INTRODUCTION

GENERAL

1. The first system ordered by a new volume customer and all end user systems must include complete peripheral subsystems except for the teletype controllers. That is, a device must be ordered with each peripheral controller. By ordering a fully integrated system, the customer is assured of a fast, efficient start-up on his new equipment.

2. This price list is intended for use with all current INTERDATA products. For expansions to earlier models, refer to the nearest INTERDATA Sales Office.

3. Price List Organization —The hardware portion of the Price List is divided into major product areas, as indicated in the index. Within the price list there are a number of columns, as outlines below.

PRODUCT NUMBER, DESCRIPTION, PREREQUISITES

This column identifies, from a packaging or integration standpoint, the prerequisites to support the item in a system. If the item is ordered as an expansion, the original configuration must be reviewed to ensure that the item can be supported.

LIST PRICE

The list price is shown for each item. If the item is fully discountable under INTERDATA's standard Discount Agreement, the list price is shown by itself. If the item is partially discountable (or non-discountable) the non-discountable portion is shown in parenthesis below the list price. All items shown with a discount are type A discounts unless otherwise noted. Refer to agreement for discount information.

PROCESSOR DISCOUNTS

All processors (CPU with memory, chassis and power supply) of the same number of bits, e.g., 5/16 (except for board sets) 6/16, 8/16, 7/32, 8/32 etcetera, are mix and match for unit discount determination.

EXAMPLE: 6-6/16's and 7-8/16's would be discounted at the 13 quantiy level.

MONTHLY SERVICE RATES

Charges for standard first shift coverage Monday through Friday. For additional coverage contact customer service.

FIELD INSTALLATION

Fixed price installation charges per item. Optional for customers not receiving installation under their terms of purchase. Subject to minimums per Section VIII Customer Service Support.

A. For each System purchased hereunder, INTERDATA shall install the System (operationally check out the equipment) at the Buyer's location, using standard INTERDATA test procedures, provided that each of the following conditions are met:
   - Site is made ready by Buyer for installation and System is available for testing by INTERDATA within thirty (30) days of delivery from INTERDATA.
   - Repair of any and all damages occurring subsequent to shipment from INTERDATA (including those during transportation) is first performed at standard Field Service rates; and
   - INTERDATA is reimbursed for all travel and subsistence expenses to installation sites greater than 200 miles from the nearest INTERDATA Field Service location.
B. Installation of add-on or expansion equipment is available in accordance with the terms and prices set forth in the then-current INTERDATA price list.

CARD SLOTS

For Processors and chassis, this column shows the number of available card slots (in parenthesis). For device controllers and other modules, the number indicates the type and card and the space occupied, as illustrated below:

0.5   7" x 15" board utilizing one half slot in a processor chassis or M49-020 expansion chassis
1.0   15" x 15" board utilizing, one slot in a processor chassis or M49-020 expansion chassis
IC   10" x 10" board utilizing, with a M49-003 10"/15" adapter, one slot in a processor or M49-020 expansion chassis
1W   10" x 10" wirewrapped board, utilizing, with a M49-003 10"/15" adapter, two slots in a processor or M49-020 expansion chassis

MOUNTING UNITS

Vertical mounting dimensions are given in terms of mounting units, where one unit is 1.75", a RETMA standard dimension. This information should be used when configuring a system in a system cabinet (M49-040).

+5V, +16V, -16V

This information enables a power balance to be performed to assure adequate power. Note that for all Models the processor power supply cannot be used for the expansion chassis.

4. Factory testing as a module only, is provided for any controller or interface purchased without its accompanying peripheral. No field testing will be performed.

5. Abbreviations:
   HOQ — Home Office Quote
   CSQ — Customer Service Quote
   NC — No Charge

DOMESTIC SALES OFFICES

Corporate Offices
2 Crescent Place
Oceanport, New Jersey 07757
(201) 229-4040

Metropolitan New York
140 Sylvan Avenue
Englewood Cliffs, New Jersey 07632
(212) 736-8540
(201) 947-2200

New Jersey
121 Monmouth Parkway
West Long Branch, New Jersey 07764
(201) 229-4040

Boston
318 Bear Hill Road
The Stefmon Building
Waltham, Massachusetts 02154

Hartford
44 Wintonbury Mall
Bloomfield, Connecticut 06002
(203) 243-9595

Binghamton
One Marine Midland Plaza
Third Floor-East Tower
Binghamton, New York 13902
(607) 722-4233

Rochester
3700 East Avenue, Suite 7
Rochester, New York 14618
(716) 385-3083

Philadelphia
676 Swedesford Road
Wayne, Pennsylvania 19087
(215) 687-2511

Pittsburgh
615 Iron City Drive
Pittsburgh, Pennsylvania 15205
(412) 922-8904

Washington, D.C.
1764 Old Meadow Lane
The Polk Building
McLean, Virginia 22101
(703) 821-1740

Atlanta
3400 Oakcliff Road
Doraville, Georgia 30340
(404) 457-6361

Orlando
7200 Lake Ellenor Drive, Suite 211
Orlando, Florida 32809
(305) 851-6962

Cleveland
195 Alpha Park
Highland Heights, Ohio 44143
(216) 461-8344

Dayton
1171 East Lyons Road
Centerville, Ohio 45459
(513) 434-4193

Detroit
22142 West Nine Mile Road
Southfield, Michigan 48034
(313) 353-9690

Chicago
415 West Golf Road
Arlington Heights, Illinois 60005
(312) 437-5120

St. Louis
760 Office Parkway, Suite 68
St. Louis, Missouri 63141
(314) 569-1817

Minneapolis
2850 Metro Drive, Suite 420
Bloomington, Minnesota 55420
(612) 854-4264

Kansas City
8245 Nieman Road, Suite 123
Lenexa, Kansas 66214
(913) 384-1606

Tulsa
2828 East 51st Street, Suite 224
Tulsa, Oklahoma 74105
(918) 749-0925

Dallas
13771 N. Central Expressway, Suite 624
Dallas, Texas 75243
(214) 234-8880

Houston
6610 Harwin Drive, Suite 230
Houston, Texas 77036
(713) 783-3060

Denver
6801 South Yosemite Street
Englewood, Colorado 80110
(303) 773-2855

Phoenix
2121 South Mill Avenue, Suite 107
Tempe, Arizona 85282
(602) 968-2477

Seattle
515 116th Ave., N.E. Suite 140
Bellevue, Washington 98004
(206) 455-0680

San Francisco
3080 Olcott Street, Suite 125A
Santa Clara, California 95051
(408) 249-5540

Los Angeles
11222 La Cienega Blvd., Suite 666
Inglewood, California 90304
(213) 641-4881

Orange County
17461 Irvine Blvd., Suite B
Tustin, California 92680
(714) 544-9093

San Diego
7841 Balboa Avenue
San Diego, California 92111
(714) 565-0602

Fort Lauderdale
P.O. Box 16211
Plantation, Florida 33188
(305) 473-9855

O.E.M.
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The prices listed herein do not constitute an offer to sell which is only made in accordance with a valid quotation by an authorized representative of Interdata.

Prices herein may be changed by addenda issued hereto and all errors are subject to correction at any time.

Prices quoted are effective August 1977 FOB Oceanport, New Jersey and apply in the Continental United States.

Federal, state, local taxes or other fees are not included in the listed prices.

This Price List is applicable for Domestic US Sales only.

All purchase orders specifying expedited delivery are not subject to discounts.

FIELD INSTALLATION FIXED PRICE

The charges for field installation of a system or expansion shall be the sum of the installation prices plus a one-time travel charge from the nearest INTERDATA service office. A minimum installation charge of $200 plus the travel charge is applicable. Installation consists of functional, operational testing and system performance as demonstrated by applicable INTERDATA test programs. This service is available for items purchased directly from INTERDATA and must be ordered prior to shipment of the equipment.

Travel Charges are as follows:

Distance from Service Center	Travel Charge
0-20 Miles	No Charge
21-100 Miles	$ 50
101-300 Miles	$150
301-500 Miles	$250

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power

PROCESSORS

MODEL 5/16 GENERAL PURPOSE PROCESSOR

Includes 16 General Purpose Registers, Buffered Multiplexor Bus, Micro I/O Bus for programmed or DMA transfers and Automatic Vectored Interrupt. The 5/16 Central Processors have a full memory cycle time of 600 nano seconds. The 5/16 includes List Instructions, Signed Multiply/Divide Instructions, ROM support for ASCII Programmer console, Real Time Clock Input and Processor Self Test.

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
M51-000	Model 5/16 Processor with 8192 Bytes of 600ns MOS RAM.*	-	1	-	-	-	-	-
M51-001	Model 5/16 Processor with 16,384 Bytes of 600ns MOS RAM.*	-	1	-	-	-	-	-
M51-002	Model 5/16 Processor with 24,576 Bytes of 600ns MOS RAM.*	-	2	-	-	-	-	-
M51-003	Model 5/16 Processor with 32,768 Bytes of 600ns MOS RAM.*	-	2	-	-	-	-	-
M51-004	Model 5/16 Processor with 40,960 Bytes of 600ns MOS RAM.*	-	2	-	-	-	-	-
M51-005	Model 5/16 Processor with 49,152 Bytes of 600ns MOS, RAM.*	-	2	-	-	-	-	-
M51-006	Model 5/16 Processor with 57,344 Bytes of 600ns MOS RAM.*	-	2	-	-	-	-	-
M51-007	Model 5/16 Processor with 65,536 Bytes of 600ns MOS RAM.*	-	2	-	-	-	-	-

MODEL 5/16 MEMORIES OPTIONS

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
M51-105	ROM Module Board provides capabilities for supporting up to 49,152 Bytes of customer supplied ROM for replacement of main memory.	M51-000 or M51-001	-	-	-	-	-	-

MODEL 5/16 PROCESSOR OPTIONS

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
M51-103	Turnkey Console, Low cost switch control panel for operation control of power, initialize and execution.	5/16 CPU	-	3	-	-	-	-
M51-101	Boot Strap Loader. Accommodates 1024 byte PROM 2408 byte ROM or OS/16MT2 Boot Strap ROM.	5/16 CPU	-	-	-	-	-	-
M51-102	OS/16MT2 Boot Strap ROM. Preprogrammed ROM module provides convenient operating system loading from mass storage device.	M51-101	-	-	.35	-	-	-
M51-100	Serial Input/Output Port. Provides 20 milliampre Current Loop Interface to ASCII terminal.	5/16 CPU	-	-	.25	-	-	-
M51-104	Model 5/16 Processor Chassis and Power Supply. Chassis and internal Power Supply provides mounting facilities for standard INTERDATA 7 or 15 inch controllers.	5/16 CPU	(5)	4	.25	-	-	115/230 VAC 47-63 Hz 3.0/1.5 Amp. Max.
M51-106	Model 5/16 Processor Chassis Mounting Kit. Includes Processor Chassis front and back retaining bars and support rails for mounting in a standard 19" Retma Enclosure.	M51-104	-	-	-	-	-	-
M51-107	Model 5/16 Processor Maintenance and Documentation Kit. Includes Processor and Memory Test Program Packages and maintenance and Reference Manual.	5/16 CPU	-	-	-	-	-	-

*Contract maintenance and service only applies to these items if M51-104 is ordered.
Maintenance and installation not applicable to customer supplied ROM chips.

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	PROCESSORS (CONTINUED)							
	MODEL 6/16 GENERAL PURPOSE PROCESSOR							
M61-011	Model 6/16 Processor with 8,192 Bytes of 1000 ns Core Memory and 8 Slot Chassis and 25 amp power supply.	-	(6)	4	(18.5)	(1.0)	(1.0)	115/220 VAC 47-63 Hz 3.6/1.75 Amp.
M61-012	Model 6/16 Processor with 16,384 Bytes of 1000 ns Core Memory and 8 Slot Chassis and 25 amp. power supply.	-	(6)	4	(18.2)	(0.6)	(0.5)	
M61-013	Model 6/16 Processor with 32,768 Bytes of 1000 ns Core Memory and 8 Slot Chassis and 25 amp. power supply.	-	(6)	4	(17.5)	(1.3)	(1.1)	
M61-014	Model 6/16 Processor with 65,536 Bytes of 1000 ns Core Memory and 8 Slot Chassis and 25 amp. power supply.	-	(6)	4	(16.3)	(0.7)	(0.5)	
M61-015	Model 6/16 Processor with 8,192 Bytes of 1000 ns Core Memory, 8 Slot Chassis and 50 amp. power supply.	-	(6)	4	(43.5)	(1.0)	(1.0)	115/230 VAC 47-63 Hz 6.0/3.5 Amp
M61-016	Model 6/16 Processor with 16,384 Bytes of 1000 ns Core Memory, 8 Slot Chassis and 50 amp. power supply.	-	(6)	4	(43.2)	(9.6)	(0.5)	
M61-017	Model 6/16 Processor with 32,768 Bytes of 1000 ns Core Memory, 8 Slot Chassis and 50 amp. power supply.	-	(6)	4	(42.5)	)1.3)	(1.11)	
M61-018	Model 6/16 Processor with 65,536 Bytes of 1000 ns Core Memory, 8 Slot Chassis and 50 amp. power supply.	-	(6)	4	(41.3)	(0.7)	(0.5)	
M61-019	Model 6/16 Processor with 8,192 Bytes of 1000 ns Core Memory, 16 Slot Chassis and 50 amp. power supply.	-	(14)	8	(43.5)	)1.0)	(1.0)	115/230 VAC 47-63 Hz 6.0/3.5 Amp
M61-020	Model 6/16 Processor with 16,384 Bytes of 1000 ns Core Memory, 16 Slot Chassis and 50 amp. power supply.	-	(14)	8	(43.2)	(0.6)	(0.5)	
M61-021	Model 6/16 Processor with 32,768 Bytes of 1000 ns Core Memory, 16 Slot Chassis and 50 amp. power supply.	-	(14)	8	(42.5)	(1.3)	(1.11)	
M61-022	Model 6/16 Processor with 65,536 Bytes of 1000 ns Core Memory, 16 Slot Chassis and 50 amp. power supply.	-	(14)	8	(41.3)	(0.7)	(0.5)	
	6/16 MOS PROCESSOR							
M61-023	Model 6/16 Processor with 8,192 Bytes of 600 ns MOS Memory and 5 Slot Chassis 25 amp. power supply.	-	(3)	4	(19)	-	-	115/230 VAC 47-63 Hz 3.0/1.5 Amp Max.
M61-024	Model 6/16 Processor with 16,384 Bytes of 600 ns MOS Memory and 5 Slot Chassis 25 amp. power supply.	-	(3)	4	(19)	-	-	
M61-026	Model 6/16 Processor with 32,768 Bytes of 600 ns MOS Memory and 5 Slot Chassis 25 amp. power supply.	-	(3)	4	(19)	-	-	
M61-030	Model 6/16 Processor with 65,536 Bytes of 600 ns MOS Memory and 5 Slot Chassis 25 amp. power supply.	-	(3)	4	(19)	-	-	

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Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	PROCESSORS (CONTINUED)							
	MODEL 6/16 PROCESSOR OPTIONS							
M61-101	Power Fail Detection/Auto Restart for Model 6/16.	6/16 CPU	-	-	-	-	-	-
M61-102	Display Controller for Hexadecimal, Binary or Turnkey Console.	6/16 CPU	.5	-	0.25	-	-	-
M61-108	Turnkey Console. Includes Key Operated on/off Switch, as well as initialize and Execute Switches.	M61-102 or M61-104	-	3	-	-	-	-
M61-109	Binary Display Panel. Includes long life, Light Emitting Diode (LED) binary readout and Hexadecimal Input Keyboard.	M61-102 or M61-104	-	3	4.2	-	-	-
M61-110	Hexadecimal Display Panel. Includes an advanced Hexadecimal Light Emitting Diode (LED) readout and Hexadecimal Input Keyboard.	M61-102 or M61-104	-	3	5.8	-	-	-
M61-103	Automatic Load Option for 6/16 Processor. Provides the capability of up to 4096 Bytes of Read-Only-Memory for Automatic Program Load.	6/16 CPU	.5	-	0.25	-	-	-
M61-104	Combination Display Controller and 6/16 Automatic Load Option.	6/16 CPU	5.	-	0.30	-	-	-
M61-105	OS/16MT2 Automatic Load Program.	M61-103 or M61-104	-	-	0.35	-	-	-
M61-304	1024 Bytes of Read-Only-Memory for use with 6/16 Automatic Load Option.	M61-103 or M61-104	-	-	0.35	-	-	-
M61-107	Hardware Signed, Fixed Point Multiply/Divide. Multiplies two signed 16 bit numbers to produce a 32 bit product. Divides a 32 bit dividend by a 16 bit divisor.	6/16 CPU	.5	-	0.75	-	-	-
M61-116	Processor Parity Control. Generates and checks memory parity.	6/16 CPU	-	-	0.5	-	-	-
M61-115	Battery Pack for 6/16 Processors with MOS Memory. Provides 2 hours backup for MOS memory system.	6/16 CPU	-	-	-	-	-	-
M70-103	Selector Channel. Provides true cycle stealing access to memory for 8 or 16 bit transfers at a rate up to 2 Megabyte/sec. Includes all addressing, word count, and byte assembly/disassembly hardware.	6/16 CPU	1.0	-	2.3	-	-	
M61-112	6/16 Processor Maintenance and Documentation Kit. Includes Processor and Memory Test Program Packages and 6/16 Maintenance and Reference Manuals.	6/16 CPU	-	-	-	-	-	-
M61-113	6/16 Processor Mounting Kit for 8 Slot Chassis. Includes Processor chassis front and back retaining bars and support rails for mounting in a standard 19" Retma Enclosure.	6/16 CPU	-	-	-	-	-	-
M61-114	6/16 Processor Mounting Kit for 16 Slot Chassis. Includes processor chassis front and back retaining bars and support rails for mounting in a standard 19" Retma Enclosure.	6/16 CPU	-	-	-	-	-	-
M49-032	50 Amp VDE Power Supply — In place of standard 6/16 50 AMP Supply.	M61-016 thru M61-022	-	-	-	-	-	115/230 VAC 47-63 Hz 6.3 Amps Max.

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	PROCESSORS (CONTINUED)							

MODEL 8/16 GENERAL PURPOSE PROCESSORS

Includes 16 General Purpose Registers Buffered Multiplexer Bux. four external cycle stealing high speed DMA Channels and 255 hardware vectored interrupt level. Model 8/16 Central processors have a full memory cycle time of 750 nanoseconds. The 8/16 supports fixed point and single/double precision floating Point Hardware options. All 8/16 processors support two memory slots.

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
M81-000	Model 8/16 Processor with 32,768 bytes of 750 ns core memoory, 8 slot chassis and 25 amp. power supply.	-	(6)	4	(17.5)	(1.3)	1.11	115/230 VAC 47-63 Hz 3.6/1.75 Amps
M81-006	Model 8/16 Processor with 65,536 Bytes of 750 ns core memory, 8 slot chassis and 25 amp. power supply.	-	(6)	4	(14.2)	1.11	(0.91)	Max.
M81-001	Model 8/16 Processor with 32, 768 bytes of 750 ns core memory, 8 slot chassis and 50 amp. power supply.	-	(6)	4	(12.5)	(1.3)	1.11	115/230 VAC 47-63 Hz 6.0/3.5 Amps
M81-007	Model 8/16 Processor with 65,536 Bytes or 750 ns core memory, 8 slot chassis and 50 amp. power supply.	-	(6)	4	(39.2)	(1.1)	0.91	Max.
M81-002	Model 8/16 Processor with 32,768 bytes of 750 ns core memoory, 16 slot chassis and 50 amp. power supply.	-	(14)	8	(42.5)	(1.3)	(1.11)	115/230 VAC 47-63 Hz 6.0/3.5 Amps
M81-008	Model 8/16 Processor with 65,536 bytes of 750 ns core memory 16 slot chassis and 50 amp. power supply.	-	(14)	8	(39.2)	(1.1)	(0.91)	Max.

MODEL 8/16 PROCESSOR MEMORIES

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
M81-300	32,768 Byte Memory Expansion Module. 750 ns Core Cycle time.	M81-000 thru M81-002	1	3.3	3.3	0.2	0.2	-
M81-301	32,768 Byte Memory Expansion Module with parity. 750 ns Core Cycle Time.	M81-111& M81-000 thru M81-002	1	-	3.3	0.2	-	-

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	PROCESSORS (CONTINUED)							
	MODEL 8/16 PROCESSOR OPTIONS							
M81-102	Power Fail/Auto Restart for Model 8/16.	8/16 CPU	-	-	-	-	-	-
M81-103	Turnkey Console. Includes Key Operated ON/OFF Switch as well as Initialize and Execute switches.	8/16 CPU	-	3	-	-	-	-
M81-104	Display Controller for Binary or Hexadecimal Console.	8/16 CPU	.5	-	0.25	-	-	-
M81-105	Binary Display Panel. Includes long life light emitting diode (LED) binary readout and hexadecimal input keyboard.	M81-104 or M81-108	-	3	4.2	-	-	-
M81-106	Hexadecimal Display panel. Includes an advanced Hexadecimal light emitting diode (LED) readout and Hexadecimal Input Keyboard.	M81-104 or M81-108	-	3	5.8	-	-	-
M81-107	Automatic load option for 8/16. Provides the capability of up to 4,096 bytes of Read-only memory for automatic program load.	8/16 CPU	.5	-	0.25	-	-	-
M81-108	Combination display controller and 8/16 Automatic Load option.	8/16 CPU	.5	-	0.51	-	-	-
M81-109	OS/16 MT2 Automatic Load Program. Preprogrammed ROM module for leading of OS/16MT2 from 2.5. 10 or 40 megabyte disc.	M81-107 or M81-108	-	-	0.30	-	-	-
M81-110	1024 Bytes of Read-only-memory for use with 8/16 automatic Load option. Chip will be fused to customers supplied program.	M81-107 or M81-108	-	-	0.35	-	-	-
M81-111	Processor Parity Control. Generates and checks memory parity for 8/16 processor.	8/16 CPU	-	-	0.5	-	-	-
M81-112	Hardware Signed Fixed Point Multiply/Divide. Multiplies two signed 16 bit numbers to produce a 32 bit product. Divides a 32 bit dividend by a 16 bit divisor.	8/16 CPU	.5	0.75	-	-	-	-
M81-100	Single precision hardware floating point option. Provides a complete set of 32 bit floating point instructions plus eight 32 bit floating point registers.	8/16 CPU and M81-112	2	-	0.8	-	-	-
M81-101	Single/Double precision hardware floating point option. Provides a complete set 32 bit and 64 bit floating point instrutions plus eight 32 bit floating point registers and eight 64 bit - Floating Point Registers.	8/16 CPU and M81-112	2	-	0.8	-	-	-
M70-103	Selector channel. Provides true cycle stealing access to memory for 8 or 16 bit transfers at a rate up to 2.66 megabyte/sec. Includes all addressing. word count, and byte level assembly/ disassembly hardware.	8/16 CPU	1	-	2.3	-	-	-

PROCESSORS (CONTINUED)

MODEL 7/32 CII GENERAL PURPOSE PROCESSORS

An enhanced 32 bit processor capable of directly addressing one megabyte of main memory. Includes 32, 32 bit General Purpose Registers, High Speed Multiply/Divide, DMA Connection, Privileged instruction detect, 1024 Hardware Vectored Interrupt Levels and up to 1024 Automatic Driver Channels. Included in the 7/32/CII is a new instruction. Load Real Address (LRA) which significantly improves operating system performance. The 7/32 processors also support the new High Speed Data Handling option M73-112. They do not support half word mode.

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
M73-042	Model 7/32C-II Processor with 65,536 bytes of 750nsec core memory, a 16-slot chassis, and 50 Amp power supply. Supports both the M73-114 single precision and M73-115 single and double precision floating point processors.	-	(11)	8	(20)	(2)	(2)	115/230VAC 47-63 Hz 6.0/3.5 Amps Max.
M73-043	Same as M73-042, except with 128KB of 750nsec memory, and with MAC (M73-104).	-	(10)	8	(15)	(2)	(2)	115/230 VAC 47-63 Hz 6.0/3.5 Amps Max.

MODEL 7/32 CII PROCESSOR MEMORIES

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
M73-300	32,768 Byte Memory Expansion Module. 750 ns Core Cycle Time. (Note 1)	7/32 CII	1.0	-	3.3	0.2	0.2	-
M73-301	32,768 Byte Memory Expansion Module with Parity 750 ns Core Cycle Time. (Note 1)	7/32 CII	1.0	-	3.3	0.2	0.2	-
M73-310	65,536 Byte Memory Expansion Module. 750 ns Core Cycle Time.	7/32 CII	00	1.0	-	3.3	0.2	-
M73-311	65,536 Byte Memory Expansion Module with Parity. 750 ns	7/32 CII	1.0	-	3.3	0.2	0.2	-

(Note 1)   For Processors Delivered before June 1, 1976, order the following expansion numbers:
M73-306   32,768 Byte Memory Expansion Module. 750ns.
M73-307   32,768 Byte Memory Expansion with Parity. 750ns

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	PROCESSORS (CONTINUED)							
	MODEL 7/32 CII PROCESSOR OPTIONS							
M71-101	Binary Display Panel. Includes long life, Light Emitting Diode (LED) binary readout and Hexadecimal Input Keyboard. Includes key operated on/off/lockout switch.	7/32 CII	-	3	4.2	-	-	-
M71-102	Hexadecimal Display Panel. Includes an advanced Hexadecimal Light Emitting Diode (LED) readout and Hexadecimal Input Keyboard. Includes key operated on/off/lockout switch.	7/32 CII	-	3	5.8	-	-	-
M73-100	Power Fail Detection/Auto Restart for Model 7/32.	7/32 CII	-			-	-	-
M73-103	DMA Buffer. Generates a high quality, high speed 7 channel Direct Memory Access Bus. One required per CPU with Direct Memory Access connections.	7/32 CII	1.0	-	4.0	-	-	-
M73-104	Memory Access and Protect Controller. Provides for programmable write and execute protection of main memory. In addition provides for dynamic segmentation and relocation of user programs. Also includes an M73-103 DMA Buffer.	7/32 CII	1.0	-	5.0	-	-	-
M73-105	Extended Memory Selector Channel. Provides a true cycle stealing access to up to 1,000,000 bytes of main memory for 8 or 16 bit transfers at rates up to 2 million bytes/sec. Accommodates up to 16 device controllers.	M73-103 or M73-104	1.0	-	5.5	-	-	-
M73-106	Local Memory Bank Interface. Provides capability to extend the memory bus to handle over 256K bytes of memory (8 modules. Must be added after each additional 256K bytes of memory (8 modules). Also can be used for dual processor shared memory configurations.	M73-103 or M73-104 & M73-111	1.0	-	3.5	-	-	-
M73-107	Processor Parity Control. Generates and checks parity. Includes parity upgrade and check on first memory module.	7/32 CII	-	-	-	-	-	-
M73-111	Local Memory Bank Interface Chassis. Provides for memory expansion of up to 256K Bytes of memory (8 modules) plus space for Local Memory Bank Interfaces, Extended Selector Channels or I/O controllers.	7/32 CII& M49-050	(16)	8	-	-	-	-
M73-112	High Speed Data Handling Option. Provides three additional instructions which process special communication characters, permit memory to memory data moves and perform simultaneous translation and error checking of both LRC and CRC as used by Bisync and SDLC protocols.	7/32 CII	.5	-	.7	-	-	-
M49-032	50 Amp VDE Power Supply — In place of standard 7/32 50 AMP supply.	7/32 CII	-	-	-	-	-	115/230 VAC 47-63 Hz 6.3 Amps. Max.
M73-115	High performance floating point. Includes 34 floating point instructions plus 8 32-bit single precision and 8 64-bit double precision floating point registers.	7/32 CII	2	-	15	-	-	-

PROCESSORS (CONTINUED)

MODEL 8/32 GENERAL PURPOSE PROCESSOR

A high performance 32 bit fully parallel processor capable of Directly Addressing 1,048,576 bytes of Main Memory. The CPU features instruction lookahead stacks and interleaved memory to yield an effective 32 bit cycle time of 300 ns. The Processor includes two sets of sixteen General Purpose Registers each 32 bits wide, 1024 hardware interrupt levels, 16 slot chassis, levels, 16 slot chassis, system cabinet, two power supplies, Binary Display Panel, Power Fail Detection/Automatic Restart, privilege instruction detect, and up to 1024 Automatic Driver Channels. Includes Memory Access and Protect Controller. Provides for program protection (execute, write, write/interrupt, limit and non-present protection) and program segmentation and relocation. Includes sixteen 32 bit segmentation registers. A current loop interface to a teletypewriter is also included.

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
M83-025	Model 8/32C Processor with 131,072 Bytes of 750 ns Core Memory and provision for using M83-111 High Performance Floating Point and M83-103 High-Speed Data Handling Options.	-	-	8	(9)	-	-	115/230 VAC 47-63 Hz 13/6.50 Amps. Max.
M83-030	Model 8/32D Processor with 262,144 bytes of 750 ns Core Memory, and provision for using M83-111 High Performance Floating Point, and M83-103 High Speed Data Handling Options.	-	-	8	-	8.9	9.7	115/230 VAC 47-63 Hz 13/6.50 Amps. Max.

NOTE: The addition of Writable Control Store and/or High Performance to either a base machine (minimum memory) or megabyte machine, requires the purchase of one M49-050 Power Supply.

8/32 C MEMORIES

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
M83-310	Memory Expansion from 131,072 bytes to 262,149 Bytes.	8/32C	-	8	-	-	-	115/230 VAC 47-63 Hz 6.5/3.25 Amps Max.
M83-311	Same as above with parity.	8/32C and M83-107	-	8	-	-	-	
M83-312	Memory Expansion from 262,144 Bytes to 393,216 Bytes.	M83-310	-	-	-	-	-	115/230 VAC 47-63 Hz 6.5/3.25 Amps Max.
M83-313	Same as above with parity.	M83-311	-	-	-	-	-	-
M83-314	Memory Expansion from 393,216 Bytes to 524, 288 Bytes.	M83-312	-	-	-	-	-	-
M83-315	Same as above with parity.	M83-313	-	-	-	-	-	-
M83-316	Memory Expansion from 524,288 Bytes to 655,360 Bytes.	M83-314	-	8	-	-	-	-
M83-317	Same as above with parity.	M83-315	-	8	-	-	-	-
M83-318	Additional 131,072 Byte memory increments.	M83-316	-	-	-	-	-	-
M83-319	Same as above with parity.	M83-317	-	-	-	-	-	-

Field Modification is required for memory expansion of 8/32 Processors delivered prior to June 1, 1976.

