors exceed a predetermined threshold, but do not disable a device.

| **Delayed** errors occur when a response time monitor counter overflows and is allowed to send RTM
| alerts.

| **Operator Intervention Required** is an error, such as an installation problem, that requires an operator
| to correct it.

How to Use the Status Code Chart

Customers

To use the Status Code Chart:

1. Look up the base status code in the first column of the chart.
2. Look for the additional numbers associated with the base status code in the second column of the chart. In the Status Code Chart, *x* represents any number from 0 to 9.
3. Read the description and do the first recommended action. If that does not solve the problem, do the next action. Continue in this way until you solve the problem or are told to request assistance or service.
4. When requesting service, be sure to give the base status code and additional numbers to the service personnel.

The Status Code Chart uses some abbreviations that you need to know.

QA Qualifier—A 2-digit number that immediately follows many of the base status codes. The base status code and the qualifier are both needed to identify a subsystem problem.

HG Hardware Group—A 2-digit number that follows the qualifier (QA) and represents a functional area of the controller. For example, a hardware group number 01 indicates *diskette drive 1*. A list of the hardware groups is shown in Table 2-3 on page 2-13.

LOCA Location of the replaceable part (01 to 24).

TYPE Type number of the card. For example, 9154 is a type number of the file/terminal adapter. See Table 2-2 on page 2-11.

Re-IML To make the controller operational by pressing the IML (initial microcode [1] load) pushbutton, or to obtain the 40 prompt with an Alt 1 IML.

Service Personnel

All of the statements about status codes stated above apply. It is recommended that you verify that the customer has performed these actions and find out what the results were. For example, sometimes the customer is directed to perform an Alt 2 IML. Find out if the Alt 2 completed successfully with 2082 displayed. This will save you time because you will not be repeating activities the customer has already done. For status codes that have the statement *"For service personnel only,"* continue with the remainder of the actions listed. If you have completed all of the actions and the controller is still failing, you should contact the next level of your support structure for assistance.

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[1] Microcode may be classified as IBM Licensed Internal Code. See the "3174 Licensed Internal Code" notice at the beginning of this document for information.

How to Display Status Codes

You can display a status code under these conditions:

* When the status display is blank.
* When a status code is already displayed.
* When a status code is blinking or sequencing. (While sequencing, up to 10 codes are displayed, one at a time, followed by a blank. After the blank, the sequence begins again.)

The following sections show you how to display status codes under each condition.

Note: The procedures described in these sections should not be used if the status display contains nonnumeric characters. Always request service for the controller when nonnumeric characters are displayed.

1. Observe the initial condition of the Status display, and match it to one of the following conditions (**A, B,** or **C**).

2. Do the associated action for that condition.

3. Record the status codes as you move through the procedure; you will need the full status code (base status code and additional numbers) when you look up the status code in the Status Code Chart.

4. Find the status code by numeric order in the Status Code Chart. See page 1-4.

Condition A (The Status Display is blank):

1. Press Enter.

2. If a single status code is displayed, follow the procedure for Condition B.

3. If status codes are blinking or sequencing, follow the procedure for Condition C.

Condition B (A single status code is displayed):

1. Press Advance.

2. Additional numbers are displayed or the same status code remains displayed indicating there are no additional numbers.

3. If additional numbers are displayed, continue pressing Advance until the status display is blank. This indicates the end of the status code.

4. Press Advance again. If another blank is displayed, there is only one status code. If numbers appear, this is the beginning of the next status code. Repeat this procedure from step 1.

Note: After two blank displays appear, you can redisplay the status codes by pressing Advance.

Condition C (The Status Display is blinking):

1. Press Advance.

2. The status display stops on one code.

3. Press Advance to display any additional numbers. Repeat this step until the status display is blank. The blank indicates the end of this status code.

4. To display the other status codes, press Enter. The status display begins sequencing again. When you want to stop on a particular status code, press Advance and repeat step 3 to display the complete status code and then repeat this step to display any other status code.

3174 Status Code Chart

Status Code	Additional Fields	Description	Action
XXXX		Status code is not in the chart, or the status code contains characters other than numbers.	Request service. *For service personnel only:* Go to MAP 0110 in the maintenance manual for your model.

1	01HG
	B1B2
	B3B4
	B5B6
	B7B8
		An operational IML has been started.
		
		B1 = Storage option and the IML drive number.
		    B = 0 = Storage Initialization was requested.
		    B = 1 = Storage Initialization was not requested.
		
		The second number in byte B1 indicates the IML drive number: 1 through 4.
		
		B2 = The type of IML where:
		  41 = Normal IML.
		  42 = Backup level IML.
		  43 = Trial level IML.
		B3 = Microcode Configuration level.
		B4 = Microcode Release level.
		B5 = Microcode Suffix level.
		B6 – B8 = Microcode Maintenance level.
			No action is required.

2		3174 hardware failure during an IML. Possible cause: Processor.	1. Re-IML. 2. Request service. *For service personnel only:* For Models 51R through 92R: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
5		One of the cooling fans is failing.	Request service and report that a fan is failing. *For service personnel only:* Replace the fan that is failing. See Chapter 3 in the maintenance manual.

9		3174 hardware failure during an IML.
		
		Possible cause:
		
		1. Storage card defective or missing
		2. 1MB storage card in first position
		3. Total storage exceeds 4MB
		4. FRU ID problem
		5. Planar board defective.
			1. Re-IML.
			2. Request service.
			
			For service personnel only:
			
			1. Check location J22 for a 1MB storage card (Type 9486):
			   • If there is a 1MB storage card in J22 and no storage card in J23 or a 1MB storage card in both J22 and J23, contact your IBM representative to obtain the 2MB storage card.
			   • If there is a 1MB storage card in J22 and a 2MB storage card (Type 9482) in J23, interchange the two cards and retry the operation.
			2. Exchange the storage card in location J22.
			3. Exchange the planar board.
			
			See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
10 or 11		3174 IML progress message. If the Check Cond indicator is on, a failure has occurred. Possible cause: 1. Storage 2. Planar board.	1. Re-IML. 2. Request service. *For service personnel only:* 1. Exchange the storage card in location J22. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
12 or 13		3174 IML progress message. If the Check Cond indicator is on, a failure has occurred. Possible cause: 1. Storage 2. Planar board.	1. Re-IML. 2. Request service. *For service personnel only:* 1. Exchange the storage card in location J23. 2. Exchange the storage card in location J22. 3. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
14 or 15		3174 IML progress message. If the Check Cond indicator is on, a failure has occurred. Possible cause: 1. Storage 2. Planar board.	1. Re-IML. 2. Request service. *For service personnel only:* 1. Exchange the storage card in location J23. 2. Exchange the storage card in location J22. 3. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
31		3174 Alternate IML progress message unless this code remains displayed. Possible cause: 1. Alt 1 or Alt 2 key held down 2. Processor 3. Operator panel adapter card (Models 1L through 13R only) 4. Operator panel.	1. Check that the Alt 1 or Alt 2 key is not stuck down on the operator panel. 2. Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange FRU type 950x in location 18. 2. Exchange the operator panel adapter card in location 05. 3. Exchange the operator panel. For Models 21L through 92R: 1. Exchange the planar board. 2. Exchange the operator panel. See Chapter 3 in the maintenance manual for your model.
36		3174 hardware failure during an IML. Possible cause: Planar board.	1. Re-IML. 2. Request service. *For service personnel only:* For Models 21L through 92R: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
40		An Alt 1 IML prompt message. This is a request for additional input. From this prompt you can enter requests to: • Customize • Run offline tests • Perform alternate IMLs.	Perform the action indicated by the procedure being used. For customizing procedures, see "How to Display the Master Menu" in the *3174 Utilities Guide*. For running offline tests, see "Diagnostic Aids: Offline Tests" in the *3174 Customer Problem Determination* manual. For Alternate IMLs, see Chapter 2 in this book.

Status Code	Additional Fields	Description	Action

42		3174 IML progress message. If this status code is displayed longer than 30 seconds, a failure has occurred.
		
		Possible cause: Processor.
			1. Re-IML.
			2. Request service.
			
			For service personnel only:
			
			<u>For Models 1L through 13R:</u>
			
			    Exchange FRU type 950x in location 18.
			
			<u>For Models 21L through 92R:</u>
			
			    Exchange the planar board.
			
			See Chapter 3 in the maintenance manual for your model.

50 to 55		3174 hardware failure during an IML. Possible cause: 1. Processor 2. Storage 3. Logic board (Models 1L through 13R)	1. Re-IML. 2. Request service. ***For service personnel only:*** <u>For Models 1L through 13R:</u> Use the following steps or go to MAP 0500 in the maintenance manual. 1. Exchange FRU type 905x in location 19. 2. Exchange FRU type 905x in location 20. 3. Exchange FRU type 905x in location 17. 4. Exchange FRU type 950x in location 18. 5. Exchange the logic board. <u>For Models 21L, 21R, 61R, 62R, and 63R:</u> 1. Exchange the storage card in location J22. 2. If present, exchange the storage card in location J23. 3. Exchange the planar board. <u>For Models 51R, 52R, and 53R:</u> 1. If present, exchange FRU Type 905X in location 05. 2. Exchange the planar board. <u>For Models 81R or 82R:</u> Exchange the planar board. <u>For Models 90R through 92R:</u> 1. Exchange the storage card in location J22. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
57 to 61		3174 IML progress message. If this status code remains displayed longer than 30 seconds, a storage test has failed. Possible cause: 1. Storage 2. Processor.	1. Re-IML. 2. Request service. ***For service personnel only:*** For Models 1L through 13R: 1. Use the following steps or go to MAP 0500 in the maintenance manual. 2. Exchange FRU type 905x in location 19. 3. Exchange FRU type 950x in location 18. For Models 21L, 21R, 61R, 62R, and 63R: 1. Exchange the storage card in location J22. 2. If present, exchange the storage card in location J23. 3. Exchange the planar board. For Models 51R, 52R, and 53R: 1. If present, exchange FRU Type 905X in location 05. 2. Exchange the planar board. For Models 81R or 82R: Exchange the planar board. For Models 90R through 92R: 1. Exchange the storage card in location J22. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
77		3174 hardware failure.	1. Re-IML. 2. Request service. ***For service personnel only:*** For Models 21L through 92R: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
94		Machine check while using the operator panel keypad. Possible cause: Processor.	1. Re-IML. 2. Request service. ***For service personnel only:*** For Models 1L through 13R: Exchange FRU type 950x in location 18. For Models 21L through 92R: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
96 to 98		An incorrect operator panel key was pressed in response to the Alt 1 IML 40 prompt. Possible cause: 1. Wrong key was pressed 2. Operator panel adapter 3. Defective operator panel.	1. Re-IML, and retry the procedure. 2. Request service. ***For service personnel only.*** <u>For Models 1L through 13R:</u> 1. Exchange the operator panel adapter card in location 05. 2. Exchange the operator panel in location 06. <u>For Models 21L through 92R:</u> 1. Exchange the operator panel. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
101		IML progress message. This is a failure if the Check Cond indicator is on or if the status code is displayed longer than 30 seconds. Possible cause: 1. Processor 2. File adapter.	1. Re-IML. 2. Request service. ***For service personnel only:*** <u>For Models 1L through 13R:</u> 1. Exchange FRU type 950x in location 18. 2. Exchange the file adapter in location 21. <u>For Models 21L through 92R:</u> Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
102		IML in progress message. Either the Alt 1 power on IML procedure was performed incorrectly, or an unrecoverable machine check occurred. Possible cause: Processor.	1. Perform an Alt 1 IML again; see page 2-1. 2. Request service. ***For service personnel only:*** <u>For Models 1L through 13R:</u> Exchange FRU type 950x in location 18. <u>For Models 21L through 92R:</u> Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
103		A 3174 hardware failure has occurred. Possible cause: 1. File adapter 2. Processor 3. PIO adapter cards 4. Logic board (Models 1L through 13R).	1. Re-IML. 2. Request service. ***For service personnel only:*** <u>For Models 1L through 13R:</u> Use the following steps or go to MAP 0410 in the maintenance manual. 1. Exchange FRU type 950x in location 18. 2. Exchange the PIO adapter cards in locations 21, 22, 23, and 24 one at a time. 3. Exchange the logic board. <u>For Models 21L through 92R:</u> Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
104		A 3174 hardware failure has occurred. Possible cause: 1. Processor 2. PIO adapter cards 3. Logic board (Models 1L through 13R).	1. Re-IML. 2. Request service. ***For service personnel only:*** For Models 1L through 13R: Use the following steps or go to MAP 0410 in the maintenance manual. 1. Exchange FRU type 950x in location 18. 2. Exchange the PIO adapter cards in locations 21, 22, 23, and 24 one at a time. 3. Exchange the logic board. For Models 21L through 92R: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

105		A 3174 hardware failure has occurred.
		
		Possible cause: File adapter.
			1. Re-IML.
			2. Request service.
			
			For service personnel only:
			
			For Models 1L through 13R:
			
			   Exchange the file adapter in location 21.
			
			For Models 21L through 92R:
			
			   Exchange the planar board.
			
			See Chapter 3 in the maintenance manual for your model.

108
or
109
		The 3174 is waiting for a fixed disk drive to become ready.
		
		This code is an error if the Check Cond indicator is on.
		
		Note: 108 and 109 alternate up to 30 seconds until the fixed disk becomes ready.
			1. Re-IML.
			2. Request service.
			
			For service personnel only:
			
			For Models 1L through 13R:
			
			   Exchange FRU type 950x in location 18.
			
			For Models 21L through 63R:
			
			   Exchange the planar board.
			
			See Chapter 3 in the maintenance manual for your model.

111
to
114
		Selection of a fixed disk is in progress.
		
		This code is an error if the Check Cond indicator is on.
			1. Re-IML.
			2. Request service.
			
			For service personnel only:
			
			For Models 1L through 13R:
			
			   Exchange FRU type 950x in location 18.
			
			For Models 21L through 63R:
			
			   Exchange the planar board.
			
			See Chapter 3 in the maintenance manual for your model.

117	01HG	A failure has occurred during an Alt 1 IML. Possible cause: 1. Disk media 2. Diskette drive 3. Diskette drive not ready 4. File Adapter 5. Fixed disk drive 6. Processor.	For diskette drives (HG = 01 or 02): 1. Install a backup diskette and re-IML. 2. Request service. For fixed disk drives (HG = 03 or 04): 1. Re-IML. 2. Request service. ***For service personnel only:*** Perform an Alt 2 IML; see page 2-3.

Status Code	Additional Fields	Description	Action

120	01HG	Control or Utility microcode was not found during an IML.
		
		Note: This status code may appear in the additional fields of status code 130.
			For diskette drives (HG = 01 or 02):
			1. Insert the correct diskette then retry the operation.
			  • For an operational IML, insert a customized Control diskette.
			  • For customizing or tests, insert a Utility diskette.
			2. Request service.
			
			For fixed disk drives (HG = 03 or 04):
			1. Copy the Control and/or Utility diskettes to the fixed disk. See "How To Copy Files" and "How To Perform Media Management" in the *3174 Utilities Guide*.
			2. Request service.
			
			For service personnel only:
			
			Perform an Alt 2 IML; see page 2-3.

121	01HG	A diskette drive "not ready" condition was found during an IML. **Note:** This status code may appear in the additional fields of status code 130. Possible cause: 1. Diskette not present 2. Diskette drive 3. File adapter 4. Logic board (Models 1L through 13R).	1. Be sure the correct diskette is in the diskette drive indicated by the hardware group number and the drive door is closed. 2. Re-IML. 3. Request service. *For service personnel only:* 1. Perform the "Diskette Drive Ready Test" (FN 01) on the diskette drive indicated by the hardware group number. See "How to Run Diskette Drive Optional Tests" in Chapter 2 of the maintenance manual for your model. 2. For Models 1L through 13R, exchange the logic board.
122	01HG	A fixed disk drive is not formatted. **Note:** This status code may appear in the additional fields of status code 130. Possible cause: 1. Fixed disk drive is not formatted 2. Defective fixed disk drive.	1. Run the "Fixed Disk Full Format" on page 2-7. 2. Re-IML. 3. Request service. *For service personnel only:* Exchange the fixed disk indicated by the HG number.
123	01HG	A file adapter failure occurred during an IML. **Note:** This status code may appear in the additional fields of status code 130. Possible cause: 1. File adapter 2. Diskette drive 3. Fixed disk.	For diskette drives (HG = 01 or 02): 1. Re-IML. 2. Request service. For fixed disk failures (HG = 03 or 04): 1. Re-IML. 2. Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange the file adapter in location 21. 2. Exchange the drive indicated by the HG number. For Models 21L through 92R: 1. Exchange the planar board. 2. Exchange the drive indicated by the HG number.

Status Code	Additional Fields	Description	Action
124	01HG	During an IML, a disk media error occurred. **Note:** This status code may appear in the additional fields of status code 130. Possible cause: 1. Diskette 2. Diskette drive 3. File adapter 4. Fixed disk drive.	For diskette drives (HG = 01 or 02): 1. Exchange the diskette in the drive indicated by the HG number. 2. Re-IML. 3. Request service. For fixed disk drives (HG = 03 or 04): 1. Re-IML. 2. Run the "Fixed Disk Media Tests" on page 2-5. If data restoration is required, you will have to recopy your diskettes onto the fixed disk. See "Restoring Your Data" on page 2-8. 3. Re-IML. 4. Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange the file adapter. 2. Exchange the drive indicated by the HG number. For Models 21L through 92R: 1. Exchange the planar board. 2. Exchange the drive indicated by the HG number.
125	01HG	During an IML, a diskette drive or fixed disk drive error occurred. **Note:** This status code may appear in the additional fields of status code 130. Possible cause: 1. Diskette drive 2. Fixed disk drive.	1. Re-IML. 2. Request service. *For service personnel only:* Exchange the diskette drive or fixed disk drive indicated by the HG number.
126	01HG	During an ALT 1 IML, a fixed disk not present error occurred. **Note:** This status code may appear in the additional fields of status code 130. Possible cause: Fixed disk drive.	1. Check that you are selecting the correct drive number for your IML device. See "Alt 1 IML Procedure" on page 2-1. 2. Re-IML. 3. Request service. *For service personnel only:* If the fixed disk drive being used as the IML device is present, exchange the drive. See Chapter 3 of the maintenance manual for your model.
130	HF01 HF02 SF01 SF02	During a normal IML or an Alt 1 normal IML, a Control diskette or a CTL subdirectory on a fixed disk was not found. This could be an operator error or a hardware failure. Possible cause: 1. File adapter 2. Diskette 3. Diskette drive 4. Fixed disk drive. HF01 = Status code for fixed disk 1. HF02 = Status code for fixed disk 2. SF01 = Status code for diskette drive 1. SF02 = Status code for diskette drive 2.	1. Perform the actions indicated by the additional fields HF01, HF02, SF01, and SF02. For example, if the status code in SF01 and SF02 is 120, then a Control diskette is not installed in either diskette drive. **Note:** If you are using a fixed disk as your IML device, verify that a CTL subdirectory exists on the disk. See "How to Perform Media Management" in the *3174 Utilities Guide.* 2. Request service. *For service personnel only:* Perform an Alt 2 IML; see page 2-3.

Status Code	Additional Fields	Description	Action
131		• An Alt 1 IML was attempted with a diskette other than a Control, Utility, or Dump diskette. • An Alt 1 IML was attempted from a fixed disk without a bootstrap loader.	For diskette drives (HG = 01 or 02): 1. Insert the correct diskette, and retry the Alt 1 IML; see page 2-1. 2. Request service. For fixed disk drives (HG = 03.or 04): Go to "Bootstrap Write Procedure" on page 2-4.

Status Code	QAHG	Extended Data	Description	Action
2%% (2EE)	01HG		The controller is configured for a keyboard language that does not support the keyboard on the attached 3270 terminal. Note: 2EE appears in the event log and 2%% appears in the operator information area of the terminal when this error occurs. Alert Sent = Permanent.	1. If this failure is occurring on one 3270 terminal or recently added 3270 terminals, then disconnect the terminals. 2. If this error is occurring on all 3270-type terminals, the Control disk has to be reconfigured. See question 121 in the *3174 Planning Guide*, and see the *IBM 3174 Information Display System Character Set Reference* to determine which keyboard language supports the attached terminals and keyboards.
2%% (2EE)	02HG		An unsupported printer is attached to a terminal adapter port that is configured for ASCII emulation. The attached printer is supported by IBM/3270 hosts. The printer can be attached only to a port that is configured for IBM/3270 hosts. Note: 2EE appears in the event log and 2%% appears in the operator information area of the terminal when this error occurs. Alert Sent = Permanent.	Either reconfigure the port for IBM/3270 host sessions or attach the printer to a terminal adapter port that is not configured for ASCII emulation. To reconfigure the port, see the *3174 Planning Guide.*
2%% (2EE)	21HG		A 3278 Model 1 is attached to the controller. 3278 Model 1 terminals are not supported. A terminal such as a 3278 Model 2 is supported. Unrecoverable error. Note: 2EE appears in the event log. 2%% appears in the operator information area of the terminal when this error occurs. Alert Sent = Permanent.	Disconnect the 3278 Model 1 terminal.

Status Code	QAHG	Extended Data	Description	Action
2%% (2EE)	31HG	B1B2	For a display: The controller has not been configured for the attached keyboard, or the attached keyboard is not compatible with the language that is configured. Unrecoverable error. For a printer: Printer reporting that it has an Extended Attribute Buffer when it does not have one. B1B2 = Keyboard ID. B1 is byte 08. B2 is byte 09. **Note:** 2EE appears in the event log. 2%% appears in the operator information area of the terminal when this error occurs. Alert Sent = Temporary.	If a display: 1. Record the contents of extended data bytes B1 and B2. See "Port Control Area Bit definitions" in Chapter 2, to determine what the Keyboard ID is. 2. Use online test 2, option 2, to see how the controller is configured. See "Test 2: Configuration Menu" in the *3174 Customer Problem Determination* manual. Record the answers to the following question numbers: 121 — Specifies keyboard language support 132 — Specifies alternate keyboard support 136 — Specifies modifiable keyboard standard layout 137 — Specifies modifiable keyboard modified layouts 138 — Specifies modifiable keypad standard layout 166 — Specifies use of attribute select keypad. See the *3174 Planning Guide* and the *IBM 3174 Character Set Reference* to determine if you can reconfigure the Control disk to support the keyboard on the failing terminal. If a printer: Request service for the printer.
2%% (2EE)	32HG		Multiple Logical Terminal (MLT) configuration problem. The controller does not have enough storage to support more than one logical unit on this terminal adapter port. The change screen function on the attached terminal cannot be used to access another host session. **Note:** 2EE appears in the event log and 2%% appears in the operator information area of the terminal when this error occurs. Alert Sent = Temporary.	One of the following actions can be done to correct the problem: • Change the answers to configuration question 117 (Port Assignment Panel). See note 1. • Change the answer to question 110 to a higher number. For example if 110 is set to a 1 change it to a 2. See note 2. • The screen size and characteristics of the terminals attached to the controller can affect the number of logical terminals that can be supported. See question 110: "MLT Configuration Level" in Chapter 6 of the *3174 Planning Guide*. See note 3. **Notes:** 1. The number of logical terminals for more than one port may have to be reduced. See "Planning for Port Assignment " in the *3174 Planning Guide*. 2. Additional storage may be required in the controller to support changing question 110. See the "Storage Planning Procedure" in the *3174 Planning Guide*. Then, contact your IBM representative to obtain the additional storage. 3. On 3180-type terminals the model ID can be changed to a lower number that uses less storage. This may leave storage available to support the logical terminals, selected during controller configuration.

Status Code	QAHG	Extended Data	Description	Action
2%% (2EE)	33HG		Country Extended Code Page (CECP) attribute mismatch. Possible cause: The terminal keyboard is not in native mode. Note: 2EE appears in the event log and 2%% appears in the operator information area of the terminal when this error occurs. Alert Sent = Temporary.	Press RESET on the terminal. See the terminal documentation to set the terminal keyboard to native mode if you want to use CECP characters. Note: Depending on the terminal, putting the keyboard in native mode is done during setup, or by setting switches under the keyboard.
2%% (2EE)	34HG		An attached 3270 terminal has a Magnetic Stripe Reader feature, but the controller has not been configured to support this feature. Unrecoverable error. Note: 2EE appears in the event log and 2%% appears in the operator information area of the terminal when this error occurs. Alert Sent = Temporary.	To use the magnetic stripe reader, the Control disk has to be reconfigured. See question 141 in the *3174 Planning Guide*.
2%% (2EE)	35HG		The attached printer is missing a feature that is required to support another feature. For example, the 3174 is customized for Country Extended Code Page (CECP) and the printer reports that it supports CECP, but does not support APL, does not have an EAB, or does not require translation tables. The printer will default to table 5A only. (See question 123 in the *3174 Planning Guide*.) Unrecoverable error. Note: 2EE appears in the event log and 2%% appears in the operator information area of the terminal when this error occurs. Alert Sent = Temporary.	Request service for the printer. *For service personnel only:* The prerequisite feature for the printer is required to support the requested function or the printer hardware is failing.

Status Code	QAHG	Extended Data	Description	Action
2%% (2EE)	36HG		Multiple Logical Terminals (MLT) configuration problem. The controller does not have enough storage to support this session. The change screen key can still be used to access other usable host sessions. **Note:** 2EE appears in the event log and 2%% appears in the operator information area of the terminal when this error occurs. Alert Sent = Temporary.	One of the following actions can be done to correct the problem: • Reduce the number of logical terminals on the Logical Terminal Assignment (LTA) panel for a specific host. See note 1. • Change your response to question 117 (Port Assignment Panel). See note 2. • Change your response to question 110 to a higher number. For example, if 110 is set to 1 change it to 2. See note 3. • The screen size and characteristics of the terminals attached to the controller can affect the number of logical terminals that can be supported. See question 110: "MLT Configuration Level" in Chapter 6 of the *3174 Planning Guide*. See note 4. **Notes:** 1. The number of sessions assigned on the specific host adapter may have to be reduced. See "Logical Terminal Assignment" and "Port Assignment" in the *3174 Planning Guide*. 2. The number of logical terminals for more than one port may have to be reduced. See "Planning for Port Assignment " in the *3174 Planning Guide*. 3. Additional storage may be required in the controller to support changing question 110. See the "Storage Planning Procedure" in the *3174 Planning Guide*. Then, contact your IBM representative to obtain the additional storage. 4. On 3180-type terminals, the model ID can be changed to a lower number which uses less storage. This may leave storage available to support the logical terminals selected during controller configuration.
2%% (2EE)	37HG		An attached 3270 terminal does not have the hardware necessary to support a function that the operator has attempted to use, such as color or program symbols. The Extended Character Set Adapter feature is required to support these functions. This error also occurs if the terminal is attached through a 7232 Dual Control Unit Terminal Multiplexer and 3174 configuration question 178 has been answered with a 0. See the *3174 Planning Guide*. Unrecoverable error. **Note:** 2EE appears in the event log and 2%% appears in the operator information area of the terminal when an error occurs. Alert Sent = Temporary.	• If the Extended Character Set Adapter (ECSA) feature is not present in the terminal, the functions supported by ECSA cannot be used. • If the ECSA feature is present, see the terminal documentation for further problem isolation. • If the failing terminal is connected through a 7232, check the answer to configuration question 178. The response to question 178 has to be 1. See the *3174 Planning Guide*. Use online test 2, option 2, to display the configuration question. See "Test 2: Configuration Menu" in the *3174 Customer Problem Determination* manual.

Status Code	QAHG	Extended Data	Description	Action
201	01HG		3270 Terminal signal cable timeout or parity errors. Possible cause: 1. Terminal 2. Terminal signal cable or its connections. Alert Sent = None.	1. Check the signal cable connections at the terminal and at the controller. 2. At the failing terminal, switch the Normal/Test switch from Normal to Test and back again, or switch power off and then back on. 3. See the terminal documentation for further problem isolation.
201	51HG		Temporary 3270 Terminal signal cable timeout or parity errors. The terminal is still operational. Possible cause: 1. Terminal 2. Terminal signal cable or its connections. Controller-recoverable. Alert Sent = Performance.	No action is required unless terminal performance is degraded because of an excessive number of 201 errors. If performance is degraded, see the terminal documentation for further problem isolation.
202	01HG		A 3270 terminal is accessing the controller at an abnormally high rate. Turn off the terminal until it has been repaired. It is affecting the operation of the entire subsystem. Alert Sent = Permanent.	Use the terminal documentation to isolate the failure.
202	02HG		A 3270 terminal has caused an overflow of the special request list. The terminal is degrading the performance of the 3174. Alert Sent = Permanent.	1. At the failing terminal, switch the Normal/Test switch from Normal to Test and back again or switch power off and then back on. 2. Use the terminal documentation to isolate the failure.
203	31HG or 51HG		3270 Terminal feature error. Possible cause: Terminal. Controller-recoverable. Alert Sent = Temporary when QA = 31. Alert Sent = None when QA = 51.	No action is required unless terminal performance is degraded because of excessive 203 errors recorded in the event log. If performance is degraded, see the terminal documentation for further problem isolation. Also check the event log for 209 0X status codes for this same terminal. 209 status codes can identify which terminal feature is failing.
203	52HG		Temporary 3270 Terminal feature error while a terminal adapter command queue is in progress. The terminal is still operational. Possible cause: Terminal. Controller-recoverable. Alert Sent = None.	No action is required unless terminal performance is degraded because of an excessive number of 203 errors. If performance is degraded, see the terminal documentation for further problem isolation.
204	01HG		3270 Terminal buffer parity error. Possible cause: Terminal. Alert Sent = Permanent.	At the failing terminal: 1. Switch the Normal/Test switch from Normal to Test and back again, or switch power off and then back on. 2. See the terminal documentation for further problem isolation.
204	31HG		3270 Terminal buffer parity error. Possible cause: Terminal. Operator-recoverable. Alert Sent = None.	1. At the failing terminal, press RESET, and retry the operation, or switch power off and then back on. 2. See the terminal documentation for further problem isolation.

Status Code	QAHG	Extended Data	Description	Action
204	52HG		Temporary 3270 Terminal buffer parity error. The terminal is still operational. Possible cause: Terminal. Controller-recoverable. Alert Sent = None.	No action is required unless terminal performance is degraded because of an excessive number of 204 errors. If performance is degraded, see the terminal documentation for further problem isolation.
204	53HG		Temporary 3270 Printer buffer parity error. The printer is still operational. Possible cause: Printer. Controller-recoverable. Alert Sent = None.	No action is required unless printer performance is degraded because of an excessive number of 204 errors. If performance is degraded, see the printer documentation for further problem isolation.

206	32HG to 3BHG		Invalid 3270 terminal feature initialization. The terminal is operational, but all features are disabled.
			
			Possible cause: Terminal.
			
			QA = 32 through 3B where:
			
			   32 = Selector pen feature.
			   34 = Magnetic stripe reader feature.
			   36 = Modifiable keyboard.
			   37 = Extended Character Set Adapter.
			   3B = Color convergence feature.
			
			Operator-recoverable.
			
			Alert Sent = Temporary.
				At the failing terminal:
				
				1. Press RESET, and retry the operation.
				2. Switch the Normal/Test switch from Normal to Test and back again or switch power off and then back on.
				3. See the terminal documentation for further problem isolation.
				4. Check the feature indicated by the status code qualifier 32 to 3B.

207	01HG		Missing device completion status (3270 terminal). Possible cause: 1. Terminal 2. Terminal signal cable. Alert Sent = Permanent.	At the failing terminal: 1. Switch the Normal/Test switch from Normal to Test and back again, or switch power off and then back on. 2. Check the signal cable connections at the terminal and at the controller. 3. See the terminal documentation for further problem isolation.
207	02HG		Expedited Status (ES) returned too many times from a distributed function terminal. Alert Sent = Permanent.	At the failing terminal: 1. Switch the Normal/Test switch from Normal to Test and back again, or switch power off and then back on. 2. Check the signal cable connections at the terminal and at the controller. 3. See the terminal documentation for further problem isolation.

207	03HG		ASCII printer timeout. The asynchronous emulation adapter did not receive "Command Complete" from the ASCII printer within the specified time.
			
			Alert Sent = Permanent.
				1. Re-establish communication with the printer.
				   • If the printer is connected via a switched line, re-dial to reconnect the printer.
				   • If the printer is connected via direct connection or leased line, power the printer off and then on.
				2. See the printer documentation for further problem isolation.
				3. Request service.
				
				For service personnel only:
				
				Go to MAP 1000 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
207	04HG		Completion status missing from a terminal with an attached printer. Possible cause: 1. Terminal 2. Terminal signal cable. Alert Sent = Permanent.	At the failing terminal: 1. Switch the Normal/Test switch from Normal to Test and back again, or switch power off and then back on. 2. Check the signal cable connections at the terminal and at the control unit. 3. See the terminal documentation for further problem isolation.
208	31HG		Unexpected device operation completion status (3270 terminal). Possible cause: Terminal. Operator-recoverable. Alert Sent = Temporary.	At the failing terminal: 1. Press RESET, and retry the operation. 2. See the terminal documentation for further problem isolation.
209	01HG to 07HG		Terminal adapter to 3270 terminal communication failure. Possible cause: 1. Terminal signal cable 2. Terminal 3. Terminal adapter in the controller 4. TMA card in the controller 5. 3299. QA = 01 through 07 where: 01 = Terminal adapter command queue failure. 02 = Selector pen command queue failure. 04 = Magnetic stripe reader command queue failure. 06 = 3180 explicit partition feature command queue failure. 07 = Extended character set adapter command queue failure. Note: The terminal adapter command queue buffers commands between the attached terminals and the controller. Terminal errors or coaxial problems can cause failures with the command queue. The QA field helps to identify which area of an attached terminal is failing when 209 errors occur. Alert Sent = Permanent.	At the failing terminal: 1. Switch the Normal/Test switch from Normal to Test and back again, or switch power off and then back on. 2. Check the signal cable connections at the terminal and at the controller. 3. Request service. *For service personnel only:* Go to MAP 0200 in the maintenance manual for your model. Note: If the terminal appears to be the cause of the failure, check the feature indicated by the qualifier (02 through 07) in the status code.
209	12HG		Command queue failure for a terminal with an attached printer. Possible cause: 1. Terminal signal cable 2. Terminal 3. Terminal adapter in the controller 4. TMA card in the controller 5. 3299. Note: The terminal adapter command queue buffers commands between the attached terminals and the controller. Terminal errors or coaxial problems can cause failures with the command queue. Alert Sent = Permanent.	At the failing terminal: 1. Switch the Normal/Test switch from Normal to Test and back again, or switch power off and then back on. 2. Check the signal cable connections at the terminal and at the control unit. 3. See the terminal documentation for further problem isolation. 4. Request service. *For service personnel only:* Go to MAP 0200 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action

209	51HG to 57HG		Temporary terminal adapter to 3270 terminal communication failure. The terminal is still operational.
			
			Possible cause:
			
			1. Terminal signal cable
			2. Terminal
			3. Terminal adapter in the controller
			4. TMA card in the controller
			5. 3299.
			
			QA = 51 through 57 where:
			
			    51 = Terminal adapter command queue failure.
			    52 = Selector pen command queue failure.
			    54 = Magnetic stripe reader command queue failure.
			    56 = 3180 explicit partition feature command queue failure.
			    57 = Extended character set adapter command queue failure.
			
			Note: The terminal adapter command queue buffers commands between the attached terminals and the controller. Terminal errors or coaxial problems can cause failures with the command queue. The QA field helps to identify which area of an attached terminal is failing when 209 errors occur.
			
			Controller-recoverable.
			
			Alert Sent = None.
				No action is required unless terminal performance is degraded because of an excessive number of 209 errors.
				
				1. Check the signal cable connections at the terminal and at the controller.
				2. See the terminal documentation for further problem isolation.
				3. Request service.
				
				For service personnel only:
				
				Go to MAP 0200 in the maintenance manual for your model.
				
				Note: If the terminal appears to be the cause of the failure, check the feature indicated by the qualifier: 52 through 57 in the status code.

209	62HG		Temporary command queue failure for a terminal with an attached printer. Possible cause: 1. Terminal signal cable 2. Terminal 3. Terminal adapter in the controller 4. TMA card in the controller 5. 3299. **Note:** The terminal adapter command queue buffers commands between the attached terminals and the controller. Terminal errors or coaxial problems can cause failures with the command queue. Controller-recoverable. Alert Sent = None.	This is a temporary failure; the controller is still operational. No action is required unless terminal performance is degraded because of an excessive number of errors. See status code 209 01, if there are an excessive number of errors.

Status Code	QAHG	Extended Data	Description	Action
210	01HG	B1B2	Invalid 3270 converged keyboard identification. Possible cause: There is an incompatibility involving: 1. The keyboard type. 2. The keyboard identification (ID) that was selected during terminal setup (on some terminals the keyboard ID is set by switches located on the bottom of the keyboard). 3. The answers to configuration questions 136, 137, or 139. 4. The keyboard defined by the "Modify Keyboards" procedure in the *3174 Utilities Guide*. B1B2 = Keyboard ID. B1 is byte 08. B2 is byte 09. See bytes 08 and 09 of the "Port Control Area Bit Definitions" on page 2-29. Alert Sent = Permanent.	1. Obtain the keyboard ID of the failing terminal from the contents of extended data bytes B1 and B2. 2. Use online test 2, option 2, to see how the controller is configured. See "Test 2: Configuration Menu" in the *3174 Customer Problem Determination* manual. Record the answers to the following question numbers: 136, 137, or 139. 3. Use the *3174 Planning Guide* to determine which keyboard IDs are configured on the Control disk (questions 136, 137, or 139). 4. Use the terminal problem determination or setup guide to see if either the keyboard ID or the configuration of the Control disk can be changed to make them match. 5. See "Modifying Keyboards" in the *3174 Utilities Guide*.
210	02HG	B1B2	Invalid 3270 IBM Office Keyboard identification. Possible cause: There is an incompatibility involving: 1. The keyboard type 2. The keyboard ID that was selected during terminal setup (on some terminals the keyboard ID is set by switches located on the bottom of the keyboard). 3. The answers to configuration questions 136, 137, or 139. 4. The keyboard defined by the modify keyboards procedure in the *3174 Utilities Guide*. B1B2 = Keyboard ID. B1 is byte 08. B2 is byte 09. See bytes 08 and 09 of the "Port Control Area Bit Definitions" in Chapter 2. Alert Sent = Permanent.	1. Obtain the keyboard ID of the failing terminal from the contents of extended data bytes B1 and B2. 2. Use test 2, option 2 to see how the controller is configured. See "Test 2: Configuration Menu" in the *3174 Customer Problem Determination* manual. Record the answers to the following question numbers: 136, 137, or 139. 3. Use the *3174 Planning Guide* to determine which keyboard IDs are configured on the Control disk (questions 136, 137, or 139). 4. Use the terminal problem determination or setup guide to see if either the keyboard ID or the configuration of the Control disk can be changed to make them match. 5. See "Modifying Keyboards" in the *3174 Utilities Guide*.
211	01HG or 02HG		Illegal status received from a terminal. Possible cause: 1. Terminal signal cable 2. Terminal. Alert Sent = Permanent.	1. At the terminal, switch the Normal/Test switch from Normal to test and back again, or switch power off and then back on. 2. Check the signal cable connections at the terminal and at the controller. 3. See the terminal documentation for further problem isolation.
211	03HG		Illegal status received from a printer attached to a display. Possible cause: 1. Terminal signal cable 2. Printer. Alert Sent = Permanent.	1. Check the signal cable connections at the terminal and at the controller. 2. At the printer, switch the power off and then back on. 3. If the failure continues, see the printer documentation for further problem isolation.

Status Code	QAHG	Extended Data	Description	Action
211	31HG		Illegal device status received from a distributed function terminal (DFT). Possible cause: 1. Terminal signal cable 2. Terminal. Operator-recoverable. Alert Sent = Temporary.	1. At the terminal, press RESET, and retry the operation. 2. Check the signal cable connections at the terminal and at the controller. 3. See the terminal documentation for further problem isolation.
211	53HG		Temporary illegal device status received from a distributed function terminal (DFT). The terminal is still operational. Possible cause: 1. Terminal signal cable 2. Terminal. Alert Sent = None.	No action is required unless terminal performance is degraded because of an excessive number of 211 errors. 1. Check the signal cable connections at the terminal and at the controller. 2. At the terminal, switch the Normal/Test switch from Normal to test and back again, or switch power off and then back on. 3. See the terminal documentation for further problem isolation.
212	31HG		An illegal keyboard scan code was received by the 3174. Possible cause: 1. Terminal keyboard 2. AEA microcode. Operator-recoverable. Alert Sent = Temporary.	At the failing terminal: 1. Press RESET, and retry the operation. 2. Switch power off and then back on. 3. Check the signal cable connections at the terminal and at the controller. 4. See the terminal documentation for further problem isolation. 5. Call for service. *For service personnel only:* The keyboard scan codes are software generated in the AEA adapter. Use your support structure for aid.
212	32HG	B1B2	3174 microcode failure: Asynchronous Emulation Adapter. An illegal keyboard scan code was received from an asynchronous emulation adapter. Possible cause: Microcode. B1 = Scan Code Received. B2 = Station ID of failing AEA port. Operator-recoverable. Alert Sent = Temporary.	1. Press RESET, and retry the operation. 2. Request service. *For service personnel only:* The keyboard scan codes are software generated in the AEA adapter. Use your support structure for aid.
222	3xHG		Selector pen status error on a 3270 terminal. Possible cause: 1. Selector pen 2. Selector pen feature card in the terminal 3. Terminal signal cable. Operator-recoverable. Alert Sent = Temporary.	At the failing terminal: 1. If a keyboard is attached, press RESET, and retry the operation. If a keyboard is not attached, retry the operation. 2. Check the signal cable connections at the terminal and at the controller. 3. See the terminal documentation for further problem isolation.
223	01HG		Extended Character Set Adapter (ECSA) buffer parity error (3270 terminal). Possible cause: 1. Terminal signal cable 2. ECSA card in the terminal. Alert Sent = Permanent.	1. Check the signal cable connections at the terminal and at the controller. 2. At the terminal, press RESET, and retry the operation. 3. At the terminal, switch the Normal/Test switch from Normal to test and back again, or switch power off and then back on. 4. See the terminal documentation for further problem isolation.

Status Code	QAHG	Extended Data	Description	Action
223	31HG		Extended Character Set Adapter (ECSA) buffer parity error (3270 terminal). Possible cause: 1. Terminal signal cable 2. ECSA card in the terminal. Operator-recoverable. Alert Sent = None.	1. Check the signal cable connections at the terminal and at the controller. 2. At the terminal, press RESET, and retry the operation. 3. At the terminal, switch the Normal/Test switch from Normal to test and back again, or switch power off and then back on. 4. See the terminal documentation for further problem isolation.
223	52HG		Temporary extended Character Set Adapter (ECSA) buffer parity error (3270 terminal). The terminal is still operational. Possible cause: 1. Terminal signal cable 2. ECSA card in the terminal. Controller-recoverable. Alert Sent = None.	No action is required unless terminal performance is degraded because of an excessive number of 223 errors. If performance is degraded, see the terminal documentation for further problem isolation.
224	3xHG		Magnetic Stripe Reader status error (3270 Terminal). Possible cause: 1. Terminal signal cable 2. Terminal. Operator-recoverable. Alert Sent = Temporary.	At the failing terminal: 1. Press RESET, and retry the operation. 2. Switch power off and then back on. 3. See the terminal documentation for further problem isolation.
225	0xHG		Extended Character Set Adapter (ECSA) status failure (3270 terminal). Possible cause: 1. Terminal signal cable 2. ECSA card in the terminal. Alert Sent = Permanent.	At the failing terminal: 1. Switch the Normal/Test switch from Normal to Test and back again, or switch power off and then back on. 2. Check the signal cable connections at the terminal and at the controller. 3. See the terminal documentation for further problem isolation. Check the ECSA feature in the terminal.
228	01HG		Color convergence backup store failure (3270 terminal). Possible cause: 1. Terminal signal cable 2. Terminal. If the keyboard can be reset, the battery in the terminal has failed. If the keyboard cannot be reset, the color convergence hardware in the terminal has failed. Alert Sent = Permanent.	At the failing terminal: 1. Press RESET, and retry the operation. 2. Check the signal cable connections at the terminal and at the controller. 3. See the terminal documentation for further problem isolation.
228	51HG		Temporary color convergence backup store failure (3270 terminal). The terminal is still operational. Possible cause: 1. Terminal signal cable 2. Terminal. Controller-recoverable. Alert Sent = None.	No action is required unless terminal performance is degraded because of an excessive number of 228 errors. If performance is degraded, see the terminal documentation for further problem isolation.

Status Code	QAHG	Extended Data	Description	Action
229	01HG		Color convergence storage failure. Possible cause: 1. Terminal 2. Terminal signal cable. Alert Sent = Permanent.	At the failing terminal: 1. Switch the Normal/Test switch from Normal to Test and back again, or switch power off and then back on. 2. Check the signal cable connections at the terminal and the controller. 3. See the terminal documentation for further problem isolation.
229	51HG		Temporary color convergence storage failure. The terminal is still operational. Possible cause: 1. Terminal 2. Terminal signal cable. Controller-recoverable. Alert Sent = None.	No action is required unless terminal performance is degraded because of an excessive number of 229 errors. If excessive 229 errors are in the event log, perform the following: 1. Check the signal cable connections at the terminal and the controller. 2. See the terminal documentation for further problem isolation. Also check the event log for 209 0X status codes for this same terminal. 209 status codes can identify which terminal feature is failing.
231	01HG or 02HG		An equipment check has occurred on a printer attached to a terminal adapter port. Possible cause: 1. Printer 2. Controller microcode. Alert Sent = Permanent.	At the failing printer: 1. Check the printer for an error code: • If one is present, use the printer documentation. • If a printer error code is not present, switch power off and then back on. 2. Request service. *For service personnel only:* Use your support structure for aid.
231	03HG		Equipment check on a printer attached to a display. Possible cause: Printer Alert Sent = Permanent.	1. Switch the power off at the terminal and its attached printer, and then back on. 2. If the problem continues, see the printer documentation for further problem isolation.
232	01HG		Printer detected load program symbols order error (3270 printer). Possible cause: 1. Printer microcode 2. Controller microcode. Alert Sent = Permanent.	Check the printer for an error code: • If one is present, use the printer documentation. • If a printer error code is not present, request service. *For service personnel only:* Use your support structure for aid.
234	01HG		Extended Character Set Adapter (ECSA) ROS not present in the attached 3270 terminal. Alert Sent = Permanent.	The required ROS must be installed to enable the use of extended attributes. Contact your IBM representative.
235	01HG		Country Extended Code Page (CECP) hardware mismatch. Possible cause: Terminal. **Note:** In order to use CECP the terminal must have an Extended Attribute Buffer (EAB). Alert Sent = Permanent.	1. At the terminal, switch the Normal/Test switch from Normal to Test and back again. 2. See the terminal documentation for further problem isolation.

Status Code	QAHG	Extended Data	Description	Action
236	31HG		Country Extended Code Page (CECP) hardware mismatch. The terminal is not defaulting to the table 5A character set.	1. At the terminal, switch the Normal/Test switch from Normal to Test and back again. This will allow the terminal to use the default base character set.
			Possible cause: Terminal.	
			Alert Sent = Temporary.	2. See the terminal documentation.
239	01HG		Invalid device type information. Terminal hardware failure.	At the failing terminal.
				1. Press reset to restore the keyboard.
			Alert Sent = Permanent.	2. See the terminal documentation for further problem isolation.
240	0xHG		Distributed function terminal interface error.	At the failing terminal:
			Alert Sent = Permanent.	1. Switch power off and then back on.
				2. See the terminal documentation for further problem isolation.
241	01HG		Distributed function terminal interface error.	At the failing terminal:
			Possible cause:	1. Switch power off and then back on.
				2. See the terminal documentation for further problem isolation.
			1. Terminal microcode	3. Request service.
			2. Controller microcode.	
			Alert Sent = Permanent.	*For service personnel only:*
				Use your support structure for aid.
242	01HG		Distributed function terminal (DFT) error.	At the failing terminal:
			Alert Sent = Permanent.	1. Switch power off and then back on.
				2. See the terminal documentation for further problem isolation.
243	01HG		Distributed function terminal (DFT) completion status timeout.	At the failing terminal:
				1. Switch power off and then back on.
			Alert Sent = Permanent.	2. See the terminal documentation for further problem isolation.
244	31		An unexpected completion status was returned from a distributed function terminal (DFT). The DFT sent a completion status of Function Complete (FC) when Function Complete with Input Required (FCIR) was expected. This occurred while the controller was processing a Write Local Channel Command (WLCC) with a Select Read or Read Modify.	Request service for the terminal.
			Alert Sent = None.	
244	51HG	B1B2	Intelligent device percent (%) of interference indicator.	The action to be taken depends on the type of operations occurring with the failing terminal.
			B1B2 = percentage of interference. For example, 0098 = 98%.	• If the operation is host-data-dependent in the outbound direction, then the message size and the number of messages in each transmission should be reduced.
			Note: This status code is logged in intensive mode only.	• If the operation is host-data-dependent in the inbound direction, then a different DFT should be used for the application.
			Controller-recoverable.	• If the operation involves single or multiple functions, then the message sizes and the number of messages in each transmission should be reduced, or a different DFT should be used for the application.
			Alert Sent = None.	
245	01HG		Status error from a 3180.	At the failing terminal:
			Possible cause:	1. Switch power off and then back on.
				2. Check the signal cable connection at the terminal and at the controller.
			1. Terminal signal cable	3. See the terminal documentation for further problem isolation.
			2. Terminal.	
			Alert Sent = Permanent.	

Status Code	QAHG	Extended Data	Description	Action
245	02HG		Status error from a printer. Possible cause: Printer. The printer power is switched off by the controller. Alert Sent = Permanent.	At the failing printer: 1. Switch the printer power off and then back on. 2. Retry the operation. 3. See the printer documentation.
245	52HG		An invalid status was received from an attached printer. This is a temporary failure; the controller is still operational. Possible cause: Printer. Alert Sent = None.	No action is required unless printer performance is degraded because of an excessive number of 245 errors. If performance is degraded, see the printer documentation for further problem isolation.
245	53HG		Temporary printer hardware problem. The controller is still operational. Possible cause: Printer. The printer is still operational. Alert Sent = None.	No action is required unless printer performance is degraded because of an excessive number of 245 errors. If performance is degraded, see the printer documentation for further problem isolation.
245	54HG		Temporary printer hardware problem. This is a temporary failure; the controller is still operational. The printer is still operational. The printer indicated that it supported load structured field (LSF) orders but did not indicate that it supported load DSE/DSC query, which is required with an LSF order. Alert Sent = None.	No action is required unless printer performance is degraded because of an excessive number of 245 errors. If performance is degraded, see the printer documentation for further problem isolation.
246	01HG		3180 completion status missing for explicit partition hardware feature. Alert Sent = Permanent.	At the failing terminal: 1. Switch power off and then back on. 2. See the terminal documentation for further problem isolation.
247	01HG		3180 protocol error. Explicit partition hardware feature. Alert Sent = Permanent.	At the failing terminal: 1. Switch power off and then back on. 2. Check the signal cable connection at the terminal. 3. Exchange the terminal or see the terminal documentation.
247	02HG		Terminal protocol error for patch support. Alert Sent = Permanent.	1. At the failing terminal, switch power off and then back on. 2. Use the terminal documentation to isolate the failure.
247	03HG		An invalid response was received from an attached terminal during Online Test 5. Possible cause: Terminal. Alert Sent = Permanent.	1. Turn the terminal power switch off and then back on and retry the operation. 2. See the terminal documentation for further problem isolation.
248	01HG		Terminal interface failure occurred because a user issued a second request on Test 9,9 to disable the interface before the device responded to the first request. Possible cause: Terminal microcode. Alert Sent = Permanent.	At the failing terminal: 1. Switch power off and then back on again. 2. See the terminal documentation for further problem isolation. 3. Request service on the terminal. *For service personnel only:* Use your support structure for aid.

Status Code	QAHG	Extended Data	Description	Action
249	01HG		Terminal interface failure occurred because the device requested an invalid interface state change. Possible cause: Terminal microcode. Alert Sent = Permanent.	At the failing terminal: 1. Switch power off and then back on again. 2. See the terminal documentation for further problem isolation. 3. Request service on the terminal. *For service personnel only:* Use your support structure for aid.
250	01HG to 06HG		Terminal to controller communication failure occurred because the controller detected an interface protocol error. Possible cause: Terminal microcode. Alert Sent = Permanent.	At the failing terminal: 1. Switch power off and then back on again. 2. See the terminal documentation for further problem isolation. 3. Request service on the terminal. *For service personnel only:* Use your support structure for aid.
251	00HG to 07HG		Terminal to controller communication failure occurred because the device detected an interface protocol error. Possible cause: 1. Terminal microcode. 2. Controller microcode. Alert Sent = Permanent.	At the failing terminal: 1. Switch the power off and then back on again. 2. See the terminal documentation for further problem isolation. 3. Request service. *For service personnel only:* Use your support structure for aid.
255	01HG		A personal computer in CUT mode has changed the values of its field attributes and a 3174 does not allow a CUT to change those values. Possible Cause: PC microcode. Alert Sent = None.	Request service. *For service personnel only:* Use your support structure for aid.
270	01HG	B1	An attempt was made to establish communications with a 3270 host for an ASCII printer through an asynchronous emulation adapter (AEA) port that was unavailable for use. The switched disconnect timer has to expire before this AEA port becomes available. B1 = the amount of time in minutes required for the switched disconnect timer to expire. (This value is entered during 3174 customizing.) Alert Sent = None.	Wait for the amount of time indicated by extended data byte B1, then try to establish the connection. If you want to change the length of time of the switched disconnect timer, see question 741 in the *3174 Planning Guide*.

Status Code	QAHG	Extended Data	Description	Action
280	31		The extended vital product data may be invalid for the attached terminal. Alert Sent = None.	For Distributed Function Terminals (DFT): Place the terminal in setup mode as follows: 1. Press and hold the ALT key. 2. Press and release the SETUP key. 3. Release the ALT key. 4. Select "Go to Offline Setup." 5. Select "Set Extended VPD" from the offline setup menu. 6. Correct the data fields that have an asterisk (*) in front of them. 7. Press the Exit PF key. For Control Unit Terminals (CUT): 1. Press and hold the ALT key. 2. Press and release the TEST key. 3. Release the ALT key. 4. Press PF12. 5. Type a 5 and press ENTER. 6. Type a 6 and press ENTER. 7. Correct the data fields that have an asterisk (*) in front of them. 8. Press the Save PF key.
293	02HG		A distributed function terminal (DFT) is connected to a port that is not configured for a 3270 host address. Alert Sent = Permanent.	If communication with a host system is required, then either connect the terminal to a port that is configured with an IBM host address (customizing question 117), or reconfigure the Control disk microcode so the port being used is configured with an IBM host address. See question 116 in the *3174 Planning Guide*.
293	31HG		A 3270 display or printer is connected to a port that is not configured for a IBM/3270 host. Alert Sent = Temporary.	• If this status code is displayed on a terminal, press RESET on the terminal keyboard. • If communication with a host system is required, either connect the terminal to a port that is configured with an IBM host address, or reconfigure the Control disk microcode so the port being used is configured with an IBM host address. See question 116 in the *3174 Planning Guide*.
293	32HG		An AEA Host Addressable Printer is connected to a port that is not configured for a IBM/3270 host. Alert Sent = Temporary.	• If this status code is displayed on a terminal, press RESET on the terminal keyboard. • If communication with a host system is required, then either connect the terminal to a port that is configured with an IBM host address, or reconfigure the Control disk microcode so the port being used is configured with an IBM host address. See question 116 in the *3174 Planning Guide*.
293	33HG		The host link was not available at session initialization time. Alert Sent = None.	Use the change screen key to go to the next available session. **Note:** The affected session is skipped in subsequent change screen sequences until the host link becomes available.
300	01HG		Removal of potential terminal hang condition indicator. **Note:** Status code 379-01 is removed from the operator panel and the terminals by this status code. Alert Sent = Permanent.	No action is required.

Status Code	QAHG	Extended Data	Description	Action
300	02HG		Removal of potential terminal hang condition indicator. **Note:** Status code 379-02 is removed from the operator panel by this status code. Alert Sent = Permanent.	No action is required.

301	01HG
	to
	03HG
		B1B2
		B3B4
		B5
			3174 hardware failure.
			
			Possible cause: Terminal adapter.
			
			B1B2 = TYPE.
			B3B4 = LOCA.
			
			If present, extended data byte B5 is an interrupt level.
			
			Alert Sent = Permanent.
				Warning: An IML will disrupt operating terminals.
				
				1. Re-IML.
				2. Perform an Alt 2 IML; see page 2-3.
				3. Request service.
				
				For service personnel only:
				
				For Models 1L through 13R:
				
				    Exchange the FRU indicated by TYPE and LOCA.
				
				For Models 21L through 92R:
				
				    Exchange the planar board.
				
				See Chapter 3 in the maintenance manual for your model.

302	31HG
	to
	38HG
		B1B2
		B3B4
			3174 hardware failure.
			
			Possible cause: Terminal adapter.
			
			B1B2 = TYPE.
			B3B4 = LOCA.
			
			Operator recoverable.
			
			Note: This status code is recorded in intensive log mode only.
			
			Alert Sent = Temporary.
				Warning: An IML will disrupt operating terminals.
				
				1. Press RESET and retry the operation.
				2. Re-IML.
				3. Perform an Alt 2 IML; see page 2-3.
				4. Request service.
				
				For service personnel only:
				
				For Models 1L through 13R:
				
				    Exchange the FRU indicated by TYPE and LOCA.
				
				For Models 21L through 92R:
				
				    Exchange the planar board.
				
				See Chapter 3 in the maintenance manual for your model.

302	51HG
	to
	54HG
		B1B2
		B3B4
		B5
			Temporary 3174 hardware failure. The controller is still operational.
			
			Possible cause: Terminal adapter.
			
			B1B2 = TYPE.
			B3B4 = LOCA.
			
			If present, extended data byte B5 is an interrupt level.
			
			Controller-recoverable.
			
			Alert Sent = Temporary.
				No action is required unless machine performance is degraded because of an excessive number of 302 errors. If performance is degraded because of excessive errors, request service.
				
				For service personnel only:
				
				Loop the terminal adapter hardware group test. Use HG number 26, TP 91. See "How to Run Hardware Group Basic Tests" in the maintenance manual for your model.
				
				For Models 1L through 13R:
				
				    Exchange the FRU indicated by TYPE and LOCA.
				
				For Models 21L through 92R:
				
				    Exchange the planar board.
				
				See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
302	55HG	B1B2 B3B4	Temporary 3174 Hardware or microcode failure. The controller is still operational. Possible cause: 1. Terminal adapter 2. Microcode B1B2 = TYPE B3B4 = LOCA Alert Sent = Temporary.	No action is required unless machine performance is degraded because of an excessive number of 302 errors. If performance is degraded because of excessive errors, request service. *For service personnel only:* Loop the terminal adapter hardware group test. Use HG number 26, TP 91. See "How to Run Hardware Group Basic Tests" in the maintenance manual for your model. <u>For Models 1L through 13R:</u> Exchange the FRU indicated by TYPE and LOCA. <u>For Models 21L through 92R:</u> Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
303	51HG	B1B2 B3B4	Temporary 3174 hardware failure. The controller is still operational. Possible cause: Terminal adapter. B1B2 = TYPE. B3B4 = LOCA. Controller-recoverable. Alert Sent = Temporary.	No action is required unless machine performance is degraded because of an excessive number of 303 errors. If performance is degraded because of excessive errors, request service. *For service personnel only:* Loop the terminal adapter hardware group test. Use HG number 26, TP 91. See "How to Run Hardware Group Basic Tests" in the maintenance manual for your model. <u>For Models 1L through 13R:</u> Exchange the FRU indicated by TYPE and LOCA. <u>For Models 21L through 92R:</u> Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
305 or 306	01HG	B1B2 B3B4	3174 hardware failure. Possible cause: 1. Processor 2. Microcode (status code 306 only). B1B2 = TYPE. B3B4 = LOCA. Note: When this failure occurs, 305 or 306 appears on the operator panel but no extended data appears on the panel or in the event log. The extended data is sent to the host in an alert. Alert Sent = Delayed.	Warning: An IML will disrupt operating terminals. 1. Re-IML. 2. Perform an Alt 2 IML; see page 2-3. 3. Request service. *For service personnel only:* <u>For Models 1L through 13R:</u> 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange FRU type 950x in location 18. <u>For Models 21L through 92R:</u> Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
307	51HG		Lost machine check log record. Alert Sent = None.	No action is required.

Status Code	QAHG	Extended Data	Description	Action
308	01		One of the cooling fans is failing. The controller will continue to operate until it loses power. Alert Sent = Permanent.	1. To prevent damage to the controller, the fan must be replaced at the earliest convenient time that power can be turned off. 2. Request service. **Warning:** If the controller loses power while the fan is failing, any attempt to restore power will result in Status Code 5. Since Status Code 5 stops the IML, the fan must be replaced before operation can resume. *For service personnel only:* Replace the fan that is failing. See Chapter 3 in the maintenance manual.
311	01HG or 03HG	B1B2 B3B4	3174 hardware failure. Possible cause: 1. Storage 2. Processor 3. For Models 1L through 21R, an adapter on the MMIO bus. (Status code 311 03HG only.) B1B2 = TYPE. B3B4 = LOCA. **Note:** Extended data fields B1 through B4 are not present for status code 311 03HG. Alert Sent = Delayed.	**Warning:** An IML will disrupt operating terminals. 1. Re-IML. 2. Perform an Alt 2 IML; see page 2-3. 3. Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange FRU type 950x in location 18. For Models 21L and 21R: 1. Exchange the storage card in location J22. 2. If present, exchange the storage card in location J23. 3. Exchange the planar board. 4. One at a time, exchange the adapters in locations 11 through 15. For Models 51R, 52R, and 53R: 1. If present, exchange the storage card. 2. Exchange the planar board. For Models 61R, 62R, and 63R: 1. Exchange the storage card in location J22. 2. If present, exchange the storage card in location J23. 3. Exchange the planar board. For Models 81R or 82R: Exchange the planar board. For Models 90R through 92R: 1. Exchange the storage card in location J22. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
311	51HG or 52HG	B1B2 B3B4	Temporary 3174 hardware failure. The controller is still operational. Possible cause: 1. Storage 2. Processor. B1B2 = TYPE. B3B4 = LOCA. Controller-recoverable. Alert Sent = None when QA = 51. Alert Sent = Temporary when QA = 52.	No action is required unless machine performance is degraded because of an excessive number of 311 errors. If performance is degraded because of excessive errors, request service. *For service personnel only:* Loop the processor/storage hardware group test. Use HG number 87, TP 91. See "Hardware Group Test Alls and Processor/Storage Tests" in the maintenance manual for your model. For Models 1L through 13R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange FRU type 950x in location 18. For Models 21L and 21R: 1. Exchange the storage card in location J22. 2. If present, exchange the storage card in location J23. 3. Exchange the planar board. For Models 51R, 52R, and 53R: 1. If present, exchange the storage card in location 05. 2. Exchange the planar board. For Models 61R, 62R, and 63R: 1. Exchange the storage card in location J22. 2. If present, exchange the storage card in location J23. 3. Exchange the planar board. For Models 81R or 82R: Exchange the planar board. For Models 90R through 92R: 1. Exchange the storage card in location J22. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
313	01HG or 02HG	B1B2 B3B4 B5	3174 hardware failure. Possible cause: 1. Microcode 2. Processor. B1B2 = TYPE. B3B4 = LOCA. If present, extended data byte B5 is an interrupt level. Note: When the failure occurs, 313 appears at the operator panel but the extended data does not. Alert Sent = Delayed.	1. Press RESET at the affected terminal. 2. Request service; repair action is mandatory before the next IML. *For service personnel only:* For Models 1L through 13R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange FRU type 950x in location 18. For Models 21L through 92R: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
313	51HG to 54HG	B1B2 B3B4 B5	Temporary 3174 hardware failure. The controller is still operational. Possible cause: 1. Microcode 2. Processor 3. Operator panel 4. Operator panel adapter. This applies to 53HG and 54HG only. B1B2 = TYPE. B3B4 = LOCA. If present, extended data byte B5 is an interrupt level. Controller-recoverable. Alert Sent = None.	No action is required unless machine performance is degraded because of an excessive number of 313 errors. If performance is degraded because of excessive errors, request service. *For service personnel only:* Loop the processor/storage hardware group test. Use HG number 87, TP 91. See "How to Run Hardware Group Test Alls and Processor/Storage Tests" in the maintenance manual for your model. 1. Exchange the FRU indicated by TYPE and LOCA. 2. Use your support structure for aid. See Chapter 3 in the maintenance manual for your model.
315	01HG to 05HG	B1B2 B3B4 B5	3174 hardware failure. Possible cause: 1. Channel Adapter 2. Microcode, status code 315 02HG only. B1B2 = TYPE. B3B4 = LOCA. B5, if present = Interrupt level. SNA sense = 1001. Non-SNA sense = 1000. Alert Sent = Delayed.	**Warning:** An IML will disrupt operating terminals. 1. Re-IML. 2. Perform an Alt 2 IML; see page 2-3. 3. Request service. *For service personnel only:* Exchange the FRU indicated by TYPE and LOCA. See Chapter 3 in the maintenance manual for your model.
315	06HG to 08HG	B1B2 B3B4 B5	3174 hardware failure. Possible cause: 1. Channel adapter 2. Processor 3. MMIO Bus, status codes 315 06HG and 07HG only. B1B2 = TYPE. B3B4 = LOCA. If present, extended data byte B5 is an interrupt level. Alert Sent = Delayed.	**Warning:** An IML will disrupt operating terminals. 1. Re-IML. 2. Perform an Alt 2 IML; see page 2-3. 3. Request service. *For service personnel only:* Exchange the FRU indicated by TYPE and LOCA. See Chapter 3 in the maintenance manual for your model.
315	09HG	B1B2 B3B4 B5	3174 hardware failure. Possible cause: 1. Microcode 2. Processor. B1B2 = TYPE. B3B4 = LOCA. B5, if present = interrupt level Alert Sent = Delayed.	**Warning:** An IML will disrupt operating terminals. 1. Re-IML. 2. Perform an Alt 2 IML; see page 2-3. 3. Request service. *For service personnel only:* Exchange the FRU indicated by TYPE and LOCA. See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
315	10HG	B1B2	3174 hardware failure. Possible cause: 1. Channel Adapter 2. Invalid adapter sequence. B1B2 = Bytes 2 and 3 of the Link Error Log Register. Alert Sent = Delayed.	**Warning:** An IML will disrupt operating terminals. 1. Re-IML. 2. Perform an Alt 2 IML; see page 2-3. 3. Request service. *For service personnel only:* Exchange the FRU indicated by the HG number. See Chapter 3 in the maintenance manual for your model.
315	55HG to 58HG	B1B2 B3B4 B5	Temporary 3174 hardware failure. The controller is still operational. Possible cause: 1. Channel adapter 2. Processor 3. MMIO Bus, status codes 315 56HG and 58HG only. B1B2 = TYPE. B3B4 = LOCA. B5 = Interrupt Level. Controller-recoverable. Alert Sent = None.	No action is required unless machine performance is degraded because of an excessive number of 315 errors. If performance is degraded because of excessive errors, request service. *For service personnel only:* 1. Loop the channel adapter hardware group test. Use HG number 16, TP 91. See "How to Run Hardware Group Basic Tests" in Chapter 2 of the maintenance manual. 2. Exchange the FRU indicated by TYPE and LOCA. See Chapter 3 in the maintenance manual for your model.
325	01HG or 02HG	B1B2 B3B4	3174 hardware failure. Possible cause: 1. Concurrent Communication Adapter 2. Microcode. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Delayed when QA = 01. Alert Sent = None when QA = 02.	1. Use the Change Screen key sequence to go to the next available session. 2. Perform an Alt 2 IML; see page 2-3. 3. Request service. *For service personnel only:* Exchange the FRU indicated by TYPE and LOCA. See Chapter 3 in the maintenance manual for your model.
325	03HG to 05HG	B1B2 B3B4	3174 hardware failure. Possible cause: 1. Concurrent Communication Adapter 2. Microcode 3. Planar board (Models 1L through 21R). B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Permanent.	1. Use the Change Screen key sequence to go to the next available session. 2. Perform an Alt 2 IML; see page 2-3. 3. Request service. *For service personnel only:* 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the logic board (Models 1L through 21R). See Chapter 3 in the maintenance manual for your model.
325	06HG	B1B2 B3B4	3174 hardware failure. Possible cause: 1. Concurrent Communication Adapter 2. Microcode. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = None.	1. Use the Change Screen key sequence to go to the next available session. 2. Perform an Alt 2 IML; see page 2-3. 3. Request service. *For service personnel only:* Exchange the FRU indicated by TYPE and LOCA. See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
325	53HG or 56HG	B1B2 B3B4	Temporary 3174 hardware failure. Possible cause: 1. Concurrent Communication Adapter 2. Microcode. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = None.	No action is required unless the controller performance is degraded because of an excessive number of 325 5xHG errors. If performance is degraded because of excessive errors, see status code 325 03HG and perform the actions as indicated.

331	01HG to 04HG	B1B2 B3B4 B5	3174 hardware failure.
			
			Possible cause:
			
			1. Communication adapter
			2. PIO Bus, status codes 331 02HG and 03HG only.
			
			B1B2 = TYPE.
			B3B4 = LOCA.
			
			If present, extended data byte B5 is an interrupt level.
			
			Alert Sent = Delayed when QA = 01 (SNA and X.25), 02, 03, or 04.
			
			Alert Sent = None when QA = 01 (BSC).
				Warning: An IML will disrupt operating terminals.
				
				1. Re-IML.
				2. Request service.
				
				For service personnel only:
				
				Perform an Alt 2 IML; see page 2-3.
				
				For Models 1L through 13R:
				
				   Exchange the FRU indicated by TYPE and LOCA.
				
				For Models 21R through 92R:
				
				   Exchange the planar board.
				
				See Chapter 3 in the maintenance manual for your model.

331	52HG or 53HG	B1B2 B3B4 B5	Temporary 3174 hardware failure. The controller is still operational.
			
			Possible cause: Communication adapter.
			
			B1B2 = TYPE.
			B3B4 = LOCA.
			B5 = Interrupt Level.
			
			Controller-recoverable.
			
			Alert Sent = None.
				No action is required unless machine performance is degraded because of an excessive number of 331 errors. If performance is degraded because of excessive errors, request service.
				
				For service personnel only:
				
				Loop the communication adapter hardware group test. Use HG number 11, TP 91. See "How to Run Hardware Group Basic Tests" in Chapter 2 of the maintenance manual for your model.
				
				For Models 1L through 13R:
				
				   Exchange the FRU indicated by TYPE and LOCA.
				
				For Models 21R through 92R:
				
				   Exchange the planar board.
				
				See Chapter 3 in the maintenance manual for your model.

335	01HG to 04HG	B1B2 B3B4 B5	3174 hardware failure. Possible cause: 1. Encrypt/Decrypt adapter 2. PIO Bus, status codes 331 02HG and 03HG only. B1B2 = TYPE. B3B4 = LOCA. If present, extended data byte B5 is an interrupt level. Alert Sent = Permanent when QA = 01 or 02. Alert Sent = Delayed when QA = 03 or 04.	**Warning:** An IML will disrupt operating terminals. 1. Non-encrypted sessions can still be used. 2. Press RESET at the affected terminal and follow local Logon/Logoff procedures to establish a non-encrypted session. 3. Re-IML. 4. Perform an Alt 2 IML; see page 2-3. 5. Request service. *For service personnel only:* Exchange the FRU indicated by TYPE and LOCA. See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
335	51HG to 53HG	B1B2 B3B4 B5	Temporary 3174 hardware failure. The controller is still operational. Possible cause: 1. Encrypt/Decrypt adapter 2. PIO Bus, status codes 335 53HG and 54HG only. B1B2 = TYPE. B3B4 = LOCA. If present, extended data byte B5 is an interrupt level. Controller-recoverable. Alert Sent = None.	No action is required unless machine performance is degraded because of an excessive number of 335 errors. If performance is degraded because of excessive errors, request service. *For service personnel only:* 1. Loop the Encrypt/Decrypt adapter hardware group test, use HG number 46, TP 91. See "How to Run Hardware Group Basic Tests" in Chapter 2 of the maintenance manual for your model. 2. Exchange the FRU indicated by TYPE and LOCA. See Chapter 3 in the maintenance manual for your model.
336	01HG or 51HG	B1B2 B3B4	3174 hardware failure. Possible cause: Battery on the Encrypt/Decrypt adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Permanent when QA = 01. Alert Sent = None when QA = 51.	The battery is a customer-replaceable item. Replace the battery; see the *3174 User's Guide* for your model. If you need to reenter the master key value, see the *3174 Utilities Guide*.
340	01HG		This status code indicates a previous error condition has been cleared for the Token-Ring adapter. Alert Sent = None.	No action is required.
341	01HG	B1 to B10	3174 Token-Ring adapter initialization failure. Possible cause: Token-Ring adapter. B1B2 = TYPE. B3B4 = LOCA. B5B6 = The Token-Ring ID number. B7 – B10 = Reserved. **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1, option 5 to see the extended data. Alert Sent = Permanent for Gateways. Alert Sent = None for all other controllers.	1. Contact the host operator to reactivate the link. 2. Perform an Alt 2 IML; see page 2-3. 3. Run the Token-Ring adapter wrap test. Use hardware group number 31, function number 01. See "How to Run Token-Ring Adapter Optional Tests" in the *3174 Customer Problem Determination* manual. Record the results. 4. Request service. *For service personnel only:* Exchange the FRU indicated by TYPE and LOCA. See Chapter 3 in the maintenance manual for your model.
341	02HG	B1 to B10	3174 Token-Ring adapter closed because of an unrecoverable failure. Possible cause: Token-Ring adapter. B1B2 = TYPE. B3B4 = LOCA. B5B6 = The Token-Ring ID number. B7 – B10 = Reserved. **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1, option 5, to see the extended data. Alert Sent = Permanent for Gateways. Alert Sent = None for all other controllers.	1. Contact the host operator to reactivate the link. 2. Perform an Alt 2 IML; see page 2-3. 3. Run the Token-Ring adapter wrap test. Use hardware group number 31, function number 01. See "How to Run Token-Ring Adapter Optional Tests" in the *3174 Customer Problem Determination* manual. Record the results. 4. Request service. *For service personnel only:* Exchange the FRU indicated by TYPE and LOCA. See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
341	03HG or 04HG	B1B2 B3B4 B5	3174 Token-Ring adapter failure. Possible cause: 1. Microcode 2. Token-Ring adapter 3. Processor, status code 341 04HG only. B1B2 = TYPE. B3B4 = LOCA. B5 = Interrupt Level. Alert Sent = Permanent.	**Warning:** An IML will disrupt operating terminals. 1. Re-IML. 2. Perform an Alt 2 IML; see page 2-3. 3. Run the Token-Ring adapter wrap test; use hardware group number 31, function number 01. See "How to Run Token-Ring Adapter Optional Tests" in the *3174 Customer Problem Determination* manual. Record the results. 4. Request service. *For service personnel only:* Exchange the FRU indicated by TYPE and LOCA. See Chapter 3 in the maintenance manual for your model.
341	05HG or 06HG	B1B2 B3B4 B5	3174 hardware failure. Possible cause: 1. Token-Ring adapter 2. Processor. B1B2 = TYPE. B3B4 = LOCA. B5 = Interrupt Level. Alert Sent = Permanent.	**Warning:** An IML will disrupt operating terminals. 1. Re-IML. 2. Perform an Alt 2 IML; see page 2-3. 3. Run the Token-Ring adapter wrap test; use hardware group number 31, function number 01. See "How to Run Token-Ring Adapter Optional Tests" in the *3174 Customer Problem Determination* manual. Record the results. 4. Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange FRU type 950x in location 18. For Models 21L through 63R and 90R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
341	21HG	B1B2 B3B4 B5B6	3174 hardware failure. Possible cause: Token-Ring adapter. B1B2 = TYPE. B3B4 = LOCA. B5B6 = Reserved. **Note:** The extended data does not appear at the operator panel, but is included in the event log. Use online test 1, option 5, to see the extended data. Alert Sent = Delayed.	**Warning:** An IML will disrupt operating terminals. 1. Re-IML. 2. Perform an Alt 2 IML; see page 2-3. 3. Run the Token-Ring adapter wrap test; use hardware group number 31, function number 01. See "How to Run Token-Ring Adapter Optional Tests" in the *3174 Customer Problem Determination* manual. Record the results. 4. Request service. *For service personnel only:* Exchange the FRU indicated by TYPE and LOCA. See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
341	22HG	B1B2 B3B4 B5B6 B7B8	3174 hardware failure. Possible cause: 1. Token-Ring adapter 2. Multistation access unit. B1B2 = TYPE. B3B4 = LOCA. B5B6 = Ring ID. B7B8 = Reserved. **Note:** The extended data does not appear at the operator panel, but is included in the event log. Use online test 1, option 5, to see the extended data. Alert Sent = Delayed.	**Warning:** An IML will disrupt operating terminals. 1. Re-IML. 2. Perform an Alt 2 IML; see page 2-3. 3. Run the Token-Ring adapter wrap test; use hardware group number 31, function number 01. See "How to Run Token-Ring Adapter Optional Tests" in the *3174 Customer Problem Determination* manual. Record the results. 4. Request service. *For service personnel only:* Exchange the FRU indicated by TYPE and LOCA. See Chapter 3 in the maintenance manual for your model.
341	23HG to 26HG	B1B2 B3B4 B5	3174 failure. Possible cause: 1. Token-Ring adapter 2. Microcode error. B1B2 = TYPE. B3B4 = LOCA. B5 = Failing interrupt Level. **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1, option 5, to see the extended data. Alert Sent = Delayed.	**Warning:** An IML will disrupt operating terminals. 1. Re-IML. 2. Perform an Alt 2 IML; see page 2-3. 3. Run the Token-Ring adapter wrap test; use hardware group 31, function number 01. See "How to Run Token-Ring Adapter Optional Tests" in the *3174 Customer Problem Determination* manual. Record the results. 4. Request service. *For service personnel only:* Exchange the FRU indicated by TYPE and LOCA. See Chapter 3 in the maintenance manual for your model.
341	53HG	B1B2 B3B4 B5	Temporary 3174 hardware failure. The controller is still operational. Possible cause: Token-Ring adapter. B1B2 = TYPE. B3B4 = LOCA. B5 = Interrupt Level. Controller-recoverable. Alert Sent = None.	No action is required unless machine performance is degraded because of excessive number of 341 errors. If performance is degraded because of excessive errors, request service. *For service personnel only:* Loop the Token-Ring Adapter Hardware Group Test; use HG number 31, TP 91. See "How to Run Hardware Group Basic Tests" in Chapter 2 of the maintenance manual. Exchange the FRU indicated by TYPE and LOCA. See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
341	54HG to 56HG	B1B2 B3B4 B5	Temporary 3174 hardware failure. Possible cause: Token-Ring adapter. B1B2 = TYPE. B3B4 = LOCA. B5 = Interrupt Level. Controller-recoverable. Alert Sent = None.	No action is required unless machine performance is degraded because of excessive number of 341 errors. If performance is degraded because of excessive errors, request service. *For service personnel only:* Loop the Token-Ring Adapter Hardware Group Test; use HG number 31, TP 91. See "How to Run Hardware Group Basic Tests" in Chapter 2 of the maintenance manual. For Models 1L through 13R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the Processor card. For Models 21L through 63R and 90R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
350	01HG to 02HG	B1B2 B3B4	3174 Asynchronous Emulation Adapter (AEA) failure. Possible cause: 1. AEA. 2. Microcode 3. Processor B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Permanent.	1. Re-IML. 2. Perform an Alt 2 IML; see page 2-3. 3. Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the Processor card (status code 350 02HG only). For Models 21L through 63R: Exchange the FRU indicated by TYPE and LOCA. Exchange the planar board (status code 350 02HG only). See Chapter 3 in the maintenance manual for your model.
350	03HG	B1B2 B3B4 B5B6 B7	3174 hardware failure. Possible cause: 1. Microcode 2. Processor 3. AEA. B1B2 = TYPE. B3B4 = LOCA. B5 – B7 = Environment Control Block (ECB) ID Number. Alert Sent = Permanent.	1. Re-IML. 2. Perform an Alt 2 IML; see page 2-3. 3. Request service. *For service personnel only:* Exchange the FRU indicated by TYPE and LOCA. See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
350	04HG or 05HG	B1B2 B3B4	3174 hardware failure. Possible cause: 1. Microcode 2. Processor 3. AEA. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Permanent.	1. Re-IML. 2. Perform an Alt 2 IML; see page 2-3. 3. Request service. *For service personnel only:* <u>For Models 1L through 13R:</u> 1. Exchange the Processor card. 2. Exchange the FRU indicated by TYPE and LOCA. <u>For Models 21L through 63R:</u> 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
350	52HG to 54HG	B1B2 B3B4	Temporary 3174 hardware failure. The controller is still operational. Possible cause: 1. Asynchronous Emulation Adapter 2. Processor. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = None.	No action is required unless machine performance is degraded because of an excessive number of 350 errors. If performance is degraded because of excessive errors, request service. *For service personnel only:* Loop the Asynchronous Emulation Adapter Hardware Group Test; use HG number 21, 22 or 23 with TP 91. See "How to Run Hardware Group Basic Tests" in Chapter 2 of the maintenance manual for your model. <u>For Models 1L through 13R:</u> 1. Exchange the processor card. 2. Exchange the FRU indicated by TYPE and LOCA. <u>For Models 21L through 63R:</u> 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
351	01HG to 03HG	B1B2 B3B4	3174 Asynchronous Emulation Adapter port failure occurred. Only one port on this adapter is failing. The rest of the controller is operational. Possible cause: Asynchronous Emulation Adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Permanent.	1. Perform a wrap test on the failing port. (Use online test 12,1 to access the port test menu. Select option 2 to run the external port wrap test.) See "Test 12 Asynchronous Emulation Adapter Tests" in the *3174 Customer Problem Determination* manual. Record the results. 2. Perform an Alt 2 IML; see page 2-3. 3. Request service. *For service personnel only:* Exchange the FRU indicated by TYPE and LOCA. See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
352	01HG to 03HG	B1B2 B3B4	3174 microcode failure: Asynchronous Emulation Adapter (AEA). Possible cause: 1. Microcode 2. Asynchronous Emulation Adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Permanent.	1. Perform an Alt 2 IML; see page 2-3. 2. Request service. *For service personnel only:* 1. If the Alt 2 IML did not fail, exchange the FRU indicated by TYPE and LOCA. 2. Use your support structure for aid.
352	04HG to 08HG	B1B2 B3B4	3174 microcode failure: Asynchronous Emulation Adapter (AEA). Possible cause: 1. Microcode 2. Asynchronous Emulation Adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Permanent.	1. Perform an Alt 2 IML; see page 2-3. 2. Request service. *For service personnel only:* If the Alt 2 IML did not fail, use your support structure for aid.
352	09HG	B1B2 B3B4	3174 microcode failure: Asynchronous Emulation Adapter (AEA). Possible cause: 1. Microcode 2. Asynchronous Emulation Adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Permanent.	1. Perform an Alt 2 IML; see page 2-3. 2. Request service. *For service personnel only:* 1. If the Alt 2 IML did not fail, exchange the FRU indicated by TYPE and LOCA. 2. Use your support structure for aid.
352	11HG	B1B2 B3B4	3174 microcode failure: Asynchronous Emulation Adapter (AEA). Possible cause: 1. Microcode 2. Asynchronous Emulation Adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Permanent.	1. Perform an Alt 2 IML; see page 2-3. 2. Request service. *For service personnel only:* If the Alt 2 IML did not fail, use your support structure for aid.
378	01HG	B1B2 B3B4 B5	ASCII emulation protocol conversion failure. Data received from an ASCII host could not be converted by the Asynchronous Emulation Adapter. Possible cause: Microcode error. B1 – B4 = Address of the outbound translate table being used. B5 = The last character received from the ASCII host. Alert Sent = None.	Request service. *For service personnel only:* 3174 microcode failure, use your support structure for aid.
379	01HG		Potential microcode hang condition. Possible cause: Microcode. Alert Sent = Permanent.	No action is required unless the machine performance is degraded due to an excessive number of 379 errors. If the performance is degraded due to excessive errors, request service. *For service personnel only:* Use your support structure for aid.

Status Code	QAHG	Extended Data	Description	Action
379	02HG		Potential microcode hang condition. **Note:** If error recovery for this failure is successful, status code 300-02 is recorded in the event log. Possible cause: Microcode. Alert Sent = Permanent.	If this status code is displayed more than 15 minutes, do the following: 1. Re-IML. 2. Run diagnostics for positive FRU isolation. 3. Request service. ***For service personnel only:*** Use your support structure for aid.
380	01HG	B1B2 B3B4 B5B6	The Token-Ring adapter initialized successfully but did not insert onto the ring. Possible cause: Token-Ring adapter microcode. B1B2 = The Token-Ring ID number. B3 = Command Code. B4 = Return Code. See page 2-32. B5B6 = Reserved. **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1, option 5, to see the extended data. Alert Sent = None.	1. Contact the host operator to activate the link. 2. Perform an Alt 2 IML; see page 2-3. 3. See CPD 0400 in the *3174 Customer Problem Determination* manual for further problem isolation. 4. Request service. ***For service personnel only:*** <u>For Models 1L through 13R:</u> Go to Map 610. <u>For Models 21L through 63R and 90R:</u> Go to Map 600. See Chapter 2 in the maintenance manual for your model.
380	02HG	B1B2 B3B4 B5B6	A failure occurred when an Open Service Access Point was issued. Possible cause: Token-Ring adapter microcode. B1B2 = The Token-Ring ID number. B3 = Command Code. B4 = Return Code. See page 2-32. B5B6 = Reserved. **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1, option 5, to see the extended data. Alert Sent = None.	1. Contact the host operator to activate the link. 2. Perform an Alt 2 IML; see page 2-3. 3. See CPD 0400 in the *3174 Customer Problem Determination* manual for further problem isolation. 4. Request service. ***For service personnel only:*** <u>For Models 1L through 21R:</u> Go to Map 610. <u>For Models 51R through 63R and 90R:</u> Go to Map 600. See Chapter 2 in the maintenance manual for your model.
380	03HG	B1 to B13	3174 microcode failure: An error occurred during processing of a Receive data command to acknowledge receipt of data from a station on the Token-Ring Network. Possible cause: Microcode. B1B2 = The Token-Ring ID number. B3 = Command Code. B4 = Return Code. See page 2-32. B5 – B10 = Source address. B11 = Service access point address. B12 = Link primary state. B13 = Link secondary state. See "Link States" on page 2-35 for the description of bytes B12 and B13. **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1, option 5, to see the extended data. Alert Sent = None.	1. Contact the host operator to reactivate the link. 2. Re-IML. 3. See CPD 0400 in the *3174 Customer Problem Determination* manual, for further problem isolation. ***For service personnel only:*** 1. Perform an Alt 2 IML; see page 2-3. 2. Use your support structure for aid.

Status Code	QAHG	Extended Data	Description	Action
380	04HG	B1 to B13	An error occurred while the Token-Ring adapter was processing a transmit command. Possible cause: Microcode. B1B2 = The Token-Ring ID number. B3 = Command Code. B4 = Return Code. See page 2-32. B5−B10 = Source address. B11 = Service access point address. B12 = Link primary state. B13 = Link secondary state. See "Link States" on page 2-35 for the description of bytes B12 and B13. Note: The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1 to see the extended data. Alert Sent = None.	1. Contact the host operator to reactivate the link. 2. Re-IML. 3. Perform an Alt 2 IML; see page 2-3. 4. Request service. *For service personnel only:* Loop the Token-Ring Adapter Hardware Group Test; use HG number 31, TP 91. See "How to Run Hardware Group Basic Tests" in Chapter 2 of the maintenance manual.
380	20HG	B1 to B11	3174 microcode failure: Token-Ring adapter. Possible cause: Microcode. B1B2 = The Token-Ring ID number. B3 = Command Code. B4 = Return Code. See page 2-32. B5 = Last command/response received. B6 = Last command/response sent. B7 = Link primary state. B8 = Link secondary state. B9 = N(S) Transmitter send sequence number. B10 = N(R) Transmitter receive sequence number. B11 = Last N(R) received. See "Link States" on page 2-35 for the description of bytes B7 and B8. Note: The extended data does not appear at the operator panel, but is included in the event log. Use online test 1 to see the extended data. Alert Sent = Delayed.	1. Contact the host operator to reactivate the link. 2. Re-IML. 3. Perform an Alt 2 IML; see page 2-3. 4. Request service. *For service personnel only:* Loop the Token-Ring Adapter Hardware Group Test; use HG number 31, TP 91. See "How to Run Hardware Group Basic Tests" in the maintenance manual.
380	60HG	B1B2 B3B4	Temporary 3174 microcode failure. The controller is still operational. Token-Ring communication is not disabled. Possible cause: Microcode. B1B2 = The Token-Ring ID number. B3 = Command Code. B4 = Return Code. See page 2-32. Alert Sent = Temporary.	No action is required unless machine performance is degraded because of an excessive number of 380 errors. If performance is degraded because of excessive errors, request service. *For service personnel only:* Perform an Alt 2 IML; see page 2-3.
380	90HG	B1B2 B3B4 B5B6	Temporary 3174 Token-Ring adapter microcode failure. The controller is still operational. Possible cause: Microcode. B1B2 = The Token-Ring ID number. B3 = Command Code. B4 = Return Code. See page 2-32. B5B6 = Reserved. Alert Sent = None.	No action is required unless machine performance is degraded because of an excessive number of 380 errors. If performance is degraded because of excessive errors, request service. *For service personnel only:* Perform an Alt 2 IML; see page 2-3.

Status Code	QAHG	Extended Data	Description	Action
380	91HG to 96HG	B1 to B13	Temporary 3174 Token-Ring adapter microcode failure. The controller is still operational. Possible cause: Microcode. B1B2 = The Token-Ring ID number. B3 = Command Code. B4 = Return Code. See page 2-32. B5–B10 = Source address. B11 = Service access point address. B12B13 = Reserved. Alert Sent = None.	No action is required unless machine performance is degraded because of an excessive number of 380 errors. If performance is degraded because of excessive errors, request service. *For service personnel only:* Perform an Alt 2 IML; see page 2-3.
381	01HG to 08HG	B1B2 B3	3174 microcode failure. Possible cause: Microcode. **Note:** For status code 381 06, another possible cause is the communication adapter, if the failure occurred during IML. B1B2 = Environment Control Block (ECB) ID Number. B3 = Interrupt Level. Alert Sent = Delayed.	**Warning:** An IML will disrupt operating terminals. 1. Record the entire status code and Re-IML. 2. Perform an Alt 2 IML; see page 2-3. Record the results. 3. Request service. *For service personnel only:* Use your support structure for aid.
381	20HG		3174 microcode failure: Communication adapter (X.21 and X.25). Possible cause: Microcode. Alert Sent = Delayed.	**Warning:** An IML will disrupt operating terminals. 1. Record the entire status code and Re-IML. 2. Perform an Alt 2 IML; see page 2-3. Record the results. 3. Request service. *For service personnel only:* Use your support structure for aid.
381	21HG		3174 channel adapter timeout. Possible cause: 1. Host channel hardware 2. Channel adapter card 3. Processor card 4. Microcode. Alert Sent = Delayed.	**Warning:** An IML will disrupt operating terminals. 1. Re-IML. 2. Perform an Alt 2 IML; see page 2-3. Record the results. 3. Request service. *For service personnel only:* Go to MAP 0910 in the maintenance manual for your model.
381	22HG	B1B2	3174 microcode failure: The Token-Ring adapter failed to insert onto the ring after receiving the open command. Possible cause: Microcode. B1 = Command Code. B2 = Return code. See page 2-32. Alert Sent = Delayed.	**Warning:** An IML will disrupt operating terminals. 1. Record the entire status code and Re-IML. 2. Perform an Alt 2 IML; see page 2-3. Record the results. 3. Request service. *For service personnel only:* Use your support structure for aid.

Status Code	QAHG	Extended Data	Description	Action
381	51HG to 55HG		Temporary 3174 microcode failure: The controller is still operational. Possible cause: Microcode. Controller-recoverable. Alert Sent = None.	No action is required unless machine performance is degraded because of an excessive number of 381 errors. If performance is degraded because of excessive errors, request service. *For service personnel only:* Loop the processor/storage hardware group test. Use HG number 87, TP 91. See "How to Run Hardware Group Basic Tests" in the maintenance manual for your model. For Models 1L through 13R: 1. Exchange FRU type 950x in location 18. 2. Use your support structure for aid. For Models 21L through 92R: 1. Exchange the planar board. 2. Use your support structure for aid. See Chapter 3 in the maintenance manual for your model.
382			3174 hardware failure: Timer. Possible cause: Processor. Alert Sent = None.	**Warning:** An IML will disrupt operating terminals. 1. Re-IML. 2. Perform an Alt 2 IML; see page 2-3. Record the results. 3. Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange FRU type 950x in location 18. 2. Use your support structure for aid. For Models 21L through 92R: 1. Exchange the planar board. 2. Use your support structure for aid. See Chapter 3 in the maintenance manual for your model.
382	51HG to 54HG	B1B2 B3B4 B5	Temporary 3174 hardware problem: Timer. The controller is still operational. Possible cause: Processor. B1B2 = TYPE. B3B4 = LOCA. If present, extended data byte B5 is an interrupt level. Controller-recoverable. Alert Sent = None.	No action is required unless machine performance is degraded because of an excessive number of 382 errors. If performance is degraded because of excessive errors, request service. *For service personnel only:* Loop the processor/storage hardware group test. Use HG number 87, TP 91. See "How to Run Hardware Group Basic Tests" in the maintenance manual for your model. For Models 1L through 13R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange FRU type 950x in location 18. For Models 21L through 92R: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
383	01HG or 02HG	B1B2 B3B4 B5B6 B7	3174 hardware failure. Possible cause: 1. File adapter 2. Fixed Disk B1B2 = TYPE. B3B4 = LOCA. B5−B7 = One of the following: X385 00 = Disk drive not ready. X388 00 = Disk media error. X388 80 = File allocation table error. X388 81 = Directory error. Alert Sent = Permanent.	Check the contents of extended data bytes B5B6. • If B5B6 = X385, see status code 385. • If B5B6 = X388, see status code 388.
384	03HG	B1B2 B3B4 B5B6 B7B8	An error occurred while the controller was searching for DSL microcode on a diskette or fixed disk. B1B2 = A status code for diskette 1. B3B4 = A status code for diskette 2. B5B6 = A status code for fixed disk 1. B7B8 = A status code for fixed disk 2. These fields can contain one of the following status codes: 0000 = Drive not present or checked for DSL code. X385 = Drive not ready. X386 = Fixed disk is busy. X387 = Wrong diskette. X388 = Disk failure. X390 = Data set not found. X391 = Diskette is write-protected. X392 = Full disk, or directory full, or end of file. X393 = A diskette change operation has occurred. Note: X = Any character 0-9. Alert Sent = Permanent.	For diskette drives (HG = 01 or 02): 1. Insert a Downstream Load (DSL) diskette; if a DSL diskette is present, remove it, reinsert it, and close the diskette drive door. 2. Replace the DSL diskette with a new one. Use a duplicate DSL diskette. 3. Request service. For fixed disk drives (HG = 03 or 04): If you want the Downstream Load microcode on your fixed disk, you must copy the DSL diskette onto the fixed disk. See "How To Copy Files" and "How To Perform Media Management" in the *3174 Utilities Guide*. ***For service personnel only:*** Use the status code in the extended data bytes. For example: If B1B2 is equal to 0385, go to status code 385 and perform the repair actions for that code.
384	05HG	B1B2 B3B4 B5B6 B7B8	Downstream Load (DSL) microcode is not present in the controller. B1B2 = A status code for diskette 1. B3B4 = A status code for diskette 2. B5B6 = A status code for fixed disk 1. B7B8 = A status code for fixed disk 2. These fields can contain one of the following status codes: 0000 = Drive not present or checked for DSL code. X385 = Drive not ready. X386 = Fixed disk is busy. X387 = Wrong diskette. X388 = Disk failure. X390 = Data set not found. X391 = Diskette is write-protected. X392 = Full disk, or directory full, or end of file. X393 = A diskette change operation has occurred. Note: X = Any character 0-9. Alert Sent = Permanent.	For diskette drives (HG = 01 or 02): 1. Insert a Downstream Load (DSL) diskette; if a DSL diskette is present, remove it, reinsert it, and close the diskette drive door. 2. Replace the DSL diskette with a new one. Use a duplicate DSL diskette. 3. Request service. For fixed disk drives (HG = 03 or 04): If you want the Downstream Load microcode on your fixed disk, you must copy the DSL diskette onto the fixed disk. See "How To Copy Files" and "How To Perform Media Management" in the *3174 Utilities Guide*. ***For service personnel only:*** Use the status code in the extended data bytes. For example: If B1B2 is equal to 0385, go to status code 385 and perform the repair actions for that code.

Status Code	QAHG	Extended Data	Description	Action
384	06HG	B1B2 B3B4 B5B6 B7B8	/D has been entered to request a dump of a distributed function terminal and a 3174 Dump diskette is not present in the controller. B1B2 = A status code for diskette 1. B3B4 = A status code for diskette 2. B5B6 = A status code for fixed disk 1. B7B8 = A status code for fixed disk 2. These fields can contain one of the following codes: 0000 = Drive not present or checked for DSL code. X385 = Drive not ready. X386 = Fixed disk is busy. X387 = Wrong diskette. X388 = Disk failure. X390 = Data set not found. X391 = Diskette is write-protected. X392 = Full disk, or directory full, or end of file. X393 = A diskette change operation has occurred. **Note:** X = Any character 0-9. Alert Sent = None.	**Warning:** An IML will disrupt operating terminals. 1. Check that a Dump diskette is properly inserted into one of the diskette drives. Reinitiate the /D test. 2. Try another Dump diskette. 3. Re-IML. 4. Perform an Alt 2 IML; see page 2-3. 5. Request service. *For service personnel only:* Use the status code in the extended data bytes. For example: If B1B2 is equal to 0385, go to status code 385 and perform the repair actions for that code.

Status Code	QAHG	Extended Data	Description	Action
385	00HG to 04HG	B1B2 B3B4	A diskette drive or fixed disk drive is not ready. Possible cause: For diskette drives (HG = 01 or 02): 1. Diskette drive door open 2. Diskette drive defective 3. File adapter defective. For fixed disk drives (HG = 03 or 04): 1. Fixed disk drive defective 2. File adapter defective. The QA identifies the microcode on the diskette or fixed disk: **QA** **Disk Type** 00 Any disk type 01 Control disk 02 Control disk 03 Control disk or DSL disk 04 Control disk or Utility disk B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Operator Intervention Required when QA = 00, 01 or 02. Alert Sent = None when QA = 03 or 04.	**Warning:** An IML will disrupt operating terminals. For diskette drives (HG = 01 or 02): 1. Install the correct diskette in the diskette drive indicated by the hardware group number. 2. Re-IML. 3. Perform an Alt 2 IML; see page 2-3. Record the results. 4. Request service. For fixed disk drives (HG = 03 or 04): 1. Re-IML. 2. Perform an Alt 2 IML; see page 2-3. Record the results. 3. Request service. ***For service personnel only:*** For Models 1L through 13R: 1. For fixed disk drives only, reseat the disk drive indicated by the HG number. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the file adapter in location 21. For Models 21L and 21R: 1. For fixed disk drives only, reseat the disk drive indicated by the HG number. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the planar board. For Models 51R through 92R: 1. For fixed disk drives only, reseat the disk drive cables. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
385	05HG	B1B2 B3B4	A diskette or fixed disk drive not ready condition was detected during a downstream load attempt. Possible cause: For diskette drives (HG = 01 or 02): 1. Diskette drive door open 2. Diskette drive defective 3. File adapter defective. For fixed disk drives (HG = 03 or 04): 1. Fixed disk drive defective 2. File adapter defective. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Operator Intervention Required.	**Warning:** An IML will disrupt operating terminals. For diskette drives (HG = 01 or 02): 1. Insert the correct DSL diskette into the diskette drive indicated by the hardware group number. 2. Retry the operation. The Downstream Load should resume automatically. 3. Perform an Alt 2 IML; see page 2-3. Record the results. 4. Request service. For fixed disk drives (HG = 03 or 04): 1. Verify the DSL subdirectory exists on the fixed disk. See "How To Perform Media Management" in the *3174 Utilities Guide*. 2. Retry the operation. The Downstream Load should resume automatically. 3. Perform an Alt 2 IML; see page 2-3. Record the results. 4. Request service. *For service personnel only:* <u>For Models 1L through 13R:</u> 1. For fixed disk drives only, reseat the disk drive. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the file adapter in location 21. <u>For Models 21L and 21R:</u> 1. For fixed disk drives only, reseat the disk drive indicated by the HG number. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the planar board. <u>For Models 51R through 92R:</u> 1. For fixed disk drives only, reseat the disk drive cables. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
385	06HG	B1B2 B3B4	A disk drive not ready condition was detected during a Distributed Function Terminal (DFT) dump. Possible cause: 1. Diskette drive door open 2. Diskette drive defective 3. File adapter defective. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Operator Intervention Required.	**Warning:** An IML will disrupt operating terminals. 1. Check that the 3174 Dump diskette is in the diskette drive indicated by the hardware group number. 2. Restart the DFT dump procedure. 3. Perform an Alt 2 IML; see page 2-3. Record the results. 4. Request service. *For service personnel only:* For Models 1L through 13R: 1. For fixed disk drives only, reseat the disk drive. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the file adapter in location 21. For Models 21L and 21R: 1. For fixed disk drives only, reseat the disk drive indicated by the HG number. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the planar board. For Models 51R through 92R: 1. For fixed disk drives only, reseat the disk drive cables. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
385	07HG	B1B2 B3B4	A diskette or fixed disk drive not ready condition was detected during offline tests. Possible cause: For diskette drives (HG = 01 or 02): 1. Diskette drive door open 2. Diskette drive defective 3. File adapter defective. For fixed disk drives (HG = 03 or 04): 1. Fixed disk drive defective 2. File adapter defective. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = None.	For diskette drives (HG = 01 or 02): 1. Check that the correct diskette is in the diskette drive indicated by the hardware group number. 2. Press ENTER (4001 is displayed). 3. Retry the test selection. 4. Perform an Alt 2 IML; see page 2-3. Record the results. 5. Request service. For fixed disk drives (HG = 03 or 04): 1. Press Enter (4001 is displayed). 2. Retry the test selection. 3. Perform an Alt 2 IML; see page 2-3. Record the results. 4. Request service. **For service personnel only:** For Models 1L through 13R: 1. For fixed disk drives only, reseat the disk drive. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the file adapter in location 21. For Models 21L and 21R: 1. For fixed disk drives only, reseat the disk drive indicated by the HG number. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the planar board. For Models 51R through 92R: 1. For fixed disk drives only, reseat the disk drive cables. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
385	08HG	B1B2 B3B4	A disk drive not ready condition was detected during the 3174 Dump procedure. Possible cause: For diskette drives (HG = 01 or 02): 1. Diskette drive door open 2. Diskette drive 3. File adapter. For fixed disk drives (HG = 03 or 04): 1. Fixed disk drive defective 2. File adapter defective. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = None.	1. The Dump procedure must be performed again when the original controller failure recurs. 2. Perform an Alt 2 IML; see page 2-3. ***For service personnel only:*** For Models 1L through 13R: 1. For fixed disk drives only, reseat the disk drive indicated by HG. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the file adapter in location 21. For Models 21L and 21R: 1. For fixed disk drives only, reseat the disk drive indicated by the HG number. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the planar board. For Models 51R through 92R: 1. For fixed disk drives only, reseat the disk drive cables. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
385	09HG	B1B2 B3B4	A disk drive not ready condition was detected during the 3174 Dump procedure. Possible cause: For diskette drives (HG = 01 or 02): 1. Diskette drive door open 2. Diskette drive 3. File adapter. For fixed disk drives (HG = 03 or 04): 1. Fixed disk drive defective 2. File adapter defective. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = None.	1. Restart the Dump by removing the Dump or Control diskette and reinserting it. 2. Perform an Alt 2 IML; see page 2-3. ***For service personnel only:*** For Models 1L through 13R: 1. For fixed disk drives only, reseat the disk drive indicated by HG. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the file adapter in location 21. For Models 21L and 21R: 1. For fixed disk drives only, reseat the disk drive indicated by the HG number. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the planar board. For Models 51R through 92R: 1. For fixed disk drives only, reseat the disk drive cables. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
385	10HG	B1B2 B3B4	A diskette or fixed disk drive not-ready condition was detected during a central site change management (CSCM) operation. Resource not available. Possible cause: For diskette drives (HG = 01 or 02): 1. Diskette drive door open 2. Diskette drive 3. File adapter. For fixed disk drives (HG = 03 or 04): 1. Fixed disk or connecting cable 2. File adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Operator Intervention Required.	*For the NetView DM operator:* Contact the network site 3174 operator. The drive not ready condition must be resolved and the NetView DM function must be reissued before an IML of the network site 3174 is done. *For the network site 3174 operator:* For diskette drives (HG = 01 or 02): 1. Check that the correct type of diskette is inserted and the diskette drive door is closed. 2. Contact your central site. The host should re-send the data for the CSCM operation. 3. Perform an Alt 2 IML at the network site 3174; see page 2-3. Record the results. 4. Request service. For fixed disk drives (HG = 03 or 04): 1. Perform an Alt 2 IML; see page 2-3. 2. Request service. *For service personnel only:* For Models 1L through 13R: 1. For fixed disk drives only, reseat the disk drive indicated by the HG number. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the file adapter in location 21. For Models 21L and 21R: 1. For fixed disk drives only, reseat the disk drive indicated by the HG number. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the planar board. For Models 51R through 92R: 1. For fixed disk drives only, reseat the disk drive cables. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
385	11HG	B1B2 B3B4	A diskette or fixed disk drive not-ready condition was detected during a patch operation. Possible cause: For diskette drives (HG = 01 or 02): 1. Diskette drive door open 2. Diskette drive 3. File adapter. For fixed disk drives (HG = 03 or 04): 1. Fixed disk drive 2. File adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Operator Intervention Required.	For diskette drives (HG = 01 or 02): 1. Check that the Control diskette is inserted and the diskette drive door is closed. 2. Re-IML. 3. Perform an Alt 2 IML; see page 2-3. 4. Request service. For fixed disk drives (HG = 03 or 04): Request service. *For service personnel only:* For Models 1L through 13R: 1. For fixed disk drives only, reseat the disk drive indicated by the HG number. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the file adapter in location 21. For Models 21L and 21R: 1. For fixed disk drives only, reseat the disk drive indicated by the HG number. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the planar board. For Models 51R through 92R: 1. For fixed disk drives only, reseat the disk drive indicated by the HG number. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

386	02HG or 05HG or 06HG		A function was attempted when the diskette or fixed disk was busy or was performing another operation, such as a central site change management (CSCM) update.
			
			The QA represents the function that was attempted when the disk was busy:
			
			QA = 02 = Online Tests.
			     05 = Downstream Load.
			     06 = Dump.
			
			Note: If the operation causing the busy condition is CSCM, then the status code will alternate with 5800 in the status panel.
			
			Alert Sent = None.
				Do not perform any controller activities that would interrupt the communication between the host and your 3174 while these status codes are displayed.
				
				Do not open any diskette drive doors.
				
				Do not perform an IML, Alt 1 IML, or Alt 2 IML.
				
				Do not switch the power off on the 3174.
				
				When the operation is complete, the status code is erased and the online test, Downstream Load, or Dump can be retried.

387	02		The extended vital product data (VPD) test cannot be executed.
			
			Possible cause:
			
			    The wrong Control diskette is in the controller.
			
			Alert Sent = None.
				1. Insert the diskette that you used to IML the 3174. At the terminal, switch the power off and then on again.
				2. Re-IML and retry the operation.
				    If you do not have the original Control diskette, you cannot use this test.

Status Code	QAHG	Extended Data	Description	Action
387	05HG		Downstream Load (DSL) microcode is not present in the controller. Alert Sent = None.	For diskette drives (HG = 01 or 02): Insert a DSL diskette into the diskette drive, normally diskette drive 2. For fixed disk drives (HG = 03 or 04): Use online test 5, Option 1; see "Test 5: Vital Product Data" in the 3174 *Customer Problem Determination* manual. See if the DSL microcode for your attached terminals is present. • If the microcode is not present, you will have to copy your DSL diskette onto the fixed disk and select the subdirectory. See "How To Copy Files" and "How To Perform Media Management" in the 3174 *Utilities Guide.* • If the microcode is present, request service. **Note:** The distributed function terminal has to be switched off and then on again to start the downstream load function. *For service personnel only:* Perform an Alt 2 IML; see page 2-3.
387	08HG	B1B2 B3B4	3174 Diskette media failure while a 3174 offline dump was in progress. Possible cause: A 2.4MB dump diskette was inserted into a 1.2MB drive. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = None.	No action is required. The dump must be reinitiated at the next operational microcode failure.
387	09HG	B1B2 B3B4	3174 Diskette media failure while a 3174 offline dump was in progress. Possible cause: A 2.4MB dump diskette was inserted into a 1.2MB drive. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = None.	Insert a 1.2MB dump diskette and close the drive door. The dump will restart.
387	11HG		Error found in the File Table of Contents of the patch file. Possible cause: Microcode. Alert Sent = None.	Request service. *For service personnel only:* Use your support structure for aid.

Status Code	QAHG	Extended Data	Description	Action
388	00HG to 06HG	B1B2 B3B4	A disk media failure has occurred. Possible cause: For diskette drives (HG = 01 or 02): 1. Diskette media 2. Diskette drive 3. File adapter. For fixed disk drives (HG = 03 or 04): 1. Fixed disk drive 2. File adapter. QA = 00 − 56 where: x0 = Control, Utility, and DSL x1 = Control x2 = Control x3 = Control or DSL x4 = Utility x5 = DSL x6 = Dump B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Operator Intervention Required when QA = 00, 01, 02, 05, or 06. Alert Sent = None when QA = 03 or 04.	***For the NetView DM operator:*** Reissue the transmission plan. **Warning:** An IML will disrupt operating terminals. ***For the network site 3174 operator:*** For diskette drives (HG = 01 or 02): 1. Exchange the diskette in the diskette drive indicated by the hardware group number. Use a duplicate diskette. 2. Re-IML. 3. Perform an Alt 2 IML; see page 2-3. 4. Request service. For fixed disk drives (HG = 03 or 04): 1. Record the entire status code. 2. Run the "Fixed Disk Media Tests" on page 2-5. If data restoration is required, copy your diskettes onto the fixed disk as defined in the QA field of the status code listed in the Description column. 3. Re-IML. 4. Perform an Alt 2 IML; see page 2-3. 5. Request service. ***For service personnel only:*** <u>For Models 1L through 13R:</u> 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the file adapter in location 21. <u>For Models 21L through 92R:</u> 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
388	07HG	B1B2 B3B4	A disk media failure has occurred while running offline tests. **Note:** If your 3174 recently received a microcode change through the CSCM function, your host site may need to transmit the data again. Contact your network planner. Possible cause: For diskette drives (HG = 01 or 02): 1. Diskette media 2. Diskette drive 3. File adapter. For fixed disk drives (HG = 03 or 04): 1. Fixed disk drive 2. File adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = None.	**Warning:** An IML will disrupt operating terminals. For diskette drives (HG = 01 or 02): 1. Press Enter; 4001 appears. 2. Retry the test. 3. Exchange the diskette in the diskette drive indicated by the hardware group number. Use a duplicate diskette. 4. Re-IML. 5. Request service. For fixed disk drives (HG = 03 or 04): 1. Press Enter; 4001 appears. 2. Retry the test. 3. Record the entire status code. 4. Run the "Fixed Disk Media Tests" on page 2-5. If data restoration is required, copy your Utility or customized Control diskette onto the fixed disk. See "How To Copy Files" and "How To Perform Media Management" in the *3174 Utilities Guide*. 5. Re-IML. 6. Request service. *For service personnel only:* <u>For Models 1L through 13R:</u> 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the file adapter in location 21. <u>For Models 21L through 92R:</u> 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
388	08HG	B1B2 B3B4	A diskette media failure occurred while a 3174 offline dump was in progress. Possible cause: 1. Diskette media 2. Diskette drive 3. File adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = None.	The Dump procedure must be performed again when the original controller failure recurs. Obtain a new Dump diskette before attempting another dump. *For service personnel only:* <u>For Models 1L through 13R:</u> 1. Perform an Alt 2 IML; see page 2-3. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the file adapter in location 21. <u>For Models 21L through 92R:</u> 1. Perform an Alt 2 IML; see page 2-3. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
388	09HG	B1B2 B3B4	A disk media failure occurred while a 3174 offline dump was in progress. Possible cause: For diskette drives (HG = 01 or 02): 1. Diskette media 2. Diskette drive 3. File adapter. For fixed disk drives (HG = 03 or 04): 1. Fixed disk drive 2. File adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = None.	• If the Control diskette was installed when this failure occurred, exchange the Control diskette and the dump process continues. • If the Dump diskette was installed when this failure occurred, exchange the Dump diskette and the dump process continues. • If more than one Dump diskette is used, all Dump diskettes must be retained for analysis. Perform an Alt 2 IML; see page 2-3. *For service personnel only:* For Models 1L through 13R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the file adapter in location 21. For Models 21L through 92R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
388	10HG	B1B2 B3B4	A disk media error was detected during central site change management. Possible cause: For diskette drives (HG = 01 or 02): 1. Diskette media 2. Diskette drive 3. File adapter. For fixed disk drives (HG = 03 or 04): 1. Fixed disk drive 2. File adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Operator Intervention Required.	***For the NetView DM operator:*** 1. In the transmission plan, set the Destruction parameter to Allowed. 2. Reissue the transmission plan. 3. If the failure continues, contact the network site 3174 operator. ***For the network site 3174 operator:*** For diskette drives (HG = 01 or 02): 1. Exchange the diskette in the diskette drive indicated by the hardware group number. Use a duplicate diskette. 2. Contact your central site. The host should re-send the data for the CSCM operation. 3. Re-IML. 4. Perform an Alt 2 IML; see page 2-3. 5. Request service. For fixed disk drives (HG = 03 or 04): 1. Record the entire status code. 2. Run the "Fixed Disk Media Tests" on page 2-5. If data restoration is required, recopy your diskettes onto the fixed disk. See "Restoring Your Data" on page 2-8. 3. Contact your central site. The host should re-send the data for the CSCM operation. 4. Re-IML. 5. Request service. ***For service personnel only:*** For Models 1L through 13R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the File adapter in location 21. For Models 21L through 92R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
388	11HG	B1B2 B3B4	A disk media error was detected during a patch operation. Possible cause: For diskette drives (HG = 01 or 02): 1. Diskette media 2. Diskette drive 3. File adapter. For fixed disk drives (HG = 03 or 04): 1. Fixed disk drive 2. File adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Operator Intervention Required.	**For the NetView DM operator:** Reissue the transmission plan. **For the network site 3174 operator:** For diskette drives (HG = 01 or 02): 1. Exchange the diskette in the diskette drive indicated by the hardware group number. Use a duplicate diskette. 2. Re-IML. 3. Perform an Alt 2 IML; see page 2-3. 4. Request service. For fixed disk drives (HG = 03 or 04): 1. Record the entire status code. 2. Run the "Fixed Disk Media Tests" on page 2-5. If data restoration is required, copy your customized Control diskette onto the fixed disk. See "How To Copy Files" and "How To Perform Media Management" in the *3174 Utilities Guide*. 3. Re-IML. 4. Request service. **For service personnel only:** For Models 1L through 13R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the file adapter in location 21. For Models 21L through 92R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
388	50HG to 55HG	B1B2 B3B4	A temporary disk media failure occurred. The controller is still operational. Possible cause: For diskette drives (HG = 01 or 02): 1. Diskette media 2. Diskette drive 3. File adapter. For fixed disk drives (HG = 03 or 04): 1. Fixed disk drive 2. File adapter. B1B2 = TYPE. B3B4 = LOCA. Controller-recoverable. Alert Sent = None.	No action is required unless the controller performance is degraded because of an excessive number of 388 5xHG errors. If performance is degraded because of excessive errors, see status code 388 00HG and perform the actions as indicated.

Status Code	QAHG	Extended Data	Description	Action
388	56HG	B1B2 B3B4	A temporary diskette media failure occurred while a 3174 online dump was in progress. Possible cause: 1. Diskette media 2. Diskette drive 3. Fixed disk 4. File adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = None.	No action is required unless the problem continues. For diskette drives (HG = 01 or 02): • If the Control diskette was installed when this failure occurred, exchange the Control diskette and the dump process continues. • If the Dump diskette was installed when this failure occurred, exchange the Dump diskette and the dump process continues. • If two Dump diskettes are used, both Dump diskettes must be retained for analysis. For fixed disk drives (HG = 03 or 04): 1. Record the entire status code. 2. Run the "Fixed Disk Media Tests" on page 2-5. If data restoration is required, copy your customized Control diskette onto the fixed disk. See "How To Copy Files" and "How To Perform Media Management" in the *3174 Utilities Guide*. 3. Re-IML. ***For service personnel only:*** For Models 1L through 13R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the file adapter in location 21. For Models 21L through 92R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
388	60HG	B1B2 B3B4	A temporary disk media error was detected during central site change management. The controller is still operational. Possible cause: 1. Diskette media 2. Diskette drive 3. Fixed disk 4. File adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = None.	No action is required unless the controller performance is degraded because of an excessive number of 388 6xHG errors. If performance is degraded because of excessive errors, see status code 388 00HG and perform the actions as indicated.

Status Code	QAHG	Extended Data	Description	Action
388	61HG	B1B2 B3B4	A temporary disk media error was detected during a patch operation. The controller is still operational. Possible cause: For diskette drives (HG = 01 or 02): 1. Diskette media 2. Diskette drive 3. File adapter. For fixed disk drives (HG = 03 or 04): 1. Fixed disk drive 2. File adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = None.	No action is required unless the controller performance is degraded because of an excessive number of 388 61HG errors. If performance is degraded, see status code 388 00HG and perform the actions as indicated.
388	80HG or 81HG	B1B2 B3B4	A temporary disk media failure occurred. The controller is still operational. Possible cause: For diskette drives (HG = 01 or 02): 1. Disk media 2. Diskette drive 3. File adapter. For fixed disk drives (HG = 03 or 04): 1. Fixed disk drive 2. File adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = None.	No action is required unless the controller performance is degraded because of an excessive number of 388 8xHG errors. If performance is degraded, see status code 388 00HG and perform the actions as indicated.

369	01HG	B1B2 B3B4 B5	3174 hardware failure: File adapter. This failure can occur either when the controller is operational or during IML or a 3174 offline dump. If the Dump procedure was being performed, it must be performed again when the original controller problem recurs.
			
			Possible cause:
			
			1. File adapter
			2. Processor
			3. Storage.
			
			B1B2 = TYPE.
			B3B4 = LOCA.
			B5 = Interrupt Level.
			
			Alert Given = Permanent if operational.
			
			Alert Given = None if NOT operational.
				Do one of the following:
				
				• If the controller is operational, you may continue to operate; however:
				  1. Do not IML.
				  2. Do not remove power from distributed function terminals that require downstream loads.
				  3. When the controller can be taken offline, perform an Alt 2 IML; see page 2-3.
				  4. Request service.
				• If you are trying to do an IML:
				  1. Perform an Alt 2 IML; see 2-3.
				  2. Request service.
				
				For service personnel only:
				
				For Models 1L through 13R:
				
				1. Exchange the FRU indicated by TYPE and LOCA.
				2. Exchange the file adapter in location 21.
				3. Exchange FRU type 950x in location 18.
				
				For Models 21L through 92R:
				
				1. Exchange the FRU indicated by TYPE and LOCA.
				2. Exchange the planar board.
				
				See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action

389	02HG	B1B2 B3B4	3174 hardware failure.
			
			Possible cause:
			1. File adapter
			2. Diskette drive
			3. Fixed disk
			4. Processor.
			
			Note: If a diskette drive or fixed disk is causing the problem, the TYPE and LOCA fields may not indicate the correct drive.
			
			B1B2 = TYPE.
			B3B4 = LOCA.
			
			Alert Sent = Permanent.
				Do one of the following:
				
				• If the controller is operational, you may continue to operate; however:
				  1. Do not IML.
				  2. Do not remove power from distributed function terminals that require downstream loads.
				  3. When the controller can be taken offline, perform an Alt 2 IML; see page 2-3.
				  4. Re-IML.
				  5. Request service.
				• If you are trying to do an IML:
				  1. Perform an Alt 2 IML; see 2-3.
				  2. Request service.
				
				For service personnel only:
				
				<u>For Models 1L through 13R:</u>
				
				1. Exchange the FRU indicated by TYPE and LOCA.
				2. Exchange the drive indicated by the HG number.
				3. Exchange FRU type 950x in location 18.
				
				<u>For Models 21L through 92R:</u>
				
				1. Exchange the planar board.
				2. Exchange the drive indicated by the HG number.
				
				See Chapter 3 in the maintenance manual for your model.

389	03HG	B1B2 B3B4	3174 hardware failure.
			
			Possible cause:
			1. Diskette drive
			2. File adapter
			3. Fixed disk
			4. Processor.
			
			Note: If a diskette drive or fixed disk is causing the problem, the TYPE and LOCA fields may not indicate the correct drive.
			
			B1B2 = TYPE.
			B3B4 = LOCA.
			
			Alert Sent = Permanent.
				Do one of the following:
				
				• If the controller is operational, you may continue to operate; however:
				  1. Do not IML.
				  2. Do not remove power from distributed function terminals that require downstream loads.
				  3. When the controller can be taken offline, perform an Alt 2 IML; see page 2-3.
				  4. Request service.
				• If you are trying to do an IML:
				  1. Perform an Alt 2 IML; see 2-3.
				  2. Request service.
				
				For service personnel only:
				
				<u>For Models 1L through 63R:</u>
				
				Go to MAP 0430 in the maintenance manual.
				
				<u>For Models 81R through 92R:</u>
				
				1. Exchange the planar board.
				2. Exchange the diskette drive.
				
				See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action

389	04HG	B1B2 B3B4	3174 hardware failure.
			
			Possible cause:
			
			1. File adapter
			2. Processor
			3. Storage.
			
			B1B2 = TYPE.
			B3B4 = LOCA.
			
			Alert Sent = Permanent.
				Do one of the following:
				
				• If the controller is operational, you may continue to operate; however:
				  1. Do not IML.
				  2. Do not remove power from distributed function terminals that require downstream loads.
				  3. When the controller can be taken offline, perform an Alt 2 IML; see page 2-3.
				  4. Request service.
				• If you are trying to do an IML:
				  1. Perform an Alt 2 IML; see 2-3.
				  2. Request service.
				
				For service personnel only:
				
				<u>For Models 1L through 63R:</u>
				
				  Go to MAP 0430 in the maintenance manual.
				
				<u>For Models 81R or 82R:</u>
				
				  1. Exchange the planar board.
				  2. Exchange the diskette drive.
				
				<u>For Models 90R through 92R:</u>
				
				  1. Exchange the planar board.
				  2. Exchange the diskette drive.
				  3. Exchange the storage card in location J22.
				
				See Chapter 3 in the maintenance manual for your model.

389	05HG	B1B2 B3B4	3174 hardware failure: File adapter error during a I/O operation.
			
			Possible cause:
			
			1. File adapter
			2. Fixed disk.
			
			B1B2 = TYPE.
			B3B4 = LOCA.
			
			Alert Sent = Permanent.
				Do one of the following:
				
				• If the controller is operational, you may continue to operate; however:
				  1. Do not IML.
				  2. Do not remove power from distributed function terminals that require downstream loads.
				  3. When the controller can be taken offline, perform an Alt 2 IML; see page 2-3.
				  4. Request service.
				• If you are trying to do an IML:
				  1. Perform an Alt 2 IML; see 2-3.
				  2. Request service.
				
				For service personnel only:
				
				<u>For Models 1L through 63R:</u>
				
				  Go to MAP 0430 in the maintenance manual.
				
				<u>For Models 81R through 92R:</u>
				
				  1. Exchange the planar board.
				  2. Exchange the diskette drive.
				
				See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
389	51HG to 54HG	B1B2 B3B4 B5	Temporary 3174 hardware failure. The controller is still operational. Possible cause: 1. File adapter 2. Processor. B1B2 = TYPE. B3B4 = LOCA. B5 = Interrupt Level. Alert Sent = None. Controller-recoverable.	No action is required unless the machine performance is degraded due to an excessive number of 389 errors. If performance is degraded because of an excessive number of errors, request service. *For service personnel only:* <u>For Models 1L through 63R:</u> Go to MAP 0430 in the maintenance manual. <u>For Models 81R through 92R:</u> 1. Exchange the planar board. 2. Exchange the diskette drive. See Chapter 3 in the maintenance manual for your model.
390	00HG		3174 disk failure: file not found. Possible cause: 1. Incorrect diskette installed 2. Fixed disk 3. Microcode. Alert Sent = Permanent.	For diskette drives (HG = 01 or 02): 1. Remove the diskette from the drive indicated by the HG number. 2. Insert the correct diskette and close the diskette drive door. 3. Re-IML. 4. Request service. For fixed disk drives (HG = 03 or 04): 1. See "How To Copy Files" and "How To Perform Media Management" in the *3174 Utilities Guide* to copy the diskettes required for your 3174 configuration onto the fixed disk indicated by the HG number. 2. Re-IML. 3. Request service. *For service personnel only:* Use your support structure for aid.
390	01HG to 03HG		3174 disk failure: file not found. Possible cause: 1. Incorrect diskette installed 2. Fixed disk 3. Microcode. Alert Sent = Permanent when QA = 01 or 02. Alert Sent = None when QA = 03.	For diskette drives (HG = 01 or 02): 1. Remove the diskette from the drive indicated by the HG number. 2. Insert a Control diskette and close the diskette drive door. 3. Re-IML. 4. Request service. For fixed disk drives (HG = 03 or 04): 1. See "How To Copy Files" and "How To Perform Media Management" in the *3174 Utilities Guide* to copy a customized Control diskette onto the fixed disk indicated by the HG number. 2. Re-IML. 3. Request service. *For service personnel only:* Use your support structure for aid.

Status Code	QAHG	Extended Data	Description	Action
390	04HG		3174 disk failure: file not found. Possible cause: 1. Incorrect diskette installed 2. Fixed disk 3. Microcode. Alert Sent = None.	For diskette drives (HG = 01 or 02): 1. Remove the diskette from the drive indicated by the HG number. 2. Insert a Utility diskette and close the diskette drive door. 3. Re-IML. 4. Request service. For fixed disk drives (HG = 03 or 04): 1. See "How To Copy Files" and "How To Perform Media Management" in the *3174 Utilities Guide* to copy a Utility diskette onto the fixed disk indicated by the HG number. 2. Re-IML. 3. Request service. ***For service personnel only:*** Use your support structure for aid.
390	05HG		3174 disk failure: file not found. Possible cause: 1. Incorrect diskette installed 2. Fixed disk 3. Microcode. **Note:** To restart the Downstream Load operation, switch power off and then back on at the distributed function terminal (DFT), after you have performed the recovery actions for this status code. Alert Sent = Permanent.	For diskette drives (HG = 01 or 02): 1. Remove the diskette from the drive indicated by the HG number. 2. Insert a Downstream Load diskette and close the diskette drive door. 3. Re-IML. 4. Request service. For fixed disk drives (HG = 03 or 04): 1. See "How To Copy Files" and "How To Perform Media Management" in the *3174 Utilities Guide* to copy a Downstream Load diskette onto the fixed disk indicated by the HG number. 2. Re-IML. 3. Request service. ***For service personnel only:*** Use your support structure for aid.

390	06HG		3174 disk failure: file not found.
			
			Possible cause:
			
			1. Diskette media
			2. Incorrect diskette installed
			3. Microcode.
			
			Alert Sent = Permanent.
				1. Do the following:
				  • Remove the diskette from the drive indicated by the HG number.
				  • Insert a new Dump diskette and close the diskette drive door.
				  • Re-issue the Dump request.
				2. Request service.
				
				For service personnel only:
				
				Use your support structure for aid.

Status Code	QAHG	Extended Data	Description	Action
390	07HG		3174 disk failure: file not found. Possible cause: 1. Diskette media 2. Incorrect diskette installed 3. Fixed disk 4. Microcode. Alert Sent = None.	1. Press ENTER; 4001 appears. 2. Retry the test. For diskette drives (HG = 01 or 02): 1. Exchange the Utility diskette in the drive indicated by the HG number. 2. Retry the test. 3. Request service. For fixed disk drives (HG = 03 or 04): 1. See "How To Copy Files" and "How To Perform Media Management" in the *3174 Utilities Guide* to copy a Utility and/or a customized Control diskette onto the fixed disk indicated by the HG number. 2. Retry the test. 3. Request service. *For service personnel only:* Use your support structure for aid.
390	08HG		3174 disk media failure: file not found while a 3174 offline dump was in progress. Possible cause: 1. Diskette media 2. Incorrect diskette installed 3. Microcode. Alert Sent = None.	The Dump procedure must be performed again when the original controller failure recurs. 1. Ensure that a 3174 Dump diskette is in the diskette drive indicated by the hardware group number. 2. If the diskette in the drive is the correct one, obtain a new Dump diskette before performing the Dump procedure again. **Note:** If two Dump disks are used, both must be retained for analysis.
390	09HG		3174 disk media failure: file not found while a 3174 offline dump was in progress. Possible cause: 1. Diskette media 2. Incorrect diskette installed 3. Microcode. Alert Sent = None.	For diskette drives (HG = 01 or 02): • If the Control diskette was installed when this failure occurred, exchange the Control diskette and the dump continues. • If the Dump diskette was installed when this failure occurred, exchange the Dump diskette and the dump continues. • If more than one Dump diskette is used, all Dump diskettes must be retained for analysis. For fixed disk drives (HG = 03 or 04): See "How To Copy Files" and "How To Perform Media Management" in the *3174 Utilities Guide* to recopy the Control diskette onto the fixed disk. Perform the dump again when the original controller failure occurs.

Status Code	QAHG	Extended Data	Description	Action
390	10HG		3174 failure: file not found error detected during a central site change management operation. Possible cause: File name not found in the disk directory. • Incorrect diskette installed • The required subdirectory does not exist on the fixed disk. Alert Sent = Permanent.	**For the NetView DM operator:** 1. Verify that the NetView Distribution Manager (NDM) sense code detected an error. 2. In the transmission plan, set the Destruction parameter to Allowed. 3. Reissue the transmission plan. 4. If the failure continues, contact the network site operator. **For the 3174 operator:** For diskette drives (HG = 01 or 02): 1. Ensure that the correct diskette was installed for the attempted CSCM operation. 2. Exchange the diskette. 3. Contact your central site. The host should re-send the data for the CSCM operation. For fixed disk drives (HG = 03 or 04): 1. See "How to Copy Files" and "How to Perform Media Management" in the 3174 Utilities Guide to recopy the required diskettes onto the fixed disk. 2. Contact your central site. The host should re-send the data for the CSCM operation.
390	11HG		File not found; error detected during a patch operation. A required CUT patch is not installed at the network site controller. Possible cause: 1. Incorrect diskette installed 2. Wrong diskette copied onto the fixed disk. 3. CUT patch has not been distributed by NetView DM. Alert Sent = Permanent.	For diskette drives (HG = 01 or 02): 1. Ensure that the correct diskette was installed for the attempted patch operation. 2. Exchange the diskette. 3. Re-IML. For fixed disk drives (HG = 03 or 04): • CSCM users submit a transmission plan to send and install the required patch. • Non-CSCM users copy the control disk image onto the fixed disk and re-IML. See "How to Copy Files" and "How to Perform Media Management" in the 3174 Utilities Guide.
391	00HG to 09HG	B1B2 B3B4	3174 diskette media write protected. Possible cause: 1. Diskette media 2. Diskette drive 3. File adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Permanent when QA = 00, 01, 02, 05, or 06. Alert Sent = None when QA = 03, 04, 07, 08, or 09.	**Warning:** An IML will disrupt operating terminals. 1. Exchange the diskette or remove the write protection sticker from the diskette and retry the operation. 2. If the error occurred during an IML, re-IML. 3. Request service. **For service personnel only:** For Models 1L through 13R: 1. Exchange the diskette drive indicated by the HG number. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the file adapter in location 21. For Models 21L through 92R: 1. Exchange the diskette drive indicated by the HG number. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
391	10HG	B1B2 B3B4	3174 write protect error detected during a central site change management operation. Possible cause: 1. Diskette media 2. Diskette drive 3. File adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Permanent.	***For the NetView DM operator:*** 1. Contact the network site operator. The error condition must be corrected at the network site 3174. 2. After the error condition is corrected, reissue the transmission plan. ***For the 3174 operator:*** 1. Exchange the diskette or remove the write protection sticker from the diskette you are using. 2. Contact your central site. The host should re-send the data for the CSCM operation. ***For service personnel only:*** For Models 1L through 13R: 1. Exchange the diskette drive indicated by the HG number. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the file adapter in location 21. For Models 21L through 92R: 1. Exchange the diskette drive indicated by the HG number. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
391	11HG	B1B2 B3B4	3174 write protect error detected during a patch operation. Possible cause: 1. Diskette media 2. Diskette drive 3. File adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Permanent.	Exchange the diskette or remove the write protection sticker from the diskette. ***For service personnel only:*** For Models 1L through 13R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the file adapter in location 21. For Models 21L through 92R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
392	00HG to 06HG	B1B2	3174 disk media failure. Possible cause: Microcode. B1B2 = 0X00 = one of the following conditions: 0100 = disk full. 0200 = disk directory full. 0300 = disk End of file (EOF) error. Alert Sent = Permanent when QA = 00, 01, 02, 05, or 06. .Alert Sent = None when QA = 03 or 04.	For diskette drives (HG = 01 or 02): 1. Exchange the diskette in the diskette drive indicated by the hardware group. Use the same kind of diskette. 2. Re-IML. 3. Perform an Alt 2 IML; see page 2-3. 4. Request service. For fixed disk drives (HG = 03 or 04): 1. If the error occurred during an IML, re-IML. 2. See "How To Perform Media Management" in the *3174 Utilities Guide*. Delete any unnecessary subdirectories and re-IML. 3. Perform an Alt 2 IML; see page 2-3. 4. Request service. ***For service personnel only:*** Use your support structure for aid.

Status Code	QAHG	Extended Data	Description	Action
392	07HG	B1B2	3174 disk media failure. Possible cause: Microcode. B1B2 = 0X00 = one of the following conditions: 0100 = Disk full. 0200 = Disk directory full. 0300 = Disk End of file (EOF) error. Alert Sent = None.	For diskette drives (HG = 01 or 02): 1. Press Enter; 4001 appears. 2. Retry the test. 3. Exchange the diskette in the diskette drive indicated by the hardware group. Use the same kind of diskette. 4. Re-IML. 5. Perform an Alt 2 IML; see page 2-3. 6. Request service. For fixed disk drives (HG = 03 or 04): 1. If the error occurred during an IML, re-IML. 2. See "How To Perform Media Management" in the *3174 Utilities Guide*. Delete any unnecessary subdirectories and re-IML. 3. Perform an Alt 2 IML; see page 2-3. 4. Request service. *For service personnel only:* Use your support structure for aid.
392	08HG	B1B2	3174 diskette media failure, while a 3174 offline dump was in progress. Possible cause: Microcode. B1B2 = 0X00 = one of the following conditions: 0100 = diskette full. 0200 = diskette directory full. 0300 = diskette End of file (EOF) error. Alert Sent = None.	Perform the dump again when the original controller failure occurs, using a new Dump diskette.
392	10HG	B1B2	3174 disk full, directory full, or end of file (EOF) error was detected while the controller was receiving data from the host during a central site change management operation. Possible cause: Microcode or an excessive amount of host data. B1B2 = 0X00 = one of the following conditions: 0100 = disk full. 0200 = disk directory full. 0300 = disk End of file (EOF) error. Alert Sent = Permanent.	*For the NetView DM operator:* 1. Remove, delete, or accept any unnecessary data objects. 2. Reissue the original transmission plan with the destruction parameter set to Allowed. 3. If the failure continues, contact the network site operator. *For the 3174 operator:* For diskette drives (HG 01 or 02): 1. Install a new diskette of the same type. 2. Contact your central site. The host should re-send the data for the CSCM operation. 3. Perform an Alt 2 IML; see page 2-3. 4. Request service. For fixed disk drives (HG 03 or 04): 1. See "How To Perform Media Management" in the *3174 Utilities Guide*. Delete any unnecessary subdirectories and re-IML. 2. Contact your central site. The host should re-send the data for the CSCM operation. 3. Perform an Alt 2 IML; see page 2-3. 4. Request service. *For service personnel only:* Use your support structure for aid.

Status Code	QAHG	Extended Data	Description	Action
392	11HG	B1B2	3174 disk full, directory full, or end of file (EOF) error detected during a patch operation. B1B2 = 0X00 = one of the following conditions: 0100 = disk full. 0200 = disk directory full. 0300 = disk End of file (EOF) error. Alert Sent = Permanent.	For diskette drives (HG 01 or 02): 1. Install a new diskette of the same type, and retry the operation. 2. Request service. For fixed disk drives (HG 03 or 04): 1. Delete any unnecessary subdirectories, and retry the operation. See "How To Perform Media Management" in the *3174 Utilities Guide*. 2. Request service. *For service personnel only:* Use your support structure for aid.
393	00HG		• The diskette was changed in the diskette drive indicated by the hardware group number, or the diskette drive was busy. • If using a fixed disk, the drive was busy. Alert Sent = Permanent.	No action is required. This is only an informational message.
393	01HG to 06HG		• A diskette was removed and reinserted while a controller operation was running that did not require a disk change, or the diskette drive was busy. • If using a fixed disk, the drive was busy. Possible cause: 1. The diskette was removed and reinserted. 2. Diskette drive. 3. Fixed disk. 4. File adapter. Alert Sent = Permanent when QA = 01, 02, 05, or 06. Alert Sent = None when QA = 03 and 04.	1. Ensure that the correct diskette is inserted. 2. Retry the operation. 3. Re-IML. 4. Perform an Alt 2 IML; see page 2-3. 5. Request service. *For service personnel only:* For Models 1L through 63R: Go to MAP 0430 in the maintenance manual. For Models 81R through 92R: 1. Exchange the diskette drive, indicated by the HG number. 2. Exchange the planar board.
393	07HG		• A diskette was removed and reinserted while a controller operation was running that did not require a disk change, or the diskette drive was busy. • If using a fixed disk, the drive was busy. Possible cause: 1. The diskette was removed and reinserted. 2. Diskette drive 3. Fixed disk 4. File adapter. Alert Sent = None.	1. Ensure that the correct diskette is inserted. 2. Press Enter; 4001 appears. 3. Retry the test. 4. Re-IML. 5. Perform an Alt 2 IML; see page 2-3. 6. Request service. *For service personnel only:* For Models 1L through 63R: Go to MAP 0430 in the maintenance manual. For Models 81R through 92R: 1. Exchange the diskette drive, indicated by the HG number. 2. Exchange the planar board.

Status Code	QAHG	Extended Data	Description	Action
393	08HG		• A diskette was removed and reinserted while a controller operation was running that did not require a disk change, or the diskette drive was busy. • If using a fixed disk, the drive was busy. Possible cause: 1. The diskette was removed and reinserted. 2. Diskette drive 3. Fixed disk 4. File adapter. Alert Sent = None.	The dump procedure must be performed again when the original controller failure recurs. Perform an Alt 2 IML; see page 2-3.
393	10HG		A diskette was removed and reinserted while a central site change management (CSCM) operation was in progress. Alert Sent = Permanent.	This may or may not be a failure. Contact your central site. The host may need to re-send the data to complete the CSCM operation.
393	11HG		A diskette was removed and reinserted during a patch operation. Alert Sent = Permanent.	This may or may not be a failure. Retry the operation. If the failure continues, request service.
394	04HG		An attempt was made to rename a dataset, and the new dataset name already exists. Alert Sent = Temporary.	Request service. *For service personnel only:* Use your support structure for aid.
394	10HG		A disk media error was detected during a central site change management operation. Alert Sent = Temporary.	*For the NetView DM operator:* 1. Remove, delete, or accept any unnecessary data objects. 2. Reissue the original transmission plan with the destruction parameter set to allowed. 3. If the failure continues, contact the network site 3174 operator. *For the network site 3174 operator:* For diskette drives (HG = 01 or 02): 1. Replace the diskette. 2. Contact your central site. The host should re-send the data for the CSCM operation. 3. Request service. For fixed disk drives (HG = 03 or 04): 1. Run the "Fixed Disk Media Tests" on page 2-5. If data restoration is required, recopy your diskettes onto the fixed disk. See "Restoring Your Data" on page 2-8. 2. Contact your central site. The host should re-send the data for the CSCM operation. 3. Request service. *For service personnel only:* Use your support structure for aid.
395	00HG to 11HG	B1B2 B3B4	Diskette/diskette drive incompatibility error. A 2.4MB diskette has been inserted into a 1.2MB drive. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Operator Intervention Required when QA = 00, 01, 02, 03, 05, 06, 10, or 11. Alert Sent = None when QA = 04 or 07.	1. Insert the 2.4MB diskette into a 2.4MB drive. 2. Retry the operation.

Status Code	QAHG	Extended Data	Description	Action
398	01HG	B1B2 B3B4	3174 hardware failure detected during the IML, but the IML will continue. The controller is operational for other applications that do *not* require the defective adapter. Possible cause: Defective adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Permanent.	1. Re-IML. 2. Request service. *For service personnel only*: Exchange the FRU indicated by TYPE and LOCA. See Chapter 3 in the maintenance manual for your model.
398	51HG	B1B2 B3B4	Temporary 3174 hardware failure. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = None.	No action is required unless the controller performance is degraded because of an excessive number of errors. See status code 398 01HG, if there are an excessive number of errors.
399	01HG		The Control diskette is configured for an Asynchronous Emulation Adapter (AEA), but the adapter does not appear to be in the controller. The controller is operational; only this adapter is not working. Possible cause: 1. The Control diskette is configured incorrectly. 2. The AEA is defective. Alert Sent = Temporary.	Locate the AEA hardware. For Models 1L through 13R, check card locations 12, 13, and 14 for card type 9331 or 9333. For Models 21L and 21R, check card locations 11 – 15 for card type 9311. For Models 51R through 63R, check the back panel for the eight AEA ports. • If the AEA hardware is not present in the controller, the Control disk must be reconfigured; see the *3174 Planning Guide*. • If the AEA hardware is present, request service. *For service personnel only:* Perform an Alt 2 IML; see page 2-3. See Chapter 3 in the maintenance manual for your model.

399	03HG	B1B2 B3B4	An asynchronous emulation adapter was not initialized during a normal IML because of a disk failure.
			
			Possible causes:
			
			• Downstream Load diskette
			• Fixed disk media failure or DSL subdirectory not present.
			
			B1B2 = TYPE.
			B3B4 = LOCA.
			
			Alert Sent = Temporary.
				For information about running 3174 online tests, see the *3174 Customer Problem Determination* manual, GA23-0217.
				
				1. Use Online Test 1, Option 5, to see if there are any recent status codes in the range of 384 to 393. If any status code 384 to 393 is in the event log, perform the repair action for that status code.
				2. Re-IML.
				3. Use Online Test 5, Option 1 to display the "Controller Vital Data." Under DSL information, 30 20.XX XXXXXXXXXX is displayed if the AEA microcode is contained on the DSL disk.
				 • If the AEA microcode is not present, then obtain the AEA feature microcode. Contact your IBM representative.
				 • If the AEA microcode is present:
				
				   For diskette drives (HG = 01 or 02):
				
				   Exchange the DSL diskette.
				
				   For fixed disk drives (HG = 03 or 04):
				
				   Copy the AEA microcode onto the fixed disk; see "How to Copy Files" and "How to Perform Media Management" in the *3174 Utilities Guide*.

Status Code	QAHG	Extended Data	Description	Action
399	04HG		The levels of the Control disk and the AEA microcode are incompatible. The release levels must match. The suffix of the Control disk must be equal to or greater than the AEA microcode. The HG represents the disk drive number that contains the incompatible AEA microcode. HG = 01 or 02 = Diskette Drives 1 or 2. HG = 03 or 04 = Fixed Disk Drives 3 or 4. Alert Sent = Temporary.	For information about running online tests, see the *3174 Customer Problem Determination* manual, GA23-0217. 1. Use Online Test 5, Option 1, to display the "Controller Vital Data." 2. Record the information next to the entry line "Microcode Release." 3. Under the entry line "DSL Information," look for "3020" and record the next field that indicates the release and suffix levels. 4. Either obtain a Control disk that is compatible with the AEA microcode, or obtain AEA microcode that is compatible with the Control disk. 5. Re-IML.
399	05HG		The terminal adapter is not present during an IML. Possible cause: Terminal adapter. Alert Sent = Temporary.	1. Perform an Alt 2 IML; see page 2-3. 2. Request service. ***For service personnel only:*** For Models 1L through 13R: Exchange FRU type 915X. For Models 21L through 92R: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
399	06HG		The asynchronous emulation adapters was not initialized during an IML because the required microcode load from the DSL diskette or the fixed disk did not occur. Possible cause: A DSL diskette with the correct microcode is not installed, or the DSL microcode is not present on the fixed disk. Alert Sent = Temporary.	For information about running online tests, see *3174 Customer Problem Determination* manual, GA23-0217. 1. Use Online Test 5, Option 1, to see if the Asynchronous Emulation Adapter microcode is installed. Under the DSL information, 30 20.XX XXXXXXXXXX should appear. • If Test 5 shows 30 20 is installed, request service and report the status code and the QAHG field. • If Test 5 does not show FD30 20 installed: For diskette drives (HG 01 or 02): Insert the DSL diskette into one of the diskette drives and Re-IML. For fixed disk drives (HG 03 or 04): Copy your DSL diskette onto the fixed disk. See "How To Copy Files" and "How To Perform Media Management" in the *3174 Utilities Guide.* 2. Request service. ***For service personnel only:*** Perform an Alt 2 IML; see page 2-3.

Status Code	QAHG	Extended Data	Description	Action
399	07HG	B1	The Control disk is customized for a particular level of Multiple Logical Terminal (MLT) support. The controller does not have enough storage to support this level of MLT. MLT support is downgraded to a lower level. The controller is operational, but some control unit terminal (CUT) users may not be able to access all the host sessions that were configured. Additional storage is required to support the configured level of MLT. B1 = MLT level to which the controller has been deconfigured. Alert Sent = Temporary.	Either reconfigure the Control disk for the level of MLT that the controller storage will support, or obtain the additional storage. • To reconfigure the Control disk, see the *3174 Utilities Guide*. Question 110 specifies the MLT support levels. • To determine the amount of storage required to support your MLT configuration, see the "Storage Planning Procedure" and question 110 in Chapter 6 in the *3174 Planning Guide*. Contact your IBM representative to obtain the additional storage.
399	08HG	B1B2 B3B4	3174 hardware failure. Possible cause: 1. Asynchronous emulation adapter internal I/O cable missing, loose or not connected 2. Asynchronous emulation adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Temporary.	Request service. ***For service personnel only:*** For Models 1L through 13R: 1. Check and re-plug the AEA internal I/O cable. 2. Exchange the FRU indicated by TYPE and LOCA. For Models 51R through 63R: 1. Check and re-plug the AEA internal I/O cable. 2. Exchange the AEA card in location 04. See Chapter 3 in the maintenance manual for your model.
399	09HG	B1B2 B3B4	The connection between the terminal adapter and an installed Terminal Multiplexer Adapter or Fiber Optic Terminal Adapter is not working. Only the terminals attached to the failing TMA or indirectly to the failing FTA are inoperative. The remainder of the controller is usable. **Note:** The TYPE and LOCA fields identify the Terminal Multiplexer Adapter or Fiber Optic Terminal Adapter card. Possible cause: 1. The coaxial cable that connects the Terminal Multiplexer Adapter or Fiber Optic Terminal Adapter to the Terminal Adapter is defective or not connected. 2. Terminal Multiplexer Adapter or Fiber Optic Terminal Adapter 3. Terminal Adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Temporary.	See CPD 0200 in *3174 Customer Problem Determination* manual. ***For service personnel only:*** Go to MAP 0200 in the maintenance manual for your model.
399	10HG	B1B2	A configuration error occurred during an IML. B1B2 = 7XXX = Customizing status code that explains why this error occurred. Alert Sent = Temporary.	See the 7XXX status code in this chart to determine what is causing the problem.
399	11HG	B1B2 B3B4	A storage error occurred during an IML. The controller may be operational but the storage size is reduced. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Permanent.	Request service. ***For service personnel only:*** Perform the Processor/Storage Test (HG87). See Chapter 2 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
399	12HG	B1B2	Configuration error, insufficient storage. The controller does not have enough storage to support the number of downstream physical units (DSPU) specified during customizing. The controller is operational but some of the attached DSPUs will not work. If present, B1B2 = The maximum number of DSPUs that can be supported (in decimal). The addresses of the supported DSPUs are those defined on the Ring Address Assignment panel, starting with the address (question 940) that follows the gateway address, and continuing for the total number represented by B1B2. Alert Sent = Temporary.	Either reconfigure the Control disk or obtain the necessary storage. • To reconfigure, see question 940 and the "Storage Planning Procedure" in the *3174 Planning Guide* to determine how many DSPUs your 3174 will support. • To determine how much storage you need to support your current configuration, see the "Storage Planning Procedure" in the *3174 Planning Guide*. Contact your IBM representative to obtain the additional storage.
399	13HG		Fixed disk unavailable for central site change management, because of insufficient storage installed. A minimum of 1.5MB of storage is required. Alert Sent = Temporary.	Check that at least 1.5MB of storage is installed. Use online Test 2, Option 1. See "Test 2 Configuration Menu" in the *3174 Customer Problem Determination* manual. Contact your IBM representative to obtain the additional storage.
399	14HG		Asynchronous emulation adapter support is unavailable because of insufficient storage installed. The AEA functions will not work. Alert Sent = Temporary.	To determine how much storage you will need to support your current configuration, see "Planning for Controller Storage" in the *3174 Planning Guide*. Contact your IBM representative to obtain the additional storage.

Status Code	QAHG	Extended Data	Description	Action
399	15HG		Hardware/customizing mismatch; Control disk is customized for a Token-Ring adapter. Either the adapter is defective or it is not present in the controller. Alert Sent = Temporary.	Install the Token-Ring adapter or reconfigure the Control disk. For Models 1L, 1R, 2R, 11L, 11R, and 12R: Check for FRU type 935x in locations 11 through 17. • If FRU type 935x is present the controller is failing, request service. • If FRU type 935x is not present, the controller is configured incorrectly. See "How to Customize the Control Disk" in the *3174 Utilities Guide;* change your answers to the Token-Ring questions. For Models 21L and 21R: Check for FRU type 935x in locations 11 through 15. • If FRU type 935x is present the controller is failing, request service. • If FRU type 935x is not present, the controller is configured incorrectly. See "How to Customize the Control Disk" in the *3174 Utilities Guide;* change your answers to the Token-Ring questions. For Models 51R, 52R, 61R, and 62R: Check the back panel for the 9-pin cable connector. • If the cable connector is present, the controller is failing; request service. • If the cable connector is not present, reconfigure the Control disk. See "How to Customize the Control Disk" in the *3174 Utilities Guide* change your answers to the Token-Ring questions. For Models 3R, 13R, 53R, 63R, and 90R: Request service. For Models 81R, 82R, 91R, and 92R: Reconfigure the Control disk. See "How to Customize the Control Disk" in the *3174 Utilities Guide;* change your answers to the Token-Ring questions. ***For service personnel only:*** Exchange the Token-Ring Adapter.
399	16HG		Hardware/customizing mismatch. The Token-Ring speed has been downgraded. The controller is operational. Possible cause: 1. Control microcode is customized incorrectly. 2. Token-Ring adapter does not support 16Mbps as the ring speed. Alert Sent = Temporary.	Either reconfigure the Control disk or obtain the Token-Ring adapter that supports 16Mbps ring speed. • To reconfigure, change customizing question 384 or 911 to 4Mbps. See the *3174 Planning Guide.* • To obtain the 16Mbps Token-Ring adapter, contact your IBM representative.

Status Code	QAHG	Extended Data	Description	Action
399	17HG		Hardware/customizing mismatch. The Token-Ring release option has been downgraded to normal token release. The controller is operational. Possible cause: 1. Control microcode is customized incorrectly. 2. Token-Ring adapter does not support early token release. Alert Sent = Temporary.	Either reconfigure the Control disk or obtain the 16/4 Mbps Token-Ring adapter that supports early token release. • To reconfigure, change customizing question 384 or 911 to normal token release. See the *3174 Planning Guide*. • To obtain the Token-Ring adapter, contact your IBM representative.
399	18HG		Hardware/customizing mismatch. The Token-Ring I-frame size has been downgraded. The controller is operational. Possible cause: 1. Control microcode is customized incorrectly. 2. Token-Ring adapter does not support I-frame sizes greater than 2042 bytes. Alert Sent = Temporary.	Either reconfigure the Control disk or obtain the Token-Ring adapter that supports I-frame sizes greater than 2042 bytes. • To reconfigure, change customizing questions 380 (Configuration Support A/S and Configuration Support B Release 1) and 382. See the *3174 Planning Guide*. • To obtain the Token-Ring adapter, contact your IBM representative.
399	19HG		Hardware/customizing mismatch. The number of Token-Ring downstream physical units (DSPUs) has been downgraded. The controller is operational. Possible cause: 1. Control microcode is customized incorrectly. 2. Token-Ring adapter does not support over 140 DSPUs. Alert Sent = Temporary.	Either reconfigure for a maximum of 140 DSPUs or obtain the 16Mbps Token-Ring adapter. • To reconfigure, change customizing questions 104 and 105. See the *3174 Planning Guide*. • To obtain the 16Mbps Token-Ring adapter, contact your IBM representative.
399	20HG		The RPQ customization data sent by the central site does not match the RPQ microcode that was received. Alert Sent = Temporary.	*For the 3174 operator:* Contact your central site. The NetView DM Function must be reissued for the 3174. *For the NetView DM operator:* 1. Verify the RPQ data objects were specified correctly in the transmission plan with the appropriate corequisite data objects. 2. Reissue the transmission plan.

Status Code	QAHG	Extended Data	Description	Action

399	21HG		The Control disk is configured for a Concurrent Communication Adapter (CCA) but the adapter does not appear to be in the controller. The controller is still operational; only this adapter is failing.
			
			Possible cause:
			
			1. Control disk is configured incorrectly.
			2. The Concurrent Communication Adapter is missing or defective.
			
			The HG number in the status code represents the configured adapter that is failing or not present.
			
			• HG = 51 identifies the first (in the lower slot number) or only Concurrent Communication Adapter as missing or defective. The adapter can be Type 9263 or 9267.
			• HG = 52 indicates that the controller is configured for two Concurrent Communication Adapters and the second adapter is either missing or defective. The CCA in the lower slot number is HG51 and the second is HG52. Either HG can be type 9263 or 9267.
			
			Alert Sent = Temporary.
				1. Use online test 2, option 1 to display the Hardware Configuration Table. See the *3174 Customer Problem Determination* manual for online test information.
				2. Check to see if the HG number in the status code is listed in the table.
				  • If the HG is listed, request service.
				  • If the HG is not listed, check the controller to see if the adapter is installed.
				    − If the adapter is installed, request service.
				    − If the adapter is not installed, either reconfigure the controller or contact your IBM representative to obtain the adapter. To reconfigure, see the *3174 Planning Guide.*
				
				For service personnel only:
				
				Exchange the FRU indicated by the HG number.

399	22HG		The Control disk is configured for a Type 1 adapter but the adapter does not appear to be in the controller. If configured for more than one host, the controller is still operational; only this adapter is failing.
			
			Possible cause:
			
			1. Control disk is configured incorrectly.
			2. Type 1 adapter is missing or defective.
			3. Type 2 adapter is installed instead of a Type 1.
			
			The Type 1 adapter can be either a Communication Adapter (HG11) or a Concurrent Communication Adapter (HG51 or HG52).
			
			• HG11 − Identifies card Type 9253.
			• HG51 − Identifies the first (in the lowest slot number) or only Concurrent Communication Adapter (CCA) as missing or defective. The adapter should be Type 9263.
			• HG52 − The controller is configured for two Concurrent Communication Adapters and identifies the second one as missing or defective. The CCA in the lower slot number is HG51 and can be either Type 9263 or 9267. The second one should be Type 9263.
			
			Alert Sent = Temporary.
				1. Use online test 2, option 1 to display the Hardware Configuration Table. See the *3174 Customer Problem Determination* manual for online test information.
				2. Check to see if the HG number in the status code is listed in the table.
				  • If the HG is listed, go to step 3.
				  • If the HG is not listed, check the controller to see if the adapter is installed.
				    − If the adapter is installed, request service.
				    − If the adapter is not installed, either reconfigure the controller or contact your IBM representative to obtain the adapter.
				3. In the table, check that the correct Type is specified with the HG number.
				  • If correct, request service.
				  • If not correct, either reconfigure the controller or contact your IBM representative to obtain the correct adapter.
				
				For service personnel only:
				
				For Models 1L through 13R:
				
				Exchange the FRU indicated by the HG number.
				
				For Models 21L through 63R:
				
				1. Exchange the FRU indicated by the HG number.
				2. Exchange the planar board.
				
				For Models 81R through 92R:
				
				Exchange the planar board.

Status Code	QAHG	Extended Data	Description	Action

399	23HG		The Control disk is configured for a Type 1 adapter, but the cable for that adapter appears to be missing. If configured for more than one host link, the controller is still operational.
			
			Possible cause:
			
			1. Type 1 adapter cable is missing or defective.
			2. Type 2 adapter cable is installed instead of a Type 1.
			
			The Type 1 adapter can be either a Communication Adapter (HG11) or a Concurrent Communication Adapter (HG51 or HG52).
			
			• HG11 — Identifies card Type 9253.
			• HG51 — Identifies the first (in the lower slot number) or only Concurrent Communication Adapter(CCA). The adapter should be Type 9263.
			• HG52 — Identifies the second of two Concurrent Communication Adapters. The CCA in the lower slot number is HG51 and can be either Type 9263 or 9267. The second one should be Type 9263.
			
			Alert Sent = Temporary.
				1. Check to ensure that the cable is connected.
				    For Models 1L through 13R: The cable should be directly attached to the Type 1 adapter in the controller.
				    For Models 21L through 63R: The cable should be attached to the back panel connector.
				• If the cable is present, go to step 2.
				• If the cable is not present, contact your IBM representative to obtain the cable.
				2. See "Communication Adapter Cable Part Numbers" on page 2-30 to make sure that the cable has a valid part number.
				• If the cable is correct, request service.
				• If the cable is not correct, contact your IBM representative to obtain the correct cable.
				
				For service personnel only:
				
				1. Exchange the cable.
				2. Exchange the FRU indicated by the HG number.

399	24HG		The Control disk is configured for a Type 2 adapter but the adapter does not appear to be in the controller. If configured for more than one host, the controller is still operational; only this adapter is failing.
			
			Possible cause:
			
			1. Control disk is configured incorrectly.
			2. Type 2 adapter is missing or defective.
			3. Type 1 adapter is installed instead of a Type 2.
			
			The Type 2 adapter can be either a Communication Adapter (HG11) or a Concurrent Communication Adapter (HG51 or HG52).
			
			• HG11 — Identifies card Type 927x.
			• HG51 — Identifies the first (in the lower slot number) or only Concurrent Communication Adapter (CCA) as missing or defective. The adapter should be Type 9267.
			• HG52 — The controller is configured for two Concurrent Communication Adapters and identifies the second one as missing or defective. The CCA in the lower slot number is HG51 and can be either Type 9263 or 9267. The second one should be Type 9267.
			
			Alert Sent = Temporary.
				1. Use online test 2, option 1 to display the Hardware Configuration Table. See the *3174 Customer Problem Determination* manual for online test information.
				2. Check to see if the HG number in the status code is listed in the table.
				• If the HG is listed, go to step 3.
				• If the HG is not listed, check the controller to see if the adapter is installed.
				  − If the adapter is installed, request service.
				  − If the adapter is not installed, either reconfigure the controller or contact your IBM representative to obtain the adapter.
				3. In the table, check that the correct Type is specified with the HG number.
				• If correct, request service.
				• If not correct, either reconfigure the controller or contact your IBM representative to obtain the correct adapter.
				
				For service personnel only:
				
				For Models 1L through 13R:
				
				  Exchange the FRU indicated by the HG number.
				
				For Models 21L through 63R:
				
				1. Exchange the FRU indicated by the HG number.
				2. Exchange the planar board.
				
				For Models 81R through 92R:
				
				  Exchange the planar board.

Status Code	QAHG	Extended Data	Description	Action
399	25HG		The Control disk is configured for a Type 2 adapter, but the cable for that adapter appears to be missing. If configured for more than one host, the controller is still operational. Possible cause: 1. Type 2 adapter cable is missing or defective. 2. Type 1 adapter cable is installed instead of a Type 2. The Type 2 adapter can be either a Communication Adapter (HG11) or a Concurrent Communication Adapter (HG51 or HG52). • HG11 — Identifies card Type 927x. • HG51 — Identifies the first (in the lower slot number) or only Concurrent Communication Adapter (CCA). The adapter should be Type 9267. • HG52 — Identifies the second of two Concurrent Communication Adapters. The CCA in the lower slot number is HG51 and can be either Type 9263 or 9267. The second one should be Type 9267. Alert Sent = Temporary.	1. Check to see if a cable is attached. For Models 1L through 13R, 21L and 21R: The cable should be directly attached to the Type 2 adapter in the controller. For Models 51R through 92R: The cable should be attached to the back panel connector. • If the cable is present, go to step 2. • If the cable is not present, contact your IBM representative to obtain the cable. 2. Check that the cable part number is 6423155 or 6423156. • If the cable is correct, request service. • If the cable is not correct, contact your IBM representative to obtain the correct cable. *For service personnel only:* 1. Exchange the cable. 2. Exchange the FRU indicated by the HG number.
399	26HG		Configuration error; insufficient storage. The 3174 does not have enough storage to support the Token-Ring Gateway feature. The controller is operational; only this feature is deconfigured. Alert Sent = Temporary.	Either reconfigure the Control disk or obtain the necessary storage. • To reconfigure, see "Planning to Configure" in the *3174 Planning Guide*. Question 150 in the *3174 Planning Guide* specifies whether the controller is a Gateway. • To determine how much storage you need to support your current configuration, see the "Storage Planning Procedure" in the *3174 Planning Guide*. Contact your IBM representative to obtain the additional storage.
399	27HG	B1	Configuration error; insufficient storage. The 3174 does not have enough storage to support all the hosts that were defined on the primary link. The controller is operational, but some or all secondary hosts (Host ID's 1B-1H) have been deconfigured. B1 = The number of hosts (Host ID's 1A-1H) on the primary link that have been successfully IML'd. Alert Sent = Temporary.	Either reconfigure the Control disk or obtain the necessary storage. • To reconfigure, see "Planning to Configure" in the *3174 Planning Guide*. Change the "Include in IML" to 0 on the Multi-Host Definition Panel for the hosts that were deconfigured. • To determine how much storage you need to support your current configuration, see the "Storage Planning Procedure" in the *3174 Planning Guide*. Contact your IBM representative to obtain the additional storage.

Status Code	QAHG	Extended Data	Description	Action
399	28HG	B1 to B11	The controller is configured for an I-frame size larger than what can be supported on the available active link. The I-frame is downgraded to the supported maximum I-frame size for the link that is currently available and active. Possible cause: 1. Control microcode is customized incorrectly. 2. The active routes to the link station does not support the I-frame size. 3. Controller processing timed out before finding an active link that supports the I-frame size. B1−B6 = Destination Ring Address B7 = Destination Service Access Point (SAP) B8B9 = Customized I-frame size B10B11 = Downgraded I-frame size Alert Sent = None.	Either reconfigure the Control disk or check the status of the links in your Token-Ring Network to see which one is failing. • To reconfigure, see customizing questions 382 or 941 in the *3174 Planning Guide*. • To check the status of the links, use online test 9 (see "Online Tests" in the *3174 Customer Problem Determination* manual).
399	29HG		A link in the Token-Ring Network has caused the I-frame size to be downgraded. This could cause degraded performance on the affected link stations. Possible cause: 1. No active link to support the I-frame size. 2. Controller processing timed out before finding an active link that supports the I-frame size. Alert Sent = Temporary.	To check the status of the links, use online test 9 (see "Online Tests" in the *3174 Customer Problem Determination* manual).
399	30HG	B1B2 B3B4	Hardware/microcode mismatch. Possible cause: Encrypt/decrypt adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Temporary.	The encrypt/decrypt adapter in location 24 must be removed. This feature is only available on Models 1R and 2R. (It is also available as an RPQ on Models 11R and 12R.) It is not supported by Configuration B microcode.
399	31HG or 32HG	B1B2	Configuration error; insufficient storage. The controller does not have enough storage to support all the customized features. Some features have been deconfigured. B1B2 = The amount of storage needed (31HG only). Alert Sent = Temporary.	Either reconfigure the Control disk or obtain the necessary storage. • To reconfigure, see "Planning for Storage" in the *3174 Planning Guide*. • To obtain the additional storage, contact your IBM representative.
399	33HG	B1B2	A User-Defined Terminal Table (UDT) was not built because the ASCII sequences that you defined are too long. Alert Sent = Temporary.	Redefine the UDT table by specifying shorter ASCII sequences. See the *3174 Planning Guide* and *3174 Asynchronous Emulation Adapter Description and Reference* manual.

Status Code	QAHG	Extended Data	Description	Action
399	34HG	B1B2 B3B4	FRU ID failure where: TYPE = 9001 = invalid FRU number. LOCA = Location of the failing FRU. Alert Sent = Temporary.	Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange FRU type 950x in location 18. 3. Exchange the logic board. For Models 21L through 92R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
399	35HG	B1B2 B3B4	Channel adapter error. Possible cause: 1. Channel adapter with no Driver/Receiver 2. Channel Driver/Receiver with no adapter 3. Processor. Alert Sent = Temporary.	Request service. *For service personnel only:* For Models 1L and 11L: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange FRU type 950x in location 18. For Model 21L: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
399	36HG	B1B2 B3B4	Invalid PIO bus configuration. Possible cause: The cards are installed incorrectly in one or more of the following locations: 22, 23, or 24. **Note:** Multiple TYPE and LOCA fields are displayed to indicate the cards that are installed incorrectly. Alert Sent = Temporary.	Request service. *For service personnel only:* For Models 1L through 13R: 1. Verify that the cards are installed as shown in the plug charts; see the maintenance manual for your model. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange FRU type 950x in location 18. See Chapter 3 in the maintenance manual for your model.
399	37HG	B1B2 B3B4	Hardware/Microcode mismatch. Possible cause: 1. The microcode does not support the hardware configuration of the controller. 2. The cards in the controller are not installed in the correct locations. Alert Sent = Temporary.	Request service. *For service personnel only:* 1. Verify that the adapters are installed in the correct locations. 2. Verify that the installed adapters are supported by the microcode you are using. See Chapters 1 and 3 in the maintenance manual for your model.
399	38HG		Asynchronous Emulation Adapter Multiple Logical Terminal has been deconfigured. Possible cause: You configured for more features than the storage can support. Alert Sent = Temporary.	No immediate action is required. To correct the condition, install enough storage to support AEA MLT or reconfigure without AEA MLT. See "Planning for Storage" in the *3174 Planning Guide*.

Status Code	QAHG	Extended Data	Description	Action
399	39HG		Local Format Storage (LFS) has been deconfigured. Possible cause: You configured for more features than the storage can support. Alert Sent = Temporary.	No immediate action is required. To correct the condition, install enough storage to support LFS or reconfigure without LFS. See "Planning for Storage" in the *3174 Planning Guide*.
401	01HG		A command has been received that is valid for the 3174, but the command is invalid for the attached terminal to which it was sent, or an invalid select command chain sequence has been received. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer.
401	02HG	B1B2	For SNA controllers: An invalid command was received, or a Connect command has not been received. For non-SNA controllers: An invalid command was received. • SNA adapter sense = 8000 (I), or 8200 (NI). • Non-SNA adapter sense = 8000. B1B2 = Sense Data. To interpret the sense data, see the *3174 Functional Description*, GA23-0218. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If possible, find out if one or all programs are failing. 3. Report this information to your system programmer. *For the system programmer:* Run a host access method trace.

Status Code	QAHG	Extended Data	Description	Action

401	03HG	B1B2 B3B4 B5B6 B7B8	An invalid command in the data stream has been received.
			
			The first byte in the data stream is not a valid command for the particular host configuration, or the command in a 3270 DS structured field is invalid.
			
			For non-SNA, the "Read Modify All" command was received.
			