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	PROCESSORS (CONTINUED)							
	8/32D MEMORIES							
M83-320	Memory expansion from 262,144 bytes to 524,288 bytes.	8/32D	-	8	.	-	-	115/230 VAC 47-63 Hz 6.5/3.25 Amps Max.
M83-321	Same as above with parity.	8/32D and M83-107	-	8	.	-	-	-
M83-322	Additional 256KB memory expansion.	M83-320	-	8	.	-	-	115/230 VAC 47-63 Hz 6.5/3.25 Amps Max.
M83-323	Same as above with parity.	M83-321	-	8	.	-	-	-
	MODEL 8/32 C and D PROCESSOR OPTIONS							
M83-102	Hexadecimal Display Panel.	8/32C/D	-	-	1.0A	-	-	-
M83-103	High-Speed Data Handling Option. Provides three additional instructions which process special communication characters, permit memory to memory data moves and perform simultaneous translation and error checking of both LRC and CRC as used by Bisync and SDLC protocols.	8/32C/D and M49-035 or M49-036	.5	-	.7	-	-	-
M83-107	Processor/Memory Parity Generation and checking hardware. Includes parity upgrade and check for basic 131,072 Bytes of memory.	8/32C/D	-	-	.	-	-	-
M83-110	Extended Register Sets for 8/32 Processor. This option is comprised of six additional sets of sixteen 32 bit wide General Purpose Hardware Registers.	8/32C/D	-	-	.	-	-	-
M73-105	Extended Memory Selector Channel. Provides a true cycle stealing access to 1,000,000 bytes of main memory for 8 or 16 bit transfers at rates up to 2 million bytes/sec. Accomodates up to 16 device controllers.	M49-035 or M49-020	1.0	-	5.5	-	-	-
M49-035	System Chassis prewired for up to 8 15" or 16 7" controllers without power. This chassis is used only in 8/32 main frame for memory configurations up to and including 524,288 bytes.	8/32C/D or M49-036	(8.0)	4	.	-	-	-
M83-108	Writable Control Store. Facilitates user alterable microprograms of up to 512, 32-bit words in size.	8/32C/D	-	-	.	-	-	115/230 VAC 6.0/3.5 Amps Max.
M83-111	High Performance Floating Point. Includes a complete set of single and double precision floating point instructions plus eight 32 bit and eight 64 bit floating point registers.	8/32C/D and M49-050	-	-	.	-	-	-

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power

SYSTEM MODULES

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
M48-012	Line Frequency Derived Clock. Provides automatic interrupt on each 8.33 ms (60 Hz) or 10 ms (50 Hz).	Any CPU or M49-020	0.5	-	1.0	-	-	-
M48-000	Universal Clock Module. Includes a programmable Precision Interval Clock with both frequency and interval count under hardware control. Also includes an AC line frequency derived clock.	Any CPU or M49-020	0.5	-	1.75	-	-	-
M48-001	8-Line Interrupt Module. Accepts level or transition inputs. Includes separately programmable Mask and Queue Registers, to interface customer interupt lines to the built-in processor interrupt system.	Any CPU or M49-020	0.5	-	1.0	-	-	-
M48-002	General Purpose Interface Board (15"). Can mount up to 117 4 or 16 pin dual in line package IC's for customer designs.	Any CPU or M49-020	1.0	-	-	-	-	-
M48-013	Universal logic interface. Includes fully buffered output logic for byte and halfword data transfers on Multiplexor Bus or Selector Channel. Unit can mount up to 77,14 or 16 pin dual in line package IC's for custom design. Incorporates wire wrap stakes for circuit integration. Includes internal cable. +5V Power shown for INTERDATA Supplied Logic.	Any CPU or M49-020	1.0	-	1.8	-	-	-
M70-104	Loader Storage Unit Controller with hardware Watchdog Timer and I/C Sockets for up to 16 each M70-105.	Any CPU (except 5/16, 6/16) or M49-020	0.5	-	1.0	-	-	-
M70-105	128 Byte Storage Module for use with M70-104.	M70-104	-	-	0.13	-	-	-
M70-106	16 Bit LSU Bootstrap Loader. Loads core image of BOSS, DOS, RTOS or OS/16MT1 from 2.5; 10 or 40 Megabyte Disc.	M70-104	-	-	-	-	-	-
M70-107	32 Bit LSU Bootstrap Loader. Loads OS/32MT or OS/32ST from 2.5, 10 or 40 Megabyte Disc, and MSM 80, Msm 300 Storage Modules.	M70-104	-	-	-	-	-	-
M70-108	16 Bit LSU Bootstrap Loader. Loads OS/16MT2 from 2.5, 10 or 40 Megabyte Disc, and MSM 80, MSM 300 Storage Modules.	M70-104	-	-	-	-	-	-
M48-005	Multiplexor Bus Buffer extends Drive Capability for up to 16 additional 7" or 15" device controllers.	Any CPU	1.0	-	1.7	-	-	-
M48-014	Input/Output Bus Switch. Allows a common switched bus between processors (one Input/Output Bus switch required per processor sharing a switched bus). One 7" board housed in processor or I/O Expansion chassis and 7" board housed in switched bus chassis. The switched bus must be located in a dedicated chassis with its dedicated power supply.	Any CPU and M49-020 and M49-024	2x0.5	-	1.9x2	-	-	-
M48-017	Extension Cable Kit, 25 feet. Extends I/O Bus Switch distance to 50 feet.	M48-014	-	-	-	-	-	-
M48-018	Manual Control Panel for I/O Bus Switch. Allows manual override control for up to six processors sharing a single common switched bus. Includes keylock power and auto-manual control.	M48-014	-	1	-	-	-	-
M48-019	Manual Control Panel for I/O Bus Switch. Allows manual override control for up to three separate common switched busses each shared by two processors. Includes keylock power and auto-manual control for each bus.	M48-014	-	1	-	-	-	-

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	SYSTEM MODULES (CONTINUED)							
M48-020	Extended Direct Memory Access Logic Interface for custom logic designs. This module incorporates a high quality interface design for connection to the Extended Direct Memory Access Bus. All necessary interfacing control logic is incorporated with an additional 110 integrated circuit positions available fo wire wrapping of customer designed logic.	8/32 or 7/32 CII with either (M73-103 or M73-104)	1.0	-	1.5	-	-	-
M48-050	Buffered Selector Channel provides the 8/32 processor with a direct memory access of up to 1,000,000 bytes of main memory. Includes Burst/halfword mode selection, 16 halfword buffering and burst length select from 2 to 14 halfwords. Data transfer is at rates up to 5.9 million bytes persecond. Accommodates up to 16 device controllers.	8/32	1.0	-	6	-	-	-
M48-045	Micro I/O Bus Adapter. Allows the connection of any device controller designed for use on the micro I/O Bus of INTERDATA's 5/16 Processor to the multiplexor bus of any INTERDATA Processor. Includes Cable.	Any CPU	0.5	-	0.7	-	-	-

MULTIPORT MEMORY

(1) Prices are based on orders received which include the order of two 32-bit processors. The processors must contain parity option and have slots available in the chassis for inclusion of the multiport memory interface. Orders for Multiport Memory which includes the order for one processor (since the customer already has the second processor on site) requires a test charge of $1000.00.
Customers ordering Multiport Memory to be added in the field to two existing 32-bit processors requires a test charge of $1500.
The above test charges are in addition to an installation quotation.

(2) All requests for Multiport Memory must include a detailed configuration diagram of the proposed or existing configuration.

(3) Components of a Multiport Memory System may be ordered as spare parts but will only be tested in a minimum configuration prior to shipping from Oceanport. Customers will be required to sign a statement acknowledging that limitation.

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
M48-035	Two Port, single bank, 64KB Multiport Memory System, includes two interface boards, one multiplexor, one controller, one chassis, two-32KB core memory boards with parity, 750ns core cycle time, one power supply, one power control panel, one high density systems cabinet and all related cables.	See Notes 1 & 2	*	(48)	-	-	-	115/230 VAC +10% 47-63 Hz 6.5/3.75 Amp. Max.
M48-038	Two Port, Half Word Interleaved dual bank, 64KB Multiport Memory System. Includes two multiplexors, two memory controllers, two-32KB core memory boards with parity and 750ns core cycle time, two chassis, two power supplies, one power control panel, one high density systems cabinet and all related cables.	See Notes 1 & 2	*	(48)	-	-	-	115/230 VAC +10% 47-63 Hz 13/7.5 Amp Max.

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
SYSTEM MODULES (CONTINUED)								
M48-040	Two Port, (optional halfword or fullword interleaved) four banks, 128KB Multiport Memory System, includes two interface boards, four multiplexors, four controllers, four-32KB core memory boards with parity and 750ns core cycle time, four chassis, four power supplies, one power control panel, one high density systems cabinet and all related cables.	See Notes 1 & 2	*	(48)	-	-	-	115/230 VAC +10% 47-63Hz 6.5/3.75 Amp. Max.
M48-025	Multiport Memory Interface. 15" circuit board, provides interface between one 32-bit, processor, ESELCH or Special Interface and from one to eight multiport memory banks, includes all related cables.	See Note 3	1	-	9	-	-	-
M48-026	Multiport Memory Controller. 15" circuit board, determines priority of multiplexor service and controls access to the core memory in the memory bank, includes power supply, chassis and related cables.	See Note 3	-	-	3	-	-	115/230 VAC +10% 47-63H Hz 6.5/3.75 Amp. Max.
M48-027	Multiport Memory Multiplexor. Provides a two port access for two Multiport Memory interfaces into a memory bank and determines access priority, interleaving option and addressing. 15" circuit board includes related cables.	See Note 3	1	-	6.2	-	-	-
M48-033	25' Extension Cable. Extends cable length between the Multiport Memory Interface and Multiplexor port (maximum distance 50 feet).	M48-025 & M48-027	-	-	-	-	-	-
M48-041	64KB Multiport Memory expansion with parity and 1000nsec core cycle time. Includes chassis, one memory board, one power supply and related cables.	-	(7)	4	(46.7)	(2.8)	(2.8)	115/230 VAC +10% 47-63 Hz 6.5/3.75 Amp. Max.
M48-042	64KB Multiport Memory expansion with parity and 750nsec core cycle time. Includes chassis, two memory boards, one power supply and related cables.	-	(6)	4	(43.4)	(2.6)	(2.6)	115/230 VAC +10% 47-3.75 Amp. Max.
M48-043	96KB Multiport Memory expansion with parity and 750nsec core cycle time. Includes chassis, three memory boards, one power supply and related cables.	-	(5)	4	(40.1)	(2.4)	(2.4)	115/230 VAC +10% 47-3.75 Amp. Max.
M48-044	128KB Multiport Memory expansion with parity and 750nsec cycle time. Includes chassis, one power supply and related cables.	-	(4)	4	(36.8)	(2.2)	(2.2)	115/230 VAC +10% 47-3.75 Amp. Max.

*Requires one card slot in each CPU I/O chassis for installation of Multiport Memory Interface.

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	SYSTEM MODULES (CONTINUED)							
M48-056	Power Control Panel and High Density Systems Cabinet. For use of up to four banks of Multiport Memory. Provides manual control of power to individual banks and automatic sensing and visual indication in the event of power loss in any of the one to four memory banks. 60 Hz	See Note 3	-	1	-	-	-	-
M48-057	Same as M48-056, 50 Hz.	See Note 3	-	1	-	-	-	- -

*Requires one card slot in each CPU I/O chassis for installation of Multiport Memory Interface.

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	TERMINALS							
	CAROUSEL 30							
M46-060	Carousel 30 Keyboard Printer Terminal. Print capabilities are 30 characters per second using a 64 character ASCII subset with an 132 character print line. The terminal operates via a 20 ma current loop interface and includes external cable.	M48-024	-	-	-	-	-	110VAC±10% 3.5 Amps. Max.
M46-061	Same as M46-060, 50 Hz	M48-024	-	-	-	-	-	220 VAC±10% 1.75 Amps. Max.
M48-024	Current loop interface.	M46-060 061	0.5	-	1.6	-	-	-
M46-860	Pin Feed adjustable width forms tractor for Carousel 30 Terminal with a 132 Character print line.	M46-060 061	-	-	-	-	-	-
M46-865	Acoustic Cover.	M46-860	-	-	-	-	-	-
M46-845	Pedestal mount for free standing Installation of Carousel 30 Terminal.	M46-060 061	-	-	-	-	-	-
M46-906	Basic Carousel Supplies Kit—includes 6 Black fabric ribbon cartridges and 3 Carousel print cups.	M46-060 061	-	-	-	-	-	-
	CAROUSEL 35							
M46-062	Carousel 35 Keyboard Printer Terminal. Print capabilities are 30 characters per second using a 64 character ASCII subset with an 132 character print line. The terminal operates via a 20 ma. current loop interface, includes external cable and Friction-feed paper handling for 15" forms width. This unit is a buffered terminal and operates at a rate of 1320 bps between the terminal and computer interface.	M48-021	-	-	-	-	-	110 VAC ±10% 3.5 Amps. Max.
M46-063	Same as M46-062, 50 Hz.	M48-021	-	-	-	-	-	220 VAC±10% 1.75 Amps. Max.
M48-021	Current Loop Interface.	M46-062 063	0.5	-	1.6	-	-	-
M46-860	Pin Feed adjustable width forms tractor for Carousel 35 Terminal with a 132 character print line.	M46-062 063	-	-	-	-	-	-
M46-881	96 Character Set ASCII character set for Carousel 35 Terminal. Includes Upper and Lower case letters, numerals and special characters.	M46-062 063	-	-	-	-	-	-
M46-821	120 CPS Paper Tape Reader.	M46-062, 063	-	-	-	-	-	-
M46-865	Acoustic Cover.	M46-860	-	-	-	-	-	-
M46-845	Pedestal Mount for free Standing Installation of Carousel 35 Terminal.	M46-062 063	-	-	-	-	-	-
M46-906	Basic Carousel Supplies Kit—includes 6 black fabric ribbon cartridges and 3 Carousel print cups.	M46-062 063	-	-	-	-	-	-

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	TERMINALS (CONTINUED)							
	CAROUSEL 300							
M46-064	Carousel 300 Keyboard Printer Terminal. Print capabilities are 30 characters per second using a 96 character ASCII subset with 132 character print line. The Terminal includes a numeric pad as well as a standard keyboard. Interfacing is via an RS232C interface which can be used locally or as remote terminal with a Bell 103 or equivalent modem. Includes Electronic Format control for horizontal and vertical tab control.	M47-102	-	-	-	-	-	110 VAC±10% 3.5 Amps. Max.
M46-065	Same as M46-064, 50 Hz.	M47-102	-	-	-	-	-	220 VAC ± 10% 1.75 Amps. Max.
M46-810	External cable assembly for connection of local Carousel 300 Terminal to Programmable Asynchronous Single Line Adapter, 25 feet.	M47-102	-	-	-	-	-	-
M46-811	External cable assembly for connection of Carousel 300 Terminal to Bell 103 modem or equivalent, 50 feet.	M47-102, M10-054	-	-	-	-	-	-
M46-860	Pin Feed adjustable width forms tractor for Carousel 300 Terminal with a 132 character print line.	M46-064, 065	-	-	-	-	-	-
M46-865	Acoustic Cover.	M46-860	-	-	-	-	-	-
M46-845	Pedestal mount for free standing installation of Carousel 300 Terminal.	M46-064, 065	-	-	-	-	-	-
M46-906	Basic Carousel Supplies Kit—includes 6 black fabric ribbon cartridges and 3 Carousel print cups.	M46-064, 065	-	-	-	-	-	-
	PRINTERS							
M46-000	ASR Model 33 Teletypewriter with external cable, 60 Hz, friction feed.	M48-024 or CPU	-	-	-	-	-	115VAC±10% 15 Amps. Start 13 Amps. Run
M46-002	Same as M46-000, 50 Hz.	M48-024 or CPU	-	-	-	-	-	115VAC±10% 7.5 Amps. Start 1.5 Amps. Run
M46-004	ASR Model 33 Teletypewriter with external cable, 60 Hz, sprocket feed.	M48-024 or CPU	-	-	-	-	-	115VAC±10% 15 Amps. Start 3 Amps. Run
M46-005	Same as M46-004, 50 Hz.	M48-024 or CPU	-	-	-	-	-	115VAC±10% 7.5 Amps. Start 1.5 Amps. Run
M46-001	ASR Model 35 Teletypewriter with external cable, 60 Hz. sprocket feed.	M48-024 or CPU	-	-	-	-	-	115VAC±10% 12 Amps. Start 3 Amp. Run
M46-003	Same as M46-001, 50 Hz.	M48-024 or CPU	-	-	-	-	-	115VAC±10% 7.5 Amps. Start 1.5 Amps. Run
M48-024	Current Loop Interface. (For use with ASR33 and ASR35).	Any CPU or M49-020	0.5	-	1.6	-	-	-

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	TERMINALS (CONTINUED)							
	VIDEO DISPLAY							
M46-030	Model 1100 Display Terminal, conversational mode 1920 character fully buffered display (24 x 80 characters) 128 character ASCII set, operates at speeds to 9600 baud via RS232C interface. 60 Hz.	M47-102 or M47-101	-	-	-	-	-	115 VAC±10% 2 Amps. Max.
M46-031	Same as M46-030. 50 Hz.	M47-102 or M47-101	-	-	-	-	-	230VAC±10% 1 Amp. Max.
M46-035	Model 1100 Display Terminal, conversational mode 1920 character fully buffered display (24 x 80 characters) 128 character ASCII set, includes numeric keypad with 0-9, comma and period. Operates at speeds to 9600 baud via RS232C interface. 60 Hz.	M47-102 or M47-101	-	-	-	-	-	115VAC±10% 2 Amps. Max.
M46-037	Same as M46-035. 50 Hz.	M47-102 or M47-101	-	-	-	-	-	230VAC±10% 1 Amp Max.
M46-055	Model 1100 Current Loop Line interface. Allows terminal to communicate with a standard Interdata processor current loop interface. Speeds to 2400 baud.	5/16 CPU or M48-024	-	-	-	-	-	-
M46-033	Printer Port for local hard copy device, RS232C direct communication. Must be ordered with Display Terminal.	-	-	-	-	-	-	-
M46-034	Printer port for local hard copy device, current loop direct communication. Must be ordered with Display Terminal.	-	-	-	-	-	-	-
M46-036	Antiglare Screen Option for excessively high candle light environment. Must be Ordered with Display Terminal.	-	-	-	-	-	-	-
M46-041	Model 1200 Display Terminal, 1920 character fully buffered display with complete editing controls, numeric pad, page and conversational modes, 128 character ASCII set. Operates at speeds to 9600 baud via RS232C line interface. 60 Hz.	M47-102 or M47-101	-	-	-	-	-	115VAC±10% 2 Amps. Max.
M46-042	Same as M46-041. 50 Hz.	M47-102 or M47-101	-	-	-	-	-	230VAC±10% 1 Amp. Max.
M46-046	Model 1200 Display Terminal, 1920 character fully buffered display with complete editing controls, numeric pad, page and conversational modes, 128 character ASCII set and function keyset providing 16 user function keys with 32 discrete function codes. Operates at speeds to 9600 baud via RS232C line interface. 60 Hz.	M47-102 or M47-101	-	-	-	-	-	115VAC±10% 2 Amps. Max.
M46-048	Same as M46-046. 50 Hz.	M47-102 or M47-101	-	-	-	-	-	230VAC±10% 1 Amp. Max.
M46-044	Printer Port for local hard copy device, RS232C direct communication. Must be ordered with Display Terminal.	-	-	-	-	-	-	-
M46-045	Printer port for local hard copy device, 20ma current loop direct communication. Must be ordered with Display Terminal.	-	-	-	-	-	-	-

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	TERMINALS (CONTINUED)							
	VIDEO DISPLAY (CONTINUED)							
M46-050	Line drawing character set to permit form and graph screen formats. Must be ordered with Display Terminal.	-	-	-	-	-	-	-
M46-108	Graphic Display Terminal. Graphic mode provides point addressing on a 1024 x 1024 matrix, alphanumeric mode provides 2590 character display (35 lines x 74 characters). Operates 150, 300, 600, 1200, 2400, 4800 or 9600 baud with local RS232C interface.	M47-102 and M46-106	-	-	-	-	-	115VAC±10% 1.7 Amps. Max.
M46-109	Same as M46-108, 50 Hz.	M47-102 and M46-106	-	-	-	-	-	230VAC±10% 0.85 Amps. Max.
M46-105	External cable assembly for connection of remote Video Display to a modem, 50 feet.	RS232C and M47-102 or M47-101	-	-	-	-	-	-
M46-106	External cable assembly for connection of local Video Display to asynchronous communication adapter, 25 feet.	M46-108 or M46-030, 041	-	-	-	-	-	-
M46-056	External cable assembly for connection of local current loop interface to model 1100, carousel 30/35. 25 feet.	M46-060/061 062/063 & M46-055	-	-	-	-	-	-

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	PERIPHERAL							
	PAPER TAPE EQUIPMENT							
M46-250	Combination Paper Tape Reader/Punch Interface with direct connect cable.	Any CPU or M49-020	0.5	-	1.2	-	-	-
M46-240	Paper Tape Reader, Uni-directional, 300 C.P.S., Rack Mount-table with Fanfold bins.	M46-250	-	4		-	-	115VAC±10% 2 Amps. Max.
M46-241	Same as M46-240, 50 Hz.	M46-250	-	4		-	-	230VAC±10% 1 Amps. Max.
M46-242	Combination Paper Tape Reader/Punch, 300/75 C.P.S. Rack Mountable for use with fanfold tape.	M46-250	-	6		-	-	115VAC±10% 3 Amps. Max.
M46-243	Same as M46-242, 50 Hz.	M46-250	-	6		-	-	230VAC±10% 1.5 Amps. Max.
	CARD EQUIPMENT							
M46-235	Card Reader Interface with internal cable for 400 C.P.M. or 1000 C.P.M. Card Reader.	Any CPU or M49-020	0.5	-	1.7	-	-	-
M46-234	Hardware Hollerith to ASCII Conversion Option for Card Reader Interface.	M46-235	-	-		-	-	-
M46-238	Card Reader, 400 C.P.M. includes external cable. 1000 card hopper capacity. 500 card stacker capacity, 60 Hz.	M46-235	-	-		-	-	115VAC±10% 4 Amps.
M46-239	Same as M46-238, 50 Hz.	M46-235	-	-		-	-	230VAC±10% 2.4 Amps.
M46-236	Heavy Duty card reader 1000 CPM. Includes cable, 1000 card Hopper/stacker capacity. 60 Hz.	M46-235	-	-		-	-	115VAC±10% 5.3 Amps.
M46-237	Same as M46-236, 50 Hz.	M46-235	-	-		-	-	250VAC±10% 2.7 Amps.
	LINE PRINTERS							
M46-202	Line Printer Interface and internal cable for 60 to 200 L.P.M. Line Printer.	Any CPU or M49-020	0.5	-	1.0	-	-	-
M46-204	Fully Buffered Line Printer, 60 to 200 L.P.M., 132 Columns, 64 Character Set, includes external cable.	M46-202	-	-		-	-	115VAC±10% 15 Amps. Max.
M46-205	Same as M46-204, 50 Hz.	M46-202	-	-		-	-	230VAC±10% 7.5 Amps. Max.
M46-206	Line Printer Interface and internal cable for 300 or 600 L.P.M. Line Printer.	Any CPU or M49-020	0.5	-	1.6	-	-	-
M46-207	Fully Buffered Line Printer, 300 L.P.M. 132 Columns, 64 Character Set, includes external code.	M46-206	-	-		-	-	115VAC±10% 7 Amps. Mas.
M46-208	Same as M46-207, 50 Hz.	M46-206	-	-		-	-	230VAC±10% 3.5 Amps. Max.
M46-209	Fully Buffered Line Printer, 600 L.P.M., 132 Columns, 64 Character Set, includes external cable.	M46-206	-	-		-	-	115VAC±10% 7 Amps. Max.
M46-210	Same as M46-209, 50 Hz.	M46-206	-	-		-	-	230VAC±10% 3.5 Amps. Max.

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Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	PERIPHERAL							
	MAGNETIC TAPE							
M46-400	INTERTAPE Cassette System. Includes dual transports, 1000 characters per second read/write speed, read-after-write check longitudinal redundancy check, 500,000 byte capacity per cassette. Includes interface.	Any CPU or M49-020/035	1.0	4	3.5	-	-	115/230 VAC ±10% 47-63 Hz. 2 Amps. Max.
M46-503	7 Track, 200 c.p.i. Magnetic Tape Transport interface. The interface controls up to four IBM compatible 200 c.p.i. continuous read-after-write drives. Includes Longitudinal Redundancy Check hardware and Read-After-Write check.	Any CPU or M49-020	1.0	-	3.5	-	-	-
M46-504	7 Track, 556 c.p.i. Magnetic Tape Transport interface. The interface controls up to four IBM compatible 556 c.p.i. continuous read-after-write drives. Includes Longitudinal Redundancy Check hardware and Read-After-Write check.	Any CPU or M49-020	1.0	-	3.5	-	-	-
M46-505	7 Track, 800 c.p.i. Magnetic Tape Transport interface. The interface controls up to four IBM compatible 800 c.p.i. continuous read-after-write drives. Includes Longitudinal Redundancy Check hardware and Read-After-Write check.	Any CPU or M49-020	1.0	-	3.5	-	-	-
M46-506	7 Track 200/800 c.p.i., 45 i.p.s. Magnetic Tape Transport. Continuous transfer rate is either 9,000 or 36,000 characters per second.	M46-503 or M46-505 and M46-471 or M46-472	-	14	-	-	-	115 VAC±10% 2.3 Amps. Max.
M46-507	Same as M46-506, 50 Hz.	M46-503 or M46-505 and M46-471 or M46-472	-	14	-	-	-	230VAC±10% 1.2 Amps. Max.
M46-508	7 Track 556/800 c.p.i., 45 i.p.s. Magnetic Tape Expansion Transport. Continuous transfer rate is either 25,020 or 36,000 characters per second.	M46-504 or M46-505 and M46-471 or M46-472	-	14	-	-	-	115VAC±10% 2.3 Amps. Max.
M46-509	Same as M46-508, 50 Hz.	M46-504 or M46-505 and M46-471 or M46-472	-	14	-	-	-	230VAC±10% 1.2 Amps. Max.
M46-500	9 Track, 800 c.p.i., Magnetic Tape Transport Interface. The interface controls up to four IBM compatible continuous read-after-write 45 i.p.s. drives. Includes Cyclic Redundancy Check Hardware and Read-After-Write Check.	M70-103 or M73-105	1.0	-	3.5	-	-	-
M46-501	9 Track, 800 c.p.i., 45 i.p.s. Magnetic Tape Expansion Transport. Continuous transfer rate is 36,000 characters per second.	M46-500 and M46-471 or M46-472	-	14	-	-	-	115VAC±10% 2.3 Amps. Max.
M46-502	Same as M46-501, 50 Hz.	M46-500 and M46-471 or M46-472	-	14	-	-	-	230 VAC±10% 1.2 Amps. Max.
M46-471	Magnetic Tape Transport Direct Connect Cable.	See Note	-	-	-	-	-	-
M46-472	Magnetic Tape Transport Direct Connect Cable.	See Note	-	-	-	-	-	-

NOTE: 9 TRACK, 800 C.P.I., 45 ips AND 7 TRACK 200/556 800 C.P.I. MAGNETIC TAPE TRANSPORT CABLING.
CABLES ARE TO BE ORDERED IN THE FOLLOWING MANNER.

Number of Magnetic Tape Transports	Required Cables	
1	1 each M46-471	For an expansion order to an existing system, count the total number of transports.
2	2 each M46-471	
3	1 each M46-471 & M46-472	
4	2 each M46-472	

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	PERIPHERAL							
	MAGNETIC TAPE (CONTINUED)							
M46-512	9 Track 1600 c.p.i., Magnetic Tape Transport interface. The interface controls up to four I.B.M. compatible, continuous read-after-write 45 i.p.s. drives via a Phase Encoded Formatter supplied with M46-513 or M46-514. Direct Connect Cable to Phase Encoded Formatter is included.	M70-103 or M73-105	0.5	-	1.8	-	-	-
M46-513	9 Track, 1600 c.p.i., 45 i.p.s. Magnetic Tape Transport and 1 x 4 Phase Encoded Formatter. Continuous transfer rate is 72,000 characters per second. Direct connect cable between Phase Encoded Formatter and Transport is included.	M46-512	-	14 3	- -	- -	- -	115VAC±10% 5.3 Amps. Max.
M46-514	Same as M46-513, 50 Hz.	M46-512	-	14 3	-	-	-	230VAC±10% 5.3 Amps. Max.
M46-515	9 Track, 1600 c.p.i., 45 i.p.s. Magnetic Tape Expansion Transport for use with M46-513. Includes direct connect cable for Transport.	M46-513	-	14	-	-	-	115VAC±10% 2.3 Amps. Max.
M46-516	Same as M46-515, 50 Hz.	M46-514	-	14	-	-	-	230VAC±10% 1.2 Amps. Max.
M46-490	9 Track, 800 cpi. 75 ips Magnetic Tape System. Includes a vacuum column continuous read-after-write tape transport, cabinet, cables and a controller capable of handling up to four tape drives. Transfer rate is 60,000 character per second. 60 Hz.	M70-103 or M73-105	1	(18)	3.5	-	-	115 VAC 8.5 Amps.
M46-491	9 track, 800 cpi, 75 ips Magnetic Tape Expansion Transport for use with M46-490. Includes cabinet and cables. 60 Hz.	M46-490	-	(18)	-	-	-	115 VAC 8.5 Amps.
M46-492	Same as M46-490, 50 Hz.	M70-103 or M73-105	1	(18)	3.5	-	-	230 VAC 4.2 Amps.
M46-493	Same as M46-491, 50 Hz.	M46-492	-	(18)	-	-	-	230 VAC 4.2 Amps.
M46-494	9 track, 800/1600 Dual Density, 75ips Magnetic Tape System. Includes a vacuum column continuous read-after-write tape transport, NRZI/PE formatter, cabinet, cables and a controller capable of handling up to four (4) drives. Transfer rate is 120,000 characters per second 60 Hz.	M70-103 or M73-105	0.5	(15)	1.8	-	-	115 VAC 9.9 Amps.
M46-495	9 track, 800/1600 Dual Density, 75 ips Magnetic Tape Expansion Transport for use with M46-494. Includes cabinet and cables. 60 Hz.	M46-494	-	(18)	-	-	-	115 VAC 8.5 Amps.
M46-496	Same as M46-494, 50 Hz.	M70-103 or M73-105	0.5	(15)	1.8	-	-	230 VAC 4.5 Amps.
M46-497	Same as M46-495, 50 Hz.	M46-496	-	(18)	-	-	-	230 VAC 4.9 Amps.