			B1B2 B3B4 = one of the following:
			
			• If the error is contained in a write structured field (WSF):
			  — B1B2 = the displacement in hex (zero origin) from the beginning of the WSF transmission to the structured field (SF) containing the error. (See Note 1.)
			  — B3B4 = the displacement in hex (1 origin) from the beginning of the SF in error to the byte in error. (See Note 2.)
			• If the error is contained in a data stream that begins with a command other than a WSF:
			  — B1B2 = 0000.
			  — B3B4 = The displacement in hex (zero origin) from the beginning of the transmission to the byte in error. (See Note 2.)
			
			B5B6 = The data in error.
			B7B8 = Type of structured field or 0000 if the transmission does not contain a WSF.
			
			Notes:
			
			1. If data chaining is in use, this value will be set to FFFF, indicating a displacement cannot be calculated.
			
			2. If the data stream ended without containing sufficient data to process an SBA, SFE, RA, EUA, MF, or SA order, then the value of B3B4 will be set to 0001.
			
			Alert Sent = Temporary.
				1. At the attached terminal, press RESET and retry the operation.
				2. If the failure continues, contact the system programmer and report the information in the extended data.

401	04HG	B1B2 B3B4 B5B6 B7B8	A device in the "data chain" state received one of the following invalid commands: • Write • Erase all unprotected • Read Buffer • Read Modified. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.
401	05HG	B1B2 B3B4 B5B6 B7B8	A device in the "data chain" state received an Erase Write or an Erase Write alternate command and the write control character (WCC) did not have the reset bit on. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.

Status Code	QAHG	Extended Data	Description	Action
401	06HG	B1B2 B3B4 B5B6 B7B8	An invalid command was received when an Ack reply was available to be sent inbound from the device. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.
402	01HG	B1B2 B3B4 B5B6 B7B8	Data stream error. A Modify Field Attribute order was sent when the current buffer address did not contain a field attribute. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.
402	02HG	B1B2 B3B4 B5B6 B7B8	The address following a Set Buffer Address (SBA) order, a Repeat to Address (RA) order, or an Erase Unprotected to Address (EUA) order is not valid for the receiving device buffer; or it is the wrong format. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.
402	03HG	B1B2 B3B4 B5B6 B7B8	The "type/pair" values following a Set Attribute (SA) order, a Start Field Extended (SFE) order, a Modify Field (MF) order, or a Graphic Escape (GE) order are invalid. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data. *For the system programmer:* See the *3174 Functional Description* for an explanation of the orders and the "type/pair" values.
402	04HG	B1B2 B3B4 B5B6 B7B8	During processing of a Load Programmed Symbols Set, which is a structured field, an invalid alias was detected in byte 4 of the structured field. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data. *For the system programmer:* See "Load Programmed Symbols" in the *3174 Functional Description*.
402	05HG	B1B2 B3B4 B5B6 B7B8	Data was received after a Read, a Read Modified, or an Erase All Unprotected command. Data should not be received after these commands. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.
402	06HG	B1B2 B3B4 B5B6 B7B8	The data stream ended before all the required data bytes were received on a Set Buffer Address (SBA), a Repeat to Address (RA), a Start Field (SF), a Start Field Extended (SFE), a Modified Field (MF), an Erase Unprotected to Address (EUA), or a Set Attribute (SA) order. See *3174 Functional Description* for an explanation of these orders. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.

Status Code	QAHG	Extended Data	Description	Action
402	07HG	B1B2 B3B4 B5B6 B7B8	An unsupported order or an invalid control code between hex 01 and 3F was received in the data stream. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.
403	02HG	B1B2 B3B4 B5B6 B7B8	During structured field processing, an invalid parameter was detected in the data stream. See *3174 Functional Description* for an explanation of structured field formats and parameter values. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.

403	03HG	B1B2 B3B4 B5B6 B7B8	Read partition state error.
			
			For SNA:
			
			    The current read state detected was "Retry Enter."
			
			For non-SNA:
			
			    One of the following states was detected while processing a "Read Partition Query":
			    • Date-pending read partition
			    • Data-pending stacked enter
			    • Retry read partition
			    • Retry stacked enter.
			
			See status code 401 03HG for the definitions of B1 through B8.
			
			Alert Sent = Temporary.
				1. At the attached terminal, press RESET and retry the operation.
				2. If the failure continues, contact the system programmer and report the information in the extended data.

403	05HG	B1B2 B3B4 B5B6 B7B8	An error was detected in the data stream where commands were being chained because a Write command or an Erase/Write command with the Start Print bit on in the Write Control Character (WCC) was not the last command in the chain. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.
404	01HG	B1B2 B3B4 B5B6 B7B8	An error occurred during processing of a structured field. The device that received the data stream does not have the hardware to support the structured field in the data stream; for instance, load program symbols may have been sent to a 3278 that does not have the ECSA feature. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.
404	02HG	B1B2 B3B4 B5B6 B7B8	Invalid "data chain" structured field sequence. For data chain information, see page 2-28. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.

Status Code	QAHG	Extended Data	Description	Action
404	03HG	B1B2 B3B4 B5B6 B7B8	In a logical transmission: • A data chain structured field must be the first in a logical transmission but it was in some other location. • A "Select IPDS Mode" structured field is not first in the logical transmission, and it does not follow a data chain structured field. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.
404	04HG	B1B2 B3B4 B5B6 B7B8	A read partition structured field appeared after a data chain (begin or continue). See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.

404	05HG	B1B2 B3B4 B5B6 B7B8	A structured field spanned transmissions.
			
			B1B2 = Displacement in hex (0 origin) from the beginning of the transmission to the byte in error.
			
			B3B4 = 0003 to indicate that the structured field type was in error.
			
			B5B6 = Data in error.
			
			B7B8 = Type of structured field that spanned transmissions. The following structured field types are currently not allowed to span transmissions:
			
			    Data chain
			    Select IPDS mode
			    Read partition.
			
			Alert Sent = Temporary.
				1. At the attached terminal, press RESET and retry the operation.
				2. If the failure continues, contact the system programmer and report the information in the extended data.

404	06HG	B1B2 B3B4 B5B6 B7B8	A Load Format Storage structured field must be loaded before a Present Format structured field can be received. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer.
404	07HG	B1B2 B3B4 B5B6 B7B8	The Format Name that was specified in the Present Format structured field was not previously loaded. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	No action is required.
404	08HG	B1B2 B3B4 B5B6 B7B8	A data stream error occurred when a locally stored format was sent to an attached terminal. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, Press RESET and retry the operation. 2. If the failure continues, contact the system programmer.

Status Code	QAHG	Extended Data	Description	Action
404	09HG	B1B2 B3B4 B5B6 B7B8	A Present Format Structured field cannot be completed. Possible cause: 1. No format group was selected. 2. The currently selected group name is invalid. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, Press RESET and retry the operation. 2. If the failure continues, contact the system programmer.
404	10HG		An error occurred during the format presentation of the Operator Selected Format process. Alert Sent = None.	No action is required.
405	01HG		Bisynchronous buffer overflow. Alert Sent = None.	No action is required. If the failure continues, contact the system programmer.
406	01HG		The bisynchronous transmission block is larger than 3500 bytes. This exceeds the buffer size of the receiving terminal. Alert Sent = None.	No action is required. If the failure continues, contact the system programmer.
406	02HG		The bisynchronous transmission block is larger than 3500 or 7000 bytes. This exceeds the buffer size of the receiving terminal. Alert Sent = None.	No action is required. If the failure continues, contact the system programmer.
406	03HG	B1B2 B3B4 B5B6 B7B8	A buffer overflow condition was detected. More than 3000 bytes of uncompressed Program Symbols data were received (BSC only). See status code 401 03HG for the definitions of B1 through B8. Alert Sent = None.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.
406	04HG	B1B2 B3B4 B5B6 B7B8	More data was sent in one transmission than would fit in the printer's intelligent printer data stream (IPDS) buffer. Note: The capacity of the IPDS buffer is a 2-byte field in the 3270 IPDS query reply. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.
407	01HG	B1B2 B3B4 B5B6 B7B8	Invalid structured field length for a copy command. Any field length other than 0 or 7 is invalid. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = None.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.
407	02HG	B1B2 B3B4 B5B6 B7B8	Additional data was received after the structured field containing the Copy command. The copy command must be the last structured field in a Write Structured Field (WSF). See status code 401 03HG for the definitions of B1 through B8. Alert Sent = None.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.

Status Code	QAHG	Extended Data	Description	Action
407	03HG	B1B2 B3B4 B5B6 B7B8	The address for the terminal to be copied *from* is not in the range of valid host addresses. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = None.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data. *For the system programmer:* See the *3174 Functional Description* for a description of the BSC copy command.
407	04HG	B1B2 B3B4 B5B6 B7B8	The terminal that data is to be copied from is a distributed function terminal. BSC copies are not allowed *to* or *from* distributed function terminals. See the *3174 Functional Description* for a description of the BSC copy commands. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = None.	1. At the attached terminal, press RESET. 2. Contact the system programmer and report the information in the extended data.
407	05HG	B1B2 B3B4 B5B6 B7B8	During a BSC copy operation, one or both of the terminals were in explicit partition state. For a BSC copy to be performed, neither of the terminals can be in explicit partition state. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = None.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.
407	06HG	B1B2 B3B4 B5B6 B7B8	The *from* terminal was busy during a copy operation. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = None.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.
407	07HG	B1B2 B3B4 B5B6 B7B8	The *from* terminal is allocated for local copy only. BSC copy is not allowed. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = None.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.
407	08HG	B1B2 B3B4 B5B6 B7B8	The *from* terminal had a recoverable parity error during a BSC copy operation. The data that was to be copied may no longer be intact. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = None.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.
407	09HG	B1B2 B3B4 B5B6 B7B8	The *from* terminal buffer contents are protected and cannot be copied. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = None.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.
407	10HG	B1B2 B3B4 B5B6 B7B8	Copy terminal buffer sizes are incompatible. The screen buffer of the device to be copied *to* is smaller than the screen buffer of the device to be copied *from*. Copy is not allowed. See the *3174 Functional Description* for a description of BSC copy command. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = None.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.

Status Code	QAHG	Extended Data	Description	Action
407	11HG	B1B2 B3B4 B5B6 B7B8	Extended function copy is not allowed. Either the terminal to be copied *from* is a printer or the terminal to be copied *to* is a display. Extended function copy is allowed only from a display to a printer. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = None.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.
407	12HG	B1B2 B3B4 B5B6 B7B8	A BSC copy command was received from the host specifying a *from* device that belongs to a different host. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = None.	1. At the attached terminal press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data fields.
408	01HG	B1B2 B3B4	A data stream error has been detected (BSC). Possible cause: 1. The Escape (ESC) character is missing from the start of the Command sequence. 2. There is no data. 3. A Read Modified All command has been received. 4. A Write Structured Field command was received followed by a chained command (chained to the WSF). B1B2 = First 2 bytes of the transmission (after STX). Normally, if no error had occurred, these 2 bytes would be the escape character and command. B3B4 = Number of bytes in the line buffer. Alert Sent = None.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data. *For the system programmer:* Run a host access method trace.
409	01HG		An invalid character generator code point (hex 04, 06 or 07) was found in the data from an attached device to be sent inbound to the host. The character will be changed to a hex 00 and sent up to the host. Alert Sent = None.	At the attached terminal press RESET.
410	01HG		RU length error. More than 4096 bytes of data were received. This is an application program error. SNA sense code = 1002. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer. *For the system programmer:* Run a host access method trace.
410	02HG		The RU currently being loaded in the attached printer's buffer is larger than the maximum specified in the bind command (LU type 1). SNA sense code = 1002. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer. *For the system programmer:* 1. See the RU length description for Type 1 SLUs in the *3174 Functional Description*. 2. Run a host access method trace.

Status Code	QAHG	Extended Data	Description	Action
410	04HG		CRV received, but either the controller does not support Encrypt/Decrypt, or an Encrypt/Decrypt session was not specified in the bind command. Encrypt/Decrypt is specified in byte 26 of the Bind Command. See the *3174 Functional Description* for a description of the bind Command. SNA sense code = 1003. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer.
410	05HG		The encrypted RU did not contain an integral multiple of 8 bytes, or the padding count was not within the correct range. SNA sense code = 1001. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer.
410	06HG		Host function is not supported. Possible cause: 1. Function specified by a formatted request code. 2. Specified by a field in the RU. 3. Specified by a control character. 4. Encrypt/Decrypt session not established. SNA sense code = 1003. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer. *For the system programmer:* Run a host access method trace.
410	07HG		A data flow control, session control, network control, or FM data request was received by a terminal, which does not support any requests in that category. SNA sense code = 1007. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer. *For the system programmer:* Run a host access method trace.
410	08HG		Host function not supported. The unsupported request was sent to the physical unit (PU), or an invalid logical unit (LU). Possible cause: 1. Function specified by a formatted request code. 2. Specified by a field in the RU. 3. Specified by a control character. 4. Encrypt/Decrypt session not established. SNA sense code = 1003. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	If the failure continues, contact the system programmer. *For the system programmer:* Run a host access method trace.

Status Code	QAHG	Extended Data	Description	Action
410	09HG	B1B2	Request/Response unit (RU) data error, (LU 6.2). Possible cause: 1. A logical record has been truncated by an End Chain indicator. 2. A FM data or LUSTAT request that requested a definite response was received. 3. The data at the beginning of the Transaction Program's receive buffer starts on a logical boundary and contains a PS header or a logical record with an invalid length field. B1B2 = Extended sense data. SNA sense code = 1001. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.
410	10HG		Channel adapter request/response unit (RU) length overrun (LU 6.2). The RU or request/response unit received exceeded 4096 bytes. SNA sense code = 1002. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.
410	11HG		Request/Response unit (RU) length overrun, (LU 6.2). The RU or request/response unit received exceeded the maximum length specified in the bind. SNA sense code = 1002. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated. *For the system programmer:* See the RU length descriptions for Type 6.2 SLUs in the *3174 Functional Description*.
410	12HG	B1	Request/Response unit (RU) length underrun, (LU 6.2). The RU or request/response unit received was too short. B1 = Byte 0 of the request/response header. SNA sense code = 1002. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session may have to be re-initiated.
411	01HG	B1B2 B3B4 B5B6 B7B8	The destination ID specified in the destination/origin structured field is invalid. Possible cause: Invalid destination specified or the device does not exist. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.

Status Code	QAHG	Extended Data	Description	Action
411	02HG	B1B2 B3B4 B5B6 B7B8	An OEM data structured field spanning error occurred. Possible cause: An invalid span value was specified. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.
411	03HG	B1B2 B3B4 B5B6 B7B8	The outbound OEM data structured field maximum limit was exceeded. Possible cause: An error was detected in the data stream received from the host. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.
411	04HG		An OEM data structured field or a destination/origin structured field was received for a background session. Possible cause: An error was detected in the data stream received from the host. Alert Sent = Temporary.	1. At the attached terminal, press RESET. Do not initiate any transaction that requires OEM data. 2. If the failure continues, contact the system programmer.
411	05HG	B1B2 B3B4 B5B6 B7B8	An invalid command was received during OEM spanning. Possible cause: An error was detected in the data stream received from the host. See status code 401 03HG for the definitions of B1 through B8. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.
411	06HG		OEM data was not sent as definite response. Possible cause: An error was detected in the data stream received from the host. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.
411	07HG		An OEM data structured field was sent in the same transmission as a write control character with the start print bit set. Possible cause: An error was detected in the data stream received from the host. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer and report the information in the extended data.
412	01HG		Invalid OAF - DAF combination. A request was addressed to a physical unit, but the OAF was not the SSCP. SNA sense code = 800F. See "SNA Sense Codes" on page 2-36. Alert Sent = None.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer. *For the system programmer:* Run a host access method trace.

Status Code	QAHG	Extended Data	Description	Action
412	02HG		The controller received a message from the host for an unbound logical unit. SNA sense code = 8005. See "SNA Sense Codes" on page 2-36. Alert Sent = None.	No action is required. If the failure continues, contact the system programmer. *For the system programmer:* Run a host access method trace.
412	03HG		Bad DAF. The controller received a message from the host for a terminal address that is not configured. SNA sense code = 8004. See "SNA Sense Codes" on page 2-36. Alert Sent = None.	Determine what addresses are valid for the 3174. See questions 104 and 116 in the *3174 Planning Guide*. This should be verified with the addresses being sent by the host. Contact your system programmer.
412	04HG		The controller received a message from the host before receiving an Activate Physical Unit (ACTPU). SNA sense code = 8008. See "SNA Sense Codes" on page 2-36. Alert Sent = None.	No action is required. If the failure continues, contact the system programmer.
412	05HG		The controller received a message from the host for a terminal that is not active. An Activate Logical Unit (ACTLU) is required. SNA sense code = 8009. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	No action is required. If the failure continues, contact the system programmer. *For the system programmer:* Run a host access method trace.
412	06HG		The FID value in the transmission header (TH) was invalid for this node. Alert Sent = Temporary.	If the failure continues, contact the system programmer.
412	07HG		The controller received an incomplete transmission header (TH). Alert Sent = Temporary.	If the failure continues, contact the system programmer.
412	08HG	B1B2	A request or response unit was received with an incorrect origin address field (OAF). B1 = Byte 3 of the transmission header (origin address field). B2 = Byte 0 of the request/response header. SNA sense code = 8005. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	If the failure continues, contact the system programmer.
415	01HG		A request was received with an exception response, but the bind command did not specify exception response requests. SNA sense code = 4006. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer. *For the system programmer:* 1. See "Bind Command" in the *3174 Functional Description*. 2. Run a host access method trace.

Status Code	QAHG	Extended Data	Description	Action
415	02HG		A request was received with definite response, but the bind command did not specify definite response requests. SNA sense code = 4007. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer. *For the system programmer:* 1. See "Bind Command" in the *3174 Functional Description.* 2. Run a host access method trace.
415	03HG		A request with the format indicator (FI) bit set in the Request Header was received; however, the session was not bound with FM header support. SNA sense code = 400F. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer. *For the system programmer:* 1. See the "Bind Command" in the *3174 Functional Description.* 2. Run a host access method trace.
415	04HG		An incomplete Request Header (RH) was received. The session has been terminated by the controller. Possible cause: 1. Communication line error 2. Application program error. SNA sense code = 4005. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	1. Re-establish the session. 2. If the failure continues, contact the system programmer. *For the system programmer:* Run a host access method trace.
415	05HG		The RU category is specified incorrectly. Possible cause: Application program. SNA sense code = 4011. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	If the failure continues, contact the system programmer. *For the system programmer:* Run a host access method trace.
415	06HG	B1B2 B3B4	The change direction (CD) indicator bit was set in a session control request, and it is not supported. B1 – B3 = Bytes 0 through 2 of the request header. B4 = Byte 0 of the request unit. SNA sense code = 400D. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	If the failure continues, contact the system programmer.
415	07HG		The request/response unit (RU) contains an incomplete request/response header (RH). SNA sense code = 4005. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.

Status Code	QAHG	Extended Data	Description	Action
415	08HG	B1 to B9	An FM data request was received with the begin bracket (BB) bit set, but the request did not specify begin chain, or the request did not contain an attach header. B1 − B3 = Bytes 0 through 2 of the request header. B4 − B8 = Bytes 0 through 4 of the request unit (RU). B9 = Number of RU bytes logged that are valid. SNA sense code = 4003. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.
415	09HG	B1B2 B3	Conditional end bracket or end bracket not allowed. Possible cause: 1. An FM data or LUSTAT request was received with the End Bracket (EB) bit set. The EB bit is not supported for FM profile 19. 2. An FM data request was received with the Conditional End Bracket (CEB) bit set, but the request did not specify End Chain. 3. An FM data or LUSTAT request was received with the CEB bit set, but the request specified a response category of RQE2 or RQE3. 4. An FM data or LUSTAT request was received with the Begin Bracket (BB) and CEB bits set, and the response category set to exception response. The bidder LU cannot send a request with the BB bit set, the CEB bit set, and specify a response category of any type of exception response. 5. A first in chain FM data request was received with the BB bit set, and the last in chain FM data request was received with the CEB bit set and the response category set to exception response. B1 − B3 = Bytes 0 through 2 of the request header. SNA sense code = 4004. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.
415	10HG	B1B2 B3	An FM data request was received that specified a definite response but did not specify end chain. B1 − B3 = Bytes 0 through 2 of the request header. SNA sense code = 4007. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.

Status Code	QAHG	Extended Data	Description	Action
415	11HG	B1 to B9	Change direction is not allowed. 1. A BIS, RTR, or SIGNAL request was received with the Change Direction (CD) bit set. 2. An FM data or LUSTAT request was received with the CD bit set, but the request specified a Response Category of RQD1. 3. An FM data request was received with the CD bit set, but the request did not specify End Chain. 4. An FM data or LUSTAT request was received with the CD bit set and the Conditional End Bracket (CEB) bit set. CD, CEB cannot be generated by transaction program verbs. B1−B3 = Bytes 0 through 2 of the request header. B4−B8 = Bytes 0 through 4 of the request unit (RU). B9 = Number of RU bytes logged that are valid. SNA sense code = 4009. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.
415	12HG	B1 to B10	Incorrect specification of a request code. Possible cause: 1. An expedited Data Flow Control (DFC) response was received, but it was not a SIGNAL response. The only expedited DFC response supported by LU 6.2 is a SIGNAL response. 2. A normal flow DFC response was received and it had a request code which was different from the request code of the last DFC request sent. B1 = Byte 0 of the transmission header. B2−B4 = Bytes 0 through 2 of the response header. B5−B9 = Bytes 0 through 4 of the response unit (RU). B10 = Number of RU bytes logged that are valid. SNA sense code = 4012. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.

Status Code	QAHG	Extended Data	Description	Action
415	13HG	B1B2 B3	Incorrect setting of QRI with bidder's begin bracket. Possible cause: 1. An FM data or LUSTAT request was received with the begin bracket (BB) bit set, but the queued response indicator (QRI) bit was not set. A request from the bidder that carries begin bracket must also carry QRI. Also, a begin bracket chain from the bidder is the only chain that can be received with the QRI bit set. 2. An FM data or LUSTAT request which specified begin chain was received with the QRI bit set, but the BB bit was not set. B1 – B3 = Bytes 0 through 2 of the request header. SNA sense code = 4018. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.
415	14HG	B1B2 B3	Incorrect indicators on last in chain (LIC) request. Possible cause: 1. An FM data or LUSTAT request which specified End Chain and a Response Category of Exception Response was received, but neither the change direction bit nor the conditional end bracket (CEB) bit were set. 2. An FM data request that specified End Chain and a Response Category of RQD1 was received, but the CEB bit was not set. B1 – B3 = Bytes 0 through 2 of the request header. SNA sense code = 4019. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.
415	15HG	B1 to B9	The pacing indicator was set on in a session control request or response. Pacing is not supported. B1 – B3 = Bytes 0 through 2 of the request/response header. B4 – B8 = Bytes 0 through 4 of the request/response unit (RU). B9 = Number of RU bytes logged that are valid. SNA sense code = 4008. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	If the failure continues, contact the system programmer.

Status Code	QAHG	Extended Data	Description	Action
415	16HG	B1 to B9	The chaining indicators for a request or a response were specified incorrectly. DFC and SC requests and all responses must flow "Only in Chain." B1–B3 = Bytes 0 through 2 of the request/response header. B4–B8 = Bytes 0 through 4 of the request/response unit (RU). B9 = Number of RU bytes logged that are valid. SNA sense code = 400B. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session may have to be re-initiated.
415	17HG	B1 to B9	DR1I, DR2I, or ERI bits in the request/response header were specified incorrectly on a request or a response. B1–B3 = Bytes 0 through 2 of the request/response header. B4–B8 = Bytes 0 through 4 of the request/response unit (RU). B9 = Number of RU bytes logged that are valid. SNA sense code = 4014. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session may have to be re-initiated.
415	18HG	B1B2 B3B4 B5	A request was received with the format indicator specified incorrectly in the request header. B1 = Byte 3 of transmission header (Origin Address Field). B2–B4 = Bytes 0 through 2 of the request header. B5 = Byte 0 of the request unit. SNA sense code = 400F. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session may have to be re-initiated.
415	19HG	B1B2 B3B4	A request was received with the code selection indicator set. Alternate code is not supported. B1–B3 = Bytes 0 through 2 of the request header. B4 = Byte 0 of the request unit. SNA sense code = 4010. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session may have to be re-initiated.

Status Code	QAHG	Extended Data	Description	Action
415	20HG	B1 to B10	The RU category was specified incorrectly in a request or a response. B1 = Byte 0 of the transmission header. B2 – B4 = Bytes 0 through 2 of the request/response header. B5 – B9 = Bytes 0 through 4 of the request/response unit (RU). B10 = Number of RU bytes logged that are valid. SNA sense code = 4011. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session may have to be re-initiated.
415	21HG	B1 to B9	The sense data indicator (SDI) and the response type indicator (RTI) were specified incorrectly on a response. B1 – B3 = Bytes 0 through 2 of the response header. B4 – B8 = Bytes 0 through 4 of the response unit (RU). B9 = Number of RU bytes logged that are valid. SNA sense code = 4013. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session may have to be re-initiated.
415	22HG	B1B2 B3B4	The bracket indicators (BBI, CEBI, and EBI) in the request header were specified incorrectly in a request. B1 – B3 = Bytes 0 through 2 of the request header. B4 = Byte 0 of the request unit. SNA sense code = 400C. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.
415	23HG	B1B2 B3B4	The queued response indicator (QRI) bit was specified incorrectly in a request. B1 – B3 = Bytes 0 through 2 of the request header. B4 = Byte 0 of the request unit. SNA sense code = 4015. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session may have to be re-initiated.
415	24HG	B1B2 B3B4	The enciphered data indicator (EDI) was specified incorrectly in a request. B1 – B3 = Bytes 0 through 2 of the request header. B4 = Byte 0 of the request unit. SNA sense code = 4016. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session may have to be re-initiated.

Status Code	QAHG	Extended Data	Description	Action
415	25HG	B1B2 B3B4	The padded data indicator (PDI) was specified incorrectly in a request. B1−B3 = Bytes 0 through 2 of the request header. B4 = Byte 0 of the request unit. SNA sense code = 4017. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session may have to be re-initiated.
416	01HG		A request was received with an invalid sequence number. This is an application program error. SNA sense code = 2001. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer. *For the system programmer:* Run a host access method trace.
416	02HG		Chaining error. This is an application program error. SNA sense code = 2002. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer. *For the system programmer:* Run a host access method trace.
416	03HG		Bracket error. This is an application program error. SNA sense code = 2003. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer. *For the system programmer:* Run a host access method trace.
416	04HG		A request was received that can be processed only if Data Traffic is active. Data Traffic is in a reset state. This is an application program error. SNA sense code = 2005. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer. *For the system programmer:* Run a host access method trace.
416	05HG		Half-duplex error. The logical unit (LU) was not in the correct Send/Receive state to process the request. SNA sense code = 2004. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer. *For the system programmer:* Run a host access method trace.
416	06HG		Encrypt/Decrypt protocol error. Possible cause: 1. A request unit (RU) carrying change direction (CD) was received, and it is not a mandatory Encrypt/Decrypt session and not an encrypted data session. Additionally, the logical unit is in a Crypto verification (CRV) pending state. 2. It is a mandatory Encrypt/Decrypt session, and the logical unit is in a CRV pending state. SNA sense code = 2009. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer. *For the system programmer:* Run a host access method trace.

Status Code	QAHG	Extended Data	Description	Action
416	07HG	B1 to B9	A negative FM data or data flow control response with an invalid sense code was received. A list of FM data and supported DFC requests and the valid sense codes that can be received in a negative response are: • BIS and SIGNAL requests - Negative responses are not allowed • RTR requests - X'08190000' • LUSTAT and FMD requests which carry Begin Bracket - X'08460000', X'088B0000' • LUSTAT and FMD requests which do not carry Begin Bracket - X'08460000'. B1−B3 = Bytes 0 through 2 of the response header. B4−B8 = Bytes 0 through 4 of the response unit (RU). B9 = The number of RU bytes logged that are valid. SNA sense code = 2012. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.
416	09HG	B1B2 B3B4 B5B6	A normal flow DFC or FM data request was received with a sequence number that was different from what was expected. B1B2 = Bytes 4 and 5 of the transmission header. B3−B5 = Bytes 0 through 2 of the request header. B6 = Byte 0 of the request unit. SNA sense code = 2001. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.
416	10HG	B1 to B9	A chaining error was detected. B1−B3 = Bytes 0 through 2 of the request header. B4−B8 = Bytes 0 through 4 of the request unit (RU). B9 = The number of RU bytes logged that are valid. SNA sense code = 2002. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.
416	11HG	B1 to B9	A request was received and the 3174 was not in the receive state. B1−B3 = Bytes 0 through 2 of the request header. B4−B8 = Bytes 0 through 4 of the request unit (RU). B9 = The number of RU bytes logged that are valid. SNA sense code = 2004. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.

Status Code	QAHG	Extended Data	Description	Action
416	12HG		A request with the begin bracket (BB) bit set on was received after a bracket initiation stopped (BIS) request was received. SNA sense code = 2008. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.
416	13HG		A normal flow request was received before the response was sent to a chain that requested definite response. SNA sense code = 200A. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.
416	14HG	B1B2 B3	An FM data request was received with the queued response indicator (QRI) bit set differently from the way it was set for the other requests received in the same chain. B1 – B3 = Bytes 0 through 2 of the request header. SNA sense code = 200B. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.
416	15HG	B1 to B9	Response protocol error. B1 – B3 = Bytes 0 through 2 of the response header. B4 – B8 = Bytes 0 through 4 of the response unit (RU). B9 = The number of RU bytes logged that are valid. SNA sense code = 200F. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.
416	16HG		A second BIS request was received on the same session, or a BIS reply was received. SNA sense code = 2010. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.
416	17HG		An outbound pacing overrun error has occurred. SNA sense code = 2011. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.
416	18HG		Begin bracket not accepted because a Bracket Initiation Stopped (BIS) request is outstanding and the host is expecting a BIS reply. Alert Sent = Temporary.	Contact the system programmer to correct the error. *For the system programmer:* The session limit has to be increased by the host application. Then the session must be re-initiated by the host application program.

Status Code	QAHG	Extended Data	Description	Action
416	19HG	B1 to B9	Bracket error. B1 – B3 = Bytes 0 through 2 of the request/response header. B4 – B8 = Bytes 0 through 4 of the request/response unit (RU). B9 = The number of RU bytes logged that are valid. SNA sense code = 2003. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.
417	01HG		Session limit exceeded. A bind command was received with an OAF that is different from the primary logical unit (PLU) to which the session is already bound. SNA sense code = 0805. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	If the failure continues, contact the system programmer. *For the system programmer:* Run a host access method trace.
417	02HG		Session limit exceeded. A bind request was received for an LU 6.2 session that was already bound. SNA sense code = 0805. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	If the failure continues, contact the system programmer to correct the error in the host application program. The session must be re-initiated by the host application program.
418	01HG		Printer not available. A request was received for an unconfigured printer or one that is busy with a local copy function, or FM data was received that exceeded the pacing counts established by the bind. SNA sense code = 0801. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	1. Check the configuration of the controller. See questions 116 and "Planning for PAM" or "Planning for Device Definition" in the *3174 Planning Guide.* 2. Contact the system programmer. *For the system programmer:* Run a host access method trace.
418	02HG		Bracket bid reject (No RTR). A BID has been received, but the operator has already initiated a bracket, or the operator has ownership of the keyboard. SNA sense code = 0813. See "SNA Sense Codes" on page 2-36. Alert Sent = None.	No action is required. Host recovery. If the failure continues, contact the system programmer.
418	03HG		Bracket Bid reject. A begin bracket or BID has been received for a printer that is busy with a local copy function. A ready to receive (RTR) will be sent when the printer becomes available. SNA sense code = 0814. See "SNA Sense Codes" on page 2-36. Alert Sent = None.	No action is required. Host recovery. If the failure continues, contact the system programmer.
418	04HG		Receiver in transmit mode. SNA sense code = 081B. See "SNA Sense Codes" on page 2-36. Alert Sent = None.	No action is required. Host recovery. If the failure continues, contact the system programmer. *For the system programmer:* Run a host access method trace.

Status Code	QAHG	Extended Data	Description	Action
418	05HG		Function not executable. SNA sense code = 081C. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	1. At the attached terminal, press RESET. 2. If the failure continues, try another terminal or see the terminal documentation. 3. If the failure continues, contact the system programmer.
418	06HG		Change direction required. A Read type command was received without change direction or with an end bracket. SNA sense code = 0829. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, try another terminal or see the terminal documentation. 3. If the failure continues, contact the system programmer.
418	07HG		An LU2 or LU3 terminal received a WCC with the start print bit on, but it was not sent in definite response mode, or exception response mode and change direction. SNA sense code = 0843. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	No action is required. If the failure continues, contact the system programmer.
418	08HG		The terminal is owned by an alternate session. SNA sense code = 082D. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	No action is required. If the failure continues, contact the system programmer.
418	09HG		A bind request was received when the 3174 was waiting to receive an unbind response, (LU 6.2). SNA sense code = 0815. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Session activation must be retried by the host application program once the existing session has been terminated.
418	10HG		A bracket bid was rejected because the session is already in use. A ready to receive (RTR) request will be sent to the host when the session becomes available. SNA sense code = 0814. See "SNA Sense Codes" on page 2-36. Alert Sent = None.	If the failure continues, contact the system programmer.

420	01HG to 08HG	B1B2	Bind Reject error.
			
			QA = 01 = Profile error.
			     02 = Primary protocol error.
			     03 = Secondary protocol error.
			     04 = Common protocol error.
			     05 = Invalid screen size.
			     06 = Logical Unit (LU) profile error.
			     07 = Logical Unit 1 (LU1) error.
			     08 = Encrypt/Decrypt error.
			
			B1B2 = Location of the failing byte in the bind command.
			
			SNA sense code = 0835 with displacement (2 bytes = Displacement from the beginning of the transmission to the bytes in error).
			
			See "SNA Sense Codes" on page 2-36.
			
			Alert Sent = Temporary.
				1. At the attached terminal, press RESET and retry the operation.
				2. If the failure continues, contact the system programmer and report the information in the extended data.
				
				For the system programmer:
				
				Check the bind command data. The location of the bytes in the bind command that should be checked are indicated by extended data bytes B1 and B2.
				
				See "Bind Command" in the *3174 Functional Description*.

Status Code	QAHG	Extended Data	Description	Action
420	09HG		Encrypt/Decrypt master key value mismatch between the host and the controller. SNA sense code = 0821. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. The Encrypt/Decrypt master key value may have to be reentered. See the *3174 Utilities Guide*. 3. If the failure continues, contact the system programmer.
420	10HG		Invalid Crypto verification (CRV) or Crypto session type. SNA sense code = 0821. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	1. At the attached terminal, press RESET and retry the operation. 2. If the failure continues, contact the system programmer.
420	11HG	B1B2 B3	A bind command was received that had an error in the bytes specifying the pacing window size, or the maximum RU size. B1B2 = Location of the failing byte in the bind command. B3 = Contents of the failing byte. SNA sense code = 0835. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. *For the system programmer:* Check the bind command data. The location of the bytes in the bind command that should be checked are indicated by extended data bytes B1 and B2. See the *3174 Functional Description* for a description of the bind command. Fix the host access method log mode table entry and retry. See the *ACF/VTAM Customization* manual, SC23-0112.
420	12HG	B1B2	A bind command was received that had an error in the bytes specifying the user data fields. B1B2 = Location of the failing byte in the bind command. SNA sense code = 0835. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error in the host application program. The session must be re-initiated by the host application program. *For the system programmer:* Check the bind command data. The location of the bytes in the bind command that should be checked is indicated by extended data bytes B1 and B2. See the *3174 Functional Description* for a description of the bind command.
420	13HG	B1B2	A bind command was received that had an error in the bytes specifying the length of the LU names or the URC field length. B1B2 = Location of the failing byte in the bind request. SNA sense code = 0835. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error in the host application program. The session must be re-initiated by the host application program. *For the system programmer:* Check the bind command data. The location of the bytes in the bind command that should be checked is indicated by extended data bytes B1 and B2. See the *3174 Functional Description* for a description of the bind command.

Status Code	QAHG	Extended Data	Description	Action
420	14HG	B1B2	A bind command was received that had an error in the byte specifying the synchronization level. A level other than CONFIRM or ALL was specified. B1B2 = Location of the failing byte in the bind request. SNA sense code = 0835. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	If the failure continues, contact the system programmer to correct the error in the host application program. The session must be re-initiated by the host application program. *For the system programmer*: Check the bind command data. The location of the bytes in the bind command that should be checked is indicated by extended data bytes B1 and B2. See "Bind Command" in the *3174 Functional Description*.
421	01HG		Host session not active, due to an Encrypt/Decrypt adapter failure. SNA sense code = 0848. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	1. Press RESET at the affected terminal and use your local logon/logoff procedures to reestablish a noncryptographic session. 2. Request service. *For service personnel only*: Perform an Alt 2 IML; see page 2-3.
422	01HG		A Network Services request was received that is not supported. SNA sense code = 1003. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	If the failure continues, contact the system programmer.
422	02HG		An invalid or unsupported Network Services (NS) header was received. SNA sense code = 1007. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	If the failure continues, contact the system programmer.
422	03HG		The maximum number of REQMS/RTM requests have been queued in the controller. SNA sense code = 0815. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	At the attached terminal, press RESET and retry the operation.
422	04HG		Invalid REQMS type received. This is an application program error. SNA sense code = 080C. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	No action is required. If the failure continues, contact the system programmer.
422	05HG	B1B2 B3B4	An NMVT (RTM) or CSCF request was received with invalid parameters. B1B2 = SNA sense code. B3B4 = Extended sense code. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	No action is required. If the failure continues, contact the system programmer.

Status Code	QAHG	Extended Data	Description	Action
422	06HG	B1B2 B3B4 B5B6 B7B8	A signal request was received with an incorrect extension value, or a LUSTAT request was received with an incorrect status value. B1−B3 = Bytes 0 through 2 of the request header. B4−B8 = Bytes 0 through 4 of the request unit. SNA sense code = 1005. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.
422	07HG	B1B2	Category not supported. B1 = Byte 3 of the transmission header (origin address field). B2 = Byte 0 of the request/response header. SNA sense code = 1007. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session may have to be re-initiated.
422	08HG	B1 to B10	The requested function is not supported. B1 = Byte 0 of the transmission header. B2−B4 = Bytes 0 through 2 of the request header. B5−B9 = Bytes 0 through 4 of the request unit (RU). B10 = The number of RU bytes logged that are valid. SNA sense code = 1003. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session may have to be re-initiated.
422	09HG	B1 to B10	An invalid FM header was received. B1−B7 = Bytes 0 through 6 of the request unit (RU). B8 = The number of RU bytes logged that are valid. B9B10 = Extended sense data. SNA sense code = 1008. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session may have to be re-initiated.
422	10HG	B1B2 B3B4	An invalid NMVT request was received. B1B2 = SNA sense code. B3B4 = Extended sense code. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	1. Retry the operation. 2. If the failure continues, contact the system programmer. 3. Request service. *For service personnel only:* Use your support structure for aid.
423	51HG		Response Time Monitor (RTM) counter overflow. Alert Sent = Temporary.	No action is required. The host system should send the RTM request to reset the counter.

Status Code	QAHG	Extended Data	Description	Action
430	01HG		The local logical unit (LU) could not start the local transaction program because it is permanently disabled. There is a 3174 hardware or microcode error. SNA sense code = 084C 0000. See "SNA Sense Codes" on page 2-36. Alert Sent = None.	Request service. *For service personnel only*: Use your support structure for aid.
430	03HG	B1B2 B3B4 B5B6 B7B8	Local transaction program parameter error. There is a 3174 hardware or microcode error. B1 – B8 = Transaction Program Name. Alert Sent = Temporary.	Request service. *For service personnel only*: Use your support structure for aid.
430	04HG	B1 to B16	The SNA distribution services transaction program detected an error while sending data (DS.SEND) to NetView DM. Possible cause: 1. 3174 Hardware failure 2. 3174 Microcode error 3. Host programming error. B1 – B4 = SNA/DS Message Unit ID B5 – B8 = SNA/DS SNA Registered Sense Code B9B10 = SNA/DS Message Unit Type B11B12 = LU6.2 Return Code B13B14 = DS.SEND detailed Error code B15B16 = Reserved. For a description of the SNA Registered Sense Codes, see the *3174 Central Site Customizing User's Guide*. Alert Sent = None.	1. Retry the operation on another 3174. 2. If the failure continues, contact the system programmer. 3. Request service. *For service personnel only*: Use your support structure for aid.
430	05HG	B1 to B16	The SNA distribution services transaction program detected an error while receiving data (DS.RECEIVE) from NetView DM. Possible cause: 1. 3174 Hardware failure 2. 3174 Microcode error 3. Host programming error B1 – B4 = SNA/DS Message Unit ID B5 – B8 = SNA/DS SNA Registered Sense Code B9B10 = SNA/DS Message Unit Type B11B12 = LU6.2 Return Code B13B14 = DS.RECEIVE detailed Error code B15B16 = Reserved. For a description of the SNA Registered Sense Codes, see the *3174 Central Site Customizing User's Guide*. Alert Sent = None.	1. Retry the operation on another 3174. 2. If the failure continues, contact the system programmer. 3. Request service. *For service personnel only*: Use your support structure for aid.
430	14HG or 24HG		Additional Product Engineering data for status code 430-04. Alert Sent = None.	See status code 430 04HG.
430	15HG or 25HG		Additional Product Engineering data for status code 430-05. Alert Sent = None.	See status code 430 05HG.

Status Code	QAHG	Extended Data	Description	Action
430	51HG	B1B2	The local logical unit (LU) could not start the local transaction program because it is temporarily disabled. B1B2 = Extended sense data. SNA sense code = 084B 6031. See "SNA Sense Codes" on page 2-36. Alert Sent = None.	Retry the operation. If the failure continues, contact the system programmer.
431	01HG	B1B2 B3B4	Unrecognized sense code. B1 – B4 = Unrecognized sense code. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.
433	01HG		A bracket initiation stopped (BIS) request was received after the local logical unit had processed its waiting requests due to the receipt of a previous BIS request. Alert Sent = None.	If the failure continues, contact the system programmer to correct the error in the host application program. The session must be re-initiated by the host application program.
433	02HG	B1 to B15	Inbound request processing error. Possible cause: 3174 Microcode error. B1 – B6 = Bytes 0 through 5 of the transmission header. B7 – B9 = Bytes 0 through 2 of the request header. B10 – B14 = Bytes 0 through 4 of the request unit (RU). B15 = The number of RU bytes logged that are valid. Alert Sent = None.	Request service. *For service personnel only:* Use your support structure for aid.
433	03HG	B1 to B15	Inbound response processing error. Possible cause: 3174 Microcode error. B1 – B6 = Bytes 0 through 5 of the transmission header. B7 – B9 = Bytes 0 through 2 of the response header. B10 – B14 = Bytes 0 through 4 of the response unit (RU). B15 = The number of RU bytes logged that are valid. Alert Sent = None.	Request service. *For service personnel only:* Use your support structure for aid.
433	04HG	B1 to B15	Outbound request processing error. Possible cause: 3174 Microcode error. B1 – B6 = Bytes 0 through 5 of the transmission header. B7 – B9 = Bytes 0 through 2 of the request header. B10 – B14 = Bytes 0 through 4 of the request unit (RU). B15 = The number of RU bytes logged that are valid. Alert Sent = None.	Request service. *For service personnel only:* Use your support structure for aid.

Status Code	QAHG	Extended Data	Description	Action
433	05HG	B1 to B15	Outbound response processing error. Possible cause: 3174 Microcode error. B1−B6 = Bytes 0 through 5 of the transmission header. B7−B9 = Bytes 0 through 2 of the response header. B10−B14 = Bytes 0 through 4 of the response unit (RU). B15 = The number of RU bytes logged that are valid. Alert Sent = None.	Request service. *For service personnel only*: Use your support structure for aid.
434	01HG	B1B2 B3B4 B5	End user not authorized. B1−B3 = Bytes 0 through 2 of the request/response header. B4B5 = Extended sense data. SNA sense code = 080F. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session may have to be re-initiated.
435	02HG		An unexpected pacing request was received. Alert Sent = None.	No action is required.
435	03HG	B1	An unexpected pacing response was received. B1 = Secondary send window size. Alert Sent = None.	No action is required.
436	01HG	B1 to B10	A stray response was received. (A response that has a sequence number different from the current bracket sequence number.) B1B2 = Bytes 4 and 5 of the transmission header. B3B4 = Bytes 0 and 1 of the response header. B5−B9 = Bytes 0 through 4 of the response unit (RU). B10 = The number of RU bytes logged that are valid. Alert Sent = None.	No action is required.
436	02HG		A late signal request was received. Alert Sent = None.	No action is required.
437	01HG	B1 to B10	A response was received that cannot be correlated to a previously sent request. B1B2 = Bytes 4 and 5 of the transmission header. B3B4 = Bytes 0 and 1 of the response header. B5−B9 = Bytes 0 through 4 of the response unit (RU). B10 = The number of RU bytes logged that are valid. SNA sense code = 200E. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session may have to be re-initiated.

Status Code	QAHG	Extended Data	Description	Action
440	01HG	B1B2 B3B4	A NetView DM function was rejected by the 3174 because of an exception condition. B1 – B4 = SNA registered sense code. Alert Sent = None.	*For the NetView DM operator:* See "SNA Registered Sense Codes" in the *3174 Central Site Customizing User's Guide* for the recovery action.
441	01HG	B1B2 B3B4 B5B6 B7B8	The disk being used to store the central site library data is full. B1 – B8 = The name of the last library member that was stored. Alert Sent = None.	For Library disks only: Copy half of your library members to another library disk. Then delete those library members from the disk you were using. For all other disks: If you require disk space, you will have to delete, remove, or accept any data objects that are no longer required. See the *3174 Central Site Customizing User's Guide*.
442	01HG	B1 to B9	This is an informational status code to indicate that the controller has been modified by a central site change management (CSCM) operation. B1 = The command where: X'41' = Delete X'31' = Send (Destruction = Allowed) X'62' = Send (Destruction = No) X'81' = Install X'83' = Remove X'85' = Accept B2 – B9 = The sixth field of the canonical name of the data object or the fifth field of the canonical name if the date object is a patch. Alert Sent = None.	No action is required.
460	01HG		Error in printer authorization matrix. Alert Sent = Temporary.	1. Press RESET. 2. If the failure continues, contact the system programmer. *For the system programmer:* Check the format of the print matrix program.
468	01HG	B1B2	Printer-detected error in LU1 data stream. Invalid parameters in the data stream. B1B2 = SNA sense code set by the printer. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Retry the operation. If the failure continues, contact the system programmer.
468	02HG		A printer-detected error in a Load Structured Field order. Alert Sent = Temporary.	Retry the operation. If the failure continues, contact the system programmer.
497	01HG		Segmenting error. The host system has sent an invalid segment. The current LU session will be unbound. Alert Sent = Temporary.	1. Restart the session. 2. If the failure continues, contact the system programmer. *For the system programmer:* Run a host access method trace.
497	02HG		Segmenting error with no host notification. The host system has sent an invalid segment. Alert Sent = Temporary.	No action is required.

Status Code	QAHG	Extended Data	Description	Action
497	03HG	B1B2 B3B4	Segmenting error. B1 = Byte 0 of the transmission header. B2 = Byte 3 of the transmission header. B3B4 = Bytes 4 and 5 of the transmission header. SNA sense code = 8007. See "SNA Sense Codes" on page 2-36. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated. *For the system programmer:* Run a host access method trace.
498	01HG		Negative response received. An invalid request was sent to the host. Alert Sent = None.	At the attached terminal, press RESET and retry the operation. If the failure continues, contact the system programmer.
498	03HG	B1 to B9	Negative response received. B1 – B3 = Bytes 0 through 2 of the response header. B4 – B8 = Bytes 0 through 4 of the response unit (RU). B9 = The number of RU bytes logged that are valid. Alert Sent = None.	If the failure continues, contact the system programmer.
498	04HG		A negative response to a signal request was received. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.
499	01HG		Exception request. An upstream node detected an error. Alert Sent = Temporary.	At the attached terminal, press RESET and retry the operation. If the failure continues, contact the system programmer. *For the system programmer:* Run a host access method trace.
499	02HG	B1B2 B3B4 B5B6	An exception request was received. B1B2 = Bytes 4 and 5 of the transmission header. B3 – B6 = Sense data in the received exception request. Alert Sent = Temporary.	Contact the system programmer to correct the error. The session must be re-initiated.
500	01HG or 02HG		Communication is now available. The condition causing the communication failure has been corrected and communication with the host can now resume. Alert Sent = None.	No action is required. This is an informational message only.
501	01HG to 04HG	B1B2 B3B4	Data communication equipment (DCE) failure. Possible cause: 1. Modem 2. Communication interface cable 3. Communication adapter 4. Concurrent Communication Adapter 5. Logic board. QA = 01 – 04 where: 01 = Data Set Ready (DSR) not present. 02 = Ready for Sending (RFS) or Clear to Send (CTS) not present. 03 = Modem error. 04 = Write Timeout error. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Delayed.	1. Check that the modem is turned on and the communication interface cable is connected with the Test/Oper switch in the Operate position. 2. Do one of the following: • For Models 1L through 63R, see CPD 0300 in *3174 Customer Problem Determination* manual. • For Models 81R through 92R, see CPD 0310 in *3174 Customer Problem Determination* manual. *For service personnel only:* Go to MAP 0300 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
501	05HG	B1B2 B3B4	Data communication equipment (DCE) or communication adapter failure (X.21). Possible cause: 1. Modem 2. Communication adapter 3. Concurrent Communication Adapter. B1B2 = TYPE. B3B4 = LOCA. Alert Sent = Delayed.	1. Press the COMM key; the Call Ready indicator should be restored. 2. Retry the call (if dial). 3. Do one of the following: • For Models 1L through 63R, see CPD 0300 in *3174 Customer Problem Determination* manual. • For Models 81R through 92R, see CPD 0310 in *3174 Customer Problem Determination* manual. *For service personnel only:* Go to MAP 0300 in the maintenance manual for your model.
503	01HG or 02HG		Channel Interface switch is in the off line position. Possible cause: 1. The Channel Interface switch is offline. 2. Channel adapter. 3. Operator panel. Alert Sent = None.	1. Put the Channel Interface switch online. 2. Perform an Alt 2 IML; see page 2-3. Record the results. 3. Request service. *For service personnel only:* Go to MAP 0900 in the maintenance manual for your model.
504	01HG		Disconnected from line (switched) (SDLC). Possible cause: 1. Host 2. Communication adapter. Alert Sent = Delayed.	1. Try to reestablish the connection. 2. Do one of the following: • For Models 1L through 63R, see CPD 0300 in the *3174 Customer Problem Determination* manual. • For Models 81R through 92R, see CPD 0310 in *3174 Customer Problem Determination* manual. *For service personnel only:* 1. Run the communication adapter wrap tests. See "How to Run Communication Adapter Optional Tests" in Chapter 2 of the maintenance manual for your model. 2. Go to MAP 0300 in the maintenance manual for your model.
504	02HG		Disconnect received. Alert Sent = Delayed.	The 3174 is waiting for the host to reopen the link. If the failure continues, contact the host operator.
504	03HG		Normal initialization sequence (X.21 or X.25). Alert Sent = None.	Initiate a call, or wait for an incoming call.
504	04HG	B1	X.21 network problem. A 'call progress' signal of type 2X, 6X, or 44, 45, 49 for the short hold mode has exceeded the maximum number of retries allowed. Possible cause: X.21 network. B1 = Call Progress Signal. Alert Sent = Delayed.	Examine the 'call progress' signal. See "Call Progress Signal Code" on page 2-27. • For Models 1L through 63R, see CPD 0300 in the *3174 Customer Problem Determination* manual. • For Models 82R and 92R, see CPD 0310 in *3174 Customer Problem Determination* manual. *For service personnel only:* 1. Run the communication adapter wrap tests. See "How to Run Communication Adapter Optional Tests" in Chapter 2 of the maintenance manual for your model. 2. Go to MAP 0300 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
504	05HG		Unexpected condition. Maximum number of retries exceeded (X.21). Possible cause: X.21 network. Alert Sent = Delayed.	1. Press the COMM key. 2. Retry the call. 3. Do one of the following: • For Models 1L through 63R, see CPD 0300 in the *3174 Customer Problem Determination* manual. • For Models 82R and 92R, see CPD 0310 in the *3174 Customer Problem Determination* manual. ***For service personnel only:*** 1. Run the communication adapter wrap tests. See "How to Run Communication Adapter Optional Tests" in Chapter 2 of the maintenance manual for your model. 2. Go to MAP 0300 in the maintenance manual for your model.
504	06HG		X.21 network problem. A character was received other than + or Bell. Possible cause: X.21 network. Alert Sent = Delayed.	1. Press the COMM key. 2. Retry the call. 3. Do one of the following: • For 1L through 63R, see CPD 0300 in the *3174 Customer Problem Determination* manual. • For 82R and 92R, see CPD 0310 in the *3174 Customer Problem Determination* manual. ***For service personnel only:*** 1. Run the communication adapter wrap tests. See "How to Run Communication Adapter Optional Tests" in Chapter 2 of the maintenance manual for your model. 2. Go to MAP 0300 in the maintenance manual for your model.
504	07HG		X.21 clearing sequence has been executed in response to the network CLEAR request. Alert Sent = None.	1. Press the COMM Key. 2. Initiate an outgoing call or wait for the incoming call. Operator action is required.
504	08HG	B1	X.21 network problem. A timeout has occurred, indicating that the expected network action did not take place while the controller was attempting to execute the OPEN function request. Possible cause: X.21 network. B1 = Error completion modifier bits (MM). These bits indicate which timer expired. See "X.21 Error Completion Modifier Bits" on page 2-26. Alert Sent = Delayed.	1. Verify the status of the X.21 network. The state change may go to 'call ready' or 'call ready with call progress' signal. 2. Press the COMM key to restore the Call Ready indicator.

Status Code	QAHG	Extended Data	Description	Action
504	09HG		Write Halt X.21 short-hold mode. A write halt function has been issued when the communication link was not active. Possible cause: X.21 network. Alert Sent = Delayed.	Use the EXT, DISC keys on the primary dial terminal (PDT) to return to call-ready mode. Retry the call. • For Models 1L through 63R, see CPD 0300 in the *3174 Customer Problem Determination* manual. • For Models 82R and 92R, see CPD 0310 in the *3174 Customer Problem Determination* manual. *For service personnel only:* 1. Run the communication adapter wrap tests. See "How to Run Communication Adapter Optional Tests" in Chapter 2 of the maintenance manual for your model. 2. Go to MAP 0300 in the maintenance manual for your model.

504	10HG		Invalid selection sequence: X.21 short hold mode.
			
			Possible cause: Communication adapter.
			
			Alert Sent = Delayed.
				1. Use the EXT, DISC keys on the primary dial terminal (PDT) to return to call-ready mode. Retry the call.
				2. Do one of the following:
				  • For Models 1L through 63R, see CPD 0300 in the *3174 Customer Problem Determination* manual.
				  • For Models 82R and 92R, see CPD 0310 in the *3174 Customer Problem Determination* manual.
				
				For service personnel only:
				
				1. Run the communication adapter wrap tests. See "How to Run Communication Adapter Optional Tests" in Chapter 2 of the maintenance manual for your model.
				2. Go to MAP 0300 in the maintenance manual for your model.

504	11HG	B1	A disconnect was received from the host (SDLC). B1 = SDLC address. Alert Sent = None.	Contact the host operator to reestablish the connection.
505	01HG		Normal message after an IML. The host system must send one of the following: • Connect (Channel adapter HG16) • Set Normal Response Mode (SNRM) [Type 1 (EIA/V.35) and Type 2 (X.21) Communication adapters HG11, HG51, or HG52] • Set Asynchronous Balanced Mode Extended (Token-Ring Adapter HG31). • QSM [(X.25) HG11, HG51, or HG52] Alert Sent = None.	If the failure continues, contact the host operator.
505	02HG		A disconnect command was received when the controller was not initialized. Alert Sent = None.	A connect command is required. If the failure continues, contact the host operator.
505	03HG		A system reset was received when the controller was not initialized. Alert Sent = Delayed.	At the terminal: 1. Wait; the host will retry. 2. Call the host operator.
505	04HG		A control command was received that was not a Connect or a Disconnect. Alert Sent = Delayed.	A connect command is required from the host. If the problem continues, contact the host operator.

Status Code	QAHG	Extended Data	Description	Action
505	06HG	B1 to B11	An invalid connect command was received. B1 – B11 = The control command connect function bytes. See the control command in the local (SNA) chapter of the *3174 Functional Description*. For microcode releases prior to Configuration Support B Release 1, only 10 bytes of extended data are present. **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1 to see the extended data. See the *3174 Customer Problem Determination* manual. Alert Sent = Delayed.	A valid connect command is required. If the failure continues, contact the system programmer and report the data in the extended data field.
505	07HG		A connect command was received after the controller was already connected. An Activate Physical Unit (ACTPU) is required. Alert Sent = Delayed.	If the failure continues, contact the host operator.
505	08HG		A disconnect command was received while the physical unit (PU) was active. A connect command is required. Alert Sent = Delayed.	If the failure continues, contact the host operator.
505	10HG		Host activation; Activate Physical Unit (ACTPU) is required. Alert Sent = None.	Contact the host operator.
506	01HG		Waiting for DCE Ready (X.25). Alert Sent = None.	No action is required. This is normal at start-up. If 506 remains displayed, see status code 506 02.
506	02HG		DCE not available/open timeout (X.25). The 3174 is retrying. Possible cause: 1. X.25 network 2. Communication adapter. Alert Sent = Delayed.	Contact the host operator. • For Models 1L through 63R, go to CPD 0300 in the *3174 Customer Problem Determination* manual. • For Models 81R through 92R, go to CPD 0310 in the *3174 Customer Problem Determination* manual. *For service personnel only:* Go to MAP 0300 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
507	01HG	B1B2 B3B4	Not all hosts on this link are active. On the operator panel, this status code displays the status of the hosts. B1 – B4 = Each of these eight digits corresponds to the status of a host. The first digit corresponds to the xA host; the second digit corresponds to xB; ...the fourth digit corresponds to xD. The last four digits are applicable to the primary link only, and correspond to 1E, 1F, 1G, and 1H, in that order. HG 11, 31, 51, and 52 0 = Host not configured. 1 = Host is configured, but not active. 3 = Host is configured and active.	Do the following: • Press the ADV key to display the status of the hosts. • Contact the host sites to accomplish the desired connections/activations.
513	01HG	B1B2	X.25 channel not available. B1B2 = Channel number, only for a PVC. Reserved for SVC. Note: The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1 to see the extended data. See the *3174 Customer Problem Determination* manual. Alert Sent = Delayed.	If an outgoing call was attempted, retry. If no outgoing call was attempted, wait for the network to retry. If 513 is displayed for a long time, or if there are many retries, contact the host operator.
513	02HG	B1B2	X.25 call timeout. The 3174 was waiting for a response to a Call Request packet, and a timeout occurred. B1B2 = Reserved. Note: The extended data does not appear at the operator panel. Alert Sent = Delayed.	If in the call-ready state, the call may be retried via a Dial key sequence. If the failure continues, contact the host operator.
531	01HG or 02HG	B1	Command reject (SDLC) Possible cause: 1. NR sequence error 2. Data with a command that does not require data 3. Invalid command. If present, B1 = SDLC Address. Host recovery. Alert Sent = None.	If the failure continues, contact the host operator.

Status Code	QAHG	Extended Data	Description	Action

531	51HG to 60HG		Negative Acknowledgment (NAK) sent or received (BSC).
			
			Possible cause:
			
			1. Modem
			2. Communication link
			3. Grounding problems.
			
			QA = 51−60 where:
			
			  51 = NAK sent by the 3174.
			  52 = NAK received from the host.
			  53 = ENQ or Temporary Time Delay (TTD) received from the host.
			  54 = Overrun or Underrun.
			  55 = Host sent data in response to a WACK from the 3174.
			  56 = Write Retry (SDLC).
			  57 = Overrun.
			  58 = Underrun.
			  59 = Frame Check Sequence (FCS) error.
			  60 = Primary abort (SDLC).
			
			Alert Sent = None.
				Contact the host operator.
				
				• For Models 1L through 63R, see CPD 0300 in the *3174 Customer Problem Determination* manual.
				• For Models 81R through 92R, see CPD 0310 in the *3174 Customer Problem Determination* manual.
				
				For service personnel only:
				
				Go to MAP 0300 in the maintenance manual for your model.

531	61HG	B1	The 3174 is busy. A receiver not ready (RNR) was sent to the host because receive buffer space was unavailable. A receiver ready will be sent when buffer space becomes available. B1 = Number of RNR sent to the host in hex. Controller-recoverable. Alert Sent = None.	No action is required.
531	62HG	B1	A write retry was received from the host. B1 = SDLC address. Alert Sent = None.	No action is required. Host recovery.
531	63HG	B1	An overrun condition was detected by the 3174. B1 = SDLC address. Alert Sent = None.	No action is required. Host recovery.
531	64HG	B1	An underrun condition was detected by the 3174. B1 = SDLC address. Alert Sent = None.	No action is required. Host recovery.
531	67HG	B1	Secondary busy. The controller does not have receive buffers available at this time. When receive buffers are available, the controller sends a receiver ready (RR) to the host. B1 = SDLC address. Alert Sent = None.	No action is required.

531	68HG	B1	Overrun (BSC).
			
			B1 = Type of overrun where:
			
			  B1 = 10 = Control overrun.
			  B1 = 08 = Buffer overrun.
			  B1 = 04 = Byte overrun.
			
			Alert Sent = None.
				If the failure continues, contact the system programmer.

531	69HG		Underrun (BSC). Alert Sent = None.	If the failure continues, contact the system programmer

Status Code	QAHG	Extended Data	Description	Action
531	70HG	B1B2 B3	The Token-Ring adapter is retransmitting a frame. Possible cause: Token-Ring media failure. B1B2 = The Token-Ring ID. B3 = Reserved for engineering use. Alert Sent = None.	No action is required. The host automatically forces the retransmission of the frame.
531	71HG	B1B2	The Token-Ring adapter is busy. A receiver not ready (RNR) was sent to the host because receive buffer space is unavailable. A receiver ready is sent to the host when buffer space becomes available. B1B2 = The Token-Ring ID. Controller-recoverable. Alert Sent = None.	No action is required.

532	01HG		Count exceeded; wrong-length message (SDLC).
			
			Possible cause:
			
			Improper specification of the buffer size in the NCP.
			The controller supports segment elements up to 521 bytes:
			    512 bytes of data.
			    6 bytes transmission header (TH)
			    3 bytes request/response header (RH)
			
			Alert Sent = None.
				If the failure continues, contact the system programmer.

532	02HG		Time-out (SDLC). This controller has not received any data from the host in the last 20 to 25 seconds. The time-out condition is reset upon receipt of a valid frame or a frame containing a poll. Valid host data is present for other controllers.
			
			Possible cause:
			
			1. Host
			2. Communication link
			3. Communication adapter.
			
			Alert Sent = None.
				1. Check that the TEST/OPER switch on the end of the communication cable is set to OPER.
				2. Contact the host operator.
				3. If the failure continues, do one of the following:
				  • For Models 1L through 63R, see CPD 0300 in the *3174 Customer Problem Determination* manual.
				  • For Models 81R through 92R, see CPD 0310 in the *3174 Customer Problem Determination* manual.
				
				For service personnel only:
				
				Go to MAP 0300 in the maintenance manual for your model.

532	03HG		Idle Time-out (SDLC). The host system has not sent any data on this line for 20 to 25 seconds. The idle time-out is reset upon receipt of a valid frame for any other controller on this line.
			
			Possible cause:
			
			1. Host
			2. Communication link
			3. Communication adapter.
			
			Alert Sent = None.
				1. Check that the TEST/OPER switch on the end of the communication cable is set to OPER.
				2. Contact the host operator.
				3. If the failure continues, do one of the following:
				  • For Models 1L through 63R, see CPD 0300 in the *3174 Customer Problem Determination* manual.
				  • For Models 81R through 92R, see CPD 0310 in the *3174 Customer Problem Determination* manual.
				
				For service personnel only:
				
				Go to MAP 0300 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
532	04HG		Connection problem (SDLC) Possible cause: 1. Communication link 2. Host. Alert Sent = None.	If the failure continues, contact the host operator or system programmer: • For Models 1L through 63R, see CPD 0300 in the *3174 Customer Problem Determination* manual. • For Models 81R through 92R, see CPD 0310 in the *3174 Customer Problem Determination* manual. *For service personnel only:* Go to MAP 0300 in the maintenance manual for your model.
532	06HG	B1	Count exceeded. Wrong length message (SDLC). Data was received from a station downstream from the gateway controller that is too large for the receive buffer. Possible cause: Improper specification of the buffer size in the NCP. The controller supports segment elements up to 521 bytes: 512 bytes of data. 6 bytes transmission header (TH) 3 bytes request/response header (RH) B1 = SDLC address. Alert Sent = None.	If the failure continues, contact the system programmer.
532	07HG	B1	NPRO Time-out. The host system has not sent any data to the Token-Ring Gateway controller in the last 2 minutes for the downstream controller indicated in the extended data byte B1. Valid data is present for other controllers. B1 = SDLC address. Alert Sent = None.	Contact the host operator.
532	10HG		BSC line idle. Host recovery. A valid poll or selection addressing sequence is required. Possible cause: 1. Host 2. Communication link 3. Communication adapter 4. Modem 5. Communication interface cable. Alert Sent = None.	1. Check that the Test/Oper switch on the end of the communication interface cable is set to Oper. 2. Contact the host operator. 3. If the failure continues, do one of the following: • For Models 1L through 63R, see CPD 0300 in the *3174 Customer Problem Determination* manual. • For Models 81R through 92R, see CPD 0310 in the *3174 Customer Problem Determination* manual. *For service personnel only:* Go to MAP 0300 in the maintenance manual for your model.
532	11HG		Read Write time-out retry exceeded (BSC). Host recovery. A valid poll or selection-addressing is required. Possible cause: 1. Host 2. Communication link. Alert Sent = None.	If the failure continues, contact the host operator or system programmer.

Status Code	QAHG	Extended Data	Description	Action
532	12HG		15 negative acknowledgments (NAKs) received (BSC). Possible cause: 1. Host problem 2. Communication link 3. Communication adapter. Host recovery. A valid poll or selection-addressing is required. Alert Sent = None.	1. Do one of the following: • For Models 1L through 63R, see CPD 0300 in the *3174 Customer Problem Determination* manual. • For Models 81R through 92R, see CPD 0310 in the *3174 Customer Problem Determination* manual. 2. If the failure continues, contact the host operator or the system programmer. *For service personnel only:* Go to MAP 0300 in the maintenance manual for your model.
532	13HG		16 wrong acknowledgments (BSC). Possible cause: 1. Host problem 2. Communication link. Host recovery. A valid poll or selection-addressing is required. Alert Sent = None.	If the failure continues, contact the host operator or system programmer.
532	20HG		X.25 receive time-out. The controller has not received a valid frame within the length of time specified during configuration. Alert Sent = Delayed.	1. Check that the configured time-out value is of sufficient length. See question 450 in the *3174 Planning Guide*. 2. Do one of the following: • For Models 1L through 63R, see CPD 0300 in the *3174 Customer Problem Determination* manual. • For Models 81R through 92R, see CPD 0310 in the *3174 Customer Problem Determination* manual. *For service personnel only:* Go to MAP 0300 in the maintenance manual for your model.
532	21HG		X.25 packet time-out. The 3174 is either waiting for the X.25 network to recover or is attempting to open the link. Alert Sent = Delayed.	1. If the failure continues, contact the host operator or system programmer. 2. Do one of the following: • For Models 1L through 63R, see CPD 0300 in the *3174 Customer Problem Determination* manual. • For Models 81R through 92R, see CPD 0310 in the *3174 Customer Problem Determination* manual. *For service personnel only:* Go to MAP 0300 in the maintenance manual for your model.
532	22HG		Set Asynchronous Balanced Mode (SABM) received when initialized. Alert Sent = Delayed.	1. Wait. The 3174 is attempting to reset the link. 2. Verify the proper operation of the X.25 network. 3. Contact the host operator or system programmer.
532	23HG	B1B2 B3	Frame Reject Response (FRMR) received. B1 – B3 = Frame Reject Response (FRMR) information. See an X.25 protocol manual for FRMR data explanation. Alert Sent = Delayed.	1. Wait. The 3174 is attempting to reset the link. 2. If the failure continues, verify the proper operation of the X.25 network.

Status Code	QAHG	Extended Data	Description	Action
532	24HG		An unexpected Unnumbered Acknowledgment (UA) command was received. Alert Sent = Delayed.	1. Wait. The 3174 is attempting to reset the link. 2. If the failure continues, verify the proper operation of the X.25 network.
532	25HG		The 3174 has received N(p) + 1 I-frames containing the same send sequence number. N(p) = The value in customizing question 451. Alert Sent = Delayed.	1. Wait. The 3174 is attempting to reset the link. 2. If the failure continues, verify the proper operation of the X.25 network.
532	26HG	B1B2 B3	The 3174 has sent a Frame Reject Response (FRMR) after receiving an invalid I-frame but with a good FCS. See an X.25 protocol manual for FRMR data explanation. Note: The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1, "Display Log Menu" to see the extended data. See the 3174 Customer Problem Determination manual. B1−B3 = Frame Reject Response (FRMR) information. Alert Sent = Delayed.	1. Wait. The 3174 is waiting for the DCE to reset the link. 2. If the failure continues, verify the proper operation of the X.25 network.
532	27HG		The 3174 has unexpectedly received a frame with the final bit on (X.25). Alert Sent = Delayed.	Wait. The 3174 is attempting to reset the link.
532	38HG		Link retries have exceeded the maximum limit (X.25). Alert Sent = Delayed.	1. Wait. The 3174 is attempting to recover. 2. If the failure continues, contact the host operator or system programmer.
533	01HG	Log data: B1B2 B3B4 Display Data: LCCDD	Clear packet sent. Packet or Logical Link Control level error. Log data: B1B2 = Cause Code (CC) and Diagnostic Code (DD). B3B4 = One of the following: 1. LLC header (when DD indicates an LLC error) 2. Diagnostic code modifier followed by 00 (when the clear packet is used to reject an incoming call) 3. Reserved. Display Data: LCCDD where: L = Clear packet sent, if L is displayed. CC = Cause code/Diagnostic Code Modifier. DD = Diagnostic code. Note: The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1, "Display Log Menu," to see the extended data. Alert Sent = Delayed.	1. Initiate an outgoing call or wait for an incoming call to reopen the circuit. 2. Use the cause and diagnostic codes to further define the problem. See "X.25 Cause and Diagnostic Codes" on page 2-16.

Status Code	QAHG	Extended Data	Description	Action
533	02HG	Log data: B1B2 B3B4	Reset packet sent. Packet or Logical Link Control level error. Log data: B1B2 = Cause Code (CC) and Diagnostic Code (DD). B3B4 = One of the following: 1. LLC header (when DD indicates an LLC error) 2. Reserved (when DD indicates other than an LLC error). Note: The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1, "Display Log Menu," to see the extended data.	1. Wait. The 3174 is attempting to recover. 2. Verify the proper operation of the X.25 network. Use the cause and diagnostic codes to further define the problem. See "X.25 Cause and Diagnostic Codes" on page 2-16.
		Display Data: MCCDD	Display Data: MCCDD where: M = Reset packet sent, if M is displayed. CC = Cause code. DD = Diagnostic code. Alert Sent = Delayed.	
533	03HG	Log data: B1B2	Restart packet sent. Packet or Logical Link Control level error. Log data: B1B2 = Cause code (CC) and diagnostic code (DD). Note: The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1, "Display Log Menu," to see the extended data.	1. Wait. The 3174 is trying to recover. 2. Use the cause and diagnostic codes to further define the problem. See "X.25 Cause and Diagnostic Codes" on page 2-16.
		Display Data: NCCDD	Display Data: NCCDD where: N = Restart packet sent, if N is displayed. CC = Cause code. DD = Diagnostic code. Alert Sent = Delayed.	
533	04HG	Log data: B1B2	Clear packet received. Log data: B1B2 = Cause code (CC) and diagnostic code (DD). Note: The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1, "Display Log Menu," to see the extended data.	1. Initiate an outgoing call or wait for an incoming call to reopen the circuit. 2. Use the cause and diagnostic codes to further define the problem. See "X.25 Cause and Diagnostic Codes" on page 2-16.
		Display Data: PCCDD	Display Data: PCCDD where: P = Clear packet received, if P is displayed. CC = Cause code. DD = Diagnostic code. Alert Sent = Delayed.	

Status Code	QAHG	Extended Data	Description	Action
533	05HG	Log data: B1B2	Reset packet received. Log data: B1B2 = Cause code (CC) and diagnostic code (DD). **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1, "Display Log Menu," to see the extended data.	1. Wait. The 3174 is trying to recover. 2. Use the cause and diagnostic codes to further define the problem. See "X.25 Cause and Diagnostic Codes" on page 2-16.
		Display Data: QCCDD	Display Data: QCCDD where: Q = Reset packet received, if Q is displayed. CC = Cause code. DD = Diagnostic code. Alert Sent = Delayed.	
533	06HG	Log data: B1B2	Restart packet received. Log data: B1B2 = Cause code (CC) and diagnostic code (DD). **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1, "Display Log Menu," to see the extended data.	1. Wait. The 3174 is trying to recover. 2. Use the cause and diagnostic codes to further define the problem. See "X.25 Cause and Diagnostic Codes" on page 2-16.
		Display Data: RCCDD	Display Data: RCCDD where: R = Restart packet received if R is displayed. CC = Cause code. DD = Diagnostic code. Alert Sent = Delayed.	
540	01HG or 02HG	B1B2	Host Channel or 3174 Channel Adapter Failure. QA = 01 = Bus Out Check (data). QA = 02 = Bus Out Check (command). B1B2 = Sense data. Alert Sent = Delayed.	1. Press RESET and retry the operation. 2. Contact system programmer. 3. Request service. *For service personnel only:* 1. Check the bus out channel cable, check the pins on the cable and in the Bus/Tag tailgate assembly. 2. Go to MAP 0910 in the maintenance manual for your model, if the problem is isolated to this controller.
540	03HG		The channel has generated a selective reset to clear an error condition. Alert Sent = Delayed.	No action is required. This is only an informational message.

Status Code	QAHG	Extended Data	Description	Action
540	04HG	B1B2 B3B4	Data streaming error. The data streaming mode of data transfer has been activated for a channel write or read operation. During the data transfer, one of the following has occurred: • The channel has failed to respond to the last Service-In/Data-In signal • The end of the data transfer has been signaled and the channel adapter has determined that the In-Tag/Out-Tag (Service-Out/Service-In, Data-Out/Data-In) count does not match. Possible cause: Date-rate between the host channel and the controller is incompatible. B1B2 = SNA sense code. B3B4 = SNA sense code. SNA sense code = 2006 or 0102. Alert Sent = Delayed.	No action is required.
540	07HG		Invalid count on a read command. A read command was issued that stopped the data transfer before all the data was sent from the 3174 buffer. Alert Sent = Delayed.	If the failure continues, contact the system programmer. The read channel program is incorrect.
540	08HG		A write, write break, or control command was received that contains an invalid count in the link header. Alert Sent = Delayed.	Host programming error. Contact the system programmer.
540	09HG		Old Read Start command received. Alert Sent = None.	No action is required. The data is re-sent by the controller.
540	51HG	B1B2	Controller initiated Command Retry. B1B2 = Sense data. Alert Sent = None.	No action is required. Host recovery. **Note:** If status code 540 01 or 540 04 is in the event log, perform the specified recovery actions for those status codes. See "Test 1: Display Logs Menu" in the *3174 Customer Problem Determination* manual.
541	01HG	B1B2	Intervention required for an attached terminal. Possible cause: 1. Terminal power is switched off. 2. Terminal security keylock turned on. 3. Printer out of paper. **Note:** This status code is logged when intensive mode or trace is set on. B1B2 = Sense data. Alert Sent = None.	1. Check that the attached terminal is turned on and ready. 2. On printers, check that paper is installed correctly. 3. Use the terminal documentation for further problem isolation.
550	01HG		For X.25, the Call Connected packet is longer than 512 bytes. The remainder of the packet has been discarded. Alert Sent = Delayed.	No action is required.

Status Code	QAHG	Extended Data	Description	Action
550	02HG		For X.25, flow-control negotiation has taken place and some of the values found in the Call Connected packet are different from those in the Call Request packet. Alert Sent = None.	No action is required.
551	01HG	B1B2 B3B4	X.25 diagnostic packet was received. B1 = Diagnostic code. B2−B4 = Explanation for the failure. Alert Sent = None.	For B1, see "X.25 Cause and Diagnostic Codes" on page 2-16 for information. For B2−B4, see an X.25 protocol manual for diagnostic packet information.
551	02HG	B1	Packet discarded (X.25 network). B1 = Diagnostic code (DD). Alert Sent = None.	See "X.25 Cause and Diagnostic Codes" on page 2-16 for information.
551	03HG		Exchange ID received (XID). Alert Sent = None.	No action is required.
551	04HG		Qtest received. Alert Sent = None.	No action is required.
551	05HG		Qtest sent. Alert Sent = None.	No action is required.
551	06HG	B1	Test received. B1 = SDLC address. Alert Sent = None.	No action is required.
551	07HG	B1	Test sent. B1 = SDLC address. Alert Sent = None.	No action is required.
553	01HG		A call is being established (X.21 and X.25). Alert Sent = None.	No action is required.
560	01HG	B1	A 'call progress' signal, class 2X or 6X, has been received from the network (X.21) B1 = Call progress signal. See Table 2-17 on page 2-27. Alert Sent = None.	1. Wait. The system is retrying. 2. If the failure continues, do one of the following: • For Models 1L through 63R, see CPD 0300 in the *3174 Customer Problem Determination* manual. • For Models 82R and 92R, see CPD 0310 in the *3174 Customer Problem Determination* manual. ***For service personnel only:*** Go to MAP 0300 in Chapter 2 of the maintenance manual for your model.
560	03HG		A character other than + or Bell was received (X.21). Alert Sent = Delayed.	Wait. The system is retrying. **Note:** If the retries are not successful, status code 504 06 is displayed on the operator panel. Perform the specified recovery action for that status code.
560	04HG		Unexpected condition (X.21). Alert Sent = Delayed.	Wait. The system is retrying.
561	01HG	B1	A 'call progress' signal type 0X has been received from the network. B1 = Call progress signal. See Table 2-17 on page 2-27. Alert Sent = Delayed.	Use the 'call progress' signal to further define the problem.

Status Code	QAHG	Extended Data	Description	Action
561	02HG		X.21 network format error. An invalid character has been detected. Alert Sent = Delayed.	Host recovery.
561	03HG		X.21 network. During the reception of a 'call progress' signal, or DCE-provided information, the controller did not have enough buffer space available to receive all of the data that was sent. Alert Sent = Delayed.	Host recovery.
562	01HG	B1	X.21 network. 'Call progress' signal received. Class 4X, 5X, 7X, or 8X. B1 = Call progress signal. See Table 2-17 on page 2-27. Alert Sent = Delayed.	Retry the call. Use the 'call progress' signal to further define the problem.
562	02HG		X.21 network is not ready for communication. Alert Sent = Delayed.	Host activation is required. Contact the host operator.
562	03HG		X.21 network. Clear timeout. Alert Sent = Delayed.	Host recovery. The system returns to call ready.
563	01HG	B1	XID error at first connect time. X.21 short-hold mode B1 = 0X = Return code where: 01 = Length of dial digits is not the same as the received length. 02 = The called port was busy and did not send an alternate length. 03 = Length of alternate dial digits is not the same as the received length. Alert Sent = Delayed.	1. Check the dial number of the primary before using the EXT, DISC keys at the primary dial terminal (PDT) to return to call-ready mode and redialing. 2. If the failure continues, request service. *For service personnel only:* Go to MAP 0300 in the maintenance manual for your model.
563	02HG	B1	XID error during a reconnect. X.21 short-hold mode. B1 = 0X = Return code where: 01 = XID is not valid format 1. 02 = SHI flag is not on. 03 = SHSI flag is not on. 04 = Length of dial digits is not the same as the received length. 05 = Dial digits not the same as the first connection. 06 = XID length error, or no XID received. 07 = Received XID is less than the minimum for XID format 1. 08 = Node ID is not correct in the XID received from the 3174. 09 = XID is not the first frame received after the connection that was initiated by the 3174. Alert Sent = Delayed.	1. Check the dial number of the primary and the 3174 before using the EXT, DISC keys on the primary dial terminal to return to call-ready mode and redialing. 2. If the failure continues, request service. *For service personnel only:* Go to MAP 0300 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
580	01HG	B1B2 B3B4 B5B6	A failure occurred during an attempt to open the Token-Ring adapter. Testing of the local Token-Ring lobe was unsuccessful. Possible cause: 1. Token-Ring media access unit 2. Token-Ring adapter 3. Lobe cables. B1B2 = TYPE. B3B4 = LOCA. B5B6 = Open error code where: B5 = is always 00. B6 = X Y where: X = 1 = Lobe media test. X = 2 = Physical insertion. X = 3 = Address verification. X = 4 = Roll call poll. X = 5 = Request parameters. Y = 1 = Function failure. Y = 2 = Signal loss. Y = 3 = Wire fault. Y = 4 = Frequency error. Y = 5 = Timeout. Y = 6 = Ring failure. Y = 7 = Ring beaconing. Y = 8 = Duplicate node address. Y = 9 = Request parameters. Y = A = Remove received. Y = B = IMPL force received. **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1, "Display Log Menu," to see the extended data. See the *3174 Customer Problem Determination* manual. Alert Sent = Delayed.	1. Re-IML. 2. See CPD 0400 in the *3174 Customer Problem Determination* manual. 3. For further problem determination, see the section describing Open Errors in *IBM Token-Ring Network Problem Determination Guide*, SX27-3710. ***For service personnel only:*** For Models 1L through 21R: Go to MAP 0610 in the maintenance manual. For Models 51R through 63R and 90R: Go to MAP 0600 in the maintenance manual.
580	02HG	B1B2	A failure occurred during an attempt to open the Token-Ring adapter because of ring protocol errors. Possible cause: Lobe. B1B2 = Open error code. See status code 580 01 for the definition of the open error code (bytes B5 and B6). **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1, "Display Log Menu," to see the extended data. See the *3174 Customer Problem Determination* manual. Alert Sent = Delayed.	Perform the actions shown in status code 580 01HG.

Status Code	QAHG	Extended Data	Description	Action
580	03HG	B1 to B16	A failure occurred during an attempt to open the Token-Ring adapter. The adapter received a beaconing MAC frame from the ring. Possible cause: Fault domain. B1B2 = Open error code. See status code 580 01 for the definition of the open error code (bytes B5 and B6). B3B4 = Beacon type where: 0001 = Set recovery mode. 0002 = Ring Signal Loss. 0003 = Monitor contention failed, no contention frames received. 0004 = Monitor contention failed, contention frames received. B5 – B10 = Address of beaconing adapter. B11 – B16 = Nearest Active Upstream Neighbor (NAUN). **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1, "Display Log Menu," to see the extended data. See the *3174 Customer Problem Determination* manual. Alert Sent = None.	See the *IBM Token-Ring Network Problem Determination Guide*, SX27-3710.
580	04HG	B1B2	An open failure occurred. The Token-Ring adapter received a Remove Station MAC frame. Possible cause: A Remove command was issued by the Token-Ring Network Manager. B1B2 = Open error code. See status code 580 01 for the definition of the open error code (bytes B5 and B6). **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1, "Display Log Menu," to see the extended data. See the *3174 Customer Problem Determination* manual. Alert Sent = Delayed.	1. Contact the host operator; find out the status of the Token-Ring. 2. See the *Token-Ring Network Problem Determination Guide*, SX27-3710. 3. Re-IML.