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Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	PERIPHERAL							
	DISC							
M46-611	2,500,000 Byte Removable Cartridge Disc System. Disc transfer rate is 195,250 characters per second, average access time is 33 msec. System includes disc drive controller for up to four drives, 2,500,000 Byte Disc Drive. Cartridge Disc Pack, Power Supply. Direct Connect Cable for First Drive 60 Hz.	M70-103 or M73-105	1.0	5	4.5	-	-	115 VAC ±10% 3.3 Amps. Run 12 Amps. Start
M46-612	Same as M45-611, 50 Hz.	M70-103 or M73-105	1.0	5	4.5	-	-	230 VAC ± 10% 1.7 Amps. Run 8 Amps. Start
M46-613	2,500,000 Byte Removable Cartridge Disc Expansion Drive for use with M46-611. Includes Disc Pack and direct connect cable for expansion drive. 60 Hz.	M46-611	-	5	-	-	-	115 VAC ± 10% 3.3 Amps. Run 12 Amps. Start
M46-614	Same as M46-613, 50 Hz.	M46-612	-	5	-	-	-	230 VAC±5% 1.7 Amps Run 6 Amps. Start
M46-420	Removable Cartridge Disc Interface for use up to four 2,500,000 Byte Disc Drives. Direct connect cable to first drive is included.	M70-103 or M73-105	1.0	-	4.5		-	-
27-039	2,500,000 Byte Removable Cartridge Disc Pack. IBM 2315 type cartridge with 24 sectors.	M46-611 thru M46-614	-	-	-	-	-	-
M46-421	Removable Cartridge Disc Interface for use with up to four 10,000,000 Byte dual Disc Drives. Direct connect cable to first drive is included.	M70-103 or M73-105	1.0	-	4.5	-	-	-
27-056	Removable Cartridge Disc Pack for 10,000,000 Byte Disc. Storage capacity is 5,000,000 bytes. IBM 5440 Type cartridge with 24 sectors.	DPAC Systems	-	-	-	-	-	-
M46-600	Model MSM 80 67,000,000 Byte Removable Mass Media Storage Module Drive and 1 x 4 Controller. This unit is a 3330 type disc using a 5 surface disc drive pack. Disc transfer rate is 1,200,000 bytes per second, average access time is 30ms. Storage capacity is 67,200,000 bytes fully formatted. Includes a fully formatted disc pack, write protect feature, damage preventing pack interlock, pedestal cabinet and controller capable of handling up to four disc drives, 60 Hz.	M70-103 or M73-105	2	-	7	-	-	120 VAC 8.2 Amps. Run 30 Amps. Start
M46-601	Model MSM80E 67,000,000 Byte Removable Mass Media Storage Module Expansion Drive. This unit is a 3330 type disc drive using a 5 surface disc pack. Disc transfer rate is 1,200,000 bytes per second, average access time is 30ms. Storage capacity is 67,200,000 bytes, fully formatted. Includes a fully formatted disc pack, write protect feature, damage preventing pack interlock and pedestal cabinet. 60 Hz.	M46-600	-	-	-	-	-	120 VAC 8.2 Amps. Run 30 Amps. Start
M46-602	Same as M46-600, 50 Hz.	M70-103 or M73-105	2	-	7	-	-	220 VAC 4.9 Amps. Run 22 Amps. Start
M46-603	Same as M46-601, 50 Hz.	M46-602	-	-	-	-	-	220 VAC 4.9 Amps. Run 2.2 Amps. Start
M46-604	Model MSM300 256,000,000 Byte Removable Mass Media Storage Module Drive and 1 x 4 Controller. This unit is a 3330 type disc drive, using a 19 surface disc pack. Disc transfer rate is 1,200,000 bytes per second, average access time is 30ms. Storage capacity is 256,000,000 bytes, fully formatted. Includes a fully formatted disc pack, write protect feature, damage preventing pack interlock, free standing low noise level acoustic cabinet and controller capable of handling up to four disc drives. 60 Hz.	M70-103 or M73-105	2	-	7	-	-	208 VAC 8.2 Amps. Run 22 Amps. Start

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PERIPHERAL

DISC (CONTINUED)

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
M46-605	Model MSM300E 256,000,000 Byte Removable Mass Media Storage Module Expansion Drive. This unit is a 3330 type disc drive using a 19 surface disc pack. Disc transfer rate is 1,200,000 bytes per second, average access time is 30ms. Storage capacity is 256,000 bytes fully formatted. Includes a fully formatted disc pack, write protect feature, damage preventing pack interlock and free standing low noise acoustic cabinet. 60 Hz.	M46-604	-	-	-	-	-	208 VAC 8.2 Amps. Run 2? Amps. Start
M46-606	Same as M46-604, 50 Hz.	M70-103 or M73-105	2	-	7	-	-	220 VAC 4.9 Amps. Run 2? Amps. Start
M46-607	Same as M46-605, 50 Hz.	M46-606	-	-	-	-	-	220 VAC 4.9 Amps. Run 2? Amps. Start
M46-609	67,000,000 Byte Disc Pack, 5 Platter, fully formatted.	M46-600 thru M46-603	-	-	-		-	-
M46-610	256,000,000 Byte Disc Pack, 12 Platter, fully formatted.	M46-604 thru M46-607	-	-	-			-

DUAL PORT OPTIONS ARE HARDWARE ONLY OPTIONS AND DO NOT CONTAIN ANY OPERATIONAL SOFTWARE SUPPORT.

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
M46-621	MSM80 Dual Port Factory Installed Option System	M46-600 or 602	2	-	7	-	-	-
M46-622	MSM80E Dual Port Factory Installed Option	M46-601 or 603	-	-	-			
M46-623	MSM300 Dual Port Factory Installed Option System	M46-604 or 606	2	-	7	-	-	-
M46-624	MSM300E Dual Port Factory Installed Option	M46-605 or 607	-	-	-	-	-	-
M46-625	MSM80 Field Upgrade Dual Port Option System	M46-600 or 602	2	-	7	-	-	-
M46-626	MSM80E Field Upgrade Dual Port Option	M46-601 or 603	-	-	-	-	-	-
M46-627	MSM300 Field Upgrade Dual Port Option System	M46-604 or 606	2	-	7	-	-	-
M46-628	MSM300E Field Upgrade Dual Port Option	M46-605 or 607	-	-	-	-	-	-

PERIPHERAL

DISC (CONTINUED)

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
M46-630	FMD-1 Flexible Media Single Disc System. Includes a 256KB disc drive, controller for up to 4 drives, power supply, chassis and cables. For use with multiplexer bus connection. 60 Hz.	Any CPU except 5/16	0.5	6	0.5	-	-	115 VAC ±10% 3 Amps.
M46-636	Same as M46-630, 50 Hz.	Any CPU 5/16	0.5	6	0.5	-	±10%	230 VAC 1.5 Amps.
M46-631	FMD-1 Flexible Media Dual Disc System. Includes two 256KB disc drives, controller for up to 4 drives, power supply, chassis and cables. For use with multiplexer bus connection. 60 Hz. 60 Hz.	Any CPU except 5/16	0.5	6	0.5	-	-	115 VAC ±10% 3.6 Amps
M46-637	Same as M46-631, 50 Hz.	Any CPU except 5/16	0.5	6	0.5	-	-	230 VAC ±10% 1.8 Amps
M46-632	FMD-1 Flexible Media Single Disc System. Includes a 256KB disc drive, controller for up to 4 drives, power supply for 2 drives, chassis and cables. For use with microprocessor bus connection.60 Hz.	5/16	-	6	-	-	-	115VAC ±10% 3 Amps
M46-638	Same as M46-632, 50 Hz.	5/16	-	6	-	-	-	230 VAC ±10% 1.5 Amps
M46-633	FMD-1 Flexible Media Dual Disc System. Includes two 256KB disc drives, controller for up to 4 drives, power supply and cables. For use with microprocessor bus connection. 60 Hz	5/16	-	6	-	-	-	115 VAC ±10% 3.6 Amps.
M46-639	Same as M46-633, 50 Hz.	5/16	-	6	-	-	-	230 VAC ±10% 1.8 Amps
M46-634	FMD-1E Flexible Media Disc Expansion. Includes a 256KB disc drive. For use as a second drive. 60 Hz.	M46-630 or 632	-	-	-	-	-	115 VAC ±10% 0.6 Amps.
M46-640	Same as M46-634, 50 Hz.	M46-636 or 638	-	-	-	-	-	230 VAC ±10% 0.3 Amps.
M46-635	FMD-1E Flexible Media Disc Expansion. Includes a 256KB disc drive, power supply for up to 2 drives, chassis and cables. For use as a third drive. 60 Hz.	M46-630 through M46-633	-	6	-	-	-	115 VAC ±10% 0.6 Amps
M46-641	Same as M46-635, 50 Hz.	M46-636 through M46-639	-	6	-	-	-	230 VAC ±10% 0.3 Amps
M46-643	FMD-1E Flexible Media Disc Expansion. Includes a 256KB disc drive for use as a fourth drive, 60 Hz.	M46-635	-	-	-	-	-	115 VAC ±10% 0.6 Amps.
M46-644	Same as M46-643, 50 Hz.	M46-641	-	-	-	-	-	230 VAC ±10% 0.3 Amps.
M46-642	Diskette for FMD-1 Disc Drives. Package of 10.	-	-	-	-	-	-	-

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	PERIPHERAL							
	DISC (CONTINUED)							
M46-645	DPAC/16 Disc System. A complete storage subsystem consisting of a direct memory ackess control, subsystem controller capable of controlling up to four (4) disc drives, a 10,000,000 byte formatted capacity disc drive and formatted cartridge. Subsystem throughput rate to 2,000,000 bytes per second, device transfer rare to 312,500 bytes per second. For use with DMA capable 16-bit INTERDATA processor. 60 Hz.	Any 16 Bit CPU (ex 516)	2.0	5	6.8	-	-	115 VAC ±10% 3.3 Amps. Run 12 Amps Start
M46-646	DPAC10/32 Disc System, A complete storage subsystem consisting of a direct memory access control, subsystem controller capable of controlling up to four (4) disc drives, a 10,000,000 byte formatted capacity disc drive and formatted cartridge. Subsystem throughput rate to 2,000,000 bytes per second device transfer rate to 312,500 bytes per second. For use with 32-bit INTERDATA processor. 60 Hz.	Any 32 Bit CPU	2.0	5	10.5	-	-	115 VAC ±10% 3 3 Amps Run 12 Amps. Start
M46-647	DPAC10/20E Disc System Expansion. Allows expansion of DPAC and DPAC20 Disc Systems with a 10,000,000 byte capcity disc drive, formatted cartridge and cables. 60 Hz.	DPAC 10 or DPAC20	-	5	-	-	-	115 VAC ±10% 3 3 Amps Run 12 Amps Start
M46-648	DPAC20/16 Disc System. A complete storage subsystem consisting of a direct memory access control, subsystem controller capable of controlling up to 40MB of disc storage 20,000,000 bytes of formatted capacity disc, and two (2) 5MB formatted cartridges, Subsystem throughput rate to 2,000,000 bytes per second, device transfer rate to 312,500 bytes per second. For use with DMA capable 16-bit INTERDATA processors. 60 Hz.	Any 16 Bit CPU (ex 5 16)	2.0	10	6.8	-	-	115 VAC ±10% 6 6 Amps Run 12 Amps Start
M46-649	DPAC20/32 Disc CSystem. A complete storage subsystem consisting of a direct memory access control, subsystem controller capable of controlling up to 40MB of disc storage, 20,000,000 bytes of formatted capacity disc and two (2) 5MB formatted cartridges. Subsystem throughput rate to 2,000,000 bytes per second, device transfer rate to 312,500 bytes per second. For use with 32-bit INTERDATA processors. 60 Hz.	Any 32 Bit CPU	2.0	10	10.5	-	-	115VAC ±10% 6 6 Amps. Run 12 Amps Start
M46-650	Same as M46-645, 50 Hz.	Any 16 Bit CPU (ex 5/16)	2.0	5	6.8	-	-	230 VAC ±5% 1 6 Amps. Run 6 Amps. Start
M46-651	Same as M46-646, 50 Hz.	Any 32 Bit CPU	2.0	5	10.5	-	-	230 VAC ± 5% 1 6 Amps. Run 6 Am5s. Start
M46-652	Same as M46-647, 50 Hz.	-	-	5	-	-	-	230 VAC± 5% 1 6 Amps. Run 6 Amps. Start
M46-653	Same as M46-648, 50 Hz.	Ay 16 Bit CP (ex 5/16)	2.0	10	6.8	-	-	230 VAC ± 5% 3 2 Amps. Run 6 Amps. Start
M46-654	Same as M46-649, 50 Hz.	Any 32 Bit CPU	2.0	10	10.5	-	-	230 VAC ± 5% 3 2 Amps. Run 6 Amps. Start

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	COMMUNICATIONS ADAPTERS							
	SYNCHRONOUS ADAPTERS							
M47-000	Bell 201 Type Data Set Adapter or equivalent, Half/Full Duplex synchronous operation. Speeds to 9600 Baud. Double character buffered operation, full data set control and status. Includes internal cable.	Any CPU or M49-020	1.0	-	2.4	0.6	0.6	-
M47-001	Bell 301 Type Data Set Adapter or equivalent, Half/Full Duplex synchronous operation. Speeds to 50,000 Baud, double character buffered operation, full data set control and status. Includes internal cable.	Any CPU or M49020	1.0	-	2.0	0.05	0.05	-
M47-002	Quad Synchronous Adapter (QSA) interfaces a wide variety of synchronous data sets to either the I/O mux bus of an INTER-DATA processor, the selch bus or the private bus of the Memory Access Multiplexor (MAM). Each QSA provides four communication line interfaces either half or full duplex. TTL voltage level outputs and full modem control. Communication parameters, such as synch character, character length, or odd/even parity are under program control, With the appropriate line conditioning module and cable, the QSA interfaces to most 200 and 300 data sets.	Any CPU or M49-020	1	-	4.8	-	-	-
M47-003	Same as M47-002 plus the additional capability of Zero Bit Insertion/Deletion which supports the Synchronous Data Line Control (SDLC) procedure.	Any CPU or M49-020	1	-	4.8	-	-	-
M47-004	Line Conditioning Module (LCM) interfaces two communication lines type CCITT V.35 modems and the Quad Synchronous Adapter (QSA) and future adapters. This LCM is a 7 x 15 inch board and requires the cable assembly M47-008 which has connection for one Bell System modem type 306.	M47-002 or M47-003						
M47-005	Line Conditioning Module (LCM) interfaces four (4) communication lines conforming to RS232/CCITT V 24 specifications and the Quad Synchronous Adapter (QSA). This LCM is on a 7 x 15 inch board and accommodates two cable assemblies M47-007. Each cable assembly has connections for two (2) Bell System 200 Series modems.	M47-002 or M47-003	.5	-	1	-	-	-
	ASYNCHRONOUS ADAPTERS							
M47-102	Programmable Asynchronous Single Line Adapter for 103/202 Data Set or local RS-232 terminal, 75 to 9600 Baud. Full or half duplex operation. Program selectable to one of two baud rates, character length, stop bits, parity, echoplex, and line break RS232C/CCITT interface. Handles switched or private line. Includes internal cable.	Any CPU or M49-020	0.5	-	1.6	-	-	-
M47-100	Asynchronous Line Module Controller. Provides clocks (any four of eight specified speeds up to 9600 baud) common control and bussing for up to 23 Programmable Asynchronous Line Modules—Type M47-101.	M49-021	1.0	-	2.5	-	-	-
M47-101	Programmable Asynchronous Line Module. Provides interface for up to 4 Full/Half Duplex asynchronous data sets—Bell type 103/202. Program selectable to 1 of 4 speeds, character format, stop bits, parity echoplex, and line break. Includes full data set control and status RS232C or CCITT interface. Includes internal cable.	M47-100	1.0	-	2.5	0.11	0.15	-
M49-021	Programmable Asynchronous Line System Chassis. Prewired to handle up to eight each 15" modules. These may be M47-10 or M47-100 cards only—without power supply.	Any CPU or M49-020	(8)	4	-	-	-	-

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	COMMUNICATIONS ADAPTERS (CONTINUED)							
	AUTO-DUAL COMMUNICATION ADAPTER							
M10-022	Automatic Dial Unit Controller. Provides a fully buffered interface and program control of the Bell 801 (A/C) Data Auxiliary set and permits calling any telephone number in the switchboard network. Control for 4 lines.	M49-003	1W	-	0.8	0.13	0.13	-
	DATA SET CABLES							
M10-054	Data Set Cable, 50 feet, external cable to interconnect an RS-232 compatible data set to the data set adapter internal cable.	M47-000 M47-101 or M47-102 or M10-022	-	-	-	-	-	-
M10-056	Data Set Cable—50 feet, external cable to interconnect a Bell 301 type data set to the data set adapter internal code.	M47-001	-	-	-	-	-	-
M47-007	Cable Assembly which will connect the LCM (RS232/V.24) and two Bell System 200 Series modems. Two of these cable assemblies will be required by the LCM. Length of cable will be 25 feet.	M47-005	-	-	-	-	-	-
M47-008	Cable Assembly which will connect the LCM (CCITT V.35) and one Bell System 306 type modem. This cable assembly accommodates one Bell System 306 type modem. This cable assembly accommodates one output of the LCM. Length of cable will be 25 feet. MUST INCLUDE M49-020 AND APPROPRIATE POWER SUPPLY FOR 5/16.	M47-004	-	-	-	-	-	-
	HOST PROCESSOR COMMUNICATION INTERFACES							
M47-202	Interfaces to an IBM 360/370 Multiplexor, Block Multiplexor, or Selector Channel. Operates in the Multiplex Burst or Forced Burst modes. Includes Interface and Internal cabling. User must supply IBM cabling and terminators, if required, and driver software. Test software is included for most configurations. Maximum transfer rate is 500KB. Does not accommodate the IBM Bus Extension Feature or EPO. This interface has been installed on various 360 and 370 systems; however, because of the possible system variations and revisions experienced within a system, each interface installation must be individually reviewed. Oceanport will therefore review each interface implementation as defined by the customer on an application checklist prior to order acceptance. IBM equipment testing time must be provided by the customer for installation verification. A 19" cabinet mounted test panel is separately available (see maintenance equipment M49-402.)	Any CPU or M49-020 plus customer supplied application checklist	2	- 2	7.70 -	- -	- -	- -
M47-203	Multiple address up to 256 contiguous addresses in binary multiples. Interfaces to an IBM 360/370 Multiplexor, Block Multiplexor, or Selector Channel. Operates in the Multiplex, Burst on Forced Burst modes. Includes Interface and Internal Cabling. User must supply IBM cabling and terminators, if required, and driver software. Test software is included for most configurations. Maximum Transfer rate is 500KB. Does not accommodate the IBM Bus Extension Feature or EPO. This interface has been installed on various 360 and 370 systems; however, because of the possible system variations and revisions experienced within each system, each interface installation must be individually reviewed. Oceanport will therefore review each interface implementation as defined by customer on application checklist prior to order acceptance. IBM equipment testing time must be provided by the customer for installation verification. A 19" cabinet mounted test panel is separately available (see maintenance equipment M49-402).	-	2	- 2	7.70 -	- -	- -	- -

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power

MEMORY ACCESS MULTIPLEXOR

M47-010	The Memory Access Multiplexor (MAM) provides the capability of interfacing devices requiring high throughout via the EDMA-bus. The MAM provides full duplex operation of multiple devices (63 address maximum). The unit does not provide any character stripor insertion, but does provide special character recognition of four separate communication codes (ROM Controlled). It does provide a private bus for device controllers which are identical to the 1/0 mux bus, thus allowing all character interrupting 1/0 devices access. The buffer switching or data chaining capability minimizes software overhead.	8/32 or 7/32 with M73-103 or M73-104	2	-	9	-	-	-

38-094/8-1-77

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	DIGITAL INPUT/OUTPUT							
M48-400	Contact Closure Detector Module. Provides 16 optically isolated TTL/DTL compatible inputs with built in bounce filtering which are capable of sensing open and closed contacts or optionally. change of state detection. Includes internal cable mating connector for 24 to 30 gauge stranded wire.	Any CPU or M49-020	0.5	-	1.5	-	-	-
M48-500	Relay Driver Module. Capable of driving 6 individually selectable relays at + 15 VDC. 100 ma. peak. All outputs are individually latched and driven by open collector circuits. Includes interal cable mating connector for 24 to 30 gauge standard wire.	Any CPU or M49-020	0.5	-	1.0	-	-	-
M07-860	Digital Multiplexor Controller plus first Expansion Chassis (M07-864). This is a Universal Interface for both Input and Output Scanner Modules. One Controller can control up to 16 each M07-861 and 16 each M07-862 Modules.	M49-003	1C	3	1.0	-	-	-
M07-861	128 Line Input Module.	M07-860	-	-	0.8	0.7	0.1	-
M07-862	128 Line Output Module. Provides open Collector Latched Output and can drive 4 each M48-004.	M07-860	-	-	2.8	-	-	-
M07-864	Digital Multiplexor Expansion Chassis. Provides Slots for four 128-Line Input/Output Modules.	M07-860	-	3	-	-	-	-
M48-604	2 Wire Screw Termination Panel for Digital Inputs. Provides for 64 paired inputs. 12" high hinged panel, load resistors for use with M48-007 28 Volt Power Supply and cable to Digital Multiplexor.	M07-861 or M48-400	-	7	-	-	-	-
M48-605	2 Wire Screw Termination Panel for Digital Inputs. Provides for 64 paired inputs. 12" high hinged panel, load resistors for use with M48-008 48 Volt Power Supply and cable to Digital Multiplexor.	M07-861 or M48-400	-	7	-	-	-	-
M48-007	28 Volt Power Supply for two M48-604 2 Wire Screw Termination Panels (128 lines).	M48-604	-	4	-	-	-	115 VAC ±10% 2 Amps. Max.
M48-008	48 Volt Power Supply for two M48-605 2 Wire Screw Termination Panels (128 lines).	M48-605	-	4	-	-	-	115 VAC ±10% 2 Amps. Max.
M48-004	Relay Closure Panel—32 socketed Mercury Wetted Form C relays rated at 500 VAC/2 amps. Includes mating connectors for cable to digital multiplexor.	M07-862 or M48-604 or M48-605	-	4	-	-	-	115/230 VAC ±10% 2.3 Amps. Max.
M07-865	Relay Closure Panel—32 socketed Form C relays rated at 230 VAC/5 amps. Includes mating connectors for cable to digital multiplexor.	M07-862 or M48-604 or M48-605	-	4	-	-	-	115/230 VAC ±10% 2.3 Amps. Max.
M49-202	Cable assembly and installation, 16 line digital input/output module to termination panel. This is a variable length cable that is configuration dependent. Available in 4, 8, or 12 foot Lengths.	M48-400 or M48-500 and M48-604 or M48-605	-	-	-	-	-	-

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	MINI INPUT/OUTPUT SYSTEMS							
	DIGITAL INPUT/OUTPUT							
M48-450	Digital Input/Output Module. Provides 16 discrete latched outputs with output voltage up to 25 volts and current sink up to 100 milliamps, 16 discrete non-latched inputs with voltage sense or contact sense of 5 to 50 volts and input/output synchronizing logic. Note: Cables or connector kits are not included.	Any CPU or M49-020	0.5	-	1.0	-	-	-
M48-618	Digital Input/Output Module Connector Kit. Provides connector and pins for mating to Digital Input/Output Module. Note: Input and outputs each require a separate connector kit.	M48-450	-	-	-	-	-	-
M48-612	Digital Input/Output Module Cable Asembly. A ten foot open-ended interior cable to connect with termination panel M48-606. Note: Input and outputs each require a separate cable assembly for connection to Termination Panel M48-606.	M48-450	-	-	-	-	-	-
	DIGITAL TO ANALOG OUTPUT SYSTEM							
M48-353	Two Channel 12 Bit Digital to Analog Output Module. Provides two channels of analog output with each channel strap selectable for ranges of ±10.24, ±5.12, 2.56, 0 to ±5.12 or 0 to ±10.24 volts. Output current capacity is 5 ma. Note: Cable or connector kit is not included.	Any CPU or M49-020	0.5	-	1.5	-	-	-
M48-354	Two Channel 12 Bit Digital to Analog Output Module with Scope Control. Provides two channels of analog output with each channel strap electable for ranges of ±10.24, ±5.12, ±2.56, 0 to ±5.12 or 0 to ±10.24 volts. In addition, control signal of write through, non-store, erase, Z axis enagle or disable are provided for oscilloscope control. Output current capacity is 5 ma. Note: Cable or connector kit is not included.	Any CPU or M49-020	0.5	-	1.5	-	-	-	.
M48-355	Four Channel 12 Bit Digital to Analog Output Module. Provides four channels of analog output with each channel strap selectable for ranges of ±10.24 volts, ±5.12, ±2.56, 0 to ±5.12 or 0 to ±10.24 volts. Output current capacity is 5 ma. Note: Cable or connector kit is not included.	Any CPU or M49-020	0.5	-	1.5	-	-	-
M48-619	Analog Input/Output Module Connector Kit. Provides mating connector and pins for Digital to Analog Output Module. Note: One connector kit is required for each M48-353 and two connector kits are required for each M48-354 or M48-355.	M48-353 M48-354 M48-355	-	-	-	-	-	-
M48-613	Two Channel Digital to Analog Output Module Cable Assembly. A ten foot open ended interior cable to connect with termiation panel M48-606. Note: One cable assembly is required for each M48-353 or M48-354 Module.	M48-353 or M48-354	-	-	-	-	-	-
M48-620	Scope Control Cabe Assembly. A ten foot open ended interior cable to connect with Termination Panel M48-606 for Scope Control feature.	M48-354	-	-	-	-	-	-
M48-614	Four Channel Digital to Analog Output Module Cable Assembly. A ten foot open ended interior cable to connect with Termiation Panel M48-606. Note: One cable assembly is required for each four channel Digital to Analog Output Module.	M48-355	-	-	-	-	-	-

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power

MINI INPUT/OUTPUT SYSTEMS (CONTINUED)

ANALOG TO DIGITAL INPUT SYSTEM

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
M48-214	10 bit, (9 bits + sign), 33 KHz Analog to Digital Input Module. Includes A/D converter with sample and hold and multiplexor for either 16 channels of single ended input or 8 channels differential inut. Input ranges are strap selectable for ranges of ±10.24, ±5.12, ±2.56, 0 to ±5.12 or 0 to ±10.24 volts. Note: Cable or connector kit is not included.	Any CPU or M49-020	1.0	-	3.5	-	-	-
M48-215	10 bit, (9 bits + sign), 75 HKz analog to Digital Input Module. Includes A/D converter with sample and hold and multiplexor for either 16 channels of single ended input or 8 channels of differential input. Input ranges are strap selectable for ranges of ±10.24, ±5.12, ±2.56, 0 to ±5.12 or 0 to ±10.24 volts. Note: Cable or connector kit is not included.	Any CPU or M49-020	1.0	-	3.5	-	-	-
M48-212	12 bit, (11 bits + sign), 20 KHz Analog to Digital Input Module. Includes A/D converter with sample and hold and multiplexor for either 16 channels of single ended input or 8 channels of differential input. Input ranges are strap selectable for range of ±10.24, ±5.12, ±2.56, 0 to ±10.24 volts. Note: Cable or connector kit is not included.	Any CPU or M49-020	1.0	-	3.5	-	-	-
M48-213	12 bit, (11 bits + sign), 40 KHz Analog to Digital Input Module. Includes A/D converter with sample and hold and multiplexor for either 16 channels of single ended input or 8 channels of differential input. Input ranges are strap selectable for ranges of ±10.24, ±5.12, ±2.56, 0 to ±10.24 volts. Note: Cable or connector kit is not included.	Any CPU or M49-020	1.0	-	3.5	-	-	-
M48-207	Analog to Digital Module Expansion Multiplexor. Provides an additional 16 channels of single ended input or 8 channels of differential input. Not a field installable option. Must be purchased coincident with prerequisite.	M48-212 or M48-213 or M48-214 or M48-215	-	-	-	-	-	-
M48-216	Programmable Gain Option for Analog to Digital Input Moules. Provides four programmable system gains of 1, 2, 4, or 8 with strapped voltage ranges of ±10.24, 0 to ±5.12 or 0 to ±10.24 volts full scale. Not a field installable option. Must be purchased coincident with prerequisite.	M48-212 or M48-213 or M48-214 M48-215	-	-	-	-	-	-
M48-217	Programmable Gain and Dual Low Level Instrumentation Amplifiers Option for Analog to Digital Input Modules. Provides four programmable system gains of 1, 2, 4, or 8 with strapped voltage ranges of ±10.24, 0 to ±5.12 or 0 to ±10.24 volts full scale and two differential instrumentation amplifiers with jumper selectable gains of 10, 100 and 500. Note: Cable or connector kit for dual instrumentation amplifiers are not included. Not a field installable option. Must be purchased coincident with prerequisite.	M48-212 or M48-213 or M48-214 or M48-215	-	-	-	-	-	-
M48-618	Analog to Digital Input Module Connector Kit. Provides mating connector and pins for Analog to Digital Output Module. Note: One connector kit is required for each Analog to Digital Output Module or Analog to Digital Expansion Multiplexor.	M48-212 or M48-213 or M48-214 or M48-215 or M48-207	-	-	-	-	-	-
M48-619	Analog Input/Output Module Connector Kit. Provides mating connectors and pins for Dual Low Level Instrumentation Amplifier Option.	M48-217	-	-	-	-	-	-

MINI INPUT/OUTPUT SYSTEM (CONTINUED)

ANALOG TO DIGITAL INPUT SYSTEM (CONTINUED)

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
M48-615	Analog to Digital Input Module Single Ended Input Cable Assembly. A ten foot open ended interior cable for connection to Termination Panel M48-606. Note: One cable assembly is required for each 16 lines of single ended input.	M48-212 or M48-213 or M48-214 or M48-215 or M48-207	-	-	-	-	-	-
M48-616	Analog to Digital Input Module Differential Input Cable Assembly. A ten foot open ended interior cable for connection to Termination Panel M48-606. Note: One cable assembly is required for each 8 lines of differential input.	M48-212 or M48-213 or M48-214 or M48-215 or M48-207						
M48-617	Dual Low Level Instrumentation Amplifiers Cable Assembly. A ten foot open ended interior cable for connection to Termination Panel M48-606.	M48-217	-	-	-	-	-	-

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	REAL TIME ANALOG SYSTEM							
M48-603	Real Time Analog System Controller. Controller contains two 32 word solid state buffer memories which provide a continuous load and unload feature allowing exceptional data throughput rates. The controller operates in a sequential and random mode of scanning. Includes direct connect 10 foot cable to first RTAS system chassis.	Any CPU or M49-020	1.0	-	4.0	-	-	-
M48-610	Bus Terminator Card. Plugs into last system chassis on the RTAS controller.	Any RTAS System Chassis	-	-	-	-	-	-
M48-607	Chassis-to-Chassis Bus Cable. 2 feet. For multiple system chassis (up to 8) in an RTAS.	-	-	-	-	-	-	-
	WIDE RANGE ANALOG INPUT SYSTEM							
M48-308	Wide Range Input System Chassis, 200 s.p.s., 13 bit (12 bits + sign). Prewired for up to 16 relay input modules, includes programmable gain amplifier, dual slope analog integrator, gain and other control logic and power supply. 13 program selectable ranges from ±2.5 mv to ±10.24 volts, 200 VDC on peak AC common mode voltage tolerance. 120 db CMR at 60 Hz with 1000 ohms unbalanced. 60 Hz.	M48-603	-	8	-	-	-	115 VAC ±10V 0.9 Amps. Max.
M48-309	Same as M48-308, 50 Hz.	M48-603	-	8	-	-	-	230 VAC ±20V 0.45 Amps. Max.
M48-300	Wide Range Input System Chassis, 40 s.p.s., 13 bit (12bits + sign). Prewired for up to 16 relay input modules, includes programmable gain amplifier, dual slope analog integrator, gain and other control logic and power supply. 13 program selectable ranges from ±2.5 mv to ±10.24 volts, 200 VDC or peak AC common mode voltage tolerance 120 db CMR at 60 Hz with 1000 ohms unbalanced. 60 Hz.	M48-603	-	8	-	-	-	115 VAC ±10V 0.9 Amps. Max.
M48-301	Same as M48-300, 50 Hz	M48-603	-	8	-	-	-	230 VAC ±20V 0.45 Amps. Max.
M48-302	Wide Range Input System Chassis, 100 s.p.s., 13bit (12 bits + sign). Prewired for up to 16 relay input modules, includes programmable gain amplifier, dual slope analog integrator, gain and other control logic and power supply. 13 program selectable ranges from ±2.5mv to ±10.24 volts, 200 VDC or peak AC common mode voltage tolerance. 120 db CMR at 60 H with 1000 ohms unbalanced. 60 Hz.	M48-603	-	8	-	-	-	115 VAC ±10V 0.9 Amps. Max.
M48-303	Same as M48-302, 50 Hz.	M48-603	-	8	-	-	-	230 VAC ±20V 0.45 Amps. Max.
M48-304	Wide Range Input Expansion Chassis, 40/100/or 200 s.p.s. Prewired for up to 16 relay input modules.	M48-300 M48-301 M48-302 M48-303	-	4	-	-	-	115/230 VAC ±20V 0.45 Amps. Max.
M48-307	Dry Relay Multiplexor Input Card, 200 S.p.s. Includes switching for 8 channels, and mating connector for cable. 2.5 to 10240 millivolts.	M48-308 M48-309	-	-	-	-	-	-
M48-305	Mercury Wetted Relay Multiplexor Input Card, 100 s.p.s. Includes switching for 8 channels, and mating connector for cable. 2.5 to 10240 millivolts.	M48-300 M48-301 M48-304	-	-	-	-	-	-

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
M48-306	Mercury Wetted Relay Multiplexor Input Card, 40 s.p.s. Includes switching for 8 channels, and mating connector for cable. 2.5 to 10240 millivolts.	M48-302 M48-303 M48-304	-	-	-	-	-	-
M49-203	Single Pole input signal conditioning for wide range input card. Cutoff frequency 2.5 Hz, down 23db at 60 Hz.	M48-305 or M48-306 or M48-307	-	-	-	-	-	-
M49-204	Double Pole input signal conditioning for wide range input card. Cutoff frequency 1.9 Hz. down 40db at 60 Hz.	M48-305 or M48-306 or M48-307	-	-	-	-	-	-

HIGH SPEED LOW LEVEL ANALOG INPUT SYSTEM

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
M48-250	Low Level Input System Chassis, 8000 s.p.s.,12 bit (11 bits + Sign). Prewired for up to 16 transformer input modules. includes programmable gain amplifier, tracing circuits, control logic and power supply. 8 program selectable ramps from ±5mv to 1 volt, 300 volts RMS common mode, 120db CMR at 60 Hz with 1000 ohms unbalanced, 60 Hz.	M48-603	-	8	-	-	-	115 VAC ±10V 0.7 Amps. Max.
M48-251	Same as M48-250, 50 Hz.	M48-603	-	8	-	-	-	230 VAC ±20V 0.35 Amps. Max.
M48-252	Low Level Transformer Multiplexor Input Card. Includes logic for 4 channels, and mating connector for cable, 5 to 1000 millivolts. Includes input filtering.	M48-250 M48-251	-	-	-	-	-	-

ANALOG INPUT/OUTPUT SYSTEM (HIGH LEVEL)

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
M48-608	Universal Input/Output System Chassis, 10,000 s.p.s., 12 bits (11 bits + sign). Prewired for up to 16 input/output modules, includes control logic, timing logic and power supply, 60 Hz.	M48-603	-	4	-	-	-	115 VAC +10V 1.8 Amps. Max.
M48-609	Same as M48-608, 50 Hz.	M48-603	-	4	-	-	-	230 VAC +20V 0.9 Amps. Max.
M48-202	Bi-Polar Differential Input Card. Includes sample and hold logic for 8 channels, 12 bits and mating connector for cable ±5.12 volts.	M48-608 M48-609	-	-	-	-	-	-
M48-203	Bi-Polar Differential Input Card. Includes sample and hold logic for 8 channels, 12 bits and mating connector for cable ±10.24 volts.	M48-608 M48-609	-	-	-	-	-	-
M48-200	Bi-Polar Single Ended Input Card. Includes sample and hold logic for 16 channels, 12 bits and mating connector for cable ± 5.12 volts.	M48-608 M48-609	-	-	-	-	-	-
M48-201	Bi-Polar Single Ended Input Card. Includes sample and hold logic for 16 channels. 12 bits and mating connector for cable ±10.24 volts.	M48-608 M48-609	-	-	-	-	-	-
M48-351	Bi-Polar Digital to Analog Output Card. Includes logic for a single channel ±5.12 volts.	M48-608 M48-609	-	-	-	-	-	-
M48-350	Bi-Polar Digital to Analog Output Card. Includes logic for a single channel. ±10.24 volts.	M48-608 M48-609	-	-	-	-	-	-
M48-352	Digital to Analog Output Card. Includes logic for a single channel. 4 to 20 milliamperes.	M48-608 M48-609	-	-	-	-	-	-

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	REAL TIME ANALOG SYSTEM (CONTINUED)							
	TERMINATION PANELS							
M48-606	Analog Termination Panel. Includes screw posts for up to 96 single connections. (May be used as 32 3-wire or 48 2-wire termination).	Wide Range or Low Level A/D	-	4	-	-	-	-
M48-601	Thermo-couple Termination Panel. Includes screw posts for up to 32 3-wire terminations (without RTD).	Wide Range or Low Level A/D	-	5	-	-	-	-
M48-602	Thermo-couple Termination Panel. Includes screw posts for up to 32 3 wire terminations and resistance temperature detector (RTD).	Wide Range or Low Level A/D	-	5	-	-	-	-
M49-028	20 volt power supply. For RTD power, 60 Hz.	M48-602	-	3	-	-	-	115 VAC ±10V 0.8 Amps. Max.
M49-029	20 volt power supply. For RTD power, 50 Hz.	M48-602	-	3	-	-	-	230 VAC ±20V 0.4 Amps. Max.
M49-205	Cable assembly and installation. Provides variable length cable to inter-connect analog input or output card to a termination panel.	M48-606 or M48-601 or M48-602 and appropriate analog card	-	-	-	-	-	-

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	CABINETS, CHASSIS, AND POWER SUPPLIES							
M49-040	System Cabinet, includes side skins, chassis support rails, exhause fans and filter, filler panels or half door, casters, levelers, and I/O distribution panel. Requires the selection of either a 24 AMP (M49-041) or 48 AMP (M49-042) AC Distribution Panel as a no charge option.	M49-041 or M49-042	-	(37)	-	-	-	-
M49-036	High Density System Cabinet designed for systems that have high cooling requirements (8/32 Shared Memory, etc.)or densely package equipment. System cabinet includes; cooling plenum, chassis support rails, 350 CFM blower, casters, levelers, I/O distribution panel and air vent switch for automatic system shut down in case of blower failure. For use with M49-035 system chassis only. Requires the selection of either a 24 AMP (M49-041) or 48 AMP (M49-042) AC distribution panel as a no charge option.	M49-041 or M49-042	-	(37)	-	-	-	-
M49-041	24 AMP AC Distribution Panel (SEE CHART II)	M49-040 or M49-036	-	-	-	-	-	-
M49-042	48 AMP AC Distribution Panel (SEE CHART II)	M49-040 or M49-036	-	-	-	-	-	-

CHART I

Type Cabinet	RECOMMENDED AC DISTRIBUTION PANEL	
	24 Amp M49-041	**48 Amp M49-042**
Standard Cabinet M49-041	X	X
High Density Cabinet M49-036	X	X
8/32 Processor System M49-036		X
Multiport Memory System M49-036		X
75 ips Mag Tape M49-040	X	
NOTE		
The above chart should be utilized as a general guideline for determining proper convience panel selection. To define the proper panel for a particular configuration, add all the AC Input Current Ratings for all devices (including systems power supplies) to be connected to the convience panel. The additive result will define which panel to select.		

*The input power required at the installation to adequately support the specific cabinet. This is not the UL rating of the cabinet AC service.

CABINETS, CHASSIS, AND POWER SUPPLIES

CHART II
TECHNICAL DATA

Panel	Cord Plug		Receptacle		*Input Power		
	Hubbel	Nema	Hubbel	Nema	Volt	Amp	Phase
M49-041 24 Amp	2611		2610	L5-30R	115/230	30	1
M49-042 48 AMP	2711	L14-30P	2710 Wall 2713 Cable	L14-30R	120/208 125/230	30 Per/Phase	2

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
M49-020	System Expansion Chassis, prewired for up to 8 each 15" or 16 each 7" controllers without power. Includes chassis signal cables. If ordered as an expansion to an existing system signal cables are not included unless specified as no charge on the purchase order.	Any CPU	(8.0)	4	-	-	-	-
M49-035	8/32 System Expansion Chassis, prewired for up to 8 each 15" or 16 each 7" controllers without power. This chassis is used only in the 8/32 main frame for memory configurations up to and including 524,288 bytes. If ordered as an expansion to an existing system signal cables are not included unless specified as no charge on the purchase order.	8/32 or M49-036	(8.0)	4	-	-	-	-
M49-025	Switching Regulated Power Supply (25 AMP) for up to three each INTERDATA Expansion Chassis. NOTE: A power balance must be made to ensure adequate power for each proposed configuration.	M49-020, M49-021 or M49-035	-	4	(24)	(3)	(3)	115/230 VAC±10% 47-63 Hz 3.6/1.75 Amps. Max.
M49-050	Switching regulated Bulk Power Supply (50 AMP) for use with up to three INTERDATA Expansion Chassis. NOTE: A power balance must be made to ensure adequate power for each proposed configuration.	M49-020, M49-021 or M49-035	-	4	(50)	(3)	(3)	115/230 VAC±10% 47-63 Hz 6.0/3.5 Amps. Max.
M49-033	V.D.E. Approved Bulk Power Supply (50AMP). Primarily for use in European Countries.	M49-020 M49-035	-	4	(50)	(3)	(3)	115/230 VAC±10% 47-63 Hz 6.0/3.5 Amps. Max.
M49-003	10" to 15" Adapter Card	-	1.0	-	-	-	-	-
M49-010	1.75" Filler Panel and Mounting Kit.	M49-040,036	-	1	-	-	-	-
M49-011	5.25" Filler Panel and Mounting Kit.	M49-040,036	-	3	-	-	-	-
M49-012	7" Filler Panel and Mounting Kit.	M49-040,036	-	4	-	-	-	-
M49-013	10.5" Filler Panel an d Mounting Kit.	M49-040,036	-	6	-	-	-	-

Product Number	Description	Prereq	Card Slots	Mntg Units	+5V Pwr	+16V Pwr	-16V Pwr	AC Power
	MAINTENANCE EQUIPMENT							
M49-404	Model 8/32 Test Display. This display is used for control and monitoring of the 8/32 for maintenance purposes. Also a useful tool for debugging of Writable Control Store Micro programs.	Model 8/32	-	-	3.4	-	-	-
M49-405	8/32 Maintenance Kit. Consists of three terminator boards for use on 8/32 extender board M48-016, and four 8/32 front panel extender cables.	Model 8/32	-	-	-	-	-	-
M49-410	Model 5/16, 6/16 and 7/32 Processor Test Aid. The Test Aid is used for monitoring and controlling the processor for maintenance purposes.	Model 5/16, 6/16, or 7/32	-	-	0.3	-	-	-
M48-006	Extender Board for remote trouble shooting of 15" Processor Memory or I/O cards.	Model 5/16, 6/16, 7/32 or 8/32	-	-	-	-	-	-
M48-016	Model 8/32 Processor Extender Board.	Model 8/32	-	-		-	-	-
M49-402	IBM 360/370 Interface Maintenance Panel. Includes interface isolation for assurance of INTERDATA interface operation. Manual control switches and indicators are used for control and monitoring.	M47-202 or M47-203	-	3	0.5	-	-	-
28-009	PALS Test Connector, Also requires 06-127 PASLA/PALS Test Program. Includes Test Program	M47-100 & M47-101	—	—	—	—	—	—
28-014	PASLA Test Cable Also requires 06-127 PASLA/PALS Test Program.	M47-102	-	-	-	-	-	-
28-017	Conversion Equipment Test Simulator. For dynamic testing of the RTAS controller. Requires Test Program 06-147	M48-603	1	-	1.5	-	-	-
16-398	Half Board Kit		-	-	-	-	-	-

SECTION II
CONFIGURATIONS

GENERAL CONFIGURATION NOTES

1. This price list should be used in conjunction with the appropriate product Configuration Data Sheets. These sheets, filled out, are required before an order can be accepted. If no Configuration Data Sheets are available or if additional assistance is required, refer to the nearest INTERDATA Sales Office.

2. Considerable configuration flexibility is possible with all INTERDATA systems. For this reason, it is imperative to carefully perform the following operations:
   (a) Ensure that all the prerequisits are met for the software.
   (b) Match the number of card slots required to the available slots in the processor chassis, adding the required bus buffers and expansion chassis depending on whether the expansion cards are 10", 10" wirewrap or 7"/15" controllers.
   (c) Ensure that Selector Channels, when present, are placed in the slots shown on the Configuration Data Sheets.
   (d) Perform a power balance for all chassis beyond the processor chassis to ensure adequate power for the initial configuration, and allowing for further expansion, if desired.
   (e) Ensure that sufficient numbers of system cabinets are present.

3. All products using 7" printed circuit boards include a halfboard mounting kit. When a system is configured. 7" boards are normally mounted in adjacent slots in pairs.,

4. Necessary hardware for mounting peripheral devices, power supplies and chassis, is included as part of the product. (Note: This hardware is generally suitable for INTERDATA supplied cabinets only).

5. All products are supplied with cables of varying types unless other specified in the price list. A brief explanation of their type follows.
   (a) Internal Cable—signal cable from controller board to I/O convenience panel to peripheral device.
   (b) External Cable—signal cable from I/O convenience panel to peripheral device.
   (c) Direct Connect Cable—signal cable from controller board to peripheral device directly.
   (d) Chassis Signal Cables—provides means of interconnecting Input/Output and memory buses of processors and expansion chassis.

   NOTE:
   Selector Channels, Bus Buffers and chassis do not include preselected chassis Signal Cables. For expansion orders these cables must be specified separately on the purchase order at no charge.

6. Multiplexor Bus loading requirements are specified in the notes section for each processor. The following rules must be followed when considering Multiplexor Bus loading:
   (a) A bus may be regenerated using a Multiplexor Bus Buffer (M48-005), once regenerated, an additional 16 7" or 15" device controllers can be supported.
   (b) The Selector Channel (M70-103) (M73-105) counts as one device since it generates its own private bus. When a Selector Channel is placed in a processor or first expansion chassis, the connector 1 slots below the Selector Channel become its private bus. Connector 1 is the right side as viewed from the rear of chassis. Any 15" controller placed in a Selector Channel bus slot must interface via Connector 1.
   Connector 0 slots below a Selector Channel contain an unbuffered continuation of the Multiplexor Bus above the Selector Channel. It is therefore, possible to insert 7" controllers in Connector 0 slots below a Selector Channel and have them appear on the Multiplexor Bus.
   (c) In no case should there be more than two expansion chassis being driven on a bus without using a Multiplexor Bus Buffer to regenerate the bus.
   (d) As seen on the processor's Multiplexor Bus, Multiplexor Bus BUFFERS AND Selector Channels appear as only one load each (hence only one delay time each when inactive) no matter how many controllers are on the private buses generated by Memory Bus Buffers or Selector Channels. It is thus possible to segment the I/O bus where system response is critical for certain devices.

7. All INTERDATA system cabinets are wired for 30 Amp service. The U/L approved 30 Amp plug is a three blade twist lock type. It is important to note that a three (3) wire grounding 30A, 125VAC receptable, (Hubbell #2610) or equivalent is required.

8. CARD SLOTS
   0.5 7" x 15" board occupying one half slot in a processor chassis or M49-020/035 expansion chassis
   1.0 15" x 15" board occupying one slot in a processor chassis or M49-020/035 expansion chassis
   1C 10" x 10" board occupying, with a M49-003 10"/15" adapter, one slot in a processor M49-020/035 expansion chassis
   1W 10" x 10" wirewrapped board, occupying, with a M49-003 10"/15" adapter, two slots in a processor or M49-020/035 expansion chassis

MODEL 5/16 CHASSIS WITH INTEGRAL POWER SUPPLY

Integral Processor Power Supply
5/16 Processor Board
Multiplexor Bus I/O
Multiplexor Bus I/O
Multiplexor Bus I/O

4—Processor and up to 64K
   Bytes of Memory

3 ⎫
2 ⎬ Multiplexor Bus I/O Ex-
1 ⎨ pansion for either 7 or 15
0 ⎭ Inch Controllers.

- Turnkey Console (M61-110) is optional for use with 5/16 chassis.

- ASCII Programmer Console requires use of Serial Input/Output Port (M51-100). Standard ASCII devices for Serial Input/Output Port, are Carousel 30 M46-060), Carousel 35 (M46-062), ASR-33 teletypewriters (M46-000, 002, 004, 005), ASR-35 teletypewriters (M46-001, 003), and Alphanumeric Video Displays.

- The Multiplexor Bus supports 16 loads with 7 or 15 inch device controllers.

- Chassis slot positions 0-2 may be used for only 7 or 15 inch multiplexor bus device. Because the integral power supply of the 5/16 chassis does not produce any +16 or -16 volts, the following controllers may not be used:

  M47-000   201 Data Set Adapter
  M47-001   301 Data Set Adapter
  M10-022   801 Automatic Dial Unit Controller

- Power supply is furnished for Processor Chassis only.

MODEL 6/16 PROCESSOR WITH 8 SLOT CHASSIS
Product Numbers M61-011 to M61-018

CONN '0'	CONN '1'
Processor Board	
8, 16, 32 or 64KB Core Memory Module	
Display/Auto Load	MPY/DVD Module
I/0. Selch	
I/0	
I/0 Selch	
I/0	
I/0 Selch	

7 ⎫ Processor and
6 ⎭ Memory Module
5—Processor Options or I/O
4 ⎫
3 ⎪
2 ⎬ 5 I/O Expansion Slots
1 ⎪
0 ⎭

- Display Panel (M61-108 and M61-109) and Turnkey Console (M61-110) are optional. A prerequisite for the Display Panels or Turnkey Console is the Display Controller (M61-102).

- The Multiplexor Bus supports 16 loads with 7" or 15" device controllers.

- The Display Controller (M61-102 and the Multiply/Divide Option (M61-107) each constitute one load on the Multiplexor Bus.

- Chassis slot position 6 is the only slot available for memory. Core memory module of 8, 16, 32, or 64K bytes may be used in this slot.

- The left half of chassis slot position 5 is used for Hardware Multiply/Divide Option (M61-107) or a 7" I/O controller. The right half of chassis slot position 5 is used for the Display Controller (M61-102), the Automatic Load Option (M61-103), the combination Display Controller Automatic Load Option (M61-104) or a 7" I/O controller. If none of the above mentioned processor options are used in either the left or right half of the slot, a 15" I/O controller may be used.

- Three Selector Channels (M70-103) are supportable in chassis slot positions 4, 2, and 0.

- The Memory Bus does not extend to Expansion Chassis (M49-020) from the 6/16 Processor Chassis. Only Multiplexor or Selector Channel Buses can be extended to the Expansion Chassis.

- Power supply is furnished for Processor chassis only. Select expansion power by performing a power balance.

MODEL 6/16 PROCESSOR WITH 16 SLOT CHASSIS
Product Numbers M61-019 to M61-022

CONN '0'	CONN '1'		
Processor Board		7	⎱ Processor and
8, 16, 32 or 64KB Core Memory Module		6	⎰ Memory Module
Display/Auto Load	MPY/DVD Module	5	— Processor Options or I/O
I/O, Selch		4	
I/O		3	
I/O, Selch		2	
I/O		1	
I/O, Selch		0	
I/O		7	
I/O, Selch		6	⎱ 13 I/O Expansion Slots
I/O		5	
I/O, Selch		4	
I/O		3	
I/O		2	
I/O		1	
I/O		0	

- Display Panel (M61-108 and M61-109) and Turnkey Console (M61-110) are optional. A prerequisite for the Display Panels or Turnkey Console is the Display Controller (M61-102).

- The Multiplexor Bus supports 16 loads with 7" or 15" device controllers.

- The Display Controller (M61-102) and the Multiply/Divide Option (M61-107) each constitute one load on the Multiplexor Bus.

- Chassis slot position 6 is the only slot available for memory. Core memory module of 8, 16, 32, or 64K bytes may be used in this slot.

- The left half of chassis slot position 5 is used for Hardware Multiply/Divide Option (M61-107) or a 7" I/O controller. The right half of chassis slot position 5 is used for the Display Controller (M61-102), the Automatic Load Option (M61-103), the combination Display Controller Automatic Load Option (M61-104) or a 7" I/O controller. If none of the above mentioned processor options are used in either the left or right half of the slot, a 15" I/O controller may be used.

- 4 Selector Channels (M70-103) are supportable in chassis slot positions 4, 2, 0, 6, and 4.

- Power supply is furnished for Processor Chassis only. Select expansion power by performing a power balance.

- The Memory Bus does not extend to Expansion chassis (M49-020) from the 6/16 Processor chassis. Only Multiplexor or Selector Channel Buses can be extended to the Expansion Chassis.

MODEL 6/16 PROCESSOR WITH 5 SLOT CHASSIS
Product Numbers M61-023 to M61-030

CONN '0'	CONN '1'
Integral Processor Power Supply and Battery Back up	
6/16 Processor Board	
8KB-64KB MOS Memory Module	
Display/Auto Load	MPY/DVD Option
I/O	
I/O, Selch	

4 ⎱ Processor and
3 ⎰ Memory Module
2 — Processor Options or I/O or Selch
1 ⎱ 2 I/O Expansion
0 ⎰ Slots

- Display Panel (M61-108 and M61-109) and Turnkey Console (M61-110) are optional. A prerequisite for the Display Panels or Turnkey Console is the Display Controller (M61-102).

- The Multiplexor Bus supports 16 loads with 7" or 15" device controllers.

- The Display Cntroller (M61-102) and the Multiply/Divide Option (M61-107) each constitute one load on the Multiplexor Bus.

- Chassis slot position 3 is the only slot available for memory. MOS memory modules of 8, 16, 24, 32, 40, 48, 56, and 64K bytes may be used in this slot.

- The left half of chassis slot position 2 is used for Hardware Multiply/Divide Option (M61-107) or a 7" I/O controller. The right half of chassis slot position 2 is used for the Display Controller (M61-102), the Automatic Load Option (M61-103), the combination Display Controller Automatic Load Option (M61-104) or a 7" I/O controller. If none of the above mentioned processor options are used in either the left or right half of the slot, a 15" I/O controller of Selector Channel (M70-103) may be used.

- 2 Selector Channels (M70-103) are supportable in chassis slot positions 2 and 0.

- The Memory Bus does not extend to Expansion Chassis (M49-020) from the 6/16 Processor Chassis. Only Multiplexor or Selector Channel Buses can be extended to the Expansion Chassis.

- Power supply is furnished for Processor Chassis only. Select expansion power by performing a power balance.

- The integral power supply of the 6/16 Processor with MOS Memory does not produce any +16 or -16 volts. Therefore, the following controllers cannot be used in the processor chassis, but must be used with an externally mounted power supply (M49-024 or M49-026) and an Expansion Chassis (M49-020).
  M47-000   201 Data Set Adapter
  M47-001   301 Data Set Adapter
  M10-022   801 Automatic Dual Unit Controller

MODEL 8/16 PROCESSOR WITH 8 SLOT CHASSIS
Product Numbers M81-000, M81-001, M81-006,
and M81-007

CONN '0'	CONN '1'		
8/16 Processor Board		7 ⎱	Processor and 1st
1st 32KB Core Memory Module		6 ⎰	Memory Module
Display/Auto Load	MPY/DVD Module	5	Processor Options or I/O
2nd 32KB Core Memory Module, SELCH, I/O or Floating Point Board 1		4 ⎱	
2nd 32KB Core Memory Module 1 I/O or Floating Point Board 2		⎰ 3 ⎰	Single or Single/Double Precision Floating Point Option
2nd 32KB Core Memory Module, SELCH or, I/O		2	Memory or I/O
I/O		1 ⎱	2 I/O Expansion Slots
SELCH or I/O		0 ⎰	

- Display Panel (M61-108 and M61-109) and Turnkey Console (M61-110) are optional A prerequisite for the Display Panels or Turnkey Console is the Display Controller (M61-102).

- The Multiplexor Bus supports 16 loads with 7" or 15" device controllers.

- The Display Controller (M61-102), the Multiply/Divide Option (M61-107), Single Precision Floating Point Hardware (M81-100), and Single/Double Precision Floating Point Hardware (M81-101) each constitute one load on the Multiplexor Bus.

- Single Precision Floating Point Hardware (M81-100) and Single/Double Precision Floating Point Hardware (M81-101) can only be located in chassis slots 4 and 3.

- The second 32KB core Memory Module may be used in chassis slots 4, 3, or 2 depending on which one is available.

- The left half of chassis slot position 5 is used for Hardware Multiply/Divide Option (M61-107) or a 7" I/O controller. The right half of chassis slot position 5 is used for the Display Controller (M61-102), the Automatic Load Option (M61-103), the combination Display Controller Automatic Load Option (M61-104) or a 7" I/O controller. If none of the above mentioned processor options are used in either the left or right half of the slot, a 15" I/O controller may be used.

- Selector Channels (M70-103) are supported in chassis slots 4, 2, or 0 only.

- Power supply is furnished for Processor chassis only. Select expansion power by performing a power balance.

- The Memory Bus does not extend to Expansion chassis (M49-020) from the 8/16 Processor chassis. Only Multiplexor or Selector Channel Buses can be extended to the Expansion Chassis.

- The Memory Bus does not extend to Expansion chassis (M49-020) from the 8/16 Processor chassis. Only Multiplexor to Selector Channel Buses can be extended to the Expansion Chassis.

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MODEL 8/16 PROCESSOR WITH 16 SLOT CHASSIS
Product Numbers M81-002 and M81-008

CONN '0'	CONN '1'		
8/16 PROCESSOR BOARD		7	Processor and 1st
1st 32KB Core Memory Module		6	Memory Module
Display/Auto Load MPY/DVD Module		5	
2nd 32KB Core Memory Module, SELCH, I/O or Floating Point Board 1		4	Processor Options or I/O Single or Single/Double Precision Floating
2nd 32KB Core Memory Module. I/O or Floating Point Board 2		3	Point Option
2nd 32KB Core Memory Module, SELCH or I/O		2	Memory or I/O
I/O		1	
SELCH or I/O		0	
I/O		7	
SELCH or I/O		6	
I/O		5	
SELCH or I/O		4	10 I/O Expansion Slots
I/O		3	
I/O		2	
I/O		1	
I/O		0	

■ Display Panel (M61-108 and M61-019) and Turnkey Console M61-110) are optional. A prerequisite for the Display Panels or Turnkey Console is the Display Controller (M61-102).

■ The Multiplexor Bus supports loads with 7" or 15" device controllers.

■ The Display Controller (M61-102), the Multiply/Divide Option (M61-107), Single Precision Floating Point Hardware (M81-100), and Single/Double Precision Floating Point Hardware (M81-101) each constitute one load on the Multiplexor Bus.

■ Single Precision Floating Point Hardware (M81-100) and Single/Double Precision Floating Point Hardware (M81-101) can only be located in chassis slots 4 and 3.

■ The second 32KB core Memory Module may be used in chassis slots 4, 3, or 2 depending on which one is available.

■ The left half of chassis slot position 5 is used for Hardware Multiply/Divide Option (M61-107) or 7" I/O controller. The right half of chassis slot postion 5 is used for the Display Controller (M61-102), the Automatic Load Option (M61-103), the combination Display Controller Automatic Load Option (M61-104) or a 7" I/O controller. If none of the above mentioned processor options are used in either the left or right half of the slot, a 15" I/O controller may be used.

■ Selector Channels (M70-103) are supported in chassis slots 4, 2, or 0 only.

■ Power supply is furnished for Processor chassis only. Select expansion power by performing a power balance.

MODEL 7/32 CII PROCESSORS WITH 16 SLOT CHASSIS
Product Number M73-042

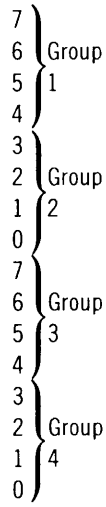| PROCESSOR BOARDS		
	7	⎫
	6	⎬ Group 1
	5	⎭
DMAB, MAC	4	
1st 64KB	3	⎫
2nd 64KB	2	⎬ Group 2
3rd 64KB	1	
4th 64KB	0	⎭
I/O	7	⎫
I/O, ESELCH	6	⎬ Group 3
I/O	5	
I/O, ESELCH	4	⎭
I/O	3	⎫
I/O, ESELCH	2	⎬ Group 4
I/O	1	
I/O, ESELCH	0	⎭

- Binary Display Panel (M71-101) or Hexadecimal Display Panel (M71-102) are optional.