Status Code	QAHG	Extended Data	Description	Action
580	05HG	B1B2 B3B4 B5B6 B7B8	Wire fault. An open or short circuit has been detected in the lobe data path. Possible cause: 1. Token-Ring multistation access unit 2. Token-Ring adapter 3. Lobe cables. B1B2 = TYPE. B3B4 = LOCA. B5B6 = The Token-Ring ID number. B7B8 = The Token-Ring status code. For a description of the token-ring status code, see "Token-Ring Status Codes" on page 2-31. **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1, "Display Log Menu," to see the extended data. See the *3174 Customer Problem Determination* manual. Alert Sent = Delayed.	1. Re-IML. 2. If the failure continues, see CPD 0400 in the *3174 Customer Problem Determination* manual. 3. For further problem determination, see the *IBM Token-Ring Network Problem Determination Guide*, SX27-3710. 4. Request service. *For service personnel only:* For Models 1L through 21R: Go to MAP 0610 in the maintenance manual. For Models 51R through 63R and 90R: Go to MAP 0600 in the maintenance manual.
580	06HG	B1B2 B3B4 B5B6 B7B8	The Token-Ring adapter has removed itself from the ring as a result of the auto-removal process. Possible cause: 1. Token-Ring adapter 2. Token-Ring multistation access unit 3. Lobe cables. B1B2 = TYPE. B3B4 = LOCA. B5B6 = The Token-Ring ID number. B7B8 = The Token-Ring status code. For a description of the token-ring status code, see "Token-Ring Status Codes" on page 2-31. **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1, "Display Log Menu," to see the extended data. See the *3174 Customer Problem Determination* manual. Alert Sent = None.	1. Re-IML. 2. If the failure continues, see CPD 0400 in the *3174 Customer Problem Determination* manual. 3. For further problem determination, see the *IBM Token-Ring Network Problem Determination Guide*, SX27-3710. 4. Request service. *For service personnel only:* For Models 1L through 21R: Go to MAP 0610 in the maintenance manual. For Models 51R through 63R and 90R: Go to MAP 0600 in the maintenance manual.
580	07HG	B1B2 B3B4	A Remove MAC frame was received from the Token-Ring. Possible cause: Remove command was issued by the Token-Ring network microcode. B1B2 = The Token-Ring ID number. B3B4 = The Token-Ring status code. For a description of the token-ring status code, see "Token-Ring Status Codes" on page 2-31. **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1, "Display Log Menu," to see the extended data. See the *3174 Customer Problem Determination* manual. Alert Sent = Delayed.	1. Contact the Token-Ring network administrator to obtain the status of the Token-Ring. 2. Re-IML. 3. If the failure continues, go to CPD 0400 in the *3174 Customer Problem Determination* manual. 4. To perform further problem determination, see the *IBM Token-Ring Network Problem Determination Guide*, SX27-3710.

Status Code	QAHG	Extended Data	Description	Action
580	08HG	B1 to B16	The Token-Ring is inoperative. Possible cause: Fault domain. B1B2 = The Token-Ring ID number. B3B4 = Beacon type. B5–B10 = Address of beaconing adapter. B11–B16 = Nearest active upstream neighbor (NAUN). See status code 580 03 for a description of the beacon type. **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1, "Display Log Menu," to see the extended data. See the *3174 Customer Problem Determination* manual. Alert Sent = None.	For further problem determination, see the *IBM Token-Ring Network Problem Determination Guide*, SX27-3710.
580	58HG	B1 to B16	A temporary beaconing condition occurred on the Token-Ring. Possible cause: 1. One station named in the fault domain 2. Temporary degradation of the specified fault domain. B1B2 = The Token-Ring ID number. B3B4 = Beacon type. B5–B10 = Address of beaconing adapter. B11–B16 = Nearest active upstream neighbor (NAUN). See status code 580 03 for a description of the beacon type. Controller-recoverable. Alert Sent = None.	If the failure continues, see the *IBM Token-Ring Network Problem Determination Guide*, SX27-3710.
581	01HG	B1 to B14	Open failure. The Token-Ring adapter detected a duplicate adapter address on the ring or the universal address specified during customizing is not the same as the adapter's universal address. B1B2 = Open error code. B3–B8 = Universal address (address on the Token-Ring adapter card). B9–B14 = Locally administered address (address entered during configuration). See status code 580 01 for a definition of the open error code. **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1, "Display Log Menu" to see the extended data. See the *3174 Customer Problem Determination* manual. Alert Sent = None.	A unique address has to be assigned to each adapter on the ring. If the address for the 3174 must be changed, the controller has to be reconfigured. • If this is the gateway controller, see question 900 in the *3174 Planning Guide*. • If this 3174 is not the gateway controller, see question 106 in the *3174 Planning Guide*. **Note:** If you used the universal address and you have to recustomize this controller to change the address, the gateway controller must also be changed.

Status Code	QAHG	Extended Data	Description	Action
583	02HG	B1 to B14	A Frame Reject (FRMR) was sent. An unacceptable Token-Ring frame was received. Possible cause: Logical fault in the gateway. B1B2 = The Token-Ring ID number. B3-B7 = Reserved. B8 = Previous primary state. B9-B14 = Gateway address. See "Link States" on page 2-35, for a description of the primary state. Alert Sent = None.	No action is required. The gateway decides whether to disconnect or reconnect the link between the gateway and the controller. If your gateway is the 3174 Token-Ring Network 3270 Gateway feature, the response to customization question 380 should match the F-field response in customization question 941.

583	03HG	B1 to B16	A disconnect mode (DM) or disconnect (DISC) command was received (Token-Ring communication check).
			
			The DM command is used to report that the link station is in asynchronous disconnected mode and is logically disconnected from the link.
			
			The DISC command is used to terminate an asynchronous balanced mode of operation previously set by a Set Asynchronous Balanced Mode Extended (SABME) command.
			
			Possible cause:
			
			    Logical fault in the gateway.
			
			B1B2 = The Token-Ring ID number.
			B3-B9 = DLC statistics where:
			
			  B3 = Last command/response received.
			  B4 = Last command/response sent.
			  B5 = Link primary state.
			  B6 = Link secondary state.
			  B7 = N(S) Transmitter send sequence number.
			  B8 = N(S) Transmitter receive sequence number.
			  B9 = Last N(R) received.
			  B10 = Previous primary state.
			
			B11-B16 = Gateway address.
			
			See "Link States" on page 2-35 for a description of the primary state.
			
			Note: The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1: "Display Logs Menu" to see the extended data. See the *3174 Customer Problem Determination* manual.
			
			Alert Sent = None.
				1. Contact the host operator to reactivate the link.
				2. If the failure continues, go to CPD 0400 in the *3174 Customer Problem Determination* manual.
				3. Request service.
				
				For service personnel only:
				
				<u>For Models 1L through 21R:</u>
				
				    Go to MAP 0610 in the maintenance manual.
				
				<u>For Models 51R through 63R and 90R:</u>
				
				    Go to MAP 0600 in the maintenance manual.

Status Code	QAHG	Extended Data	Description	Action
583	04HG	B1 to B14	A Frame Reject (FRMR) was received (Token-Ring communication check). Possible cause: Logical fault in the gateway. B1B2 = The Token-Ring ID number. B3 – B7 = Reserved. B8 = Previous primary state. B9 – B14 = Gateway address. See "Link States" on page 2-35, for a description of the primary state. Alert Sent = None.	No action is required. The controller attempts to recover. If the controller cannot recover, status code 583 09 is displayed.
583	05HG	B1 to B9	A link station that is already in the link open state received a Set Asynchronous Balanced Mode Extended Mode command (Token-Ring communication check). Possible cause: Logical fault in the gateway. B1B2 = The Token-Ring ID number. B3 = Previous primary state. B4 – B9 = Gateway address. See "Link States" on page 2-35, for a description of the primary state. Alert Sent = None.	No action is required. The controller attempts to recover. If the controller cannot recover, status code 583 09 is displayed.
583	06HG	B1 to B15	An unexpected Set Asynchronous Balanced Mode Extended (SABME) command was received by a link station that is already opened (Token-Ring communication check). Possible cause: Logical fault in the remote device. B1B2 = The Token-Ring ID number. B3 – B8 = Gateway address. B9 – B14 = Remote station address. B15 = Remote service access point. Alert Sent = None.	No action is required. If the failure continues, see the *IBM Token-Ring Problem Determination Guide*, SX27-3710.
583	07HG	B1 to B9	A link timeout occurred (Token-Ring timeout on T1 response timer) (Token-Ring communication check). Possible cause: 1. The gateway is no longer attached to the Token-Ring 2. Transmission congestion 3. The data path of the Token-Ring Network is no longer operational. B1B2 = The Token-Ring ID number. B3 = Previous primary state. B4 – B9 = Gateway address. See "Link States" on page 2-35, for a description of the primary state. Alert Sent = None.	No action is required. The controller attempts to recover. If the controller cannot recover, status code 583 09 is displayed.

Status Code	QAHG	Extended Data	Description	Action
583	08HG	B1 to B9	A link timeout occurred (Token-Ring timeout on TI response timer) (Token-Ring communication check). Possible cause: 1. The gateway is no longer attached to the Token-Ring 2. Transmission congestion 3. The data path of the Token-Ring network is no longer operational. B1B2 = The Token-Ring ID number. B3 = Previous primary state. B4 – B9 = Gateway address. See "Link States" on page 2-35, for a description of the primary state. Alert Sent = None.	No action is required. The controller attempts to recover. If the controller cannot recover, status code 583 09 is displayed.
583	09HG	B1 to B11	Link recovery was unsuccessful (Token-Ring communication check). B1B2 = The Token-Ring ID number. B3B4 = Cause code: Bit 0: Link Lost Bit 1: DM or DISC received or acknowledged Bit 2: FRMR received Bit 3: FRMR sent Bit 4: SABME received for an open station Bit 5: SABME received station open Bit 6: Reserved Bit 7: Reserved Bit 8: TI timer expired. B5 – B11 = DLC statistics where: B5 = Last command/response received. B6 = Last command/response sent. B7 = Link primary state. B8 = Link secondary state. B9 = Send count (NS). B10 = Receive count (NR). B11 = Last received (NR). See "Link States" on page 2-35, for a description of the primary state. Alert Sent = None.	1. Contact the host operator to reactivate the link. 2. To perform further problem determination, see the *IBM Token-Ring Network Problem Determination Guide*, SX27-3710.

Status Code	QAHG	Extended Data	Description	Action
584	01HG	B1 to B11	An I-frame counter overflow occurred. B1B2 = The Token-Ring ID number. B3 = The counter that overflowed: 01 = T1 timer expired counter. 04 = I-frame transmit counter. 05 = I-frame receiver error counter. 09 = I-frame transmit error counter. 0A = I-frame receive counter. B4B5 = Number of I-frames sent. B6B7 = Number of I-frames received. B8 = Number of frames sent in error. B9 = Number of frames received in error. B10B11 = Number of times the T1 timer expired. Alert Sent = None.	No action is required unless performance is degraded because of an excessive number of 584 errors. If performance is degraded, request service. *For service personnel only:* For Models 1L through 21R: Go to MAP 0610 in the maintenance manual. For Models 51R through 63R: Go to MAP 0600 in the maintenance manual.
584	02HG	B1 to B16	The receive congestion counter in the Token-Ring adapter has exceeded its threshold. A frame was addressed to the adapter but there is insufficient buffer space available to receive the frame. B1B2 = The Token-Ring ID number. B3 = Line errors counter. B4 = Internal errors counter. B5 = Burst errors counter. B6 = ARI/FCI errors counter. B7 = Abort delimiter counter. B8 = Reserved. B9 = Lost frame counter. B10 = Receive congestion counter. B11 = Frame copied errors counter. B12 = Frequency errors counter. B13 = Token errors counter. B14 – B16 = Reserved. Alert Sent = None.	No action is required unless performance is degraded because of an excessive number of 584 errors. If performance is degraded, see *IBM Token-Ring Network Problem Determination Guide*, SX27-3710.
584	03HG	B1 to B16	An error counter overflow occurred for the Token-Ring adapter other than the receive congestion counter. Possible cause: Recoverable hardware error. B1B2 = The Token-Ring ID number. B3 – B16 = Log data. See status code 584 02 for a description of bytes B3 through B16. Alert Sent = None.	No action is required unless performance is degraded because of an excessive number of 584 errors. If performance is degraded, request service. *For service personnel only:* For Models 1L through 21R: Go to MAP 0610 in the maintenance manual. For Models 51R through 63R and 90R: Go to MAP 0600 in the maintenance manual.
590	01		A distributed function terminal has not received a poll from the controller. Alert Sent = None.	1. Check the signal cable connections at the terminal and at the controller. 2. At the terminal, turn the power switch off and then back on. 3. Use the terminal documentation for further problem isolation. *For service personnel only:* Go to MAP 0200 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
599	01HG		Local mode. Alert Sent = None.	Press the COMM key to establish the call-ready state for SVC operations, or to establish the communication state for PVC operations.
6XX	1xHG	B1	Distributed function terminal detected permanent errors. B1 = The distributed function terminal (DFT) error log qualifier. Alert Sent = Permanent.	For a description of the qualifier, see your terminal documentation concerning problem determination.
6XX	5xHG	B1	Distributed function terminal detected temporary errors. B1 = The distributed function terminal (DFT) error log qualifier. Alert Sent = Temporary.	For a description of the qualifier, see your terminal documentation concerning problem determination.
7XX			Distributed function terminal detected program check. Alert Sent = Temporary.	For a description, see your terminal documentation concerning problem determination or see "DFT Device Program Error Codes" on page 2-47 in Chapter 2.
802	01		You attempted to connect to a host that you are unauthorized to use. Alert Sent = None.	Select the default host. If required, the Control disk can be reconfigured to allow you to select another host. See "Planning for the Asynchronous Emulation Adapter (AEA)" in the *3174 Planning Guide*.
802	02		An ASCII device was unable to establish communication with a IBM/3270 host through an Asynchronous Emulation Adapter (AEA) port. Although, the AEA port was not in use, the AEA port had not timed out and disconnected from its previous switched connection. The switched disconnect timer has to expire before this AEA port becomes available for use. Alert Sent = None.	Wait for the timer to expire, then try to establish the connection again. The timeout value for the timer is set during customizing. See question 741 in the *3174 Planning Guide*.
802	03		An attempt was made to establish communication with an ASCII host but there are no Asynchronous Emulation Adapter ports available. Alert Sent = None.	1. Retry the connection request later. At that time a port may be available. 2. Check the status of the Asynchronous Emulation Adapter ports by using online test 12, option 2. See Test 12 in "Online Tests" in the *3174 Customer Problem Determination* manual.
802	04		An outgoing call on an Asynchronous Emulation Adapter (AEA) port occurred at the same time a call was coming in. Alert Sent = None.	Retry the call. If the failure occurs repeatedly, request service. *For service personnel only:* Go to MAP 1000 in the maintenance manual for your model.
802	05		The host connection is in progress. Alert Sent = None.	No action is required. Wait until the host connection has completed.
802	06		A return to a previous host connection was attempted, but a previous host connection does not exist. Alert Sent = None.	Select a host.

Status Code	QAHG	Extended Data	Description	Action
802	07		An attempt was made to test an Asynchronous Emulation Adapter (AEA) port that is being used. Alert Sent = None.	Verify that the correct port number was entered in the test request. If you are running a transmit test, it may be necessary to reset the terminal being tested before obtaining a valid test result. • If the terminal is attached to a direct or switched communication line, to reset it, turn the terminal's power switch off and then back on. • If the terminal is attached to a nonswitched line, use the "Break" sequence.
802	08HG	B1	A printer was unable to connect to its default ASCII host destination because all of the Asynchronous Emulation Adapter ports that can be used by the printer are busy or out of service. B1 = The station ID of the printer. Alert Sent = None.	Perform one of the following actions every 10 or 15 minutes. • Switch the printer power off and then back on to establish the connection with the ASCII host. • Bring up the connection menu on a nearby display and refresh the ASCII host status. When the status of the printer's default destination is DIAL, ?, or UP, then switch the printer power off and then on.
803	01		An attempt was made to communicate with an ASCII host, but the keyboard attached to the terminal is not supported for 3270 terminal to ASCII host communication. Alert Sent = None.	Use a terminal that has a keyboard that is supported for communication with an ASCII host. The supported keyboards are: • U.S. English typewriter keyboard • APL keyboard • Text keyboard.
803	02 or 03		An invalid host number was entered. The connection menu contains the valid host numbers or names. Alert Sent = None.	Select a valid host number or name.
803	04		An invalid key was pressed. The valid PF keys are displayed on the connection menu. Alert Sent = None.	Press a valid key. Check the keyboard maps for the terminal you are using. These keyboard maps are found in the *Terminal User's Reference for Expanded Functions*, GA23-0332.

Status Code	QAHG	Extended Data	Description	Action

804	10HG or 20HG	B1 to B9	Communication on an Asynchronous Emulation Adapter (AEA) port was disconnected. The inactivity timer expired because of no data flow activity on this port.
			
			The timeout period for each AEA port is specified during configuration. See question 742 in the *3174 Planning Guide*.
			
			QA = 10 or 20 where:
			
			    10 = The port is configured for a terminal or printer.
			    20 = The port is configured for a host.
			B1B2 = Number of framing errors detected.
			B3B4 = Number of overrun errors detected.
			B5B6 = Number of parity errors detected.
			B7B8 = Reserved.
			B9 = Station ID.
			
			The errors shown in the extended data bytes B1 – B9 are provided to indicate the condition of the telephone link. For switched connections it is normal for some of these errors to be indicated. If an excessive number of errors are shown, this most likely indicates a noisy switched connection.
			
			This status code is logged in intensive mode only.
			
			Alert Sent = None.
				No action is required. This is normal AEA operation.
				
				If you want to change the time-out value you can reconfigure the Control disk. See question 742 in the *3174 Planning Guide*.

805	10HG	B1 to B9	A switched connection was attempted to one of the Asynchronous Emulation Adapter (AEA) ports and the password was entered incorrectly three times. The AEA adapter disables the connection. B1 – B9 = Reserved. Alert Sent = Temporary.	Obtain the correct password in order to establish communication with the controller. Follow your local recovery procedures.
806	10HG or 20HG	B1 to B9	Asynchronous Emulation Adapter buffer overflow. Possible cause: 1. Flow control was specified incorrectly during configuration. 2. The ASCII station does not use flow control. 3. The terminal being used is not compatible with the host. For a description of B1 through B9, see status code 804 10HG. Alert Sent = Temporary.	1. If flow control was specified during configuration; verify that the terminal and the host are setup for the same flow control. See question 731 in the *3174 Planning Guide*. 2. If flow control was specified correctly, it may be possible to use a lower line speed. See questions 733 and 734 in the *3174 Planning Guide*. 3. Request service. *For service personnel only:* Go to MAP 1000 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
807	10HG or 20HG	B1 to B9	A port on an Asynchronous Emulation Adapter (AEA) timed out after waiting 30 seconds to receive data terminal ready (DTR). Possible cause: 1. The null modem or direct connect cable is wired incorrectly. 2. Attached terminal, printer, or host 3. AEA communication adapter cable 4. Asynchronous emulation adapter 5. Normal condition if a direct-attached ASCII host is switched off. For a description of B1 through B9, see status code 804 10HG. Alert Sent = Temporary.	Go to CPD 0500 in the *3174 Customer Problem Determination manual.* ***For service personnel only:*** Go to MAP 1000 in the maintenance manual for your model.
808	10HG or 20HG	B1 to B9	A port on an Asynchronous Emulation Adapter (AEA) timed out after waiting 30 seconds for data terminal ready (DTR) to turn off. The adapter was trying to disconnect the attached terminal, printer, or host. Possible cause: 1. The null modem or direct cable is wired incorrectly. 2. The AEA port may be configured incorrectly. 3. The attached terminal, printer, or host does not use the required disconnect protocol. For a description of B1 through B9, see status code 804 10HG. **Notes:** 1. The AEA disconnect protocol is to drop data set ready (DSR), clear to send (CTS), and carrier detect (CD). The adapter then waits 30 seconds for the attached terminal, printer, or host to drop data terminal ready (DTR). 2. If the attached terminal does not use the required disconnect protocol, disregard this status code. 3. This status code is logged in intensive mode only. Alert Sent = None.	1. Verify that the attached terminal printer or host uses the required disconnect protocol. See the notes in the description column. 2. Go to CPD 0500 in the *3174 Customer Problem Determination* manual. ***For service personnel only:*** Go to MAP 1000 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
809	10HG or 20HG	B1 to B9	A port on an Asynchronous Emulation Adapter (AEA) detected that data terminal ready (DTR) dropped from the attached terminal, printer, or host.	1. Verify that the attached terminal, printer, or host is switched on.
				2. Check that the interface cable from the AEA adapter to the terminal, printer, or host is securely connected.
			Possible cause:	3. Go to CPD 0500 in the *3174 Customer Problem Determination* manual.
			1. The attached terminal, printer, or host was switched off.	*For service personnel only:*
			2. The AEA communication adapter cable for the terminal, printer, or host was disconnected.	Go to MAP 1000 in the maintenance manual for your model.
			3. The attached terminal or printer dropped DTR while going into setup mode. (This is normal for some ASCII devices.)	
			For a description of B1 through B9, see status code 804 10HG.	
			Note: This status code is logged in intensive mode only.	
			Alert Sent = None.	
810	10HG or 20HG	B1 to B9	A port on an Asynchronous Emulation Adapter (AEA) detected that data carrier detect (DCD) dropped from the attached terminal, printer, or host. The communication attachment is through a switched modem.	1. Verify that the attached terminal, printer or host is switched on.
				2. Check that the interface cable between the AEA and the modem is securely connected.
			Possible cause:	3. Retry the dial connection
			1. The attached terminal, printer, or host was switched off.	4. Go to CPD 0500 in the *3174 Customer Problem Determination* manual.
			2. Modem	*For service personnel only:*
			3. Telephone connection.	Go to MAP 1000 in the maintenance manual for your model.
			For a description of B1 through B9, see status code 804 10HG.	
			Note: This status code is logged in intensive mode only.	
			Alert Sent = None.	
811	20HG	B1 to B9	A port on an Asynchronous Emulation Adapter (AEA) timed out waiting for the "Ready" signal from the attached modem.	Go to CPD 0500 in the *3174 Customer Problem Determination* manual.
			Possible cause:	*For service personnel only:*
			1. AEA communications cable	Go to MAP 1000 in the maintenance manual for your model.
			2. Modem	
			3. Modem configuration.	
			For a description of B1 through B9, see status code 804 10HG.	
			Alert Sent = Temporary.	

Status Code	QAHG	Extended Data	Description	Action
812	20HG	B1 to B9	The Asynchronous Emulation Adapter (AEA) retried the dial operation three times and the number being called did not answer. Possible cause: For Hayes** or Hayes-compatible modems: 1. The number being called does not answer. 2. The number being called is busy. 3. The number being called does not have compatible hardware. For Micom** or Micom-compatible modems: The number being called does not answer. For a description of B1 through B9, see status code 804 10HG. Note: This status code is logged only during intensive mode. Alert Sent = None.	Go to CPD 0500 in the *3174 Customer Problem Determination* manual. ***For service personnel only:*** Go to MAP 1000 in the maintenance manual for your model.
813	20HG	B1 to B9	The modem received an invalid command from an asynchronous emulation adapter (AEA) port. Possible cause: 1. The installed modem does not match the type of modem specified during controller configuration. 2. The dial digits specified for the ASCII host do not conform to the modem's requirements. For a description of B1 through B9, see status code 804 10HG. Alert Sent = Temporary.	1. Verify that the installed modem matches the type specified during controller configuration. See the AEA port set definition in the *3174 Planning Guide*. 2. Verify that the dial digits specified for the ASCII host conform to the modem's requirements. In particular, if pauses are required to allow for intermediate dial tones, make sure the pauses are included in the dial string. 3. Check that the dial string configured in the station set definition (question 752) is correct. See the *3174 Planning Guide*. 4. Go to CPD 0500 in the *3174 Customer Problem Determination* manual. ***For service personnel only:*** Go to MAP 1000 in the maintenance manual for your model.
814	20HG	B1 to B9	The modem did not send back the setup data that the Asynchronous Emulation Adapter (AEA) sent. Possible cause: 1. The installed modem does not match the type of modem specified during controller configuration. 2. The cable between the AEA and the modem is not correctly connected. For a description of B1 through B9, see status code 804 10HG. Alert Sent = Temporary.	1. Verify that the installed modem matches the type specified during controller configuration. See the port set definition in the *3174 Planning Guide*. 2. Go to CPD 0500 in the *3174 Customer Problem Determination* manual. ***For service personnel only:*** Go to MAP 1000 in the maintenance manual for your model.
815	20HG	B1 to B9	An incoming call was received while an outgoing call was in progress on an Asynchronous Emulation Adapter (AEA) port. For a description of B1 through B9, see status code 804 10HG. Alert Sent = Temporary.	1. Retry the call. 2. Check that the interface cable between the AEA and the modem is securely connected. 3. Go to CPD 0500 in the *3174 Customer Problem Determination* manual. ***For service personnel only:*** Go to MAP 1000 in the maintenance manual for your model.

Status Code	QAHG	Extended Data	Description	Action
816	10HG	B1 to B9	An incoming call was received but the Asynchronous Emulation Adapter (AEA) did not complete the answer sequence. The sequence is as follows: 1. The modem raises ring indicate (RI). 2. The AEA raises data terminal ready (DTR). 3. The modem raises data carrier detect (DCD). Possible cause: 1. Wrong number (inadvertent call from a voice phone) 2. Bad line condition preventing carrier from being received 3. Asynchronous emulation adapter 4. Cable from the AEA to the modem 5. Telephone rotary or other call routing equipment. For a description of B1 through B9, see status code 804 10HG. Note: This status code is logged in intensive mode only. Alert Sent = None.	No action is required, unless this error occurs frequently on the same port. In this case verify that the modem raises its leads in the proper sequence; see the documentation for the modem. Go to CPD 0500 in the *3174 Customer Problem Determination* manual. *For service personnel only:* Go to MAP 1000 in the maintenance manual for your model.
817	01HG	B1B2 B3B4 B5B6 B7B8	Temporary error counter overflowed (framing errors, overruns, or parity errors) on an Asynchronous Emulation Adapter port. The counter has been reset. When any one of the above counters overflows, this status code is logged. Possible cause: 1. Modem 2. Line noise 3. Terminal 4. Telephone line distortion 5. Asynchronous Emulation Adapter (AEA) 6. Microcode. For a description of B1 through B8, see status code 804 10HG. Alert Sent = None.	1. Use the refresh sequence for your terminal. See the keyboard maps in the *Terminal User's Reference for Expanded Functions*, GA23-0332. 2. Have the telephone line and modem checked. 3. Check that the connections on the cable between the AEA and the modem are securely connected. 4. Check that the parity and the number of stop bits were specified correctly during controller configuration. 5. Go to CPD 0500 in the *3174 Customer Problem Determination* manual. *For service personnel only:* Go to MAP 1000 in the maintenance manual for your model.
818	10HG	B1 to B9	The communication connection was dropped. A user disconnected from the session by using the break key on his terminal. For a description of B1 through B9, see status code 804 10HG. Alert Sent = None.	No action is required. Normal operation.
818	20HG	B1 to B9	The communication connection was dropped. The host sent the DLE EOT sequence in the 3101 data stream which causes a disconnect. For a description of B1 through B9, see status code 804 10HG. Note: This status code is logged in intensive mode only. Alert Sent = None.	No action is required. Normal operation.

Status Code	QAHG	Extended Data	Description	Action
819	20HG	B1 to B9	An Asynchronous Emulation Adapter (AEA) has attempted to reset an attached modem. The modem has not responded properly to the adapter. Possible cause: 1. Configuration problem (modem type is specified incorrectly). 2. Modem power is switched off or hung. 3. Communication adapter cable. 4. Asynchronous Emulation Adapter (AEA). For a description of B1 through B9, see status code 804 10HG. Alert Sent = Permanent.	1. Verify that the installed modem matches the type specified during controller configuration. See the AEA port set definition in the *3174 Planning Guide*. 2. Go to CPD 0500 in the *3174 Customer Problem Determination* manual. *For service personnel only:* Go to MAP 1000 in the maintenance manual for your model.
820	10HG or 20HG	B1 to B9	An Asynchronous Emulation Adapter (AEA) detected an invalid EIA lead change. For a description of B1 through B9, see status code 804 10HG. Alert Sent = Temporary.	Go to CPD 0500 in the *3174 Customer Problem Determination* manual. *For service personnel only:* Go to MAP 1000 in the maintenance manual for your model.
821	10HG or 20HG	B1 to B9	The current session was disconnected. For a description of B1 through B9, see status code 804 10HG. Alert Sent = Temporary.	• If the AEA port being used is switched, then redial. • If the AEA port is direct or nonswitched press carriage return on the terminal. • If the failure continues, the bit rate for the AEA is being exceeded. Line speeds for some of the attached terminals will have to be reduced to resolve the problem. See questions 733 and 734 in the *3174 Planning Guide*.
880	01HG	B1B2 B3B4 B5B6 B7B8	A failure occurred during an attempt to open the Token-Ring adapter. Testing of the local Token-Ring lobe was unsuccessful. Possible cause: 1. Token-Ring multistation access unit 2. Token-Ring adapter 3. Lobe cables. B1B2 = TYPE. B3B4 = LOCA. B5B6 = The Token-Ring ID number. B7B8 = Open error code. See status code 580 01HG for a definition of the Open Error code. **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1 to see the extended data. See "Test 1: Display Logs Menu," in the *3174 Customer Problem Determination* manual. Alert Sent = Permanent for Gateways. Alert Sent = None for all other controllers.	1. Contact the host operator to reactivate the link. 2. Go to CPD 0400 in the *3174 Customer Problem Determination* manual. *For service personnel only:* For Models 1L through 21R: Go to MAP 0610 in the maintenance manual. For Models 51R through 63R and 90R: Go to MAP 0600 in the maintenance manual.

Status Code	QAHG	Extended Data	Description	Action
880	02HG	B1B2 B3B4	A failure occurred during an attempt to open the Token-Ring adapter. The adapter failed to open because of ring protocol errors. Possible cause: Lobe. B1B2 = The Token-Ring ID number. B3B4 = Open error code. See status code 580 01HG for a definition of the Open Error code. **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1 to see the extended data. See "Test 1: Display Logs Menu," in the *3174 Customer Problem Determination* manual. Alert Sent = Permanent for Gateways. Alert Sent = None for all other controllers.	Perform the actions shown in status code 580 01HG.

880	03HG	B1 to B16	A failure occurred during an attempt to open the Token-Ring adapter. The adapter has detected a beaconing MAC frame from the ring.
			
			Possible cause: Fault domain.
			
			B1B2 = The Token-Ring ID number.
			B3B4 = Beacon type.
			B5–B10 = Address of beaconing adapter.
			B11–B16 = Address of beaconing adapter's nearest active upstream neighbor.
			
			See status code 580 03 for a description of the beaconing type.
			
			Note: The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1 to see the extended data. See "Test 1: Display Logs Menu," in the *3174 Customer Problem Determination* manual.
			
			Alert Sent = Permanent for Gateways.
			
			Alert Sent = None for all other controllers.
				For further problem determination:
				
				1. Contact the host operator to reactivate the links.
				2. Perform an Alt 2 IML; see page 2-3.
				   • If Alt 2 fails, request service.
				   • If Alt 2 does not fail, see the *IBM Token-Ring Network Problem Determination Guide*, SX27-3710.
				
				For service personnel only:
				
				<u>For Models 1L through 21R:</u>
				
				Go to MAP 0610 in the maintenance manual.
				
				<u>For Models 51R through 63R and 90R:</u>
				
				Go to MAP 0600 in the maintenance manual.

880	04HG	B1B2 B3B4	An open failure occurred. The Token-Ring adapter has received a Remove Station MAC frame. Possible cause: A remove command was issued by the Token-Ring network manager. B1B2 = The Token-Ring ID number. B3B4 = Open error code. See status code 580 01HG for a definition of the Open Error code. **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1 to see the extended data. See "Test 1: Display Logs Menu," in the *3174 Customer Problem Determination* manual. Alert Sent = Permanent for Gateways. Alert Sent = None for all other controllers.	Perform the actions shown in status code 580 01HG.

Status Code	QAHG	Extended Data	Description	Action
880	05HG	B1B2 B3B4 B5B6 B7B8	Wire fault. An open or a short circuit has been detected in the lobe data path. Possible cause: 1. Token-Ring adapter 2. Token-Ring multistation access unit 3. Lobe cables. B1B2 = TYPE. B3B4 = LOCA. B5B6 = The Token-Ring ID number. B7B8 = Token-Ring status code. See "Token-Ring Status Codes" on page 2-31. **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1 to see the extended data. See "Test 1: Display Logs Menu," in the *3174 Customer Problem Determination* manual. Alert Sent = Permanent for Gateways. Alert Sent = None for all other controllers.	1. Contact the host operator to reactivate the link. 2. Go to CPD 0400 in the *3174 Customer Problem Determination* manual. *For service personnel only:* For Models 1L through 21R: Go to MAP 0610 in the maintenance manual. For Models 51R through 63R and 90R: Go to MAP 0600 in the maintenance manual.
880	06HG	B1B2 B3B4 B5B6 B7B8	The Token-Ring adapter has been removed from the ring as a result of the auto-removal process. Possible cause: 1. Token-Ring adapter 2. Token-Ring multistation access unit 3. Lobe cables. B1B2 = TYPE. B3B4 = LOCA. B5B6 = The Token-Ring ID number. B7B8 = Token-Ring status code. See "Token-Ring Status Codes" on page 2-31. **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1 to see the extended data. See "Test 1: Display Logs Menu," in the *3174 Customer Problem Determination* manual. Alert Sent = Permanent for Gateways. Alert Sent = None for all other controllers.	1. Contact the host operator to reactivate the link. 2. Go to CPD 0400 in the *3174 Customer Problem Determination* manual. *For service personnel only:* For Models 1L through 21R: Go to MAP 0610 in the maintenance manual. For Models 51R through 63R and 90R: Go to MAP 0600 in the maintenance manual.
880	07HG	B1B2 B3B4	A remove MAC frame was received from the Token-Ring. Possible cause: A remove command was received from the Token-Ring network manager. B1B2 = The Token-Ring ID number. B3B4 = Token-Ring status code. See "Token-Ring Status Codes" on page 2-31. **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1 to see the extended data. See "Test 1: Display Logs Menu," in the *3174 Customer Problem Determination* manual. Alert Sent = Permanent for Gateways. Alert Sent = None for all other controllers.	1. Contact the Token-Ring manager for instructions. 2. Contact the host operator to reactivate the link. 3. Go to CPD 0400 in the *3174 Customer Problem Determination* manual. *For service personnel only:* For Models 1L through 21R: Go to MAP 0610 in the maintenance manual. For Models 51R through 63R and 90R: Go to MAP 0600 in the maintenance manual.

Status Code	QAHG	Extended Data	Description	Action
880	08HG	B1 to B16	The Token-Ring Network is inoperative. A hardware error on the ring was not recovered by the beacon process. Possible cause: 1. Fault domain 2. Two stations named in the fault domain 3. All Token-Ring components between the two stations. B1B2 = The Token-Ring ID number. B3B4 = Beacon type. B5–B10 = Address of beaconing adapter. B11–B16 = Address of beaconing adapter's nearest active upstream neighbor. See status code 580 03HG for a description of the beacon type. **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1 to see the extended data. See "Test 1: Display Logs Menu," in the *3174 Customer Problem Determination* manual. Alert Sent = Permanent for Gateways. Alert Sent = None for all other controllers.	For further problem determination, see the *IBM Token-Ring Network Problem Determination Guide*, SX27-3710.
880	58HG	B1 to B16	A temporary beaconing condition occurred on the Token-Ring. Possible cause: Fault domain. B1B2 = The Token-Ring ID number. B3B4 = Beacon type. B5–B10 = Address of beaconing adapter. B11–B16 = Address of beaconing adapter's nearest active upstream neighbor. See status code 580 03HG for a description of the beacon type. Alert Sent = Temporary for Gateways. Alert Sent = None for all other controllers.	For further problem determination, see the *IBM Token-Ring Network Problem Determination Guide*, SX27-3710.
881	01HG	B1B2 B3B4	Open failure. The Token-Ring adapter detected a duplicate adapter address on the ring. B1B2 = The Token-Ring ID number. B3B4 = Open error code. See status code 580 01 for a description of the open error code. **Note:** The extended data does not appear at the operator panel. The data is included in the event log. Use online test 1 to see the extended data. See "Test 1: Display Logs Menu," in the *3174 Customer Problem Determination* manual. Alert Sent = Permanent for Gateways. Alert Sent = None for all other controllers.	A unique address has to be assigned to each adapter on the ring. • If the address for the 3174 must be changed, the controller has to be reconfigured. • If this is the gateway controller, see question 900 in the *3174 Planning Guide*; if this is not the gateway controller, see question 106.

Status Code	QAHG	Extended Data	Description	Action
883	01HG	B1 to B9	Connect failure. An unacceptable Exchange ID (XID) frame was received from a station on the Token-Ring. **Note:** The XID command is used to convey the identification and characteristics of the sending node and to cause the remote link station to send the XID response. The microcode return code indicates invalid parameters in the XID. Possible cause: The remote device is not correctly configured or identified to the host system. B1B2 = Ring ID. B3−B8 = Source address. B9 = Service access point address. Alert Sent = Temporary for Gateways. Alert Sent = None for all other controllers.	Contact the system programmer to verify the parameters defined at installation time of the downstream physical unit (PU). The I-frame size or window size is invalid.
883	02HG	B1 to B15	A Frame Reject (FRMR) was sent. An unacceptable Token-Ring frame was received. **Note:** The FRMR response is used by the link station to report that an abnormality has been detected in an incoming Logical Link Control Protocol Data Unit (LPDU). Possible cause: 1. Logical fault in the link station 2. Microcode. B1B2 = Ring ID. B3−B8 = Source address. B9 = Service access point address. B10 = Type of logical link control error. B11−B15 = Frame reject response. Alert Sent = Permanent for Gateways.	1. Contact the host operator to reactivate the link. 2. Contact the system programmer.
883	03HG	B1 to B9	A Disconnect Mode (DM) or Disconnect (DISC) command was received. Notes: 1. The DM command is used to report that the link station is in asynchronous disconnected mode and is logically disconnected from the link. 2. The DISC command is used to terminate an asynchronous balanced mode of operation previously set by a Set Asynchronous Balanced Mode Extended (SABME) command. B1B2 = Ring ID. B3−B8 = Source address. B9 = Service access point address. Alert Sent = Permanent for Gateways.	1. Contact the host operator to reactivate the link. 2. Contact the system programmer.
883	04HG	B1 to B15	A Frame Reject frame was received. B1B2 = Ring ID. B3−B8 = Source address. B9 = Service access point address. B10 = Type of logical link control error. B11−B15 = Frame reject response. Alert Sent = Permanent for Gateways.	1. Contact the host operator to reactivate the link. 2. Request service. *For service personnel only:* Use your support structure for aid.

Status Code	QAHG	Extended Data	Description	Action
883	05HG	B1 to B9	A link station that is already in the link open state sent a Set Asynchronous Balanced Mode Extended (SABME) command. **Note:** A link station uses the SABME command to initiate data transfer in the extended asynchronous balanced mode of operation with a remote link station. B1B2 = Ring ID. B3–B8 = Source address. B9 = Service access point address. Alert Sent = Permanent for Gateways.	1. Contact the host operator to reactivate the link. 2. Request service. *For service personnel only:* Use your support structure for aid.
883	06HG	B1 to B9	A supervisory reject was received. The send count does not match the receive count. B1B2 = Ring ID. B3–B8 = Source address. B9 = Service access point address. Alert Sent = Permanent for Gateways.	1. Contact the host operator to reactivate the link. 2. Request service. *For service personnel only:* Use your support structure for aid.
883	07HG	B1 to B9	A link timeout occurred (Token-Ring timeout on T1 response timer). Possible cause: 1. The remote device is no longer attached to the Token-Ring. 2. Transmission congestion on the Token-Ring. 3. The data path of the Token-Ring is no longer operational. B1B2 = Ring ID. B3–B8 = Source address. B9 = Service access point address. Alert Sent = Permanent for Gateways.	1. Contact the host operator to reactivate the link. 2. Request service. *For service personnel only:* Use your support structure for aid.
883	08HG	B1 to B9	A link timeout occurred (Token-Ring timeout on TI response timer). Possible cause: 1. The remote device is no longer attached to the Token-Ring. 2. Transmission congestion on the Token-Ring. 3. The data path of the Token-Ring is no longer operational. B1B2 = Ring ID. B3–B8 = Source address. B9 = Service access point address. Alert Sent = Temporary for Gateways.	1. Contact the host operator to reactivate the link. 2. Request service. *For service personnel only:* Use your support structure for aid.

Status Code	QAHG	Extended Data	Description	Action
883	60HG	B1 to B15	Temporary logical link control error (controller-recoverable).	No action is required. The controller has recovered.

883 / 60HG / B1 to B15:

Temporary logical link control error (controller-recoverable).

Possible cause:

1. Remote device
2. Path to the device.

B1B2	=	Ring ID.
B3 − B8	=	Link address.
B9	=	Service access point address.
B10	=	Logical link control error byte where:

4C	=	Link lost T1 timer expired.
4D	=	DM or DISC received, or DISC acknowledged.
4E	=	FRMR received.
4F	=	FRMR sent.
50	=	T1 time expired.

B11 − B15 = Frame reject response.

Controller-recoverable.

Alert Sent = None.

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884 / 01HG / B1 to B10:

An I-frame counter overflow occurred.

B1B2	=	Ring ID.
B3 − B8	=	Source address.
B9	=	Service access point address.
B10	=	The counter that overflowed where:

04	=	I-frame transmit counter.
05	=	I-frame receive error counter.
09	=	I-frame transmit error counter.
0A	=	I-frame receive counter.

Alert Sent = None.

Action: No action is required unless performance is degraded because of an excessive number of 884 errors.

If performance is degraded, request service.

For service personnel only:

Use your support structure for aid.

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884 / 02HG / B1B2 B3B4:

The receive congestion counter in the Token-Ring adapter has exceeded its threshold. A frame was addressed to the Token-Ring adapter, but there is insufficient buffer space available to receive the frame.

B1B2 = Ring ID.
B3B4 = Token-Ring status code.

See "Token-Ring Status Codes" on page 2-31.

Alert Sent = None.

Action: No action is required unless performance is degraded because of an excessive number of 884 errors.

If performance is degraded, see the *IBM Token-Ring Network Problem Determination Guide*, SX27-3710.

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884 / 03HG / B1B2 B3B4:

An error counter overflow occurred for the Token-Ring adapter other than the receive congestion counter.

B1B2 = Ring ID.
B3B4 = Token-Ring status code.

See "Token-Ring Status Codes" on page 2-31.

Alert Sent = None.

Action: No action is required unless performance is degraded because of an excessive number of 884 errors.

If performance is degraded, see the *IBM Token-Ring Network Problem Determination Guide*, SX27-3710.

Status Code	QAHG	Extended Data	Description	Action
890	01HG	B1 to B14	The Token-Ring transmit error limit was exceeded. Possible cause: 1. Fault domain 2. Two stations named in the fault domain 3. Any Token-Ring components between the two stations. B1B2 = Ring ID. B3 – B8 = Address of receiving adapter in fault domain. B9 – B14 = Address of transmitting adapter in fault domain. Alert Sent = Performance for Gateways. Alert Sent = None for all other controllers.	No action is required unless performance is degraded because of an excessive number of 890 errors. If performance is degraded, see the *IBM Token-Ring Network Problem Determination Guide*, SX27-3710.
890	02HG	B1 to B14	Pre-weight exceeded notification. The reported Token-Ring adapter has reached half of its weight limit threshold. The fault domain has an increasing error rate, which may degrade the Token-Ring performance. B1B2 = Ring ID. B3 – B8 = Address of receiving adapter in fault domain. B9 – B14 = Address of transmitting adapter in fault domain. **Note:** This status code is logged only if a foreground trace is running at the time of failure. Alert Sent = None.	No action is required unless performance is degraded because of an excessive number of 890 errors. If performance is degraded, see the *IBM Token-Ring Network Problem Determination Guide*, SX27-3710.
890	03HG	B1 to B14	The Token-Ring error rate is decaying. The error rate has dropped to half of the Token-Ring adapter's weight limit threshold. B1B2 = Ring ID. B3 – B8 = Address of receiving adapter in fault domain. B9 – B14 = Address of transmitting adapter in fault domain. **Note:** This status code is logged only if a foreground trace is running at the time of failure or if intensive mode is selected. Alert Sent = None.	No action is required.

Status Code	QAHG	Extended Data	Description	Action
890	04HG	B1 to B10	The non-isolating error threshold has been exceeded. **Note:** Non-isolating means the fault domain is not provided. B1B2 = Ring ID. B3 – B6 = Ring Error Monitor (REM) lost frame counter. B7 – B10 = REM receive congestion counter. The 4 bytes from the lost REM frame and receive congestion counter consist of: 1st byte = The counter. 2nd byte = Counter threshold 3rd byte = Counter ID. 4th byte = Counter ID. **Note:** This status code is logged only if a foreground trace is running at the time of failure. Alert Sent = None.	No action is required unless performance is degraded because of an excessive number of 890 errors. If performance is degraded, see the *IBM Token-Ring Network Problem Determination Guide*, SX27-3710, to isolate the problem.
890	05HG	B1 to B11	Ring Error Monitor (REM) error codes. Possible cause: 1. MAC frame format error 2. Microcode (REM error) B1B2 = Ring ID. B3 – B8 = See the Ring Error Monitor (REM) description below: B5 – B10 = Source address. B11 = Service access point (SAP) address. **REM Description** 0402 = The REM is stopped and a MAC major vector or counter tick command was received (microcode error). 1301 = An invalid MAC frame vector or vector length. 1302 = An invalid MAC vector ID. 1390 = An unknown major vector ID. 2000 = The REM table failed a cursory check and contains an incorrect major vector ID or length, or a bad pointer to the table was passed (microcode error). **Note:** The source address and SAP address are included only with REM error codes 1301, 1302, and 1390. For REM codes 0402 and 2000 the addresses contain zeros. Alert Sent = None.	Request service. *For service personnel only:* <u>For Models 1L through 21R:</u> Go to MAP 0610 in the maintenance manual. <u>For Models 51R through 63R and 90R:</u> Go to MAP 0600 in the maintenance manual.

Status Code	QAHG	Extended Data	Description	Action
890	06HG	B1 to B12	Receive congestion counter threshold exceeded. Possible cause: The total number of "receive congestion" errors exceeds the threshold value. B1B2 = Ring ID. B3-B6 = Ring Error Monitor (REM) receive congestion counter. B7-B10 = Source address. The 4 bytes from the lost REM frame and receive congestion counter consist of: 1st byte = The counter. 2nd byte = Counter threshold. 3rd byte = Counter ID. 4th byte = Counter ID. Alert Sent = None.	No action is required unless performance is degraded because of an excessive number of 890 errors. If performance is degraded, request service. *For service personnel only:* For Models 1L through 21R: Go to MAP 0610 in the maintenance manual. For Models 51R through 63R and 90R: Go to MAP 0600 in the maintenance manual.
890	07HG	B1 to B14	The receive congestion error rate for a station on the token-ring is dropping. B1B2 = Ring ID. B3-B8 = Address of the first adapter in the fault domain. B9-B14 = Address of the second adapter in the fault domain. Alert Sent = None.	No action is required.

Status Code	Additional Fields	Description	Action
1001		3174 IML progress message. If this status code remains displayed longer than 30 seconds, a failure has occurred. Possible cause: 1. Microcode failure 2. Processor failure.	For diskette drives (HG = 01 or 02): 1. Exchange the Control or Utility diskette and retry the operation. 2. Request service. For fixed disk drives (HG = 03 or 04): 1. Recopy the Control or Utility diskettes onto the fixed disk as required. See "How To Copy Files" and "How To Perform Media Management" in the *3174 Utilities Guide*. 2. Retry the operation. 3. Request service. *For service personnel only:* For Models 1L through 13R: Exchange FRU type 950x in location 18. For Models 21L through 92R: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
1002		3174 IML microcode failure.	For diskette drives (HG = 01 or 02): 1. Exchange the Control or Utility diskette and retry the operation. 2. Request service. For fixed disk drives (HG = 03 or 04): 1. Recopy the Control or Utility diskette onto the fixed disk as required. See "How To Copy Files" and "How To Perform Media Management" in the *3174 Utilities Guide*. 2. Retry the operation. 3. Request service. *For service personnel only:* Call your support structure for aid.
1003 or 1004	01HG	3174 IML hardware failure. Possible cause: 1. Disk media 2. Diskette drive 3. 2.4MB diskette in a 1.2MB drive (for status code 1004 01HG only) 4. Fixed disk media 5. Fixed disk drive 6. File adapter.	For diskette drives (HG = 01 or 02): 1. Exchange the Control or Utility diskette; retry the operation. 2. Request service. For fixed disk drives (HG = 03 or 04): 1. Record the entire status code. 2. Run the "Fixed Disk Media Tests" on page 2-5. 3. Retry the operation. 4. Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange the diskette drive or fixed disk indicated by the HG number. 2. Exchange the file adapter in location 21. For Models 21L through 92R: 1. Exchange the diskette drive or fixed disk indicated by the HG number. 2. Exchange the planar board.
1005	01HG to 05HG	An Alt 1 IML was performed using a diskette that cannot be IMLed. The QA number 01 to 05 identifies the diskette that was being used where: 01 = Down stream Load (DSL) diskette. 02 = RPQ diskette. 03 = Patch diskette. 04 = Encrypt/Decrypt diskette. 05 = Central Site Library diskette. **Note:** An Alt 1 IML is performed only with a Control, Utility, or Dump diskette.	Insert the proper Control, Utility, or Dump diskette, or correct the Alt 1 IML device selection parameter. See Alt 1 IML on page 2-1.
1008	01HG	3174 IML failure. Possible cause: 1. Microcode 2. Fixed disk media. HG = the fixed disk where: 03 = Fixed disk 1. 04 = Fixed disk 2.	1. Record the entire status code. 2. Run the "Fixed Disk Media Tests" on page 2-5. If data restoration is required, recopy your diskettes onto the fixed disk. See "Restoring Your Data" on page 2-8. 3. Re-IML. 4. Request service. *For service personnel only:* Exchange the fixed disk.

Status Code	Additional Fields	Description	Action

1009	01HG	3174 IML failure.
		
		The microcode for the requested IML was not found on the fixed disk. Either the microcode is not present, or the fixed disk is failing.
		
		Possible cause:
		
		1. The wrong fixed disk was selected.
		2. The required subdirectory is not on the fixed disk.
		
		HG = the fixed disk where:
		
		03 = Fixed disk 1.
		04 = Fixed disk 2.
			1. Verify that the correct fixed disk was selected for the IML.
			2. See "Select IML Source" in the *3174 Utilities Guide* to determine if the requested subdirectory is on the fixed disk.
			  • If the subdirectory is **not** on the fixed disk, see "How To Copy Files" and "How To Perform Media Management" in the *3174 Utilities Guide*.
			  • If the subdirectory is on the fixed disk, request service.
			
			For service personnel only:
			
			Contact your support structure for assistance.

1010	01HG	Diskette incompatible with diskette drive.	Insert the correct density diskette into the drive indicated by HG and re-IML.

1011		3174 IML progress message. If the status code remains displayed longer than 30 seconds, a failure has occurred.
		
		Possible cause:
		
		1. Microcode
		2. Processor.
			1. Re-IML.
			2. Request service.
			
			For service personnel only:
			
			For Models 1L through 13R:
			
			  Exchange FRU type 950x in location 18.
			
			For Models 21L through 92R:
			
			  Exchange the planar board.
			
			Use your support structure for aid.

1048		3174 IML hardware failure. Possible cause: 1. Operator panel 2. Processor 3. FRU ID bus 4. Logic board (Models 1L through 13R).	1. Re-IML. 2. Request service. ***For service personnel only:*** For Models 1L through 13R: 1. Go to MAP 0800 in the maintenance manual. 2. Exchange FRU type 950x in location 18. 3. One at a time exchange all adapter and storage cards. 4. Exchange the operator panel. 5. One at a time exchange the diskette drives and if present the fixed disk drives. 6. Exchange the logic board. For Models 21L through 92R: 1. Exchange the planar board. 2. Exchange any adapter and storage cards. 3. Exchange the operator panel. 4. One at a time exchange the diskette drives and then the fixed disk drive.

1050 or 1051		3174 IML hardware failure (if Check Cond indicator is on).
		
		Possible cause: Processor.
			1. Re-IML.
			2. Request service.
			
			For service personnel only:
			
			For Models 1L through 13R:
			
			  Exchange FRU type 950x in location 18.
			
			For Models 21L through 92R:
			
			  Exchange the planar board.
			
			See Chapter 3 of the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
1052		3174 IML hardware failure. Possible cause: 1. Processor 2. Logic board (Models 1L through 13R).	1. Re-IML. 2. Request service. ***For service personnel only:*** For Models 1L through 13R: 1. Exchange FRU type 950x in location 18. 2. One at a time exchange all adapter cards. 3. Exchange the logic board. For Models 21L through 92R: 1. Exchange the planar board. 2. One at a time exchange any adapter or storage cards. See Chapter 3 of the maintenance manual for your model.
1053		3174 IML hardware failure. Possible cause: 1. Processor 2. Storage card.	1. Re-IML. 2. Request service. ***For service personnel only:*** For Models 1L through 13R: 1. Exchange FRU type 950x in location 18. 2. One at a time exchange all FRU type 905X or storage cards. For Models 21L and 21R: 1. Exchange the planar board. 2. Exchange the storage card in location J22. 3. If present, exchange the storage card in location J23. For Models 51R, 52R, and 53R: 1. Exchange the planar board. 2. If present, exchange the storage card in location 05. For Models 61R, 62R, and 63R: 1. Exchange the planar board. 2. Exchange the storage card in location J22. 3. If present, exchange the storage card in location J23. For Models 81R or 82R: Exchange the planar board. For Models 90R through 92R: 1. Exchange the planar board. 2. Exchange the storage card in location J22.
1054 or 1055		3174 IML hardware failure. Possible cause: Processor.	1. Re-IML. 2. Request service. ***For service personnel only:*** For Models 1L through 13R: Exchange FRU type 950x in location 18. For Models 21L through 92R: Exchange the planar board. See Chapter 3 of the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
1056		3174 IML hardware failure. Possible cause: 1. Processor 2. Storage.	1. Re-IML. 2. Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange FRU type 950x in location 18. 2. One at a time exchange all FRU type 905X storage cards. 3. See MAP 0500 in the maintenance manual. For Models 21L and 21R: 1. Exchange the planar board. 2. Exchange the storage card in location J22. 3. If present, exchange the storage card in location J23. For Models 51R, 52R, and 53R: 1. Exchange the planar board. 2. If present, exchange the storage card in location 05. For Models 61R, 62R, and 63R: 1. Exchange the planar board. 2. Exchange the storage card in location J22. 3. If present, exchange the storage card in location J23. For Models 81R or 82R: Exchange the planar board. For Models 90R through 92R: 1. Exchange the planar board. 2. Exchange the storage card in location J22. See Chapter 3 of the maintenance manual for your model.
1058		3174 IML hardware failure. Possible cause: 1. Processor 2. Operator panel adapter 3. Unexpected key was pressed during the IML 4. Operator panel.	1. Re-IML. 2. Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange FRU type 950x in location 18. 2. Exchange the operator panel adapter in location 05. 3. Exchange the operator panel in location 06. For Models 21L through 92R: 1. Exchange the planar board. 2. Exchange the operator panel. See Chapter 3 of the maintenance manual for your model.
1060 or 1070		3174 IML progress message. If the Check Cond indicator comes on, a failure has occurred. Possible cause: 1. Processor 2. Microcode failure.	1. Re-IML. 2. Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange FRU type 950x in location 18. 2. Use your support structure for aid. For Models 21L through 92R: 1. Exchange the planar board. 2. Use your support structure for aid. See Chapter 3 of the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
1072 or 1074	0100	3174 IML hardware failure. Possible cause: 1. Processor 2. Microcode failure 3. storage.	1. Re-IML. 2. Request service. ***For service personnel only:*** <u>For Models 1L through 13R:</u> 1. Exchange FRU type 950x in location 18. 2. Exchange FRU type 905x in locations 17, 19, and 20. 3. Use your support structure for aid. <u>For Models 21L through 92R:</u> 1. Exchange the planar board. 2. Exchange storage cards in locations J22 and J23 if present. 3. Use your support structure for aid. See Chapter 3 of the maintenance manual for your model.
1076 or 1077	0100	3174 IML progress message. If the Check Cond indicator comes on, a failure has occurred. Possible cause: 1. Processor 2. Microcode failure.	1. Re-IML. 2. Request service. ***For service personnel only:*** <u>For Models 1L through 13R:</u> 1. Exchange FRU type 950x in location 18. 2. Use your support structure for aid. <u>For Models 21L through 92R:</u> 1. Exchange the planar board. 2. Use your support structure for aid. See Chapter 3 of the maintenance manual for your model.
1078		3174 microcode failure.	1. Re-IML. 2. Request service. ***For service personnel:*** Use support structure for aid.
1079	0100	3174 IML progress message. If the Check Cond indicator comes on, a failure has occurred. Possible cause: 1. Processor 2. Microcode failure.	1. Re-IML. 2. Request service. ***For service personnel only:*** <u>For Models 1L through 13R:</u> 1. Exchange FRU type 950x in location 18. 2. Use your support structure for aid. <u>For Models 21L through 92R:</u> 1. Exchange the planar board. 2. Use your support structure for aid. See Chapter 3 of the maintenance manual for your model.

2001 to 2087		Successful test completion message, where:
		
		20 = Test complete.
		
		01-52, 81, 82, and 87 = The hardware groups that were tested.
		
		Note: The HG number in the 20HG completion message must equal the HG number that was entered in the test request. If it is not equal, a failure has occurred.
			• Press ENTER to obtain the 4001 prompt message and select the next test.
			• To exit test mode:
			
			  For diskette drive: Insert the Control disk and press IML.
			
			  For fixed disk drive: Press IML.
			
			For service personnel only:
			
			If the HG number is not the same as the HG number entered in the test request, go to MAP 0110 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
2101 to 2187		Test-in-progress message, where: 21 = Test in progress. 01-52, and 87 = The hardware group being tested.	Wait for the test to complete. If the same 21HG number remains displayed for 20 seconds, an error has occurred. 1. Re-IML and retry the test. 2. Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange FRU type 950x in location 18. 2. Use your support structure for aid. For Models 21L through 92R: 1. Exchange the planar board. 2. Use your support structure for aid. See Chapter 3 of the maintenance manual for your model.
2201 to 2287		Test-in-progress message where: 22 = Test in progress. 01-52 and 87 = The hardware group being tested.	Wait for the test to complete. If the same 22HG number remains displayed for 20 seconds, an error has occurred. 1. Re-IML and retry the test. 2. Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange FRU type 950x in location 18. 2. Use your support structure for aid. For Models 21L through 92R: 1. Exchange the planar board. 2. Use your support structure for aid. See Chapter 3 of the maintenance manual for your model.
23XX		Test-in-progress indicators	No action is required.
2587		Hardware group test all 81 or 82, or an Alt 2 IML was completed successfully using the Control disk or the Control microcode on the fixed disk. **Note:** Only processor and storage tests run using the Control microcode.	If a full diagnostic run is required, insert a Utility diskette or use the Utility microcode on the fixed disk and retry the operation. If you wish to make the controller operational, an IML is required.
2901 to 2952	TYPE LOCA TYPE LOCA	Test failure message, where: 29 = Test has failed. 01–52 = The failing hardware group. See Hardware Group Numbers on page 2-13. TYPE = FRU to be exchanged. LOCA = The location of the failing FRU.	Request service. *For service personnel only:* Exchange the FRU indicated by the TYPE and LOCA fields. **Note:** If you were using a MAP, follow the procedure in the MAP.

Status Code	Additional Fields	Description	Action

2987	TYPE LOCA
	TYPE LOCA
		Test failure message, where:
		29 = Test has failed.
		87 = Processor/storage.
			Request service.
			
			For service personnel only:
			
			For Models 1L through 13R:
			
			1. Exchange the FRU indicated by the TYPE and LOCA fields.
			
			   Note: If the storage card being replaced is in location 20 and the failure continues after that card is replaced, exchange the storage card in location 19 and then the storage card in location 17.
			
			2. Exchange FRU type 950x in location 18.
			
			For Models 21L and 21R:
			
			1. Exchange the FRU indicated by the TYPE and LOCA fields.
			2. Exchange the planar board.
			3. Exchange the storage card in location J22.
			4. If present, exchange the storage card in location J23.
			
			For Models 51R, 52R, and 53R:
			
			1. Exchange the FRU indicated by the TYPE and LOCA fields.
			2. Exchange the planar board.
			3. If present, exchange the storage card.
			
			For Models 61R, 62R, and 63R:
			
			1. Exchange the FRU indicated by the TYPE and LOCA fields.
			2. Exchange the planar board.
			3. Exchange the storage card in location J22.
			4. If present, exchange the storage card in location J23.
			
			For Models 81R or 82R:
			
			   Exchange the planar board.
			
			For Models 90R through 92R:
			
			1. Exchange the FRU indicated by the TYPE and LOCA fields.
			2. Exchange the planar board.
			3. Exchange the storage card in location J22.
			
			See Chapter 3 in the maintenance manual for your model.

3001	01HG to 04HG TYPE LOCA TYPE LOCA	3174 hardware failure during offline tests. PIO adapter test failure. Possible cause: 1. PIO Adapter 2. Processor 3. PIO Bus (3001 01HG and 04HG only).	1. Perform an Alt 2 IML; see page 2-3. 2. Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange the FRUs in locations 21 through 24 one at a time. 2. Exchange FRU type 950x in location 18. 3. For status codes 3001 01HG and 04HG only, exchange the logic board. For Models 21L through 92R: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action

3002	01HG to 03HG TYPE LOCA TYPE LOCA	3174 hardware failure during offline tests.
		
		Adapter logic failure.
		
		Possible cause:
		
		1. MMIO Adapter
		2. Processor
		3. Logic board (01HG and 02HG only).
			Request service.
			
			For service personnel only:
			
			For Models 1L through 21R:
			
			  Go to MAP 0600.
			
			For Models 51R through 92R:
			
			  Exchange the FRU indicated by the TYPE and LOCA fields.

3003	01HG TYPE LOCA TYPE LOCA	3174 hardware failure during offline tests.	Request service. *For service personnel only:* 1. Exchange the FRU indicated by the first TYPE and LOCA fields. 2. Exchange the FRU indicated by the second TYPE and LOCA fields.
3010 and 3011	0116	3174 hardware failure during offline tests. Possible cause: 1. The channel adapter driver/receiver card or tailgate assembly is missing or defective. 2. Processor.	Request service. *For service personnel only:* For Models 1L and 11L: 1. Exchange the channel driver/receiver card in location 10. Note: Before exchanging this card, see "How to Remove the Channel Adapter or Channel Driver/Receiver Card" in the maintenance manual. 2. Exchange FRU type 950x in location 18. For Model 21L: 1. Exchange the tailgate assembly. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
3011	0216	3174 hardware failure during offline tests. This failure may not affect normal operations. Note: The test completed successfully, but it is indicated that the channel driver/receiver card or tailgate assembly is not present in the controller.	Request service. *For service personnel only:* For Models 1L and 11L: 1. Exchange the channel driver/receiver card in location 10. Note: Before exchanging this card, see "How to Remove the Channel Adapter or Channel Driver/Receiver Card" in the maintenance manual. 2. Exchange FRU type 950x in location 18. For Model 21L: 1. Exchange the tailgate assembly. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
3011	0316 TYPE LOCA XXYY	Channel Driver/Receiver Wrap Test failure. XX and YY are 2-digit codes that identify the first two failing signal lines. See "Wrap Test Analysis" in Chapter 2 of the maintenance manual for definitions of these values.	Request service. **For service personnel only:** For Models 1L and 11L: 1. Check for bent or broken pins on wrap plugs, terminators, and connectors. 2. Exchange the channel driver/receiver card in location 10. **Note:** Before exchanging this card, see "How to Remove the Channel Adapter or Channel Driver/Receiver Card" in the maintenance manual. 3. Exchange FRU Type 950x in location 18. For Model 21L: 1. Check for bent or broken pins on wrap plugs, terminators, and connectors. 2. Exchange the tailgate assembly. 3. Exchange the planar board.
3012	0116 TYPE LOCA	The Channel Adapter Test has detected that the channel adapter is stuck in the online state.	1. Perform an Alt 1 IML (see page 2-1), to reset the 3174 and retry the Channel Adapter Test. 2. Request service. **For service personnel only:** For Models 1L and 11L: Exchange the channel driver/receiver card in location 10. **Note:** Before exchanging this card, see "How to Remove the Channel Adapter or Channel Driver/Receiver Card" in the maintenance manual. For Model 21L: Exchange the planar board.
3020	01HG TYPE LOCA	Offline test hardware failure: Possible cause: 1. Diskette media 2. Diskette drive.	1. Exchange the diskette. 2. Perform an Alt 2 IML; see page 2-3. 3. Request service. **For service personnel only:** Exchange the FRU indicated by TYPE and LOCA.
3020	02HG TYPE LOCA	Offline test hardware failure: Possible cause: Fixed Disk drive.	1. Perform an Alt 2 IML; see page 2-3. 2. Run the "Fixed Disk Media Tests" on page 2-5. If data restoration is required, copy your diskettes onto the fixed disk as required for your 3174 configuration. See "Restoring Your Data" on page 2-8. 3. Request service. **For service personnel only:** Exchange the FRU indicated by TYPE and LOCA.
3021	01HG TYPE LOCA	Offline test failure: Possible cause: 1. Fixed disk is unformatted. 2. Fixed disk is formatted incorrectly.	1. Run the "Fixed Disk Full Format" on page 2-7. 2. Re-IML. 3. Request service. **For service personnel only:** Exchange the FRU indicated by TYPE and LOCA.

Status Code	Additional Fields	Description	Action
3023	01HG TYPE LOCA TYPE LOCA	Offline test hardware failure: disk or diskette drive. Possible cause: 1. Diskette 2. Diskette drive 3. Fixed disk drive 4. File adapter. Note: This failure occurs if an Alt 2 IML is performed and a blank diskette is installed in diskette drive 2. Ensure that a 3174 diskette is installed in diskette drive 2.	1. Exchange the diskette in the diskette drive indicated by the hardware group number. 2. Perform an Alt 2 IML; see page 2-3. 3. Request service. *For service personnel only:* Exchange the FRU indicated by TYPE and LOCA. Go to MAP 0430 in the maintenance manual for your model.
3023	02HG TYPE LOCA TYPE LOCA	Disk drive diagnostic failure. Possible cause: 1. Diskette drive 2. Fixed disk drive 3. File adapter 4. Logic board.	1. Perform an Alt 2 IML; see page 2-3. 2. Request service. *For service personnel only:* Exchange the FRU indicated by TYPE and LOCA. Go to MAP 0430 in the maintenance manual for your model.
3023	03HG TYPE LOCA TYPE LOCA	Disk drive diagnostic failure. Possible cause: 1. Diskette drive 2. Fixed disk drive 3. File adapter 4. Logic board.	1. Re-IML. 2. Request service *For service personnel only:* Exchange the FRU indicated by TYPE and LOCA. Go to MAP 0430 in the maintenance manual for your model.
3024	01HG TYPE LOCA TYPE LOCA	Unknown error in the diskette drive or file adapter Possible cause: 1. Defective diskette media 2. Diskette drive 3. File adapter 4. Logic board.	1. Exchange the diskette. 2. Perform an Alt 2 IML; see page 2-3. 3. Request service. *For service personnel only:* Exchange the FRU indicated by TYPE and LOCA. Go to MAP 0430 in the maintenance manual for your model.
3024	02HG TYPE LOCA TYPE LOCA	Unknown error in the fixed disk or file adapter, while running individual file diagnostics. Possible cause: 1. Defective fixed disk media 2. Fixed disk drive 3. File adapter 4. Logic board.	1. Run the "Fixed Disk Media Tests" on page 2-5. If data restoration is required, recopy your diskettes onto the fixed disk. See "Restoring Your Data" on page 2-8. 2. Re-IML. 3. Request service. *For service personnel only:* Exchange the FRU indicated by TYPE and LOCA. Go to MAP 0430 in the maintenance manual for your model.
3025	01HG TYPE LOCA TYPE LOCA	A failure occurred during diskette drive diagnostics. Possible cause: 1. Diskette drive 2. File adapter.	1. Retry the test. 2. Request service. *For service personnel only:* Exchange the FRUs indicated by TYPE and LOCA, one at a time.
3025	02HG TYPE LOCA	A failure occurred during diskette drive diagnostics. Possible cause: 1. Diskette drive 2. File adapter.	1. Retry the test. 2. Request service. *For service personnel only:* Exchange the FRUs indicated by TYPE and LOCA.

Status Code	Additional Fields	Description	Action
3025	03HG TYPE LOCA TYPE LOCA	Unknown error in the fixed disk or file adapter, while running individual file diagnostics. Possible cause: 1. Fixed disk drive 2. File adapter 3. For Models 1L through 13R, exchange the logic board.	1. Retry the test 2. Request service. *For service personnel only:* 1. Exchange the FRUs indicated by TYPE and LOCA, one at a time. 2. Exchange the logic board (for Models 1L through 13R).
3026	02HG TYPE LOCA TYPE LOCA	A 2.4MB diskette drive failed when trying to read a 1.2MB diskette. When a 2.4MB drive is being tested with a 2.4MB diskette installed, it tests its read/write capability at both 2.4MB and 1.2MB densities. Possible cause: 1. Diskette drive 2. File adapter.	No action is required if 2.4MB diskettes are used. Otherwise, request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange the diskette drive indicated by the HG number. 2. Exchange the file adapter in location 21. For Models 21L through 92R: 1. Exchange the diskette drive indicated by the HG number. 2. Exchange the planar board.
3030	01HG TYPE LOCA	Communication adapter offline test failure (FN 02, modem wrap). Possible cause: 1. The modem is not wrappable. 2. Modem 3. Communication interface cable or Test/Oper switches set to Test 4. Communication adapter. 5. Concurrent communication adapter card.	Check the connections at the modem and the 3174. • For Models 1L through 63R, go to CPD 0300 in the 3174 *Customer Problem Determination* manual. • For Models 81R through 92R, go to CPD 0310 in the 3174 *Customer Problem Determination* manual. *For service personnel only:* Go to MAP 0300 in the maintenance manual for your model, or use the following test. Run the interface cable wrap test (FN 01), see "How to Run Communication and Concurrent Communication Adapter Optional Tests" in the maintenance manual for your model.
3030	02HG TYPE LOCA	Communication adapter offline test failure (FN 01, 02, 04, 05, or 07). Possible cause: 1. Communication interface cable is missing or defective. 2. Communication interface cable is not connected correctly. 3. The wrong communication interface cable is connected. 4. The wrap plug is missing or the wrong wrap plug is connected. Note: Only a 3174 communication interface cable or wrap plug can be used.	1. Verify that the correct cable or wrap plug is connected. See "Communication Adapter Cable Part Numbers" on page 2-30. 2. Check the connections at the modem and 3174. 3. Request service. *For service personnel only:* Go to MAP 0300 in the maintenance manual for your model, or use the following steps. 1. Verify that the correct wrap plug or interface cable is being used and is connected properly and that the Test/Oper switch on the cable is set to test. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the interface cable or wrap plug.

Status Code	Additional Fields	Description	Action
3030	03HG TYPE LOCA	Type 2 (X.21) Communication adapter offline test failure (FN 01, 02, or 05). Possible cause: 1. The wrong communication interface cable is being used. 2. The wrong wrap plug is connected. 3. Communication interface cable is defective. 4. Communication interface cable is not connected correctly.	1. Verify that the communication interface cable is part number 6423155 or 6423156. 2. Check the connections at the modem and 3174. 3. Check that the Test/Oper switch is set correctly for the test that is being performed. 4. Request service. *For service personnel only:* Go to MAP 0300 in the maintenance manual for your model, or use the following steps. 1. Verify that the correct wrap plug or interface cable is being used and is connected properly, and that the Test/Oper switch on the cable is set to Test. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the interface cable or wrap plug.
3030	04HG TYPE LOCA	Communication adapter optional test failure. Function number 02, 04, or 07 has been selected, and an EIA/V35 cable is not connected to the Type 1 communication adapter. Possible cause: 1. The wrong communication interface cable is being used. 2. Communication interface cable is defective. 3. Communication interface cable is not .connected correctly.	1. Verify that the correct communication interface cable is attached. See "Communication Adapter Cable Part Numbers" on page 2-30. 2. Check the connections at the modem and 3174. 3. Check that the Test/Oper switch is set correctly for the test that is being performed. 4. Request service. *For service personnel only:* Go to MAP 0300 in the maintenance manual for your model, or use the following steps. 1. Verify that the correct wrap plug or interface cable is being used and is connected properly and that the Test/Oper switch on the cable is set to test. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the interface cable or wrap plug.

Status Code	Additional Fields	Description	Action

3030	2xHG TYPE LOCA	Communication adapter optional test failure (function number 01 or 05).
		
		2x = 21 – 26 where:
		
		  21 = EIA 232D cable wrap failure (adapter clock).
		  22 = CCITT V.35 cable wrap failure (adapter clock) or X.21 wrap plug installed on an EIA 232D/ CCITT V.35 adapter card.
		  23 = X.21 cable wrap failure (adapter clock) or EIA 232D/ CCITT V.35 wrap plug installed on an X.21 adapter card.
		  24 = EIA 232D/CCITT V.35 wrap plug failure or X.21 interface cable installed on an EIA 232D/ CCITT V.35 adapter card or a Concurrent Communication Adapter (CCA) is installed in an invalid location.
		  25 = X.21 wrap plug failure or CCITT V.35 interface cable installed on an X.21 adapter card.
		  26 = X.21 cable wrap failure (external clock) or EIA 232D/ CCITT V.35 wrap plug installed on an X.21 adapter card.
			1. Verify that the correct communication interface cable is attached. See "Communication Adapter Cable Part Numbers" on page 2-30.
			2. Check the connections at the modem and 3174.
			3. Check that the Test/Oper switch is set correctly for the test that is being performed.
			4. For status code 3030 24HG (Models 1L, 1R, 2R, or 3R only), make sure any CCA (Type 9263 or 9267) is installed in location 12, 13, or 14
			5. Request service.
			
			For service personnel only:
			
			Go to MAP 0300 in the maintenance manual for your model, or use the following steps:
			
			1. Verify that the correct wrap plug or interface cable is being used and is connected properly, and that the Test/Oper switch on the cable is set to test.
			2. Exchange the FRU indicated by TYPE and LOCA.
			3. Exchange the interface cable or wrap plug.
			
			Note: If you are here from MAP 0300, return to the MAP step that sent you here.

3040	01HG PN00 TYPE LOCA	A port wrap test on the terminal adapter has failed (FN 01 or 05). Possible cause: 1. Terminal adapter. 2. The terminal adapter output cable was not disconnected. PN = The port that has failed.	1. Check to make sure that the cable was disconnected from the port. 2. Retry the test. 3. Request service. *For service personnel only:* Exchange the FRU indicated by TYPE and LOCA.

3040	02HG PNMP TYPE LOCA TYPE LOCA	A multiplexer port wrap test has failed (function number 02 or 06).
		
		Note: This test is valid only on a 3299 Model 2, 3, or 32, and the IBM 7232 Dual Control Unit Terminal Multiplexer.
		
		Possible cause:
		
		1. Terminal Multiplexer Adapter or Fiber Optic Terminal Adapter
		2. 3299 Model 2, 3, or 32
		3. The Terminal Multiplexer Adapter, Fiber Optic Terminal Adapter, or 3299 output signal cable was not disconnected.
		4. The Terminal Multiplexer Adapter, Fiber Optic Terminal Adapter, or 3299 input signal cable
		5. Terminal adapter
		6. IBM 7232 Dual Control Unit Terminal Multiplexer.
		
		PN = Port number of the terminal adapter.
		
		MP = Port number of the 3299 or Terminal Multiplexer Adapter.
			1. Check to make sure that the cable was disconnected from the port, and then retry the test.
			2. Do one of the following:
			  • If you are running the port wrap test procedure from another manual, return to that procedure.
			  • If you are not running the port wrap test procedure from another manual, there may be a 3270 display type problem. Go to "Start of Problem Determination" in the *3174 Problem Determination Guide*.
			
			Note: For 7232 information and testing, see *7232 Product Description*, GA23-0345 manual.
			
			For service personnel only:
			
			Go to MAP 0200 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
3040	03HG PNMP TYPE LOCA TYPE LOCA	A port wrap test on a TMA or an external terminal multiplexer, such as a 3299, has failed. The path between the terminal adapter and the TMA/3299 is working. **Note:** This test is valid only on a 3299 Model 2, 3, or 32, and the IBM 7232 Dual Control Unit Terminal Multiplexer. Possible cause: 1. Terminal Multiplexer Adapter or Fiber Optic Terminal Adapter 2. 3299 Model 2, 3, or 32 3. The Terminal Multiplexer Adapter, Fiber Optic Terminal Adapter, or 3299 output signal cable was not disconnected. PN = Port number of the terminal adapter. MP = Port number of the 3299 or Terminal Multiplexer Adapter.	• For Models 1L through 63R, go to CPD 0200 in the *3174 Customer Problem Determination* manual. • For Models 81R, 82R, 91R, and 92R, go to CPD 0210 in the *3174 Customer Problem Determination* manual. • For Model 90R, go to CPD 0215 in the *3174 Customer Problem Determination* manual. *For service personnel only:* Go to MAP 0200 in the maintenance manual for your model.
3041	01HG PN00 TYPE LOCA TYPE LOCA	The path test to a terminal has failed (function number 03, 04 or 07). Possible cause: 1. Defective terminal or the terminal is not switched on 2. Terminal signal cable 3. Terminal adapter 4. 3299. PN = Port number.	• For Models 1L through 63R, go to CPD 0200 in the *3174 Customer Problem Determination* manual. • For Models 81R, 82R, 91R, and 92R, go to CPD 0210 in the *3174 Customer Problem Determination* manual. • For Model 90R, go to CPD 0215 in the *3174 Customer Problem Determination* manual. *For service personnel only:* Go to MAP 0200 in the maintenance manual for your model.
3041	02HG PNMP TYPE LOCA	The path test to a terminal attached to a terminal multiplexer adapter (TMA) port has failed (function number 03, 04, or 07). Possible cause: 1. Defective terminal or the terminal is not switched on 2. Terminal signal cable 3. Terminal adapter 4. TMA 5. The cable between the terminal adapter and the TMA. PN = Port number. MP = TMA port number.	• For Models 1L through 63R, go to CPD 0200 in the *3174 Customer Problem Determination* manual. • For Models 81R, 82R, 91R, and 92R, go to CPD 0210 in the *3174 Customer Problem Determination* manual. • For Model 90R, go to CPD 0215 in the *3174 Customer Problem Determination* manual. *For service personnel only:* Go to MAP 0200 in the maintenance manual for your model.
3041	03HG PNMP TYPE LOCA	The path test to a terminal attached to the IBM 7232 Dual Control Unit Terminal Multiplexer has not been completed (function number 03, 04, or 07). The connection between the terminal adapter and the multiplexer is working, but the test was not completed because the logical switch in the multiplexer is set to the other controller. Possible cause: 1. The other controller has control of the terminal. 2. IBM 7232 Dual Control Unit Terminal Multiplexer. PN = Port number of the terminal adapter. MP = Dual control unit terminal multiplexer port number.	• For Models 1L through 63R, go to CPD 0200 in the *3174 Customer Problem Determination* manual. • For Models 81R, 82R, 91R, and 92R, go to CPD 0210 in the *3174 Customer Problem Determination* manual. • For Model 90R, go to CPD 0215 in the *3174 Customer Problem Determination* manual. **Note:** For 7232 information and testing, see *7232 Product Description*, GA23-0345, and the *3174/7232 Operator's Reference*, GA23-0346. *For service personnel only:* Go to MAP 0200 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
3041	04HG PNMP TYPE LOCA	The path test to a terminal attached to a multiplexer has failed (function number 03, 04, or 07). The connection between the terminal adapter and the multiplexer is working. PN = Port number of the terminal adapter. MP = Dual control unit terminal multiplexer port number.	• For Models 1L through 63R, go to CPD 0200 in the *3174 Customer Problem Determination* manual. • For Models 81R, 82R, 91R, and 92R, go to CPD 0210 in the *3174 Customer Problem Determination* manual. • For Model 90R, go to CPD 0215 in the *3174 Customer Problem Determination* manual. **Note:** For 7232 information and testing, see *7232 Product Description*, GA23-0345, and the *3174/7232 Operator's Reference*, GA23-0346. *For service personnel only:* Go to MAP 0200 in the maintenance manual for your model.
3041	05HG PNMP TYPE LOCA TYPE LOCA	The path test to a terminal attached to a terminal multiplexer (TMA) or 3299 Model 2, 3, or 32 has failed (function number 03, 04, or 07). The connection between the Terminal Adapter and the 3299 or the TMA is working. Possible cause: 1. 3299, Terminal Multiplexer Adapter, or Fiber Optic Terminal Adapter 2. Terminal signal cable 3. Terminal. PN = Port number of the terminal adapter. MP = 3299, Terminal Multiplexer Adapter, or Fiber Optic Terminal Adapter port number.	• For Models 1L through 63R, go to CPD 0200 in the *3174 Customer Problem Determination* manual. • For Models 81R, 82R, 91R, and 92R, go to CPD 0210 in the *3174 Customer Problem Determination* manual. • For Model 90R, go to CPD 0215 in the *3174 Customer Problem Determination* manual. *For service personnel only:* Go to MAP 0200 in the maintenance manual for your model.
3042	01HG PN00 TYPE LOCA	The exerciser test to a terminal directly attached to a terminal adapter port has failed (function number 04). Possible cause: 1. Defective terminal 2. Terminal adapter 3. Loose or noisy terminal signal cable. PN = The terminal adapter port number.	• For Models 1L through 63R, go to CPD 0200 in the *3174 Customer Problem Determination* manual. • For Models 81R, 82R, 91R, and 92R, go to CPD 0210 in the *3174 Customer Problem Determination* manual. • For Model 90R, go to CPD 0215 in the *3174 Customer Problem Determination* manual. *For service personnel only:* Go to MAP 0200 in the maintenance manual for your model.

3042	02HG PNMP
	TYPE LOCA
	TYPE LOCA
		The exerciser test to a terminal attached to an external terminal multiplexer, such as a 3299, or a TMA has failed.
		
		Possible cause:
		
		1. Defective terminal
		2. Terminal Multiplexer Adapter or Fiber Optic Terminal Adapter
		3. External multiplexer
		4. Terminal adapter
		5. Loose or noisy terminal signal cable
		6. TMA/External multiplexer input signal cable.
		
		PN = Port number of the terminal adapter.
		
		MP = Port number of the External terminal multiplexer, Terminal Multiplexer Adapter, or Fiber Optic Terminal Adapter.
			1. Check to make sure that the cable was disconnected from the port, and then retry the test.
			2. Do one of the following:
			  • If you are running the port wrap test procedure from another manual, return to that procedure.
			  • If you are not running the port wrap test procedure from another manual, there may be a 3270 display type problem. Go to "Start of Problem Determination" in the *3174 Customer Problem Determination* manual.
			
			For service personnel only:
			
			Go to MAP 0200 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
3043	01HG PNMP TYPE LOCA	A terminal adapter failure has occurred while running offline tests. Possible cause: terminal adapter. PN = Port number of the terminal adapter. MP = TMA/3299 port number.	1. Retry the test. 2. Request service. *For service personnel only:* Exchange the FRU indicated by TYPE and LOCA.
3050	01HG or 02HG TYPE LOCA	Token-Ring adapter wrap test failed (FN 01 or 02). Possible cause: 1. Interface cable or wrap plug not attached. 2. Defective cable, or wrap plug. 3. Defective Token-Ring adapter. 4. FN 02 was used and the interface cable was used instead of the wrap plug. 5. Token-Ring network problem. 6. 8228 Multistation Access Unit is defective.	Return to the procedure that directed you to run this test. *For service personnel only:* Exchange the Token-Ring adapter. See Chapter 3 in the maintenance manual for your model.
3060	01HG TYPE LOCA	An asynchronous emulation adapter test has completed successfully but the internal cable from the adapter to the I/O panel is disconnected. Possible cause: 1. The I/O panel cable is disconnected. 2. The I/O panel cable is defective. 3. Asynchronous emulation adapter. 4. Logic board (Models 1L through 13R).	Request service. *For service personnel only:* For Models 1L through 13R: 1. Reseat or connect the internal I/O panel cable. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the I/O panel cable. 4. Exchange the logic board. For Models 21L and 21R: Exchange the FRU indicated by TYPE and LOCA. For Models 51R through 63R: 1. Reseat or connect the internal I/O panel cable. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the I/O panel cable. See Chapter 3 in the maintenance manual for your model.
3061	0xHG PN00 TYPE LOCA	The asynchronous emulation adapter port wrap test (function number 01) has failed. The internal cable from the adapter to I/O panel is defective or is disconnected. Possible cause: 1. The I/O panel cable is disconnected (01HG or 02HG). 2. The I/O panel cable is defective. 3. Asynchronous emulation adapter. 4. Wrap plug is not installed. 5. Logic board (Models 1L through 13R). PN = AEA port number.	Request service. *For service personnel only:* For Models 1L through 63R: 1. Reseat or connect the internal I/O panel cable. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the I/O panel cable. 4. For Models 1L through 13R, exchange the logic board. For Models 21L and 21R: Exchange the AEA. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action

3089	01HG TYPE LOCA	The IML microcode started loading from an incorrect address. The microcode corrected the error and reloaded from the correct address.
		