- The Direct Memory Access Bus which is generated by either the Direct Memory Access Buffer (M73-103) or the Memory Access and Protect Controller (M73-104) Supports seven ports for either Extended Selector Channels (M73-105) or local Memory Bank Interfaces (M73-106).

- Group 1 area in the processor chassis is dedicated to their Processor boards with slot 4 to be used for optional DMAB (M73-103) or MAC (M73-104).

- Group 2 area in the processor chassis is used for memory or I/O boards but not extended selector Channels (M73-105).

- Group 3 area in the processor chassis is used for I/O or Extended Selector Channels (M73-105).

- Group 4 area in the processor chassis is dedicated to I/O or Extended Selector Channels (M73-105).

- For configurations with memory requirements larger than 256KB, one Local Memory Bank Interface (M73-106) must be added for each bank of additional 256KB. Capability for the first 256KB is provided in the basic processor.

- The Multiplexer Bus supports 16 I/O loads with 7" or 15" device controllers.

- The display panel contitutes one Multiplexer Bus load.

- Power supply furnished with processor supports processor only. It is Recommended than an Expansion Power Supply be added to furnish adequate power for peripheral controllers and interfaces.

MODEL 7/32 CII PROCESSORS WITH 16 SLOT CHASSIS
Product Number M73-043

PROCESSOR BOARDS		
	7	Group 1
	6	
	5	
DMAB, MAC	4	
1st 64KB	3	Group 2
2nd 64KB	2	
3rd 64KB, I/O	1	
4th 64KB, I/O	0	
I/O	7	Group 3
I/O, ESELCH	6	
I/O	5	
I/O, ESELCH	4	
I/O	3	Group 4
I/O, ESELCH	2	
I/O	1	
I/O, ESELCH	0	

■ Binary Dispay Panel (M71-101) or Hexadecimal Display Panel (M71-102) are optional.

■ The Direct Memory Access Bus which is generated by either the Direct Memory Access Buffer (M73-103) or the Memory Access and Protect Controller (M73-104) Supports seven parts for either extended Selector Channels (M73-105) or local Memory Bank Interfaces (M73-106).

■ Group 1 area in the processor chassis is dedicated to their Processor boards with slot 4 to be used for optional DMAB (M73-103) or MAC (M73-104).

■ Group 2 area in the processor chassis is used for memory or I/O boards but not Extended Selector Channels (M73-105).

■ Group 3 area in the processor chassis is used for I/O or Extended Selector Channels (M73-105).

■ Group 4 area in the processor chassis is dedicated to I/O or Extended Selector Channels (M73-105).

■ For configurations with memory requirements larger than 256KB, one Local Memory Bank Interface (M73-106) must be added for each bank of additional 256KB. Capability for the first 256KB is provided in the basic processor.

■ The Multiplexer Bus supports 16 I/O loads with 7" or 15" device controllers.

■ The display panel constitutes one Multiplexer Bus load.

■ Power supply furnished with processor supports processor only. It is Recommended that an expansion power supply be added to furnish adequate power for periperal controllers and interfaces.
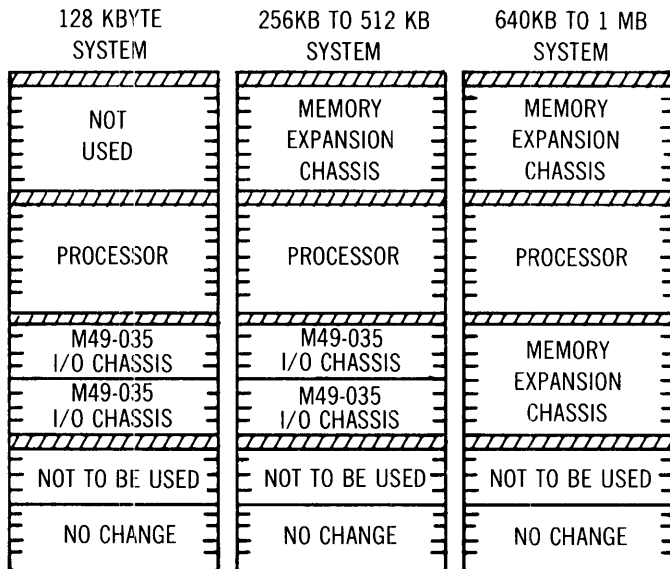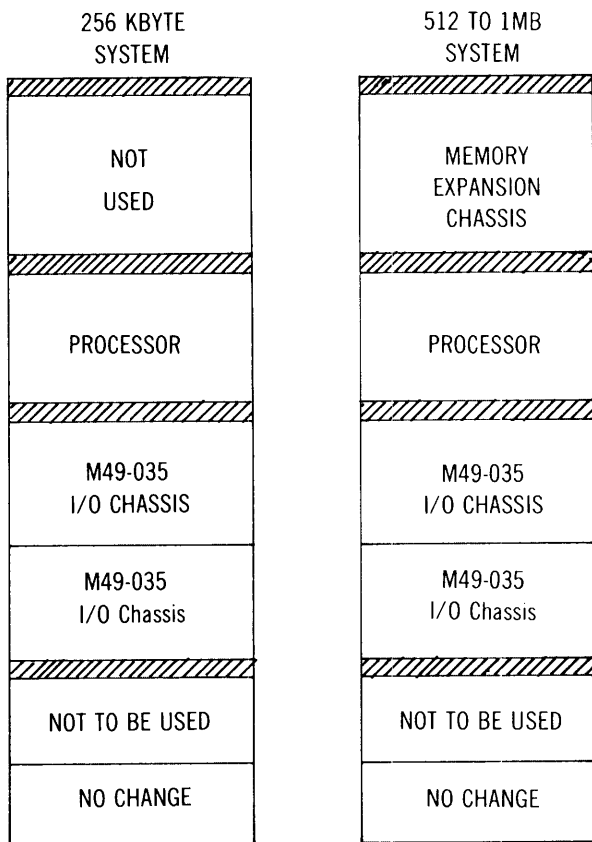
128 KBYTE SYSTEM	256KB TO 512 KB SYSTEM	640KB TO 1 MB SYSTEM
NOT USED	MEMORY EXPANSION CHASSIS	MEMORY EXPANSION CHASSIS
PROCESSOR	PROCESSOR	PROCESSOR
M49-035 I/O CHASSIS	M49-035 I/O CHASSIS	MEMORY EXPANSION CHASSIS
M49-035 I/O CHASSIS	M49-035 I/O CHASSIS	
NOT TO BE USED	NOT TO BE USED	NOT TO BE USED
NO CHANGE	NO CHANGE	NO CHANGE

NOTE:
ESELCH — Extended Selector Channel
MAC — Memory Access and Protect Controller
DMAB— Direct Memory Access Buffer
KB — One Thousand Bytes

8/32-C CONFIGURATION RULES

The following has been so defined to simplifiy configuration rules and to provide one set of rules independent of memory configuration.

1. The Processor Multiplexor is capable of driving fourteen loads (not including built-in TTY and Display Interface). The overall length of the bus is not to exceed a 36 inch cable, sixteen copper slots, plus a five inch waterfall cable.

2. The EDMA bus is capable of driving seven loads. The overall length of the bus is not to exceed 8 feet (includes all cables and copper).

3. With the Basic 8/32C Expansion chassis the I/O slots have been defined as follows:
   (a) The connector 1 side is reserved for private I/O only.
   (b) The connector 0 side may contain half-board I/O ESELCH, or Mux Bus Buffer.

4. The Processor Mux Bus must be contiguous. Avoid stubs at all times.

5. No I/O devices can be configurated within the 8/32C Processor Cabinet.

6. Power requirements of the 8/32C dictates the use of a 48 Amp AC service. This service must be provided via a Hubbel Type 2710 (NEMA type L/4-30R) Receptacle.

7. The addition of either High Performance Floating Point (M83-111) and/or Writable Control Store (M83-108) to a basic (128KB or IMB) CPU requires one additional 50 amp supply to support these options.

```
    256 KBYTE                      512 TO 1MB
     SYSTEM                         SYSTEM
┌─────────────────┐            ┌─────────────────┐
│▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓│            │▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓│
│                 │            │     MEMORY      │
│      NOT        │            │   EXPANSION     │
│      USED       │            │    CHASSIS      │
│                 │            │                 │
│▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓│            │▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓│
│                 │            │                 │
│   PROCESSOR     │            │   PROCESSOR     │
│                 │            │                 │
│▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓│            │▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓│
│   M49-035       │            │   M49-035       │
│  I/O CHASSIS    │            │  I/O CHASSIS    │
│                 │            │                 │
├─────────────────┤            ├─────────────────┤
│   M49-035       │            │   M49-035       │
│  I/O Chassis    │            │  I/O Chassis    │
│▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓│            │▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓│
│  NOT TO BE USED │            │  NOT TO BE USED │
├─────────────────┤            ├─────────────────┤
│   NO CHANGE     │            │   NO CHANGE     │
└─────────────────┘            └─────────────────┘
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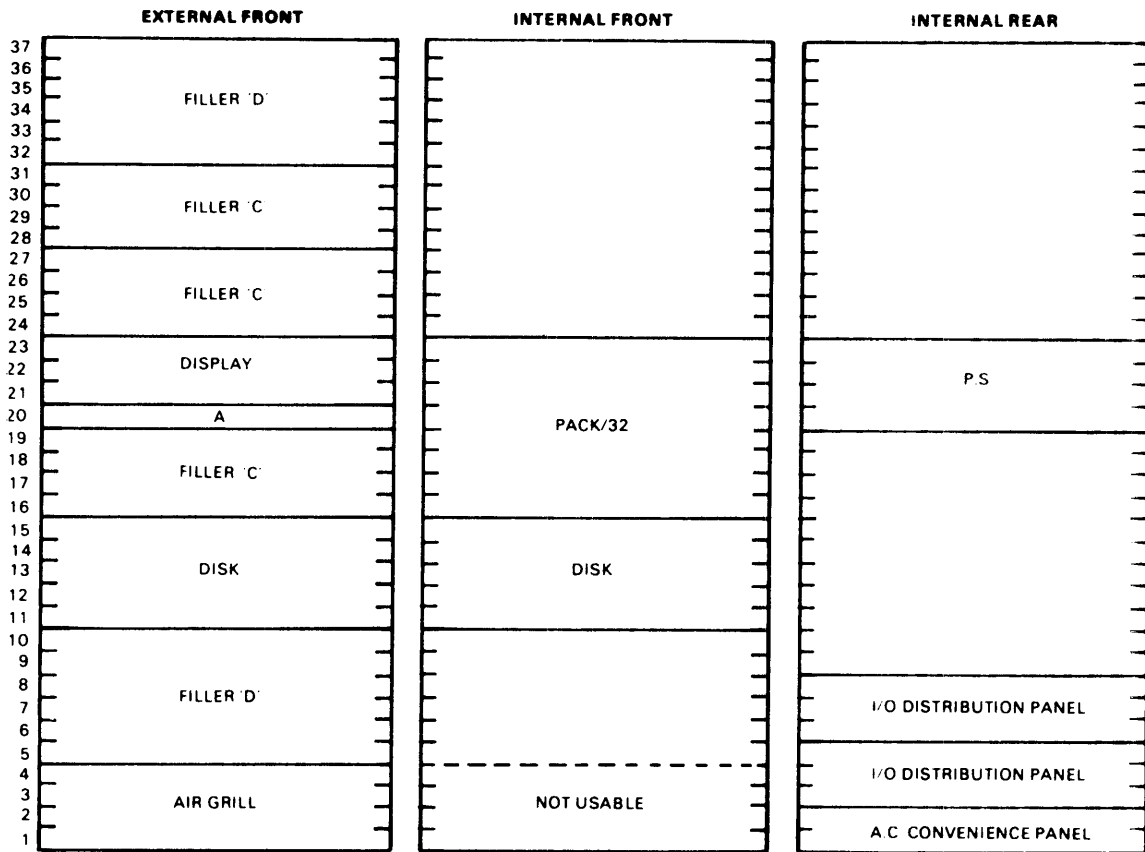
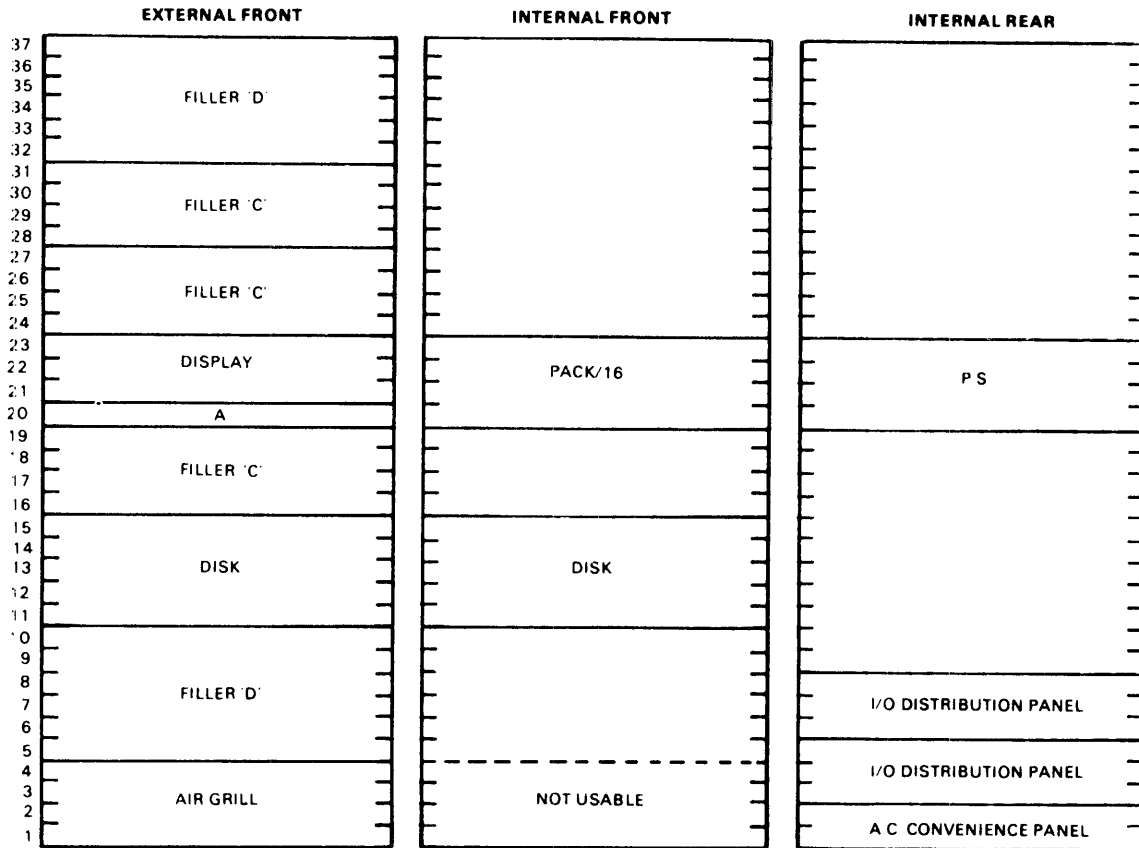## 8/32D CONFIGURATION RULES

The following has been so defined to simplify configuration rules and to provide one set of rules independent of memory configuration.

1. The Processor Multiplexer is capable of driving fourteen loads (not including built-in TTY and Display interface). The overall length of the bus is not to exceed a 36 inch cable, sixteen copper slots, plus a five inch waterfall cable.

2. The EDMA bus is capable of driving seven loads. The overall length of the bus is not to exceed 8 feet (includes all cables and copper).

3. With the Basic 8/32D Expansion chassis the I/O slot have been defined as follows:
   (a) The connector 1 side reserved for private I/O only.
   (b) The connector 0 side may contain half-board I/O, ESELCH, or Mus Bus Buffer.

4. The Processor Mux Bus must be contiguous. Avoid stubs at all times.

5. No I/O devices can be configurated within the 8/32D Processor Cabinet.

6. Power requirements of the 8/32D dictates the use of a 48 Amp AC Service. This service must be provided via a hubbel type 2710 (NEMA Type L/4-30R). Receptacle.

7. The addition of either high performance floating point (M83-111) and/or Writable Control Store (M83-108) to a basic (256KB or 1MB) CPU requires one additional 50 Amp supply to support these options.

38-094/8-1-77

Diagram 1

MOUNTING UNITS (ONE MU = 1¾")

	EXTERNAL FRONT	INTERNAL FRONT	INTERNAL REAR
37–32	FILLER 'D'		
31–28	FILLER 'C'		
27–24	FILLER 'C'		
23–21	DISPLAY	PACK/32	P S
20	A		
19–16	FILLER 'C'		
15–11	DISK	DISK	
10–6	FILLER 'D'		I/O DISTRIBUTION PANEL
5–4		NOT USABLE	I/O DISTRIBUTION PANEL
3–1	AIR GRILL		A.C. CONVENIENCE PANEL

Diagram 2

MOUNTING UNITS (ONE MU = 1¾")

	EXTERNAL FRONT	INTERNAL FRONT	INTERNAL REAR
37–32	FILLER 'D'		
31–28	FILLER 'C'		
27–24	FILLER 'C'		
23–21	DISPLAY	PACK/16	P S
20	A		
19–16	FILLER 'C'		
15–11	DISK	DISK	
10–6	FILLER 'D'		I/O DISTRIBUTION PANEL
5–4		NOT USABLE	I/O DISTRIBUTION PANEL
3–1	AIR GRILL		A.C. CONVENIENCE PANEL

SECTION III
SOFTWARE

GENERAL

INTRODUCTION

This section of the price list is a catalog of INTERDATA standard products, and related services Requests for software, and services not listed in this price list should be referred to the local INTERDATA Sales Office.

The products in this section are arranged in specific classes for ease of reference: operating systems, languages, utilities, service routines and hardware test program packages.

INTERDATA software is provided on a large variety of media including cassette, paper tape, magnetic tape, card and disc.

SOFTWARE CLASSIFICATIONS AND SUPPORT

INTERDATA software is provided in three basic categories.

Category I — Fully Supported

Includes all software listed in the software section of the current price book and is available with complete warranty and revision control. The products in this category will be considered for enhancements and will be fully maintained. Software in the category will be covered by the Software Update Service for the stated fee. Category I Software may be re-classified by INTERDATA and notificatin of such changes will be made in the Software Subscription Service (SSS).

Category II — Limited Support

Software in this category will be maintained by Interdata on a "Best Effort" basis. Software in this category may include previous revisions of Interdata software packages.

Category III — Unsupported

This software is unsupported. It may be comprised of user programs found in the INTERDATA users group, old revisions of standard software, or obsolete programs. INTERDATA assumes no responsibility for software in this category. No warranty to support will be provided.

INTERDATA's policy of thorough supporting documentation allows easy implementation of its software products. In addition, for the more complex products, INTERDATA offers installation service packages for a fixed fee. Where an installation package has not been offered, you may request an installation service quotation via your local INTERDATA Sales Office.

Beyond installation and warranty requirements, INTERDATA will provide additional on-site support when and where requested. Charges for additional support are based on actual costs for travel and expenses plus a fixed time and material rate. Arrangements for professional software assistance may be made by contacting your local INTERDATA Sales Office.

INTERDATA's software undergoes rigorous testing before it is released, however due to the myriad of application possibilities some problems may be encountered, in such instances INTERDATA's Software Operations Group will respond. A Software Change Request (SCR) may be submitted at any time and INTERDATA will use its best efforts to provide a feasible solution or alternative. An ample supply of Software Change Request (SCR) forms are shipped with every system. Additional SCR forms may be obtained from your local INTERDATA Sales Office.

On a contract basis INTERDATA provides applications software, partial turnkey to complete turnkey systems. Arrangements to discuss your needs may be made by contacting you local INTERDATA Sales Office.

SOFTWARE WARRANTY

Each Category I software program shall conform to the then current published documentation applicable to such program when the program is delivered to the customer, and INTERDATA warrants that its Category I Software Product will be free from defects and non-conformance to such documentation in conformance with the following:

For a period of 90 days from the date of delivery (or installation where applicable) of Category I Software, purchased by a customer, INTERDATA will upon notice from the customer via software Change Request documentaing the symptoms of the fault, expend its best efforts to resolve software bugs and/or faults. This service shall be without extra charge and at INTERDATA's sole option may include on-site visit(s) if in its opinion the conditions justify such visit(s).

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING USE AND MERCHANTABILITY, AND OF ALL OTHER OBLIGATIONS OR LIABILITIES ON THE PART OF INTERDATA, AND INTERDATA NEITHER ASSUMES NOR AUTHORIZED ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH ITS PRODUCTS INTERDATA MAKES NO WARRANTY WHATSOEVER IN RESPECT TO STANDARD SOFTWARE PRODUCTS MODIFIED BY THE CUSTOMER NOR FOR ANY SOFTWARE NOT SUPPLIED BY INTERDATA. INTERDATA SHALL HAVE NO LIABILITY WHATSOEVER FOR SPECIAL CONSEQUENTIAL OR PUNITIVE DAMAGES OF ANY KIND FROM ANY CAUSE ARISING OUT OF THE SALE, INSTALLATION, OR USE OF ITS PRODUCTS WHETHER OR NOT SUPPLIED BY INTERDATA OR FOR USE IN ANY MANNER NOT CONSISTENT WITH THE CATEGORY I DESCRIPTION FOR THE SOFTWARE.

DISTRIBUTION POLICY

INTERDATA manuals and program documentation (software) include features considered by INTERDATA to be of a proprietary nature and include INTERDATA trade secrets. Therefore, INTERDATA considers and Buyer agrees that the supply of such material, whether purchased or supplied free of charge, are intended solely for use in operation, maintenance, repair of INTERDATA equipment or for the evaluation of proposals by potential customers of INTERDATA or Buyer's customers. No right of reproduction is implied. Buyer agrees to pass this understanding on to his customer(s).

PRODUCT CONFIGURATION AND PACKAGING

Specific references are made to minimum hardware configuration requirements. These requirements are based on ths size required by the basic package and do not necessarily include additional space for utilities, etc., which may be included in the package. Also, any minimal peripherals or auxiliary hardware requirements have been identified.

INTERDATA software packages are always shipped at the latest revision and update level in production.

Where appropriate, e.g. operating systems, standard hardware products supported by the software package have been listed.

Except as noted, source code is not furnished.

Note: Card readers are for source only and cannot be used for binary input.

COMPUTER CENTER SERVICE

INTERDATA maintains Computer Centers in various locations throughout the United States, Canada and overseas locations. These facilities may be available for customer use either in a self-operating environment or for INTERDATA processing of appropriate assemblies, etc. These facilities are offered on a fee basis. Arrangements for Computer Center time should be made through your local INTERDATA Sales Office.

INTERDATA USER GROUP

An additional source of software is the INTERDATA User Group INTERCHANGE.
Additional information about INTERCHANGE is available from your local INTERDATA Sales Office.

SOFTWARE INSTALLATION

Software installation is included as part of the software price for certain packages as indicated. Installation is available for other packages upon quote by INTERDATA's Customer Service Department.

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OS/32 MULTI-TASK OPERATING SYSTEM—OS/32MT

OS/32MT is a high performance real time operating system for INTERDATA 32-bit computers. The operating system provides a multi-tasking environment to support event-driven user application systems in real time, with up to 255 levels of task priority available. Concurrent batch oriented background processing is supported.

The operating system is responsible for all system resource management. Processor access is provided to tasks on a strict user-defined priority basis. Memory space is allocated automatically to tasks, which can be fixed in memory to ensure rapid response or can be disc resident. Task priority and residency are dynamically changeable as the situation or mode of operation demands.

The Input/Output system provides a device independent interface to user tasks, which need not concern themselves with the actual physical characteristics of the assigned devices of files. Dynamic reassignment of logical units is provided. A priority based queueing mechanism maximizes the throughput of high priority tasks while maintaining the integrity of any low priority I/O.

The File Manager provides comprehensive data storage and retrieval facilities. Files are accessed randomly or sequentially. Allocation and recovery of disc space is automatic and on-line expansion of user file space is provided. The file manager also administers all access of devices or files by user tasks, providing protection keys at the file level and dynamic protection through access privileges established at open time. All files and devices are referenced by name for ease of operator interface.

Included with the purchase of the OS/32 MT software package is a one year subscription to the Software Subscription Service.

The first copy of OS/32 MT includes installation at customer site. Installation is composed of system generation (on site or at an Interdata facility) and up to three days of on-site support of the installed OS/32MT. Installation applies to standard Interdata supported products only. For subsequent dopies of OS/32 MT, for use at the same location, installation may be deleted at a price reduction of $2500.

MINIMUM HARDWARE:
Model 7/32 or 8/32 Processor
128KB Memory
Display Panel (Binary or Hex)
Power Fail/Auto Restart
Memory Access Controller
Operator Command Console (Note: If operator command console is a
    CRT then a binary input device or a Loader Storage Unit with an
    appropriate loader program is required for system bootstrap).
Universal Clock
Magnetic Media (Cassette, 9 Track Magnetic Tape, or 10 MB Disc)

SUPPORTED INTERDATA HARDWARE:
8 Line Interrupt Module
Line Printers (60-600 lpm)
Card Reader (400 or 1000 cpm)
Paper Tape Reader/Punch
Cassette
Magnetic Tapes (9 Track 800 and 1600 BPI)
Discs (2.5M Byte, 10MB, 40MB and MSM80, MSM300 storage module)
Video Display (20 ma PASLA/PALS)
TTY Interface
Loader Storage Unit
Carousel 30, 35, 300
Mini Input/Output System
Digital Multiplexor
Note: OS/32 MT does not support peripheral devices interfaced with
    10" device controllers.

Program Number	OS/32 MULTI TASKING OPERATING SYSTEM PACKAGE Includes the following items:	SOURCE	OBJECT
07-058	MT System Module Library	X	X
07-060	MT Driver Library		X
03-120	OS/32* MT Starter		
02-072	MT-Configuration Utility Program		X
03-063	OS/32 Edit		X
03-064	OS/32 Aids		X
03-065	OS/32 Library Loader		X
03-066	CAL Assembler		X
03-090	OS/32 Source Updater		X
03-082	OS/32 MT Task Establisher		X
03-094	Hgh Level Operator Command Package	X	
03-080	Disc Integrity Check		X
03-081	OS/32 Disc Initializer		X
03-089	OS/32 Disc Dump Utility		X
03-095	OS/32 Dump Print Utility		X
03-100	Patch Establisher Task		X
03-091	Disc Compress		X
07-094	OS/32 Mini I/O System (Drivers)	X	X

*Drivers for this program include TTY, Card Reader, Paper Tape Reader/Punch Line Printer, Cassette, 9 Track Magnetic Tape, and Disc.

ORDER NUMBERS
S90-006-99   OS/32 MT Software Documentation Package.
S90-006-31   OS/32 MT Source and Object Magnetic Tape (9 Track 800 CPI) and Documentation Package.
S90-006-71   OS/32 MT Source and Object Magnetic Tape (9 Track 1600 CPI) and Documentation Package.
S90-006-61   OS/32 MT Source and Object Disc (10 MB) and Documentation Package.
S90-006-91   OS/32 MT Source Listings. This package contains a complete set of listings for all programs supplied in the S90-006 Package. Available only to customers who have purchased OS/32 MT.

INTERDATA TELECOMMUNICATION ACCESS METHOD—ITAM/32

ITAM is the INTERDATA Telecommunications Access Method. ITAM provides a software interface between a user task under OS/32MT and a wide varitey of communication terminals (or computers) via communications facilities such as modems, null modems and the telephone utility.

Two basic methods are provided. The first is for the user who does not want to consider communication protocols, routines, etc. and simply wants to add data communications to his system. For this user, a READ/Write device independent method is provided; i.e., the user task communications with devices as though they were local peripherals. This procedure is fully compatible with the I/O calls (SVC's) associated with non-communication devices. A user task is thus able to communicate with local and remote devices in the same device independent manner.

The second method of access is for the user who wants to configure his own data communications system. The modular structure of this method of access allows the data communication user task under OS/32MT to interface any communications facility with minimum special effort. This method provides a set of standard conventions for implementing communications protocols, prodedures, etc., and allows for the resultant I/O transfers to take place with a minimum of system overhead.

Current support of the bit stuffing protocols is provided at this second method of access. A user task is able to structure routines which can communicate via HDLC, ADCCP or SDLC, making a wide array of terminals and processor systems accessable.

Included with the current release of ITAM is an additional task called "2780/3780 Emulator Task". This task provides a convenient user interface and reduces the remote job entry function to a few simple console commands.

A prerequisite for ITAM is OS/32MT (RO1 or later revision).

SUPPORTED INTERDATA HARDWARE: NOTE: ITAM/32 does not support peripheral devices interfaced with 10" device controllers.

DEVICE DEPENDENT: ITAM Provides line driver support for any BYSYNC, ASYNCH or ASCII class of terminals or computer via PALS, PASLA, 201 DSA or QSA. Line driver support of the bit oriented protocols is provided via the QSA (ZBID version) and the High Speed Data Handling option.

DEVICE INDEPENDENT: ITAM supports, via the RS232 PALS or PASLA, Model 33 and 35 Teletypes, Carousel 300, Non Editing CRT's and the Graphic Display. ITAM supports another comparable equipped remote INTERDATA System via a 201 or QSA interface. Finally ITAM provides point to point communication with an IBM System 360/370 where the INTERDATA system emulates the 2780/3780 terminal.

Program Number	INTERDATA TELECOMMUNICATIONS ACCESS METHOD PACKAGE Includes the following items:	SOURCE	OBJECT
07-069F01-F02	ITAM System Module Library	X	X
07-070F01-F12	ITAM Driver/Terminal Manager Library	X	X
03-093	2780/3780 RJE Emulator Task		X

ORDER NUMBERS

S90-008-99	ITAM Software Documentation Package.
S90-008-31	ITAM Source and Object Magnetic Tape (9 Track 800 CPI) and Documentation Package.
S90-008-71	ITAM Source and Object Magnetic Tape (9 Track 1600 CPI) and Documentation Package.
S90-008-61	ITAM Source and Object Disc (10 MB) and Documentation Package.
S90-008-91	ITAM Source Listings: This package consists of a complete set of listings for all programs supplied in S90-008. Available only to customers who have purchased ITAM.

HOUSTON AUTO-SPOOLING PRIORITY—HASP/32

HASP/32 is the HASP Multileaving Workstation Emulator Task. This task allows appropriately equipped INTERDATA 32-bit systems to emulate the popular IBM HASP workstation. The HASP workstation is a Remote Job Entry (RJE) terminal permitting users at a remote location to submit batch jobs witch are transmitted over a binary Synchronous communication line to a central site for processing with results returned to the remote site.

HASP/32 can support multiple card readers (up to seven), multiple printers (up to seven), a console and a binary synchronous communication line. Although INTERDATA does not support punch card equipment, HASP/32 accepts printer or punch streams which may be transmitted by an IBM 360/370. Job streams designating a card punch are automatically outputted in 80-column format to a line printer. The HASP multileaving communication technique is used to allow all card readers and printers to operate concurrently. Multileaving is a communication technique providing psuedo-simultaneous bi-directional data transmission with significantly high throughput than the standard BYSYNC communication protocol used for RJE terminls such as IBM 2780's and 3780's.

The central host computer can be either an IBM 360/370 system supporting HASP workstations or another computer system which emulates the standard host. HASP/32 can also be used to provide processor-to-processor communications between two INTERDATA systems operating in a master/slave mode. The master and slave computers can multiplex up to seven data streams in each direction over a single communication line via HASP/32 facilities. The INTERDATA system does not execute IBM Job Control Language (JCL) or support Remote Job Execution.

HASP/32 operates under OS/32MT and ITAM/32. Prerequisites for HASP/32 are OS/32MT (RO2 or later revision), ITAM/32 (RO1 or later revision), WITH THE BYSYNC line driver. HASP/32 executes concurrently with other tasks in this environment and does not seriously effect system throughput.

Included with the purchase of HASP/32 is on-site software installation by INTERDATA Customer Software. Installation consists of HASP 32 system generation and demonstration that HASP/32 performs as specified with communication and host computer facilities acceptable to INTERDATA.

Supported INTERDATA Hardware

HASP/32 can access the full complement of peripherals supported by OS/32MT. Facilities are provided to use these devices in flexible, device independent manner.

An appropriate Synchronous Data Set Adapter is required to interface OS/32MT to the data set. Currently supported devices include a 201 Data Set Adapter and the Quad Synchronous Adapter. Maximum transmission speed with a 201 DSA is 9600 baud, and with QSA is 19.2K baud. HASP/32 uses the ITAM/32 SVC 15 facility and requires that the OS be configured with only the BISYNC line driver. If ITAM processor-to-processor communications is also required, the BISYNC Terminal Manager should be included.

Program Number	HASP/32 SOFTWARE Includes the following item:	OBJECT
03-113	HASP/32 Package	X

Order Number

S90-015-99	HASP/32 Software Documentation Package
S90-015-31	HASP/32 Object Magnetic Tape (9 Track, 800 CPI) and Documentation Package
S90-015-71	HASP/32 Object Magnetic Tape (9 Track, 1600 CPI) and Documentation Package
S90-015-51	HASP/32 Object Disc (2.5MB) and Documentation Package
S90-015-61	HASP Object Disc (10 MB) and Documentation Package

OS/16 MULTI-TASK OPERATING SYSTEM — OS/16MT2

OS/16MT2 is a Real-Time, Multi-Tasking Operating System for INTERDATA 16-bit computers that is generally compatible with OS/32MT. It provides a multi-tasking environment that is particularly valuable for event driven, real-time user application programs. Up to 255 levels of task priority are available. Concurrent, batch oriented, background processing on-line program development facilities, are provided.

The operating system handles all system resource management. Processor access is provided to tasks on a strick user-defined priority basis, with real-time tasks startable from a console terminal or under program control. OS/16MT2 provides complete supervisory services for Background partition and Foreground Task, Task Common, and Resident Libarary Memory particitions.

Included with the pruchase of the OS/16MT2 software package is one a year subscription to the Software Subscription Service.

NOTE: A Sysgen Service is available for those customers whose hardware configuration does not support a source sysgen. (See page 51).

MINIMUM OPERATIONAL HARDWARE

Current INTERDATA 16-bit Processor
32KB of Memory
Display Panel (Binary or Hex)
Operator Command Console (Carousel, TTY or CRT) Note: If the opertator Command Console does not include paper tape support and 16MT2 is disc based, then a binary input device (Paper Tape Reader, 9 Track Magnetic Tape, Cassette or a Loader Storage/Automatic Load Option with its appropriate loader program is required for system bootstrap.
Magnetic Media (Cassette, 9 Track Magnetic Tape, 2.5 or 10MB Disc)

MINIMUM HARDWARE FOR SOURCE SYSGEN

Current INTERDATA 16-bit Processor
64KB of Memory
Display Panel (Binary or Hex)
Operator Command Console (Carousel, TTY or CRT) Note: If the operator Command Console does not include paper tape support and 16MT2 is disc based, then a binary input device (Paper Tape Reader, 9 Track Magnetic Tape, Cassette) or a Loader Storage/Automatic Load Option with its appropriate loader program is required for system bootsrap.

For a Disc Based System you need:

Note: If the operator Command Console does not include paper tape support and 16MT2 is disc based, then a binary input device (Paper Tape Reader, 9 Track Magnetic Tape. Cassette) or a Loader Storage/Automatic Load Option with its appropriate loader program is required for system bootstrap.
Disc Drive (2.5 or 10 MB)

For a Non-Disc System you need one device from each of Groups A, B, C.

Device Group A	**Device Group B**	**Device Group C**
Paper Tape Punch	Card Reader	Paper Tape Punch
9 Track Magnetic Tape	9 Track Magnetic Tape	9 Track Magnetic Tape
Cassette	Cassette	Casette
TTY or Carousel		

Note: The INTERDATA Cassette system can be counted as a device in each of any two device groups. The third device must be either a card reader or 9 track magnetic tape.

SUPPORTED INTERDATA HARDWARE

Note: OS/16MT2 does not support peripheral devices that are interfaced with 10" device controllers.
Power Fail-Auto Restart
Universal Clock
Line Printers (60 to 600 L.P.M.)
Card Reader (400 or 1000)
Paper Tape Reader/Punch
Cassette
Magnetic Tape (7 and 9 Track)
Disc (2.5MB. 10MB, 40 MB and MSM80, MSM 300 storage modules)
Mini Input/Output System
TTY
Carousel 30, 35, 300
Video Display (20ma and PASLA/PALS)
8 Line Interrupt Module

Program Number	OS/16MT2 MULTI-TASK OPERATING SYSTEM SOFTWARE Includes the following items:	SOURCE	OBJECT	IMAGE
03-086	OS/16MT2 System Library and Driver Library	X	X	
03-086F01	OS/16MT2 Starter 1*			X
03-086F02	OS/16MT2 Starter 2**			X
03-086F03	OS/16MT2 Starter**			X
03-097	OS/16MT2 Configuration Utility Program		X	
03-087	OS/16MT2 Task Establisher		X	
03-030	OS/16 Library Loader		X	
06-024	OS/16 Relocating Loader		X	
03-098	OS/16 Direct Access Boot Loader		X	
03-108	OS/16 Boot Puncher		X	
03-063	OS/16 Edit		X	
03-056	OS/16 Copy		X	
03-134	AIDS/16 (Automatic Interactive Debut System)		X	
03-090	OS Source Updater		X	
03-101	CAL/16		X	
03-091	Disc Compress		X	
03-080	Disc Integrity Check		X	
03-099	OS/16MT2 High Level Operator Command Package	X		
04-060	OS/16MT2 Mini I/O Drivers and RTL Routines		X	
03-119	OS/16MT2 Output Spooler		X	X

*Drivers for this package include Console Device, Card Reader, Paper Tape Reader/Punch, Line Printer, Cassette and 9 Track Magnetic Tape.
**Drivers for this package include Console Device, Card Reader, Paper Tape Rader/Punch, Line Printer 9 Track Magnetic Tape and Discs (10MB, Patchable to 2.5MB, and 40MB)

ORDER NUMBER

S90-010-99   OS/16MT2 Software Documentation Package.
S90-010-26   OS/16MT2 Object Cassette and Documentation Package.
S90-010-36   OS/16MT2 Source and Object Magnetic Tape (9 Track 800 CPI)* and Documentation Package.
S90-010-76   OS/16MT2 Source and Object Magnetic Tape (9 Track 1600 CPI)* and Documentation Package.
S90-010-46   OS/16MT2 Source Cards. This package contains source cards of the OS/16MT2 Modules and Drivers and must be purchased with S90-010-26,36, 56, 66, or 76.
S90-010-56   OS/16MT2 Source and Object Disc (2.5MB) and Documentation Package.
S90-010-66   OS/16MT2 Source and Object Disc (10MB and Documentation Package.
S90-010-96   OS/16MT2 Source Listings. This package contains a complete set of listings for all programs supplied in the S90-010 Package.
S90-010-86   OS/16MT2 Source and Object Floppy Disc. and Documentation Package.

Note: It is recommended that a customer with disc systems buy the OS/16MT2 package on disc.

INSTALLATION

S90-905   OS/16MT2 OPERATING SYSTEM INSTALLATION—
Installation is composed of system generation (on-site or at an INTERDATA facility (at INTERDATA's option) with up to three days of on-site support for installation of OS/16MT2. Installation applies to standard INTERDATA supported products only.

IN-HOUSE SYSGEN

In order to satisfy user needs, Interdata will produce at an Interdata facility, a sysgen of OS/16MT2 based on the customers system. This facility will not cover the inclusion of user written drivers, and OS/16MT2 must have already been purchased. This service will assist the user who needs a system but lacks the minimum hardware requirement for a sysgen.

ORDER NUMBERS

16 Bit Processors

S90-012-26   OS/16MT2 Custom Sysgen Cassette and Documentation Package
S90-012-36   OS/16MT2 Custom Sysgen Magnetic Tape (9 Track 800 CPI) and Documentation Package
S90-012-76   OS/16MT2 Custom Sysgen Magnetic Tape (9 Track 1600 CPI) and Documentation Package.
S90-012-56   OS/16MT2 Custom Sysgen Disc (2.5MB) and Documentation Package.
S90-012-66   OS/16MT2 Custom Sysgen Disc (10MB)and Documentation Package.

NOTE: Additional sysgens necessitated by errors in customer supplied parameters will require repurchase of sysgen service at above prices.

INTERDATA TELECOMMUNICATION ACCESS METHOD — ITAM/16

ITAM/16 is the INTERDATA Telecommunications Access Method for INTERDATA 16-bit processors. ITAM/16 provides a software interface between a user task under OS/16MT2 and a wide variety of communications facilities such as modems, null modems and the telephone utility.

ITAM/16 supplies, for the user who does not want to consider communication protocols, routines which provide the means of adding communication capabilities to his system. Using simple Read/Write commands. the user task reads and writes to the communication device as though it were a directly connected local peripheral. This method is fully compatible with the I/O calls (SVC's) associated with non-communication devices and allows the user task to control local and remote devices in an indentical, device independent manner. Included with the current ITAM is an additional task called "2780/3780 Emulator Task". This task provides a convenient user interface and reduces the remote job entry function to a few simple console commands.

A prerequisite for ITAM/16 is OS/16MT2.

MINIMUM HARDWARE

Current INTERDATA 16-bit Processors
Display Panel (Binary or Hex)
32KB Memory
Operator Command Console
Line Frequency Clock
Magnetic Media (Cassette, 9 Track 800 CPI Magnetic Tape, 2.5 or 10M Byte Disc)
Appropritae Communication Line Adapters(s)

MINIMUM MEMORY RESIDENCY REQUIREMENTS

OS/16MT2 (16KB Typical)
plus 2KB for Asynchronous Support
plus 10KB for Synchronous Support
plus 5KB for RJE Emulator Task
plus 200 bytes per device
plus Buffer areas (user-specified)

SUPPORTED INTERDATA HARDWARE

ITAM/16 supports, via the RS232 PALS or PASLA, Model 33 and 35 Teletypes, Carousel 300, Non-editing CRT's and the Graphic Display. ITAM/16 supports another comparably equipped remote INTERDATA processor via a 201 Interface or a Quad Synchronous Adapter. Lastly, ITAM/16 provides point to point communication with an IBM 360/370 where the INTERDATA System emulates the 2780/3780 terminals.

Program Number	INTERDATA TELECOMMUNICATIONS ACCESS METHOD/16 PACKAGE Includes the following items:	SOURCE	OBJECT
07-082F01	ITAM/16 Asynchronous Terminal Manager	X	X
07-082F02	ITAM/16 Binary Synchronous 2780 Terminal Manger	X	X
07-082F03	ITAM/16 Binary Synchronous 3780 Terminal Manager	X	X
07-082F04	ITAM/16 Binary Synchronous Processor-to-Processor Terminal Manager	X	X
03-093	Common 2780/3780 Remote Job Entry Emulator Task		X

ORDER NUMBERS

S90-011-99   ITAM/16 Software Documentation Package
S90-011-26   ITAM/16 Source and Object Cassette and Documentation Package
S90-011-36   ITAM/16 Source and Object Magnetic Tape (9 Track 800 CPI) and Documentation Package
S90-011-76   ITAM/16 Source and Object Magnetic Tape (9 Track 1600 CPI and Documentation Package
S90-011-56   ITAM/16 Source and Object Disc (2.5MB) and Documentation Package
S90-011-66   ITAM/16 Source and Object Disc (10MB) and Documentation Package
S90-011-96   ITAM/16 Source Listings. This package contains a complete set of listings for all programs supplied in the S90 011 Package.
S90-011-86   ITAM/16 Source and Object Floppy Disc and Documentation Package

38-094/8-1-77

BASIC OPERATING SYSTEM—BOSS-PLUS

BOSS-PLUS is a batch mode and program development oriented system, modularly organized to provide a flexible system that may be tailored to individual system needs. Input/Output is controlled by the supervisor in a non-interrupt mode and features device independent program development capability. To facilitate batch mode operation, the system permits the user to accept system commands. A file management sub-system is included to support the creation of named files, automatic file expansion, record updates and variable length record usage. Multiply/Divide Floating point and List processing traps are provided.

To aid the user in development of applications tasks, several utility programs are supplied with the system. These utilities include an assembler (OS/ASSEMBLER), a text editor (OS/EDIT), an on-line debugger (OS/AIDS), a linking library loader, loader, general loader, a device to device copy utility (OS/COPY), and an OS source updater for manipulation of source files (OS/SOURCE UPDATER).

Included with the purchase of the BOSS software package is a one year subscription to the Software Subscription Service.

MINIMUM HARDWARE:

Current INTERDATA 16 Bit Processor
8KB Memory
Display Panel (Binary or Hex)
Operator Command Console (Must be a TTY or CRT on a current
loop interface) Note: If the operator command console is a CRT
  then a binary input device or a Loader Storage unit with an
  appropriate loader program is required for system bootstrap.
Note: 24KB of Memory is required for BOSS Sysgen

SUPPORTED INTERDATA HARDWARE:

Line Printers (60-600LPM)
Card Readers (400 or 1000 CPM)
Paper Tape Reader/Punch
Cassette
Magnetic Tape (9 Track)
Disc (2.5 and 10 MB)
PASLA—Video Display
ASR Interface

Program Number	BOSS—PLUS SOFTWARE PACKAGE Includes the Following items:	SOURCE	OBJECT
03-019F00	Basic Operating System with drivers	X	
03-019F01	Pre-Sysgened Basic Operating Sstem with drivers**		X
07-046	OS/16 Random Access Bootstrap		X
06-025	General Loader		x
03-030	OS/16 Library Loader		X
03-063	OS/16 Edit		X
03-053	OS/16 Aids (Automatic Interactive Debug System)		X
03-056	OS/16 Copy		x
03-057	OS/16 Source Updater		X
03-025	OS/16 Assembler		X
07-047	Filer (File Management		X