		Possible cause: Processor.
			To complete the IML:
			
			• For Models 1L through 63R, type in a 1 on the 3174 operator panel and press ENTER.
			• For Models 81R through 92R, press ADV, (1 is displayed), then press ENTER.
			
			Request service.
			
			For service personnel only:
			
			For Models 1L through 13R:
			
			    Exchange FRU type 950x in location 18.
			
			For Models 21L through 92R:
			
			    Exchange the planar board.
			
			See Chapter 3 in the maintenance manual for your model.

3091	TYPE LOCA TYPE LOCA	3174 offline test hardware failure: storage.	Request service. *For service personnel only:* For Models 1L through 13R: 1. Check for correct installation of all storage cards. See the card plug charts in the maintenance manual. 2. Exchange FRU type 950x in location 18. For Models 21L and 21R: 1. Exchange the storage card in location J22. 2. If present, exchange the storage card in location J23. 3. Exchange the planar board. For Models 51R, 52R, and 53R: 1. Exchange the storage card in location 05. 2. Exchange the planar board. For Models 61R, 62R, and 63R: 1. Exchange the storage card in location J22. 2. If present, exchange the storage card in location J23. 3. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
3170	01HG IL	3174 offline test hardware failure.	Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange FRU type 950x in location 18. 2. Exchange the adapters that use the interrupt level causing the failure, one at a time. See "Interrupt Levels" in the maintenance manual. For Models 21L through 92R: 1. Exchange the planar board. 2. Exchange any installed feature cards one at a time. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
3174		A normal IML completed successfully unless the Check Cond indicator is on. This status code is presented if no operational errors are present.	1. If the Check Cond indicator is on, perform an ALT 2 IML; see page 2-3. 2. Request service. *For service personnel only:* For Models 1L through 13R: Exchange FRU type 950x in location 18. For Models 21L through 92R: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
3180	01HG MC or 02HG MC	3174 offline test hardware failure, unexpected or unrecoverable machine check occurred. HG field = The hardware group under test when the failure occurred. MC field = The specific machine check and cause of failure.	1. Retry the test. 2. Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange FRU type 950x in location 18. 2. Exchange FRU type 905x in location 19. 3. Replace the adapter indicated by the hardware group number. For Models 21L through 92R: 1. Exchange the planar board. 2. Exchange any installed feature cards one at a time. See Chapter 3 in the maintenance manual for your model.
3180	0300 MC	An unrecoverable machine check has occurred.	1. Retry the test. 2. Request service. *For service personnel only:* For Models 1L through 13R: Exchange FRU Type 950x in location 18. For Models 21L through 92R: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
3180	04HG IL to 05HG IL	An unexpected interrupt has occurred. HG field = The hardware group under test when the failure occurred. IL field = The interrupt level causing the failure.	1. Retry the test. 2. Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange FRU type 950x in location 18. 2. Exchange the adapters that use the interrupt level causing the failure, one at a time. See "Interrupt Levels" in the maintenance manual. For Models 21L through 92R: 1. Exchange the planar board. 2. Exchange any installed feature cards one at a time. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
3180	06HG	3174 operator panel failure.	1. Retry the test. 2. Request service. *For service personnel only:* 1. Exchange the operator panel. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

3201		3174 IML hardware failure.
		
		Possible cause:
		
		1. Processor
		2. Any adapter or storage card.
		3. Logic board (Models 1L through 13R).
			1. Re-IML.
			2. Request service.
			
			For service personnel only:
			
			For Models 1L through 13R:
			
			1. Perform an Alt 2 IML; see page 2-3.
			  • If Alt 2 fails with a 1048 status code, go to MAP 0800 in the maintenance manual.
			  • If the Alt 2 is successful, exchange FRU Type 950x in location 18.
			2. Exchange the logic board.
			
			For Models 21L through 92R:
			
			1. Exchange the planar board.
			2. Exchange any installed feature or storage cards one at a time.
			
			See Chapter 3 in the maintenance manual for your model.

3202		3174 IML hardware failure. Possible cause: 1. Processor 2. Operator panel adapter.	1. Re-IML. 2. Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange FRU type 950x in location 18. 2. Exchange the operator panel adapter. For Models 21L through 92R: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
3203	TYPE LOCA	3174 IML hardware failure. Possible cause: 1. First storage card 2. Processor.	1. Re-IML. 2. Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange FRU type 950x in location 18. For Models 21L through 92R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
3204	TYPE LOCA TYPE LOCA	Storage cards installed exceed 3174 configuration.	If a feature installation is in progress, recheck the instructions. Otherwise: 1. Re-IML. 2. Request service. *For service personnel only:* Remove the storage cards indicated by TYPE and LOCA.

Status Code	Additional Fields	Description	Action
3205	TYPE LOCA TYPE LOCA	Invalid Storage configuration. Possible cause: 1. Storage cards plugged wrong, missing, or defective. 2. Processor. Note: TYPE and LOCA fields are displayed for each missing or incorrect card.	If a feature installation is in progress, recheck the instructions. Otherwise: 1. Re-IML. 2. Request service. **For service personnel only:** For Models 1L through 13R: 1. Install the cards as shown on the plug charts in the maintenance manual for your model. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange FRU type 950x in location 18. For Models 21L through 92R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

3220	TYPE LOCA	FRU ID failure where:
		
		TYPE = 9001 = invalid FRU number.
		LOCA = Location of the failing FRU.
			If a feature installation is in progress, recheck the instructions. Otherwise:
			
			1. To complete the IML:
			  • For Models 1L through 63R, type in a **1** on the 3174 operator panel and press ENTER.
			  • For Models 81R through 92R, press ADV (1 is displayed), then press ENTER.
			2. Request service.
			
			For service personnel only:
			
			For Models 1L through 13R:
			
			1. Exchange the FRU indicated by TYPE and LOCA.
			2. Exchange FRU type 950x in location 18.
			3. Exchange the logic board.
			
			For Models 21L through 92R:
			
			1. Exchange the FRU indicated by TYPE and LOCA.
			2. Exchange the planar board.
			
			See Chapter 3 in the maintenance manual for your model.

3221	TYPE LOCA	Channel adapter error Possible cause: 1. Channel adapter with no Driver/Receiver 2. Channel Driver/Receiver with no adapter 3. Processor.	1. If a feature installation is in progress, recheck the instructions. 2. Re-IML. 3. Request service. **For service personnel only:** For Models 1L and 11L: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange FRU type 950x in location 18. For Model 21L: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
3222	TYPE LOCA TYPE LOCA	Invalid PIO configuration. Possible cause: The cards are installed incorrectly in one or more of the following locations: 22, 23, or 24. **Note:** Multiple TYPE and LOCA fields are displayed to indicate the cards that are installed incorrectly.	If a feature installation is in progress, recheck the instructions. Otherwise: 1. To complete the IML, type in a 1 on the 3174 operator panel and press Enter. 2. Request service. *For service personnel only:* 1. Verify that the cards are installed as shown in the plug charts; see the maintenance manual for your model. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange FRU type 950x in location 18. See Chapter 3 in the maintenance manual for your model.
3223	TYPE LOCA TYPE LOCA	An invalid card condition exists in the 3174: • Cards are installed in the wrong locations. • One or more cards are failing. • There is a hardware/microcode mismatch. **Note:** Multiple TYPE LOCA fields are displayed if more than one card is installed incorrectly.	1. See "Microcode Level Support" on page 2-14 to verify that the microcode supports the features in the controller. 2. Re-IML or retry your test. 3. Request service. *For service personnel only:* For Models 1L through 13R: 1. Verify that the cards are installed as shown in the "Card Plugging" charts, see the maintenance manual for your model. 2. Exchange the FRUs indicated by TYPE and LOCA, one at a time. For Models 21L through 92R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
3228	TYPE LOCA	An invalid card condition exists in the 3174: • A card is installed in the wrong location. • A card is missing. • A card is failing. • There is a hardware/microcode mismatch.	1. If you are installing a feature, recheck the installation steps. 2. Check that the correct adapter is installed. 3. Request service. *For service personnel only:* 1. Verify that the card is the correct type and is in the correct location and model: For Models 21L and 21R,: The Terminal Multiplexer Adapter must be type 9176. For Model 90R: The Token-Ring Adapter in location 05 must be type 9545. 2. Exchange the FRU indicated by TYPE and LOCA. 3. Exchange the planar board.

Status Code	Additional Fields	Description	Action

3229		The terminal adapter is not present in the controller during an Alt 1 or Alt 2 IML.	1. Re-IML.
			2. Request service.
			
			For service personnel only:
			
			For Models 1L through 13R:
			
			    Exchange FRU type 915X in locations 21, 22, or 23.
			
			For Models 21L through 92R:
			
			    Exchange the planar board.
			
			See Chapter 3 in the maintenance manual for your model.

3230 to 3232	TYPE LOCA	3174 IML hardware failure: terminal adapter.	1. Re-IML.
			2. Request service.
			
			For service personnel only:
			
			For Models 1L through 13R:
			
			    Exchange the FRU indicated by TYPE and LOCA.
			
			For Models 21L through 92R:
			
			    Exchange the planar board.
			
			See Chapter 3 in the maintenance manual for your model.

3233	TYPE LOCA TYPE LOCA	The connection between the terminal adapter and an installed terminal multiplexer adapter is not working. Possible cause: 1. The coaxial cable that connects the TMA to the terminal adapter is defective or not connected. 2. TMA 3. Terminal adapter. **Note:** The TYPE and LOCA fields identify the TMA card.	Only the terminals attached to the failing TMA will be inoperative. The remainder of the subsystem is usable. 1. Check that the coaxial cable connecting the TMA to the terminal adapter is correctly installed. 2. To complete the IML: Type a 1 at the 3174 operator panel and press Enter. 3. Go to CPD 0200 in the *3174 Customer Problem Determination* manual. 4. Request service. ***For service personnel only:*** Go to MAP 0200 in the maintenance manual for your model.

3234		3174 IML hardware or microcode failure. The model of the controller cannot be determined by the microcode.
		
		Possible cause:
		
		1. Operator panel adapter.
		2. The controller hardware is at a higher EC level than the Control microcode.
		3. Wrong Control microcode.
			1. Check that the correct Control microcode is installed.
			2. Perform an Alt 2 IML; see page 2-3.
			3. Request service.
			
			For service personnel only:
			
			For Models 1L through 13R:
			
			    Exchange the operator panel in location 05.
			
			For Models 21L through 92R:
			
			    Exchange the planar board.
			
			See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
3235	TYPE LOCA	An Asynchronous Emulation Adapter (AEA) internal I/O panel cable is disconnected. LOCA = 61 for HG21. LOCA = 62 for HG22. LOCA = 63 for HG23.	1. Type a 1 at the operator panel and press ENTER. 2. Go to CPD 0500 in the *3174 Customer Problem Determination* manual. *For service personnel only:* For Models 1L through 63R: 1. Exchange the FRU indicated by TYPE and LOCA. 2. Exchange the AEA for the failing HG. See Chapter 3 in the maintenance manual for your model.
3236		3174 hardware mismatch. Possible cause: Wrong processor card installed.	Request service. *For service personnel only:* Install the correct processor card in location 18 as required for the 3174 model and microcode release level: • For Models 1L, 1R, 2R, and 3R at Release A/S 4.0 and below, FRU Type 9500 must be installed.
3237		MMIO addressing error. Possible cause: One of the cards on the MMIO bus is responding to an address that is not assigned to that card.	1. Re-IML. 2. Request service. *For service personnel only:* For Models 1L through 13R: The failing adapter is located in one of the card locations between 11 and 17. Exchange the adapters one at a time to isolate the failing card. If you still have the problem after pulling all the cards or if multiple cards seem to be failing, replace the processor card in location 18. For Models 21L and 21R: 1. Exchange the adapters in locations 11 through 15 one at a time. 2. Exchange the planar board. For Models 51R through 63R: 1. Exchange the cards in location 04 or 05 one at a time. 2. Replace the planar board.

Status Code	Additional Fields	Description	Action
3250		3174 IML hardware failure, unable to generate the FRU ID table.	1. Re-IML. 2. Request service. ***For service personnel only:*** For Models 1L through 13R: 1. Exchange FRU type 915x in location 21,22, or 23. 2. Exchange FRU type 950x in location 18. 3. One at a time exchange FRU Type 933X in location 14, 13, or 12. For Models 21L and 21R: 1. If any AEAs are installed, exchange each adapter one at a time. 2. Exchange the planar board. For Models 51R through 92R: 1. If present, exchange FRU type 933X in location 04 (5X and 6X models only). 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
3290		3174 hardware failure: Terminal adapter failed to reset during a normal IML. Possible cause: Terminal adapter.	1. Re-IML. 2. Perform an Alt 2 IML; see page 2-3. 3. Request service. ***For service personnel only:*** For Models 1L through 13R: Exchange FRU type 915x in location 21, 22, or 23. For Models 21L through 92R: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
3291		3174 hardware failure: Communication adapter failed to reset during a normal IML. Possible cause: Communication adapter.	1. Re-IML. 2. Request service. ***For service personnel only:*** Exchange the FRU indicated by TYPE and LOCA in the hardware configuration table. See Chapter 3 in the maintenance manual for your model.
3292		3174 hardware failure: Encrypt/Decrypt adapter failed to reset during a normal IML. Possible cause: Encrypt/Decrypt adapter.	1. Re-IML. 2. Request service. ***For service personnel only:*** For Models 1L through 3R: Exchange FRU Type 9030 in location 24. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
3297		3174 hardware failure: Processor.	Request service. *For service personnel only:* For Models 1L through 13R: Exchange FRU type 950x in location 18. For Models 21L through 92R: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
3299		3174 hardware failure. Possible cause: 1. Channel adapter is installed, but no Driver/Receiver is present. 2. Asynchronous emulation adapter is installed, but the internal cable is not connected.	1. Re-IML. 2. Request service. *For service personnel only:* • For channel adapter failures, see status code 3221. • For asynchronous emulation adapter failures, see status codes 3235.
3301	02XX	A failure occurred on the terminal connected to port zero during offline tests in terminal control mode. Control of the tests has been returned to the operator panel. 02XX = An additional status code.	1. Use the 2XX status code and perform the actions for that code. 2. Check the signal cable connections at the terminal and at the controller. 3. Request service. *For service personnel only:* Go to MAP 0200 in the maintenance manual for your model.
3302	0xHG	A terminal adapter failure occurred during offline tests in terminal-control mode. Control of the tests has been returned to the operator panel.	1. Perform an Alt 2 IML; see page 2-3. 2. Request service. *For service personnel only:* For Models 1L through 13R: Exchange FRU type 915x in location 21, 22, or 23. For Models 21L through 92R: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

3801	XXXX XXXX XXXX	Invalid test request or the microcode is not on the diskette or fixed disk.
		
		XXXX = The data that was entered as the test request.
			At the 3174 operator panel, do the following:
			
			• If you were testing hardware groups 01–52, press Enter. Then, retry the test request.
			• If you were testing hardware groups 81, 82, or 87:
			  — For Models 1L through 63R, key in 1 and press Enter.
			  — For Models 81R through 92R, press ADV and press Enter.
			  Then retry the test request.

Status Code	Additional Fields	Description	Action

3802 to 3809	0xHG	3174 offline test microcode failure.	Do the following:
			
			• Record the entire status code (380n 0xHG).
			• Switch the 3174 power off. Wait a few seconds and turn the power back on.
			• Retry the offline diagnostic test and take the appropriate action as follows:
			  — If the status code recorded earlier reoccurs, request service.
			  — If a different status code appears, refer to the number in this manual and do the recommended action.
			  Otherwise, continue testing.
			
			For service personnel only:
			
			Use your support structure for aid.

4001		Test request prompt.	Enter the desired offline test selection.
4030 to 4034		This is a normal progression message during loading of the test monitor program. If one of these status codes remains displayed longer than 30 seconds, a failure has occurred.	1. Re-IML. 2. Retry the operation. 3. Request service. ***For service personnel only:*** Perform an Alt 2 IML; see page 2-3. For Models 1L through 13R: 1. Exchange FRU type 950x in location 18. 2. For status code 4030, exchange the operator panel. For Models 21L through 92R: 1. Exchange the planar board. 2. For status code 4030, exchange the operator panel. See Chapter 3 in the maintenance manual for your model.
4050		A test request that was looping failed enough times to fill the test log.	1. At the 3174 operator panel, press ENTER. To display the test log, see "How to Display the Test Log" in either the *3174 Customer Problem Determination* manual or the maintenance manual for your model. 2. To reset the test log, select another test.
4079		The test monitor program is performing initialization of the terminal connected to port zero. If this status code remains displayed longer than 30 seconds, a failure has occurred.	1. Re-IML. 2. Request service. ***For service personnel only:*** Perform an Alt 2 IML; see page 2-3. For Models 1L through 13R: 1. Exchange FRU type 950x in location 18. 2. Exchange FRU type 905x in location 19. For Models 21L through 92R: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
4080		Test control is at the display connected to port zero.	Offline tests are in terminal-control mode. To return to operator panel control, perform an Alt 1 IML (see page 2-1) and enter an **80** at the **40** prompt message.

Status Code	Additional Fields	Description	Action
4081	01HG	3174 offline test failure. The terminal adapter in the 3174 cannot communicate with the terminal on port zero. Test control has been returned to the operator panel. Possible cause: 1. Terminal power on Port 0 is switched off. 2. Cable loose or disconnected. 3. Terminal Multiplexer Adapter, Fiber Optic Terminal Adapter, or 3299 failure. 4. Terminal adapter.	1. Check that the terminal connected to port zero is switched on. 2. At the 3174, press ENTER; 4001 is displayed. Type **8094** and press ENTER. 3. Perform an Alt 2 IML; see page 2-3. *For service personnel only:* Go to MAP 0200 in the maintenance manual for your model.
4082	01HG	A 3278 or equivalent terminal is not attached to port zero, or an unsupported keyboard is attached to the terminal.	1. At the 3174 press ENTER; 4001 is displayed. Type **8094** and press ENTER. 2. See the *3174 Utilities Guide* for a list of supported terminals and keyboards. 3. If a supported terminal is attached, see the terminal documentation for further problem isolation. *For service personnel only:* Go to MAP 0200 in the maintenance manual for your model.
4099		An attempt was made to bypass an error stop by performing the Free function (press ENTER) or Continue function (key in 1, press ENTER). This status code indicates the Free or Continue function is not allowed.	Use the recovery actions from the status code that was bypassed before this status code was obtained.

4101	XXXX XXXX	An invalid request was entered in response to the Alt 1 IML 40 prompt. XXXX XXXX is the data that was entered.	1. See the Alt 1 procedure on page 2-1. Verify that the correct parameters were entered.
			  • For Utility microcode, you can use 40, 80, 81, 82 or 87.
			  • For Control microcode, you can use 41, 42, 43, 81, 82 or 87.
			2. Retry the Alt 1 IML; see page 2-1. Reenter the test request.

4102		An invalid data key or function pushbutton was used.	1. At the 3174, press ENTER; 4001 is displayed. 2. Retry the test request.
4103	XXXX XXXX XXXX	An invalid request was entered in response to the 4001 prompt. The data following 4103 is the data that was entered. XXXX XXXX XXXX = The test request that was entered.	1. At the 3174, press ENTER; 4001 is displayed. 2. Retry the test request.
4104	XXXX XXXX XXXX	The hardware group selected in the test request does not appear to be present in the controller. Either the hardware group selected is failing or it is not installed. XXXX XXXX XXXX = The test prompt message that requested manual input.	1. At the 3174 press ENTER; 4001 is displayed. 2. Retry the test request. 3. Request service. *For service personnel only:* For all models: 1. Verify that the hardware group is valid and installed. See "Locations" in Chapter 3 of the maintenance manual for your model. 2. If the FRU for the hardware group is present, exchange it and retry the operation.
4105		Invalid input.	1. At the 3174 press ENTER; 4001 is displayed. 2. Retry the test request.
4106	XXXX XXXX	An invalid response was entered for the test prompt message. XXXX XXXX = The test prompt message that requested manual input.	1. At the 3174 press ENTER; 4001 is displayed. 2. Retry the test request.

Status Code	Additional Fields	Description	Action
4107 to 4110		An incorrect key was used during offline tests in terminal-control mode.	Retry the operation that was being performed.
4111		The response entered was not a continue function.	Perform the continue function (key in 1, press ENTER).
4112		A default IML was detected. ROS was unable to determine the type of IML that was requested. Possible cause: 1. Operator panel defective 2. Operator panel adapter defective.	1. Retry the IML. 2. Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange the operator panel adapter in location 05. 2. Exchange the operator panel. For Models 21L through 92R: 1. Exchange the operator panel. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
4201	01HG TYPE LOCA	Offline test failure; the diskette drive indicated by the hardware group number is not ready. Possible cause: 1. Diskette drive 2. Diskette media 3. File adapter.	1. Check that the diskette is installed properly in the diskette drive indicated by the HG number and the drive door is closed. 2. Retry the test. 3. Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange the diskette drive indicated by the HG number. 2. Exchange the file adapter in location 21. For Models 21L through 92R: 1. Exchange the diskette drive indicated by the HG number. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
4203	01HG	A write-protected diskette is installed. Possible cause: 1. Diskette media is write protected. 2. Diskette drive 3. File adapter.	• Remove the write protection sticker from the diskette and retry the test. • Abort the test you are running by using the Free function (press ENTER) or the Continue function (key in 1, then press ENTER). • If the diskette is not write protected, request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange the diskette drive indicated by the HG number. 2. Exchange the file adapter in location 21. For Models 21L through 92R: 1. Exchange the diskette drive indicated by the HG number. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
4204	01HG TYPE LOCA	During testing, the diskette drive door was opened and closed. Possible cause: 1. Diskette drive 2. File adapter.	1. Press ENTER to perform the Free function. 2. Retry the test. 3. Request service. *For service personnel only:* Exchange the FRU indicated by TYPE and LOCA. See Chapter 3 in the maintenance manual for your model.
4210	01HG PN00 TYPE LOCA	The printer exerciser test (HG26)(FN 07) failed. The printer is directly attached to the controller. Possible cause: 1. Wrong port number entered in the test request 2. A printer is attached that is not supported for function number 07. PN = The terminal adapter port number.	1. Select the correct port number. 2. Use a printer supported by (FN 07). See the "Printer Exerciser Test (FN 07)" under "Offline Tests" for your model. Then, see "How to Run Terminal Adapter/TMA 3299 Optional Tests" in the *3174 Customer Problem Determination* manual.
4210	02HG PNMP TYPE LOCA TYPE LOCA	The printer exerciser test (HG26)(FN 07) failed. The printer is attached to the controller through a multiplexer. Possible cause: 1. Wrong port number entered in the test request 2. A printer is attached that is not supported for function number 07. 3. A printer is attached to the wrong port. PN = The terminal adapter port number. MP = Port number of the multiplexer.	1. Select the correct port number. 2. Use a printer supported by (FN 07). See the "Printer Exerciser Test (FN 07)" under "Offline Tests" for your model. Then, see "How to Run Terminal Adapter/TMA 3299 Optional Tests" in the *3174 Customer Problem Determination* manual to see a list of supported printers.
4211	01HG PN00 TYPE LOCA	The printer exerciser test (HG26)(FN 07) failed. The printer is directly attached to the controller. Possible cause: 1. Printer is out of paper. 2. Printer is not ready. PN = The terminal adapter port number.	1. Use the printer documentation. 2. Retry the test. 3. Request service.
4211	02HG PNMP TYPE LOCA TYPE LOCA	The printer exerciser test (HG26)(FN 07) failed. The printer is attached to the controller through a multiplexer. Possible cause: 1. Printer is out of paper. 2. Printer is not ready. PN = The terminal adapter port number. MP = Port number of the TMA/3299/7232	1. Use the printer documentation. 2. Retry the test. 3. Request service.
4212	01HG PN00 TYPE LOCA	The printer exerciser test (HG26)(FN 07) failed. The printer is directly attached to the controller. Possible cause: 1. Printer hold switch is active. 2. Printer is defective. PN = The terminal adapter port number.	1. Use the printer documentation. 2. Retry the test. 3. Request service.

Status Code	Additional Fields	Description	Action
4212	02HG PNMP TYPE LOCA TYPE LOCA	The printer exerciser test (HG26)(FN 07) failed. The printer is attached to the controller through a multiplexer. Possible cause: 1. Printer hold switch is active. 2. Printer is defective. PN = The terminal adapter port number. MP = Port number of the TMA/3299/7232 (if applicable).	1. Use the printer documentation. 2. Retry the test. 3. Request service.

4401 to 4421	01HG	A fixed disk surface analysis function is complete.
		
		These occur as the result of running fixed disk optional tests.
			Determine the reason for the status code as follows:
			
			• If the status code that you recorded from the original error is in the following list, return to that status code to determine which diskettes need to be copied onto your fixed disk.
			      388-00 to 06HG
			      388-07HG
			      388-11HG
			      388-56HG
			• If the status code that you recorded from the original error is **not** in the list above, you must copy all your diskettes onto the fixed disk. See "Restoring Your Data" on page 2-8.
			• If you have selected the fixed disk optional tests while using the *3174 Customer Problem Determination* manual or the *Maintenance Information* manual, return to the procedure in the appropriate manual.

4425 or 4426	01HG TYPE LOCA	Fixed disk media error. Possible cause: Surface defects developed on the fixed disk media during shipment.	Request service. *For service personnel only:* Replace the fixed disk drive, indicated by TYPE and LOCA. See Chapter 3 in the maintenance manual for your model.
4431	01HG	Fixed disk media error. Possible cause: 1. Fixed disk is unformatted. 2. Fixed disk drive.	1. Run the "Fixed Disk Full Format" on page 2-7, then retry the operation. 2. Request service. *For service personnel only:* Replace the fixed disk drive indicated by the hardware group. See Chapter 3 in the maintenance manual for your model.
4432	01HG	The IML source subdirectory is not selected on the fixed disk.	See "How to Perform Media Management" in the *3174 Utilities Guide* and perform the "IML Select Utility" function.
4505 or 4506		This is a prompt message for the Operator Panel Keypad Test. **Note:** If this test was selected in terminal control mode, the remainder of the test must be performed at the 3174 operator panel.	Continue with the operator panel test, or to obtain the 4001 prompt, press ENTER at the 3174.

Status Code	Additional Fields	Description	Action
4510		Communication adapter optional test failure (function number 04). 'Data set ready' and 'carrier detect' missing. The status indicators are updated in 2-second intervals to show the condition of these two interface leads. Possible cause: 1. Teleprocessing link not active 2. Modem 3. Communication interface cable 4. Communication adapter 5. Concurrent Communication Adapter.	1. Check to see that the modem is turned on. 2. Check to see that the communication interface cable is attached correctly at the modem and controller, and that the Test/Oper switch is set to Operate. 3. See the modem documentation for further modem checks. 4. Request service. ***For service personnel only:*** Use the following steps or go to MAP 0300 in the maintenance manual. For Models 1L through 13R: 1. Exchange the interface cable. 2. Exchange the Communication Adapter in location 22 or 23. 3. Exchange the Concurrent Communication Adapter in location 12, 13, 14, 15, or 16. For Models 21L and 21R: 1. Exchange the interface cable. 2. Exchange the Concurrent Communication Adapter in location 11 – 15. 3. Exchange the planar board. For Models 51R through 63R: 1. Exchange the interface cable. 2. Exchange the Concurrent Communication Adapter in location 04 or 05. 3. Exchange the planar board. For Models 81R through 92R: 1. Exchange the interface cable. 2. Exchange the planar board See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
4511		Communication adapter optional test failure (function number 04). 'Data set ready' is active but 'carrier detect' is missing. The status indicators are updated in 2-second intervals to show the condition of these two interface leads. Possible cause: 1. Telecommunications link 2. Modem 3. Communication interface cable 4. Communication adapter 5. Concurrent Communication Adapter.	1. Check to see that the modem is turned on. 2. Check to see that the communication interface cable is attached correctly at the modem and controller, and that the Test/Oper switch is set to Operate. 3. See the modem documentation for further modem checks. 4. Request service. *For service personnel only:* Use the following steps or go to MAP 0300 in the maintenance manual. For Models 1L through 13R: 1. Exchange the interface cable. 2. Exchange the Communication Adapter in location 22 or 23. 3. Exchange the Concurrent Communication Adapter in location 12, 13, 14, 15, or 16. For Models 21L and 21R: 1. Exchange the interface cable. 2. Exchange the Concurrent Communication Adapter in location 11 – 15. 3. Exchange the planar board. For Models 51R through 63R: 1. Exchange the interface cable. 2. Exchange the Concurrent Communication Adapter in location 04 or 05. 3. Exchange the planar board. For Models 81R through 92R: 1. Exchange the interface cable. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
4512		Communication adapter optional test failure (function number 04). 'Data set ready' is inactive but 'carrier detect' is active. The status indicators are updated in 2-second intervals to show the condition of these two interface leads. Possible cause: 1. Modem 2. Communication interface cable 3. Communication adapter 4. Concurrent Communication Adapter.	1. Check to see that the modem is turned on. 2. Check to see that the communication interface cable is attached correctly at the modem and controller, and that the Test/Oper switch is set to Operate. 3. See the modem documentation for further modem checks. 4. Request service. *For service personnel only:* Use the following steps or go to MAP 0300 in the maintenance manual. For Models 1L through 13R: 1. Exchange the interface cable. 2. Exchange the communication adapter in location 22 or 23. 3. Exchange the Concurrent Communication Adapter in location 12, 13, 14, 15, or 16. For Models 21L and 21R: 1. Exchange the interface cable. 2. Exchange the Concurrent Communication Adapter in location 11 – 15. 3. Exchange the planar board. For Models 51R through 63R: 1. Exchange the interface cable. 2. Exchange the Concurrent Communication Adapter in location 04 or 05. 3. Exchange the planar board. For Models 81R through 92R: 1. Exchange the interface cable. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
4513		This status code indicates 'data set ready' and 'carrier detect' are active.	Press ENTER to stop the test and to display the 4001 prompt.
4514		Communication adapter optional test is in progress. Function number 07 has been selected, which allows measurement of the communication adapter interface leads at the end of the interface cable. If the Check Cond indicator comes on, a failure has occurred.	• To halt this function, press ENTER. • If the Check Cond indicator comes on, request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange the communication adapter in location 22 or 23. 2. Exchange the Concurrent Communication Adapter in location 12, 13, 14, 15, or 16. For Models 21L and 21R: 1. Exchange the Concurrent Communication Adapter in location 11 – 15. 2. Exchange the planar board. For Models 51R through 63R: 1. Exchange the Concurrent Communication Adapter in location 04 or 05. 2. Exchange the planar board. For Models 81R through 92R: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
4530		This status code indicates the Channel Interface switch was moved to the Offline position during the Channel Adapter Switch and Indicator Test (FN 02).	*For service personnel only:* If the code does not change or the offline indicator remains off after the switch is moved, perform the following actions. For Models 1L and 11L: 1. Exchange the channel adapter card in location 11. 2. Exchange the operator panel adapter card in location 05. 3. Exchange the operator panel in location 06. For Model 21L: 1. Exchange the planar board. 2. Exchange the operator panel. See Chapter 3 in the maintenance manual for your model.
4531		This status code indicates the Channel Interface switch was moved to the Online position during the Channel Adapter Switch and Indicator Test (FN 02).	*For service personnel only:* If the code does not change or the offline indicator remains on after the switch is moved, perform the following actions. For Models 1L and 11L: 1. Exchange the channel adapter card in location 11. 2. Exchange the operator panel adapter card in location 05. 3. Exchange the operator panel in location 06. For Model 21L: 1. Exchange the planar board. 2. Exchange the operator panel. See Chapter 3 in the maintenance manual for your model.
4535	XXXX XXXX XXXX	Token-Ring adapter test, function number 10 was selected to display the Token-Ring adapter universally administered address. XXXX XXXX XXXX = The universally administered address.	Press ENTER to display the 4001 prompt.
4542		Set timer prompt message (FN 02).	Continue with the set timer procedure.
4550	01HG PN00 TYPE LOCA	The path test or exerciser test to a terminal attached directly to a terminal adapter was successful. PN = Port number.	Normal test completion; press ENTER to obtain the 4001 prompt.
4550	02HG PN00 TYPE LOCA	The path test or exerciser test to a terminal attached to a terminal multiplexer adapter (TMA) or external multiplexer, such as a 3299, was successful. PN = Port number.	Normal test completion; press ENTER to obtain the 4001 prompt.

Status Code	Additional Fields	Description	Action
4560		Diskette drive optional test (function number 01). The diskette drive being tested is not ready. The diskette in the diskette drive has not been changed.	To test the diskette drive, perform one of the following actions: • Remove and insert the diskette, and close the diskette drive door. Status code 4563 should appear. • Close the door without removing the diskette. Status code 4561 should appear. • Remove and insert the diskette without closing the door. Status code 4562 should appear. If, after one of the above actions is performed, the correct status code does not appear, request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange the diskette drive being tested. 2. Exchange the file adapter in location 21. For Models 21L through 92R: 1. Exchange the diskette drive being tested. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
4561		Diskette drive optional test (function number 01). The diskette drive being tested is ready. The diskette in the diskette drive has not been changed.	To test the diskette drive, perform one of the following actions. • Open the diskette drive door. Remove and insert the diskette, and close the door. Status code 4563 should appear. • Open the diskette drive door without removing the diskette. Status code 4560 should appear. • Open the diskette drive door. Remove and insert the diskette and close the door. Status code 4562 should appear. If, after one of the above actions is performed, the correct status code does not appear, request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange the diskette drive being tested. 2. Exchange the file adapter in location 21. For Models 21L through 92R: 1. Exchange the diskette drive being tested. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
4562		Diskette drive optional test (function number 01). The diskette drive being tested is not ready. The diskette in the diskette drive has been changed.	To test the diskette drive, perform the following: Close the door with the diskette inserted. Status code 4563 should appear. If 4563 did not appear, request service. ***For service personnel only:*** For Models 1L through 13R: 1. Exchange the diskette drive being tested. 2. Exchange the file adapter in location 21. For Models 21L through 92R: 1. Exchange the diskette drive being tested. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
4563		Diskette drive optional test (function number 01). The diskette drive being tested is ready. The diskette in the diskette drive has been changed.	To test the diskette drive, perform one of the following actions. • Open the diskette drive door without removing the diskette. Status code 4560 should appear. • Open the diskette drive door. Remove and insert the diskette. Status code 4562 should appear. If, after you perform one of the above actions, the correct status code does not appear, request service. ***For service personnel only:*** For Models 1L through 13R: 1. Exchange the diskette drive being tested. 2. Exchange the file adapter in location 21. For Models 21L through 92R: 1. Exchange the diskette drive being tested. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
4565		Diskette drive optional test (function number 02). This is a prompt message for the diskette media scan.	Insert the diskette to be scanned in the drive selected in the test request. Enter 1 and press ENTER.
4566		Diskette drive optional test (function number 02). The diskette media scan completed successfully. No defective tracks were found.	Press ENTER to obtain the 4001 prompt.
4567	WWWW XXXX TTHH TTHH	Diskette drive optional test (function number 02). The diskette media scan has completed with one or more tracks identified as defective. Possible cause: 1. Diskette. 2. Diskette drive. WWWW = The number of defective tracks containing at least one unreadable sector. XXXX = The number of tracks requiring retries before successfully reading a sector. TTHH = The track and head of the first track found defective or requiring retries. The second TTHH is presented only if more than one track is found defective.	To determine if the diskette is defective, do the following: Remove the tested diskette. Insert another diskette and rerun the diskette drive optional test. • If status code 4566 occurs for the second diskette, the first diskette has defective tracks on it and should be replaced with a new diskette. • If status code 4567 occurs for the second diskette, the diskette drive is defective. Request service. ***For service personnel only:*** Exchange the diskette drive being tested. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
4568		A valid 3174 diskette is not installed in diskette drive 1 or a 2.4MB diskette is installed in a 1.2MB drive. If the diskette testing is continued, data will be destroyed on the diskette. Either install a valid diskette and continue the testing, or bypass the remainder of the test. A valid 3174 diskette is a Control, Utility, Limited Function Utility, Down stream Load (DSL), Dump, Library, or Encrypt/Decrypt diskette.	For Models 1L through 63R: • To bypass the test, key in 1 and press Enter. • To continue the test, first install a valid 3174 diskette, then key in 2 and press Enter. For Models 81R through 92R: • To bypass the test, press ADVance until 1 is displayed, then press Enter. • To continue the test, first install a valid 3174 diskette, then press ADVance until 02 is displayed, then press Enter.
4569		A valid 3174 diskette is not installed in diskette drive 2 or a 2.4MB diskette is installed in a 1.2MB drive. If the diskette testing is continued, data will be destroyed on the diskette. Either install a valid diskette and continue the testing, or bypass the remainder of the test. A valid 3174 diskette is a Control, Utility, Limited Function Utility, Downstream Load (DSL), Dump, Library, or Encrypt/Decrypt diskette.	For Models 1L through 63R: • To bypass the test, key in 1 and press Enter. • To continue the test, first install a valid 3174 diskette, then key in 2 and press Enter. For Models 81R through 92R: • To bypass the test, press ADVance until 1 is displayed, then press Enter. • To continue the test, first install a valid 3174 diskette, then press ADVance until 02 is displayed, then press Enter.
4580	PCNT PCNT 00HH MMSS	Display the test log has been requested using test monitor function number 01, 02, 06, or 07. No error records are present. PCNT = Count of test passes. 00HH = Elapsed time in hours of the test run. MMSS = Elapsed time in minutes and seconds of the test run.	Press Enter to obtain the 4001 prompt.
4581	PCNT PCNT 00HH MMSS	Display the test log pass count and elapsed time has been requested using test monitor function number 06 or 07. Error records are present. PCNT = Count of test passes. 00HH = Elapsed time in hours of the test run. MMSS = Elapsed time in minutes and seconds of the test run.	Press ADVance to display the additional fields or press Enter to obtain the 4001 prompt.
4600		A file allocation table error has occurred. Possible cause: A permanent media error occurred in the first file allocation table during a read operation. The code had to use the second file allocation table.	No action is required unless the controller performance is degraded because of an excessive number of errors. If performance is degraded because of excessive errors, do one of the following: 1. For diskette (HG = 01 or 02), replace the diskette. 2. For fixed disk (HG = 03 or 04), reformat the fixed disk.
4601		A directory error has occurred. Possible cause: A permanent media error occurred in the first copy of the root directory during a read operation. The code had to use the second copy of the root directory.	No action is required unless the controller performance is degraded because of an excessive number of errors. If performance is degraded because of excessive errors, reformat the fixed disk.
4602		The cable errors counter has been reset. Possible cause: Test 4, option 3 was invoked.	No action is required. This is only an informational message.

Status Code	Additional Fields	Description	Action
4604		A Canonical Names Display function request cannot be completed. Possible cause: An invalid combination of directory and type of display was entered.	Retry with a valid combination of A/B inputs from the list below: • Option A = 1, B = 1, 2, 3, 4, 5 or 6. • Option A = 2, B = 1, 2, 3, 4 or 5. • Option A = 3, B = 1, 2, 3, 4 or 5. • Option A = 4, B = 1 • Option A = 5, B = 1 • Option A = 6, B = 1
4605		An unused or unassigned host address has been selected.	Select a host address that has been assigned to a port and retry the test.
4606		New configuration data has been received from the host. This configuration data is not in use until an IML is performed on the controller.	No action is required. If you want to use the new configuration data, you will have to IML the controller.
4607		An online test has been requested for an adapter that is disabled because there are errors or because it is not configured.	**Warning:** An IML disrupts operating terminals. 1. Re-IML. 2. Perform an Alt 2 IML; see page 2-3. If the adapter is failing, a status code appears during the Alt 2 IML. Take the action specified for that code. If the adapter is not configured, reconfigure the control disk and retry the online test. 3. Request service. *For service personnel only:* Exchange the adapter that was being tested using the online test.
4608		Online tests are being performed by too many users at the same time.	Wait. Retry the online test at a later time.
4609		Online Test error. A configuration panel was selected in the test request, and a translation error occurred. The panel may have been modified on a personal computer without using the 3174 configuration procedures.	The Control disk must be reconfigured to correct the panels that will not display. See "How to Configure the Control Disk" in the *3174 Utilities Guide.*
4610		Either the required hardware is not in the controller, or the controller is not configured to support the test request.	Enter a different test request.
4611		Online test error. A test function was requested that is already in use.	Reenter the test request.
4612		The port number entered in the test request is not valid with the hardware group number that was entered.	Retry the test request with a valid port number.
4613		The hardware group number entered in the test request is not present in the 3174.	Verify that you entered a valid hardware group number. See Table 2-3 on page 2-13 for a list of hardware group numbers. • If the hardware group number you entered is valid, verify that the hardware is present in the controller. • If the hardware is present in the controller, request service. *For service personnel only:* Exchange the FRU indicated by the HG number. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
4614		Online test error. Data was entered that is invalid for the test panel being used. Possible cause: • Invalid input characters entered. • Tried to use fastpath when requesting a trace option.	Check the panel for the format that should be used and reenter the test request.
4615		The parameters entered in the test request are not correct.	Check the panel that lists the desired test parameters and correct the test request.
4616	00	An invalid parameter was entered.	Check the panel that lists the valid parameters and correct the test request.
4616	01	The host ID or host address selected for the online test has either not been customized or is not to be included in the IML.	Select a valid host ID or host address and retry the test.
4617		Invalid data was entered in the test request.	Check the menu for the correct test request format and reenter the test request.
4618		Test request /0,n was entered. This test request is not supported.	To check the terminal status, use test 3 for 3270 terminals, or test 12 for ASCII terminals.
4619		An invalid key was pressed while running online tests.	Check the input and retry the operation.
4620	01HGPN or 02HGPN	Event logging mode has been changed. Intensive mode has been turned on (QA = 01) or off (QA = 02). The HG and PN identify the hardware group and port number from which the request was made.	No action is required.

4621		An invalid character was entered.
		
		The constant characters are: a−z, A−Z, 0−9, and + < = > % & * " ' ( ) , _ - . / : ;?
		
		Notes:
		
		1. For the "Location" field, any constant character is valid.
		2. For the "Device" and "Model Number" fields, any constant character is valid:
		  • Lower case a − z will be converted to upper case A − Z.
		  • Leading and trailing blanks are allowed, but imbedded blanks are not allowed.
		3. For "Serial Number" and "Plant of Manufacture":
		  • a−z, A−Z, and 0−9 are allowed.
		  • Lower case a − z will be converted to upper case A − Z.
		  • Leading and trailing blanks are allowed, but imbedded blanks are not allowed.
			Enter the characters that are valid for that field.

4622		The test cannot be performed with the central site control facility.	Retry the test from a locally attached terminal or request another test.
4623		An invalid password was entered.	Enter the correct password and retry the test.
4624		The vital product data is being updated by another user.	Retry the request when the current update is completed.
4625		Service personnel started a trace operation that has halted at the targeted SSC. Event logging is halted at this point.	Request Service. *For Service Personnel Only.* After the trace data has been reported to your support structure, a Stop Trace command (Option 3 or 4) must be entered from /11 trace menu to enable event logging.

Status Code	Additional Fields	Description	Action
4626		This function is not valid for the current host adapter number. The host adapter number can be found in the Operator Information Area (OIA) of the terminal display. For example: 1A1, 2A1, and 3A1 are host ID numbers in which the numbers 1, 2, and 3 indicate the host adapter number. The Online test has 3 modes: 1TEST, 2TEST, and 3TEST. 1TEST can only be run on host adapter number 1, 2TEST can only be run on host adapter number 2, and 3TEST can only be run on host adapter number 3. **Note:** The host adapter can be either a single or multiple host connection adapter.	Use the Change Screen Sequence (example: Alt and Insert keys) until the host adapter number found in the OIA is the same as the online test mode (1TEST, 2TEST, or 3TEST) that appeared in the message with the 4626 status code. Retry the test with matching adapter and test mode numbers.
4627		The device connected to the port being tested was turned off.	Switch on the power on the device and retry the test.
4628		The trace is suspended.	No action is required. This an informational message only.
4629		Trace setup/configuration mismatch. Possible cause: The trace setup contains one or more items that do not match the current controller configuration.	Select trace options that match the controller configuration and retry the trace.
4630		A start trace command has been entered, and a trace is already running.	If you want to restart the trace, the stop trace command must be entered first; then the start trace command can be entered.
4631		A stop trace command was entered when the trace was already stopped.	No action is required.
4632		The controller is busy and cannot accept the trace request that was entered.	Reenter the trace request.
4633		Trace initialization was requested after the trace was already started.	Stop the trace and reenter the trace request.
4634		A disk error occurred during an attempt to stop a trace. A status code is displayed on the operator panel. **Note:** Some trace data may be lost.	Use the status code on the operator panel to determine the cause of the disk failure.
4635		A disk error occurred during an attempt to start a trace. A status code is displayed on the operator panel. **Note:** The trace has started and is being written to machine storage.	Use the status code on the operator panel to determine the cause of the disk failure.
4636		Online trace error. An attempt was made to trace more than two asynchronous emulation adapter ports, which is the limit.	Issue a Stop Trace command, then start the trace for the new ports.
4637		The trace entry is too long to fit on one screen.	No action is required.
4638		A disk error occurred during an attempt to suspend a trace. A disk error status code is displayed on the 3174 operator panel and the trace is suspended.	Use the status code on the 3174 operator panel to determine the cause of the disk failure.
4639		All trace setup commands have been set up as "non-display."	Change the setup options to allow the trace to be displayed and retry the trace.
4640		A wrap test on the selected port has been completed successfully.	No action is required.
4641		The requested wrap test was not performed, because a terminal is communicating with the port number that was entered in the test request.	Select another test, or exit test mode.

Status Code	Additional Fields	Description	Action
4642		A port number was entered that is not a valid terminal adapter port number.	Retry the wrap test with a valid port number.
4643		The selected function cannot be completed because the controller has deconfigured the function. Possible cause: Insufficient storage in the controller.	Use a PF key function to continue.
4644		The Canonical Names Display function request cannot be completed. Possible cause: The controller is not configured for Central Site Change Management.	Change your response to configuration question 500 to the correct nonzero option. Retry the Canonical Names Display (/2,5) or Canonical Names Directory Refresh (/2,6) option. See the *3174 Planning Guide*.
4645		The save operation was successful.	No action is required. This is an informational message only.
4646		The highlighted trace setup command is invalid.	Correct the highlighted command and retry the operation.
4647		A Canonical Names Directory Refresh has completed successfully.	No action is required. This is an informational message only.
4648		The trace must be stopped or suspended before the trace data can be displayed.	1. Type **3** and press Enter to stop the trace, or type **4** and press Enter to suspend the trace. 2. Enter the "Display Trace" command again.
4649		The extended vital product data may not be current.	Update the extended vital product data that has an asterisk (*) in front of the data field.
4650		The terminal adapter logic that supports multiplexers (TMA/3299 – 2, 3, and 32) has failed, but the adapter may work as a direct connection to a terminal.	Determine the type of failure as follows: • If this port is being used for a directly attached terminal, this failure will not affect normal operation. • If this port is being used to support terminals attached through a TMA/3299 multiplexer, the Terminal Adapter or Fiber Optic Terminal Adapter must be replaced. Request service. ***For service personnel only:*** <u>For Models 1L through 13R:</u> 1. Exchange FRU Type 915x in location 21, 22, or 23. 2. Exchange FRU type 9750, if present. <u>For Models 21L through 92R:</u> 1. Exchange FRU type 9750, if present on Models 21L and 21R. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
4651		Terminal adapter wrap failure. This can be a false failure if the signal cable is attached to the port being tested.	1. Disconnect the port signal cable and retry the test. 2. Request service. ***For service personnel only:*** <u>For Models 1L through 13R:</u> Exchange FRU Type 915x in location 21, 22, or 23. <u>For Models 21L through 92R:</u> Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
4652		Terminal Multiplexer Adapter or 3299 multiplexer wrap failure. This can be a false failure if the signal cable is attached to the port being tested. Possible cause: 1. Terminal Adapter 2. Terminal Multiplexer Adapter, Fiber Optic Terminal Adapter, or 3299 3. Signal cable not removed from the port being tested 4. Terminal Multiplexer Adapter, Fiber Optic Terminal Adapter, or External multiplexer signal cable 5. Test was run to a 3299 – 1 (not supported).	1. Disconnect the terminal signal cable and retry the test. 2. Request service. *For service personnel only:* Use the following steps or go to MAP 0200. If the terminal adapter port has not been tested, perform Test 10, option 1. • If all port wraps fail, the 3299, Terminal Multiplexer Adapter, or Fiber Optic Terminal Adapter or its input cable is failing. • If any ports pass the wrap test, the 3299, Terminal Multiplexer Adapter, or Fiber Optic Terminal Adapter is defective. See Chapter 3 in the maintenance manual for your model.
4653		A multiplexer wrap test was requested on a terminal adapter port that does not have a TMA or an external multiplexer, such as a 3299, attached.	Use the wrap test for the terminal adapter port.
4654		Your terminal does not support extended vital product data (VPD).	Request another test.
4655		The Control disk is not customized for extended vital product data (VPD).	The 3174 must be recustomized to support extended VPD. See the *3174 Planning Guide* for details regarding extended VPD and question 802. (Question 802 must be answered with a 1 in order to support extended VPD.)
4656		The downloading operation for extended vital product data (VPD) failed.	1. At the terminal, switch power off, then back on and retry the extended VPD test. 2. See the terminal documentation. 3. Request service for the terminal.
4657		A Canonical Names Directory Refresh request cannot be completed. Possible cause: A Central Site Change Management update is in progress or a Test 2, Option 6 has been requested from another terminal attached to this 3174.	Wait approximately 1 minute and retry the Canonical Names Refresh (/2,6) operation.
4658		A Canonical Names Display function request cannot be completed. Possible cause: The selected diskette or fixed disk directory is not available in this controller.	1. Insert the desired diskette into an available diskette drive. Ensure that if the diskette is a Control disk, it is customized for Central Site Change Management. Then use the Directory Refresh option (/2,6) and retry the Canonical Names Display function. 2. Re-IML.
4659		A Canonical Names Display function request of an LIB00001 subdirectory cannot be completed. Possible cause: The controller is not configured for Central Site Change Management.	If the controller should have a LIB subdirectory, then configure for Central Site Change Management (question 500 = 2). Retry the requested Canonical Names Display function (/2,5).
4660		An invalid line speed was specified as part of a transmit data request from the Asynchronous Emulation Adapter Port Test menu.	Correct the line speed and retry the test.
4661		An invalid parity setting was specified as part of a transmit data request from the Asynchronous Emulation Adapter Port Test menu.	Correct the parity setting and retry the test.

Status Code	Additional Fields	Description	Action
4662		An invalid flow control setting was specified as part of a transmit data request from the Asynchronous Emulation Adapter Port Test menu.	Correct the flow control setting and retry the test.
4663		An invalid number of stop bits was specified as part of a transmit data request from the Asynchronous Emulation Adapter Port Test menu.	Correct the number of stop bits required and retry the test.
4664		A port wrap test was requested for a port that is in use.	Perform one of the following actions: • Press ENTER to start a disconnect sequence. • Press an AID generating key to cancel the test request. Use a key such as CLEAR or a program function (PF) key.
4665	01HG	A forced disconnect for an asynchronous emulation adapter port is in progress. **Note:** ENTER was pressed in response to status code 4664. The disconnect process takes approximately 1 minute to complete. Status code 4666 is displayed to indicate the end of the disconnect.	If status code 4666 does not display after 1 minute either the port is still in use or the asynchronous emulation adapter is failing. • Retry the wrap test. If the port does not disconnect and it is not being used, request service. *For service personnel only:* Exchange the AEA adapter. See Chapter 3 in the maintenance manual for your model.
4666		A forced disconnect for an asynchronous emulation adapter port wrap has completed.	Press ENTER to start the wrap test.
4667		The AEA port wrap failed. Possible cause: The adapter did not respond.	The controller must be IMLed to bring the adapter back on line.
4668		A disk change has occurred while user was requesting a Canonical Names Display function. Possible cause: The disk containing the directory being displayed has been changed.	Perform a Test 2, option 6 (/2,6) and retry the requested function.
4669		A Canonical Names display function was requested and no directory entries were found.	No action is required. This is an informational message only.
4670	0699	A dump of a distributed function terminal (DFT) has been selected. The DFT should send a diagnostic power-on reset to the controller.	Status code 4670 should be followed by alternating status codes of 4671 and 4672. If this does not occur, switch power off then back on at the DFT. 4673 appears, which means the dump has ended before completion. The dump will have to be restarted the next time the DFT fails.
4671		A dump of a distributed function terminal is in progress. This status code alternates with 4672.	No action is required.
4672		A dump of a distributed function terminal is in progress. This status code alternates with 4671.	No action is required.
4673	0699	A dump of a distributed function terminal has ended before completion. Possible cause: 1. Terminal sent an invalid request while dumping. 2. Terminal was turned off or disconnected during the dump. 3. An error occurred during communication with the terminal.	Retry the dump. If the problem continues, the dump will have to be performed the next time the DFT fails.

Status Code	Additional Fields	Description	Action
4674		A trace has been started.	No action is required. This is an informational message only.
4675	0699	A dump of a distributed function terminal has completed successfully.	1. Remove the Dump diskette. 2. If using a diskette drive, install the DSL or Control diskette. 3. Switch power OFF then back ON, on the DFT.
4676		A trace has been stopped.	No action is required. This is an informational message only.
4677		A trace has been set up.	No action is required. This is an informational message only.
4678		A background trace has been started.	No action is required. This is an informational message only.
4679		The response time monitor logs have been reset.	No action is required. This is an informational message only.
4680		The event log, traces, and cable errors have been reset.	No action is required. This is an informational message only.
4681		No event logs or trace displays were found that met the specified search criteria.	Enter another test request.
4682		The Token-Ring adapter error counters have been reset.	No action is required. This is an informational message only.
4683		The Token-Ring adapter link status counters have been reset.	No action is required. This is an informational message only.
4684		The Asynchronous Emulation Adapter line error counters have been reset.	No action is required. This is an informational message only.
4685		The requested test cannot be run because there are duplicated host addresses.	Re-enter the test selection using the host id (/9,5,host id).
4686		Unable to reset counter data.	Retry the command.
4687		Token-Ring adapter microcode error. Unable to obtain link statistics.	No action is required unless controller operation is impaired: 1. Re-IML. 2. Request service. ***For service personnel only:*** Perform an Alt 2 IML; see page 2-3. Use your support structure for aid.
4688		There are no active links at this time.	No action is required.
4689		The link address requested for the link status summary test is not active.	No action is required.
4690		An invalid link address was entered in the test request.	Retry the test request with a valid link address.
4691		A station has detected a signal loss for more than 250 milliseconds and has entered beaconing. This failure occurred during the ring status test.	Wait for the beaconing process to complete (approximately 2 minutes). Use "Test 1: Display Log" to determine which station is beaconing; then see the *IBM Token-Ring Problem Determination Guide*, SX27-3710.
4692		The Token-Ring adapter is detecting a beacon signal internally, or a beacon MAC frame is being received. This failure occurred during the ring status test. Possible cause: 1. Token-Ring adapter 2. Multistation access unit 3. Lobe cables.	Wait for the beaconing process to complete (approximately 2 minutes). Use "Test 1: Display Log" to determine which station is beaconing; then see the *IBM Token-Ring Problem Determination Guide*, SX27-3710.

Status Code	Additional Fields	Description	Action
4693		A lobe wire fault was detected during the ring status test. Possible cause: 1. Token-Ring adapter 2. Multistation access unit 3. Lobe cables.	1. Contact the host operator to reactivate the links. 2. See CPD 0400 in the *3174 Customer Problem Determination* manual. 3. See the *IBM Token-Ring Extended Problem Determination Guide*, SX27-3710. ***For service personnel only:*** 1. Perform an Alt 2 IML; see page 2-3. 2. Exchange the Token-Ring adapter.
4694		This status code indicates how long the ring status test has been running.	No action is required.
4695		This status code is displayed after the ring status test has been active for 10 minutes.	Press PF9 within the next 5 minutes to continue the test. If PF9 is not pressed, the test ends automatically.
4696		The ring status test is being performed at another terminal. This test can only be performed from one terminal at a time.	No action is required.
4697		The ring status test indicates the Token-Ring adapter is closed. Possible cause: 1. Token-Ring 2. Token-Ring adapter.	1. Use "Test 1: Display Logs" to determine why the Token-Ring adapter has closed. A different status code should be in the event log for hardware group 31. 2. If another status code has not been logged, see CPD 0400, in the *3174 Customer Problem Determination* manual. 3. See *Token-Ring Network Problem Determination Guide*, SX27-3710. ***For service personnel only:*** 1. Perform an Alt 2 IML; see page 2-3. 2. Exchange the Token-Ring adapter.
4698		The ring status test indicates the Token-Ring adapter is open.	No action is required.
4699		There are no other active links to be displayed.	No action is required.
4701		The internal wrap test has run successfully.	No action is required. This is an informational message only.
4703		The external wrap test has run successfully.	No action is required. This is an informational message only.
4707		The adapter is currently handling another request.	Retry the test.
4710		The requested drive for IML does not contain the requested level of microcode.	Either specify a different IML drive or a different IML type.
4711		The requested drive for IML is not in the controller. The drive number entered was incorrect.	Request an IML from a drive that is in the controller.
4712		A password has not been created for the requested operation.	Recustomize the controller and answer question 98 with a valid password.
4713		The option selected from the 3174 Operator Functions Menu requires a password to be entered.	Enter the online test password to continue.
4714	HGPN	An IML has been initiated using online test 14, option 1. The HG and PN identify the hardware group and port number from which the request was made.	No action is required. This is an informational message only.
4716		You were attempting to update a 3174-provided address using online test 9 (/9,9,u), while the peer device was being enabled.	Disable the device; refer to the *Peer Communication User's Guide*, GA27-3887, for details.

Status Code	Additional Fields	Description	Action
4717		An invalid password was entered for online test 9 (/9,9,u; /9,10,u; or /9,11,u).	Enter the password configured in question 98 during customization, or press PF3 or PF12 to cancel the test.
4718		Online test 9 (/9,10,u) has detected a difference between the Token-Ring segment number and the bridge's reported segment number.	Change the Token-Ring segment number used in test /9,10,u to match the segment number displayed in parentheses on the test screen.
4719		This is a prompt to enter the password for online test 9.	Enter the password configured in question 98 during customization, or press PF3 or PF12 to cancel the test. The password will NOT be displayed.

4990		IML progression message. If this status code remains displayed longer than 30 seconds, a failure has occurred.
		
		Possible cause:
		
		1. Microcode
		2. Processor.
			1. Re-IML.
			2. Request service.
			
			For service personnel only:
			
			For Models 1L through 13R:
			
			    Exchange FRU type 950x in location 18.
			
			For Models 21L through 92R:
			
			    Exchange the planar board.
			
			See Chapter 3 in the maintenance manual for your model.

4991 to 4992		IML progression message.	No action is required.

4994	0100	Hardware/Microcode mismatch.
		
		Possible cause: Terminal adapter.
			1. Re-IML.
			2. Perform an Alt 2 IML; see page 2-3
			3. Request service.
			
			For service personnel only:
			
			For Models 1L through 13R:
			
			    Exchange FRU type 915x in location 21, 22, or 23.
			
			For Models 21L through 92R:
			
			    Exchange the planar board.
			
			See Chapter 3 in the maintenance manual for your model.

4995	0100	Insufficient storage is installed to support the level of the Control disk being used. Possible cause: 1. Defective or missing storage card. 2. The Control disk being used is not configured correctly for this controller.	1. Perform an Alt 2 IML; see page 2-3. 2. If Alt 2 fails, request service. 3. If Alt 2 is successful, see the "Storage Planning Procedure" in the *3174 Planning Guide* to determine how much storage you need to support the configuration on your Control disk. See "How to Display the Test Monitor Functions" in the *3174 Customer Problem Determination* manual. Use Function Number 04 to determine how much storage is installed in the 3174. *For service personnel only:* Perform the processor/storage tests (HG87), see "How to Run Hardware Group Test Alls" in the maintenance manual for your model. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
4995	0200	Insufficient storage is installed to support customizing procedures. Possible cause: Defective or missing storage card.	Request service. ***For service personnel only:*** Perform the processor/storage tests (HG87), see "How to Run Hardware Group Basic Tests" in the maintenance manual for your model. See Chapter 3 in the maintenance manual for your model.
4995	0300	Insufficient storage is installed to support customizing procedures for configuration support level **S**. Possible cause: 1. Storage card defective or missing. 2. The Control microcode being used is not for this controller.	1. Perform an Alt 2 IML; see page 2-3. 2. For Control disks at configuration level **S**, the controller must have the Token-Ring Gateway feature. See the *3174 Planning Guide*. ***For service personnel only:*** Perform the processor/storage tests (HG87), see "How to Run Hardware Group Basic Tests" in the maintenance manual for your model. See Chapter 3 in the maintenance manual for your model.
4997	0100	An invalid 4x parameter was entered at the Alt 1 40 prompt. Only 40, 41, 42, or 43 can be entered.	1. Re-IML. 2. ENTER the correct parameters. 3. Request service.
4997	0200	A 40 was entered at the Alt 1 IML prompt requesting the Master Menu, and Utility microcode was not found.	To display the Master Menu, you need the Utility microcode on a diskette or on the fixed disk. For diskette drive: Insert a Utility diskette in diskette drive 1 and perform the Alt 1 IML procedure on page 2-1. For fixed disk: To copy the Utility microcode to the fixed disk see "How to Copy Files" in the *3174 Utilities Guide*. When the copying is complete, perform the Alt 1 IML procedure on page 2-1 in this book.
4997	0300	A 41, 42, or 43 was entered at the Alt 1 IML prompt requesting an operational IML, and Control microcode was not found.	1. Re-IML and reenter the correct parameters. 2. Verify that a Control diskette is installed or that Control microcode is on the fixed disk.
4998	0100	3174 microcode failure.	1. Re-IML. 2. Request service. ***For service personnel only:*** Use your support structure for aid.
4999 to 5099		IML progression message. The processor logic is waiting for other adapters in the controller (such as the Concurrent Communication Adapters) to complete their IML. If the Check Cond light comes on, or the status code remains displayed for at least 30 seconds (5090 may appear longer), a failure has occurred.	No action is necessary. However, if the status code remains displayed or the check condition indicator is lit, do the following: 1. Re-IML. 2. Request service. ***For service personnel only:*** Perform an Alt 2 IML; see page 2-3. <u>For Models 1L through 13R:</u> 1. Exchange FRU type 950x in location 18. 2. Use your support structure for aid. <u>For Models 21L through 92R:</u> 1. Exchange the planar board. 2. Use your support structure for aid.

Status Code	Additional Fields	Description	Action
5201	0100	Hardware/customizing mismatch. The Control disk is customized for a 3174 Model 1L, 11L, or 21L. FRU ID either does not show a channel adapter card installed, or shows the wrong one installed for your model.	**For the NetView DM operator:** 1. Verify that the customization data sent in the transmission plan is correct for the Network ID and LUNAME specified in the canonical name used in your transmission plan. 2. If the failure continues, contact the network site 3174 operator. **For the network site 3174 operator:** Verify that the 3174 is a Model 1L, 11L, or 21L • If the 3174 is not a Model 1L, 11L, or 21L, the Control disk is not configured correctly. See "How to Configure the Control Disk" in the *3174 Utilities Guide*. • If the 3174 is a Model 1L, 11L, or 21L, request service. **For service personnel only:** For Models 1L and 11L: 1. Verify that the channel adapter in location 11 is card type 9210. 2. Exchange the channel adapter. For Model 21L: 1. Verify that the planar board is type 9630. 2. Exchange the planar board.
5202	0100	Hardware/customizing mismatch. The controller is customized for a type 1 communication adapter (EIA/V.35). The type 1 adapter does not appear to be present in the controller. Possible cause: 1. Defective type 1 adapter 2. The Control disk is configured incorrectly.	**For the NetView DM operator:** 1. Verify that the customization data sent in the transmission plan is correct for the Network ID and LUNAME specified in the canonical name used in your transmission plan. 2. If the failure continues, contact the network site 3174 operator. **For the network site 3174 operator:** For Models 1L, 11L, 3R and 13R: Check for FRU type 9253 in location 22 or 23. • If FRU type 9253 is installed, request service. • If FRU type 9253 is not installed, you must recustomize the controller. See the *3174 Planning Guide*. For Models 1R, 11R, 21R, 51R, 61R, 81R, 90R, and 91R: Request service. For Models 2R, 12R, 52R, 53R, 62R, 63R, 82R, and 92R: You must recustomize the Control disk. See the *3174 Planning Guide*. **For service personnel only:** For Models 1L, 1R, 3R, 11L, 11R, and 13R: Exchange FRU Type 9253 in location 22 or 23. For Models 21R, 51R, 61R, 81R, 90R and 91R: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
5202	0200	Hardware/customizing mismatch. Possible cause: 1. Defective Type 1 Communication Adapter. 2. An EIA or V.35 communication interface cable does not appear to be connected to the communication adapter.	**For the NetView DM operator:** 1. Verify that the customization data sent in the transmission plan is correct for the Network ID and LUNAME specified in the canonical name used in your transmission plan. 2. If the failure continues, contact the network site 3174 operator. **For the network site 3174 operator:** Make sure that a valid interface cable is connected. See "Communication Adapter Cable Part Numbers" on page 2-30. • If an incorrect cable is installed, contact your IBM representative to obtain the correct cable. • If the correct cable is connected, request service. **For service personnel only:** For Models 1L, 1R, 3R, 11L, 11R, and 13R: 1. Exchange FRU Type 9253 in location 22 or 23. 2. Exchange the communication cable. For Models 21R, 51R, 61R, 81R, 90R and 91R: 1. Exchange the planar board. 2. Exchange the communication cable. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
5203	0100	Hardware/customizing mismatch. The controller is customized for a type 2 communication adapter (X.21). The type 2 adapter does not appear to be present in the controller. Possible cause: 1. Defective type 2 adapter. 2. The Control disk is configured incorrectly.	***For the NetView DM operator:*** 1. Verify that the customization data sent in the transmission plan is correct for the Network ID and LUNAME specified in the canonical name used in your transmission plan. 2. If the failure continues, contact the network site 3174 operator. ***For the 3174 operator:*** For Models 1L, 11L, 3R and 13R: Check for FRU type 9273 or 9277 in location 22 or 23. • If FRU type 9273 or 9277 is installed, request service. • If FRU type 9273 or 9277 is not installed, you must recustomize the controller, see the *3174 Planning Guide*. For Models 1R, 11R, 51R, 53R, 61R, 63R, 81R, and 91R: You must recustomize the controller, see the *3174 Planning Guide*. For Models 2R, 12R, 52R, 62R, 82R, and 92R: Request service. ***For service personnel only:*** For Models 1L, 2R, 3R, 11L, 12R, and 13R: Exchange FRU Type 9273 or 9277 in location 22 or 23. For Models 52R, 62R, 82R, and 92R: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
5203	0200	Hardware/customizing mismatch. The Control disk is configured for a type 2 communication adapter (X.21). An X.21 communication interface cable does not appear to be connected to the communication adapter. Possible cause: 1. Cable is not connected. 2. Wrong cable is connected. 3. Type 2 adapter is defective.	*For the NetView DM operator:* 1. Verify that the customization data sent in the transmission plan is correct for the Network ID and LUNAME specified in the canonical name used in your transmission plan. 2. If the failure continues, contact the network site 3174 operator. *For the network site 3174 operator:* Make sure that a valid X.21 interface cable is connected to the communication adapter. See "Communication Adapter Cable Part Numbers" on page 2-30. • If an incorrect cable is installed, contact your IBM representative to obtain the correct cable. • If the correct cable is connected, request service. *For service personnel only:* For Models 1L, 2R, 3R, 11L, 12R, and 13R: 1. Exchange FRU Type 9273 or 9277 in location 22 or 23. 2. Exchange the interface cable. For Models 52R, 62R, 82R, and 92R: 1. Exchange the planar board. 2. Exchange the interface cable. See Chapter 3 in the maintenance manual for your model.
5204	0100	A Control disk configured for a Model 51R, 52R, 53R, 61R, 62R, or 63R is being used in another controller.	*For the NetView DM operator:* 1. Verify that the customization data sent in the transmission plan is correct for the Network ID and LUNAME specified in the canonical name used in your transmission plan. 2. If the failure continues, contact the network site 3174 operator. *For the network site 3174 operator:* 1. Reconfigure the Control disk to match the controller model and installed features. See the *3174 Planning Guide*. 2. Re-IML.
5204	0200	A Control disk configured for a Model 1L, 11L, 1R, 2R, 3R, 11R, 12R, or 13R is being used in another model controller.	*For the NetView DM operator:* 1. Verify that the customization data sent in the transmission plan is correct for the Network ID and LUNAME specified in the canonical name used in your transmission plan. 2. If the failure continues, contact the network site 3174 operator. *For the network site 3174 operator:* 1. Reconfigure the Control disk to match the controller model and installed features. See the *3174 Planning Guide*. 2. Re-IML.

Status Code	Additional Fields	Description	Action
5204	0300	A Control disk configured for a Model 81R, 82R, 90R, 91R, or 92R is being used in another model controller.	**For the NetView DM operator:** 1. Verify that the customization data sent in the transmission plan is correct for the Network ID and LUNAME specified in the canonical name used in your transmission plan. 2. If the failure continues, contact the network site 3174 operator. **For the network site 3174 operator:** 1. Reconfigure the Control disk to match the controller model and installed features. See the *3174 Planning Guide.* 2. Re-IML.
5204	0500	A Control disk configured for a Model 21L or 21R is being used in another model controller.	**For the NetView DM operator:** 1. Verify that the customization data sent in the transmission plan is correct for the Network ID and LUNAME specified in the canonical name used in your transmission plan. 2. If the failure continues, contact the network site 3174 operator. **For the network site 3174 operator:** 1. Reconfigure the Control disk to match the controller model and installed features. See the *3174 Planning Guide.* 2. Re-IML.
5206	0100	Hardware/customizing mismatch. The Control disk is configured for a Token-Ring Adapter. The Token-Ring Adapter does not appear to be present in the controller. Possible cause: 1. Defective or missing Token-Ring Adapter 2. The Control disk is configured incorrectly.	See "How to Display the Test Monitor Functions" in *3174 Customer Problem Determination* manual. Use FN 04 to display the hardware configuration panel. Look for FRU Type 935x on the panel. • If 935x is present, request service. • If 935x is not present, verify that the Control disk is configured correctly for your 3174. **For service personnel only:** For Models 1L through 13R: Exchange FRU Type 935x, see the "Card Plugging Charts" in the maintenance manual for the location. For Models 21L and 21R: Exchange FRU type 935x in location 11, 12, 13, 14, or 15. For Models 51R through 63R: Exchange FRU type 935x in location 04. For Model 90R: Exchange the Token-Ring Adapter FRU type 9545. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
5207	0100	Configuration/hardware mismatch. The Control disk is configured for a 3174 with the IBM Token-Ring 3270 Gateway feature. The controller does not have enough storage to support this configuration.	Perform an Alt 2 IML; see page 2-3. • If the Alt 2 fails, request service. • If the Alt 2 is successful, verify that the Control disk is customized correctly for the model and features of your 3174. *For service personnel only:* Run Hardware Group 87 Tests. See "How to Run Hardware Group Basic Test" in the maintenance manual for your model. Use HG87.
5208	0100	3174 MCODE microcode release level is not compatible with the MCUST CFG microcode. Possible cause: The MCUST CFG data sent by NetView DM is not compatible with the microcode present at the 3174 where the configuration data is being installed.	Re-send the configuration data at the correct level or correct the microcode level at the receiving 3174.
5208	0200	3174 MCODE microcode release level is not compatible with the MCUST RPQ microcode release level. Possible cause: The MCUST RPQ data sent by NetView DM is not compatible with the microcode present at the 3174 where the RPQ data is being installed.	Re-send the RPQ customization data at the correct level or correct the microcode level at the receiving 3174.
5208	0300	3174 Microcode release level is not compatible with the 3174 RPQ microcode release level. Possible cause: The 3174 RPQ microcode sent by NetView DM is not compatible with the microcode present at the 3174 where the 3174 RPQ microcode is being installed.	Re-send the 3174 RPQ microcode at the correct level or re-send the 3174 microcode release level that supports the RPQ.
5208	0400	RPQ Microcode is not compatible with the RPQ customization data. Possible cause: The RPQ being installed is not included in the RPQ merge customization data.	Re-send the RPQ customization data or send the correct RPQ.
5208	0500	3174 MCODE microcode release level is not compatible with the MCUST AEA microcode release level. Possible cause: The MCUST AEA data sent by NetView DM is not compatible with the microcode level present in the receiving 3174.	Re-send the AEA customization data at the correct level or send the correct 3174 microcode release level.
5208	0600	A patch to be installed On-Trial was sent to a 3174 that does not have an On-Trial version of the 3174 microcode present.	Send and install the correct 3174 microcode On-Trial, or resend the patch and install it in production.
5208	0700	The 3174 patch or maintenance level EC or RPQ number is not compatible with the microcode level present in the receiving 3174.	Re-send the Patch or maintenance EC or RPQ at the correct level or send the correct 3174 microcode release level.
5208	0800	3174 MCODE microcode release level is not compatible with the MCUST PAM data. Possible cause: The MCUST PAM data sent by NetView DM is not compatible with the microcode level present in the receiving 3174.	Re-send the PAM customization data at the correct level or send the correct 3174 microcode release level.

Status Code	Additional Fields	Description	Action
5208	0900	3174 MCODE microcode release level is not compatible with the MCUST KDU data. Possible cause: The MCUST KDU data level sent by NetView DM is not compatible with the microcode level present in the receiving 3174.	Re-send the KDU customization data at the correct level or send the correct 3174 microcode release level.
5208	1000	Insufficient storage is available at the receiving 3174 for this microcode release level.	Additional storage must be installed before this microcode release level can be installed. See "Storage Planning Procedure" in the *3174 Planning Guide*.
5209	01HG S1S1 QAHG S2S2 QAHG	Central site change management pre-testing has failed. The extended data contains additional status codes that explain the cause of the failure where: S1S1 = Status code. QAHG = Qualifier and hardware group. S2S2 = Status code. QAHG = Qualifier and hardware group.	Perform the actions of the status codes contained in the extended data.
5230	0000 7XXX	Either the Control microcode has not been configured or the Model/Attach Configuration panel is in error. This panel may have been modified without using the 3174 configuration procedures. 0000 May or may not appear as an additional field. 7XXX = Status code that explains the panel error.	• If the Control disk was not customized, you must perform the customizing procedure. • If the Control disk is customized, reconfigure the Model/Attach panel to match your 3174 Controller. See the *3174 Planning Guide*.
5231	0000 7XXX	Host BSC configuration panel in error. This panel may have been modified without using the 3174 configuration procedures. 0000 May or may not appear as an additional field. 7XXX = Status code that explains the panel error.	1. Re-IML. 2. Use the Configuration utility to display the panel and see the *3174 Planning Guide* to resolve the error.
5232	0000 7XXX	Host SDLC configuration panel in error. This panel may have been modified without using the 3174 configuration procedures. 0000 May or may not appear as an additional field. 7XXX = Status code that explains the panel error.	1. Re-IML. 2. Use the Configuration utility to display the panel and see the *3174 Planning Guide* to resolve the error.
5233	0000 7XXX	Host X.25 configuration panel in error. This panel may have been modified without using the 3174 configuration procedures. 0000 May or may not appear as an additional field. 7XXX = Status code that explains the panel error.	1. Re-IML. 2. Use the Configuration utility to display the panel and see the *3174 Planning Guide* to resolve the error.
5234	0000 7XXX	Host Channel Non-SNA configuration panel in error. This panel may have been modified without using the 3174 configuration procedures. 0000 May or may not appear as an additional field. 7XXX = Status code that explains the panel error.	1. Re-IML. 2. Use the Configuration utility to display the panel and see the *3174 Planning Guide* to resolve the error.

Status Code	Additional Fields	Description	Action
5235	0000 7XXX	Host Channel SNA configuration panel in error. This panel may have been modified without using the 3174 configuration procedures. 0000 May or may not appear as an additional field. 7XXX = Status code that explains the panel error.	1. Re-IML. 2. Use the Configuration utility to display the panel and see the *3174 Planning Guide* to resolve the error.
5236	0000 7XXX	Port Assignment configuration panel in error. This panel may have been modified without using the 3174 configuration procedures. 0000 May or may not appear as an additional field. 7XXX = Status code that explains the panel error.	1. Re-IML. 2. Use the Configuration utility to display the panel and see the *3174 Planning Guide* to resolve the error.
5237	0000 7XXX	Response Time Monitor configuration panel in error. This panel may have been modified without using the 3174 configuration procedures. 0000 May or may not appear as an additional field. 7XXX = Status code that explains the panel error.	1. Re-IML. 2. Use the Configuration utility to display the panel and see the *3174 Planning Guide* to resolve the error.
5238	0000 7XXX	X.25 configuration panel in error. This panel may have been modified without using the 3174 configuration procedures. 0000 May or may not appear as an additional field. 7XXX = Status code that explains the panel error.	1. Re-IML. 2. Use the Configuration utility to display the panel and see the *3174 Planning Guide* to resolve the error.
5239	00HG 7XXX	The Patch data sets are in error. They were modified without using the 3174 Patch procedure. 0000, 0051, or 0052 May or may not appear as an additional field. 7XXX = Status code that explains the error. See status code 7XXX in this chart.	1. Re-IML. 2. You have a problem that is not recoverable. Use a back-up disk.
5240	00HG 7XXX	The RPQ data sets are in error. The RPQ data sets were modified without using the 3174 Merge RPQ procedure. 0000, 0051, or 0052 May or may not appear as an additional field. 7XXX = Status code that explains the error.	1. Re-IML. 2. Use the RPQ Merge utility to display the panel and see the *3174 Utilities Guide* to resolve the error.
5241	0000 7XXX	The Printer Authorization Matrix (PAM) data sets are in error. The PAM data sets were modified without using the 3174 configuration procedures. 0000 May or may not appear as an additional field. 7XXX = Status code that explains the error.	1. Re-IML. 2. Use the Configuration utility to display the panel and see the *3174 Planning Guide* to resolve the error.
5242	0000 7XXX	X.21 Host panel in error. This panel may have been modified without using the 3174 configuration procedures. 0000 May or may not appear as an additional field. 7XXX = Status code that explains the error.	1. Re-IML. 2. Use the Configuration utility to display the panel and see the *3174 Planning Guide* to resolve the error.

Status Code	Additional Fields	Description	Action
5243	0100	Modify Keyboard error. A language specified in configuration question 121 does not match a language number specified in the Modify Keyboard procedure.	Either change your response to question 121 or respecify the language on the Modify Keyboard Master Panel. See the *3174 Utilities Guide*.
5243	0200	Modify Keyboard error. A keyboard ID specified in configuration question 137 has not been generated by the Modify Keyboard procedures.	Correct customizing question 137, or perform the Keyboard Definition utility and generate or correct the ID, see the *3174 Planning Guide*.
5243	00HG 0400	Modify Keyboard error. Storage is insufficient to contain the keyboard name table. Possible cause: Microcode failure. 00HG may or may not appear as an additional field.	1. Perform an Alt 2 IML; see page 2-3. 2. Request service. **For service personnel only:** Use your support structure for aid.
5244	0000 7XXX	Token-Ring configuration panel in error. Possible cause: This panel has been changed without using the 3174 configuration procedures. 0000 May or may not appear as an additional field. 7XXX = Status code that explains the error.	1. Re-IML. 2. Use the Configuration utility to display the panel and see the *3174 Planning Guide* to resolve the error.
5245	0000 7XXX	Ring Address Assignment panel in error. Possible cause: This panel has been changed without using the 3174 configuration procedures. 0000 May or may not appear as an additional field. 7XXX = Status code that explains the error.	1. Re-IML. 2. Use the Configuration utility to display the panel and see the *3174 Planning Guide* to resolve the error.
5246	0000 7XXX	Ring Transmission Definition panel in error. Possible cause: This panel has been changed without using the 3174 configuration procedures. 0000 May or may not appear as an additional field. 7XXX = Status code that explains the error.	1. Re-IML. 2. Use the Configuration utility to display the panel and see the *3174 Planning Guide* to resolve the error.
5247	0000 7XXX	Token-Ring network host panel in error. Possible cause: This panel has been changed without using the 3174 configuration procedures. 0000 May or may not appear as an additional field. 7XXX = Status code that explains the error.	1. Re-IML. 2. Use the Configuration utility to display the panel and see the *3174 Planning Guide* to resolve the error.
5248	0000 7XXX	Asynchronous Emulation Adapter (AEA) Configure panel in error. Possible cause: This panel has been changed without using the 3174 configuration procedures. 0000 May or may not appear as an additional field. 7XXX = Status code that explains the error.	1. Re-IML. 2. Use the Configuration utility to display the panel and see the *3174 Planning Guide* to resolve the error.

Status Code	Additional Fields	Description	Action
5249	0000 7XXX	Asynchronous Emulation Adapter (AEA) Port Set panel in error. Possible cause: This panel has been changed without using the 3174 configuration procedures. 0000 May or may not appear as an additional field. 7XXX = Status code that explains the error.	1. Re-IML. 2. Use the Configuration utility to display the panel and see the *3174 Planning Guide* to resolve the error.
5250	0000 7XXX	Asynchronous Emulation Adapter (AEA) Port to Port Set Map panel in error. Possible cause: This panel has been changed without using the 3174 configuration procedures. 0000 May or may not appear as an additional field. 7XXX = Status code that explains the error.	1. Re-IML. 2. Use the Configuration utility to display the panel and see the *3174 Planning Guide* to resolve the error.
5251	0000 7XXX	Asynchronous Emulation Adapter (AEA) Station Set panel in error. Possible cause: This panel has been changed without using the 3174 configuration procedures. 0000 May or may not appear as an additional field. 7XXX = Status code that explains the error.	1. Re-IML. 2. Use the Configuration utility to display the panel and see the *3174 Planning Guide* to resolve the error.
5252	0000 7XXX	Asynchronous Emulation Adapter (AEA) Default Destination panel in error. Possible cause: This panel has been changed without using the 3174 configuration procedures. 0000 May or may not appear as an additional field. 7XXX = Status code that explains the error.	1. Re-IML. 2. Use the Configuration utility to display the panel and see the *3174 Planning Guide* to resolve the error.
5253	0000 7XXX	Device Definition panel is in error. Possible cause: This panel has been changed without using the 3174 configuration procedures. 0000 May or may not appear as an additional field. 7XXX represents the status code causing the failure.	1. Re-IML. 2. Use the Configuration utility to display the panel and see the *3174 Planning Guide* to resolve the error.
5254	0000 7XXX	Logical Terminal Assignment Panel in error. Possible cause: This panel has been changed without using the 3174 configuration procedures. 0000 may or may not appear as an additional field. 7XXX represents the status code causing the failure.	1. Re-IML. 2. Use the Configuration utility to display the panel and see the *3174 Planning Guide* to resolve the error.

Status Code	Additional Fields	Description	Action
5255	0000 7XXX	Extended Vital Product Data panel is in error. Possible cause: This panel has been changed without using the 3174 configuration procedure. 0000 may or may not appear as an additional field. 7XXX represents the status code causing the failure.	1. Re-IML. 2. Use the Configuration utility to display the panel and see the *3174 Planning Guide* to resolve the error.
5286	00HG	A microcode failure has occurred. 00HG may or may not appear as an additional field.	Request service. *For service personnel only:* Use your support structure for aid.
5288		A patch processing failure has occurred.	1. Re-IML. 2. Request service. *For service personnel only:* Use your support structure for aid.
5289		A failure occurred during an IML, while processing a patch or selecting a test from the Master Menu.	1. Perform an Alt 2 IML; see page 2-3. 2. Request service. *For service personnel only:* Use your support structure for aid.
5290	01HG to 36HG	A microcode failure has occurred. 00HG may or may not appear as an additional field.	1. Perform an Alt 2 IML; see page 2-3. 2. Request service. *For service personnel only:* Use your support structure for aid.
5800 to 5809		An electronic update from your host of the 3174 microcode or customization data is in progress.	Do not perform any controller activities that would interrupt the communications between the host and your 3174 while these status codes are displayed. **Do not** open any diskette drive doors. **Do not** perform an IML, Alt 1 IML, or Alt 2 IML. **Do not** switch the power off on the 3174. This status code is erased from the status indicators when the update process has completed.

Status Code	Additional Fields	Description	Action
5812	01HG B1B2 B3B4 B5	The customization data for this 3174 has been changed using the local 3174 customization utilities. This 3174 is customized for central site change management. This is an informational message. The extended data bytes show which diskette drive or fixed disk was used during the customization utility and what type of customization data was modified. B1 =　　00 – 03 where: 　　　　00 = Diskette drive 1. 　　　　01 = Diskette drive 2. 　　　　02 = Fixed disk 1. 　　　　03 = Fixed disk 2. B2 =　　Variable contents 　　　　Meaning when bit is on: 　　　　Bit 0 = 1 = Configure data. 　　　　Bit 1 = 1 = KDU data. 　　　　Bit 2 = 1 = PAM data. 　　　　Bit 3 = 1 = AEA data. 　　　　Bit 4 = 1 = RPQ data. 　　　　Bit 5 = 1 = DSL data. 　　　　Bit 6 = 1 = Patch data. 　　　　Bit 7 = 1 = Microcode. B3 – B5 = Reserved. For example, if bits 0 and 3 of byte 2 are on, then configure data and AEA data have been changed with the Customization utility.	Notify your central site that a change has been made to the customization data on this 3174.
5901		A controller offline dump is in progress. This status code should alternate with status code 5902. If 5901 remains displayed, a failure has occurred. Possible cause: 1. Microcode error 2. Processor.	1. If a failure occurs, retry the dump procedure. 2. If the failure continues, perform an Alt 2 IML; see page 2-3. *For service personnel only:* For Models 1L through 13R: 　Exchange FRU type 950x in location 18. For Models 21L through 92R: 　Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
5902		A controller offline dump is in progress. This status code should alternate with status code 5901. If 5902 remains displayed, a failure has occurred. Possible cause: 1. Microcode error 2. Processor.	1. If a failure occurs, retry the dump procedure. 2. If the failure continues, perform an Alt 2 IML; see page 2-3. *For service personnel only:* For Models 1L through 13R: 　Exchange FRU type 950x in location 18. For Models 21L through 92R: 　Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action

5903		A controller offline dump is in progress. If 5903 remains displayed, a failure has occurred.
		
		Possible cause:
		
		1. Microcode error
		2. Processor.
			1. If a failure has occurred, the dump has to be performed when another controller failure occurs because controller storage has been overlaid.
			2. Perform an Alt 2 IML; see page 2-3.
			
			For service personnel only:
			
			For Models 1L through 13R:
			
			    Exchange FRU type 950x in location 18.
			
			For Models 21L through 92R:
			
			    Exchange the planar board.
			
			See Chapter 3 in the maintenance manual for your model.

5904		A controller offline dump is in progress. 5904 alternates with 5905. If 5904 remains displayed, a failure has occurred.
		
		Possible cause:
		
		1. Microcode error
		2. Processor.
			1. If a failure has occurred, the dump has to be performed when another controller failure occurs because controller storage has been overlaid.
			2. Perform an Alt 2 IML; see page 2-3.
			
			For service personnel only:
			
			For Models 1L through 13R:
			
			    Exchange FRU type 950x in location 18.
			
			For Models 21L through 92R:
			
			    Exchange the planar board.
			
			See Chapter 3 in the maintenance manual for your model.

5905		A controller offline dump is in progress. 5905 alternates with 5904. If 5905 remains displayed, a failure has occurred.
		
		Possible cause:
		
		1. Microcode error
		2. Processor.
			1. If a failure has occurred, the dump has to be performed when another controller failure occurs because controller storage has been overlaid.
			2. Perform an Alt 2 IML; see page 2-3.
			
			For service personnel only:
			
			For Models 1L through 13R:
			
			    Exchange FRU type 950x in location 18.
			
			For Models 21L through 92R:
			
			    Exchange the planar board.
			
			See Chapter 3 in the maintenance manual for your model.

5907		Controller dump prompt message.	Remove the Dump diskette and if required, insert the Control diskette. The dump automatically resumes. **Note:** If 5907 remains displayed after the Control diskette is inserted, remove the Control disk and reinsert it.

Status Code	Additional Fields	Description	Action
5908		A controller dump is in progress. 5908 alternates with 5909. If 5908 remains displayed, a failure has occurred. Possible cause: 1. Microcode error 2. Processor.	1. If a failure has occurred, the dump has to be performed when another controller failure occurs because controller storage has been overlaid. 2. Exchange the Control diskette prior to attempting another offline dump. ***For service personnel only:*** For Models 1L through 13R: Exchange FRU type 950x in location 18. For Models 21L through 92R: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
5909		A controller offline dump is in progress. 5909 alternates with 5908. If 5909 remains displayed, a failure has occurred. Possible cause: 1. Microcode error 2. Processor.	1. If a failure has occurred, the dump has to be performed when another controller failure occurs because controller storage has been overlaid. 2. Exchange the Control diskette before attempting another dump. ***For service personnel only:*** For Models 1L through 13R: Exchange FRU type 950x in location 18. For Models 21L through 92R: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
5910		Controller dump prompt message.	Remove the Control diskette if required, and insert the Dump disk. The dump resumes automatically. **Note:** If 5910 remains displayed after the Dump disk is inserted, remove the Dump disk and reinsert it.
5912		A controller offline dump is in progress. 5912 alternates with 5913. If 5912 remains displayed, a failure has occurred. Possible cause: 1. Microcode error 2. Processor.	1. If a failure occurs, the dump has to be performed when another controller failure occurs because controller storage has been overlaid. 2. Perform an Alt 2 IML; see page 2-3. ***For service personnel only:*** For Models 1L through 13R: Exchange FRU type 950x in location 18. For Models 21L through 92R: Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action

5913		A controller offline dump is in progress. 5913 alternates with 5912. If 5913 remains displayed, a failure has occurred.
		
		Possible cause:
		
		1. Microcode error
		2. Processor.
			1. If a failure occurs, the dump has to be performed when another controller failure occurs because controller storage has been overlaid.
			2. Perform an Alt 2 IML; see page 2-3.
			
			For service personnel only:
			
			For Models 1L through 13R:
			
			    Exchange FRU type 950x in location 18.
			
			For Models 21L through 92R:
			
			    Exchange the planar board.
			
			See Chapter 3 in the maintenance manual for your model.

5914		Controller dump prompt message. The Dump diskette is full.	Remove the Dump diskette, and insert another Dump diskette to complete the dump. **Note:** If 5914 remains displayed after the new Dump diskette is inserted, remove the new Dump diskette and reinsert it.
5916		The dump has been completed successfully.	Remove the Dump diskette; perform a normal IML.
5917 to 5919	WXYZ BNBN BNBN 99MU 00	The dump is completed, but an error has occurred. **Note:** A microcode Release 4 Dump diskette can be used to dump any release 1 to 4. Do not use a Release 1 to 3 Dump diskette for Release 4 microcode. Additional fields reserved for engineering.	1. Record this status code and the additional fields. See "How to Analyze a 3174 Dump Failure" in the maintenance manual. 2. Remove the Dump diskette. 3. Perform an Alt 2 IML; see page 2-3. 4. Perform a normal IML. 5. Use your support structure to find out if your dump was valid.
5920		An incorrect controller dump request was entered. The dump request parameters entered specified storage initialization. The contents of storage have been initialized.	A dump has to be performed when the next controller failure occurs. Do not specify storage initialization when requesting a dump.
5921	WXYZ BNBN BNBN 99MU 00	The dump is completed, but significant portions of storage were found initialized. See Status Code 5919 for explanation of additional fields.	1. This dump was initiated with the storage option set to initialize. The original contents of storage have been erased. 2. The dump has to be performed again when another controller failure occurs.
5922		A recoverable Dump diskette error has occurred. Storage has not been overlaid.	1. Obtain a new Dump diskette and retry the dump. 2. If the failure continues, perform an Alt 2 IML; see page 2-3.
5923		An unrecoverable Dump diskette error has occurred.	• When this failure occurs, the dump has to be performed again with a new Dump diskette when another controller failure occurs. • If the failure continues, run diagnostics on the diskette drive being used to take the dump.
5924		An unexpected machine check occurred while a controller dump was in progress. Possible cause: 1. Processor 2. Storage 3. File adapter 4. Microcode.	The dump procedure has to be performed again when the next controller failure occurs because the contents of storage have been overlaid. If the failure continues, perform an Alt 2 IML; see page 2-3.

Status Code	Additional Fields	Description	Action
5925		An unexpected machine check occurred while a controller dump was in progress. Possible cause: 1. Processor 2. Storage 3. File adapter 4. Microcode.	The dump procedure has to be performed again when the next controller failure occurs. If the failure continues, perform an Alt 2 IML; see page 2-3.
5932	0xHG	The wrong diskette has been inserted. OX = 01 Insert the Control diskette. OX = 02 Insert the previous Dump diskette. OX = 03 Insert a new Dump diskette. Note: The dump resumes automatically.	If the failure continues, perform an Alt 2 IML; see page 2-3.
7000		7000 appearing in status indicators indicates normal progress.	The Master Menu will be displayed on the customizing screen.
7001		An invalid character or value was entered.	Choose one of the options available from the panel displayed.
7080		The terminal connected to port zero is not communicating with the controller. Possible cause: 1. Terminal is turned off or is defective. 2. Terminal signal cable is disconnected or is defective. 3. Terminal adapter 4. Terminal Multiplexer Adapter or Fiber Optic Terminal Adapter 5. 3299 Model 1, 2, 3, or 32 6. 3299, Terminal Multiplexer Adapter, or Fiber Optic Terminal Adapter input cable 7. The terminal is switched to another controller through an IBM 7232 dual control unit terminal multiplexer.	1. The customizing terminal must be turned on. 2. Check that the terminal signal cable is properly connected. If the terminal is connected through a 7232, use the change screen sequence to switch the terminal to the controller you are customizing. 3. Request service. *For service personnel only:* Go to MAP 0200 in the maintenance manual for your model.
7081	01HG	An invalid terminal is connected to port zero.	Attach a proper device to port zero. For a list of valid terminals used for customizing, see Appendix A in the *3174 Utilities Guide.*
7082	01HG	The terminal connected to port zero has been turned off. Possible cause: 1. Terminal 2. Terminal signal cable disconnected or is defective.	1. Turn on the terminal. 2. Check that the terminal signal cable is properly connected.
7082	02XX	The terminal connected to port zero has been disabled because of signal cable errors. Possible cause: 1. Terminal 2. Terminal signal cable disconnected or defective. 02XX = An additional status code	1. Turn on the terminal connected to port zero. 2. Check that the terminal signal cable is properly connected. 3. See status code 2XX. 4. Request service. *For service personnel only:* Go to MAP 0200 in the maintenance manual for your model.
7083	01HG	An invalid request was received from the terminal connected to port zero.	Check that the display and keyboard are valid for customizing. See the *3174 Utilities Guide* for a list of valid terminals used for customizing.
7089		The response to question 432 on an X.25 Single Link Host cannot be greater than 07 when your response to question 431 on the 1A, 2A, or 3A host for that link is 0.	Either change your response to question 432 so that it is less than or equal to 07, or change your response to question 431 on the 1A, 2A, or 3A host so that it is not 0.
7101		Model and type of host attachment you selected are not compatible.	Verify your response to questions 100 and 101, and respecify your response to these questions.

Status Code	Additional Fields	Description	Action
7102		Your response is invalid. Question 744 must be answered with 1 when the response to question 722 is AH and the response to question 765 is 1.	Respecify your response to question 744 to 1 or change the response to question 765 to 0.
7103		The range specified between questions 104 and 105 is greater than what the model specified in question 100 supports.	Determine the valid range for the model specified in question 100, then change your response to question 104 and/or 105 accordingly.
7104		Your response to question 105 is invalid. You have exceeded the controller addresses limit.	Compare questions 104 and 105, and respecify your response to one of these questions.
7105		Controller address must be a hexadecimal multiple of 16.	Verify question 104, and respecify your response to this question.
7106		Answer to question 105 is incompatible with the Host type.	Answer must be 00 unless the Token-Ring Gateway feature is installed.
7107		The controller address for more than 16 devices is invalid.	The leftmost digit of the controller address must be an even number if more than 16 devices are attached. Verify question 104, and respecify your response to this question.
7108		Type of host attachment and language are not compatible.	Verify questions 101 and 121, and respecify your response to these questions.
7109		The controller upper-limit address must be a zero if your response to question 116 is not zero.	Verify questions 105 and 116, and respecify your response to these questions.
7110		Duplicate addresses were entered for questions 106 (Token-Ring Network address of the 3174) and 107 (Token-Ring Network address of the Token-Ring Network 3270 Gateway).	Verify questions 106 and 107, and respecify your response to these questions.
7111		You have specified a controller address with the leftmost digit being odd and a terminal address with a value greater than 15.	Either define terminal addresses with a value of 15 or less, or respecify your response to question 104 so that the leftmost digit of the controller address is even.
7112		Both response fields must be either a zero or a nonzero.	Verify question 127, and respecify your response to this question.
7113		Your response is invalid. You cannot have a 3, 4, or 5 as the first digit, or 3 as the second digit, of your response to question 127 with the type of host attachment that was specified in question 101.	Respecify your response to question 127.
7114		Your response is invalid. Question 116 must be answered with a 1 or 2 when question 110 has a non-zero response.	Respecify your response to question 116, or change your response to question 110 to a 0.
7115		The language selected is not compatible with the response specified for question 123.	1. Change 123's response to 0, or 2. Change 121's response.
7116		The response to question 116 must be non-zero if the response to question 110 on the Primary Host panel is non-zero.	Change your response to question 116 to a non-zero response.
7117		Your responses are incompatible.	Verify question 132, and respecify your response to this question.
7118		This language is incompatible with the alternate keyboard you selected.	Verify questions 132 and 121, and respecify your response to these questions.
7119		This language is incompatible with the (unmodified) modifiable keyboard you selected.	Verify questions 136 and 121, and respecify your response to these questions.
7120		This language is incompatible with the (modified) modifiable keyboard you selected.	Verify questions 137 and 121, and respecify your response to these questions.
7121		The total number of keyboards allowable is 4.	Verify your responses to questions 136 and 137, and respecify your responses to these questions.

Status Code	Additional Fields	Description	Action
7122		Your response is invalid. If you respond to question 138, you must have at least one response to question 136.	Verify questions 136 and 138, and respecify your response to these questions.
7123		This language is invalid when decompression is configured.	Verify questions 165 and 121, and respecify your response to these questions.
7124		This language is invalid with the attribute select keyboard you selected.	Verify questions 166 and 121, and respecify your response to these questions.
7125		This language is invalid with the response to question 141.	Either change your response to question 141 to an A, or change your response to question 121.
7126		Decompression is invalid with the language configured for the primary host.	Change your response to question 165 to 0.
7127		The response to question 116 is valid on a SNA system only.	Either change your response to question 116 to a 0, 1, or 2, or change the "Host Attach" entry on the Multi-Host Definition panel for the host ID in error.
7128		The response to question 110 cannot be zero when the response to question 101 is M.	Either change the response to question 110 to non-zero, or change the response to 101 to a value of 1−7.
7129		You must provide a logical channel identifier for a PVC host.	Either provide an LCID in question 402, or change the circuit type in question 401.
7130		You responded to question 462, but did not respond to question 461. To define a range of logical channel identifiers for incoming calls, both questions must be answered.	Change your responses to questions 461 and 462 so that either both are blank, or neither are blank and your response to question 461 is less than or equal to your response to question 462.
7131		The response to question 139 must be 01 when using X.21 Switched line protocol on the Concurrent Communication Adapter and the response to question 121 is 02 for the primary host on this link.	Change your response to question 139 to 01 of the Concurrent Communication Adapter in error.
7132		The response to question 139 cannot be 02 when using X.21 Switched line protocol on the Concurrent Communication Adapter, and the response to question 121 is 01 for the primary host on this link.	Change your 02 response to question 139 of the Concurrent Communication Adapter in error.
7133		The response to question 139 must be 00 when the response to question 121 for the primary host on the primary link is not 01 or 02.	Change your response to question 139 to 00 on the primary host.
7134		The response to question 179 must end with 00 if the first digit of the response is 0.	Change the last two digits of the response to 00. See question 179 in the *3174 Planning Guide*.
7135		The last digit in the response to question 179 must not be 0 when the first digit is 1 or 3.	Change the last digit in your response to a value greater than 0. See question 179 in the *3174 Planning Guide*.
7136		The last digit in the response to question 179 must be 0 when the first digit is 2.	Change the last digit in your response to 0. See question 179 in the *3174 Planning Guide*.
7137		Customization mismatch between the responses for local format storage on your secondary host and the primary host.	Change either the configuration for the primary host or for your secondary host. See question 179 in the *3174 Planning Guide*.
7138		The amount of 3174 storage allocated for local format storage exceeds the amount allowed for your configuration. The total amount of storage allocated for all configured hosts cannot exceed 1.5MB.	See question 179 in the *3174 Planning Guide*. You must decrease the amount of storage allocated for local format storage. See "Planning for Controller Storage" in the *3174 Planning Guide*.
7139		Your response is invalid. The feature selected is not compatible with the model selected.	Verify your response to question 100 and questions 110, 310, 317, and 365.

Status Code	Additional Fields	Description	Action
7140		Your response is invalid. Your response to question 101 should be 1 when question 340 is equal to 2.	Verify your response to questions 340 and 101, and respecify your response to these questions.
7141		The 253 port address limit has been exceeded.	Assign fewer addresses to the ports. See the *3174 Planning Guide.*
7142		Your response is invalid. Your response to question 340 must be equal to 0 or 2 if your response to question 317 is equal to 1.	Verify your response to questions 340 and 317, and respecify your response to these questions. See the *3174 Planning Guide.*
7143		The adapter type is not compatible with the feature selected. Possible cause: User entered conflicting responses to the "Adapter Type" field on the Multi-Host Definition Panel and one or more of the following: questions 310, 317, and 365.	Verify your responses to the questions and respecify the responses.
7144		The response to question 150 must be 1 when the response to question 100 is 90R.	Respond to question 150 with 1.
7145		Your response is invalid. You must select the retry feature in question 360 in order to configure the retry timing feature in question 361.	Verify questions 360 and 361, and respecify your response to these questions. See the *3174 Planning Guide.*
7146		The UDX number on the UDX Selection Panel was not specified.	Enter a valid UDX number on the UDX Selection Panel.
7148		Your response is invalid. Your response to question 100 must specify Model 1R, 11R, 51R, 61R, 81R, or 91R, when question 365 is equal to 0.	Enter the correct model number for question 100 or change your response to question 365. See the *3174 Planning Guide.*
7149		The dial number must be given as the response to question 368 if the response to question 367 is equal to 1.	Verify your response to questions 367 and 368, and respecify your response to these questions. See the *3174 Planning Guide.*
7150		If a response is given to question 368, then the response to question 367 must be equal to 1.	Verify your response to questions 367 and 368, and respecify your response to these questions. See the *3174 Planning Guide.*
7151		The response to question 317 is not compatible with the host attachment specified. The host attachment is specified in question 101 or on the Multi-Host Definition panel if question 101 = M.	Change your response to question 317, or change the response to the host attachment. See the *3174 Planning Guide.*
7152		A request for a Graphics Query Reply requires a Graphics Input length to be specified.	Specify a Graphics Input length. See the *3174 Planning Guide.*
7153		Your response is invalid. The Last Line and Status Line fields are incompatible.	Enter compatible responses. If Last Line Reserved field option is Y, then: • Status Character Set must be 0-2. • Status Line Clear option must be 0-3. • Use Cursor Sequence on Status Line must be Y or N. See the *3174 Planning Guide.*

Status Code	Additional Fields	Description	Action
7154		Your response is invalid. The Cursor Class and the Cursor Sequence are incompatible or the hex data is invalid.	Ensure that the hex data is valid and that the correct responses have been entered as follows: • If you specified 0 for the Cursor Class, you must specify the Cursor Sequence to be 10 characters. • If you specified 1 for the Cursor Class, you must specify the Cursor Sequence to be 8 characters. • If you specified 2 or 5 for the Cursor Class, you must specify the Cursor Sequence to be 4 characters. • If you specified 3 or 4 for the Cursor Class, you must specify the Cursor Sequence to be 2 or 4 characters. See the *3174 Planning Guide*.
7155		Duplicate ASCII Sequences were defined on the User Defined Inbound Sequences panel.	Change duplicate ASCII sequences to non-duplicate sequences. See the *3174 Planning Guide*.
7156		Your response is invalid. You must enter a valid hex response when defining the Line Entry.	Enter a valid Hex Data Response. See the *3174 Planning Guide*.
7157		Your response is invalid. You must assign addresses to 3270 ports before you can assign addresses to ASCII ports.	Check your response to configuration question 116. See the *3174 Planning Guide*.
7158		Your response is invalid. Models 51R and 52R do not support ASCII hosts while configured for the Token-Ring Network 3270 Gateway feature; therefore, port addresses cannot be assigned.	Check your responses to configuration questions 100 and 116. See the *3174 Planning Guide*.
7159		Your response is invalid. Models 53R, 81R, 82R, 91R, and 92R do not support ASCII hosts; therefore, port addresses cannot be assigned.	Check your responses to configuration questions 100 and 116. See the *3174 Planning Guide*.
7160		Your response is invalid. The first character entered was not an alphabetic character.	Change the first character to an alphabetic character.
7161		If you answered question 500 with a non-zero response, you must answer question 502.	Respond to question 502.
7162		The answer to question 500 is incompatible with the Token-Ring Gateway feature.	Change the answer to question 500 to a 0 or 1.
7164		You have defined too many logical channels for this link. The number of channels is determined by your responses to questions 461 through 466 and by the number of hosts that are PVCs (question 401 = 1).	Change your responses to question 401 and questions 461 through 466 so that the total does not exceed 255.
7168		The number of DSPUs on all the hosts on all the links exceeds 250, which is the maximum number of DSPUs allowed.	Reconfigure to have fewer than 250 DSPUs.
7169		Host 2A or 3A is configured for Gateway, but host 1A is configured for neither Gateway nor SNA.	Either reconfigure host 1A as an SNA host, or reconfigure host 2A or 3A as a non-Gateway host.
7170		Your response is invalid. You entered addresses or IS values for ports that do not exist on the 3174 model you defined in question 100.	Verify your responses to questions 117 and 100, and respecify your responses to these questions.
7171		Two or more hosts on this X.25 link are customized for incoming calls (question 401 = 2 or 4). For all such hosts, the first digit of question 420 must be 1 (validate Host DTE address on incoming calls).	Either change your response to question 420 to 1, or change your response to question 401 so that it is not 2 or 4.

Status Code	Additional Fields	Description	Action
7172		Your response is invalid. The total number of assigned addresses is out of range. The maximum for non-SNA is 32; the maximum for SNA is 184 in the range of 2 to 254.	Respecify your response.
7173		Your response is invalid. The total number of logical addresses and the controller address specified in question 104 cannot equal more than 255. The maximum number of logical terminals is 32 for non-SNA and 184 for SNA.	Respecify the number of logical addresses or your response to question 104.
7174		Your response is invalid.	You must assign an address to port 26-00.
7175		You have assigned the same Connection Identifier (CID) to more than one host on an X.25 link.	Change your response to question 452 so that you have unique CID values for the hosts listed.
7176		Blanks cannot be left between addresses.	Fill in the missing address, or shift the addresses on that port to the left.
7177		An assigned address is out of range for the system defined. With SNA protocol (SNA Local, SDLC, X.25, X.21 Switched, and Token-Ring Network), up to 184 addresses may be defined in the range from 2 to 254. With non-SNA protocol (non-SNA Local, or BSC), the addresses range from 0 to 31.	Change the highlighted address to a correct value.
7178		A duplicate address was defined.	Respecify the highlighted address to a unique value.
7179		Your response is invalid. The total number of logical addresses and the controller address specified in question 104 cannot equal more than 255. The maximum number of logical terminals is 32 for non-SNA and 184 for SNA.	Respecify your response to question 104.
7180		Your response is invalid. U.S. English is needed to configure an AEA for ASCII control functions.	Change your response to question 121 to 1 if your response to question 702 is 0. See the *3174 Planning Guide*.
7181		Your response is invalid. You must select a valid language for the ASCII Host data stream and the ASCII Host character set.	If your response to question 722 is AH, then your response to question 751 must be 2. You must select one of the following combinations for questions 776 and 121: • If your response to question 776 is 1, then your response to question 121 must not be 47. • If your response to question 776 is 2, then your response to question 121 must be 01, 03, 15, 22, or 30. • If your response to question 776 is 3, then your response to question 121 must be 01, 03, 15, 19, 21, 22, 29, or 30. See the *3174 Planning Guide*.
7182		Your response is invalid. You must select a valid language for the ASCII Host data stream.	If your response to question 722 is AH, then you must select one of the following combinations for questions 751 and 121: • If your response to question 751 is 1, 4, or 5, then your response to question 121 must not be 28. • If your response to question 751 is 3, then your response to question 121 must be 1. See the *3174 Planning Guide*.

Status Code	Additional Fields	Description	Action
7183		Your response is invalid. You must select a valid language for the ASCII display character set and translate option.	If your response to question 746 is 0, then you must select one of the following combinations for questions 745 and 121: • If your response to question 745 is 0, then your response to question 121 must be 1. • If your response to question 745 is 2, then your response to question 121 must be 01, 03, 15, 19, 21, 22, 29, or 30. • If your response to question 745 is 3, then your response to question 121 must not be 47. • If your response to question 745 is 4 or 5, then your response to question 121 must not be 28. See the *3174 Planning Guide*.
7184		Your response is invalid. You must select a valid language for the device type.	Select one of the following combinations for questions 722 and 121: • If your response to question 722 is I1, then your response to question 121 must be 01, 03, 15, 19, 21, 22, or 30. • If your response to question 722 is M1, then your response to question 121 must be 20. • If your response to question 722 is X4, then your response to question 121 must be 01, 03, 07, 22, 23, 24, or 30. See the *3174 Planning Guide*.
7185		Your response is invalid. Response time values are out of range. The maximum time allowed is 27:18.3. The seconds field must not exceed 59.	Verify question 128, and respecify your response.
7186		Your response is invalid. Field B1 must be greater than 00:00.0.	Verify question 128, and respecify your response to this question.
7187		Your response is invalid. Entries in B fields must be in ascending order.	Verify question 128, and respecify your response to this question.
7188		Your response is invalid. B fields after a 00:00.0 or 27:18.3 must be 00.00.0.	Verify question 128, and respecify your response to this question.
7189		Your response is invalid. Your response cannot contain nonbinary characters. This field cannot contain blanks. Specify zeros or ones.	Verify question 128, and respecify your response to this question.
7190		Your response is invalid. B field must be less than 27:18.4.	Verify question 128, and respecify your response to this question.
7191		Two or more hosts on this X.25 link are customized for incoming calls (question 401 = 2 or 4) and have the same host DTE address (question 423). All such hosts must be customized to validate CID (digit 6 of question 420).	Do one of the following: • Change your response to digit 6 of question 420 to 1 for the hosts listed and answer question 452 for the hosts listed. • Make host DTE addresses (question 423) unique across all hosts.
7192		On each X.25 link, all hosts with circuit type PVC (question 401 = 1) must have unique logical channel identifiers (question 402). **Note:** If the error is detected on more than one link, a list of hosts having duplicate LCIDs will appear for each link.	Either change your response to question 402 for the hosts listed, or change your response to question 401.

Status Code	Additional Fields	Description	Action
7193		Question 900 must have the same response for all hosts that you customize for gateway. Similarly, the responses to questions 905, 908, and 911 must be the same for all gateway hosts. **Note:** The exception is the Service Access Point (SAP) field of question 900, which must be a unique value.	Change your responses to one or more of the four questions listed so that they are all the same for all gateway hosts.
7194		The Service Access Point (SAP) fields of question 900 are identical for the hosts listed.	Change your response to question 900 so that the SAPs are not identical.
7195		The response to question 220 must be non-zero when the response to question 221 is non-zero.	Change your response to question 220 to non-zero or your response to question 221 to zero.
7196		The response to question 221 indicates that more than one host has been defined as the alert focal point.	Reconfigure the defined hosts so that only one has the response to question 221 = 1.
7197		No alert focal point has been defined. The response to question 221 is zero for all the configured hosts.	Either change the response to question 220 on the 1A host to non-zero, or change the response to question 221 on one of the other configured hosts on the primary link to 1.
7198	,	The addresses defined in question 107 are identical for more than one host and the addresses defined in question 106 are identical for those same hosts. If the question 107 addresses are identical, then the question 106 addresses must be unique for those same hosts.	Change the responses to question 106 or 107 to a unique address for the configured hosts in error.
7199		An invalid response to question 121 (Keyboard Language) was entered for RPQ 8Q0688.	Respond to question 121 with a supported keyboard language value. Valid responses are: 29 Canadian (bilingual) 41 New Swiss French 07 Danish 42 New Swiss German 09 Finnish 23 Norwegian 30 French 28 Portuguese 03 German 19 Spanish 15 Italian 21 Spanish-speaking 47 Netherlands 24 Swedish 43 Belgian 22 U.K. English 01 U.S. English
7200		An invalid response was given to question 744 for a DEC VT220 display. Possible cause: A response of 7-bit character length (744 = 0) was given for a DEC VT220 display. Alert Sent = None.	Change your response to question 744 to 1.
7202		Your response is invalid. The value for the channel identifier must be less than 4096.	Verify question 402, and respecify your response to this question.
7203		Your response is invalid. When the response to question 702 is equal to 0 and the response to question 751 is equal to 2, then the response to question 776 must be equal to 2. **Note:** U.S.A. English is not valid with the International Standards Organization (ISO) ASCII host character set.	Verify questions 702, 751, and 776, and respecify your response.
7204		Your response is invalid. When the response to question 401 is equal to 1, questions 423 and 424 should not be configured.	Verify question 401, and respecify your response.
7205		Your response is invalid. When the response to question 401 is equal to 3 or 4, questions 423 and 424 must be configured.	Verify questions 401, 423, and 424, and respecify your response to these questions.

Status Code	Additional Fields	Description	Action
7206		You responded to question 464, but did not respond to question 463. To define a range of logical channel identifiers for two-way calling, both questions must be answered.	Change your responses to questions 463 and 464 so that either both are blank, or neither are blank and your response to question 463 is less than or equal to your response to question 464.
7207		You responded to question 466, but did not respond to question 465. To define a range of logical channel identifiers for outgoing calls, both questions must be answered.	Change your responses to questions 465 and 466 so that either both are blank, or neither are blank and your response to question 465 is less than or equal to your response to question 466.
7208		Your response is invalid. When the response to question 401 is equal to a 1 or 3, then question 420 should not be configured.	Verify questions 401 and 420, and respecify your response to these questions.
7209		By setting the first digit of question 420 to 1, you have requested that the 3174 verify the host DTE address in incoming calls, but you have not customized the host DTE address.	Either provide the host DTE address in question 423, or change the first digit of question 420 to 0.
7210		Your response is invalid. The second and third digits cannot both be ones.	Verify question 421, and respecify your response.
7211		Your response is invalid. When question 401 is equal to 1 or 2, then question 421 cannot be configured.	Verify questions 401 and 421 must all be zeros.
7212		Your response is invalid. When question 401 is equal to 3 or 4, and question 421 is equal to 1xxxxxxx, then question 424 must be configured.	Verify questions 401, 421, and 424, and respecify your response to these questions.
7213		The logical channel identifier for a PVC must be less than the identifiers for any logical channels reserved for incoming calls.	Either change your response to question 401 so that it is another circuit type, or change your response to question 402 so that it is less than your response to question 461.
7214		The logical channel identifier for a PVC must be less than the identifiers for any logical channels reserved for two-way calling.	Either change your response to question 401 so that it is another circuit type, or change your response to question 402 so that it is less than your response to question 463.
7215		Your response is invalid. Window size indicates modulo 128, but question 431 was configured for modulo 8.	Verify questions 435, 432, and 431, and respecify your response to these questions.
7216		The logical channel identifier for a PVC must be less than the logical channel identifiers for any logical channels reserved for outgoing calls.	Either change your response to question 401 so that it is another circuit type, or change your response to question 402 so that it is less than your response to question 465.
7218		You cannot customize the Closed User Group facility for a PVC.	Verify questions 401 and 441, and respecify your responses to these questions.
7219		Your response cannot contain blanks.	If your response is less than four digits, use leading zeros.
7220		Your response is invalid. An invalid X.25 keyboard support was selected in question 409.	Verify question 409, and respecify your response to this question.
7221		Your response is invalid. No connection identifier (CID) password was initialized, but a CID is required. A response is required because of the responses specified in questions 420 and 421.	Verify questions 420 and 421, and respecify your response to these questions.
7222		Question 500 was answered with a non-zero value without responding to question 501.	Respond to question 501.
7223		Your response is invalid.	If your response to question 722 is I4, then your response to question 776 must not be 1. See the *3174 Planning Guide*.
7224		Your response is invalid.	If your response to question 745 is 4, then your response to question 744 must be 1. See the *3174 Planning Guide*.

Status Code	Additional Fields	Description	Action
7225		Your response is invalid.	Your response to question 703 must be 1 or reduce Session Limit to 1. See the *3174 Planning Guide*.
7226		Your response is invalid. You entered an invalid combination of stations.	If your response to question 731 is 1, then your response to question 751 must not be 3. See the *3174 Planning Guide*.
7227		Your response is invalid. You must define the ASCII host data stream as VT100 or 3101.	If your response to question 702 is 0, then your response to question 751 must be 1 or 2. See the *3174 Planning Guide*.
7228		Your response is invalid. You must select 8-bit code for the printer character set.	If your response to question 784 is 2, 3, or 4, then your response to question 744 must be 1. See the *3174 Planning Guide*.
7229		Your response is invalid. You must select 7-bit code for the device type.	If your response to question 722 is M1, then your response to question 744 must be 0. See the *3174 Planning Guide*.
7230		A response is missing. If question 721 has been answered, then a port set name (question 723) response is required for Station Sets other than the 3270 Host.	Configure question 723 with a port set name.
7231		Your response is invalid. The port set name defined in question 723 was not found on the port set panel.	Reconfigure question 723 with a port set name that was configured on the port set panel, or reconfigure the port set panel with the name configured in question 723.
7232		Your response is invalid. The station set type (defined in question 722) must match the port type of the port set to which the station set has been assigned. If the port type is 2, 3, or 4, the station set type must be ASCII; if the port type is Coax (1), then the station set type must be 3270.	Reconfigure the port type on the port set panel or assign the station set to a valid port set. For ASCII station sets, the port type on the associated port set must be a value between 2 and 4; for 3270 station sets, the port type on the associated port set must be a 1.
7233		The default destination was not defined for a Station Set made up of printers.	On the AEA Default Destination panel, enter the Station Set number of a host in the LT1 column for all Station Sets made up of printers.
7234		Your response is invalid. A Station Set made up of display stations (3270 or ASCII) was not given permission to access the 3174 Connection Menu, and no default destination was defined for it on the AEA Default Destination panel.	Respond to question 725 with a 1 or define a default destination for this Station Set.
7235		Your response is invalid. A station type defined as an ASCII host or printer does not allow a response of autobaud for the Lower Line Speed (question 733 = 0).	Enter a response of 1 through 7 for question 733.
7236		Your response is invalid. The Upper Line Speed must not be defined for a station set other than an ASCII host Station Set.	Delete the response to question 734.
7237		Your response is invalid. The Upper Line Speed cannot be less than or equal to the Lower Line Speed.	Either change the response to question 734 to be greater than the response to question 733, or change the response to question 733 to be less than the response to question 734.
7238		Your response is invalid. If the line speed is defined as autobaud, then the parity must be defined as autoparity.	Either change both responses to questions 733 and 735 to 0, or change both responses to non-zero responses.
7239		Your response is invalid. The terminal type must be defined if the station type is an ASCII host.	Change your response to question 751 for the stations in error.
7240		Your response is invalid. A station name cannot be duplicated.	Assign unique station names (question 721) to the stations in error.

Status Code	Additional Fields	Description	Action
7241		Your response is invalid. You cannot specify more than one Station Set as type "3H" (3270 Host).	Reconfigure question 722 so that only one Station Set has a response of "3H" (3270 Host).
7242		Your response is invalid. Display stations and printers cannot be in the same Port Set (question 723); printer Station Sets must each be assigned to unique Port Sets. Station Sets made up of display stations and assigned to the same Port Set must have the same line speeds (question 733).	If the Station Sets made up of display stations and printer Station Sets are assigned to the same Port Set, reconfigure question 723 so that the printer Station Sets are not assigned to this Port Set. Reconfigure question 733 so that all Station Sets made up of display stations in the same Port Set have the same line speed. Each printer station set must be assigned to a unique Port Set.
7243		Your response is invalid. Station Sets made up of display stations and host Station Sets can be assigned to the same Port Set only if the port type for the Port Set is switched.	1. Assign the Station Sets to individual Ports Sets, or 2. Change the port type to "switched." (This may involve changing site planning; contact the site planner for additional information.)
7244		Your response is invalid. ASCII Station Sets made up of display stations and printer Station Sets cannot be assigned to the same Port Set.	Reconfigure question 723 so that Station Sets made up of display stations and printer Station Sets are not assigned to the same Port Set.
7245		Your response is invalid. Station Sets made up of ASCII printers cannot be assigned to the same Port Set as Station Sets made up of 3270 printers.	Assign the Station Sets in error to different Port Sets (question 723).
7246		Your response is invalid. Default destinations must be previously defined host Station Sets. The Station Sets that have been defined are listed on the right side of the AEA Default Destination panel.	Type a valid Station Set number in the LT columns for the highlighted Station Sets; only Host Station Sets may be used as default destinations.
7247		A response is missing. If an ASCII host Station Set has been defined as the default destination of a printer, the host phone number is required.	Provide the host phone number (respond to question 752) for the printer Station Sets in error.
7248		More than 28 Host Station Sets have been defined.	Reconfigure question 722 where necessary. A maximum of 28 hosts can be defined.
7249		Your response is invalid. Display stations and printers cannot be in the same Port Set (question 723); printer Station Sets must each be assigned to unique Port Sets. Station Sets made up of display stations assigned to the same Port Set must have the same parity (question 735).	If Station Sets made up of display stations and printer Station Sets are assigned to the same Port Set, reconfigure question 723 so that printer Station Sets are not assigned to this Port Set. Reconfigure question 735 so that all Station Sets made up of display stations in the same Port Set have the same parity.
7250		An invalid response to question 745 (ASCII Display Character Set) was entered for RPQ 8Q0688 in regards to question 722.	Respond to question 745 with the correct ASCII display character set value in regards to question 722. Valid responses are: Station Type Q745 Q722 IBM 3101 1 I1 IBM 3161 2 or 3 I2 IBM 3163 2 or 3 I3 IBM 3164 2 or 3 I4 FTTERM Mono* 3 FM FTTERM Color* 3 FC DEC VT220** 4 or 5 V6 DEC VT100** 5 V1 Minitel 1B** 5 M1
7252		A Port Set name was defined more than once.	Assign unique Port Set names to each Port Set that is to be defined.

Status Code	Additional Fields	Description	Action
7253		Your response is invalid. A port has been assigned to a Port Set on the AEA Port to Port Set Map panel, but the Port Set has not been defined on the AEA Port Set panel.	Define a Port Set on the AEA Port Set panel to correspond with the Port Set number on the AEA Port to Port Set Map panel, or respond to the AEA Port To Port Set Map panel only with Port Set numbers of Port Sets that have already been defined.
7254		Your response is invalid. 3270 Terminal Adapter (TA) ports must be associated with Port Sets with a Coax Port Type.	Assign the 3270 Terminal Adapter Port in error to a Port Set with a Coax port type.
7255		Your response is invalid. ASCII (AEA) ports must be associated with Port Sets whose Port Type is not Coax.	Assign the AEA Port in error to a Port Set whose port type is not Coax.
7256		All defined Port Sets must be assigned to a port.	Assign the unassociated Port Set to a port, or delete the Port Set in error.
7257		Your response is invalid. You defined more default destinations on the AEA Default Destination panel than are permitted. The total number of default destinations must equal the session limit (from the AEA Port Set panel).	You can either delete one or more default destinations from the AEA Default Destination panel, or increase the session limit on the AEA Port Set panel; the session limit can be increased only if the port type listed is 1.
7258		Your response is invalid. You cannot define a session limit greater than 1 for port types of 2, 3, or 4.	You can either redefine the port type as "1" on the AEA Port Set panel or delete the session limit response for this Port Set.
7259		Your response is invalid. You cannot specify an ASCII host phone number for a Station Set assigned to a Port Set that has a modem type of "other (4)" defined; autodial is not supported for these modems.	You can either reassign the Station Set to a Port Set that has a modem type of Hayes (1), Micom (2), or IBM (3), or you can redefine the Port Set modem type.
7260		Your response is invalid. You cannot have a Station Set made up of printers assigned to a Port Set that has a modem type of "Other (4)" if the default destination of that Station Set is an ASCII host connected through switched lines.	You can either reassign the Station Set to a Port Set (question 723) that has a modem type of Hayes (1), Micom (2), or IBM (3), or you can change the modem type on the AEA Port Set panel to Hayes (1), Micom (2), or IBM (3).
7261		Two or more Station Sets made up of display stations with the same Station Type were assigned to the same Port Set.	Assign the Station Sets in error to different Port Sets, or reconfigure question 722.
7262		Your response is invalid. DTR flow control is permitted only for Station Sets assigned to Port Sets that communicate through leased lines. CTS (RTS) flow control is permitted only for Station Sets assigned to Port Sets that communicate through direct lines.	Change the response to question 731 for the Station Set in error, or reconfigure the Port Set.
7263		Two or more Station Sets assigned to the same Port Set have different stop bit definitions.	Assign the Station Sets in error to different Port Sets, or reconfigure question 736.
7264		A response of autoparity (question 735 = 0) was given for an ASCII host or printer Station Set.	Enter a response between 1 and 5 for question 735 for the Station Set in error.
7265		If your response to question 733 is autobaud, then the maximum line speed must be defined.	Respond to question 737 for the maximum modem line speed, or specify an exact line speed for question 733.
7266		A response of 8-bit character length (question 744 = 1) was given for an IBM 3101 display.	Respond to question 744 with 0.
7267		A response of 7-bit character length (question 744 = 0) was given for an ASCII host using VT200 data stream (question 751 = 4 or 5).	Respond to question 744 with 1 or change the host data stream to VT100 (question 751 = 1).
7268		A response of SPACE or MARK as parity (question 735 = 4 or 5) is permitted only for a 7-bit character length station (question 744 = 0).	Enter a response between 0 and 3 for question 735 or respond to question 744 with 0.
7269		A response of DEC MCS character set (question 765 = 1) was given for an ASCII host using VT100 data stream (question 751 = 1).	Respond to question 765 with 0 or change the host data stream to VT200 (question 751 = 4 or 5).

Status Code	Additional Fields	Description	Action
7270		An AEA printer port defined in the PAM has not been defined as a Station Set or assigned to a Port Set.	1. Define the printer as a Station Set and assign it to a Port Set, or 2. Do not define the printer port in the PAM.
7271		Port Sets have been assigned to invalid ports for the 3174 model number specified in question 101.	Do not assign Port Sets to the invalid ports.
7272		A printer defined in the PAM or Device Definition procedure has a default destination defined in the AEA Configure procedure as an ASCII host. Local copy is not allowed on this printer.	1. Do not define the printer in the PAM or Device Definition procedure, or 2. Change the default destination of the printer to an IBM host.
7273		AEA ports defined on the Port Assignment panel were not assigned to a Port Set in the AEA Configure procedure. Power cannot be turned on at a terminal or printer connected to an unassigned port.	1. Do not define the AEA ports on the Port Assignment panel, or 2. Assign the AEA ports to a Port Set in the AEA Configure procedure.
7274		MLT was not configured, but more than one session was defined on the AEA Port Set and Default Destination panels of the AEA Configure procedure. The user has only one session per port when MLT is not configured.	1. Configure for MLT (respond to question 110 with a nonzero response), or 2. Do not define more than one session on the Port Set and Default Destination panels of the AEA Configure procedure.
7275		Your response is invalid. You must select a language that is valid for Asynchronous Emulation Adapter (AEA) configuration.	1. Select a language that is valid for AEA configuration for question 121, or 2. Do not configure the AEA by responding to question 700 with a 0. See the *3174 Planning Guide*.
7276		AEA ports were defined on the Port Assignment panel, but the AEA Configure procedure was not performed. The AEA ports will not be functional.	1. Do not define AEA ports on the Port Assignment panel, or 2. Configure for the AEA in the AEA Configure procedure (respond to question 700 with a 1).
7277		AEA ports were defined in the PAM procedure, but the AEA Configure procedure was not performed.	1. Do not define AEA ports in the PAM procedure, or 2. Configure for the AEA in the AEA Configure procedure (respond to question 700 with a 1).
7278		A modified keyboard layout was configured, but was not defined in the Modify Keyboards procedure. The keyboards will not be modified.	1. Define the modified keyboard layout selected in question 137 in the Modify Keyboard procedure, or 2. Do not select the modified keyboard layout in question 137 in the Configure procedure.
7279		The language specified by question 121 in the configure procedure is not the same language specified in the Modify Keyboards procedure. The keyboards will not be modified.	Perform one of the following: • Change the language in the configure procedure (question 121) to match the language in the Modify Keyboards procedure. • Change the language in the Modify Keyboards procedure to match the language specified in question 121 of the Configure procedure.
7280		One or more panels in the configure procedure are in error.	Redo the Configure procedure and correct the errors on the configure panels that contain incorrect responses.
7281		One or more panels in the PAM procedure are in error.	Redo the PAM procedure and correct the errors on the PAM panels that contain incorrect responses.
7282		One or more panels in the AEA Configure procedure are in error.	Redo the AEA Configure procedure and correct the errors on the AEA panels that contain incorrect responses.

Status Code	Additional Fields	Description	Action
7283 or 7284		In the AEA Configure procedure a shared printer has been defined and at least one port in that station's port set has less than two sessions defined on the Port Assignment Table.	In the AEA Configure procedure for the station in error, define no shared printer (question 781 = 0) or define at least two sessions for each port in that station's port set on the Port Assignment Table panel.
7285		A device type was entered for question 722 that does not support ASCII Host Addressable Printers.	If the answer to question 781 is "1", respond to question 722 with a device type that supports ASCII Host Addressable Printers.
7286		Multiple LTs have been configured on an AEA port, but the response to question 110 does not define MLT support.	Specify a non-zero response to question 110 if defining multiple LTs for an AEA port.
7287		The response to question 910 was not compatible with the host type specified.	If the host type specified is correct, then the response to question 910 must be 0.
7288		Your response is invalid. You must not define multiple logical terminals (MLTs) when you have defined the MLT level to be 0.	Select one of the following combinations for questions 110 and 703: • If your response to question 703 is 0, then your response to question 110 must be 0. • If your response to question 703 is other than 0, then your response to question 110 must be other than 0. See the 3174 Planning Guide.
7289		The address defined in question 900 is invalid.	Respond to question 900 with a valid local address.
7290		Your response is invalid. An invalid ring address was entered. The address cannot be all zeros, nor can it start with '1'B.	Enter a ring address that is in the correct format.
7291		Your response is invalid. You entered a ring address that was previously assigned to the Gateway.	Verify your response to question 940. Enter a unique address.
7292		You have entered more subchannel addresses than ring addresses. The unused subchannel addresses are highlighted on the panel.	Enter more ring addresses as needed. (This is just a warning. You may proceed if you do not need to specify more ring addresses.)
7294		Your response is invalid. A Service Access Point (SAP) was entered that is not a multiple of 4, or is out of the valid range.	Enter a SAP address that is a multiple of 4 and is within the range of '04' through 'EC'.
7295		Your response is invalid. A window size was entered that is too large for the associated I-frame. (This code refers to the Token-Ring Network 3270 Gateway feature.)	Either enter a window size that is valid for the associated I-frame size, or change the associated I-frame so that it is valid for the window size entered.
7296		Your response is invalid. A window size was entered that is too large for the associated I-frame. (This code refers to the Token-Ring Network.)	Either enter a window size that is valid for the associated I-frame size, or change the associated I-frame so that it is valid for the window size entered. See configuration questions 382 and 383 in the 3174 Planning Guide.
7297		Your response is invalid. A duplicate address was entered on the Ring Address Assignment panel. The ring address and the SAP address together are not unique.	Verify question 940 and respecify your response to this question. Enter a unique combination of ring address and SAP address.
7298		Token-Ring Gateway and AEA are mutually exclusive. Customizing for both is not supported.	Customize for either the Token-Ring Gateway or the AEA.
7299		Invalid character sequence. Possible cause: An invalid ring address was entered.	Enter a ring address that is in the correct format. It cannot be all 0's and it cannot start with a B'1'.

Status Code	Additional Fields	Description	Action
7300		An invalid response was entered for a Logical Terminal (LT) on the Logical Terminal Assignment (LTA) panel.	Change your response on the LTA panel. A valid LT value is 3 characters long: The first character can be 1, 2, or 3; the second character must be an A – H; and the third character can be 1, 2, 3, 4, 5, or blank.
7301		Blank entries are not allowed between LT entries on the Logical Terminal Assignment (LTA) panel.	Either fill in the blank LT entries or move the existing entries to the left to fill the blanks.
7302		Duplicate Logical Terminal (LT) entries are assigned for the same port on the Logical Terminal Assignment (LTA) panel.	Change the duplicate LTs to a unique entry on the LTA panel.
7303		Invalid response error during customizing. Possible cause: You entered invalid characters on the Ring Definition panel or on the Ring Address Assignment panel.	Reenter the correct characters that the panels call for.
7304		Invalid address error during customizing. Possible cause: You entered a Service Access Point (SAP) address that is not a multiple of 4 or is out of the allowable range.	Reenter a valid Service Access Point address. This must be a multiple of 4 and within the range X'04' and X'EC'.
7305		An invalid adapter type was specified on the Multi-Host Definition panel.	Change the response to a valid adapter type.
7306		An invalid host attach was specified on the Multi-Host Definition panel.	Change the response to a valid host attach value.
7307		An invalid hardware group was specified on the Multi-Host Definition panel.	Change the response to a valid hardware group.
7308		An incorrect response was specified in the "Include in IML" field on the Multi-Host Definition panel.	Change the response to a valid number.
7309		One or more required fields were left blank on the Multi-Host Definition panel.	Complete the fields that are highlighted.
7310		The values specified for the adapter type and host attach on the Multi-Host Definition panel are not compatible.	Change one of the responses to make them compatible.
7311		Host ID 1A on the Multi-Host Definition panel has not been defined.	Complete the fields for Host ID 1A.
7312		Duplicate hardware group numbers were defined on the Multi-Host Definition panel.	Change the responses so that the hardware group numbers are different.
7313		Host ID 1A must be the first host configured on the Multi-Host Definition panel.	Configure Host ID 1A on the Multi-Host Definition panel before configuring any other host.
7314		The response to the Host ID 1A host attach field on the Multi-Host Definition panel is not compatible with the keyboard language response to question 121.	Change one of the responses to make it compatible with the other.
7315		An entry on the Multi-Host Definition panel was changed without reconfiguring.	Reconfigure the host that is highlighted on the Multi-Host Definition panel.
7316		A hardware group number was specified on the Multi-Host Definition panel that is not compatible with the model defined in question 100.	Change the hardware group to a valid number.
7317		An entry in the host attach field of the Multi-Host Definition panel is not compatible with the model defined in question 100.	Change the host attach entry to a valid number.

Status Code	Additional Fields	Description	Action
7318		The Host ID was designated on the Logical Terminal Assignment (LTA) panel but the Host ID was not defined on the Multi-Host Definition panel or that Host ID was not to be used for IML.	Do one of the following: • On the Multi-Host Definition panel, define the Host ID and enter a 1 in the "Include in IML" column, or • Delete the entry on the LTA panel to the undefined or unused Host ID.
7319		An LT assignment was defined on the Logical Terminal Assignment (LTA) panel that was not provided for in either the IS field of the Port Assignment Panel or the session limit AEA Configure field of the AEA Port Set panel. **Note:** This error does not apply to the Concurrent Communication Adapter hosts or when the AEA is not configured.	Any one of the following will correct the error: • On the LTA panel, move the LT assignment response to a lower session position on the port. • On the AEA Port Set panel, increase the session limit for this port. • On the LTA panel, decrease the number of LT entries for this port. • On the PAST panel for the host defined in this LTA entry, increase the IS entry for this port.
7320		An RPQ was selected for a hardware group that was not defined on the Multi-Host Definition panel or was not to be used for IML.	Do one of the following: • Define the hardware group on the Multi-Host Definition panel, or • Change the hardware group for the RPQ selection in the RPQ Merge procedure.
7321		An invalid Host ID was specified on the Multi-Host Definition panel.	Change your response to a valid host ID.
7322		On the Multi-Host Definition panel, single link multi-host support can be defined only if the primary link attachment is to a Token-Ring Network.	Either change the response to the primary link attachment to a 7 (Token-Ring Network), or change the responses to the primary and secondary host IDs to 1A, 2A, and 3A, respectively.
7323		Duplicate Host IDs were specified on the Multi-Host Definition panel.	Change the Host IDs so they are not the same.
7324		The Token-Ring Network address is not a multiple of 4 or it is out of range.	Reconfigure question 106 or 107 with a valid Token-Ring Network address.
7325		An invalid Host ID was specified on the select line of the Multi-Host Definition panel. Possible cause: 1. No data exists for the host selected. 2. The "Include in IML" entry is 0 for the host selected.	Either configure for the host selected, or change the "Include in IML" entry to a 1.
7326		When a Concurrent Communication Adapter is defined, or when the AEA is not configured, the LT entries on the Logical Terminal Assignment panel (LTA) must be less than or equal to the IS number on the port assignment panel for the same port and host.	Either change the LT entries on the LTA panel, or change the IS number on the port assignment panel.
7327		An invalid Group Polling Address was specified in question 912.	Change the Group Polling Address to a value less than the Controller Address (question 104) or greater than the Upper Limit Address (question 105).
7328		The "Include in IML" field is set to 1 for a secondary host, but not for the primary host on that link.	Change your response to 1 for the links that have their "Include in IML" fields highlighted.
7329		The host ID of a secondary host was entered on the Multi-Host Definition panel's select line before its primary host was configured.	Configure the primary host (host ID = xA) on this link.

Status Code	Additional Fields	Description	Action
7330		The response to question 744 (Character Length) is not compatible between stations. All stations using the same port must have the same Character Length.	Respond to question 744 with 0 = 7-bit character length or 1 = 8-bit character length.
7331		A password has been specified for a port that is defined for a coax port type.	Change the port type to a type 2, 3, or 4, or do not specify a password. See the *3174 Planning Guide*.
7332		Your response is invalid. Your response to question 224 must be 1 or 3 when the host is local SNA.	Change your response to 1 or 3, or configure the host for local SNA. See the *3174 Planning Guide*.
7333		Your response is invalid. Your response to question 222 must be 1 when your response to question 224 is 1 or 3.	Change your response to question 222 to 1. See the *3174 Planning Guide*.
7334		A secondary host was selected on the Multi-Host Definition panel, but its associated physical link host attachment does not support secondaries.	Either change the host attachment of the primary host, or do not configure for secondary hosts for that link.
7335		Session LT1 definitions are not the same for all stations assigned to the same port set.	Either reconfigure the session LT1 definitions of the stations that are highlighted on the display, or assign a unique port set name to those stations that are highlighted.
7336		The maximum modem line speed cannot be less than or equal to the upper limit line speed. The response to question 737 is less than or equal to your response to question 734.	Either change customizing question 737 to be greater than question 734 or change question 734 to be less than question 737.
7337		By setting digit 1 of question 421 to 1, you have requested that the 3174 provide its DTE address in outgoing calls, but you have not customized that DTE address.	Either provide the 3174 DTE address in question 424, on 1A, 2A, and 3A hosts only, or change digit 1 of question 421 to 0.
7338		You have defined too many logical channels for this link. The number of channels is determined by your responses to questions 461 through 466, and by the number of hosts that are PVCs (question 401 = 1).	Reconfigure the hosts and channels on the link to achieve a total less than 256.
7340		You cannot specify autodisconnect for a PVC.	Either change your response to question 372, or change your response to question 401.
7342		The logical channel identifier for a PVC must be less than the logical channel identifiers for any logical channels reserved for incoming calls.	Either change your response to question 401 so that it is another circuit type, or change your response to question 402 so that it is less than the response you gave to question 461 when you customized the primary host on this link.
7343		The logical channel identifier for a PVC must be less than the logical channel identifiers for any logical channels reserved for two-way calling.	Either change your response to question 401 so that it is another circuit type, or change your response to question 402 so that it is less than the response you gave to question 463 when you customized the primary host on this link.
7344		The logical channel identifier for a PVC must be less than the logical channel identifiers for any logical channels reserved for outgoing calls.	Either change your response to question 401 so that it is another circuit type, or change your response to question 402 so that it is less than the response you gave to question 465 when you customized the primary host on this link.
7345		You have configured the host to be used with outgoing calls, but there are no logical channels on this link defined for outgoing calls.	Do one of the following: • Change your response to question 401 so that this is not an outgoing call host. • Provide some logical channels for two-way calling by answering questions 463 and 464. • Provide some logical channels for outgoing calls by answering questions 465 and 466.

Status Code	Additional Fields	Description	Action
7346		You have configured the host to be used with outgoing calls, but there are no logical channels on this link defined for outgoing calls.	Do one of the following: • Change your response to question 401 so that this is not an outgoing call host. • Provide some logical channels for two-way calling by answering questions 463 and 464 for the primary host on this link. • Provide some logical channels for outgoing calls by answering questions 465 and 466 for the primary host on this link.
7347		You have configured the host to be used with incoming calls, but there are no logical channels on this link defined for incoming calls.	Do one of the following: • Change your response to question 401 so that this is not an incoming call host. • Provide some logical channels for incoming calls by answering questions 461 and 462. • Provide some logical channels for two-way calling by answering questions 463 and 464.
7348		You have configured the host to be used with incoming calls, but there are no logical channels on this link defined for incoming calls.	Do one of the following: • Change your response to question 401 so that this is not an incoming call host. • Provide some logical channels for incoming calls by answering questions 461 and 462 for the primary host on this link. • Provide some logical channels for two-way calling by answering questions 463 and 464 for the primary host on this link.
7349		You have configured the host to be used with two-way calling, but there are no available logical channels on this link.	Do one of the following: • Change your response to question 401 so that this host does not use two-way calling. • Provide some logical channels by answering one of these pairs of questions: — 461 and 462 — 463 and 464 — 465 and 466.
7350		You have configured the host to be used with two-way calling, but there are no available logical channels on this link.	Do one of the following: • Change your response to question 401 so that this host does not use two-way calling. • Provide some logical channels by answering one of these pairs of questions for the primary host on this link: — 461 and 462 — 463 and 464 — 465 and 466.
7351		You have specified a logical channel value larger than 4095.	Change your response to question 461 so that it is less than 4096.
7352		You have specified a logical channel value larger than 4095.	Change your response to question 462 so that it is less than 4096.
7353		You have specified a logical channel value larger than 4095.	Change your response to question 463 so that it is less than 4096.
7354		You have specified a logical channel value larger than 4095.	Change your response to question 464 so that it is less than 4096.
7355		You have specified a logical channel value larger than 4095.	Change your response to question 465 so that it is less than 4096.
7356		You have specified a logical channel value larger than 4095.	Change your response to question 466 so that it is less than 4096.
7357		You responded to question 461, but did not respond to question 462. To define a range of logical channel identifiers for incoming calls, both questions must be answered.	Change your responses to questions 461 and 462 so that either both are blank, or neither are blank and your response to question 461 is less than or equal to your response to question 462.

Status Code	Additional Fields	Description	Action
7358		You responded to question 463, but did not respond to question 464. To define a range of logical channel identifiers for two-way calling, both questions must be answered.	Change your responses to questions 463 and 464 so that either both are blank, or neither are blank and your response to question 463 is less than or equal to your response to question 464.
7359		You responded to question 465, but did not respond to question 466. To define a range of logical channel identifiers for outgoing calls, both questions must be answered.	Change your responses to questions 465 and 466 so that either both are blank, or neither are blank and your response to question 465 is less than or equal to your response to question 466.
7360		Your response to question 461 is greater than your response to question 462.	Change your responses to questions 461 and 462 so that either both are blank, or neither are blank and your response to question 461 is less than or equal to your response to question 462.
7361		Your response to question 463 is greater than your response to question 464.	Change your responses to questions 463 and 464 so that either both are blank, or neither are blank and your response to question 463 is less than or equal to your response to question 464.
7362		Your response to question 465 is greater than your response to question 466.	Change your responses to questions 465 and 466 so that either both are blank, or neither are blank and your response to question 465 is less than or equal to your response to question 466.
7363		The logical channel identifiers reserved for incoming calls (questions 461 and 462) must be less than those reserved for two-way calling (questions 463 and 464).	Do one of the following: • Change your responses to questions 461 and 462 to defaults. • Change your responses to questions 463 and 464 to defaults. • Change your response to question 462 so that it is less than your response to question 463. • Change your response to question 463 so that it is greater than your response to question 462.
7364		The logical channel identifiers reserved for incoming calls (questions 461 and 462) must be less than those reserved for outgoing calls (questions 465 and 466).	Do one of the following: • Change your responses to questions 461 and 462 to defaults. • Change your responses to questions 465 and 466 to defaults. • Change your response to question 462 so that it is less than your response to question 465. • Change your response to question 465 so that it is greater than your response to question 462.
7365		The logical channel identifiers reserved for two-way calling (questions 463 and 464) must be less than those reserved for outgoing calls (questions 465 and 466).	Do one of the following: • Change your responses to question 463 and 464 to defaults. • Change your responses to question 465 and 466 to defaults. • Change your response to question 464 so that it is less than your response to question 465. • Change your response to question 465 so that it is greater than your response to question 464.
7366		Your response to question 372 is 1x (Autocall-Dial) and your response to question 101 is 6 (X.21 Host Attach), but you did not answer question 371 to provide the X.21 dial digits.	Either change the first digit of your response to question 372 to a number other than 1, or answer question 371.
7369		Your response to question 372 is 2x (Autocall-Direct), which can only be selected for X.21 switched operation.	Either change your response to question 101 to 6, or change your response to question 372 so that it is not 2x (Direct).

Status Code	Additional Fields	Description	Action
7370		Your response to question 372 is 1x (Autocall-Dial), but this is not allowed for a host with a circuit type of PVC or incoming call.	Either change your response to question 401 to 3 or 4, or change your response to question 372 so that it is not 1x (Dial).
7401		Invalid printer port prefix was entered. This field should have the value 26.	Change your response to 26, and retry.
7402		Invalid printer port was entered. Only printer ports 1 through 31 are valid.	Change your response, and retry.
7403		An invalid character was entered under the Class field. Only Xs or blanks are valid.	Enter an X or leave a blank, and retry.
7404		An invalid character was entered under the Display Ports field. Only Xs or blanks are valid.	Enter an X or leave a blank, and retry.
7405		Duplicate printer ports were entered.	Change the duplicate printer port to a unique value.
7406		An invalid mode was entered under the Mode field. 0 = System Mode. The host directly initiates the transfer of data from the display buffer to the printer buffer, and the printing of that data. 1 = Local Mode. The operator of the display device can initiate a local copy by pressing the Print key. This is done independently of the host. 2 = Shared Mode. The same printer performs both host-directed printing operations and local copy operations.	Enter a valid mode.
7407		The Control diskette is not assigned to a 2.4MB drive on the Central Site Customizing Parameter Assignments panel.	Assign the Control diskette to a 2.4MB drive.
7408		This is an informational message. A 2.4MB diskette is in the drive and is about to be overwritten.	Press Enter to continue, or Quit or Cancel to abort overwriting the diskette.
7409		A 2.4MB diskette drive is needed for this Central Site Customizing function.	Either install a 2.4MB diskette drive, or do not use this Central Site Customizing function.
7410		An invalid select line command was entered.	See the information in the "PAM procedure" in the *3174 Utilities Guide*.
7411		An invalid LOCATE command was entered on the select line.	For a valid LOCATE command, see the *3174 Utilities Guide*.
7412		An invalid PF key was pressed. Page Backward is not valid on this screen.	Use a PF key indicated on the screen, or see the "PF key information" in the "How to Define the PAM" or "How to Define Devices" in the *3174 Utilities Guide*.
7413		An invalid PF key was pressed. Page Forward is not valid on this screen.	Use a PF key indicated on the screen, or see the information in "How to Define the PAM" in the *3174 Utilities Guide*.
7421		An invalid RPQ diskette was inserted. This diskette does not contain any RPQs.	Replace with a valid RPQ diskette.
7422		An invalid diskette was inserted.	Follow your local procedure for problem recovery.
7423		A duplicate RPQ was selected. The RPQ selected to be merged already exists on the Control disk.	To perform the merge, delete the duplicate RPQ from the Control disk.
7424		An incorrect option was entered. 1 = Include. 2 = Omit. 3 = Delete. 4 = Merge.	Enter a valid option.

Status Code	Additional Fields	Description	Action
7425		Invalid parameter list data was entered. Alphabetic characters are not allowed.	Enter digits 0−9.
7426		The maximum number of RPQs are present on the Control disk. The maximum allowed is 10.	An RPQ must be deleted from the Control disk before another RPQ can be merged.
7427		You have exceeded 25K bytes, which is the maximum amount of space allotted on the Control disk for RPQs.	To merge another RPQ, you must delete an existing RPQ from the Control disk.
7428		The RPQ that you are attempting to merge is incompatible with the release level of the Control disk.	If this is a problem, exit this procedure and follow your local procedure for problem recovery.
7429		The RPQ that you are attempting to merge is incompatible with an RPQ already existing on the Control disk.	To merge this RPQ, you have to delete the incompatible RPQ on the Control disk, which is highlighted on your display screen. If this is a problem, exit this procedure and follow your local procedure for problem recovery.
7430		The RPQ you are attempting to merge is incompatible with a previously merged RPQ.	Review the RPQs that were previously merged, and determine which RPQ is incompatible. Consult the descriptive documentation that accompanied these RPQs. To perform the merge, you must delete the previously merged RPQ by pressing PF3 and returning to the RPQ panel. If both RPQs are needed, follow your local procedure for problem recovery.
7431		An invalid RPQ identifier was entered.	Check the value that was entered for the RPQ identifier. The identifier cannot begin with a numeric character or contain any imbedded blanks.
7432		The "Select Adapter" PF key was pressed, but none of the RPQs on the RPQ Utility panel have the S option specified.	Do one of the following: • Select another PF key, or • Change the option to an S for one of the RPQs.
7441		The drive number selected for the Control diskette must be 1 or 2. Drives 1 and 2 are diskette drives.	Enter a 1 or 2 in the Control diskette drive field.
7442		The storage that is installed is not sufficient to support the central site customizing function selected. • If you have a fixed disk selected as the Library disk, you need 1.0MB of storage or greater. • If you have your Control diskette in working copy, you need 2.0MB of storage or greater. • If you have your Control diskette in working copy and a fixed disk selected as the Library disk, you need 2.5MB of storage or greater.	Change your selections on the parameter assignments panel. For more information about storage, see "Hardware Requirements " in the *3174 Central Site Customizing User's Guide*.
7443		The Create Library Diskette function is not valid when a fixed disk drive has been selected for the library drive.	Return to the Parameter Assignment Panel and select a diskette drive for the Library disk, then go forward to the Central Site Customizing menu and retry the Create Library Diskette function.
7444		The fixed disk drive specified does not contain an LIB subdirectory so one is being created.	No response is required.
7445		The specified library member is being processed during initialization of the Library disk.	No response is required.

Status Code	Additional Fields	Description	Action
7450		You are attempting to select more than one IML source subdirectory for the same disk type. For example, UTL is already selected and you are attempting to select the LFU subdirectory for your IML source subdirectory. This is not allowed.	If you wish to select the subdirectory as an IML source, you must first deselect the same type of subdirectory.
7451		The customization utility "Media Management" was selected from the Master Menu on a 3174 that does not have any fixed disks installed.	This is not a valid selection for 3174s that do not have fixed disks installed. Press PF3 to quit and select another option from the Master Menu.
7452		You are attempting to delete a subdirectory that was not previously selected.	No action is required. This is an informational message.
7455		The maximum number of library members has been copied to the fixed disk.	No action is required. To copy other library members to this fixed disk you will have to delete library members that are no longer needed for your network.
7461		The Downstream Load microcode you are attempting to merge already exists on the *to* diskette.	If you still wish to merge, delete the duplicate Downstream Load microcode from the *To* disk.
7462		The diskette that you inserted is blank.	Replace the diskette with a valid Downstream Load diskette.
7463		You are attempting to merge more than four different Downstream Load diskettes onto a 3174 Downstream Load disk. The maximum number you can merge is four.	You must delete one of the currently merged Downstream Load diskettes from the *To* disk before merging another different Downstream load diskette.
7470		Both a Dump and a Trace diskette were selected on the Create Diskette panel.	Select only one type of diskette to be created, or press PF3 to exit.
7471		Both a 1.2MB and a 2.4MB diskette were selected on the Create Diskette panel.	Select only one type of diskette or press PF3 to exit.
7472		A 2.4MB diskette was selected on the Create Diskette panel, but the target is a 1.2MB drive.	Change the target to a 2.4MB drive or press PF3 to exit.
7473		There is not enough storage to read in the files from the Utility diskette selected on the Create Diskette panel.	No action is required. Press PF3 to exit.
7474		The diskette type was not selected on the Create Diskette panel.	Select either a Trace or Dump diskette or press PF3 to exit.
7475		The diskette density was not selected on the Create Diskette panel.	Select either a 1.2MB or 2.4MB diskette, or press PF3 to quit.
7481		The microcode release level of the diskette being copied to the fixed disk is not a supported level for this function. The minimum support microcode release level is A4.0 or S4.0	Either replace the source diskette with a diskette at or greater than microcode release level A4.0 or S4.0 and press ENTER, or press PF3 to quit.
7482		A single-drive full copy was attempted from a fixed disk drive to the same fixed disk drive.	Either select a different "From" drive or a different "To" drive on the Available Drives panel.
7483		An unformatted disk is being used as the *from* disk. Unformatted disks cannot be copied.	For diskettes: Insert a valid 3174 diskette and retry the copy utility. For fixed disks: The subdirectory containing the disk image you are trying to copy has not been formatted. See "Initializing the Fixed Disk" in the *3174 Utilities Guide*.
7501		RPQs were moved from the *old* disk to the *new* disk during a microcode upgrade.	If new RPQ diskettes were received with the new microcode release level you are installing, delete the existing RPQs that were moved and merge the new RPQs. Use the RPQ Merge utility.

Status Code	Additional Fields	Description	Action
7502		During a microcode upgrade, the modify keyboard customization data was not upgraded.	Perform the Modify Keyboard procedure to upgrade the modify keyboard data. See *3174 Utilities Guide*.
7503		During a microcode upgrade, errors were detected in multiple configure panels.	Reconfigure the Control disk.
7504		During a microcode upgrade, the printer authorization matrix (PAM) data could not be upgraded.	Reconfigure the PAM. See "How to Define the PAM" or "How to Define Devices" in the *3174 Utilities Guide*.
7505		During a microcode upgrade, errors were detected in multiple asynchronous emulation adapter (AEA) configure panels.	Reconfigure the AEA. See "Defining AEA" in the *3174 Utilities Guide*.
7521		The Encrypt/Decrypt adapter is not present. **Note:** This feature can be installed only on 3174 Models 1R and 2R. If the adapter is not installed and you need it for your installation, contact your IBM Representative.	Check card location 24 for card type 9030. If the adapter is installed, request service. *For service personnel only:* Exchange FRU Type 9030 in location 24.
7522		Invalid characters were entered for the Encrypt/Decrypt Master Key or CID values. Only the following characters are valid: 0123456789ABCDEF.	Reenter the Master Key or CID value using valid characters.
7523		A digit pair in the master key value does not have odd parity.	The master key value must have odd parity in every byte (2 digits) of the key. Odd parity means that the number of bits set to 1 in each byte of the master key must be odd. For example, 08 has odd parity (that is, 1 bit is set); 24 is even parity (that is, 2 bits are set).
7524		Encrypt/Decrypt Adapter error. Possible cause: 1. The Encrypt/Decrypt key was in the vertical position when the controller was turned on. 2. Encrypt/Decrypt adapter. 3. Battery on the adapter card.	1. Turn the Encrypt/Decrypt key to the horizontal position. Then, turn it back to the vertical position. Then call the system security supervisor to install the master key value. 2. Replace the battery on the Encrypt/Decrypt Adapter. 3. Request service. *For service personnel only:* Exchange FRU Type 9030 in location 24.
7525		Encrypt/Decrypt Adapter error. Possible cause: 1. The Encrypt/Decrypt key was in the vertical position when the controller was turned on. 2. Encrypt/Decrypt adapter. 3. Battery on the adapter card.	1. Turn the Encrypt/Decrypt key to the horizontal position. Then, turn it back to the vertical position. Then call the system security supervisor to install the master key value. 2. Replace the battery on the Encrypt/Decrypt Adapter. 3. Request service. *For service personnel only:* Exchange FRU Type 9030 in location 24.
7526		An invalid CID was entered.	A CID must contain at least 1 alphanumeric character. Empty spaces cannot be interspersed between characters.
7527		An invalid option was selected.	Select only options available on the panel.
7528		The master key value stored in the Encrypt/Decrypt adapter does not agree with the Encrypt/Decrypt diskette.	This happens if the wrong Encrypt/Decrypt diskette is inserted in the drive or if someone has changed the master key value on the diskette using another controller. Insert the proper diskette. If the proper diskette was inserted, follow your local security procedure.

Status Code	Additional Fields	Description	Action
7529		The Encrypt/Decrypt diskette matches the current key.	The master key value in the Encrypt/Decrypt adapter and on the Encrypt/Decrypt diskette are in agreement.
7530		Either the key on the Encrypt/Decrypt adapter is not in the correct position or the adapter is defective.	1. Check that the Encrypt/Decrypt adapter key is in the vertical position. 2. Perform an Alt 2 IML; see page 2-3. 3. Request service. *For service personnel only:* Exchange FRU Type 9030 in location 24.
7531		The Encrypt/Decrypt diskette is not initialized.	Use Option 1 to initialize the Encrypt/Decrypt diskette with a master key value.
7534		A selection was made on the Central Site Customizing menu which requires a label data type to be specified.	1. Press PF7 (Back) from the Central Site Customizing menu and respond with a "Y" to one or more label data types, or 2. Change the selection on the Central Site Customizing menu to a function that does not require a label data type to be specified on the Parameter Assignment panel.
7535		A Control diskette must be installed when the Generate Labels function is being performed.	Insert a Control diskette that is the same microcode release level of the library member for which labels are being printed, and press ENTER.
7536		There is a problem with the printer being used to generate labels.	1. Make sure the label forms are properly installed in the printer paper path. 2. Power the printer off and then on again.
7537		The printer being used to generate labels is switched off.	1. Turn the printer on. 2. Retry the operation.
7538		A hardware error has been detected with the printer being used to print labels.	1. Turn the printer off and then on again. 2. Make sure the label forms are properly installed in the printer paper path. 3. Retry the operation. 4. See the printer problem determination documentation.
7539		A printer is not attached to the specified printer port.	1. Connect the printer to the controller port and turn it on. 2. Check the coax between the printer and the controller and ensure that it is properly attached. 3. Power the printer off and then on again. 4. Retry the operation.
7540		Printer hardware errors.	1. Turn the printer off and then on again. 2. Retry the operation. 3. See the printer documentation.
7541		Your response is not valid. The Date Format entered on the Central Site Customizing Date and Time Panel was not valid.	Enter a correct Date Format (as indicated on the panel) and press the ENTER key.
7542		Your response is not valid. The new date entered on the Central Site Customizing panel is not valid for the Date Format that has been selected.	Enter the new date in the Date Format selected and press the ENTER key.
7543		Your response is not valid. The new time entered on the Central Site Customizing panel is not valid for the Time Format that has been selected.	Enter the new time in the Time Format selected and press the ENTER key.
7544		Your response is not valid. There is an error in the Central Site Customizing Date and Time panel; the AM/PM indicator was specified incorrectly for the 12-hour time format.	For the 12-hour time format, specify either an "A" or "P" for an AM or PM indication on the Central Site Customizing Time and Date panel.

Status Code	Additional Fields	Description	Action
7545		Your response is not valid. The Time format entered on the Central Site Customizing Date and Time panel is not valid.	Enter a correct Time format (as indicated on the panel) and press the ENTER key.
7546		Your response is not valid. A drive number entered on the Parameter Assignment panel of the Central Site Customizing is not valid.	Reenter a valid drive number.
7547		Your response is not valid. The same drive number was used for the Library and Control disks on the Parameter Assignment panel of the Central Site Customizing procedure.	Change the drive number for either the Library disk or the Control disk.
7548		Your response is not valid. A "Y" (yes) response was not made for one of the data types.	Re-enter a valid "Y" response for one of the data types, and press ENTER.
7549		Your response is not valid. Selection of the Source for the GET operation was not made, or the selection was invalid.	Select a valid source (as indicated on the panel) and press ENTER.
7550		The Control disk microcode release level is at a higher level than the Utility microcode you are using.	For diskettes: Replace the Control diskette with another Control diskette that is less than or equal to the release level of the Utility microcode you are using. For fixed disk drives: Use a Utility disk with a microcode release level that is equal to or greater than that of the Control disk. To determine the release level of the microcode on the fixed disk, see "Display Disk Information" in the 3174 Utilities Guide.
7551		The Control disk microcode level is not the same as the Utility disk microcode level.	For diskettes: Replace the Control diskette with another Control diskette that is equal to the release level of the Utility microcode you are using. For fixed disk drives: Use a Control disk with a microcode release level that is equal to that of the Utility disk. To determine the release level of the microcode on the fixed disk, see "Display Disk Information" in the 3174 Utilities Guide.
7552		Your response is not valid. A character other than an "X," space, or null was found on one or more member input fields on the Central Site Customizing Library Members panel.	Enter a valid character ("X," space, or null) into the input fields in error, and press ENTER.
7553		Your command was not valid. The command entered on the select line of the Central Site Customizing Library Members panel is not supported by the currently selected option.	Correct the command on the select line, or leave the Central Site Customizing Library Members panel and change the option.
7554		Your response is not valid. The library member number entered is not on the Library disk.	ENTER a valid member number.
7555		Your selection is not valid. More than one member was selected on the Central Site Customizing Library Members panel, but the currently selected option operates only on a single library member.	Select only one member to be processed.
7556		The entered member name is not valid.	Enter a valid member name.

Status Code	Additional Fields	Description	Action
7557		No selection was made on the Central Site Customizing Library Members panel; a member must be selected or specified on the select line before pressing ENTER.	Select a Library member or enter a member name on the select line.
7558		Library disk processing is in progress.	Wait until the Library disk processing is complete before entering a command. **Note:** Processing may take more than one minute to complete.
7559		The Library diskette is required.	Insert the Library diskette in the specified diskette drive and press ENTER.
7560		The maximum number of microcode levels for this Library disk has been reached.	Do one of the following: • Use another Library diskette that has four or less microcode levels or a library fixed disk that has nine or less microcode levels. • Use another Library diskette that already contains library members at the same microcode level as the member for which the PUT process initially failed • Delete the library members from the Library disk that are at the oldest microcode level, and repeat the PUT process for the new member.
7561		The Central Site Library disk being used already contains the maximum number of library members.	Use another Library disk and PUT the member there.
7562		You are doing a PUT data to a Library member which does not exist; the PUT data option has been selected and you have entered a member name which does not already exist on this Library disk.	Either press ENTER to proceed, or press quit or cancel to abort.
7563		A Control disk has been generated. There are more disks to be generated as previously marked on the Library Members panel.	Press ENTER to start the generate process.
7564		You are doing a Put data to a library member which already exists.	Either press ENTER to proceed, or press quit or cancel to abort.
7565		Library members specified for processing on the Library Members panel are at a microcode level that is not compatible with the Utility disk from which the Central Site Customizing procedure was loaded. **Note:** The message displayed at the terminal lists the number of each member in error. A "+" indicates that there are more member numbers that would not fit on the message line.	Do one of the following for each member selected: • If the member is at a lower microcode level than the Utility disk, perform the Microcode Upgrade procedure on the Central Site Customizing Create and Modify panel. • If the member is at a higher microcode level than the Utility disk, use a new Utility disk that has a microcode level greater than or equal to the member.
7566		The Fullgen option on the Central Site Customizing Generate Output panel was chosen before loading the master Control diskette into storage.	Press PF9 (Ctldsk) to initiate the copying of a Control diskette into storage in the 3174.
7567		The wrong diskette is in the drive; in order to perform the Generate function, you must use the master Control diskette.	Replace the diskette presently in the specified diskette drive with the master Control diskette and press ENTER.
7568		The wrong diskette is in the diskette drive. A diskette other than the Control diskette is in the diskette drive.	Replace the diskette presently in the specified diskette drive with the Control diskette and press ENTER.
7569		The Library member for which the Control diskette is being generated does not contain configure data.	Configure data must be stored in the library member using the Put data function prior to generating a Control diskette for the member.

Status Code	Additional Fields	Description	Action
7570		A diskette is not inserted in the diskette drive. A diskette must be inserted to create a Library diskette.	Insert ANY diskette and press ENTER.
7571		A valid 3174 diskette is in the drive and is about to be overwritten.	Either press ENTER to proceed or QUIT or CANCEL to abort.
7572		The data types selected for the Get function were not found in the library member.	Redefine new data type selections and press ENTER.
7573		Customizing data is being upgraded to the level of the Utility disk.	No action is required. This is only an informational message.
7574		During Central Site Customizing, you pressed the LOCATE key, but did not supply a library member name or number on the select line.	Type the member name or number and press the LOCATE key again.
7575		The correct Library diskette is not in the diskette drive.	Insert the correct Library diskette into the drive and press ENTER.
7576		The requested Library Member was not found on the Library disk.	Enter the name of a valid, existing Library Member.
7577		The Control diskette is missing for Generate Control diskette processing.	Insert a Control diskette into the specified drive.
7578		The Control diskette is missing for the Get Data request.	Insert a Control diskette into the specified drive and press ENTER.
7579		The Library diskette has not been installed.	Insert the Library diskette and press ENTER.
7580		The version number entered on the select line is invalid.	Enter a valid version number.
7581		An invalid check digit was entered.	Check the patch data. If the check digit is correct, use your support structure for aid.
7582		An invalid DOS file name/extension was entered.	Check the patch data. If the file name and extension are correct, use your support structure for aid.
7601		You specified an invalid language code.	See question 121 in the *3174 Planning Guide*.
7602		An invalid keyboard layout type was specified.	Specify the KB field entry with a 0, 1, 2, 3, or 4.
7603		An invalid keypad layout type was specified.	Specify the KP field entry with a 0, 1, or 2.
7604		The language field has been changed.	This is an informational warning that you have changed from one valid language code to another valid code. If you confirm this new language number by entering a 1 on the 909 field, all the IDs specified will be given new, unmodified keyboard tables. All previous master panel entries will be lost as well as any previous keyboard table modifications.
7605		An invalid entry was specified in the modify field.	Specify the modify field entry with a 0, 1, 2, or 3.
7606		An invalid entry was specified in the 909 field.	Specify a 0, 1, or F.
7607		The 909 field equals 1, and all the modify fields equal 0 (with the associated KB and KP fields also equal to 0) or R.	If you do not change any of the R or 0 entries in the modify field to indicate that you want to make further modifications or want to view a modified keyboard, you must enter F in the 909 entry area to indicate that the definition procedure is finished.
7608		The language specified does not support Data Entry, APL, or IBM Enhanced keyboard layout.	Enter a language ID that supports the selected keyboard layout, or select a keyboard layout that is supported by the language you selected.
7610		You cannot select a keypad without selecting a keyboard.	The KB field equals 0, and the KP field does not equal 0. You cannot select a keypad without selecting a keyboard type. Select a keyboard layout along with the keypad layout.

Status Code	Additional Fields	Description	Action
7611		You must select a keyboard type to change the modify field.	The KB field equals 0, the KP field equals 0, and the M field does not equal 0. You cannot modify a keyboard that has not been selected. The KB and modify field entries are intensified to indicate that you must select a keyboard to be modified or change the modify field to a 0.
7612		You cannot enter a 2 or a 3 in the modify field, unless the modify field for this KB ID was an R.	Respecify your response.
7613		You cannot change the keyboard type (KB) unless the modify field is changed to a 0 or a 1.	You cannot transfer the modifications of one keyboard table to another keyboard table by simply specifying a different keyboard. If you do specify a 0 or a 1 in the modify field, the previously defined keyboard layout is erased and you must completely redefine the keyboard layout for the new keyboard type.
7614		You cannot change the keypad type (KP) unless the modify field is changed to a 0 or 1.	If you do specify a 0 or a 1 in the modify field, the previously defined keyboard layout is erased. You must completely redefine the keyboard layout for the new keypad type.
7615		The 909 field equals F, and all modify fields do not equal 0 (with the associated KB fields also equal to 0) or R.	If you have another keyboard panel request outstanding (that is, a modify entry equal to 1, 2, or 3) when the ENTER key is pressed, error code 15 is displayed and the 909 field is intensified. All modify field entries that are not a 0 or R are also intensified.