**Includes drivers for TTY, Card Reader, Paper Tape Reader/punch, Cassette, Line Printer, Magnetic Tape and Disc.

ORDER NUMBERS

S90-000-99	BOSS-PLUS Software Documentation Package.
S90-000-16	BOSS-PLUS Paper Tape and Documentation Package.
S90-000-26	BOSS-PLUS Cassette and Documentation Package.
S90-000-36	BOSS-PLUS Magnetic Tape (9 Track 800 cpi) and Documentation Package.
S90-000-76	BOSS-PLUS Magnetic Tape (9 Track 1600 cpi) and Documentation Package.
S90-000-46	BOSS-PLUS Source Card and Documentation Package. (Object on paper tape)
S90-000-96	BOSS-PLUS Source Listing. This package consists of a complete set of listings for all programs supplied in the S90-000 package. Available only to customers who have purchased BOSS.
S90-000-86	BOSS-PLUS Floppy Disc and Documentation Package

EXTENDED FORTRAN IV

The INTERDATA Extended FORTRAN IV 16-bit system is a higher level language which conforms to the ANSI FORTRAN STANDARD X3.9-1966. This system is designed for use with BOSS-PLUS, and OS/16MT2 operating systems. The relocatable compiler is a translator which reads source statements and converts them to machine operable object code. Extensive error checks are performed of the syntax during the compliation process. I/O is performed by reference to logical units to assure device independence with a wide range of acceptable source and object mediums. The run time library contains over 135 relocatable programs which consist of all Fortran Intrinsic and External functions described in the USASI X3.9-1966 standard plus routines required for I/O and execution of complex and 64-bit double precision arithmetic instructions. All programs in the run time library are reentrant, Operational extensions include mixed-mode arithmetic statements, implied DO-loops, array initializations and hexadecimal constants in DATA statements, multiple entry into user-written subroutines, Hollerith string declarations, implicit type declaration, error and end-of-file returns from Read/Write operations. Extended FORTRAN IV also supports real time processing according to the Purdue ISA standards.

MINIMUM HARDWARE:

Current INTERDATA 16-Bit Processor
Memory size dependent upon operating system plus 20 KB
Source Input Device or file.
Object Output device or file
List Output device or file.*
Error Output device or file.*

*Can be same: device or file.

Program Number	EXTENDED FORTRAN IV SOFTWARE Includes the following items:	OBJECT
03-054	Extended FORTRAN IV Compiler	X
07-125	Run Time Library Routines	X
07-048	Run Time Library Routine Extensions	X

ORDER NUMBERS

S90-200-99	Extended FORTRAN IV Software Documentation Package.
S90-200-26	Extended FORTRAN IV Object Cassette and Documentation Package.
S90-200-36	Extended FORTRAN IV Object Magnetic Tape (9 Track 800 CPI) and Documentation Package.
S90-200-76	Extended FORTRAN IV Object Magnetic Tape (9 Track 1600 CPI) and Documentation Package.
S90-200-56	Extended FORTRAN IV Object Disc (2.5 MB) and Documentation Package.
S90-200-66	Extended FORTRAN IV Object Disc (10MB) and Documentation Package
S90-200-86	Extended FORTRAN IV Object Floppy Disc and Documentation Package.

FORTRAN V, LEVEL 1

FORTRAN V for 16-bit systems contains the full power of Extended FORTRAN IV and in addition, supports ISA Calls. The basic structure of FORTRAN V conforms to ANSI FORTRAN Standard X3.9-1966. This system is designed to be used with any INTERDATA 16-Bit operating system. The compiler accepts a mix of FORTRAN statements and in-line assembly code. The compiler generates an intermediate source text which is processed by the Common Assembler Language (CAL) assembler which performs statement level optimization. Included in the FORTRAN REPERTOIRE ARE MIXED MODE ARITHMETIC OPERATIONS IN—LINE Hollerith constants and data statements that allow array initialization, and implied-DO Loops, multiple entry subroutines and error and end of file returns from Read/Write operations. The PURDUE ISA Real-time extensions are included as well as bit and byte manipulation of integers including Inclusive OR, Logical Product, Logical Complement, Complement, Exclusive OR, Logical Shift, Bit Test, Byte Load and Store. Byte Clear and Byte Complement, which conform to the ISA standards. standards. The Run Time Library contains over 200 relocatable programs which consist of all FORTRAN intrinsic and external functions described in the ANSI 3.9-1966 standard plus all routines required for the I/O and execution of complex and double precision (64-bit) arithmetic instructions. The Run Time Library routines are reentrant to minimize response time in the Real-Time environment. Extensive error checks are performed during the compilation and assembler processes with error flag notation on listings. Complete device independence is maintained with a wide range of input and output mediums available.

MINIMUM HARDWARE:

Current INTERDATA 16 Bit Processor.
Memory size dependent upon operating system plus 24 KB.
Source Input device or file.
Text Output device or file.
List Output device or file.
Error Output device or file.

Program Number	FORTRAN V, LEVEL 1 SOFTWARE Packages include the following items:
03-060	FORTRAN V Level 1 Compiler
07-055	Run Time Library Routines
03-066	CAL

ORDER NUMBERS

S90-201-99   FORTRAN V Software Documentation Package

16 Bit Processor

S90-201-16   FORTRAN V Object Paper Tape and Documentation Package.
S90-201-26   FORTRAN V Object Cassette and Documentation Package.
S90-201-36   FORTRAN V Object Magnetic Tape (9 Track 800 CPI) and Documentation Package.
S90-201-76   FORTRAN V Object Magnetic Tape (9 Track 1600 CPI) and Documentation Package
S90-201-56   FORTRAN V Object Disc (2.5 MB) and Documentation Package.
S90-201-66   FORTRAN V Object Disc (10MB) and Documentation Package.
S90-201-39   FORTRAN V Source Magnetic Tape (9 Track 800 CPI).
S90-201-79   FORTRAN V Source Magnetic Tape (9 Track 1600 CPI).
S90-201-86   FORTRAN V Object Floppy Disc and Documentation Package.

FORTRAN V — 32 BIT

32-Bit FORTRAN V contains the full power of Extended FORTRAN IV and in addition, supports ISA Calls. The basic structure of FORTRAN V conforms to ANSI FORTRAN Standard X3.9-1966. This system operates under OS/32 MT. The compiler accepts a mix of FORTRAN statements and in-line assembly code. The compiler generates an intermediate source text which is processed by the Common Assembler Language (CAL) assembler which performs statement level optimization. With the FORTRAN V system it is possible to have program and data sizes up to 1 megabyte. Included in the FORTRAN repertoire are mixed mode arithmetic operations in-line Hollerith constants and data statements that allow array initialization, and implied-DO Loops, multiple entry subroutines and error and end of file returns from Read/Write operations. The PURDUE ISA Real-time extensions are included as well as bit and byte manipulation of integers including Inclusive OR, Logical Product, Logical Complement, Exclusive OR, Logical Shift, Bit Test, Byte Load and Store, Byte Clear and Byte Complement, which conform to the ISA standards. The Run Time Library contains over 200 relocatable programs which consist of all FORTRAN intrinsic and external functions described in the ANSI 3.9-1966 standard plus all routines required for the I/O and execution of complex and double precision (64-bit) arithmetic instructions. The Run Time Library routines are re-entrant to minimize response time in the Real-Time environment. Extensive error checks are performed during the compilation and assembler processes with error flat notation on listings. Complete device independence is maintained with a wide range of input and output mediums available.

MINIMUM HARDWARE:

Model 7/32 or 8/32 Processor
Memory size dependent upon operating system plus 24 KB.
Source Input device or file.
Text Output device or file.
List Output device or file.
Error Output device or file.

Program Number	32-BIT FORTRAN V, SOFTWARE Packages Include the following items:
03-060	FORTRAN V Compiler
07-093	FORTRAN V Run Time Library
03-066	CAL

ORDER NUMBERS

32 Bit Processor

S90-212-99	32-Bit FORTRAN V Documentation Package.
S90-212-21	32-Bit FORTRAN V Object Cassette and Documentation Package.
S90-212-31	32-Bit FORTRAN V Object Magnetic Tape (9 Track 800 CPI) and Documentation Package.
S90-212-71	32-Bit FORTRAN V Object Magnetic Tape (9 Track 1600 CPI) and Documentation Package.
S90-212-51	32-Bit FORTRAN V Object Disc (2.5 MB) and Documentation Package.
S90-212-61	32-Bit FORTRAN V Object Disc (10 MB) and Documentation Package.
S90-212-39	32-Bit FORTRAN V Source Magnetic Tape (9 Track 800 CPI)
S90-212-79	32-Bit FORTRAN V Source Magnetic Tape (9 Track 1600 CPI).
S90-212-59	32-Bit FORTRAN V Source Disc. (2.5 MB).
S90-212-69	32-Bit FORTRAN V Source Disc (10 MB).

FORTRAN VI

FORTRAN VI features a block optimizing compiler which provides a superset of ANSI standard X3.9 - 1966 FORTRAN for the INTERDATA 32-Bit Computer Systems. The compiler is augmented by a comprehensive run time library of subprograms.

The compiler operates under OS/32MT in a minimum of 60KB of memory, and makes use of up to 100KB of disc memory for overlays and scratch files. The compiler outputs CAL assembly code targeted for 32-bit operation.

The FORTRAN VI language provides a rich superset of the ANSI standard, taking full advantage of the 32-bit computer architecture including the high performance floating point hardware.

The optimizations include subscript evaluation by linearization of multidimensional arrays, common index elimination, register allocation and in-line expansion of intrinsic functions.

The Run Time Library provides: a wide range of fast, accurate mathematical functions; language extensions to manipulate data types not part of FORTRAN itself (e.g., bits, bytes, lists); real-time extensions to provide multi-tasking event driven FORTRAN systems; and the input/output system to support the FORTRAN READ/WRITE and ENCODE/DECODE statements.

The product is supported by a thorough set of informative manuals.

MINIMUM HARDWARE

32-Bit Processor
Memory: 60KB over operating system for the compiler. Compiler operation requires minimum of 10KB OS/32 System Space.
Single and Double Precision Floating Point support (Hardware or Software traps).
Source input device or file
Text Output device or file
List output device or file
100KB of disc space for overlays and scratch files.

S90-213 Program Number	FORTRAN VI SOFTWARE
03-118	FORTRAN VI Compiler
07-114	FORTRAN VI Run Time Library
03-066	CAL

ORDER NUMBERS

S90-213-99	FORTRAN VI Software Documentation Package.
S90-213-21	FORTRAN VI Object Cassette and Documentation Package
S90-213-31	FORTRAN VI Object Magnetic Tape (9 Track 800 CPI) and Documentation Package
S90-213-71	FORTRAN VI Object Magnetic Tape (9 Track 1600 CPI) and Documentation Package
S90-213-51	FORTRAN VI Object Disc (2.5 MB) and Documentation Package
S90-213-61	FORTRAN VI Object Disc (10 MB) and Documentation Package

COBOL - SUBJECT TO INTERDATA LICENSING AGREEMENT

INTERDATA's COBOL provides the user with a powerful program development facility under the standard operating system OS/32MT. The structure of COBOL conforms to ANSI COBOL Standard X3.23 - 1974. The COBOL compiler includes both a language processor, and a Run Time Library. COBOL produces CAL, INTERDATA's Common Assembler Language. This facility provides for powerful debut capabilities and easy program modification Complete device independence is provided for a wide range of input and output peripherals.

Packaged with COBOL, INTERDATA's ISAM is a complete file management system designed to meet the data processing requirmments of a wide range of commercial applications.

MINIMUM HARDWARE

32 Bit Processors
160KB Memory
10MB Disc System or Larger
Display Panel (Binary or Hex).
Carousel or equivalent

Program Number		TASK	OBJECT
03-124	COBOL Compiler*	X	X
07-130	COBOL RTL (ISAM - Indexed Sequential Access Method (Includes support modules))		X
03-106	SORT/MERGE Utility	X	X

*The compiler includes the necessary CSS to do a complete compile and task establishment.

ORDER NUMBERS

S90-214-99 COBOL
Documentation Package

S90-214-31 COBOL
Magnetic Tape (9 Track 800 BPI) and Documentation Package
S90-214-71 COBOL
Magnetic Tape (9 track 1600 BPI) and Documentation Package
S90-214-61 COBOL 10 MB
Disc and Documentation Package

*Included with first purchase is one man week free training at corporate headquarters at Oceanport, N J. Training cannot be separated from the first purchase.

Note: Requires CAL Revision 04-01 or Higher.

Note: Discount not applicable on initial copy or Documentation Package

BASIC LEVEL II

INTERDATA's Basic II is a powerful, easily learned interactive programming language that employs the conventions of Dartmouth's Basic and in addition has many significant new enhancements. Basic II is offered in CAL source which can be assembled only on 32 Bit Processors but can be targeted for 16 Bit Processors. Basic II will also be supplied in three object forms dependent on the type of processor and floating point requirements.

Because of Basic II's sophisticated file handling facilities and system requirements Basic II will only run under OS16MT2 or OS32MT. Under these operating systems Basic II can be easily established as a re-entrant library partition and shared by multiple users.

MINIMUM HARDWARE

Interdata 16 or 32 Bit Processor
20KB of Memory above operating system
Display Panel (Binary or Hex).

Program Number	BASIC LEVEL II Includes the following:	OBJECT
03-105	Basic Level II Interactive Interpreter	X

ORDER NUMBERS

S90-208-99   Basic Software Documentation Package.

16 Bit Processor

SINGLE PRECISION FLOATING POINT BASIC LEVEL II

S90-208-26   BASIC II Object Cassette and Documentation Package.
S90-208-36   BASIC II Object Magnetic Tape (9 Track 800 CPI) and Documentation Package.
S90-208-76   BASIC II Object Magnetic Tape (9 Track 1600 CPI and Documentation Package.
S90-208-56   BASIC II Object Disc (2.5 MB) and Documentation Package.
S90-208-66   BASIC II Object Disc (10 MB) and Documentation Package.

S90-208-96   BASIC II 16 Bit Source Listing.
              Must Be Purchased With Another Media.
S90-208-86   BASIC II Object Floppy Disc and Documentation Package

32 Bit Processor

SINGLE PRECISION FLOATING POINT BASIC LEVEL II

S90-211-21   BASIC II Object Cassette and Documentation Package.
S90-211-31   BASIC II Object Magnetic Tape (9 Track 800 CPI and Documentation Package.
S90-211-71   BASIC II Object Magnetic Tape (9 Track 1600 CPI) and Documentation Package.
S90-211-51   BASIC II Object Disc (2.5 MB) and Documentation Package.
S90-211-61   BASIC II Object Disc (10 MB) and Documentation Package.
S90-211-91   BASIC II 32 Bit Source Listing
              Must Be Purchased With Another Media.

32 Bit Processor

DOUBLE PRECISION FLOATING POINT BASIC LEVEL II

S90-210-21   BASIC II Object Cassette and Documentation Package.
S90-210-31   BASIC II Object Magnetic Tape (9 Track 800 CPI) and Documentation Package.
S90-210-71   BASIC II Object Magnetic Tape (9 Track 1600 CPI) and Dcumentation Package.
S90-210-51   BASIC II Object Disc (2.5 MB) and Documentation Package.
S90-210-61   BASIC II Object Disc (10 MB) and Documentation Package.

S90-210-91   BASIC II 32 Bit Source Listing
              Must Be Purchased With Another Media.
Note: Requires OS/32 MT Revision 2 or higher.

SOURCE PACKAGES

S90-208-39   BASIC II Source Magnetic Tape (9 Track 800 CPI) and Documentation Package.
S90-208-79   BASIC II Source Magnetic Tape (9 Track 1600 CPI) and Documentation Package.
S90-208-59   BASIC II Source Disc (2.5 MB) and Documentation Package.
S90-208-69   BASIC II Source Disc (10 MB) and Documentation Package.

Note: 1. BASIC II Source produces both single and double precision floating point versions for either 16-bit or 32-bit processors.
BASIC II cannot be assembled on 16-Bit processor.
2. If two packages are purchased on the same media, at the same time, the second package will be discounted by fifty percent.

Source is not discountable.

CAL MACRO PROCESSOR AND LIBRARY

The CAL MACRO Processor provides efficiency and standardization to the user of CAL Assembler Language. It allows commonly used sequences of assembly language instructions to be defined once, and then made available on the CAL MARCO Library to be called by the use of a single statement. Additional capabilities of the CAL MACRO Processor are positional or keyword macro prototypes, nested macros, variable operation codes, operand sublists and conditional macro expansion.

The system MACRO Library provides the user of the CAL MACRO Processor with a variety of standard macro definitions. These macro definitions provide a broad spectrum of capabilities that enable the user to perform routine functions by calling the appropriate macro from the System MACRO Library. The MACRO Library Utility is used to catalog and modify a MACRO Library as required. Note: CAL is a prerequisite.

MINIMUM HARDWARE:

Current Interdata Processors.
Memory Size 24KB plus Operating System
Input file or device.
Output file or device.
Error file or device.
Display Panel (Binary or Hex).

Program Number	CAL MACRO PROCESSOR AND LIBRARY SOFTWARE Includes the following items:	SOURCE	OBJECT
03-084	CAL Macro Processor		X
03-083	Macro Library Utility Program		X
07-068F01	System MACRO Library (Sequential Access Format)	X	
07-068F02	System MACRO Library (Direct Access Format)	X	
03-066	Common Assembler Language		X

ORDER NUMBERS

S90-205-99   CAL MACRO Software Documentation Package

16 Bit Processor

S90-205-16   CAL MACRO Object Paper Tape and Documentation Package. (MACRO Library on Listings only for paper-tape).
S90-205-26   CAL MACRO Object Cassette and Documentation Package.
S90-205-36   CAL MACRO Object Magnetic Tape (9 Track 800 CPI) and Documentation Package.
S90-205-76   CAL MACRO Object Magnetic Tape (9 Track 1600 CPI) and Documentation Package.
S90-205-56   CAL MACRO Object Disc (2.5 MB) and Documentation Package.
S90-205-66   CAL MACRO Object Disc (10 MB) and Documentation Package.
S90-205-86   CAL MACRO Object Floppy Disc and Documentation Package

32 Bit Processor

S90-205-11   CAL MACRO Object Paper Tape and Documentation Package. (MACRO Library on Listing only for paper-tape).
S90-205-21   CAL MACRO Object Cassette and Documentation Package.
S90-205-31   CAL MACRO Object Magnetic Tape (9 Track 800 CPI) and Documentation Package.
S90-205-71   CAL MACRO Object Magnetic Tape (9 Track 1600 CPI) and Documentation Package.
S90-205-51   CAL MACRO Object Disc (2.5 MB) and Documentation Package.
S90-205-61   CAL MACRO Object Disc (10 MB) and Documentatin Package.

38-094/8-1-77

COMMON ASSEMBLER LANGUAGE—CAL

CAL is a comprehensive assembler which may be used with 16 and 32 bit INTERDATA processors. CAL is designed to operate in conjunction with any INTERDATA operating system. A great deal of flexibility is built into the assembler to allow absolute and relocatable object code, flexibility in field formating and at the same time maintaining line orientation and providing re-entrant object code to be used with a 32-bit processor. A fully annotated cross reference of symbolic and error references is provided. The versatility of CAL also allows 8 character alphanumeric symbols. In addition, a set of 72 pseudo-operations are available to the user. FORTRAN common block definition and intializtion are also provided. The assembler functions in a multiple pass environment with the multiple passes allowing the option to "squeeze" (optimize) the code to produce the shortest form possible for the instructions.

MINIMUM HARDWARE

Current Interdata Processors
Memory size required is 24KB plus space for operating system and symbol tables.
Display Panel (Binary or Hex)
TTY

Program Number	COMMON ASSEMBLER LANGUAGE SOFTWARE Includes the following items:	OBJECT
03-066	Common Assembler Language Package	X

ORDER NUMBERS

S90-204-99   CAL Software Documentation Package.

16 Bit Processor

S90-204-16	CAL Object Paper Tape and Documentation Package.
S90-204-26	CAL Obect Cassette and Documentation Package.
S90-204-36	CAL Object Magnetic Tape (9 Track 800 CPI) and Documentation Package.
S90-204-76	CAL Object Magnetic Tape (9 Track 1600 CPI) and Documentation Package.
S90-204-56	CAL Object Disc (2.5 MB) and Documentation Package.
S90-204-66	CAL Object Disc (10 MB) and Documentation Package.
S90-204-86	CAL Object Floppy Disc and Documentation Package.

32 Bit Processor

S90-204-11	CAL Object Paper Tape and Documentation Package.
S90-204-21	CAL Object Cassette and Documentation Package.
S90-204-31	CAL Object Magnetic Tape (9 Track 800 CPI) and Documentation Package.
S90-204-71	CAL Object Magnetic Tape (9 Track 1600 CPI) and Documentation Package.
S90-204-51	CAL Object Disc (2.5 MB) and Documentation Package.
S90-204-61	CAL Object Disc (10 MB) and Documentation Pdackage.

CAL SOURCE for 16 or 32 Bit Processors

S90-204-39	CAL Source Magnetic Tape (9 Track 800 CPI) and Documentation Package.
S90-204-79	CAL Source Magnetic Tape (9 Track 1600 CPI) and Documentation Package.

STAND-ALONE SOFTWARE PACKAGE—SAS

The SAS package provides the basic utility tools for off-line program development. A complete set of faciltiies are provided which include an assembler, debug routine, editing capability this package support teletypewriter/CRT and paper tape IO devices with the assembler additionally supporting a card reader. The cassette and magnetic tape I/O devices are supported using the relocatable or general loader. Absolute and relocatable programs are easily accommodated as is the resolution of symbolic inter-program linkage. This packae is used only with 16-bit INTERDATA processors.

MINIMUM HARDWARE:

Current INTERDATA Processors
8KB Memory
Display Panel (Binary or Hex)
TTY

ORDER NUMBERS

S90-400-99   SAS Software Documentation Package.
S90-400-16   SAS Object Paper Tape and Documentation Package.

The SAS Package (S90-400-16) will be furnisted free of charge with each 16-bit processor provided it is on the same order with the processor and identified as a no charge item.

WCS DEVELOPMENT PACKAGE—RUNS UNDER OS/32MT

This package provides the information and development programs required for users to define, implement, and test microcode programs for the Writable Control Store (WCS) option to the Model 8/32 Processor. The manuals define the micro-instruction set of the machine, and present some guidance as to its use. The micro-assembler (MICROCAL) allows writing of microprograms in symbolic form, and the Writable Control Store Support Program provides a means of loading, debugging, and controlling the microprogram in WCS.

MINIMUM HARDWARE:

Model 8/32 with WCS
128 KB
TTy

Program Number	WCS DEVELOPMENT PACKAGE SOFTWARE Includes the following:	OBJECT
03-103	Common Microcode Assembler (Microcol)	X
03-102	Writable Control Store Support Program	X

ORDER NUMBERS

S90-406-21	Object Cassette and Documentation Package.
S90-406-31	Object Magnetic Tape (9 Track 800 CPI) and Documentation Package.
S90-406-71	Object Magnetic Tape (9 Track 1600 CPI) and Documentation Package.
S90-406-51	Object Disc (2.5 MB) and Documentation Package.
S90-406-61	Object Disc (10 MB) and Documentation Package.
S90-406-99	Documentation and Manuals.

LOADER STORAGE UNIT SUPPORT PROGRAM—LSUP

The Loader Storage Unit Support Program facilities the generation of source information for the individual storage units and the testing of an operating Loader Storage Unit. This program is an absolute stand-alone program which operates in one of the three phases. The Specification phase accepts an object tape produced by the user assembler as input, and produces a punched paper tape (which is used for writing PROMs) and/or a listing specifying the data to be written into LSU PROMs. The Verification phase verifies the data tape produced in the Specification phase by comparing it against the object tape, and indicates any possible compare failure. The Test Phase checks the correctness of the data contained in LSU ROMs and tests the operation of the LSU.

MINIMUM HARDWARE:

Model 6/16, 7/32, or 8/32 Processor
8KB Memory
Display Panel (Binary or Hex)
Paper Tape Reader/Punch
TTY, CRT, CAROUSEL - Current Loop Interface

ORDER NUMBERS

16 Bit Processors

S90-402-99	LSUP Documentation Package.
S90-402-16	16 bit LSUP Object Paper Tape and Documentation Package.

32 Bit Processors

S90-403-99	LSUP Documentation Package.
S90-403-11	32 bit LSUP Object Paper Tape and Documentation Package.

SORT/MERGE

The SORT/MERGE program provides users of INTERDATA Processors with disc or core based sorting and merging facilities for files of fixed length records. The program is controlled by commands entered from either an interactive or batch entered device, and performs two distinct functions:

1) a SORT, which arranges a file of fixed length records into an ascending or descending sequence determined by up to 6 user-specified keys; and
2) a MERGE, which produces a sorted file from two files that have previously been sorted.

In this context, a key is an ASCII character string which has a definate position and length within each record. Sort/Merge runs in 10KB of memory and utilizes all available memory before using disc scratch space.

MINIMUM SOFTAWARE:

OS/16 MT2 or OS/32 MT

MINIMUM HARDWARE

Refer to OS/16MT2 or OS/32MT for Minimum Hardware requirements.

Program Number	SOFT/MERGE SOFTWARE Includes:	OBJECT
03-106	SORT/MERGE Utility	X

ORDER NUMBERS

S90-407-99   SORT/MERGE Documentation Package

16 Bit Processor

S90-407-26   SORT/MERGE Object Cassette and Documentation Package
S90-407-36   SORT/MERGE Object Magnetic Tape (9 Track 800 CPI) and Documentatin Package
S90-407-76   SORT/MERGE Object Magnetic Tape (9 Track 1600 CPI) and Documentation Package
S90-407-56   SORT/MERGE Object Disc (2.5 MB) and Documentatation Package
S90-407-66   SORT/MERGE Object Disc (10 MB) and Documentation Package
S90-407-86   SORT/MERGE Object Floppy Disc and Documentation Package

32 Bit Processor

S90-407-21   SORT/MERGE Object Cassette and Documentation Package
S90-407-31   SORT/MERGE Object Magnetic Tape (9 Track 800 CPI) and Documentation Package
S90-407-71   SORT/MERGE Object Magnetic Tape (9 Tack 1600 CPI) and Documentation Package
S90-407-51   SORT/MERGE Object Disc (2.5 MB) and Documentation Package
S90-407-61   SORT/MERGE Object Disc (10 MB) and Documentation Package

SOFTWARE ROUTINES

GENERAL

The programs contained in this section are used as replacements for sub-sections of the program packages offered in Section II through IV.

ORDERING FORMAT

This ordering format is applicable only to the software that is listed in this section.

The program number is used to order this software and must be suffixed with the appropriate media code. Care should be taken to insure that software ordered for 16-bit processors contains the 16-bit suffix code and software ordered for 32-bit processors contains the 32-it suffix code. Refer to Table 1 to determine the appropriate media suffix code. When ordering on card media, the software must be in source format.

TABLE 1				
FIRST DIGIT (X)	**MEDIUM**	**SECOND DIGIT (Y)**		**FORMAT**
1	Paper Tape	1		32-Bit Obj
2	Cassette	6		16-Bit Obj
3	9 Track 800 CPI Magnetic Tape	9		Source (Not available on Paper Tape)
4	Card			
7	9 Track-1600 CPI Magnetic Tape			
Programs in this section are not available on disc.				

Example: To order a replacement 03-064 OS/32 AIDS program on paper tape, the order number would be as follows:

03-064- **Mxy**

Program Number	Identifies Reference To Media	Media Type	Format
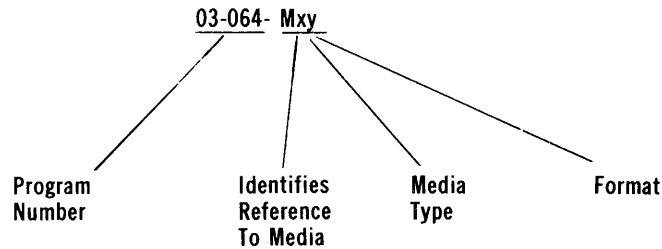
PRICING

The programs listed in this section are available in source or object form (without documentation) and may be ordered by using the appropriate suffix code. INTERDATA assumes no liability for source code modifications implemented by the user. (Refer to Warranty Statement)

The price shown for individual programs in this section is a base price. The total price per program is the base price shown plus an adjustment factor, dependent upon media and format, as shown in the following table. When several separate programs are simultaneously ordered on cassette, magnetic tape or disc all programs will be loaded on a single media. The price adjustment will apply to only one program in these instances.

	OBJECT FORMAT		**SOURCE FORMAT**	
Media	**Suffix**	**Adjustment**	**Suffix**	**Adjustment**
PAPER TAPE	11 or 16	None	19	Not Available
CASSETTE	21 or 26	None	29	$50.
9 TRACK 800 CPI MAG. TAPE	31 or 36	None	39	$50.
9 TRACK 1600 CPI	71 or 76	None	79	$50.
CARD	Not Available	Not Available	49	$75.

Program Format
Number Description   **PROGRAM DESCRIPTION**   **Base**
                                                                                                              Price

03-025—Mxy OS Assembler $ 30.
This assembler is used with 16 bit operating systems and allows the user to program in IBM-like symbolic language with a full range of conditional assembly options and mnemonics to produce object code programs. Error detection, multipass options and conditional listings are incorporated. For documentation order manual No. 29-230.

03-030—Mxy OS Library Loader $ 30.
This loader is used with 16-bit operating systems. Facilities are included to allow operator controller object file creation, search, additions and duplication. Automatic linking is provided to allow loading all library programs for any specific requirement. For documentation order Manual No. 29-231.

03-053—Mxy OS Automatic Interactive Debugging System $ 55.
OS AIDS (Automatic Interactive Debugging System) is a comprehensive debugging program designed to provide the user with a variety of debugging tools. Operating under one of INTERDATA 16-bit operating systems (BOSS, DOS and OS/16 MT2, OS AIDS accepts directives to provide cell/register manipulation and hexadecimal, decimal, character, floating point and assembly format. Additionally, OS AIDS provides the user with eight snapshot trace and breakpoints to provide a total of twenty-four sentinel points for execution checkpointing. The built-in interpretive processor allows the user to protect up to eight cells and registers. Dump formats (decimal, hexadecimal with character translation, binary, floating point, disassembly and loader format) are available individually, through directives, and may be specified under snapshot options. For documentation order manual No. 29-319.

03-056—Mxy OS Copy Utility $ 25.
This utility allows the user to copy files or volumes from one device to another for peripheral conversion, reproduction or data retention. Additionally, the program will verify, display and provide basic commands for writing file marks, positioning to file marks and re-winding. This program is designed for use with all opeating systems.

03-056—M95 OS Copy Utility User's Manual $ 5.

03-057—Mxy OS Source Updater $ 25.
The OS Source Updater provides creation and maintenance capability for ASCII data files contained on magnetic tape. File control is maintained using named file techniques with the ability to duplicate, locate (search) list insert records, modify records and verify files by comparison. This program is used with 16 and 32 bit operating systems.

03-057—M95 OS Source Update User's Manual $ 5.

03-062—Mxy 7/32 Stand Alone Debug $ 30.
This utility provides the capability to debug developmental programs without using a 32-bit operating system. Programs may be executed under control of breakpoints and facilities are provided for examination, modification and insertion of data into memory of registers. Controlled listings, core dumps, search and disassembly is provided.

03-062—M95 7/32 Stand Alone Debug Program Description $ 5.

03-063—Mxy OS EDIT $ 30.
This editor is designed for use with any INTERDATA operating system in an interactive or batch mode and is available in 16 or 32 bit formats. This program allows user creation and update of ASCII or binary files. Input and output may be any device with control exercised via the console teletypewriter/CRT or va batched input commands. Editing is performed at the line and character levels and includes string search and modification capability. For documentation order manual No. 29-373.

03-064—Mxy OS/32 Automatic Interactive Debugging System (OS/32 AIDS) $ 30.
This 32-bit operating system debug utility is a comprehensive debugging program designed to provide the user with a variety of debugging tools. The program accepts directives to provide cell and register manipulation in hexadecimal, decimal, character, floating point and assembly formats. Additionally, provides the user with eight snapshot trace and breakpoints to provide a total of twenty-four sentinel points for execution control. The built-in interactive processor allows the user to protect up to eight cells and registers. Dump formats (decimal, hexadecimal with character translation, binary, floating point, disassembly and loader format) are available individually through directives and may be specified under snapshot options. For documentation order manual No. 29-374.

03-065—Mxy OS/32 Library Loader $ 30.
This loader is used with 32 bit operating systems. Facilities are included to allow operator controlled object file creation, search, addition and duplication. Automatic lining is provided to allow loading all library programs for any specific requirement. For documentation order manual No. 29-376.

38-094/8-1-77

03-067—Mxy 7/32 Relocating Loader $ 30.
This is a stand alone program that accepts input from paper tape or magnetic tape devices with complete error and display control. The loader provides ENTRY and EXTRN linkage operations and maintains forward reference chaining. Program load module identification labels are recognized and may be visibly logged. Absolute and relocatable 32-bit object programs are accepted. For documentation order manual No. 29-376.

03-074—Mxy OS/32 Direct Access Bootstrap Loader $ 30.