If the 909 field equals F, and the modify field equals 0, but the KP field does not equal 0 (which implies that the KB field does not equal 0), you have specified a nondefault keypad and an unmodified keyboard table. This is an error because, to overlay a keypad, the keyboard must be modified. |
7630		An invalid character input on mode selection row.	The only valid characters for the mode select row are 0−8 and X. Each invalid character is reset to the default number, and each group that had an invalid character entered is intensified. The cursor is placed at the first number of the first invalid group.
7631		Invalid modes were selected.	Mode selection row is also checked to verify that one, and only one, number has been selected in each group. If not, the groups in error are intensified, all invalid entries are reset to the default number, and the cursor is placed at the first entry of the first invalid group. The groups with no invalid entries are not intensified.
7632		Invalid I/O interface table code specified.	You have specified an undefined code while performing a copy from the I/O translate table. The erroneous entry is intensified, and the cursor is moved to the first position of the "I/O =" entry area. Check the table of I/O Interface Codes for the language that you are using in the *3174 Character Set Reference*.
7633		The cursor is located in an invalid location (on the boundary of a key or outside the keyboard boundary).	When you are doing a full-key change, you may place the cursor anywhere on the key. When you are doing a single-shift change, you must place the cursor in the desired shift row on the key.

Status Code	Additional Fields	Description	Action
7640		Make/break keys must remain make/break.	You may not: 1. Copy a make/break key to a non-make/break key, or vice versa 2. Copy an I/O interface table function to a make/break key, because none of the I/O table functions are make/break functions. You may, however, delete a make/break function. The following are make/break keys: • Shift lock • Upshift (two keys) • RESET/DEV CNCL • ALT (two keys) • ENTER (on main keyboard only) • Downshift (data entry keyboard only).
7641		A change involving the ALT (alternate), upshift, downshift, or SHIFTLOCK keys was tried in single-shift mode.	Any changes that involve the shift keys must be made in full-key mode only. When an error is detected, the keyboard table is returned to the state that it was in before this change was tried.
7658		You have tried to eliminate a mandatory key function.	The keyboard table is restored to its original state.
7660		An invalid entry was made in the 910 field.	The only valid entries for the 910 field are 1, 2, 3, A, and F.
7661		An invalid entry was made in the 910 subfield.	The only valid entries for the 910 subfield are 0 and 1.
7662		You attempted to enter I/O mode while in APL.	I/O mode is not permitted while in APL.
7663		An invalid KDU name was entered.	Reenter a valid KDU name. Use A through Z, 0 through 9, spaces and underscores. You must use an alphabetic character as the first character of the name. You cannot use interspersed spaces or underscores.
7664		You attempted to modify a key in single-shift mode in a manner that you will not be able to use the key in all shifts for CAPSLOCK or SHIFTLOCKs.	The CAPSLOCK and SHIFTLOCK functions may be mixed on one of the make-break keys or you may exit the Modify Keyboards Utility. You can move them to another key in full-shift mode and then move them on the new key in single-shift mode. All shifts of the new key must have CAPSLOCK or SHIFTLOCK, in any arrangement.
7665		You attempted to modify a restricted key. Restricted keys: • Left and right shift. • ALT shift. • CAPSLOCK/SHIFTLOCK.	You may modify another key or exit the Modify Keyboards Utility.
7699		Change the 909 field from 0 to 1.	If the 909 field equals 0 and all other master panel entries are valid, error code 99 is displayed to remind you to change the 0 to a 1. All the responses on the master panel are valid, but you have not yet indicated visual confirmation of the entries.

Status Code	Additional Fields	Description	Action
7701		You do not have the correct type of disk for the operation you are performing.	For diskette drives: Insert the correct diskette and press Enter. For fixed disk drives: Determine if the type of disk you require has been copied onto the fixed disk. If required, copy the diskette you need onto the fixed disk, then retry your original operation. See "How To Copy Files" and "How To Perform Media Management" in the *3174 Utilities Guide*.
7705		You cannot perform this procedure on a one-disk-drive controller.	Use a two-disk-drive controller to perform this procedure.
7706		A diskette with incompatible configuration levels was inserted.	1. Compare the IMLed Utility diskette with the *To* diskette. The release levels must be the same. 2. Compare the configuration levels of your Control diskettes. The configuration level of the *To* diskette must be higher than the configuration level of the *From* diskette.
7707		A diskette with incompatible release levels was inserted.	1. Compare the IMLed Utility diskette with the *To* diskette. The release levels must be the same. 2. Compare the release levels of your Control diskettes. The release level of the *To* diskette must be higher than the release level of the *From* diskette.
7708		A diskette with incompatible suffix levels was inserted. **Note:** The suffix level is the last two digits of the microcode release level. For example, A3.01 is a suffix level of A3.00.	1. Compare the IMLed Utility diskette with the *To* diskette. The release levels must be the same. 2. Compare the suffix levels of your Control diskettes. The suffix level of the *To* diskette must be higher than the suffix level of the *From* diskette.
7709		A diskette with incompatible maintenance levels was inserted. **Note:** A maintenance release level has to be the same as the functional release level. For example, if the functional release level is A4.0, then the maintenance release has to be A4.0.	Compare the maintenance levels of your diskettes. The maintenance level of the *To* diskette must be higher than the maintenance level of the *From* diskette.
7710		An uncustomized *From* Control disk is being used.	For diskette drives: Insert a customized diskette. For fixed disk drives: You must customize the CTL subdirectory on the fixed disk before you can continue. See the *3174 Planning Guide*.
7711		An uncustomized *To* Control disk is being used.	For diskette drives: Insert a customized diskette. For fixed disk drives: You must customize the CTL subdirectory on the fixed disk before you can continue. See the *3174 Planning Guide*.
7712		A non-3174 product diskette is installed in the diskette drive.	Install a valid 3174 diskette in the drive.

Status Code	Additional Fields	Description	Action
7714		Disk media release level mismatch between the disk drives.	For diskette drives: Insert the correct diskette and press ENTER. For fixed disk drives: Copy the required diskette at the correct release level onto the fixed disk and retry your original operation. See "How To Copy Files" and "How To Perform Media Management" in the 3174 *Utilities Guide*.
7715		Disk media configuration level mismatch between the disk drives.	For diskette drives: Insert the correct diskette and press ENTER. For fixed disk drives: Copy the required diskette at the correct configuration level onto the fixed disk and retry your original operation. See "How To Copy Files" and "How To Perform Media Management" in the 3174 *Utilities Guide*.
7716		The diskette drive does not contain the original diskette.	Check that the correct diskette is installed.
7717		The diskette drive does not contain the original diskette.	1. Use a PF key to exit. 2. Check that the correct diskette is installed.
7718		The drive does not contain the original diskette.	1. Install the correct diskette. 2. Retry the utility. 3. Perform an Alt 2 IML; see page 2-3. 4. Record additional status codes and data. 5. Request service.
7719		The diskette in drive 1 is not the original Utility diskette.	1. Check that the correct diskette is installed. 2. Re-IML and retry.
7720		The diskette in drive 2 is not the original Utility disk.	1. Check that the correct diskette is installed. 2. Re-IML and retry.
7721		The configuration levels of the Utility and Control diskettes are incompatible. The Control diskette and the Utility diskette must have the *same* configuration levels.	Replace the Control diskette with a Control diskette that has the same configuration level as the IMLed Utility diskette, and press ENTER.
7722		The release levels of the Utility and Control diskettes are incompatible. The Control diskette and the Utility diskette must have the *same* release levels.	Replace the Control diskette with a Control diskette that has the same release level as the IMLed Utility diskette, and press ENTER.
7723		The suffix levels of the Utility and Control diskettes are incompatible. The Control diskette and the Utility diskette must have the *same* suffix levels. **Note:** The suffix level is the last two digits of the microcode release level. For example, A3.01 is a suffix level of A3.00.	Replace the Control diskette with a Control diskette that has the same suffix level as the IMLed Utility diskette, and press ENTER.
7724		The maintenance levels of the Utility and Control diskettes are incompatible. The Control diskette and the Utility diskette must have a maintenance level the *same as or higher than* the IMLed Utility diskette. **Note:** A maintenance release level has to be the same as the functional release level. For example, if the functional release level is A4.0, then the maintenance release has to be A4.0.	Replace the Control diskette with a Control diskette that has a maintenance level the *same as or higher than* the IMLed Utility diskette, then press ENTER.

Status Code	Additional Fields	Description	Action

7725		The maximum number of different microcode levels has been reached on the target disk.
		
		Maximum of 5 on a diskette.
		Maximum of 10 on a fixed disk.
			• If the Target disk is a diskette:
			  1. Replace the full diskette with another formatted diskette.
			  2. Press Enter to continue with the full copy
			• If the Target disk is a fixed disk:
			  1. Press PF3 to quit.
			  2. Delete any unwanted old microcode levels.
			  3. Retry the operation.

7726		You attempted to use a utility on the fixed disk but the Utility subdirectory has been deleted.	IML from a Utility diskette or recopy the Utility diskette onto the fixed disk. See "How to Copy Files" and "How to Perform Media Management" in the *3174 Utilities Guide*.
7727		Disk media configuration level mismatch between the disks.	1. Press PF3 to quit. 2. Use compatible disks. 3. Copy the required diskette onto the fixed disk. See "How to Copy Files" and "How to Perform Media Management" in the *3174 Utilities Guide*.
7728		Disk media release level mismatch between the disks.	1. Press PF3 to quit. 2. Use compatible disks. 3. Copy the required diskette onto the fixed disk. See "How to Copy Files" and "How to Perform Media Management" in the *3174 Utilities Guide*.
7729		Disk media suffix level mismatch between the disks. **Note:** The suffix level is the last two digits of the microcode release level. For example, A3.01 is a suffix level of A3.00.	1. Press PF3 to quit. 2. Use compatible disks. 3. Copy the required diskette onto the fixed disk. See "How to Copy Files" and "How to Perform Media Management" in the *3174 Utilities Guide*.
7730		Disk media maintenance level mismatch between the disks.	1. Press PF3 to quit. 2. Use compatible disks.
7731		The fixed disk being copied *from* is uncustomized.	1. Press PF3 to quit. 2. Customize the *from* Control disk. See "How to Configure the Control Disk" in the *3174 Utilities Guide*.
7732		The fixed disk being copied *to* is uncustomized.	1. Press PF3 to quit. 2. Customize the *to* Control disk. See "How to Configure the Control Disk" in the *3174 Utilities Guide*.
7733		Disk media configuration level mismatch between the Utility and Control disks.	1. Press PF3 to quit. 2. Use compatible disks. 3. Copy the required diskette onto the fixed disk. See "How to Copy Files" and "How to Perform Media Management" in the *3174 Utilities Guide*.
7734		Disk media release level mismatch between the Utility and Control disks.	1. Press PF3 to quit. 2. Use compatible disks. 3. Copy the required diskette onto the fixed disk. See "How to Copy Files" and "How to Perform Media Management" in the *3174 Utilities Guide*.
7735		Disk media suffix level mismatch between the Utility and Control disks. **Note:** The suffix level is the last two digits of the microcode release level. For example, A3.01 is a suffix level of A3.00.	1. Press PF3 to quit. 2. Use compatible disks. 3. Copy the required diskette onto the fixed disk. See "How to Copy Files" and "How to Perform Media Management" in the *3174 Utilities Guide*.

Status Code	Additional Fields	Description	Action
7736		Disk media maintenance level mismatch between the Utility and Control disks.	1. Press PF3 to quit. 2. Use compatible disks. 3. Copy the required diskette onto the fixed disk. See "How to Copy Files" and "How to Perform Media Management" in the *3174 Utilities Guide*.
7737		The requested subdirectory was not found on the fixed disk being processed.	Copy the required diskette onto the fixed disk. See "How To Copy Files" and "How To Perform Media Management" in the *3174 Utilities Guide*.
7738		Diskette/diskette drive incompatibility error.	Select a 2.4MB drive as your source and target for a single-drive full copy.
7739		A full copy of a 2.4MB diskette is being attempted to a diskette in a 1.2MB drive.	Select a 2.4MB drive as your source and target for a single-drive full copy.
7740		A full copy of a 2.4MB diskette is being attempted, but there is no 2.4MB drive.	No action is required. Quit and use another option.
7741		Diskette/diskette drive incompatibility error. A 1.2MB drive cannot read a 2.4MB diskette.	Replace the diskette with one of correct density or press PF3 to quit.
7742		Diskette/diskette drive incompatibility error. A 1.2MB drive cannot read a 2.4MB diskette.	No action is required. Press PF3 to quit.
7743		Diskette/diskette drive incompatibility error. A 1.2MB drive cannot read a 2.4MB diskette.	No action is required. Press PF3 to quit.
7744 or 7745		The source disk requested for the Modify and Copy function cannot have customizing question 101 = M.	Do one of the following: • Use a disk that is not customized with question 101 = M, or • Exit the utility and recustomize the source disk.
7751 to 7756		Disk drive is not ready or is defective.	For diskette drives: 1. Insert the required diskette, close the door, and press ENTER. 2. Perform an Alt 2 IML; see page 2-3. 3. Request service. For fixed disk drives: 1. Perform an Alt 2 IML; see page 2-3. 2. Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange the diskette drive or fixed disk. 2. Exchange the file adapter. For Models 21L through 92R: 1. Exchange the diskette drive or fixed disk. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
7757 to 7759		A diskette in one of the diskette drives is write-protected.	Remove the write protection or replace the diskette. Retry the Alt 1 IML; see page 2-1.
7760		A file adapter or disk drive failure has occurred.	1. Perform an Alt 2 IML; see page 2-3. 2. Request service. *For service personnel only:* Exchange the FRU indicated by the results of the Alt 2 IML. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action
7761 to 7769		Disk media error: Disk or directory full.	For diskette drives: 1. Exchange the Control or Utility diskette and retry the operation. 2. Request service. For fixed disk drives: 1. Delete any unnecessary subdirectories. See "How to Perform Media Management" in the *3174 Utilities Guide*. 2. Retry the operation. 3. Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange the diskette drive or fixed disk. 2. Exchange the file adapter. For Models 21L through 92R: 1. Exchange the diskette drive or fixed disk. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
7770 to 7772		Disk media error: File not found.	Ensure that the subdirectory, file, or library member exists on the selected drive. For diskette drives: 1. Use a backup diskette. 2. Retry the operation. 3. Request service. For fixed disk drives: 1. Run the "Fixed Disk Media Tests" on page 2-5. If data restoration is required, recopy your diskettes onto the fixed disk as required for your 3174 configuration. See "Restoring Your Data" on page 2-8. 2. Retry the operation. 3. Request service. *For service personnel only:* For Models 1L through 13R: 1. Exchange the diskette drive or fixed disk. 2. Exchange the file adapter. For Models 21L through 92R: 1. Exchange the diskette drive or fixed disk. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.

Status Code	Additional Fields	Description	Action

7773		Disk media error: File not found. The message on the display identifies the subdirectory in error.	Retry the operation. If another error occurs, follow these procedures:
			
			1. To restore the subdirectory:
			  a. Record the subdirectory name.
			  b. Use "How To Copy Files" and "How To Perform Media Management" in the *3174 Utilities Guide* to restore the subdirectory identified in the message.
			  c. Retry the operation.
			2. Perform an Alt 2 IML.
			3. Run the "Fixed Disk Media Tests" on page 2-5 and retry the operation.
			4. Request service.
			
			For service personnel only:
			
			Use your support structure for aid.

7774		Disk media error: End of file error.	1. Press PF3 to quit or ENTER to continue. 2. Verify the subdirectory, file, or library member should exist on the selected drive. 3. Retry the operation. ***For service personnel only:*** Use your support structure for aid.
7775		A media error has occurred on the specified fixed disk drive.	1. Press PF3 to quit, or press ENTER to retry. 2. Run the "Fixed Disk Media Tests" on page 2-5. If data restoration is required, copy your diskettes onto the fixed disk as required for your 3174 configuration. See "Restoring Your Data" on page 2-8. 3. Retry the operation. 4. Request service. ***For service personnel only:*** For Models 1L through 13R: 1. Exchange the diskette drive or fixed disk. 2. Exchange the file adapter. For Models 21L through 92R: 1. Exchange the diskette drive or fixed disk. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
7776		An error has occurred on the specified fixed disk drive in the requested subdirectory.	1. Press PF3 to quit, or press ENTER to retry. 2. Copy the diskette onto the fixed disk to replace the subdirectory you selected. See "How To Copy Files" and "How To Perform Media Management" in the *3174 Utilities Guide*.
7777 or 7778		A disk error has occurred, the directory is full on the specified drive.	1. Press PF3 to quit, or press ENTER to retry. 2. Delete any unwanted subdirectories or library members and retry. See "How to Perform Media Management" in the *3174 Utilities Guide*.
7779 to 7781		An error has occurred on the specified fixed disk drive in a file within the requested subdirectory.	1. Press PF3 to quit, or press ENTER to retry. 2. Copy the diskette onto the fixed disk to replace the subdirectory you selected. See "How To Copy Files" and "How To Perform Media Management" in the *3174 Utilities Guide*.

Status Code	Additional Fields	Description	Action
7782 to 7785		A file was not found in the requested subdirectory on the specified drive. Possible cause: 1. File, library member, or subdirectory does not exist. 2. Microcode.	1. Press PF3 to quit and ensure that the subdirectory, file, or member exists on the specified drive and retry. See "How to Perform Media Management" in the *3174 Utilities Guide*. 2. Request service. **For service personnel only:** Use your support structure for aid.
7786 or 7787		A disk error has occurred on the specified fixed disk drive.	1. Press PF3 to quit. 2. Run the "Fixed Disk Media Tests" on page 2-5. If data restoration is required, copy your diskettes onto the fixed disk as required for your 3174 configuration. See "Restoring Your Data" on page 2-8. 3. Retry the operation. 4. Request service. **For service personnel only:** For Models 1L through 13R: 1. Exchange the diskette drive or fixed disk. 2. Exchange the file adapter. For Models 21L through 92R: 1. Exchange the diskette drive or fixed disk. 2. Exchange the planar board. See Chapter 3 in the maintenance manual for your model.
7788 or 7789		An error has occurred on the specified fixed disk drive in the requested subdirectory.	1. Press PF3 to quit. 2. Copy the required diskette to restore the subdirectory you selected and retry the operation. See "How to Copy Files" and "How to Perform Media Management" in the *3174 Utilities Guide*.
7790		A directory full condition has occurred on the specified fixed disk for the requested subdirectory.	1. Press PF3 to quit. 2. Copy the required diskette to restore the subdirectory you selected and retry the operation. See "How to Copy Files" and "How to Perform Media Management" in the *3174 Utilities Guide*.
7791		A disk error has occurred, the specified disk is full.	Delete any unneeded subdirectories or members and retry the operation. See "How to Perform Media Management" in the *3174 Utilities Guide*.
7792 to 7794		A disk change error has occurred. Possible microcode problem.	1. Press PF3 to quit or press ENTER to retry. 2. Request service. **For service personnel only:** Use your support structure for aid.
7795		The fixed disk, selected as the source disk for the copy operation, is unformatted.	Do the following: • Press PF3 to quit the copy operation. • Retry the copy function by specifying a formatted disk as the source.

Status Code	Additional Fields	Description	Action
7796		The file adapter or disk is defective. No further processing is possible.	Do the following: • Press PF3 to quit the copy operation. • Perform an ALT 2 IML, see page 2-3. • Request service and report the status code from the ALT 2 IML. *For service personnel only:* Take the action specified by the status code from the ALT 2 IML.
7797		You attempted to copy a 2.4MB source diskette to a 1.2MB target diskette in a 2.4MB drive.	1. Remove the 1.2MB diskette from the target drive. 2. Insert a 2.4MB diskette into the target drive. 3. Press ENTER to continue the copy operation.
7880		Invalid response to a customizing question.	Verify your response to the question highlighted on the screen, and retry.
7882		The cursor is in an invalid location.	Move the cursor to a valid field.
7883		The range you specified for this customizing question is not within the allowable range.	Verify your response to this question, and respecify.
7884		An invalid PF key was pressed.	Verify the PF keys for this configuration procedure.
7886		An invalid PF key, or the ENTER key, was pressed in response to a customizing question.	Press a valid PF key that is displayed on the screen.
7887		The option you selected is not a valid option for this procedure.	Select a valid option that is displayed on the screen.
7901 to 7912		A controller microcode failure has occurred.	1. Retry the operation. 2. Perform an Alt 2 IML; see page 2-3. 3. Request service. *For service personnel only:* Use your support structure for aid.
7913		An invalid Patch ID was entered. Possible cause: 1. The Patch ID is not prefixed with a P or a Z. 2. The Patch ID does not contain a minimum of four hex digits. 3. The Patch ID does not contain any hex digits.	Check the Patch ID. If the Patch ID was entered correctly, request service.
7914		A Patch ID was entered that already exists on the disk.	Check the Patch ID. If the Patch ID was entered correctly, the existing patch must be deleted before the new patch is installed.
7915		A customization microcode error has occurred.	Request service. *For service personnel only:* Use your support structure for aid.
7916		The microcode level that was entered does not match the microcode level of the disk being used.	Check that the correct microcode level was entered. If the microcode level was entered correctly and the microcode level of the disk being used is different, check that the patches to be installed are valid for the disk being used.
7917		The amount of text on the failing REP line is greater than the amount of text on the corresponding VER line.	Check that the patch data was entered correctly. If the data was entered correctly, use your support structure for aid.
7918		A character was entered in a field that allows only hexadecimal.	Check that the patch data was entered correctly. If the data was entered correctly, use your support structure for aid.

Status Code	Additional Fields	Description	Action
7920		An incomplete response was entered.	Enter the required input in the fields that are highlighted. If all the required data has been entered for the patch being installed and the failure continues, use your support structure for aid.
7921		The verify check failed for the text in the zap patch.	Verify that all the patch data was keyed in correctly. If the failure continues, use your support structure for aid.
7922		An invalid option was found. One of the following conditions occurred: • An option other than 1, 2, 3, or X was entered. Perform action 1. • An X was entered for a Patch ID that did not previously contain an X option. Perform action 2. • A 2 or 3 option was entered for a Patch ID whose previous option was an X. Perform action 3.	1. Enter an option of 1, 2, 3, or X. 2. Enter an option of 1, 2, or 3. 3. Enter an option of X or 1.
7923		An invalid Clan value was found. Check the conditions below for the cause of the failure, and perform the corresponding action for that condition. • The Clan was not prefixed with an F or an H. Perform action 1. • Hexadecimal values were not entered for the last 2 characters of the Clan. Perform action 2.	1. Prefix the Clan with an F or an H. 2. Enter hexadecimal values for the last two characters of the clan.
7924		Invalid return register value.	Check that the patch data (value between 0 and 30) was entered. If the patch data was entered correctly, use your support structure for aid.
7925		An invalid CSECT alignment value was entered.	Check the patch data that was entered. If the patch data was entered correctly, use your support structure for aid.
7926		An RLD type was entered other than A, J, K, L, V, W, or Y.	Check the RLD type that was entered. If the RLD type was entered correctly, use your support structure for aid.
7927		More than one patch area was defined for the patch being entered.	Check the patch data that was entered. If the patch data was entered correctly, use your support structure for aid.
7930 to 7941		An error occurred during the Patch utility.	Use your support structure for aid.
7942 to 7947		An 3174 Internal error occurred.	Use your support structure for aid.
7948		An attempt was made to install a patch other than a ZC or PC patch on the Control disk.	1. Verify the patch information with your support structure. If the patch being installed is for the Control disk, the patch ID must start with the letters ZC or PC. 2. If the patch being installed is for the Utility or DSL disk, then return to the Patch Menu by pressing the quit PF key twice. Then select the appropriate disk.

Status Code	Additional Fields	Description	Action
7949		An attempt was made to install a patch other than a ZU patch on the Utility disk.	1. Verify the patch information with your support structure. If the patch being installed is for the Utility disk, the patch ID must start with the letters ZU. 2. If the patch being installed is for the Control or DSL disk, then return to the Patch Menu by pressing the quit PF key twice. Then select the appropriate disk.
7950		An attempt was made to install a patch other than a ZM patch on the DSL disk.	1. Verify the patch information with your support structure. If the patch being installed is for the DSL disk, the patch ID must start with the letters ZM. 2. If the patch being installed is for the Control or Utility disk, then return to the Patch Menu by pressing the quit PF key twice. Then select the appropriate disk.
7951		DSL patch was selected from the Patch Menu and the asynchronous emulation adapter (AEA) microcode is not present.	For diskettes: Insert the AEA diskette and retry the operation. For fixed disk drives: To check that the AEA microcode is installed: 1. Perform a normal IML on the 3174. 2. On a 3270 terminal, press and hold ALT, then press TEST. 3. Key in /5,1 and press ENTER 4. 30 20.XX XXXXXXXXXX is displayed under the DSL information if the AEA microcode is present. • If the AEA microcode is present, retry the patch utility. • If the AEA microcode is not present, copy an AEA diskette onto the fixed disk. See "How To Copy Files" and "How To Perform Media Management" in the *3174 Utilities Guide*.
7952		The microcode level of the *to* disk does not match the microcode level of the disk that was used to invoke the patch utility.	Use a disk that has the same microcode level as that of the disk being used to invoke the patch utility.
7953		An invalid Line Count value was entered on the Patch Header panel.	Enter a valid decimal number (00-99) for the Line Count.
7954		The total number of lines of patch data entered does not equal the number specified in the Line Count field of the Patch Header panel.	Return to the Patch panel by pressing PF3 (Quit), then redefine the patch.

8888		The ROS tests did not start or ROS is hung. 8888 is also displayed during the lamp test (IML pushbutton pressed and held). If a lamp test is not being performed, this code indicates a hardware failure.	1. Re-IML.
			2. Request service.
			For service personnel only:
			For Models 1L through 13R:
			    Go to MAP 0400 in the maintenance manual for your model.
			For Models 21L through 92R:
			    Go to MAP 0500 in the maintenance manual for your model.

Chapter 2. Status Code Reference Information

This chapter contains reference information that supports the Status Code Chart.

Alt 1 IML Procedure

This section contains operations that can be selected after an Alt 1 IML is performed. Alt 1 IML provides the capability to run offline tests and various utilities such as customizing and performing a normal (operational) IML.

Before starting this procedure, note the following:

3174 microcode is required to perform the Alt 1 IML procedures. This microcode is contained either on diskette, or a copy of the 3174 diskettes can be stored on a fixed disk. If you are using a diskette drive, use 3174 diskettes. If you are using a fixed disk, use the microcode on the fixed disk.

* If the function selection number being used is 41, 42, or 43, Control microcode is required. Downstream Load microcode may be required depending on your controller configuration.

* If the function selection number being used is 40, 80, 81, 82, or 87, Utility microcode is required.

When performing the Alt 1 IML procedure, select the parameters from Table 2-1 on page 2-2.

1. If you are performing an Alt 1 IML using diskettes, insert the proper diskette at this time.

2. Press and hold Alt 1.

3. Press and release IML.

4. Release Alt 1.

5. 40 appears in the status display

    Note: If 40 does not appear, start again with step 2.

6. The rest of the procedure is model-dependent:

    * For Models 81R, 82R, 90R, 91R, and 92R, go to step 11.
    * For all other models, continue with step 7.

7. At 40, key in the device selection (DS) and the function selection (FS). See Table 2-1 on page 2-2.

8. Press Advance and continue with step 9, or press Enter to execute.

9. Key in the test parameter **TP** (valid only with 8x test functions). See Table 2-1 on page 2-2.

10. Press Enter; test execution begins.

11. At 40, press Advance until the desired function selection (FS) number is displayed.

12. At FS, press Enter; FS-- is displayed.

13. At FS--, press Advance until the desired test parameter (TP) is displayed, or press Enter to execute.

14. At TP, press Enter; FSTP is displayed.

15. At FSTP, press Enter; test execution begins.

Table 2-1. Alt 1 IML Selection Parameters
Alt 1 IML Selections

DS = IML device selection
   = 01 = Diskette drive 1 without storage initialization
   = 02 = Diskette drive 2 without storage initialization
   = 03 = Fixed disk 1 without storage initialization
   = 04 = Fixed disk 2 without storage initialization
   = 08 = Auto IML device selection without storage initialization (see note 4)
   = 11 = Diskette drive 1 with storage initialization
   = 12 = Diskette drive 2 with storage initialization
   = 13 = Fixed disk 1 with storage initialization
   = 14 = Fixed disk 2 with storage initialization
   = 18 = Auto IML device selection with storage initialization (see note 4)

FS = Function selection
   = 40 = Display Master Menu at port 0
   = 41 = Normal IML
   = 42 = Access Host Backup level changes
   = 43 = Access Host Trial level changes
   = 44 = Reserved
   = 45 = Reserved
   = 80 = Load test control monitor
   = 81 = Test All (CSU mode)
   = 82 = Test All (Installed Mode) (same as Alt 2 IML)
   = 87 = Test Processor and Storage

TP = Test Parameter (used only with 8x function selections)
   = 90 = No Options - Default
   = 91 = Loop
   = 92 = Stop on error
   = 93 = Loop, stop on error
   = 94 = Terminal control
   = 95 = Loop, terminal control
   = 96 = Stop on error, terminal control
   = 97 = Loop, stop on error, terminal control

Notes:

1. If an IML device (DS) is not entered, the 3174 defaults to diskette drive 1 as the IML device.

2. If no input parameters are entered (Enter pressed without any data), the 3174 defaults to diskette drive 1 and the Master Menu is displayed on the terminal connected to port 0 of the controller.

3. If storage initialization is bypassed, the 3174 will bypass the file adapter tests.

4. Auto device selection causes the 3174 to try to load operational microcode from each IML device. Device search order is fixed disk 1, fixed disk 2, diskette drive 1, and then diskette drive 2.

Alt 2 IML Procedures for Testing the 3174

There are two procedures for testing the 3174 controller. In one procedure, you test the controller using the ALT 2 pushbutton. In the other procedure, you test the controller using the ALT 1 pushbutton. The test procedure you use depends on the following:

- If the Utility microcode is stored on a fixed disk, use "Procedure B — Testing the 3174."

- If the controller is a Model 51R, 52R, or 53R with two diskette drives and drive 2 is labeled 2.4, use "Procedure B — Testing the 3174."

- For all other cases, use "Procedure A — Testing the 3174."

Procedure A — Testing the 3174

Note: This procedure interrupts all host services. Notify the users if necessary.

1. Have the host operator take the controller offline.
2. For Models 1L, 11L, and 21L, set the Channel Interface switch to Offline. Wait for the offline indicator to light.
3. Insert a Utility diskette into drive 1. If the controller has two diskette drives, insert a valid 3174 diskette into drive 2, making sure that if the diskette is labeled 2.4, the drive is also labeled 2.4.
4. Press and hold Alt 2.
5. Press and release IML.
6. Release Alt 2.

   Progress numbers appear in the Status display of the operator panel as the test runs (1 to 3 minutes). If the test runs successfully, 2082 appears in the Status display. If the test stops with a number other than 2082, look up that number in the Status Code Chart in Chapter 1.

Procedure B — Testing the 3174

Note: This procedure interrupts all host services. Notify the users if necessary.

1. Have the host operator take the controller offline.
2. For Models 1L, 11L, and 21L, set the Channel Interface switch to Offline. Wait for the offline indicator to light.
3. Insert the Utility diskette into:
   - Drive 1 on single diskette-drive controllers.
   - Drive 2 on two diskette-drive controllers. Then insert a valid 3174 diskette into drive 1, making sure that if the diskette is labeled 2.4 that the drive is also labeled 2.4.
4. Press and hold Alt 1.
5. Press and release IML.
6. Release Alt 1.
7. At 40, key in **0X82**, where:
   0X = 02 = Access the Utility microcode in Diskette Drive 2.
   0X = 03 = Access the Utility microcode on Fixed Disk 1.
   0X = 04 = Access the Utility microcode on Fixed Disk 2.
   82 = Load and run the Alt 2 tests.
8. Press Enter.

   Progress numbers appear in the Status display of the operator panel as the test runs (1 to 3 minutes). If the test runs successfully, 2082 appears in the Status display. If the test stops with a number other than 2082, look up that number in the Status Code Chart in Chapter 1.

Bootstrap Write Procedure

The bootstrap write procedure writes the bootstrap loader onto the specified fixed disk.

Note: Because text messages are available with the completion codes, it is recommended that you use terminal control to perform the procedure.

Complete the following steps:

1. Load the test monitor, using a Utility diskette with a microcode level of at least Configuration Support A or S Release 4 or Configuration Support B Release 1. See "How to Load the Test Monitor" on page 2-9.

2. With 4001 displayed, key in **0352** or **0452**, where:

   0352 = Write bootstrap loader onto fixed disk 1
   0452 = Write bootstrap loader onto fixed disk 2.

3. Press Enter.

4. The procedure is completed with one of the following status codes:

   4430 01HG – Write Bootstrap Loader complete. Retry the Alt 1 IML.

   4431 01HG – Write Bootstrap Loader complete, Full Format required. Press Enter and then go to Step 2 of the "Fixed Disk Full Format" on page 2-7.

   4432 01HG – Write Bootstrap Loader complete, Select IML source required. See "How To Perform Media Management" in the *3174 Utilities Guide*, and then retry the IML.

   For all other status codes, see the Status Code Chart in Chapter 1.

Fixed Disk Media Tests

The fixed disk media tests consist of the surface scan and defect fix. The following procedure invokes the defect fix, which automatically runs the surface scan first. The surface scan detects any defective or damaged sectors, then the defect fix test reassigns those sectors to an unused area on the disk.

| **Note:** Because text messages are available with the completion codes, it is recommended you perform the
| procedure using terminal control.

1. Load the Test Monitor. See "How to Load the Test Monitor" on page 2-9.

2. With 4001 displayed, key in **0332** or **0432**, where:

   0332 = Run tests on fixed disk 1
   0432 = Run tests on fixed disk 2.

3. Press Enter; 23XX is displayed, where:

   23 = Test in progress
   | XX = A number decreasing to zero.

4. The tests complete with one of the following:

   4408 01HG — Defect fix complete; No new defects found. Data restoration is not required for this completion code. Return to the status code that sent you here.

   4409 01HG — Defect fix complete; All defects found. Data restoration is not required for this completion code. Return to the status code that sent you here.

   4410 01HG — Defect fix complete; Select IML source required. The "IML Select Utility" for one or more fixed disk subdirectories is required. See "How To Perform Media Management" in the *3174 Utilities Guide*, then return to the status code that sent you here.

   4411 01HG — Defect fix complete; Data restoration required.

   If the original status code you recorded earlier **is** in the following list, return to that status code in Chapter 1 to determine which diskettes need to be copied onto your fixed disk.

   388-00 to 06HG
   388-07HG
   388-11HG
   388-56HG

   If the original status code you recorded earlier **is not** in the list above, you must copy all of your diskettes onto the fixed disk. See "Restoring Your Data" on page 2-8.

   | 4411 02HG — Data restoration required; Key 1, press Enter to display the Restore Data List,
   | press Enter to quit.

   | See "Restore Data List" on page 2-6.

   4412 01HG — Defect fix complete; Full format required. Press Enter, then go to Step 2 on page 2-7.

   For all other status codes, see the Status Code Chart in Chapter 1.

Restore Data List

The Restore Data List shows the subdirectories or parts of subdirectories that need to be copied to the fixed disk. If the entry on the screen has a filename and extension listed, only the file of the subdirectory needs to be copied. On the other hand, if there is no filename or extension, the entire subdirectory needs to be copied. See "How To Copy Files" and "How To Perform Media Management" in the *3174 Utilities Guide*. After the fixed disk has been restored, re-IML the controller.

Example Figure 2-1 shows that complete Subdirectories CTL00001, DSL00001, LIB00002 and UTL00001 need to be copied. However, CONFIG01.LMA, CONFIG01.LMB, AND CONFIG25.LMA of Subdirectory LIB00001, and CONFIG01.LMA of Subdirectory LIB00003 only need to have the file copied.

```
                        _____ Restore Data List _____


   Total entries:
   Record all entries in this table before pressing PF 3.

   Entry        Subdir       Filename.Ext
     1          CTL00001
     2          DSL00001
     3          LIB00001     CONFIG01.LMA
     4          LIB00001     CONFIG01.LMB
     5          LIB00001     CONFIG25.LMA
     6          LIB00002
     7          LIB00003     CONFIG01.LMA
     8          UTL00001




   PF: 3=Quit    7=Back    8=Fwd
```

Figure 2-1. Example of Restore Data List

Fixed Disk Full Format

Warning: This procedure erases all the data on the fixed disk. Make sure it is necessary to run this procedure before you begin.

1. Load the Test Monitor. See "How to Load the Test Monitor" on page 2-9.

2. With 4001 displayed, key in **0333** or **0433**, where:

   0333 = Format fixed disk 1
   0433 = Format fixed disk 2.

3. Press Enter; 4415 is displayed. This is a **warning** message indicating that full format erases your data. Be sure that you have selected the correct fixed disk for formatting.

   * To abort the full format, press Enter; 4001 is displayed.
   * To format the disk, key in **2** and press Enter.

4. 23XX is displayed, where:

   23 = Full format in progress
   XX = A number that decreases to 00.

5. Full format completes with one of the following:

   4416 01HG — Full format complete. Data restoration is required; see "Restoring Your Data" on
               page 2-8.

   4417 01HG TYPE LOCA — Full format terminated; Disk replacement required. Request service.

   For all other status codes, see the Status Code Chart in Chapter 1.

Restoring Your Data

Data on the fixed disk has been erased and that data must be restored or written back onto the fixed disk before it can be used again.

What you must do to restore that data depends on whether or not you have a current set of backup diskettes.

- If you have a complete set of backup diskettes for your current hardware configuration or you have the original diskettes that were copied onto the fixed disk, copy each diskette back onto the fixed disk. (See "How to Copy Files" and "How to Perform Media Management" in the *3174 Utilities Guide*.)

- If you do **not** have a complete set of diskettes for your current hardware configuration, use the following as a guideline to prepare the diskettes.

  1. Configure a Control diskette for your current hardware configuration. The diskette must be at Release Level A4.0, S4.0, B1.0, or higher. (See the *3174 Planning Guide* and the *3174 Utilities Guide*.)

  2. If you had any RPQs in your fixed disk CTL subdirectory, merge the RPQs onto the Control diskette you just configured. (See "How to Merge RPQs" in the *3174 Utilities Guide*.)

  3. If you merged DSL diskettes in your fixed disk DSL subdirectory, merge the DSL code onto one DSL diskette. (See "How to Merge DSL Code" in the *3174 Utilities Guide*.)

  4. Copy the above diskettes that are applicable, plus the Utility, Limited Function Utility, and Library diskettes that are applicable onto the fixed disk. (See "How to Copy Files" and "How to Perform Media Management" in the *3174 Utilities Guide*.)

  5. If you manage your controller locally, it may be necessary to contact your host site for any changes that you may not have. If your network uses central site change management (CSCM), contact your central site coordinator for further instructions.

  6. The fixed disk is now restored and the controller can be IMLed.

How to Load the Test Monitor

The Test Monitor is part of the Utility microcode that is contained either on diskette or fixed disk. The following three procedures describe loading the Test Monitor. The first procedure uses the Utility diskette in drive 1, the second procedure uses the Utility diskette in drive 2, and the third procedure uses the Utility microcode on a fixed disk. Configuration Support B Utility diskettes are 2.4MB diskettes and require a 2.4MB drive.

Loading the Test Monitor from Diskette Drive 1

1. Insert the Utility diskette into drive 1. If the diskette is labeled 2.4, make sure drive 1 is also labeled 2.4; otherwise, use "Loading the Test Monitor from Diskette Drive 2."
2. Press and hold Alt 1.
3. Press and release IML.
4. Release Alt 1.
5. 40 is displayed:

   For operator panel control

   a. Key in **80**.
   b. Press Enter.
   c. 4001 is displayed.

   For terminal control

   a. Key in **8094**.
   b. Press Enter.
   c. Go to the terminal connected to port 0.
   d. 4001 is displayed.

Loading the Test Monitor from Diskette Drive 2

1. Insert the Utility diskette into drive 2. If the diskette is labeled 2.4, make sure drive 2 is also labeled 2.4; otherwise, use "Loading the Test Monitor from Diskette Drive 1."
2. Press and hold Alt 1.
3. Press and release IML.
4. Release Alt 1.
5. 40 is displayed:

   For operator panel control

   a. Key in **0280**.
   b. Press Enter.
   c. 4001 is displayed.

   For terminal control

   a. Key in **0280**.
   b. Press Advance.
   c. Key in **94**.
   d. Press Enter.
   e. Go to the terminal connected to port 0.
   f. 4001 is displayed.

Loading the Test Monitor from Fixed Disk

1. Press and hold Alt 1.
2. Press and release IML.
3. Release Alt 1.
4. 40 is displayed:

   For operator panel control

   a. Key in **0380** or **0480** where:
      - 03 = Fixed disk drive 1
      - 04 = Fixed disk drive 2
      - 80 = Load test monitor.
   b. Press Enter.
   c. 4001 is displayed.

   For terminal control

   a. Key in **0380** or **0480** where:
      - 03 = Fixed disk drive 1
      - 04 = Fixed disk drive 2
      - 80 = Load test monitor.
   b. Press Advance.
   c. Key in **94**
   d. Press Enter.
   e. Go to the terminal connected to port 0.
   f. 4001 is displayed.

Type Numbers

Type numbers are assigned to each logic field-replaceable unit (FRU) as an identifier. The FRU type number is 4 digits, and "9" is always the first digit.

Table 2-2 (Page 1 of 2). 3174 Type Numbers	
Type	**FRU Description**
0000	Invalid or Unknown
9000	Empty Card Location
9001	Invalid Card/Cond
9010	Operator Panel Adapter (Models 1L, 1R, 2R and 3R)
9011	Operator Panel Adapter (Models 11L, 11R, 12R, and 13R)
9021	Planar Board (Model 51R) (EIA/V.35) (512KB)
9022	Planar Board (Model 53R) (1MB)
9025	Planar Board (Model 51R) (EIA/V.35) (1MB)
9030	Encrypt/Decrypt Adapter (Models 1R and 2R)
9051	Storage Card (512KB)
9052	Storage Card (1MB)
9053	Storage Card (2MB)
9110	1.2MB Diskette Drive (Models 1L through 13R)
9111	1.2MB Diskette Drive 1 (Models 51R, 52R, and 53R)
9112	1.2MB Diskette Drive 2 (Models 51R, 52R, and 53R)
9113	1.2MB Diskette Drive (Models 81R and 82R)
9114	2.4MB Diskette Drive (Models 1L through 13R)
9115	2.4MB Diskette Drive 1 (Models 51R, 52R, and 53R)(RPQ)
9116	2.4MB Diskette Drive 2 (Models 51R, 52R, and 53R)
9120	File Adapter
9132	Fixed Disk Drive (Models 1L through 13R)
9133	Fixed Disk Drive (Models 51R, 52R, and 53R)
9154	File/Terminal Adapter
915x	Terminal Adapter
9160	Planar Board (Model 81R) (EIA/V.35) (1MB)
9161	Planar Board (Model 82R) (X.21) (1MB)
9176	Terminal Multiplexer Adapter (Models 21L and 21R)
917x	Terminal Multiplexer Adapter (Models 1L through 13R)
9210	Channel Adapter
9221	Planar Board (Model 52R) (X.21) (512KB)
9225	Planar Board (Model 52R) (X.21) (1MB)
9230	Channel Driver/Receiver
9253	Type 1 Communication Adapter (EIA/V.35)
9263	Type 1 Concurrent Communication Adapter (EIA/V.35)
9267	Type 2 Concurrent Communication Adapter (X.21)
927x	Type 2 Communication Adapter (X.21)
9311	Asynchronous Emulation Adapter (Models 21L and 21R)
9331	Asynchronous Emulation Adapter (Models 1L through 13R, 51R through 63R)
9350	Token-Ring Adapter (4Mbps)
9351	Token-Ring Adapter (16/4Mbps)
9361	2.4 MB Diskette Drive (Models 21L and 21R)
9365	Fixed Disk Drive (Models 21L and 21R)
9401	2.4MB Diskette Drive (Models 91R and 92R)
9421	2.4MB Diskette Drive (Models 61R, 62R, and 63R)
9422	1.2MB Diskette Drive (Models 61R, 62R, and 63R)
9431	Fixed Disk Drive (Models 61R, 62R, and 63R)
9482	Storage Card (2MB) (Models 61R, 62R, 63R, 90R, 91R, and 92R)
9486	Storage Card (1MB) (Models 61R, 62R, and 63R)
950x	Processor Card
9520	Operator Panel (Models 1L and 11L)
9521	Operator Panel (Models 1R, 2R, 3R, 11R, 12R, and 13R)

Table	2-2 (Page 2 of 2). 3174 Type Numbers
Type	**FRU Description**
9522	Operator Panel (Models 51R through 63R)
9523	Operator Panel (Models 81R through 92R)
9540	AEA Cable Assembly (Models 1L through 13R)
9541	AEA Cable Assembly (Models 51R through 63R)
9545	Token-Ring Adapter (16/4Mbps) (Model 90R)
9550	Operator Panel (Model 21L)
9552	Tailgate Assembly (Model 21L)
9560	Operator Panel (Model 21R)
9621	Planar Board (Model 61R) (EIA/V.35) (0MB)
9622	Planar Board (Model 62R) (X.21) (0MB)
9623	Planar Board (Model 63R) (0MB)
9630	Planar Board (Model 21L) (0MB)
9661	Planar Board (Model 21R) (0MB)
9750	Fiber Optic Terminal Adapter (Models 1L through 21R)
9760	Planar Board (Model 91R) (EIA/V.35) (0MB)
9761	Planar Board (Model 92R) (X.21) (0MB)
9766	Planar Board (Model 90R) (EIA/V.35) (0MB)

Hardware Group Numbers

Table	2-3. Hardware Group Numbers		
HG	**Unit**	**HG**	**Unit**
00	Invalid or unknown	26	Terminal Adapters
01	Diskette Drive 1/File Adapter	26	Fiber Optic Terminal Adapter
02	Diskette Drive 2/File Adapter	26	Terminal Multiplexer Adapters
03	Fixed Disk 1/File Adapter	31	Token-Ring Adapter
04	Fixed Disk 2/File Adapter	46	Encrypt/Decrypt Adapter
08	Timer	51	Concurrent Communication Adapter
09	Operator Panel	52	Concurrent Communication Adapter
11	Communication Adapter	80	Test Monitor
16	Channel Adapter	81	Test All CSU Mode
16	Channel Driver/Receiver	82	Test All Installed Mode
21	Asynchronous Emulation Adapter	87	Processor/Storage
22	Asynchronous Emulation Adapter	99	Unassigned Hardware Group
23	Asynchronous Emulation Adapter		

Microcode Level Support

Table 2-4 and Table 2-5 on page 2-15 help you determine what the present microcode levels support.

Table 2-4. Models 1L through 21R Features Supported by Microcode Support Level			
Feature	A/S Rel. 5	B Rel 1 and 2	B Rel 3
Min. Storage Required	2MB	2MB	2MB
Max. Storage Supported by Operational Code	4MB	6MB	6MB
512KB Storage Card	NO	NO	NO
1MB Storage Card	YES	YES	YES
2MB Storage Card	YES	YES	YES
File Adapter	YES	YES	YES
File/Terminal Adapter	YES	YES	YES
Terminal Adapter	YES	YES	YES
TMA	YES	YES	YES
Channel Adapter	YES	YES	YES
Type 1 Communication Adapter	YES	YES	YES
Concurrent Communication Adapter	NO	YES	YES
Type 2 Communication Adapter	YES	YES	YES
Asynchronous Emulation Adapter	YES	YES	YES
4MB Token-Ring Adapter	YES	YES	YES
16/4MB Token-Ring Adapter	YES	YES	YES
Token-Ring Network 3270 Gateway Feature	Note	YES	YES
1.2MB Diskette Drive	YES	YES	YES
2.4MB Diskette Drive	YES	YES	YES
Fixed Disk	YES	YES	YES
3299 Models 1, 2, and 3	YES	YES	YES
3299 Model 32	NO	NO	YES
Fiber Optic Terminal Adapter	NO	NO	YES

Note: Configuration Support S supports the Token-Ring Network 3270 Gateway feature.

Table 2-5. Models 51R through 63R Features Supported by Microcode Support Level		
Feature	A/S Rel. 5	B Rel 1, 2, and 3 (Note 1)
Min. Storage Required	2MB	2MB
Max. Storage Supported by operational code	4MB	4MB
512KB Storage card Models 51R, 52R, 53R	NO	NO
1MB Storage card Models 51R, 52R, 53R	YES	YES
2MB Storage card Models 51R, 52R, 53R	YES	YES
1MB Storage card Models 61R, 62R, 63R	YES	YES
2MB Storage card Models 61R, 62R, 63R	YES	YES
Concurrent Communication Adapter	NO	YES
Asynchronous Emulation Adapter	YES	YES
4MB Token-Ring Adapter	YES	YES
16/4MB Token-Ring Adapter	YES	YES
Token-Ring Network 3270 Gateway feature	Note 2	YES
1.2MB Diskette Drive	YES	YES
2.4MB Diskette Drive	Note 3	YES
Fixed disk	YES	YES
3299 Models 1, 2, and 3	YES	YES

Notes:

1. Model 52R is not supported in Configuration Support B.

2. Configuration Support S supports the Token-Ring Network 3270 Gateway feature.

3. Configuration Support A and S Release 5 supports 2.4MB in 1.2MB mode only.

X.25 Cause and Diagnostic Codes

This section defines the X.25 cause and diagnostic codes:

Clear Indication Packet Cause Codes

Table 2-6 lists the X.25 cause codes received from the data circuit-terminating equipment (DCE) for a Clear Indication packet.

Table 2-6. X.25 Cause Codes Received from the DCE (Clear Packet)	
Hex Code	**Meaning**
00	DTE originated (see note)
01	Number busy
03	Invalid facility request
05	Network congestion
09	Out of order
0B	Access barred
0D	Not obtainable
11	Remote procedure error
13	Local procedure error
15	RPOA out of order
19	Reverse-charging acceptance not subscribed
21	Incompatible destination
29	Fast select acceptance not subscribed
80	DTE originated (see note)

Note: When the cause code is X'00' or X'80', the diagnostic code field has been passed through the network from the remote DTE's original Clear Request, Reset Request, or Restart Request packet. See "Determining Which Diagnostic Code Table to Use" on page 2-18 for the correct table.

Reset Indication Packet Cause Codes

Table 2-7 lists the X.25 cause codes received from the data circuit-terminating equipment (DCE) for a Reset Indication packet.

Table 2-7. Cause Codes Received from the DCE (Reset Packet)	
Hex Code	**Meaning**
00	DTE originated (See note.)
01	Out of order
03	Remote procedure error
05	Local procedure error
07	Network congestion
09	Remote DTE operational
0F	Network operational
11	Incompatible destination
80	DTE originated (See note.)

Note: When the cause code is X'00' or X'80', the diagnostic code field has been passed through the network from the remote DTE's original Clear Request, Reset Request, or Restart Request packet. See "Determining Which Diagnostic Code Table to Use" on page 2-18 for the correct table.

Restart Indication Packet Cause Codes

Table 2-8 lists the X.25 cause codes received from the data circuit-terminating equipment (DCE) for a Restart Indication packet.

Table 2-8. Cause Codes Received from the DCE (Restart Packet)	
Hex Code	**Meaning**
01	Local procedure error
03	Network congestion
07	Network operational

Cause Codes Sent by the 3174

Table 2-9 lists the X.25 cause codes the 3174 sends for Clear, Reset, and Restart indication packets.

Table 2-9. Cause Codes Sent by the 3174 (Clear, Reset, and Restart Packets)	
Hex Code	**Meaning**
00	DTE originated
80	DTE originated

Determining Which Diagnostic Code Table to Use

For cause codes greater than 0 and less than 80, see Table 2-12 on page 2-19.

Some networks and DTEs have defined additional diagnostic codes. For information on these additional codes see the specific X.25 network or DTE diagnostic specifications.

For cause codes 00 and 80, see Table 2-10 and Table 2-11 to determine which diagnostic code table to use. Use Table 2-10 for restarts and for clears when a virtual call has not been established. Use Table 2-11 for resets and for clears when a virtual call has been established.

Table 2-10. Table Directory for Clears (when a virtual call has not been established) and Restarts	
Response to Configuration Question 400	Use this Table
xx x 0	Table 2-13 on page 2-20
xx x 1	Table 2-14 on page 2-23

Table 2-11. Table Directory for Clears (when a virtual call has been established) and Resets	
Response to Configuration Question 453 (See note)	Use this Table
x0xxxxxx	Table 2-13 on page 2-20
x1xxxxxx	Table 2-14 on page 2-23

Note: This table works under the assumption that if the response to question 453 specifies ISO in the 3174, then the remote DTE is also using ISO codes.

Diagnostic Codes from the DCE

Table 2-12 lists the diagnostic code fields received from the data circuit-terminating equipment (DCE).

Table 2-12. Diagnostic Code Fields Received from DCE	
Hex Code	**Meaning**
00	No additional information
01	Invalid P(S)
02	Invalid P(R)
10	Packet type invalid — general
Code:	For state:
11	R1
12	R2
13	R3
14	P1
15	P2
16	P3
17	P4
18	P5
19	P6
1A	P7
1B	D1
1C	D2
1D	D3
20	Packet not allowed — general
21	Unidentifiable packet
22	Call on one-way logical channel
23	Invalid packet type on PVC
24	Packet on unassigned logical channel
25	Reject not subscribed to
26	Packet too short
27	Packet too long
28	Invalid GFI
29	Restart with nonzero GFI
2A	Packet type incompatible with facility
2B	Unauthorized interrupt confirmation
2C	Unauthorized interrupt
30	Timer expired — general
31	Incoming call
32	Clear indication
33	Reset indication
34	Restart indication
40	Call setup problem — general
41	Facility code not allowed
42	Facility parameter not allowed
43	Invalid called – address
44	Invalid calling – address
50	Call clearing problem — general
51	Nonzero address lengths field
52	Nonzero facility lengths field

SNA Diagnostic Codes from the DTE

Table 2-13 lists the diagnostic code fields generated by the IBM (SNA) DTE.

Table 2-13 (Page 1 of 3). Diagnostic Code Fields Generated by IBM (SNA) DTE	
Hex Code	**Meaning**
00	Normal initialization or termination
01	Invalid packet send sequence number
02	Invalid packet receive sequence number
0C	Invalid LLC type
10	Invalid Packet type — general
Code:	For state:
11	R1
12	R2
13	R3
14	P1
15	P2
16	P3
17	P4
18	P5
19	P6
1A	P7
1B	D1
1C	D2
1D	D3
20	DCE timer expired — general
21	Incoming call
22	Clear indication
23	Reset indication
24	Restart indication
30	DTE timer expired — general
31	Call request
32	Clear request
33	Reset request
34	Restart request
37	Reject not subscribed to
40	Unassigned — general
43	Invalid calling address
44	Invalid called address
45	Unassigned — general
48	Call collision
49	Unassigned — general

Table 2-13 (Page 2 of 3). Diagnostic Code Fields Generated by IBM (SNA) DTE	
Hex Code	**Meaning**
50	QLLC error — general
51	Undefined C-field
52	Unexpected C-field
53	Missing I-field
54	Undefined I-field
55	I-field too long
56	QFRMR received
57	Invalid QLLC header
58	Data received in non-data state
59	Timeout condition
5A	Invalid Nr (number received)
5B	Recovery rejected or terminated
5C	XID negotiation in wrong state
5D	ELLC time-out condition
5E	Q bit discrepancy
60	PSH error — general
61	Sequence error
62	PS header too short
63	PSH format invalid
64	Command undefined
65	Invalid PSH protocol
66	Data received in non-data state
69	Timeout condition
70	Pad error — general
71	Pad access facility failure
72	SDLC FCS error
73	SDLC time-out
74	SDLC frame invalid
75	I-field too long
76	SDLC sequence error
77	SDLC frame aborted
78	SDLC FRMR received
79	SDLC response invalid
7B	Invalid packet type
7F	Pad inoperable
80	DTE-specific
81	8100 DPPX-specific
82	INN QLLC-specific
83	INN QLLC-specific
84	INN QLLC-specific
85	INN QLLC-specific
86	INN QLLC-specific
87	INN QLLC-specific
88	INN QLLC-specific
89	INN QLLC-specific
8A	INN QLLC-specific
8B	INN QLLC-specific
8C	INN QLLC-specific
8D	INN QLLC-specific
8E	INN QLLC-specific
8F	INN QLLC-specific
90	Network-specific
91	DDX-P RNR packet received

Table 2-13 (Page 3 of 3). Diagnostic Code Fields Generated by IBM (SNA) DTE	
Hex Code	**Meaning**
A0	Packet not allowed
A1	Invalid M-bit packet sequence
A2	Invalid packet type received
A3	Invalid packet on PVC
A4	Unassigned logical channel number
A5	Diagnostic packet received
A6	Packet too short
A7	Packet too long
A8	Invalid GFI
A9	Not identifiable
AA	Not supported
AB	Invalid packet send sequence number
AC	Invalid packet receive sequence number
AD	Invalid D bit received
AE	Invalid Q bit received
B0	DTE-specific (NPSI Gate/Date)
B1	No LU-LU session
B2	Abend 703 in progress
B3	Cancel chain command
C0	DTE – specific codes
C1	Termination pending
C2	Channel inoperative
C3	Unauthorized interrupt confirmation
C4	Unauthorized interrupt request
C5	PU resource not available
C6	Inactivity time-out
C7	Incompatible line configuration
C8	Reset indication for Pad, translated from signal
C9	DTE not operational
D0	Resources — general
D1	Buffers depleted
D2	PIU too long
E0	Local procedure error — general
E1	Packet received with LC not equal to 0
E2	Restart or Diagnostic packet received with LC not equal to 0
E3	Incoming call received on wrong LC
E4	Facility not subscribed
E5	Invalid packet for LC equal to 0
E6	Facility parameters not supported
E7	Facility not supported
E8	Unexpected calling DTE
E9	Invalid D bit received
EA	Reset indication on virtual call
EB	Invalid protocol identifier
EC	Connection identifier mismatch
ED	Missing cause/diagnostic code
F0	Remote procedure error — general
FA	Link reset

ISO Diagnostic Codes from the DTE

Table 2-14 (Page 1 of 3). ISO Diagnostic Code Fields from the DTE	
Hex Code	**Meaning**
00	No additional information
01	Invalid packet send sequence number
02	Invalid packet receive sequence number
10	Invalid Packet type — general
Code:	For state:
11	R1
12	R2
13	R3
14	P1
15	P2
16	P3
17	P4
18	P5
19	P6
1A	P7
1B	D1
1C	D2
1D	D3
20	Packet not allowed — general
21	Unidentifiable packet
22	Call on one-way logical channel
23	Invalid packet type on a PVC
24	Packet on unassigned logical channel
25	Reject not subscribed to
26	Packet too short
27	Packet too long
28	Invalid general format identifier
29	Restart or registration with LCI≠X'000'
2A	Packet type not compatible with facility
2B	Unauthorized interrupt confirmation
2C	Unauthorized interrupt
2D	Unauthorized reject
30	Timer expired (or limit surpassed) — general
31	For incoming call or call request
32	For clear indication or request
33	For reset indication or reset request
34	For restart indication or request
35	For call deflection

Table 2-14 (Page 2 of 3). ISO Diagnostic Code Fields from the DTE	
Hex Code	**Meaning**
40	Call setup/clearing or registration problem — general
41	Facility/registration code not allowed
42	Facility/registration parameter not allowed
43	Invalid called address
44	Invalid calling address
45	Invalid facility/registration length
46	Incoming call barred
47	No logical channel available
48	Call collision
49	Duplicate facility requested
4A	Nonzero address length
4B	Nonzero facility length
4C	facility not provided when expected
4D	Invalid CCITT-specified DTE facility
4E	Maximum redirections/deflections exceeded
50	Miscellaneous
51	Improper cause code from DTE
52	Non-octet aligned
53	Inconsistent Q-bit settings
54	NUI (network user identifier) problem
70	International problem — general
71	Remote network problem
72	Protocol problem
73	Link out of order
74	Link busy
75	Transit network facility problem
76	Remote network facility problem
77	Routing problem
78	Temporary routing problem
79	Unknown called data network identification code
7A	Maintenance action
90	Timer expired (or limit surpassed) — general
91	For interrupt confirmation
92	For data packet retransmission
93	For reject packet retransmission
A0	DTE-specific signals
A1	DTE operational
A2	DTE not operational
A3	DTE resource constraint
A4	Fast select not subscribed
A5	Invalid partially full data packet
A6	D-bit procedure not supported
A7	Registration/cancelation confirmed

Table 2-14 (Page 3 of 3). ISO Diagnostic Code Fields from the DTE	
Hex Code	**Meaning**
E0	Open systems interconnection (OSI) network service problem − general
E1	Disconnection (transient condition)
E2	Disconnection (permanent condition)
E3	Connection rejection − reason unspecified (transient condition)
E4	Connection rejection − reason unspecified (permanent condition)
E5	Connection rejection − requested quality of service not available (transient condition)
E6	Connection rejection − requested quality of service not available (permanent condition)
E7	Connection rejection − OSI network address unreachable (transient problem)
E8	Connection rejection − OSI network address unreachable (permanent problem)
E9	Reset − reason unspecified
EA	Reset − congestion
EB	Connection rejection − OSI network address unknown (permanent condition)
F0	Disconnection − normal
F1	Disconnection − abnormal
F2	Disconnection − incompatible information in user data
F3	Higher layer initiated disconnection − general
F4	Connection rejection − reason unspecified (transient condition)
F5	Connection rejection − reason unspecified (permanent condition)
F6	Connection rejection − requested quality of service not available (transient condition)
F7	Connection rejection − requested quality of service not available (permanent condition)
F8	Connection rejection − incompatible information in user data
F9	Connection rejection − unrecognizable protocol identifier in user data
FA	Reset − resynchronization

Diagnostic Code Modifiers

Table 2-15 lists the X.25 diagnostic code modifiers.

Table 2-15. X.25 Diagnostic Code Modifiers	
Hex Code	**Meaning**
00	No additional information provided. See diagnostic code.
01	Unexpected Calling DTE
02	PU not available − Invalid state
03	Facilities other than RPOA are included when configuration indicates that none is expected.
04	PU not available − Local mode
05 (see note)	Packet size facility is included but is not configured.
06	Incoming CUG does not match the configured value.
07	Call requests reverse charging, but the function is not configured.
08	Call requests reverse charging not requested, but the function is not configured.
09 (see note)	Call included window size facility, but the window size facility is not configured.
10	Facility length is too long.
11	CID is included but does not match the configured value.
12	Reserved
13	Protocol ID is invalid.
14	CUG facility is configured but is not included in the Call Request packet.
15	Throughput class facility is configured but not included.
16	Reserved.
17	Reverse-charge facility is configured but not included.

Note: Configured = Either configured value or value entered from the Dial Screen.

X.21 Error Completion Modifier Bits

Table 2-16 shows the meanings of the error completion modifier bits for an X.21 communication failure.

Table	2-16.	Error Completion Modifier Bits
Byte	**Bit**	**Description**
B1	0	Reserved.
	1	Reserved.
	2	The T1 (3-second) timer expired, indicating that the microcode did not receive the "proceed to select" state in response to signaling a call request.
	3	The T2 (20-second) timer has expired, indicating that, on an outgoing call, neither a 'call progress' signal nor 'ready for data' is detected after the selection signals are sent.
	4	The T5 or T6 (2-second) timer has expired, indicating that the DTE did not detect the DCE ready state in response to a DTE clear request or DTE clear confirmation.
	5	The T3A (2-second) timer has expired, indicating that 'ready for data' is not detected after 'call progress' signals are received and the calling DTE has not been told to wait 60 seconds. The T3B (60-second) timer has expired after a 'call progress' signal was received, telling the calling DTE to wait 60 seconds for the 'ready for data' signal (manual answer).
	6	The T4 (2-second) timer has occurred during an incoming call when 'ready for data' is not detected after the microcode has signaled 'call accepted.'
	7	Reserved.

Call Progress Signal Code

The 'call progress' (CP) signal is sent by the network to advise a calling terminal/host about the progress of a call or about the circumstances that have prevented a connection from being established. The network transmits the signal after receiving end-of-dialing, and the signal is not repeated.

Note: The meaning of the codes may be different in each country. Ask a specialist for details about code meanings.

Table 2-17. Call Progress Signal Code	
CPS Code	**CPS Meaning**
00	Wait
01	Terminal called
02	Redirected call
03	Connect when free
20	Number busy
21	Selection signal procedure error
22	Procedure error
23	Selection signal transmission error
41	Access barred
42	Changed number
43	Not obtainable
44	Out of order
45	Controlled not ready
46	Uncontrolled not ready
47	DCE power off
48	Invalid facility request
49	Network fault in local loop
51	Call information service
52	Incompatible user class of service
61	Network congestion
71	Long-term network congestion
72	RPOA out of order
81	Registration/cancellation confirmed.

Possible Data Chain Errors

The following list shows the possible invalid "data chain" sequences that could have occurred to cause status code 404 02. For an explanation of data chaining, see the *3174 Functional Description*.

- A Data Chain (Begin) structured field was received when the device was already in data chain state.
- A Data Chain (Only) structured field was received when the device was already in data chain state.
- A Data Chain (Continue) structured field was received when the device was not in data chain state.
- A Data Chain (End) structured field was received when the device was not in data chain state.
- A Write Structured field, whose first structured field was other than Data Chain, was received when the device was in Data Chain state.

Port Control Area Bit Definitions

Bits defined as "Reserved" or "Reserved for engineering use" may contain zeros or ones. They should be disregarded unless otherwise directed by the next level of the support structure. Bits are assumed to be set to B'1' unless otherwise noted.

The meanings of the bits when they are on and when they are off is shown in the following table.

Table 2-18. Port Control Area Bit Definitions		
Location	**Bit**	**Bit Descriptions**
Byte 08	0	1 = 3278 mode
		0 = Native mode
	1	1 = Numeric lock
		0 = No numeric lock
	2	1 = Keyboard functions have been redefined
		0 = No modifiable keyboard- Keyboard functions have not been redefined
	3 − 7	Modifications keyboard ID
		Bit 2 − 0 Bit 2—1
		00000 Reserved Reserved
		00001 Typewriter A
		00010 Data Entry 1 B
		00011 APL C
		00100
		through
		11111 Reserved D
Byte 09[1] (Display)	0 − 3	0000 - Reserved
		0001 - APL keyboard/numeric lock
		0010 - Text keyboard/numeric lock
		0011 - RPQ typewriter keyboard/numeric lock
		0100 - Typewriter Attribute Select keyboard/numeric lock
		0101 - APL keyboard
		0110 - Text keyboard
		0111 - APL Attribute Select keyboard
		1000 - Data Entry 2 keyboard/numeric lock
		1001 - Data Entry keyboard/numeric lock
		1010 - Typewriter/numeric lock
		1011 - Reserved
		1100 - Data Entry 2 keyboard
		1101 - Data Entry 1 keyboard
		1110 - Typewriter
		1111 - No keyboard
	4 − 6	001 - Model 1
		010 - Model 2
		011 - Model 3
		100 - Escape
		101 - Reserved
		110 - Model 5
		111 - Model 4
	7	0 - indicates display byte

[1]Actual features identified to the 3174 by the terminal.

Communication Adapter Cable Part Numbers

Table 2-19 shows valid part numbers for communication cables in the 3174. These cables can have 1, 2, or 3 TEST/OPER switches.

Table 2-19. Communication Adapter Part Numbers		
Interface	**Part Number**	**Country**
EIA	39F7858	U.S./World Trade
	39F7961	
	53F4779	
	53F4780	
	53F4781	
	53F4782	
	6423153	
	6423154	
	25F8492	Japan and Korea
	39F7966	
	53F4783	
	73X3722	
	73X3723	
	25F7432	Germany
	25F7433	
	39F7965	
	39F7967	
V.35	25F8490	U.S./World Trade
	39F7963	
	6423325	
	6423327	
	25F8491	France and Switzerland
	39F7964	
	6423326	
	6423328	
X.21	6168155	
	6168156	

Token-Ring Status Codes

The following example shows the meanings of the bits in the Token-Ring status codes that are contained in the extended data of 3174 status codes. The following example shows how to use the extended data for a typical 3174 status code that contains a Token-Ring status code in the extended data.

Ring Status Example:

```
Status Code    QAHG    B1B2    B3B4    B5B6    B7B8
       580     05HG    9350    1200    0000    0840
```

The extended data bytes B7 and B8 contain the ring status code information.

Bytes B7 and B8 have the following bits turned on:

```
0 1 2 3      4 5 6 7      8 9 10 11      12 13 14 15
0 0 0 0      1 0 0 0      0 1  0  0       0  0  0  0
```

For hex 0840, bits 4 and 9 are on. This means that a lobe wire fault has occurred (bit 4), and the error occurred when a single station was attached to the ring (bit 9).

Note: Bits 11 through 15 are always zero and have no meaning.

Table 2-20 defines the bits in the Token-Ring status codes.

Table 2-20. Token-Ring Status Codes		
Bit	**Function**	**Description**
0	Signal loss	The receive signal is not being detected.
1	Hard error	Beacon frames are being transmitted or received.
2	Temporary error	The Token-Ring adapter has transmitted a soft error report MAC frame.
3	Transmit beacon	The Token-Ring adapter is transmitting beacon frames.
4	Lobe wire fault	An open or short circuit has been detected in the lobe data path. The Token-Ring adapter will be closed.
5	Auto Removal Error 1	An internal hardware error was detected following the beacon auto-removal process. The Token-Ring adapter has removed from the ring. The adapter will be closed.
6	None	Reserved.
7	Remove received	A remove MAC frame has been received. The Token-Ring adapter will be closed.
8	Counter overflow	One of the error log counters has increased from 254 to 255. The DIR.READ.LOG command should be issued.
9	Single station	The adapter has opened and is the only station on the ring. This bit will be reset when another station inserts.
10	Ring recovery	The Token-Ring adapter is transmitting or receiving monitor contention MAC frames. This bit is reset on receipt of a ring purge MAC frame.

Token-Ring Return Codes

Token-Ring return codes are divided into four groups:

- Return codes set for any command (Table 2-21)
- Return codes set for transmit and receive commands (Table 2-22 on page 2-33)
- Return codes that apply to the direct interface (Table 2-23 on page 2-33)
- Return codes that apply to the DLC/IEEE 802.2 Interface (Table 2-24 on page 2-34).

Table 2-21. Common Return Codes	
Return Codes	**Description**
00	The requested operation was completed successfully.
01	The command code was not recognized by the Token-Ring adapter. No action was performed for the command.
02	A duplicate command is already being processed by the Token-Ring adapter. No action was performed for the command.
03	The Token-Ring adapter is open, and a command was received that can be processed only when the adapter is closed. No action was performed for the command.
	Note: The adapter has to be closed, and the command has to be issued again.
04	The adapter is closed, and a command was received other than an open or close adapter command.
	Note: The adapter has to be opened, and the command has to be issued again.
05	At least one required parameter for which the adapter provides no default has a zero value. No action was performed for the command.
	Note: Change the parameter to a valid value and issue the command again.
06	A command was received with missing, invalid, or incompatible options. For example:
	Note: This return code may be set if an attempt is made to add an IEEE-type SAP to a non-IEEE-type group SAP, or a non-IEEE-type SAP to an IEEE-type SAP group. In this case the command is completed up to the point where the failing item in the GSAP list was encountered; otherwise, no action is performed for the command.
07	The Token-Ring adapter is unable to complete the command, because of a critical failure. The command has been canceled.
08	The requested access priority is greater than the access priority authorized for the Token-Ring adapter. No action was performed for the command.
FF	A received command is being processed.

Table 2-22. Transmit and Receive Return Codes	
Return Codes	**Description**
20	This return code is set by the controller in response to the Receive Data command from the Token-Ring adapter. The return code indicates that not enough buffer space is available to receive the data. The Token-Ring adapter sets local busy if the frame was for a Link Station. This return code has no effect at the Direct and SAP interface.
22	The Token-Ring adapter has transmitted the frame, but the PCFE received when the frame was stripped from the ring indicates that the frame may not have been received by the destination adapter. **Note:** This error code is not returned for frames transmitted using the DLC/IEEE 802.2 Link Station interface.
23	The Token-Ring adapter was unable to transmit the frame, or an error was detected during the frame strip process. The transmit Error does not contain valid data if this return code is set.
24	The source class in the MAC frame passed to the Direct Interface is not authorized for this adapter, or PCF byte 1 written to the DHB by the controller for a transmission at the SAP Interface indicates an attempt to send a MAC frame. No action was performed for this command.
25	The maximum number of transmit commands was exceeded. Up to 128 transmit commands can be outstanding for a given SAP or Link Station, or at the Direct Interface.
26	The command correlator in a Transmit command or the buffer address in a Receive command is not the one expected by the Token-Ring adapter, or a Transmit command was received when none was expected.
27	The link has left the link opened state because of a received frame or because the retry count has been exhausted. The new link state will be reported by a DLC Status.
28	The frame length given in a Transmit Data command is less than the Token-Ring header length (and DLC header if applicable) at the Direct or SAP interface, or is greater than the DHB length.

Table 2-23. Direct Interface Return Codes	
Return Codes	**Description**
30	The Token-Ring adapter does not have enough receive buffers available to complete the Open adapter sequence. One of the following should be reduced: The maximum frame length The number of service access points The number of link stations The number of DHBs requested.
32	An invalid node address has been detected. A new address must be assigned to the Token-Ring adapter in the device that has the invalid address.
33	An invalid receive buffer length is defined. The receive buffer length is less than 96, or more than 2048, or not a multiple of 8.
34	An invalid transmit buffer length is defined. The transmit buffer length is less than 96, or more than 2048, or not a multiple of 8.

Table 2-24. DLC/IEEE 802.2 Interface Return Codes	
Return Codes	**Description**
40	Either the STATION.ID is not recognized by the Token-Ring adapter or the command code is not allowed for the station type.
41	The requested command cannot be accepted with the existing primary link state.
42	One of the parameters exceeded the maximum acceptable value.
43	The SAP value coded on an Open SAP command has already been used on a previous Open SAP command and the resulting SAP station has not been closed, or an attempt has been made to issue an Open Station command for a link that already exists (local and remote SAPs and the remote address are the same as those used for an existing link).
44	The routing information provided in a Connect Station command does not have the correct format. No action was performed for this command.
45	Membership has been requested in a group SAP that is not open. The command was completed up to the point where the Token-Ring adapter encountered the error. For example: The SAP is open if the request was an Open SAP SRB, or the other parameters have been changed if it was a Modify command. Open the Group SAP and issue a Modify command to request membership.
46	All the SAP, Group SAP, or Link Station control blocks created during Open Adapter have been allocated. The request cannot be honored until a SAP or Link Station that is open has closed. At that time the request may be reissued.
47	An SAP with dependent Link Stations will not be closed until all the stations have closed. Either close the stations and reissue the command, or use the Reset command if the situation is critical.
48	A Group SAP will not be closed while it has active members.
49	Membership has been requested in a Group SAP that already has all the members requested on the Open SAP command. The Open SAP or Modify SRB that encountered the error was completed up to the point that the error was detected.
4A	When a Close Station or Connect Station command has been accepted, no other SRB will be accepted against the Link Station until the command completes processing. The only command that will be accepted is Reset SRB issued against the SAP.
4B	The Token-Ring adapter transmitted a DISC command-poll to the remote station in response to a Close Station command. Despite retransmission, no acknowledgment has been received. The Link Station is closed.
4C	A Close SAP or Close Station command will not be accepted if there are commands outstanding. Either wait for the commands to complete processing or use a Reset command if the situation is critical.
4D	The Token-Ring adapter transmitted a SABME command-poll to the remote station in response to a Connect Station command. Despite retransmission, either no acknowledgment has been received, or a DM response was received. The Link Station has been returned to Disconnected Mode. Either close the Link Station, or verify that the routing information is correct and retry the command.
4E	The controller requested a SAP that should be deleted as a member of a Group SAP, but the SAP could not be found in the list of members of the Group SAP. The Modify SRB that encountered the error has been completed up to the point of the error.
4F	The remote address parameter has the high bit of the high byte set to 1. Resubmit the request with a valid address.

Link States

Table 2-14 defines the link primary and secondary states.

Table 2-25. Link Primary / Secondary States	
Link Primary State	**Link Secondary State**
Bit 0 = Link Closed	Bit 0 = Checkpointing
Bit 1 = Disconnected	Bit 1 = Local Busy (User set)
Bit 2 = Disconnecting	Bit 2 = Local Busy (Buffer set)
Bit 3 = Link Opening	Bit 3 = Remote Busy
Bit 4 = Resetting	Bit 4 = Rejection
Bit 5 = FRMR Sent	Bit 5 = Clearing
Bit 6 = RRMR Received	Bit 6 = Dynamic Window Algorithm Running
Bit 7 = Link Opened	Bit 7 = Reserved

SNA Sense Codes

Each sense data category has modifiers for further description in sense byte 1. The modifier codes supported and the controller or terminal condition causing the sense data to be returned are described below. You can refer to the *SNA Reference Summary* for a generic definition.

The following are 3174-specific definitions. For CSCM SNA registered sense codes, see the *3174 Central Site Customizing User's Guide*. For architecture sense codes, see the *SNA Formats Reference Summary*.

Note: In addition to the SNA sense codes, the error log and the SNA Alert function may provide additional information about error recovery.

Path Error X'80'

X'8004' — Unrecognized DAF
The DAF address is not customized.

X'8005' — NO SESSION

- A Bind has not been received or accepted.

- A request other than Bind is sent to an SLU that has already accepted a Bind, and the OAF is not X'00' or the OAF in the accepted Bind.

X'8007' — Segmenting Error
One of following conditions exists:

- First BIU segment had less than 10 bytes.

- BIU segments were received out of order.

- The sequence number of a middle or last BIU segment did not match the sequence number of the first BIU segment.

- The OAF of a middle or last BIU segment did not match the OAF of the first BIU segment.

- A segmented RU, which was not a Function Management Data request, was received.

X'8008' — PU NOT Active
The 3174 has not received or accepted an ACTPU.

X'8009' — LU NOT Active
The 3174 has not received or accepted an ACTLU.

X'800F' — Invalid Address Combination
A request was addressed to the PU (DAF = X'00'), and the OAF was not SSCP (OAF = X'00').

X'8019 0001' — Receiving Node Incorrect
See "Appendix C" in the *3174 Central Site Customizing User's Guide* for more information.

X'8019 0002' — Receiving Node Incorrect
See "Appendix C" in the *3174 Central Site Customizing User's Guide* for more information.

RH Error X'40'

X'4003' — Begin Bracket (BB) Not Allowed
An FMD request carried BB, but it was not first in chain or it did not contain an FMH-5.

X'4004' — Conditional End Bracket (CEB) or End Bracket (EB) Not Allowed

- An FMD request or LUSTAT request carried EB.

- A ¬LIC FMD request carried CEB.

- An FMD request or LUSTAT request carried CEB and the DR2 and Exception Response bits in the RH were set to *1*.

- An FMD request or LUSTAT request carried BB, CEB, and specified exception response.

- An FIC request carried BB, and the LIC request carried CEB and specified exception response.

X'4005' — Incomplete RH
First BIU segment was less than 3 bytes in length.

X'4006' — Exception Response Not Allowed
LIC carried exception response when the Bind specified definite response only.

X'4007' — Definite Response Not Allowed
LIC carried definite response when the Bind specified exception response only or ¬ LIC carried definite response.

X'4008' — Pacing Not Supported
An SC request specified pacing.

X'4009' — Change Direction (CD) Not Allowed

- A BIS, RTR, or SIGNAL request carried CD.

- A ¬LIC FMD request carried CD.

- An FMD or LUSTAT request carried CD and CEB.

- An FMD or LUSTAT request carried CD and the DR1 bit was set to *1* and the DR2 and Exception Response bits in the RH were set to *0*.

X'400B' — Chaining Not Supported
A DFC request, a SC request, or a response was received that did **not** have both the Begin and End Chain indicators on.

X'400C' — Brackets Not Supported
A BIS, RTR, SIGNAL, or SC request carried a bracket indicator (BB, EB, or CEB).

X'400D' — CD Not Supported
An SC request carried CD.

X'400F' — Incorrect Use of Format Indicator (FI)

- For LU Type 1 — An FM request received by the 3174 indicated FM header included, when the Bind command specified FM headers not allowed.

- For LU Type 6.2 — A DFS or SC request was received with the FI bit in the RH set to *0*.

X'4010' — Alternate Code Not Supported
A DFC, FMD, or SC request was received with the Code Selection indicator bit in the RH set to *1*.

X'4011' – Incorrect Specification of RU Category

- For LU Types 1, 2, and 3 – The RU category indicator was specified incorrectly; for example, an expedited flow request was specified with RU category = FMD.

- For LU Type 6.2:

  - An expedited FMD request or FMD response was received.

  - A normal flow SC request was received.

  - A normal flow response was received with an RU category that was different from the RU category of the last request sent.

X'4012' – Incorrect Specification of Request Code

- An expedited DFC response with a request code ¬ = SIGNAL was received.

- A normal flow DFC response was received with a request code that was different from the request code of the last DFC request sent.

X'4013' – Incorrect Specification of Sense Data Indicator (SDI), RTI

- A negative response was received with the SDI bit in the RH set to *0*.

- A positive response was received with the SDI bit in the RH set to *1*.

X'4014' – Incorrect Use of Definite Response (DR) and Exception Response (ER) Indicators

- A SIGNAL, RTR, or SC request was received that did not have the DR1 bit set to *1* and the DR2 and ERI bits set to *0*.

- A BIS request did not have the DR1 bit or the ERI bit set to *1*.

- An FMD or LUSTAT request did not have the DR1 or the DR2 bit set to *1*.

X'4015' – Incorrect Use of Queued Response Indicator (QRI)
A BIS, RTR, SIGNAL, or SC request carried QRI.

X'4016' – Incorrect Use of Enciphered Data Indicator (EDI)
A DFC or SC request was received with the EDI bit in the RH set to *1*.

X'4017' – Incorrect Use of Padded Data Indicator (PDI)
A DFC or SC request was received with the PDI bit in the RH set to *1*.

X'4018' – Incorrect Setting of Queued Response Indicator (QRI) with Bidder's BB

- An FMD or LUSTAT request carried BB but did not carry QRI.

- An LUSTAT request or first-in-chain FMD request carried QRI but did not carry BB.

X'4019' – Incorrect Indicators on Last-In-Chain (LIC) Request

- An LUSTAT request or LIC FMD request specified exception response but did not carry CEB or CD.

- An LIC FMD request with the DR1 bit set to *1* and the DR2 and ERI bits set to *0* did not carry CEB.

State Error X'20'

X'2001' – Sequence Number Error
The sequence number of the normal flow request did not match the number expected.

X'2002' – Chaining Error
Chain elements were received out of order.

X'2003' — Bracket State Error

- For LU Types 1, 2, and 3 — A bracket state error occurred.

- For LU Type 6.2:

  - An RTR request was received.

  - An Attach Header was received before a bracket was started or a second Attach Header was received after a bracket was started.

X'2004' — Direction Error

- A normal flow request without Begin Bracket was received while the 3174 was in Send State.

- For LU Type 6.2 — A first-in-chain normal flow request was received after a request carrying Change Direction.

X'2005' — Data Traffic Reset

An FMD or DFC request was received before a SDT was received or accepted.

X'2005 0001' — Type Address Field Error

The type address field in the SNA address list subvector is not equal to 2.

X'2008' — No Begin Bracket

A request carrying Begin Bracket was received after a BIS request.

X'2009' — Session Control Protocol Violation (Encrypt/Decrypt feature)

An FMD request was received prior to a valid CRV on a Crypto session. SDT was already received and accepted.

X'200A' — Immediate Request Mode Error

A normal flow request was received before the response was sent to a chain that requested definite response.

X'200B' — Queued Response Indicator (QRI) Error

The QRI bit value was different for the middle or last-in-chain FMD request than for the first-in-chain FMD request.

X'200E' — Response Correlation Error

- A positive FMD or LUSTAT response was received and one of the following occurred:

  - The session was between brackets
  - There was not an outstanding request
  - The sequence number of the response was incorrect.

- An RTR response was received and one of the following occurred:

  - There was not an outstanding request
  - The sequence number of the response did not match the sequence number of the outstanding request.

- A SIGNAL response was received when a SIGNAL request was not outstanding.

X'200F' — Response Protocol Error

- A positive FMD response was received when one of the following occurred:

  - Before the LIC request was sent
  - After a negative response to the chain was already received
  - In response to a chain or to a request that specified exception response.

- A positive LUSTAT response was received in response to a request that specified exception response.

- A negative FMD response was received after a negative response to the chain was already received.

X'2010' – BIS Protocol Error

- A second BIS request was received on the same session.

- A BIS reply was received.

X'2011' – Pacing Error
An outbound pacing overrun occurred.

X'2012' – Invalid Sense Code Received

- A negative BIS response was received.

- A negative RTR response was received with a sense code other than X'08190000'.

- A negative FMD or negative LUSTAT response was received with a sense code other than X'08460000' or X'088B0000'. (X'088B0000' is valid only if the corresponding request carried Begin Bracket.)

Request Error X'10'

X'1001' – RU Data Error (With Index)
Data in the Request RU is not acceptable to the 3174; for example, a character code is not in the set supported, a formatted data field is not acceptable to presentation services, a value specified in the length field (LL) of a structured field is invalid, a required name in the request has been omitted, or a CONFIRM verb was issued when the synchronization level of the conversation was "none."

Bytes 2 and 3 following the sense code may contain a 15-bit binary count that indicates the location of the first byte in the RU chain detected to be causing the error. The count (origin 0) begins at the start of the first RU and continues until the error byte is detected. When the count is present, the high-order bit in byte 2 is set to 1.

Note: If the X'1001' error occurs during Local Format Storage processing, the *8xxx* qualifier in bytes 2 and 3 does not represent an accurate offset value and should be ignored.

If the data stream ends without containing sufficient data to process an SBA, SFE, RA, EUA, MF, or SA order, the value of B3B4 will be set to 8001.

A value of all 0's in bytes 2 and 3 indicates that no additional information is specified.

X'1001' – RU Data Error
Data is not acceptable to the receiving transaction program. For example, a logical record was truncated, a logical record had an invalid length field, of a CONFIRM verb was issued by the remote transaction program.

X'1002' – RU Length Error

- An RU was received that was greater than 4096 bytes in length (3174 Models 1L and 11L only).

- An RU was received that exceeded the maximum allowable length specified in the Bind.

- For LU Type 6.2 – An RU was received that was less than the minimum required length. For example, a DFC request with an RU length of 0, or a negative FMD response with an RU length < 4 bytes.

X'1003' – Function Not Supported

- Unsupported Session Control Request
- Unsupported Data Flow Control Request
- For LU Types 1, 2, and 3 – Signal Code is not X'00010000'
- For LU Type 3 – Any Read, RM, or RMA command.

X'1003 0001' – Function Not Supported

- RTM Request and host RTM are not customized.
- A Network Services header was not NMVT or REQMS.

X'1003 000D'
through
X'1003 0017' – General Data Stream Error

X'1005' – Parameter Error

- For LU Type 1 – An incorrect SCS parameter was received.
- For LU Type 6.2:
  - A SIGNAL request did not have an extension value of X'0001'.
  - An LUSTAT request did not have a status value of X'0006'.

X'1005 0001' – SNA Address List Incorrect
The Type Address field in the SNA Address List subvector is not equal to 0.

X'1005 0007' – General Data Stream Error

X'1007' – Category Not Supported

- A Network Control request or response was received.
- For LU Types 1 and 3 – An FMD request from the SSCP was directed to a printer.
- For LU Types 1, 2, and 3 – An unsupported FMD request was received.
- For LU Type 6.2 – A request was received from the SSCP.

X'1007 0001' – Invalid NS Header
An unsupported network service message was received.

X'1008' – Invalid FM Header (FMH)

- For LU Type 1 – An invalid FMH-1 was received.
- For LU Type 6.2:
  - An FMH with a type other than 5, 7, or 12 was received.
  - An invalid FMH-5 or FMH-7 was received.

X'1009' – Format Group Not Selected

- A Present Absolute Format or Present Relative Format structured field was received prior to a Select Group structured field that activates a particular Group Name.
- A Present Absolute Format or Present Relative Format structured field was processed, but the selected Group Name was either not found or was in error.

X'100B 0001'

through
X'1019 0003' — General Data Stream Error

Request Reject X'08'

X'0801' — Resource Not Available

- For LU Type 1 — The outbound pacing algorithm is overrun.

- For LU Type 2 — A printer is not allowed by the authorization matrix.

- For LU Types 1 and 3 — Bind reject because the printer is authorized for local mode only.

X'0802' — Intervention Required (on principal device).

- For LU Type 2 — The security keylock is turned off.

- For LU Types 1 and 3 — A printer condition such as end of form, paper jam, printer cover up, or hold time out occurred.

X'0805' — Session Limit Exceeded
A Bind was received for an SLU that was already bound.

X'0807' — Subsidiary Device Temporarily Not Available
For LU Type 2 — No printer is available to service a host-initiated local copy request, or an operator has pressed the DEV CNCL key.

X'0809' — Requested Function Cannot Be Performed in the Current State of the Receiver
CRV received when a CRV had already been received.

X'0809 004B' — Function Out of Sequence
The requested function was out of sequence. For example, an Initiate Session request was received before the previous session was terminated.

X'0809 004C' — Mandatory Major Vector Out of Sequence

X'0809 004D' — Invalid Multiple Occurrence of Subvector

X'080A' — Permission Rejected
Display or printer power is off. The SSCP will not be notified when the device is switched on.

X'080C' — Procedure Not Supported
An unsupported REQMS type request was received.

X'080C 0005' — Major Vector Not Supported
NMVT major vector was not X'8080' (RTM) or X'8090' (Request PSID).

X'080C 0006' — Mandatory Subvector Not Included
A mandatory subvector was not included in the NMVT (X'92' for RTM, X'81' or X'83' for PSID).

X'080C 000A' — Address List Subvector Incorrect
The number of LTs in the SNA address list subvector was not equal to one.

X'080C 000B'
through
X'080C 0011' — Function Not Supported
See "Appendix C" in the *3174 Central Site Customizing User's Guide* for more information.

X'080F' — End User Not Authorized

- An FMH-12 was received.

- Random Data and/or Enciphered Data User Data subfields were present in the BIND request.

- A BIND request specified that the Access Security Information field will not be accepted on incoming FMH-5s and that the Already Verified Indicator will be accepted on incoming FMH-5s.

X'0811' — Break

Sent on LU Type 1 when the operator presses the printer Hold Print key followed by Cancel key, if a chain has not completed printing. (Not sent when LU Type 1 data stream is IPDS.)

X'0812 0000' — Directory Full

See "Appendix C" in the *3174 Central Site Customizing User's Guide* for more information.

X'0813' — Bracket Bid Reject—(No RTR)

- Returned by LU Types 1 and 2 to a BID or Begin Bracket if the device has won contention and started a bracket.

- Returned by all LU types when a BID or Begin Bracket was received and INB state already exists. This may be a protocol error.

X'0814' — Bracket Bid Reject—(RTR to Follow).

- For LU Types 1 and 3 — The printer is busy doing local copy from a display. RTR will be returned when the printer becomes not busy with local copy.

- For LU Type 6.2 — Session is already in use. An RTR request will be returned when the session becomes available.

X'0815' — Function Already Active

A Bind request was received while the 3174 was waiting to receive an Unbind response.

X'0815 0003' — Insufficient Resource

- The queue of unprocessed RTM, PSID, REQMS, and CSCF requests has exceeded its limit.

- No SSCP-PU buffer available.

- No Presentation Space available.

X'081B' — Receiver in Transmit Mode

- The SLU is between brackets, but a data key has been pressed.

- An FMD message was received from the SSCP while the display was owned by the PLU-SLU session or is in test mode.

- An SSCP FMD message is rejected if local copy is taking place while the SSCP-SLU session owns the display.

X'081C' — Request Not Executable

The 3174 has a nonrecoverable error.

X'081D 0001' — Network/LUNAME Mismatch

See "Appendix C" in the *3174 Central Site Customizing User's Guide* for more information.

X'0821' — Invalid Session Parameters

Required cryptography verification was invalid.

X'0829' — Change Direction Required

A 3270 read-type command was received without a Change Direction or with an End Bracket.

X'082B' — Presentation Space Integrity Lost

- A temporary error has occurred; for example, parity check in device.

- An operator has cleared the display by switching to SSCP-SLU session or test mode and has returned to PLU-SLU session.

X'082D' – SLU Busy

- For LU Type 2 – A display is owned by SSCP-SLU session or is in test mode.

- For LU Type 2 – A display is busy doing an operator-initiated local copy.

X'082E' – Intervention Required at Subsidiary Device

For LU Type 2 – A printer being copied *to*, from a host-initiated print, has an intervention-required type error. Refer to X'0802'. A printer switched off or not attached to the controller is included in this category.

X'082F' – Request Not Executable Because of LU Subsidiary Device

For LU Type 2 – A printer being copied to has a nonrecoverable error.

X'0831' – LU Component Disconnected

This response is returned if the device attached to the 3174 cannot be contacted by a device poll. This is due to device power off, cable detached from the controller port, or a broken connecting cable.

X'0835' – Invalid Parameter (With Index)

A Bind request contained parameters that are invalid or not supported by the 3174. Bytes 2 and 3 contain a 2 byte binary count that indexes (zero origin) the first byte of the request found to have invalid contents.

X'0835 0005' – Invalid PRID Value

The NMVT request from the host contained an invalid PRID value of X'0000'.

X'0838 0000'
through
X'0838 0016'

See "Appendix C" in the *3174 Central Site Customizing User's Guide* for CSCM-related codes. See the *SNA Formats Reference Summary*, GA27-3136, for architecture-related codes.

X'0843' – Required Function Manager Synchronization Not Supplied

For LU Types 2 and 3 – Chains having the print bit on in the Write Control Character (WCC), must be definite response or exception response with CD.

X'0845' – Permission Rejected

Display or printer power is off. The SSCP will be notified when the device is switched on.

X'0846' – ERP Message Forthcoming

The received request was rejected. The reason will be specified in a forthcoming FMH-7.

X'084B' – Requested Resources Not Available – Transaction Program (TP) Not Available, Retry Allowed

- The requested TP is already in conversation. Retry user action.

- The requested TP has been temporarily disabled by the 3174 pending completion of a SNA Distribution Services (SNADS) transaction. Retry user action.

X'084C' — Permanent Insufficient Resource

- For LU Type 6.2 — 3174 hardware or microcode failure.

- For LU Types 1, 2, and 3 — The 3174 cannot act on the request because resources required to honor the request are permanently unavailable. The sender should not retry immediately because the situation is not transient. Bytes 2 and 3 following the sense code may contain a 15-bit binary count that indicates the location of the first byte in the chain detected to be causing the error. The count (origin 0) is begun at the start of the first RU and continues through concatenated RUs until the error byte is detected. When the count is present, the high-order bit in byte 2 is set to 1. A value of all 0's in bytes 2 and 3 indicates that no additional information is specified or that the resource was not explicitly defined in the request.

X'084C 0002'
through
X'085D 0005'
See "Appendix C" in the *3174 Central Site Customizing User's Guide* for CSCM-related codes. See the *SNA Formats Reference Summary*, GA27-3136, for architecture-related codes.

X'0863' — Referenced Local Character Set Identifier (LCID) Not Found
The character set referred to does not exist. Bytes 2 and 3 following the sense code will contain a 15-bit binary count that indexes (zero origin) the first byte of the RU chain identifying the character set. The high-order bit in byte 2 is set to 1.

X'0864' — Function Abort
A Transaction Program detected an error and has issued a DEALLOCATE_ABEND verb.

X'0868' — No Formats Loaded
The 3174 has received a Present Absolute Format or Present Relative Format structured field, but no formats have been loaded into controller storage.

X'0869' — Format Not Found
A Present Absolute Format or Present Relative Format structured field has been received requesting a format name that was not previously loaded into controller storage.

X'086C 0100' — Invalid Subvector
The first subvector was not a function-type subvector.

X'086C nn00' — Subvector nn Not Included
Subvector nn was specified as being present in this request but was not included.

X'086D nnmm' — Required Subfield Missing
Subfield mm was missing from subvector nn.

X'086F 0001' — Length Error
The length of the NMVT major vector was incorrect for the RU length.

X'086F 0002' — Length Error
The length of the NMVT request subvector was less than the minimum required for this subvector.

X'086F nn05' — Length Error
The length of NMVT subvector nn was incorrect or contained an invalid range.

X'086F nn06' — Subfield Length Error
The length of subfield nn was invalid.

X'0870 9404' — Boundary Not Included
Change of boundaries was specified but the boundaries were not included in the request.

X'0870 9408' — New Definition Invalid
The new definition was outside the valid range (1 − 4).

X'0870 9409' — Time Measurement Not Zero (100 ms)

X'0870 9410' – Number of Boundaries Invalid

The number of boundaries specified was not within the valid range (1 – 4).

X'0870 94nn' – Boundaries Out of Sequence

nn is the displacement of the boundary that was not in ascending order.

X'0870 nnxx' – Invalid Panel ID

Subvector nn contained an invalid Panel ID. xx represents the one-byte binary count that indexes the first byte in which the invalid value falls. Indexing is zero origin from the beginning of the subvector.

X'0871' – Read State Error

X'0872 0001' – Parameter Not Set

See "Appendix C" in the *3174 Central Site Customizing User's Guide* for more information.

X'0879 0001' – Disk Error

See "Appendix C" in the *3174 Central Site Customizing User's Guide* for more information.

X'0879 0002' – Disk Error

See "Appendix C" in the *3174 Central Site Customizing User's Guide* for more information.

X'087A' – Format Processing Error

An error occurred during the processing of a Present Absolute Format or Present Relative Format structured field.

X'0889' – Transaction Program Processing Error

A Transaction Program detected an error and has issued a SEND_ERROR verb.

X'089A 0001'

through

X'08A4 0002'

See "Appendix C" in the *3174 Central Site Customizing User's Guide* for CSCM-related codes. See the *SNA Formats Reference Summary*, GA27-3136, for architecture-related codes.

DFT Device Program Error Codes

The following list is a summary of error status codes. When these errors occur, you should do the following:

1. Press the Reset key and try again.

2. If the problem persists, follow local procedures for reporting problems. Because this list is only a summary, consult the specific device documentation as a final authority.

Table 2-26 (Page 1 of 4). Program Error Codes		
Error Code	**Probable Cause**	**SNA Sense Code or Non SNA OP-Check**
701	Category not supported	1007
702	RU > 1,536 bytes received (SNA buffer overrun condition)	1007
703	Function not supported: • Unsupported Session Control request • Unsupported Data Flow Control Request • Invalid Signal request code (not 0001XXXX).	1003 OP-Check
704	Format indicator (FI) bit not allowed	400F
705	Sequence number error	2001
706	Chaining error	2002
707	Bracket state error	2003
708	Data traffic reset state	2005
709	HDX error	2004
711	Session limit exceeded	0805
712	Bracket bid reject	0813
713	Session already bound	0815
714	No LU-LU session	8005
715	LU not active	8009
716	Not enough bytes in the BIND RU	0821
717	Invalid support level (bytes 1-3)	0821
718	Invalid PLU protocol (byte 4)	0821
719	Invalid SLU protocol (byte 5)	0821
720	Invalid common protocol (bytes 6-7)	0821
721	Less than 64-byte RU length specified (byte 10)	0821
722	Invalid combination of outbound pacing count and maximum outbound RU size	0821
723	Invalid LU type (byte 14)	0821
724	Invalid screen size (bytes 20-24)	0821
725	Cryptography not supported (byte 26)	0821
726	Negative SNA response from the host	
727	SNA Exception Request received	

Table	2-26 (Page 2 of 4). Program Error Codes	
Error Code	**Probable Cause**	**SNA Sense Code or Non SNA OP-Check**
728	An RM, RMA, or RB command or a Read Partition SF type received with EB and/or CD	0829
729	Read Partition SF received in retry state	0871 OP-Check
730	A read buffer command was received in normal state and partition 0 does not exist.	1005
750	Invalid command received	1003 CMD-REJECT
751	SFE, MF, or SA order with invalid character set value in the range X'01' - X'FE'	0863 OP-Check
752	• Invalid address received following an SBA, RA, or EUA order. • MF order addressed to a notified attribute location.	1005 OP-Check
753	• Data follows an RM, RMA RB, or EAU command. • GE or RA order received with invalid character. • SFE, MF, or SA order with invalid attribute value for highlight or color or a character set value of X'FF'.	1003 OP-Check
754	Data Stream ended before all required bytes for an SBA, RA, EUA, SF, SFE, MF, SA, or GE order were received.	1005 OP-Check
755	Invalid order received (EBCDIC value less than X'40' not recognized)	1003 OP-Check
756	• Invalid, structured field type. • Structured field type not supported for current configuration.	1003 OP-Check
757	• Load PS SF with invalid PS alias • Load PS SF load type not supported.	1003 OP-Check
758	Set reply mode SF received with invalid mode	1003 OP-Check
759	• Read Partition SF not last SF • SF type incomplete • SF length invalid. • Set Reply Mode SF with field/ext field mode and data following SF • Length 0000 but not last SF • Load PS SF length error.	1005 OP-Check
760	• Erase/Reset SF reserved fields not zero • Set Reply Mode SF attribute type reserved.	1003 OP-Check
761	• Structured field type PID invalid • Query PID is not X'FF'.	1005 OP-Check
762	Create Partition structured field: parameter error	1005 OP-Check
763	• Create partition SF caused a viewport overlap. • Create partition SF was rejected due to insufficient resources. • Modify partition SF caused a viewport overlap.	1005 OP-Check
764	• Load PS SF addressed PS invalid • Load PS SF extension invalid color bits.	084C OP-Check
765	• Load PS SF with invalid load start point • Load PS SF with invalid code point of X'FF' • Load PS SF contains too many symbol definitions.	1005 OP-Check
766	• Load PS SF with incomplete PS cell data • Load PS SF with invalid end flag for type 2 PS • Load PS SF with invalid type 2 header (end flag encountered and not end of data).	1005 OP-Check

| Table 2-26 (Page 3 of 4). Program Error Codes |

Error Code	Probable Cause	SNA Sense Code or Non SNA OP-Check
767	• Create Partition structured field with invalid address mode. • Create Partition structured field with bits 0-3 of byte 4 not zero.	1003 OP-Check

768	• Load PS SF extension
	    Invalid x units
	    Invalid y units
	    Invalid extended
	    Parameter length or extended parameter length if missing
	• Ending code point less than start point
	• Cell dimensions: incompatible with existing definitions.
		1005 OP-Check

769	• Load PS SF extension invalid byte 8 (Reserved bits 3 to 7 not zero) • Byte 11 not zero • Byte 12 bits 5 to 7 not zero.	1003 OP-Check
770	Outbound 3270DS SF with start print in WCC, but not last structured field	1001 OP-Check
771	Invalid command in structured field	1003 OP-Check
772	• Resource requested temporarily unavailable • Set attribute; Modify Field; Start Field Extended.	084B OP-Check
773	Invalid structured Field following Destination/Origin Structured Field	1005 OP-Check
780	• Miscellaneous Graphics Program Check • OEM Data, Object Data, Picture, Control SF, or spanning SF inconsistency.	1003/1005 OP-Check
781	• Graphic Drawing Processor Check • Drawing Order error.	1003/1005 OP-Check
782	• Graphic Procedure Processor Check • Procedural Instruction error.	1003/1005 OP-Check
790	OCSF/OPSF parameter error: • Spanning error • Interpretation mode not immediate • Reserved bits not zero • Object type not image.	OP-Check 1005 1003 1005 1005
791	Procedure syntax error: • Code field has unsupported code. • Length field is invalid. • Not enough bytes in parameter field • Parameter field has invalid value. • IOCB (Control) data is invalid. • Invalid sequence of instruction • Procedure is not closed.	OP-Check 1003 1005 1005 1005 1005 1005 1005
792	Scanner operation error: • Invalid transmission of I/O instruction • Invalid protocol of scanner operation • OSCF/OPSF was received while in I/O instruction pending. • OSCF (that carries instruction except Transfer or Halt I/O) was received while in scan pending. • OPSF was received while in scan pending. • I/O instruction is received without CD or EB.	OP-Check 1005 0801 0801 0801 0801 0829

Table 2-26 (Page 4 of 4). Program Error Codes		
Error Code	Probable Cause	SNA Sense Code or Non SNA OP-Check
793	Segment syntax error:	OP-Check
	• Code field has unsupported code.	1003
	• Length field is invalid.	1005
	• Not enough bytes in parameter field	1005
	• Parameter field has invalid value.	1005
	• Invalid sequence of order or IDP	1005
	• Segment is not closed.	1005
	• More than four rectangles are defined.	1005
794	Error detected in image data:	OP-Check
	• MMR data includes invalid code.	1005
	• Uncompressed data is inconsistent with IDP.	1005
795	WCC with Error	OP-Check
799	Image parameter error: • Unsupported resolution • Unsupported threshold • Unsupported contrast control • Unsupported parameter code • Unsupported compression algorithm • Invalid width • Invalid scan area. Program syntax error: • Command sequence error • Invalid length error • Invalid command.	N/A

List of Abbreviations

A

A. (1) Ampere. (2) Angstrom.

AC. Alternating current.

ACF/VTAM. Advanced Communications Function for the Virtual Telecommunications Access Method.

ACK. Acknowledge.

ACTLU. Activate Logical Unit.

ACTPU. Activate Physical Unit.

AEA. Asynchronous Emulation Adapter.

AID. Attention identifier.

Alt. Alternate.

APL. A Programming Language.

ASCII. American National Standard Code for Information Interchange.

B

B. Busy.

BB. Begin bracket.

BIS. Bracket initiation stopped

BIU. Basic information unit.

BSC. Binary synchronous communication.

C

C. Celsius.

CC. (1) Control check. (2) Chain Command (flag).

CCA. Concurrent Communication Adapter.

CCITT. International Telegraph and Telephone Consultative Committee.

CD. Change direction.

CE. (1) IBM Customer Engineer. (2) Correctable error. (3) Channel-end.

CECP. Country extended code page.

CID. Connection identifier.

cncl. Cancel.

coax. Coaxial (cable).

comm. Communication.

cps. Characters per second.

CPS. Call Progress Signal.

CRC. Cyclic redundancy check.

CRV. Cryptography Verification.

CSCF. Central Site Control Facility.

CSCM. Central Site Change Management.

CSU. Customer setup.

CTL. Control.

CTS. Clear to Send.

CUG. Closed user group.

CUT. Control unit terminal.

D

D. Display.

DAF'. Destination address field prime (local address of SLU).

DCE. Data circuit-terminating equipment.

dec. Decimal.

dev. Device.

Dev Cncl. Device Cancel.

DFC. Data flow control.

DFT. (1) Distributed function terminal. (2) Diagnostic function test.

DISC. Disconnect.

DLC. (1) Data link control. (2) Data length check.

DLE. Data link escape.

DM. (1) Disconnect mode. (2) Distribution Manager.

DOS. Disk Operating System.

DPPX. Distributed Processing Programming Executive.

DR. Definite response.

DSC. Data stream compatibility.

DSE. Data stream emulation.

DSL. (1) Downstream load. (2) Data set label.

DSPU. Downstream physical unit.

DSR. Data set ready.

DTE. Data terminal equipment.

DTR. Data terminal ready.

E

EAB. Extended Attribute Buffer.

EAU. Erase All Unprotected.

EB. End bracket.

EBCDIC. Extended Binary-Coded Decimal Interchange Code.

EC. Engineering change.

ECSA. Extended Character Set Adapter.

EIA. Electronic Industries Association.

ENQ. Enquiry.

EOF. End of field.

EOT. End-of-transmission character.

ERI. Exception response indicator.

ERP. Error recovery procedures.

ESC. Escape.

EUA. Erase Unprotected to Address.

F

F. Fahrenheit.

FA. Field attribute.

FCS. Frame check sequence.

FF. Form Feed.

FID. Format identifier.

FM. (1) Frequency modulation. (2) Function management. (3) Field mark.

FMD. (1) Function management data. (2) Field macro diagram.

FMH. Function management header.

FRMR. Frame reject response.

FRU. Field-replaceable unit.

FTA. Fiber Optic Terminal Adapter.

G

GE. Graphic escape.

GFI. General format identifier.

H

H. Height.

hex. Hexadecimal.

HG. Hardware group.

I

I. Information (format).

ID. (1) Identification. (2) Identifier.

IEEE. Institute of Electrical and Electronic Engineers.

IML. Initial microcode load.

in. Inch (or inches).

I/O. Input/output.

IPDS. Intelligent Printer Data Stream.

ISO. International Organization for Standardization.

K

k. 1000.

K. 1024.

Kb. Kilobit.

KB. Kilobyte.

KDU. Keyboard Definition Utility

L

L. Left.

LC. Logical channel.

LCID. Logical channel identifier.

LFS. Local Format Storage.

LFU. Limited Function Utility.

LIB. Library.

LIC. Last in chain.

LLC. Logical link control.

LSF. Load Structured Field.

LT. Logical terminal.

LTA. Logical terminal assignment.

LU. Logical unit.

LUSTAT. Logical unit status.

M

m. Meter (or meters).

MAC. (1) Medium access control. (2) Message authentication code.

MAP. Maintenance analysis procedure.

max. Maximum.

MF. Modify field.

min. Minimum, minute.

MLT. Multiple Logical Terminals.

mm. Millimeter (or millimeters).

MMIO. Memory mapped input/output.

modem. Modulator-demodulator.

N

NAK. Negative acknowledge.

NAUN. Nearest active upstream neighbor.

NCP. Network Control Program.

NI. Not initialized.

NMVT. Network Management Vector Transport.

No. Number.

NS. Nonsequenced (format).

NUM. Numeric.

O

OAF'. Origin address field prime.

OEM. Original equipment manufacturer.

OIA. Operator information area.

P

P. (1) Printer. (2) Protected.

PA. (1) Program access. (2) Program attention.

PAM. Printer authorization matrix.

PC. Personal computer.

pF. Picofarad.

PF. Program function.

PID. Product-set ID.

PIO. Programmed input/output.

PIU. Path information unit.

PLU. Primary logical unit.

PRID. Procedure-related identifier.

PS. Programmed symbols.

PSH. Physical services header.

PSID. Product set identification.

PT. Program Tab.

PU. Physical unit.

PVC. Permanent virtual circuit.

Q

QA. Qualifier.

QFRMR. Qualified frame reject response.

QLLC. Qualified logical link control.

QRI. Queued response indicator.

QSM. Qualified set mode.

R

R. (1) Rear. (2) row. (3) riser.

RA. Repeat to Address.

RB. Read Buffer.

RDL. Remote Data Link.

rel. Relative.

REM. Ring error monitor.

REQMS. Request Maintenance Statistics.

RFS. Ready-For-Sending.

RH. Request/response header.

RI. (1) Ring In. (2) Ring Indicate.

RM. Read Modified.

RNR. Request not ready, receive not ready.

ROS. Read-only storage.

RPOA. Recognized Private Operating Agency.

RPQ. Request for price quotation.

RR. (1) Receive ready. (2) Request ready.

RTI. Response type indicator.

RTM. Response Time Monitor.

RTR. Ready to receive.

RTS. Request to send.

RU. Request/response unit.

S

S. Sequenced (format), side.

SA. Selection addressing.

SABM. Set Asynchronous Balance Mode (command).

SABME. Set Asynchronous Balance Mode Extended (command).

SAP. Service access point.

SBA. Set Buffer Address.

SC. Status code.

SCS. SNA character string.

SDLC. Synchronous Data Link Control.

SDT. Start data traffic.

SF. (1) Special feature. (2) Specify feature. (3) Start field.

SFE. Start Field Extended.

SLU. Secondary logical unit.

SNA. Systems Network Architecture.

SNRM. Set Normal Response Mode.

SSCP. System services control point.

STX. Start of text.

SVC. Switched virtual circuit.

T

TA. Terminal adapter.

TH. Transmission header.

TMA. Terminal Multiplexer Adapter.

TP. Teleprocessing.

TTD. Temporary text delay.

U

U. Unprotected.

UA. Unnumbered acknowledgment.

UDT. User defined terminal tables.

UDX. User defined translate tables.

U.S. United States.

V

V. Volt.

VPD. Vital Product Data.

VTAM. Virtual Telecommunications Access Method.

W

WACK. Wait before transmit positive acknowledgement.

WCC. Write control character.

WSF. Write Structured Field.

X

X.25. Packet-switched networks.

XID. Exchange station identification.

Glossary

A

access method. A technique for moving data between main storage and input/output devices.

access priority. The maximum priority that a token can have for the adapter to use it for transmission.

access unit. A unit that allows multiple attaching devices access to a token-ring network at a central point such as a wiring closet or in an open work area.

acknowledgment. The transmission, by a receiver, of acknowledge characters as an affirmative response to a sender.

active. (1) Able to communicate on the network. A token-ring network adapter is active if it is able to transmit and receive on the network. (2) Operational. (3) Pertaining to a node or device that is connected or is available for connection to another node or device. (4) Currently transmitting or receiving.

active logical terminal (LT). In MLT, the currently displayed logical terminal. Synonymous with *foreground logical terminal.* Contrast with *background logical terminal.*

adapter. (1) A general term for a device that provides some transitional function between two or more devices. (2) In a local area network, within a communicating device, a circuit card with its associated software that enables the device to communicate over the network.

address. (1) A value that identifies a register, a particular part of storage, a data source, or a data sink. The value is represented by one or more characters. (2) To refer to a device or an item of data by its address. (3) In word processing, the location, identified by an address code, of a specific section of the recording medium or storage. (4) The location in the storage of a computer where data is stored. (5) In data communication, the unique code assigned to each device or workstation connected to a network.

AEA. See *Asynchronous Emulation Adapter.*

AEA port. A communication connector on the Asynchronous Emulation Adapter (AEA).

AEA port set. (1) One or more 3174 ports that support individual AEA station sets; they must have the same port (connection) type and modem type, but different station types. (2) One or more 3174 station sets that have different station types, but the same port type, modem type, and number of default destinations.

AEA station. A 3270 or ASCII display station, printer, or host that communicates through the Asynchronous Emulation Adapter.

AEA station set. (1) One or more AEA stations that have the same attributes, for example, line speed and parity. (2) One or more AEA stations that share the same characteristics of station type, port type, modem type, and default destination.

alert. (1) For IBM LAN management products, a notification indicating a possible security violation, a persistent error condition, or an interruption or potential interruption in the flow of data around the network. See also *network management vector transport.* (2) In SNA, a record sent to a system problem management focal point to communicate the existence of an alert condition. (3) In the NetView program, a high-priority event that warrants immediate attention. This data base record is generated for certain event types that are defined by user-constructed filters.

alternate 1 initial microcode load (Alt 1 IML). The initiating procedure for running specific adapter tests, starting customizing, or doing a normal IML.

alternate 2 initial microcode load (Alt 2 IML). The initiating procedure for running a general 3174 controller test.

American National Standard Code for Information Interchange (ASCII). The standard code, using a coded character set consisting of 7-bit coded characters (8 bits including parity check), used for information interchange among data processing systems, data communication systems, and associated equipment. The ASCII set consists of control characters and graphics characters.

application. (1) The use to which an information processing system is put, for example, a payroll application, an airline reservation application, or a network application. (2) A collection of software components used to perform specific types of work on a computer.

application program. (1) A program written for or by a user that applies to the user's work. Some application programs receive support and services from a special kind of application program called a network application program. (2) A program used to connect and communicate with stations in a network, enabling users to perform application-oriented activities.

ASCII emulation. The ability of a 3270 display station or printer to communicate with an ASCII host using the

DEC VT100, DEC VT220, Data General D210, or IBM 3101 data stream.

asynchronous. (1) Pertaining to two or more processes that do not depend upon the occurrence of a specific event such as a common timing signal. (2) In Fiber Distributed Data Interface (FDDI) rings, a type of data traffic that does not need bounded access delay to the medium and guaranteed throughput.

Asynchronous Emulation Adapter (AEA). In the 3174 Establishment Controller, an adapter that enables an ASCII terminal to communicate with a 3270 host using the 3270 data stream, an ASCII terminal to communicate with an ASCII host through the 3174, and a 3270 terminal to communicate with an ASCII host using data streams, such as the DEC VT100, DEC VT220, Data General D210, or IBM 3101 data streams.

attach. To make a device part of a network logically.

attention (ATTN). An occurrence external to an operation that could cause an interruption of the operation.

attention identifier (AID). (1) A code in the inbound 3270 data stream that identifies the source or type of data that follows. (2) A character in a data stream indicating that the user has pressed a key, such as ENTER, that requests an action by the system.

attribute. (1) A characteristic. (2) A terminal display language or transformation definition language (TDL) keyword that specifies a particular quality for the TDL object with which it is associated.

attribute select keyboard. A keyboard that enables the operator, when permitted by the program, to change the character attributes of the keyed-in character.

attribute type. In the 3270 data stream, a code that identifies the properties from which an associated set of attribute values can be selected. See also *extended color*.

attribute value. In the 3270 data stream, a code immediately following the attribute type that specifies a particular property from the set defined by the attribute type.

autobaud. In the 3174 AEA feature, the process of determining the line speed and parity settings of a connecting display station from a specific sequence of characters (CR . CR) entered from the keyboard. ASCII hosts may also support automatic speed and parity detection, but the character sequence they require may differ.

auto-removal. The removal of a device from data-passing activity without human intervention. This action is accomplished by the adapter in the device,

and can be initiated by a network management program.

B

background logical terminal (LT). In MLT, any logical terminal that is not currently displayed. Contrast with *active logical terminal (LT)*.

backup diskette. A diskette that contains information copied from another diskette. It is used in case the original information is altered or destroyed.

beacon. (1) A frame sent by an adapter on a ring network indicating a serious ring problem, such as a broken cable. It contains the addresses of the beaconing station and its nearest active upstream neighbor (NAUN). (2) To send beacon frames continuously. An adapter is *beaconing* if it is sending such a frame.

beaconing. An error-indicating function of token-ring adapters that assists in locating a problem causing a hard error on a token-ring network.

binary synchronous communication (BSC). A form of telecommunication line control that uses a standard set of transmission control characters and control character sequences, for binary synchronous transmission of binary-coded data between stations. Contrast with *synchronous data link control (SDLC)*.

bootstrap. (1) A sequence of instructions whose execution causes additional instructions to be loaded and executed until the complete computer program is in storage. (2) A technique or device designed to bring itself into a desired state by means of its own action, for example, a machine routine whose first few instructions are sufficient to bring the rest of itself into the computer from an input device.

bracket. In SNA, one or more chains of request units (RUs) and their responses, which are exchanged between two LU-LU half-sessions and represent a transaction between them. A bracket must be completed before another bracket can be started. Examples of brackets are data base inquiries/replies, update transactions, and remote job entry output sequences to workstations.

bridge. (1) An attaching device that connects two LAN segments to allow the transfer of information from one LAN segment to the other. A bridge may connect the LAN segments directly by network adapters and software in a single device, or may connect network adapters in two separate devices through software and use of a telecommunications link between the two adapters. (2) A functional unit that connects two LANs that use the same logical link control (LLC) procedures but may use the same or different medium access

control (MAC) procedures. Contrast with *gateway* and *router*.

buffer. (1) A portion of storage used to hold input or output data temporarily. (2) A routine or storage used to compensate for a difference in data rate or time of occurrence of events, when transferring data from one device to another.

buffer address. The address of a location in the buffer.

burst. (1) In data communication, a sequence of signals counted as one unit in accordance with some specific criterion or measure. (2) To separate continuous-form paper into discrete sheets.

bus. (1) In a processor, a physical facility on which data is transferred to all destinations, but from which only addressed destinations may read in accordance with appropriate conventions. (2) A network configuration in which nodes are interconnected through a bidirectional transmission medium. (3) One or more conductors used for transmitting signals or power.

bypass. To eliminate an attaching device or an access unit from a ring network by allowing the data to flow in a path around it.

byte. (1) A string that consists of a number of bits, treated as a unit, and representing a character. (2) A binary character operated upon as a unit and usually shorter than a computer word. (3) A string that consists of a particular number of bits, usually 8, that is treated as a unit, and that represents a character. (4) A group of 8 adjacent binary digits that represent one extended binary-coded decimal interchange code (EBCDIC) character.

C

canonical name. In CSCM, a name used to identify 3174 data objects. This name is created according to Change Management Architecture rules.

card. In the 3174 Establishment Controller, a unit of electronic circuitry contained in a plastic casing (or cassette) and providing the controller with a specialized function, for example, a Terminal Adapter or an Encrypt/Decrypt Adapter.

carrier. A wave or pulse train that may be varied by a signal bearing information to be transmitted over a communication system.

Central site change management (CSCM). A function of the 3174 microcode that tracks the microcode for each controller in a network and, in conjunction with NetView DM, electronically distributes and retrieves microcode changes for each controller.

central site customizing. The process of tailoring the 3174 Licensed Internal Code for each controller in a network, at the central site.

central site library. One or more Library disks that contain customizing data and label information for the controllers in a network.

change-screen key. In MLT, a key or sequence of keys on a display station keyboard used to change sessions, one at a time, with up to five different hosts.

channel. (1) A functional unit, controlled by a host computer, that handles the transfer of data between processor storage and local peripheral equipment. (2) A path along which signals can be sent. (3) The portion of a storage medium that is accessible to a given reading or writing station. (4) In broadband transmission, a designation of a frequency band 6 MHz wide.

channel-attached. Pertaining to attachment of devices directly by data channels (I/O channels) to a computer. Synonym for *local*. Contrast with *telecommunication-attached*.

channel command. An instruction that directs a data channel, control unit, or device to perform an operation or set of operations.

character set. (1) A defined collection of characters. (2) A group of characters used for a specific reason, for example, the set of characters a printer can print. (3) The collection of graphic characters required to support a specific language.

Clear to Send (CTS) flow control. A procedure for a communicating device to signal its readiness to receive data by raising the CTS lead on an EIA 232D interface.

coaxial cable. A cable consisting of one conductor, usually a small copper tube or wire, within and insulated from another conductor of larger diameter, usually copper tubing or copper braid.

code page. An assignment of graphic characters and control function meanings to all code points.

code point. A 1-byte code representing one of 256 potential characters.

collision. (1) An unwanted condition that results from concurrent transmissions on a channel. (2) When a frame from a transmitting adapter encounters any other signal in its path (frame, noise, or another type of signal), the adapter stops transmitting and a collision is registered.

command. (1) A request for performance of an operation or execution of a program. (2) A character string from a source external to a system that represents a request for system action.

command retry. A channel and control unit procedure that causes a command to be retried without requiring an I/O interruption.

communication adapter. (1) A circuit card with associated software that enables a processor, controller, or other device to be connected to a network. (2) See *EIA communication adapter*, *V.35 communication adapter*, and *X.21 communication adapter*.

communication link. Physical (hardware) link.

completion code. The final return code provided by a program or adapter, as a result of an issued command, to indicate that an operation has ended.

component. (1) Hardware or software that is part of a functional unit. (2) A functional part of an operating system, for example, the scheduler or supervisor. (3) In systems with VSAM, a named, cataloged collection of stored records, such as the data component or index component of a key-sequenced file or alternate index. (4) In System/38* graphics, the representation of a data group on a chart. (5) See *terminal component* and *solid state component*.

Concurrent Communication Adapter (CCA). In the 3174 Establishment Controller, a communication adapter that, along with the necessary microcode, provides terminals attached to the 3174 the ability to concurrently access an additional 3270 host.

configuration. The arrangement of a computer system or network as defined by the nature, number, and chief characteristics of its functional units. More specifically, the term *configuration* may refer to a hardware configuration or a software configuration. See also *system configuration*.

Connection Menu. A menu on the screen of a display station attached to the 3174 Establishment Controller, from which a user can select an available host.

connector. A means of establishing electrical flow.

control block. (1) A storage area used by a computer program to hold control information. (2) In the IBM Token-Ring Network, a specifically formatted block of information provided from the application program to the Adapter Support Interface to request an operation.

control character. (1) A character whose occurrence in a particular context specifies a control function. (2) A character used to specify that a control unit is to perform a particular operation.

Control (CTL) disk. A customized diskette or fixed disk containing the microcode that describes a particular controller's attached terminals, and its method of attachment to the host.

Control (CTL) diskette. A customized diskette containing the microcode that describes a particular controller's attached terminals, and its method of attachment to the host.

controller. A unit that controls input/output operations for one or more devices.

control unit. A general term for any device that provides common functions for other devices or mechanisms. Synonym for controller.

control unit terminal (CUT). A terminal that relies on the 3174 to interpret the data stream. Examples are the 3178, 3179, 3278 Model 2, and 3279 Model S2A.

control unit terminal (CUT) mode. A host-interactive mode that enables an IBM 3270 Personal Computer customized in this mode to run only one session emulating a 3178, 3179, 3278 Model 2, or 3279 Model S2A.

conversion. (1) In programming languages, the transformation between values that represent the same data item but belong to different data types. Information may be lost as a result of conversion because accuracy of data representation varies among different data types. (2) The process of changing from one method of data processing to another or from one data processing system to another. (3) The process of changing from one form of representation to another, for example, to change from decimal representation to binary representation.

copy operation. An operation that copies the contents of the buffer from one terminal to another terminal attached to the same control unit.

country extended code page (CECP). A function of the 3174 microcode that provides for a code page containing additional code points beyond those available with Table 5A code pages. CECP is supported by a universal character set, Character Set 697, which contains 190 characters.

create. In 3174 central site customizing, to create a library member for a network controller, and store the customizing data for that library member on a Library diskette.

cursor. (1) A movable, visible mark used to indicate the position at which the next operation will occur on a display surface. (2) A unique symbol that identifies a character position in a screen display, usually the character position at which the next character to be entered from the keyboard will be displayed.

customization. Procedures that tailor the controller microcode to fit the various types of display stations and printers and the method of host attachment that a particular control unit will handle.

cyclic redundancy check. A system of error checking performed at both the sending station and the receiving station after a block check character sequence has been accumulated.

D

data. (1) A representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation, or processing by human or automatic means. (2) Any representations such as characters or analog quantities to which meaning is or might be assigned.

data chaining. In synchronous data link control (SDLC) data transmission, the chaining together of scattered segments of storage data to assemble a complete SDLC frame.

data circuit. (1) A pair of associated transmit and receive channels that provide a means of two-way data communication. (2) In SNA, see also *link connection.*

Notes:

1. Between data-switching exchanges, the data circuit may include data circuit-terminating equipment (DCE), depending on the type of interface used at the data-switching exchange.

2. Between a data station and a data-switching exchange or data concentrator, the data circuit includes the data-terminating equipment at the data station end. It may also include equipment similar to a DCE at the data-switching exchange or data-concentrator location.

data circuit-terminating equipment (DCE). In a data station, the equipment that provides the signal conversion and coding between the data terminal equipment (DTE) and the line.

Data Entry keyboard. A keyboard layout designed for data entry applications.

data frame. See *frame.*

data link control (DLC) layer. (1) In SNA or Open Systems Interconnection (OSI), the layer that schedules data transfer over a link between two nodes and perform error control for the link. Examples of DLC are synchronous data link control (SDLC) for serial-by-bit connection and DLC for the System/370* channel. (2) See *Systems Network Architecture (SNA).* (3) See also *logical link control (LLC) sublayer, medium access control (MAC).*

Note: The DLC layer is usually independent of the physical transport mechanism and ensures the integrity of data that reach the higher layers.

data link control (DLC) protocol. The LAN protocol used to attach a device to and remove a device from the network. The DLC protocol is also used to send information onto and receive information from the network, exchange data, and control information with network higher level protocols and interfaces.

data object. In 3174, a data object is either 3174 microcode or 3174 customization data. In NetView DM, data objects are called resources.

data packet. (1) At the interface between data terminal equipment (DTE) and data circuit-terminating equipment (DCE), a data unit used to transmit user data over a virtual circuit. (2) In an Open Systems Interconnection (OSI) network, a data unit passed between transport layer entities.

data stream. (1) All data transmitted through a data channel in a single read or write operation. (2) A continuous stream of data elements being transmitted, or intended for transmission, in character or binary-digit form, using a defined format. See also *data stream format.*

data streaming. A protocol for transmitting data on a channel. In this protocol, the sender maintains the channel in a transmit state for an extended length of time.

data stream format. In SNA, the format of the data elements (end-user data) in the request unit (RU). See also *3270 data stream* and *SNA character string (SCS).*

data terminal equipment (DTE). (1) That part of a data station that serves as a data source, data receiver, or both. (2) Equipment that sends or receives data, or both.

Data Terminal Ready (DTR) flow control. A procedure for a communicating device to signal its readiness to receive data by raising the DTR lead on an EIA 232D interface.

data transfer. (1) The result of the transmission of data signals from any data source to a data receiver. (2) The movement, or copying, of data from one location and the storage of the data at another location.

decrypt. To convert encrypted data into clear data. Contrast with *encrypt.*

default. Pertaining to an attribute, value, or option that is assumed when none is explicitly specified.

default destination. A destination for display stations and printers that is defined in AEA customization.

delimiter. (1) A character used to indicate the beginning or end of a character string. (2) A bit pattern that defines the beginning or end of a frame or token on a LAN.

destination. Any point or location, such as a node, station, or a particular terminal, to which information is to be sent.

destination address. A code that identifies the location to which information is to be sent. Contrast with *origin address*.

device. (1) A mechanical, electrical, or electronic contrivance with a specific purpose. (2) An input/output unit such as a terminal, display, or printer.

diagnostics. Modules or tests used by computer users and service personnel to diagnose hardware problems.

disk. A direct-access data storage medium, which may be either flexible (diskette) or hard (fixed disk).

diskette. A flexible magnetic disk enclosed in a protective container.

diskette drive. The mechanism used to seek, read, and write data on diskettes.

disk image. An electronic representation of a disk or diskette containing files and programs. In some applications, the image may be loaded into computer memory and is used by the computer as though it were a physical disk or diskette.

display field. (1) An area in the display buffer that contains a set of characters that can be manipulated or operated upon as a unit. (2) A group of consecutive characters (in the buffer) that starts with an attribute character (defining the characteristics of the field) and contains one or more alphanumeric characters. The field continues to, but does not include, the next attribute character.

distributed function terminal (DFT). A programmable terminal that can perform operations previously performed by the control unit. These terminals can interpret the 3270 data stream themselves. Examples are the IBM 3270 Personal Computer and the 3290 Information Panel.

distributed function terminal (DFT) mode. A host-interactive mode that enables an IBM 3270 Information Display System customized in this mode to run as many as four host sessions. The sessions can emulate a 3178, 3179, 3278 Model 2, or 3279 Model S2A.

distribution panel. A wiring board that provides a patch panel function and mounts in a rack.

downstream. (1) In the direction of data flow or toward the destination of transmission. (2) From the processor toward an attached unit or end user.
(3) Contrast with *upstream*.

downstream load (DSL). The capability of a distributed function terminal to receive its control program from the controller to which it is attached. A disk containing the terminal's control program is loaded into the control unit.

downstream physical unit (DSPU). A controller or a workstation downstream from a gateway that is attached to a host.

drop. A cable that leads from a faceplate to the distribution panel in a wiring closet. When the IBM Cabling System is used with the IBM Token-Ring Network, a drop may form part of a lobe. See also *lobe*.

duplex. Pertaining to communication in which data can be sent and received at the same time. Synonymous with *full duplex*.

E

Early Token Release (ETR). In token-ring and Fiber Distributed Data Interface (FDDI) networks, a function that allows a transmitting adapter to release a new token as soon as it has completed frame transmission, whether or not the frame header has returned to that adapter.

EBCDIC. Extended binary-coded decimal interchange code. A coded character set consisting of 8-bit coded characters.

EIA communication adapter. A communication adapter conforming to EIA standards that can combine and send information on two lines at speeds up to 19.2 kbps.

EIA 232D. An electrical interface defined by the Electronics Industries Association for establishing connections and controlling data flow between data terminal equipment and data communication equipment. The interface has been adapted to allow communication between DTEs.

emulation. (1) The imitation of all or part of one system by another, primarily by hardware, so that the imitating system accepts the same data, executes the same programs, and achieves the same results as the imitated computer system. (2) The use of programming techniques and special machine features to permit a computing system to execute programs written for another system. (3) Imitation; for example, imitation of a computer or device. (4) See *terminal emulation*. (5) Contrast with *simulation*.

enabled. (1) On a LAN, pertaining to an adapter or device that is active, operational, and able to receive frames from the network. (2) Pertaining to a state of a processing unit that allows the occurrence of certain types of interruptions. (3) Pertaining to the state in

which a transmission control unit or an audio response unit can accept incoming calls on a line.

encrypt. To scramble data or convert it, before transmission, to a secret code that masks the meaning of the data to any unauthorized recipient. Contrast with *decrypt*.

Erase All Unprotected (EAU) command. A 3270 data stream command that erases all unprotected fields and inserts nulls.

Erase Unprotected to Address (EUA) order. A data stream order that erases all unprotected character positions (inserts nulls) from the current buffer address up to, but not including, the specified stop address.

event. (1) An occurrence or happening. (2) An occurrence of significance to a task; for example the completion of an asynchronous operation, such as an input/output operation.

extended attribute buffer (EAB). The buffer in which the extended field attribute for the 3270 Kanji display field is stored.

extended binary-coded decimal interchange code (EBCDIC). A coded character set consisting of 8-bit coded characters.

extended color. (1) A capability that allows color terminals to display or print fields or characters in colors using extended field and character attributes. (2) An attribute type in the extended field attribute and character attribute.

F

fault. An accidental condition that causes a functional unit to fail to perform its required function.

fault domain. (1) In IBM LAN problem determination, the portion of a network that is expected to be involved with an indicated error. (2) The segment of a token-ring network between a station and its nearest active upstream neighbor (NAUN).

feature. A part of an IBM product that may be ordered separately by the customer.

fiber. See *optical fiber*.

fiber optics. The branch of optical technology concerned with the transmission of radiant power through fibers made of transparent materials such as glass, fused silica, and plastic.

Notes:

1. Telecommunication applications of fiber optics use optical fibers. Either a single discrete fiber or a nonspatially aligned fiber bundle may be used for each information channel. Such fibers are often called *optical fibers* to differentiate them from fibers used in noncommunication applications.

2. Various industrial and medical applications use (typically high-loss) flexible fiber bundles in which individual fibers are spatially aligned, permitting optical relay of an image.

3. Some specialized industrial applications use rigid (fused) aligned fiber bundles for image transfer.

Fiber Optic Terminal Adapter (FTA). In 3174, this adapter allows a 3299 Model 032 to be attached to the 3174 using optical fiber cable.

field. See *display field*.

field attribute. A control character stored in the character buffer in the first character position of a field. For those devices supporting the 3270 data stream, a field attribute defines protected/unprotected, alphanumeric/numeric, detectable/nondetectable, display/nondisplay, intensity, and modified data tag (MDT).

file. A named set of records stored or processed as a unit.

file adapter. In the 3174, an adapter that provides input/output support for external storage devices, such as a diskette drive.

fixed disk. A rigid magnetic disk used in a fixed disk drive.

fixed disk drive. A disk storage device that reads and writes on rigid magnetic disks.

flag. (1) An indicator or parameter that shows the setting of a switch. (2) Any of various types of indicators used for identification, for example, a wordmark. (3) A character that signals the occurrence of some condition, such as the end of a word. (4) Deprecated term for *mark*.

flow control. (1) In data communication, control of the data transfer rate. (2) In SNA, the process of managing the rate at which data traffic passes between components of the network. The purpose of flow control is to optimize the rate of flow of message units with minimum congestion in the network, that is, neither to overflow the buffers at the receiver or at intermediate routing nodes nor to leave the receiver waiting for more message units. (3) The methods used to control the flow of information across a network.

foreground logical terminal. Synonym for *active logical terminal (LT)*.

formatted diskette. A diskette on which track and sector control information has been written and that can be used by the computer to store data.

Note: A diskette must be formatted before it can receive data.

frame. (1) The unit of transmission in some LANs, including the IBM Token-Ring Network and the IBM PC Network. It includes delimiters, control characters, information, and checking characters. On a token-ring network, a frame is created from a token when the token has data appended to it. On a token bus network (IBM PC Network), all frames including the token frame contain a preamble, start delimiter, control address, optional data and checking characters, end delimiter, and are followed by a minimum silence period. (2) A housing for machine elements. (3) In synchronous data link control (SDLC), the vehicle for every command, every response, and all information that is transmitted using SDLC procedures. Each frame begins and ends with a flag.

frame check sequence (FCS). (1) A system of error checking performed at both the sending and receiving station after a block check character has been accumulated. (2) A numeric value derived from the bits in a message that is used to check for any bit errors in transmission. (3) A redundancy check in which the check key is generated by a cyclic algorithm. Synonymous with *cyclic redundancy check (CRC)*.

from diskette. The diskette that provides the data to be transferred.

from drive. The drive that provides the data to be transferred.

full duplex. Synonym for *duplex.*

function. In NetView DM, a function is the specification of a transmission activity on a resource or group of resources. Functions are grouped into phases. In CSCM, resources are known as data objects.

G

gateway. A device and its associated software that interconnect networks or systems of different architectures. The connection is usually made above the reference model network layer. For example, a gateway allows LANs access to System/370 host computers. Contrast with *bridge* and *router.*

generate. In 3174 central site customizing, to write a Control diskette containing the customizing data for a particular controller. Also, to print a mailing address label and a diskette label for a particular controller.

get. In 3174 central site customizing, to select the type of data you want and store it in working copy.

graphic escape. In the 3270 data stream, a control code used to introduce a graphic character (hex 40 through hex FE) from an alternate character set.

group. (1) A set of related records that have the same value for a particular field in all records. (2) A collection of users who can share access authorities for protected resources. (3) A list of names that are known together by a single name.

group address. In a LAN, a locally administered address assigned to two or more adapters to allow the adapters to copy the same frame.

group SAP. A single address assigned to a group of service access points (SAPs). See also *group address.*

H

half-duplex. In data communication, pertaining to transmission in only one direction at a time. Contrast with *duplex.*

hard error. An error condition on a network that requires that the source of the error be removed or that the network be reconfigured before the network can resume reliable operation. See also *beaconing.* Contrast with *soft error.*

hexadecimal. (1) Pertaining to a selection, choice, or condition that has 16 possible values or states. (2) Pertaining to a fixed-radix numeration system, with radix of 16. (3) Pertaining to a numbering system with base of 16; valid numbers use the digits 0 through 9 and characters A through F, where A represents 10 and F represents 15.

host access method. The access method that controls communication with a domain.

host application program. An application program processed in the host computer.

host attachment. A mode of SNA communication in which the processor acts as a secondary SNA device.

host logical unit (LU). An SNA logical unit (LU) located in a host processor, for example, an ACF/VTAM application program.

host system. (1) A data processing system used to prepare programs and operating environments for use on another computer or controller. (2) The data processing system to which a network is connected and with which the system can communicate. (3) The controlling or highest-level system in a data communication configuration; for example, a System/38 is the host system for the workstations connected to it.

I

IEEE 802.2 Interface. An interface adhering to the 802.2 Logical Link Control (LLC) Standard of the Institute of Electrical and Electronics Engineers. This standard is one of several standards for local area networks approved by the IEEE.

Initial microcode load (IML). The action of loading the operational microcode.

Input/output (I/O). (1) Pertaining to a device whose parts can perform an input process and an output process at the same time. (2) Pertaining to a functional unit or channel involved in an input process, output process, or both, concurrently or not, and to the data involved in such a process. (3) Pertaining to input, output, or both.

Interface. (1) A shared boundary between two functional units, defined by functional characteristics, common physical interconnection characteristics, signal characteristics, and other characteristics as appropriate. (2) A shared boundary. An interface may be a hardware component to link two devices or a portion of storage or registers accessed by two or more computer programs. (3) Hardware, software, or both, that links systems, programs, or devices.

International Organization for Standardization (ISO). An organization of national standards bodies from various countries established to promote development of standards to facilitate international exchange of goods and services, and develop cooperation in intellectual, scientific, technological, and economic activity.

interrupt. (1) A suspension of a process, such as execution of a computer program, caused by an ‚ external event and performed in such a way that the process can be resumed. (2) To stop a process in such a way that it can be resumed. (3) In data communication, to take an action at a receiving station that causes the sending station to end a transmission. (4) A means of passing processing control from one software or microcode module or routine to another, or of requesting a particular software, microcode, or hardware function.

interrupt level. The means of identifying the source of an interrupt, the function requested by an interrupt, or the code or feature that provides a function or service.

K

keyboard definition. A customizing procedure for defining a maximum of four modified keyboard layouts for modifiable keyboards only. Most characters, symbols, and functions can be relocated, duplicated, or deleted from almost any keyboard position. Synonym for *modify keyboard*.

kilobit (Kb). One thousand binary digits.

kilobyte (KB). 1024 bytes for processor and data storage (memory) size; otherwise, 1000 bytes.

L

layer. (1) One of the seven levels of the Open Systems Interconnection reference model. (2) In open systems architecture, a collection of related functions that comprise one level of hierarchy of functions. Each layer specifies its own functions and assumes that lower level functions are provided. (3) In SNA, a grouping of related functions that are logically separate from the functions of other layers. Implementation of the functions in one layer can be changed without affecting functions in other layers.

leased line. Synonym for *nonswitched line*.

Library disk. A diskette or fixed disk that contains customizing data for some or all of the controllers in a network.

Library (LIB) diskette. A diskette that contains customizing data for some or all of the controllers in a network.

library member. A file located on a Library disk that contains customizing information for a controller in a network.

light pen. A light-sensitive pick device that is used by pointing it at the display surface.

Limited Function Utility (LFU) diskette. A diskette that contains the microcode to run only a limited number of utilities. These are: Diagnostics, Copy Files, Encrypt/Decrypt Master Key, Identify Customizing Keyboard, and Media Management. The Limited Function Utility diskette is used mainly in networks that are under central site control.

line speed. (1) The rate at which data is transmitted from one point to another over a telecommunication line. (2) The number of binary digits that can be sent over a telecommunication line in 1 second, expressed in bits per second (bps).

link. (1) The logical connection between nodes including the end-to-end link control procedures.

(2) The combination of physical media, protocols, and programming that connects devices on a network. (3) In computer programming, the part of a program, in some cases a single instruction or an address, that passes control and parameters between separate portions of the computer program. (4) To interconnect items of data or portions of one or more computer programs. (5) In SNA, the combination of the link connection and link stations joining network nodes.

link connection. (1) All physical components and protocol machines that lie between the communicating link stations of a link. The link connection may include a switched or leased physical data circuit, a LAN, or an X.25 virtual circuit. In SNA, the physical equipment providing two-way communication and error correction and detection between one link station and one or more other link stations.

link station. (1) A specific place in a service access point (SAP) that enables an adapter to communicate with another adapter. (2) A protocol machine in a node that manages the elements of procedure required for the exchange of data traffic with another communicating link station. (3) A logical point within a SAP that enables an adapter to establish connection-oriented communication with another adapter. (4) In SNA, the combination of hardware and software that allows a node to attach to and provide control for a link.

lobe. In the IBM Token-Ring Network, the section of cable (which may consist of several cable segments) that connects an attaching device to an access unit.

local. Pertaining to a device accessed directly without use of a telecommunication line. Synonym for *channel-attached*. Contrast with *remote*.

local format storage. In 3174, this function allows the controller to store pre-defined formatted screens and subsequently be viewed by a terminal user. The formatted screens are downloaded from the host into the 3174.

locally administered address. An adapter address that the user can assign to override the universally administered address. Contrast with *universally administered address*.

location. With reference to a 3174, a place within the 3174 chassis where a particular card or adapter is inserted.

logical link control protocol (LLC protocol). In a local area network, the protocol that governs the exchange of frames between data stations independently of how the transmission medium is shared.

logical link control protocol data unit (LPDU). The unit of information exchanged between network layer entities in different nodes. The LPDU consists of the

destination service access point (DSAP) and source service access point (SSAP) address fields, the control field, and the information field (if present).

logical link control (LLC) sublayer. One of two sublayers of the ISO Open Systems Interconnection data link layer (which corresponds to the SNA data link control layer), proposed for LANs by the IEEE Project 802 Committee on Local Area Networks and the European Computer Manufacturers Association (ECMA). It includes those functions unique to the particular link control procedures that are associated with the attached node and are independent of the medium; this allows different logical link protocols to coexist on the same network without interfering with each other. The LLC sublayer uses services provided by the medium access control (MAC) sublayer and provides services to the network layer.

logical terminal (LT). In MLT, one of five sessions available to share one display station.

logical unit (LU). In SNA, a port through which an end user accesses the SNA network in order to communicate with another end user and through which the end user accesses the functions provided by system services control points (SSCPs). An LU can support at least two sessions, one with an SSCP and one with another LU, and may be capable of supporting many sessions with other logical units.

loop. A closed unidirectional signal path connecting input/output devices to a network.

LU-6.2. An abbreviation for LU-LU session type 6. In SNA, a type of session between two programs in a distributed processing environment, using the SNA character string or a structured field data stream; for example, the NetView DM/3174 implementation of microcode distribution and management.

M

MAC frame. Frames used to carry information to maintain the ring protocol and for exchange of management information.

MAC major vector. The medium access control (MAC) frame information field.

main storage. Program-addressable storage from which instructions and other data can be loaded directly into registers for subsequent processing.

maintenance analysis procedure (MAP). A maintenance document that gives an IBM service representative a step-by-step procedure for tracing a symptom to the cause of a failure.

make-break key. On a control unit terminal (CUT) device, a key that sends a signal to the control unit,

invoking a function, both when the key is first pressed down (make) and again when it is released (break).

mark. A symbol or symbols that indicate the beginning or the end of a field, a word, an item of data or a set of data such as a file, record, or block.

Master Control diskette. A diskette that contains the base microcode, any necessary patches, RPQs, and modified keyboard tables.

medium access control (MAC) procedure. In a local area network, the part of the protocol that governs access to the transmission medium independently of the physical characteristics of the medium, but taking into account the topological aspects of the network, in order to enable the exchange of data between data stations.

Medium Access Control (MAC) frame. Frames that control the operation of the IBM Token-Ring Network and any ring station operations that affect the ring.

memory mapped I/O (MMIO). In an IBM personal computer, a method of accessing an input or output port as if it were a memory location.

memory. Program-addressable storage from which instructions and other data can be loaded directly into registers for subsequent execution or processing. Synonymous with *main storage*.

microcode. (1) One or more microinstructions. (2) A code, representing the instructions of an instruction set, that is implemented in a part of storage that is not program-addressable. (3) To design, write, and also to test one or more microinstructions.

modem (modulator/demodulator). A device that converts digital data from a computer to an analog signal that can be transmitted on a telecommunication line, and converts the analog signal received to data for the computer.

Modify Field (MF) order. An order that allows specified field and extended attributes to be modified, without having to respecify all of the attributes of the field.

modify keyboard.. Synonym for *keyboard definition*

multidrop (network). A network configuration in which there are one or more intermediate nodes on the path between a central node and an endpoint node.

multi-host support. In the 3174 Establishment Controller, the ability of a terminal to access more than one host at a time.

multiple logical terminal (MLT). In the 3174, a function that provides a CUT-attached, fixed-function display

station with the ability to interact with as many as five host sessions. Each session is processed as though it were a separate display station.

multistation access unit. In the IBM Token-Ring Network, a wiring concentrator that can connect up to eight lobes to a ring.

N

name. An alphanumeric term that identifies a data set, statement, program, or cataloged procedure.

native mode. A 3179 or 3180 operational mode that uses the full capabilities of those models' display and keyboard.

nearest active upstream neighbor (NAUN). For any given attaching device on an IBM Token-Ring Network, the attaching device that is sending frames or tokens directly to it.

NetView. A host-based IBM licensed program that provides communication network management (CNM) or communications and systems management (C&SM) services. It supersedes NCCF, NPDA, NLDM, and NPM.

network. (1) A configuration of data processing devices and software connected for information interchange. (2) An arrangement of nodes and connecting branches. Connections are made between data stations.

network administrator. A person who manages the use and maintenance of a network.

Network Control Program (NCP) node. In SNA products, a subarea node that contains an ACF/NCP program but not a system services control point (SSCP).

network management vector transport. The portion of an alert transport frame that contains the alert message.

Network Site Controller. Any SNA-configured controller in a network that is also configured to support central site change management.

node. (1) Any device, attached to a network, that transmits and/or receives data. (2) An endpoint of a link, or a junction common to two or more links in a network. (3) In a network, a point where one or more functional units interconnect transmission lines.

nonswitched line. (1) A connection between systems or devices that does not have to be made by dialing. Contrast with *switched line*. (2) A telecommunication line on which connections do not have to be established by dialing. Synonymous with *leased line*.

null modem. A device with two 25-pin D-shell connectors that attaches to the station end of a standard, straight-through, pin-for-pin EIA 232D cable. The null modem does the crossing-over of the appropriate EIA 232D leads required for the direct connection of a terminal or computer to an AEA port.

O

offline test. A diagnostic test or data collection program that must be run when the 3174 and its connected terminals are not in normal operation.

online test. A diagnostic test or data collection program that is run without interrupting the normal operation of the 3174 and its associated terminals.

open. (1) To make an adapter ready for use. (2) A break in an electrical circuit. (3) To make a file ready for use.

operator information area (OIA). The area below the line near the bottom of the display area where graphics and alphanumeric characters are displayed to define the status of the terminal or the system to the operator.

optical fiber. Any filament made of dielectric materials that guides light, regardless of its ability to send signals. See also *fiber optics.*

option. (1) A specification in a statement, a selection from a menu, or a setting of a switch, that may be used to influence the execution of a program. (2) A hardware or software function that may be selected or enabled as part of a configuration process. (3) A piece of hardware (such as a network adapter) that can be installed in a device to modify or enhance device function.

origin address. A code that identifies the location from which information is sent. Synonymous with source address. Contrast with *destination address.*

original equipment manufacturer (OEM). A manufacturer of equipment that may be marketed by another manufacturer.

P

pacing. (1) A technique by which a receiving station controls the rate of transmission of a sending station to prevent overrun. (2) In SNA, a technique by which a receiving component controls the rate of transmission of a sending component to prevent overrun or congestion.

packet. (1) In data communication, a sequence of binary digits, including data and control signals, that is transmitted and switched as a composite whole. (2) Synonymous with *data frame.* Contrast with *frame.*

parallel. (1) Pertaining to a process in which all events occur within the same interval of time, each handled by a separate but similar functional unit; for example, the parallel transmission of the bits of a computer word along the lines of an internal bus. (2) Pertaining to concurrent or simultaneous operation of two or more devices or to concurrent performance of two or more activities in a single device. (3) Pertaining to concurrent or simultaneous occurrence of two or more related activities in multiple devices or channels. (4) Pertaining to the simultaneity of two or more processes. (5) Pertaining to the simultaneous processing of the individual parts of a whole, such as the bits of a character and the characters of a word, using separate facilities for the various parts. (6) Contrast with *serial.*

parameter. (1) A variable that is given a constant value for a specified application and that may denote the application. (2) An item in a menu for which the user specifies a value or for which the system provides a value when the menu is interpreted. (3) Data passed between programs or procedures.

parity. (1) A transmission error-checking scheme in which an extra bit is added to some unit of data, usually a byte, in order to make the total number of one bits even or odd. For the AEA feature, odd, even, mark, space, or no-parity coding is supported. No-parity means that no parity bit is sent or expected. Mark and space mean that the parity position is always set to one or zero, respectively, and that received parity is not checked. (2) The state of being either even-numbered or odd-numbered.

parity check. (1) A redundancy check by which a recalculated parity bit is compared with the pre-given parity bit. (2) A check that tests whether the number of ones (or zeros) in an array of binary digits is odd or even.

parity (even). A condition when the sum of all of the digits in an array of binary digits is even.

parity (odd). A condition when the sum of all of the digits in an array of binary digits is odd.

password. In computer security, a string of characters known to the computer system and a user, who must specify it to gain full or limited access to a system and to the data stored within it.

path. In a network, a route between any two nodes.

patch panel. A terminating enclosure for connecting cables. See *Distribution Panel.*

physical unit (PU). In SNA, the component that manages and monitors the resources of a node, such as attached links and adjacent link stations, as

requested by a system services control point (SSCP) via an SSCP-SSCP session.

polling. (1) On a multipoint connection or a point-to-point connection, the process whereby data stations are invited one at a time to transmit. (2) Interrogation of devices for such purposes as to avoid contention, to determine operational status, or to determine readiness to send or receive data.

port. (1) An access point for data entry or exit. (2) A connector on a device to which cables for other devices such as display stations and printers are attached.

primary logical unit (PLU). In SNA, the logical unit (LU) that contains the primary half-session for a particular LU-LU session. Contrast with *secondary logical unit.*

printer authorization matrix (PAM). A matrix stored in the controller that establishes printer assignment and classification.

program access (PA) key. On a display device keyboard, a key that produces a call to a program that performs display operations. See also *program function (PF) key.*

program function (PF) key. On a display device keyboard, a key that passes a signal to a program to call for a particular display operation. See also *program access (PA) key.*

programmable symbols (PS). Customer-defined symbols. There are a maximum of 190 symbols in a programmed symbol set.

programmed symbols (PS). In the 3270 Information Display System, an optional feature that stores up to six user-definable, program-loadable character sets of 190 characters each in terminal read/write storage for display or printing by the terminal.

Program Tab (PT) order. An order that advances the current buffer address to the address of the first character location of the next unprotected field and resets the character attributes of all characters in the field that are replaced by nulls.

protocol. (1) A set of semantic and syntactic rules that determines the behavior of functional units in achieving communication. (2) In SNA, the meanings of and the sequencing rules for requests and responses used for managing the network, transferring data, and synchronizing the states of network components. (3) A specification for the format and relative timing of information exchanged between communicating parties.

protocol conversion. For the AEA feature, emulation of one device protocol by a device designed for a different protocol.

put. In 3174 central site customizing, to store data from the working copy into a library member.

R

register. A storage device having a specified storage capacity such as a bit, byte, or computer word, and usually intended for a special purpose.

remote. Pertaining to a system, program, or device that is accessed through a telecommunication line.

remove. (1) To take an attaching device off a network. (2) To stop an adapter from participating in passing data on a network.

Repeat to Address (RA) order. An order that stores a specified alphanumeric or null character in up to 480 buffer locations, starting at the current buffer address and ending at, but not including, the specified stop address.

request for price quotation (RPQ). An alteration or addition to the functional capabilities that the controller provides.

Response Time Monitor (RTM). A network management tool that measures and records the transaction times of inbound host attention (AID) operations from display stations that communicate with the host.

return code. (1) A code used to influence the execution of succeeding instructions. (2) A value returned to a program to indicate the results of an operation requested by that program.

ring in (RI). In the IBM Token-Ring Network, the receive or input receptacle on an access unit or repeater. Contrast with *ring out.*

ring network. A network configuration in which a series of attaching devices is connected by unidirectional transmission links to form a closed path. A ring of an IBM Token-Ring Network is referred to as a LAN segment or as a Token-Ring Network segment.

ring out (RO). In an IBM Token-Ring Network, the transmit or output receptacle on an access unit or repeater.

ring segment. A ring segment is any section of a ring that can be isolated (by unplugging connectors) from the rest of the ring. A segment can consist of a single lobe, the cable between access units, or a combination of cables, lobes, and/or access units.

ring status. The condition of the ring.

router. An attaching device that connects two LAN segments, which use similar or different architectures,

at the reference model network layer. Contrast with *bridge* and *gateway*.

routing. (1) The assignment of the path by which a message will reach its destination. (2) In SNA, the forwarding of a message unit along a particular path through a network, as determined by parameters carried in the message unit, such as the destination network address in a transmission header.

S

secondary logical unit (SLU). In SNA, the logical unit (LU) that contains the secondary half-session for a particular LU-LU session. Contrast with *primary logical unit.*

segment. A section of cable between components or devices on the network. A segment may consist of a single patch cable, multiple patch cables connected, or a combination of building cable and patch cables connected.

selector pen. A pen-like instrument that can be attached to a display station. When a program using full-screen processing is assigned to the display station, the pen can be used to select items on the screen or to generate an attention. Synonym for *light pen.*

serial. (1) Pertaining to a process in which all events occur one after the other; for example, serial transmission of the bits of a character according to V24 CCITT protocol. (2) Pertaining to the sequential or consecutive occurrence of two or more related activities in a single device or channel. (3) Pertaining to the sequential processing of the individual parts of a whole, such as the bits of a character or the characters of a word, using the same facilities for successive parts. (4) Contrast with *parallel.*

service access point (SAP). (1) A logical point made available by an adapter where information can be received and transmitted. A single SAP can have many links terminating in it. (2) In Open Systems Interconnection (OSI) architecture, the logical point at which an n + 1-layer entity acquires the services of the n-layer. For LANs, the n-layer is assumed to be data link control (DLC). A single SAP can have many links terminating in it. These link "end-points" are represented in DLC by link stations.

session. (1) In network architecture, an association of facilities necessary for establishing, maintaining, and releasing connections for communication between stations. (2) In MLT, synonymous with logical terminal (LT). (3) In SNA, a logical connection between two network addressable units that can be activated, tailored to provide various protocols, and deactivated as requested.

session limit. In 3174, the total number of logical terminals or defined AEA default destinations for an AEA port set.

Set Attribute (SA) order. (1) An order that specifies an attribute-type-value pair defining the property to be applied to subsequent characters in the data stream. An SA order is required for each property assigned. (2) An order that associates attributes in the EAB with individual characters.

Set Buffer Address (SBA) order. An order that sets the buffer address to a specified location.

simulation. (1) The representation of selected characteristics of the behavior of one physical or abstract system by another system. In a digital computer system, simulation is done by software; for example, (a) the representation of physical phenomena by means of operations performed by a computer system, and (b) the representation of operations of a computer system by those of another computer system. (2) Contrast with *emulation.*

single link multi-host support. In the 3174 Establishment Controller, the ability of a terminal to access multiple hosts over a single physical link connected to the IBM Token-Ring Network, or an X.25 Network.

SNA character string (SCS). A character string composed of EBCDIC controls, optionally intermixed with end-user data, that is carried within a request/response unit.

soft error. An intermittent error on a network that requires retransmission. Contrast with *hard error.*

Note: A soft error by itself does not affect overall reliability of the network, but reliability may be affected if the number of soft errors reaches the ring error limit.

solid-state component. A component whose operation depends on control of electric or magnetic phenomena in solids, for example, a transistor, crystal diode, or ferrite core.

source address. Synonym for origin address.

Start Field Extended (SFE) order. (1) A data stream order that defines the start of a field that includes extended field attribute type-value pairs. (2) An order that generates an extended field attribute in the EAB and at the current buffer location.

Start Field (SF) order. (1) A data stream order that establishes the start of a data field for displaying or printing. (2) An order that indicates a specified location that contains an attribute byte and not a text character.

station. (1) An input or output point of a system that uses telecommunication facilities; for example, one or more systems, computers, terminals, devices, and associated programs at a particular location that can send or receive data over a telecommunication line. (2) A location in a device at which an operation is performed, for example, a read station. (3) In SNA, a link station.

stop bit. Synonym for *stop signal.*

stop signal. In start-stop transmission, a signal at the end of a character that prepares the receiving device for reception of a subsequent character. Synonymous with *stop bit.*

storage. A unit into which recorded text can be entered, in which it can be retained and processed, and from which it can be retrieved. See also *memory.*

structured field. A data stream format that permits variable-length data and controls to be parsed into its components without having to scan every byte.

subsystem. A secondary or subordinate system, or programming support, usually capable of operating independently of or asynchronously with a controlling system. The 3174 and its attached terminals are an example of a subsystem.

switched line. A telecommunication line in which the connection is established by dialing. Contrast with *nonswitched* line.

Synchronous Data Link Control (SDLC). A discipline conforming to subsets of the Advance Data Communication Control Procedures (ADCCP) of the American National Standards Institute (ANSI) and High-level Data Link Control (HDLC) of the International Organization for Standardization, for managing synchronous, code-transparent, serial-by-bit information transfer over a link connection. Transmission exchanges may be duplex or half-duplex over switched or nonswitched links. The configuration of the link connection may be point-to-point, multipoint, or loop. See also *binary synchronous communication (BSC).*

system configuration. A process that specifies the devices and programs that form a particular data processing system.

system services control point (SSCP). In SNA, the focal point within an SNA network for managing the configuration, coordinating network operator and problem determination requests, and providing directory support and other session services for end users of the network. Multiple SSCPs, cooperating as peers, can divide the network into domains of control, with each SSCP having a hierarchical control relationship to the physical units (PUs) and logical units (LUs) within its domain.

Systems Network Architecture (SNA). The description of the logical structure, formats, protocols, and operational sequences for transmitting information units through, and controlling the configuration and operation of, networks.

T

tailgate. The area of a computer or control unit where I/O cables are connected.

telecommunication-attached. Pertaining to the attachment of devices by teleprocessing lines to a host processor. Synonym for *remote.* Contrast with *channel-attached.*

terminal. In data communication, a device, usually equipped with a keyboard and display device, capable of sending and receiving information.

terminal adapter (TA). An adapter that provides control for a maximum of 32 terminals; each DPC connector (four in all) on the terminal adapter can control either one terminal that is directly attached or as many as eight terminals that are attached through a terminal multiplexer adapter (located in the 3174) or a 3299 Terminal Multiplexer (located outside the 3174). A 3299 model 032 can also be connect to TA port 0 to control up to 32 terminals.

terminal component. A separately addressable part of a terminal that performs an input or output function, such as the display component of a keyboard-display device or a printer component of a keyboard-printer device.

terminal emulation. The capability of a microcomputer, personal computer, 3270 CUT mode display station, 3270 printer, ASCII display station, or ASCII printer to operate as if it were a particular type of terminal linked to a processing unit and to access data.

terminal multiplexer. A device, such as the 3299 Terminal Multiplexer, for interleaving the signals for many devices onto a single cable.

terminal multiplexer adapter (TMA). This adapter is connected to the terminal adapter in the 3174 and provides control for a maximum of eight terminals.

threshold. (1) A level, point, or value above which something is true or will take place and below which it is not true or will not take place. (2) In IBM bridge programs, a value set for the maximum number of frames that are not forwarded across a bridge due to errors, before a "threshold exceeded" occurrence is counted and indicated to network management programs. (3) An initial value from which a counter is decremented to zero, or a value to which a counter is incremented or decremented from an initial value.

When the counter reaches zero or the threshold value, a decision is made and/or an event occurs.

time-out. (1) An event that occurs at the end of a predetermined period of time that began at the occurrence of another specified event. (2) A time interval allotted for certain operations to occur; for example, response to polling or addressing before system operation is interrupted and must be restarted. (3) A terminal feature that logs off a user if an entry is not made within a specified period of time.

to diskette. The diskette that receives the transferred data.

to drive. The drive that receives the transferred data.

token. A sequence of bits passed from one device to another on the token-ring network that signifies permission to transmit over the network. It consists of a starting delimiter, an access control field, and an end delimiter. The access control field contains a bit that indicates to a receiving device that the token is ready to accept information. If a device has data to send along the network, it appends the data to the token. When data is appended, the token then becomes a frame. See *frame*.

token ring. A network with a ring topology that passes tokens from one attaching device (node) to another. A node that is ready to send can capture a token and insert data for transmission.

token-ring network. (1) A ring network that allows unidirectional data transmission between data stations by a token-passing procedure over one transmission medium so that the transmitted data returns to and is removed by the transmitting station. The IBM Token-Ring Network is a baseband LAN with a star-wired ring topology that passes tokens from network adapter to network adapter. (2) A network that uses a ring topology, in which tokens are passed in a sequence from node to node. A node that is ready to send can capture the token and insert data for transmission. (3) A group of interconnected token rings.

trace. (1) A record of the execution of a computer program. It exhibits the sequences in which the instructions were executed. (2) A record of the frames and bytes transmitted on a network.

transaction. In an SNA network, an exchange between two programs that usually involves a specific set of initial input data that causes the execution of a specific task or job. Examples of transactions include the entry of a customer's deposit that results in the updating of the customer's balance, and the transfer of a message to one or more destination points.

transaction program. A program that processes transactions in or through a logical unit (LU) type 6.2 in an SNA network. Application transaction programs are end users in an SNA network; they process transactions for service transaction programs and for other end users. Service transaction programs are IBM-supplied programs that typically provide utility services to application transaction programs.

translate table. A table that defines the translation of ASCII to EBCDIC and EBCDIC to ASCII and that allows the use of special characters and nonstandard codes.

transmitter. See *universal receiver-transmitter*.

type. In the 3174 Establishment Controller, the identifying number of a card. For example, 9150 is one of the type numbers of the terminal adapter in the 3174.

type 1 communication adapter. The 3174 adapter that supports communication between the 3174 (and its terminals) and a host over telecommunication links using any of these interfaces: (a) EIA 232D/V.24 and V.35 for SNA/SDLC, (b) BSC, and (c) X.25. The user selects the appropriate interface.

type 2 communication adapter. The 3174 adapter that supports communication between the 3174 (and its terminals) and a host over telecommunication links using either the X.21 interface for SNA/SDLC or the X.25 interface. The user selects the interface.

U

unbind. In SNA, to deactivate a session between logical units.

universal receiver-transmitter. A circuit used in asynchronous, synchronous, or synchronous/asynchronous data communication applications to provide all the necessary logic to recover data in a serial-in parallel-out fashion and to transmit data in a parallel-in serial-out fashion. It is usually duplex; that is, it can transmit and receive simultaneously with the option to handle various data word lengths.

universally administered address. The address permanently encoded in an adapter at the time of manufacture. All universally administered addresses are unique. Contrast with *locally administered address*.

unnumbered acknowledgment. A data link control (DLC) command used in establishing a link and in answering receipt of logical link control (LLC) frames.

update. In 3174 central site customizing, to tailor a library member's customizing data, in working copy, and put it back to the library disk.

upgrade. In 3174 central site customizing, to select a library member and upgrade its data to the microcode

level of the diskette used to invoke the Central Site Customizing Utility.

upstream. (1) In the direction opposite to data flow or toward the source of transmission. (2) Toward the processor from an attached unit or end user. (3) Contrast with *downstream*.

Utility disk. A diskette or fixed disk that contains the microcode necessary to run various utilities, for example, to copy portions of a diskette for a backup diskette.

Utility (UTL) diskette. A diskette that contains the microcode necessary to run various utilities, for example, to copy portions of a diskette for a backup diskette.

V

V.35 communication adapter. A communication adapter that can combine and send information on one line at speeds up to 64 kbps, and conforms to the CCITT V.35 standard.

variable. (1) In computer programming, a character or group of characters that refers to a value and, in the execution of a computer program, corresponds to an address. (2) A quantity that can assume any of a given set of values.

vector. One or more related fields of data, in a specified format. A quantity usually characterized by an ordered set of numbers.

version. A separate IBM-licensed program, based on an existing IBM-licensed program, that usually has significant new code or new function.

viewport. In the 3270 Information Display System, an area on the usable area of the display surface through which an operator views all or a portion of the data outlined by the window on the presentation plane.

W

wire fault. An error condition caused by a break in the wires or a short between the wires (or shield) in a segment of cable.

working copy (WC). In 3174 central site customizing, a set of customizing data and label data held in main storage, which is tailored to reflect a network controller's attached terminals, its method of host attachment, and other pertinent information.

wrap test. A test that checks attachment or control unit circuitry without checking the mechanism itself by returning the output of the mechanism as input. For example, when unrecoverable communication adapter or machine errors occur, a wrap test can transmit a specific character pattern to or through the modem in a loop and then compare the character pattern received with the pattern transmitted.

write. To make a permanent or transient recording of data in a storage device or on a data medium.

write control character (WCC). A character used in conjunction with a Write command to specify that a particular operation, or combination of operations, is to be performed at a display station or printer.

Write Structured Field (WSF) command. A command used to transmit data in structured field format.

X

X.21. In data communication, a recommendation of the International Telegraph and Telephone Consultative Committee (CCITT) that defines the interface between data terminal equipment and public data networks for digital leases and circuit switched synchronous services.

X.21 communication adapter. A communication adapter that can combine and send information on one line at speeds up to 64 kbps, and that conforms to CCITT X.21 standards.

X.25. In data communication, a recommendation of the CCITT that defines the interface between data terminal equipment and packet switching networks.

3

3270 data stream. (1) The commands, control codes, orders, attributes, and data or structured fields for 3270 devices, that are transmitted inbound to an application program or outbound to a terminal. (2) Data being transferred from or to an allocated primary or tertiary device, or to the host system, as a continuous stream of data and 3270 Information Display System control elements in character form.

Reader's Comments

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Status Codes

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