The OS/32 DAL loads selected operating system images from a direct access device. The loader scans the directory seeking a contiguous file whose name begins with the four alphanumerics 'OS32'. If the file's extension matches the OS selector previously entered in memory cell X '7E', the file is loaded and executed. For documentation order manual No. 29-376.

03-098—Mxy OS/16MT2 Direct Access Bootstrap Loader $ 30.
The OS/16 DAL loads selected Operating System images from a Direct Access Device. The Loader scans the directory seeking a contiguous file whose name begins with the four alphanumerics 'OS16'. If the file's extension matches the OS selector previously entered in memory cell X'7E', the file is loaded and executed. For documentation order manual No. 29-430

04-023—Mxy Bootstrap Generation Package $ 30.
Provides the capability to produce 16-bit self loading programs on paper tape, cassette and magnetic tape mediums.

04-023-M99 Bootstrap Generation Documentation Package. $ 10.

06-024—Mxy Relocating Loader $ 30.
This is a stand-alone program for a 16-bit processor that accepts input from paper tape or magnetic tape devices and logs noted errors on the processor display panel. Control is exercised from the display panel with the program providing relocation and forward reference chaining. Absolute or relocatable programs are accepted.

06-025—Mxy General Loader $ 30.
The General Loader is a stand-alone program for a 16-bit processor that accepts input from paper tape or magnetic tape devices and logs messages on the control console. Control is maintained by the loader with error flagging, ENTRY and EXTRN linking and and forward reference chaining. Absolute and relocatable programs are accepted. For documentation order manual No. 29-231.

07-046—Mxy OS Random Access Bootstrap Loader $ 30.
The Bulk Storage Bootstrap loads from the bulk storage device into main memory and starts the system at X'02D0'. This program is loaded by the 50-Sequence (AL X'CF', B X'80') with location X'78'-X'79' containing the Binary Input Device Number and Command byte location, and location X'7A' containing the bulk storage device number. This program is used with 16-bit operating systems other than OS/16MT2.

MULTI MEDIA DIAGNOSTIC PACKAGES—MMD

The Multi Media Diagnostic Package is a complete diagnostic system on magnetic tape, cassette, or disc. This system provides a user with a replacement or supplement to the paper tape test programs provided with each piece of hardware.

To insure wide user utilization, the MMD Package is designed around a minimum system configuration. Program loading requires only an input device (magnetic tape, cassette or disc), processor, and display panel.

Two separate packages are available, one for 16 bit and one for 32 bit processors. Each package contains, the media, a list of all programs on the media, directions for use, and a paper tape disc boot loader. Each media contains the Multi Media Diagnostic Loader and the diagnostic programs as indicated in the list of individual test programs.

Although test program documentation is supplied with the original system hardware components, a documentation package is separately available to provide the user with the most up to date documentation and listings.

Additional copies of documentation or documentation for programs not supplied with the system hardware are avaiable separately.

MINIMUM HARDWARE REQUIRED:

A 16-Bit processor with 23KB of memory or 32 Bit processor with 32KB of memory
Display Panel (Binary or Hex)
An Input device to load the programs from the magnetic media:
Cassette or
Mag Tape (800 or 1600 CPI, 9 Track) or
2.5MB or 10MB Disc with a Selector Channel

OPTIONAL OUTPUT DEVICES SUPPORTED BY THE LOADER

Teletype
CRT on Teletype Interface or CRT on PASLA
Line Printer

OPTIONAL BOOT LOADING DEVICES FOR DISC SYSTEM ONLY

Teletype or HSPTR

ORDER NUMBERS

16 Bit Processor

S90-404-99	16 Bit Multi Media Diagnostic Documentation Package
S90-404-26	16 Bit Multi Media Diagnostic Object Cassette.
S90-404-36	16 Bit Multi Media Diagnostic Object Magnetic Tape (9 Track 800 CPI).
S90-404-76	16 Bit Multi Media Diagnostic Object Magnetic Tape (9 Track 1600 CPI).
S90-404-56	16 Bit Multi Media Diagnostic Object 2.5 MB Disc.
S90-404-66	16 Bit Multi Media Diagnostic Object 10 MB Disc.
S90-404-86	16 Bit Multi Media Diagnostic Object Floppy Disc.

32 Bit Processor

S90-405-99	32 Bit Multi Media Diagnostic Documentation Package.
S90-405-21	32 Bit Multi Media Diagnostic Object Cassette.
S90-405-31	32 Bit Mutli Media Diagnostic Object Magnetic Tape (9 Track 800 CPI).
S90-405-71	32 Bit Multi Media Diagnostic Object Magnetic Tape (9 Track 1600 CPI).
S90-405-51	32 Bit Muli Media Diagnostic Object 2.5 MB Disc.
S90-405-61	32 Bit Multi Media Diagnostic Object 10MB Disc.

TEST PROGRAM PACKAGES

Test program packages consist of object paper tape, program listing and operating instructions.

Multi Media Diagnostic Documentation Package

Order No.	Description	List Price	16 Bit	32 Bit
06-003	Memory Test Package	$25.	Yes	No
06-004	Teletype Basic Confidence Test Program Package	$25.	Yes	No
06-071	Auto Call Unit Test Program Package	$25.	Yes	Yes
06-101	Digital MPX Test Program Package	$25.	Yes	No
06-106	Processor Test Program Package	$25.	Yes	No
06-127	PALS/PASLA Off-Line Test Program Package (See Product 28-009 or 28-014)	$25.	Yes	Yes
06-128	Model 50 Processor Test Program Packagef	$25.	Yes	No
06-129	Universal I/O Module/Universal Interface Test Program Package	$25.	Yes	Yes
06-132	201 and 301 Data Set Adapters Test Program Package	$25.	Yes	Yes
06-133	Universal Clock Module Test Program Package	$25.	Yes	Yes
06-134	Eight-Line Interrupt Module Test Program Package	$25.	Yes	Yes
06-135	Memory Protect Test Program Package	$25.	Yes	No
06-140	Dynamic Control Store Test Program Package	$25.	Yes	No
06-143	MOS Memory Hold Test Program Package	$25.	Yes	No
06-144	MOS Parity Intitialize Test Program Package	$25.	Yes	No
06-146	Video Display Test Program Package	$25.	Yes	Yes
06-147	RTAS Controller Test Program Package	$25.	Yes	Yes
06-148	Series 6A Memory Test Program Package	$25.	Yes	No
06-149	I/O Bus Switch Test Program Package	$25.	Yes	Yes
06-150	Sense Contact Module Test Program Package	$25.	Yes	Yes
06-151	Relay Driver Test Program Package	$25.	es	Yes
06-153	Model 7/32 Halfword Processor Test Program Package	$25.	No	Yes
06-154	Series 32 Processor Test Program Package, Part 1	$25.	No	Yes
06-155	Series 32 Processor Test Program Package, Part 2	$25.	No	Yes
06-156	Series 32 Memory Test Program Package	$25.	No	Yes
06-157	32 Bit Series 6A Memory Test Program	$25.	No	Yes
06-158	Series 32 Basic Test Program Package	$25.	No	Yes
06-159	Series 32 System Exerciser Program Package	$150.	No	Yes
06-160	Memory Access Controller Test Program Package	$25.	No	Yes
06-161	Extended Selector Channel Test Progam Package	$25.	No	Yes
06-162	02-340 Memory Test Program Package	$25.	Yes	No
06-163	Tektronics Display Test Program Package	$25.	Yes	Yes
06-166	Single Address 360/370 Interace Test Program Package	$50.	Yes	Yes
06-167	Multi Address 360/370 Interface Test Program Package	$50.	Yes	Yes
06-168	Common HSPTR/P Test Program Package	$25.	Yes	Yes
06-169	Common Card Rader Test Program Package	$25.	Yes	Yes
06-170	Common Line Printer Test Program Package	$25.	Yes	Yes
06-171	Common Cassette Test Program Package	$25.	Yes	Yes
06-172	Common Magnetic Tape Test Program Package	$25.	Yes	Yes
06-173	Common Disc Test Program Package	$25.	Yes	Yes
06-178	Series 32 Processor Test Program Package, Part 3	$25.	No	Yes
06-179	16 Bit Selector Channel Test	$25.	Yes	No
06-180	Common QSA Test Program Package	$25.	Yes	Yes
06-182	MAM Test Program	$25.	Yes	Yes
06-183	Common Carousel 300 Test Program Package	$25.	Yes	Yes
06-184	Common Current Loop Interface Test Program Package	$25.	Yes	Yes
06-186	Common Analog Input Controller Test Program Package	$25.	Yes	Yes
06-187	Common Analog Output Controller Test Program Package	$25.	Yes	Yes
06-188	Common Digital I/O Test Program Package	$25.	No	Yes
06-192	Model 8/32 WCS Test Program Package	$25.	No	Yes
06-193	Series 32 Floating Point Test Program	$25.	Yes	No
06-194	6/16 ALO Support Program	$25.	Yes	No
06-195	Series 32 Processor Test Program Package. Part 4	$25.	No	Yes
06-196	Common 360/370 Interface Test Program Package	$25.	Yes	Yes
06-199	Series 32 Multiport Memory Support Program	$25.	No	Yes
06-200	Common MSM Disc Test Program Package	$25.	Yes	Yes

SECTION IV
SPARE PARTS KITS

Product Number	Description	Prereq.	Price	Disc Type
	ANALOG OUTPUT KITS			
10-148F03	Analog Output	M48-353, 354, or 355	220	B
	PROCESSOR KITS			
10-219F01	8/32C (without WCS) Level 1	8/32C	38,500	B
10-219F03	8/32C (without WCS) Level 3	8/32C	3,800	B
10-220F01	8/32C (with WCS) Level 1	8/32C	41,500	B
10-220F03	8/32C (with WCS) Level 3	8/32C	3,950	B
10-177F01	7/32CII (Double Precision) Level 1	7/32CII	4,900	B
10-177F03	7/32CII (Double Precision) Level 3	7/32CII	1,350	B
10-183F01	7/32C (Single Precision) Level 1	7/32C	4,500	B
10-183F03	7/32C (Single Precision) Level 3	7/32C	1,400	B
10-141F01	6/16 without Multiply/Divide Level 1	6/16	2,000	B
10-141F03	6/16 without Multiply/Divide Level 3	6/16	425	B
10-142F01	6/16 with Multiply/Divide Level 1	6/16	2,950	B
10-142F03	6/16 with Multiply/Divide Level 3	6/16	750	B
10-205F03	8/32 CPUC Board with Writable Control Store Level 1	8/32C & M83-108	350	B
	MEMORY KITS			
10-213F03	64KB Memory Level 3	64KB Memory	400	B
10-221F03	32KB Memory Level 3	32KB Memory	260	B
	MISCELLANEOUS			
10-198F03	Conversion Equipment Test Simulator	28-017	135	B
	PERIPHERAL EQUIPMENT KITS			
10-110F03	Paper Tape Reader/Punch Interface, Level 3	M46-250	125	B
10-120F03	60-200LPM Interface, Level 3	M46-202	125	B
10-094F03	200/600LPM Printer Interface, Level 3	M46-206	125	B
10-091F01	INTERTAPE Cassette, Level 1	M46-400	2,900	B
10-091F03	INTERTAPE Cassette, Level 3	M46-400	320	B
10-087F01	9 Track, 800 c.p.i. 45 i.p.s. Magnetic Tape Interface, Level 1	M46-470	2,900	B
10-087F03	9 Trace, 800 c.p.i. 45 i.p.s. Magnetic Tape Interface, Level 3	M46-470	200	B
10-106F01	9 Track, 1600 c.p.i. 45 i.p.s. Magnetic Tape Interface, Level 1	M46-475	1,500	B
10-106F03	9 Track, 1600 c.p.i. 45 i.p.s. Magentic Tape Interface, Level 3	M46-475	200	B
10-104F03	201 DSA, Level 3	M47-000	175	B
10-105F03	301 DSA, Level 3	M47-001	175	B
10-102F03	Programmable Asynchronous Line System Controller, Level 3	M47-100	200	B
10-103F03	Programmable Asynchronous Line Module, Level 3	M47-101	250	B
10-100F03	Programmable Asynchronous Single Line Adapter, Level 3	M47-102	100	B
10-281F03	Current Loop Interface, Level 3	M48-024	140	B
10-119F03	Card Reader Interface, Level 3	M46-235	85	B

Product Number	Description	Prereq.	Price	Disc Type
	PROCESSOR OPTION KITS			
10-128F03	Binary Display Panel, Level 3	M71-101	75	B
10-129F03	Hexadecimal Display Panel, Level 3	M71-102	150	B
10-113F03	Power Fail/Auto Restart for Model 7/16, Level 3	M71-104	25	B
10-111F03	Selector Channel for 6/16, 7/16, 8/16, Level 3	M70-103	200	B
10-117F03	Loader Storage Unit Controller, Level 3	M70-104	50	B
10-143F01	Memory Access Controller, Level 1	M73-104	3,500	B
10-143F03	Memory Access Controller Level 3	M73-104	310	B
10-199F03	Power Fail/ Level 3	6/16, 7/16, 8/16, 7/32CII	13	B
10-201F03	Parity Option for 6/16, Level 3	M61-116	35	B
10-204F03	LMBI Level 3	M73-106	260	B
10-205F03	Writable Control Store Level 3	M83-108	350	B
10-206F03	High Performance Floating Point, Level 3	M83-111	800	B
10-211F03	Parity Option-7/ 32, Level 3	M73-107	35	B
10-201F03	Parity Option-6/ 16, Level 3	M61-116	35	B
	TERMINAL KITS			
10-218F03	Current Loop Interface, Level 3	M48-024	145	B
	SYSTEM MODULE KITS			
10-088F03	Line Frequency Clock Spare Parts Kit Level 3	M48-012	70	B
10-089F03	Universal Logic Interface Spare Parts Kit Level 3	M48-013	70	B
10-095F03	I/O Bus Switch Spare Parts Kit Level 3	M48-104	200	B
10-118F03	Universal Clock Module Spare Parts Kit Level 3	M48-000	125	B
10-116F03	8 Line Interrupt Module Spare Parts Kit Level 3	M48-001	125	B
10-197F03	Multiplexor Bus Buffer Level 3	M48-005	55	B
10-207F03	Multi-port Memory Interface Level 3	M48-025	300	B
10-209F03	Multi-Port Memory Controller Level 3	M48-026	190	B
10-210F03	Multi-Port Memory Multiplexor Level 3	M48-027	230	B
10-212F03	Line Frequency Derived Clock Level 3	M48-012	45	B
10-189F02	Automatic Dial Unit Controller	M10-022	390	B
10-196F03	Relay Closure Panel	M48-004	145	B
	COMMUNICATIONS KITS			
10-173F01	Memory Access Multiplexor, Level 1	M47-010	4,500	B
10-173F03	Memory Access Multiplexor, Level 3	M47-010	600	B
10-174F01	QSA with Z Bit, Level 1	M47-003	2,600	B
10-174F03	QSA with Z Bid, Level 3	M47-003	250	B
10-180F01	QSA without Z Bid, Level 1	M47-002	1,600	B
10-100F03	PASLA, Level 3	M47-102	175	B
	DIGITAL INPUT/OUTPUT KITS			
10-069F03	Digital Multiplexor Controller Spare Parts Kit Level 3	M07-860	165	B
10-070F03	128 Line Input Module Spare Parts Kit Level 3	M07-861	150	B
10-071F03	128 Line Output Module Spare Parts Kit Level 3	M07-862	70	B
10-085F03	Digital Multiplexor Chassis Fan Spare Parts Kit Level 1	M07-860 or M07-864	40	B
10-196F03	Relay Closure Panel Level 3	M48-004	145	B
10-216F03	Relay Driver Module Level 3	M48-500	50	B
10-217F03	Contact Closure Detector Module Level 3	M48-400	90	B
10-147F03	Digital I/O Level 3	M48-450	60	B

SECTION V
DOCUMENTATION

INTRODUCTION

This section lists documentation available for purchase from INTERDATA. All documentation pertains to active supported, standard INTERDATA products. INTERDATA generated is usually available of the shelf while vendor generated could have a lead time up to 150 days after receipt of order.

DISCOUNT POLICY

All documentation listed in this section is discountable when ordered in quantities of identical items. Discount rates apply only to individual documentation quantities, combining documents on a single order for discount level is not permitted. Documents shipped may not be returned for credit, however, damaged shipments will be replaced upon inspection and acceptance by INTERDATA.

DISCOUNT SCHEDULE

Number of Copies	Discount
1 — 5	0%
6 — 14	10%
15 — 29	16%
30 — 75	17%
75 +	21%

Order No.	Document Title	Price
29-086	TTY Corp. Bulletin 310B Volume 1	7.00
29-088	TTY Corp. Bulletin 310B Volume 2	16.00
29-089	TTY Corp. Bulletin 1184B Parts (33ASR/KSR)	7.00
29-090	TTY Corp. Bulletin 280 Volume 1 (35ASR)	12.00
29-091	TTY Corp. Bulletin 280B Volume 2 (35ASR)	22.00
29-092	TTY Corp. Bulletin 295B Motor (35ASR)	5.00
29-093	TTY Corp. Bulletin 1187B Parts (35ASR)	7.00
29-094	TTY Corp. Bulletin 281B Volume 1(35KSR)	8.00
29-095	TTY Corp. Bulletin 281 B Volume 2(35KSR)	7.00
20-096	TTY Corp. Bulletin 1201B Parts (35KSR)	6.00
29-114	801 Auto Dial Operating & Programming Manual (10"Series)	5.00
29-115	801 Auto Dial Controller Maintenance Manual (10") Series	10.00
29-146	Model 4 Digital System Maintenance Manual One	60.00
29-147	Model 4 Digital System Maintenance Manual Two	60.00
29-158	Fixed Point Single Precision Conversion Routines	5.00
29-159	Fixed Point Single Precision Arithmetic Routines	5.00
29-167	FLP Trig. Package Test Programming Manual	15.00
29-170	ASR/KSR33 Teletype Modification Manual	15.00
29-171	KSR35 Teletype Modification Manual	15.00
29-178	Indirect Instruction Set Reference Data	5.00
29-180	Memory Accumulator Instruction Manual	30.00
29-194	Advanced Programming Package Test Programs Description Manual	30.00
29-195	Double Precision Floating-Point Package Description Manual	5.00
29-198	230 KHZ Drum	10.00
29-199	130 KHZ Drum System Maintenance Manual	20.00
29-203	Model 14 Communications Processor Instruction Manual	30.00
29-209	Digital Multiplexor Instruction Manual	20.00
29-220	FORTRAN IV Reference Manual	15.00
29-229	Editor (RTide) Program Manual	5.00
29-230	Assembler Language Manual	5.00
29-231	Loader Descriptions	5.00
29-235	Hexadecimal Debug Program Manual	5.00
29-240	Real Time Operating System Reference Manual	15.00
29-241	Series 1 Memory Maintenance	20.00

Order No.	Document Title	Price
29-242	Run Time Library Description	5.00
29-246	FORTRAN User's Guide	10.00
29-249	Model 50/55 Communications Processor Reference Manual	10.00
29-253	M70 Micro Instruction Reference Manual	25.00
29-261	M70User Handbook	15.00
29-265	Universal Clock Instruction Manual	5.00
29-267	Multiplexor Bus Buffer Instruction Manual	5.00
29-268	8 Line Interrupt Module Instruction Manual	5.00
29-269	16 Bit Pocket Guide	2.00
29-271	General Purpose Wire Wrap Board Instruction Manual (15" Board)	5.00
29-273	Universal Interface Module Instruction Manual	10.00
29-274	Centronics Model 101 Line Printer Technical Manual	30.00
29-275	Centronics Line Printer Interface Instruction Manual	5.00
29-276	Programmable Asynchronous Line System Instruction Manual	10.00
29-277	Synchronous Data Set Adapter Instruction Manual (201/301)	10.00
29-278	M70 Micro Instruction Reference Manual	5.00
29-279	99-126 Series Power Supply Maintenance Manual	5.00
29-280	M80 Maintenance Manual	30.00
29-281	M85 Dynamic Control Store User's Guide	15.00
29-282	M80 Micro Instruction Reference Manual	20.00
29-283	M80 Micro Assembly Language Manual	15.00
29-284	Intertape Instruction Manual	20.00
29-285	M55 Dual Memory Bank Controller Instruction Manual	10.00
29-286	RTOS Acceptance test Manual	5.00
29-288	Teletype Interface Instruction Manual	10.00
29-289	Removable Cartridge Disc System Instruction Manual	20.00
29-290	Paper Tape Reader/Punch System Instruction Manual	15.00
29-291	Paper Tape Reader System Maintenance Manual	15.00
29-292	BOSS Reference Manual	10.00
29-293	DOS Reference Manual	20.00
29-294	RTEX Reference Manual	20.00
29-295	9 Track 800 CPI Read After Write Magnetic Tape System Instruction Manual	20.00
29-296	Operation and Servicing Manual; Pertec 8840-9-4555 Tape Transport	100.00
29-297	Intertape Cassette Instruction Manual	20.00
29-298	Raymond Cassette User's Manual	20.00
29-300	M74 Maintenance Manual	30.00
29-301	PASLA Instruction Manual	15.00
29-302	NS Card Reader Interface Instruction Manual	15.00
29-305	M46-235 Card Reader Instruction Manual	100.00
29-306	Loader Storage Unit User's Manual	10.00
29-308	Dynamic Control Store Instruction Manual	20.00
29-309	1600 CPI Magnetic Tape System Instruction Manual	20.00
29-310	Line Frequency Clock Instruction Manual	5.00
29-311	Universal Logic Interface Instruction Manual	5.00
29-312	Conversion Equipment Controller Instruction Manual	10.00
29-313	New Series Line Printer Instruction Manual	10.00
29-316	DPC 132 Manual Volume L (600 LPM Printer)	60.00
29-317	DPC 132 Manual Volume LL (600 LPM Printer)	40.00

Order No.	Document Title	Price
29-318	I/O Bus Switch Instruction Manual	20.00
29-319	OS AIDS Reference Manual	5.00
29-320	I/O Procedures for RTEX	10.00
29-321	PERTEC 1600 BPI Tape Transport	40.00
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29-325	CRT W/EDIT Product Description (TEC Model 455)	22.00
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29-328	Low-Level Analog Input Systems	30.00
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29-330	Analog Output Modules Instruction Manual	15.00
29-331	Analog Input Modules Instruction Manual	30.00
29-332	Diablo 31 Maintenance Manual	35.00
29-333	Remex 6300 High Speed Paper Tape Reader Technical Manual	30.00
29-334	Remex 6375 High Speed Paper Tape Reader Punch Technical Manual	40.00
29-335	Diablo 44 Series Disc Instruction Manual	20.00
29-336	Extended FORTRAN User's Guide Manual	40.00
29-337	Diablo 44 Disc Maintenance Manual	65.00
29-338	Interdata Basic Language Reference Manual	10.00
29-342	16 KB Memory Maintenance Manual	15.00
29-344	Model 80 Test Aid Instruction Manual	15.00
29-346	Digital I/O and Analog Output System	30.00
29-347	Lambda LCS-20 Power Supply Operating & Service Manual	15.00
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29-349	Switching Regulated Power Supply	20.00
29-351	Diablo Model 429; 10 MB Power Supply Maintenance Manual	15.00
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29-353	2-Wire Screw Term Instruction Manual	5.00
29-354	Test Simulator Instruction Manual	5.00
29-355	I/O Bus Switch Exterior Cable Kit Manual	5.00
29-356	MBS Switch Panel Installation Manual	5.00
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29-360	FORTRAN V Level 1 Reference Manual	10.00
29-361	FORTRAN V Level 1 User's Guide	10.00
29-362	FORTRAN V Level 1 Run Time Library Manual	10.00
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29-364	7/16 Basic Maintenance Manual	30.00
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29-366	8KB Memory Maintenance Manual	15.00
29-367	OS/16-MT Reference Manual	10.00
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29-369	360/370 Interface Maintenance Panel Instruction Manual	15.00
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29-372	Documation M200	40.00
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29-374	OS/32 AIDS User's Manual	5.00

Order No.	Document Title	Price
29-375	Common Assembler (CAL User's Manual)	10.00
29-376	32 Bit Loader Descriptions Manual	5.00
29-377	Diablo Model 029; 2.5 MB Power Supply Maintenance Manual	15.00
29-379	OS/32-ST Program CONFIGURATION Manual	5.00
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29-383	Card Reader Code Converter-Installation Manual	5.00
29-384	OS/32-Series General Purpose Driver Manual	15.00
29-385	Instruction Manual Graphic Display Terminal	15.00
29-386	Graphic Display Terminal	30.00
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29-389	OS-32MT Program Configuration Manual	5.00
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29-391	OS/32MT Program Logic Manual	15.00
29-394	M83 Series Model 8/32 Maintenance Manual	30.00
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29-396	Model 70-74 32KB Memory Maintenance Manual	15.00
29-397	Power Supply Manual, MO 4 Switching	15.00
29-399	7/32 Reference Manual	10.00
29-402	7/16 HSALU Maintenance Manual	30.00
29-403	7/32 Maintenance Manual	30.00
29-405	Model 7/32 User's Manual	20.00
29-406	Introduction to Software	15.00
29-407	LMBI Maintenance Manual	10.00
29-408	CAL Macro Processor Ref. Manual	10.00
29-409	DDC Manual	30.00
29-410	360/370 IMP Information Guide	10.00
29-411	Quad Synchronous Adapter Instruction Manual	20.00
29-412	OS/32 MT TET/32 User's Manual	10.00
29-415	High Level Operator Command (CSS) Pkg. User's Manual	10.00
29-417	OS/32 Disc Dump Utility Program Reference Manual	10.00
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29-419	7/32 Floating Point Kit Manual	5.00
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29-422	Memory Access Multilexor (MAM) Instruction Manual	25.00
29-423	EDMA Bus Universal Interface Instruction Manual	5.00
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29-428	Model 8/32 User's Manual	15.00
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29-437	Switching Regulated Power Supply Maintenance Manual	15.00
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29-441	NS Card Reader Programming Manual	5.00
29-442	Teletype Interface Programming Manual	20.00
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29-444	Current Loop Interface Maintenance Manual	5.00

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29-448	M46-202 Line Printer Interface Programming Manual	5.00
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29-451	Non-Editing CRT Programming Manual	5.00
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29-455	Terminal Reference/Maintenance Manual C15/C30	5.00
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29-462	INTERDATA Carousel 300 Programming Manual	15.00
29-466	Common 2780/3780 RJE Task User's Manual	30.00
29-468	Data Communications Applications Guide	5.00
29-470	Model 6/16 Maintenance Manual	20.00
29-471	16 Bit LSU Direct Access Loader Instruction Manual	5.00
29-472	M70-107 32-Bt LSU Direct Access Loader Instruction Manual	5.00
29-473	Quad Synchronous Adapter (QSA) Program Manual	10.00
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29-475	Analog Input Controller System Programming Manual	10.00
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29-479	8/32 WCS User's Guide	15.00
29-480	10 MB Disc Pertec Maintenance Manual	125.00
29-482	High Level Command Package User's Manual	15.00
29-483	ITAM/16 Reference Manual	15.00
29-484	Multi-User Executive (MUE) Reference Manual	15.00
29-485	OS/32 Mini I/O System User's Manual	20.00
29-486	10 MB Disc Maintenance Manual	2.00
29-487	2.5 MB Disc INTERDATA Maintenance Manual	20.00
29-488	Basic Level II Reference Manual	15.00
29-489	Sort/Merge Utility Manual	20.00
29-491	OS/16 Mini I/O System User's Manual	15.00
29-493	32 KB Core Maintenance Manual	20.00
29-494	SM Power Supply Maintenance Manual	25.00
29-495	FORTRAN V 32 Bit Run Time Library Introduction & Overview	30.00
29-496	FORTRAN V 32-Bit Run Time Library Math. Functions	30.00
29-497	FORTRAN V 32-Bit Run Time Library Language Extensions	25.00
29-499	FORTRAN V 32-Bit Run Time Library Real Time Extentions	25.00
29-500	FORTRAN V 32-Bit Run Time Library Technical Description	20.00
29-502	360/370 WW Interface Instruction Manual	25.00
29-503	36-/370 WW Interface Programming Manual	10.00
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Order No.	Document Title	Price
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29-509	16-Bit Processor User's Manual	25.00
29-510	Card Reader Manual	50.00
29-512	Big Disc System SPCL Maintenance Manual	20.00
29-513	1 MS 32 KB Core Memory Maintenance Manual	30.00
29-514	Big Disc Vendor Maintenance Manual	100.00
29-515	Terminal Control Monitor (TCM) User's Manual	40.00
29-517	OS/16 MT2 Guide to Writing Drivers	10.00
29-518	MSM Disc Programming Manual	25.00
29-519	7/32 Comm. Instruction Manual	25.00
29-520	8/32 Comm. Instruction Manual	30.00
29-522	Auto Load Option (AL) User's Manual	30.00
29-523	HASP Multileaving Workstation Emulator Task Reference Manual	15.00
29-524	DORS Interface Instruction Manual	20.00
29-525	8/32 Test Display Instruction Manual	20.00
29-526	8/32 Customer Installation Manual	20.00
29-527	High Level Operator Command Package User's Manual OS/16 MT2	150.00
29-528	PALS Programming Manual	30.00
29-529	Extended Selector Channel Programming Manual	20.00
29-530	Magnetic Tape Programming Manual	10.00
29-533	OS/16 MT2 ALO Diret Access Loader Instruction Manual	30.00
29-534	OS/16 MT2 LSU Direct Access Loader Instruction Manual	25.00
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29-536	FORTRAN VI User's Manual	25.00
29-537	8/32C Customer installation Manual	15.00
29-538	8/32 DFU Instruction Manual	25.00
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29-540	FORTRAN VI Reference Manual	25.00
29-541	INTERDATA Telecommunications Access Method (ITAM/32) Reference Manual	25.00
29-542	ITAM/32 Asynchronous Reference Manual	25.00
29-543	ITAM/32 Character Synchronous Reference Manual	25.00
29-544	ITAM/32 Bit Synchronous Reference Manual	15.00
29-545	COBAL Reference Manual	40.00
29-546	ISAM Reference Manual	15.00
29-548	Carousel 35	60.00
29-555	Model 6/16 64KB MOS Memory Instruction Manual	5.00
29-559	Dual Density Tape System Maintenance Manual	20.00
29-561	FORTRAN VI RTL Introduction and Overview	20.00
29-562	FORTRAN VI RTL Math Functions	20.00
29-563	FORTRAN VI RTL Language Extensions	20.00
29-564	FORTRAN VI RTL Real Time Extensions	20.00
29-565	FORTRAN VI RTL Technical Description	20.00
29-566	FORTRAN VI RTL Input/Output System	20.00
29-567	16 Bit Selector Channel Program Manual	20.00
29-568	Floating Point Processor Instruction Manual	15.00
29-570	Mil. Std. 188 C/EIA 423 LCM Instruction Manual	5.00
29-571	Aids/16 User's Guide	15.00
29-572	Buffer Selector Channel Maintenance Manual	20.00
29-573	8/16 Maintenance Manual	20.00
29-575	Lambda Instruction Manual for the Power Supply LXS-A-5.0V	
29-583	Installation Planning Guide	15.00
29-584	Mass Storage Moduel (MSM) Removable Pack Disc System Maintenance Manual	15.00
29-589	6/16 64 M3 MOS Memory Instruction Manual	10.00

PRODUCT NUMBER	PAGE NUMBERS	LIST PRICE (NON-DISC PORTION)	DISC TYPE	MON SVC RATE	FIELD INST.	PRODUCT NUMBER	PAGE NUMBERS	LIST PRICE (NON-DISC (PORTION)	DISC TYPE	MON SVC RATE	FIELD INST.
M07-860	1-28	1,500.	A	10	100	M46-234	1-18	350.	A	—	50
M07-861	1-28	1,200.	A	5	50	M46-235	1-18	990.	A	10	50
M07-862	1-28	1,200.	A	5	50	M46-236	1-18	6,500.	—	80	300
M07-864	1-28	500.	A	—	50	M46-237	1-18	6,700.	—	—	—
M07-865	1-28	800.	A	20	100	M46-238	1-18	(3,060.)	—	40	200
M10-022	1-26	1,600.	A	10	100	M46-239	1-18	(3,160.)	—	—	—
M10-054	1-26	(70.)	—	—	—	M46-240	1-18	(1,300.)	—	20	100
M10-056	1-26	(350.)	—	—	—	M46-241	1-18	(1,400.)	—	—	—
M46-000	1-15	(1,750.)	—	50	100	M46-242	1-18	(3,300.)	—	40	300
M46-001	1-15	(4,850.)	—	60	200	M46-243	1-18	(3,400.)	—	—	—
M46-002	1-15	(1,850.)	—	—	—	M46-250	1-18	900.	A	10	50
M46-003	1-15	(4,950.)	—	—	—	M46-400	1-19	4,200.	B	40	200
M46-004	1-15	(1,950.)	—	50	100	M46-420	1-21	4,000.	A	30	100
M46-005	1-15	(2,050.)	—	—	—	M46-421	1-21	4,800.	A	30	100
M46-030	1-16	1,295.	C	15	75	M46-471	1-19	(100.)	—	—	—
M46-031	1-16	1,355.	C	—	—	M46-472	1-19	(100.)	—	—	—
M46-033	1-16	95.	C	—	—	M46-490	1-20	14,500.	A	135	600
M46-034	1-16	125.	C	—	—	M46-491	1-20	9,800.	A	100	500
M46-035	1-16	1,390.	C	15	75	M46-492	1-20	14,500.	A	—	—
M46-036	1-16	25.	C	—	—	M46-493	1-20	9,800.	A	—	—
M46-037	1-16	1,450.	C	—	—	M46-494	1-20	24,000.	A	220	700
M46-041	1-16	1,995.	C	24	75	M46-495	1-20	15,000.	A	140	600
M46-042	1-16	2,055.	C	—	—	M46-496	1-20	24,000.	A	—	—
M46-044	1-16	95.	C	—	—	M46-497	1-20	15,000.	A	—	—
M46-045	1-16	125.	C	—	—	M46-500	1-19	2,950.	A	20	100
M46-046	1-16	2,090.	C	24	75	M46-501	1-19	6,000.	B	90	400
M46-048	1-16	2,150.	C	—	—	M46-502	1-19	6,100.	B	—	—
M46-050	1-17	95.	C	—	—	M46-503	1-19	2,950.	A	20	100
M46-055	1-16	30.	C	—	—	M46-504	1-19	2,950.	A	20	100
M46-056	1-17	60.	—	—	—	M46-505	1-19	2,950.	A	20	100
M46-060	1-14	2,475.	B	35	100	M46-506	1-19	6,000.	B	90	400
M46-061	1-14	2,575.	B	—	—	M46-507	1-19	6,100.	B	—	—
M46-062	1-14	2,695.	B	35	100	M46-508	1-19	6,000.	B	90	400
M46-063	1-14	2,795.	B	—	—	M46-509	1-19	6,100.	B	—	—
M46-064	1-15	2,995.	B	40	100	M46-512	1-20	1,500.	A	10	100
M46-065	1-15	3,095.	B	—	—	M46-513	1-20	12,000.	B	120	500
M46-105	1-17	(60.)	—	—	—	M46-514	1-20	12,100.	B	—	—
M46-106	1-17	(60.)	—	—	—	M46-515	1-20	6,800.	B	100	500
M46-108	1-17	(6,500.)	—	60	150	M46-516	1-20	6,900.	—	—	—
M46-109	1-17	(6,500.)	—	60	150	M46-600	1-21	25,000.	A	250	600
M46-202	1-18	990.	A	10	50	M46-601	1-21	18,000.	A	200	500
M46-204	1-18	(5,000.)	—	50	200	M46-602	1-21	25,000.	A	—	—
M46-205	1-18	(5,200.)	—	—	—	M46-603	1-21	18,000.	A	—	—
M46-206	1-18	990.	A	10	50	M46-604	1-21	52,000.	A	450	800
M46-207	1-18	(11,950.)	—	90	300	M46-605	1-22	42,000.	A	350	700
M46-208	1-18	(12,250.)	—	—	—	M46-606	1-22	52,000.	A	—	—
M46-209	1-18	(17,150.)	—	110	400	M46-607	1-22	42,000.	A	—	—
M46-210	1-18	(17,450.)	—	—	—	M46-609	1-22	1,500.	A	—	—

PRODUCT NUMBER	PAGE NUMBERS	LIST PRICE (NON-DISC PORTION)	DISC TYPE	MON SVC RATE	FIELD INST.	PRODUCT NUMBER	PAGE NUMBERS	LIST PRICE (NON-DISC PORTION)	DISC TYPE	MON SVC RATE	FIELD INST.
M46-610	1-22	3,500.	A	—	—	M46-881	1-14	300	B	—	—
M46-611	1-21	10,000.		100	500	M46-906	1-14+15	55.	B	—	—
		6,000.	B			M47-000	1-25	1,200.	A	10	100
		4,000.	A			M47-001	1-25	1,400.	A	10	100
M46-612	1-21	10,100.	—	—	—	M47-002	1-25	1,600.	B	30	100
		6,100.	B			M47-003	1-25	2,600.	B	40	100
		4,000.	A			M47-004	1-25	700.	B	20	100
M46-613	1-21	5,500.	B	60	400	M47-005	1-25	400.	B	10	100
M46-614	1-21	5,600.	B	—	—	M47-007	1-26	(220.)	—	—	—
M46-621	1-22	9,000.	A	90	—	M47-008	1-26	(185.)	—	—	—
M46-622	1-22	2,000.	A	20	—	M47-010	1-27	HOQ	B	50	CSQ
M46-623	1-22	9,500.	A	95	—	M47-100	1-25	500.	A	10	100
M46-624	1-22	2,500.	A	25	—	M47-101	1-25	1,200.	A	10	100
M46-625	1-22	9,700	A	90	CSQ	M47-102	1-25	500.	A	10	100
M46-626	1-22	2,700.	A	20	CSQ	M47-202	1-26	5,000.	A	100	CSQ
M46-627	1-22	10,200.	A	95	CSQ	M47-203	1-26	6,500.	A	100	CSQ
M46-628	1-22	3,200.	A	25	CSQ	M48-000	1-10	750.	A	5	50
M46-630	1-23	2,900.	A	29	200	M48-001	1-10	900.	A	5	50
M46-631	1-23	3,900.	A	39	200	M48-002	1-10	550.	A	—	—
M46-632	1-23	2,900.	A	29	200	M48-004	1-28	1,200.	A	20	100
M46-633	1-23	3,900.	A	39	200	M48-005	1-10	900.	A	5	100
M46-634	1-23	1,000.	A	10	200	M48-006	1-37	300.	A	—	—
M46-635	1-23	2,400.	A	24	200	M48-007	1-28	(500.)	—	5	50
M46-636	1-23	2,900.	A	—	—	M48-008	1-28	(600.)	—	5	50
M46-637	1-23	3,900.	A	—	—	M48-012	1-10	250.	A	5	50
M46-638	1-23	2,900.	A	—	—	M48-013	1-10	700.	A	—	—
M46-639	1-23	3,900.	A	—	—	M48-014	1-10	1,700.	A	20	200
M46-640	1-23	1,000.	A	—	—	M48-016	1-37	500.	A	—	—
M46-641	1-23	2,400.	A	—	—	M48-017	1-10	(175.)	—	—	—
M46-642	1-23	120.	A	—	—	M48-018	1-10	200.	A	—	50
M46-643	1-23	1,000.	A	10	200	M48-019	1-10	200.	A	—	50
M46-644	1-23	1,000.	A	—	—	M48-020	1-11	650.	A	—	—
M46-645	1-15+24	10,900.	A	120	800	M48-021	1-14	400.	A	5	50
M46-646	1-24	10,900.	A	120	800	M48-024	1-14+15	400.	A	5	50
M46-647	1-24	8,700.	A	90	700	M48-025	1-12	3,000.	A	30	CSQ
M46-648	1-24	18,250.	A	210	1,000	M48-026	1-12	4,500.	A	40	CSQ
M46-649	1-24	18,250.	A	210	1,000	M48-027	1-12	3,200.	A	30	CSQ
M46-650	1-24	10,900.	A	—	—	M48-033	1-12	400.	B	—	CSQ
M46-651	1-24	10,900.	A	—	—	M48-035	1-11	17,500.	A	255	CSQ
M46-652	1-24	8,700.	A	—	—	M48-038	1-11	29,000.	A	325	CSQ
M46-653	1-24	18,250.	A	—	—	M48-040	1-12	49,500.	A	585	CSQ
M46-654	1-24	18,250.	A	—	—	M48-041	1-12	9,000.	A	70	CSQ
M46-810	1-15	(60.)	—	—	—	M48-042	1-12	10,900.	A	130	CSQ
M46-811	1-15	(60.)	—	—	—	M48-043	1-12	14,900.	A	190	CSQ
M46-821	1-14	695.	B	10	100	M48-044	1-12	19,500.	A	250	CSQ
M46-845	1-14+15	195.	B	—	—	M48-045	1-11	500.	A	5	100
M46-860	1-14+15	150.	B	—	—	M48-050	1-11	1,500.	A	10	150
M46-865	1-14+15	50.	B	—	—						

PRODUCT NUMBER	PAGE NUMBERS	LIST PRICE (NON-DISC PORTION)	DISC TYPE	MON SVC RATE	FIELD INST.	PRODUCT NUMBER	PAGE NUMBERS	LIST PRICE (NON-DISC PORTION)	DISC TYPE	MON SVC RATE	FIELD INST.
M48-056	1-13	2,100	A	5	CSQ	M48-615	1-31	(120.)	—	—	—
M48-057	1-13	2,100	A	5	CSQ	M48-616	1-31	(90.)	—	—	—
M48-200	1-33	(850.)	—	10	50	M48-617	1-31	(60.)	—	—	—
M48-201	1-33	(850.)	—	10	50	M48-618	1-29+30	(45.)	—	—	—
M48-202	1-33	(950.)	—	10	50	M48-619	1-29+30	(45.)	—	—	—
M48-203	1-33	(950.)	—	10	50	M48-620	1-29	(90.)	—	—	—
M48-207	1-30	300.	A	20	100	M49-003	1-36	150.	A	—	—
M48-212	1-30	2,400.	A	30	200	M49-010	1-36	40.	A	—	—
M48-213	1-30	2,700.	A	40	200	M49-011	1-36	50.	A	—	—
M48-214	1-30	1,300.	A	30	200	M49-012	1-36	50.	A	—	—
M48-215	1-30	2,600.	A	40	200	M49-013	1-36	50.	A	—	—
M48-216	1-30	500.	A	15	50	M49-020	1-36	700.	A	—	50
M48-217	1-36	950.	A	15	—	M49-021	1-25	550.	A	—	50
M48-250	1-33	(3,950.)	—	40	200	M49-025	1-36	800.	A	10	50
M48-251	1-33	(3,950.)	—	40	200	M49-028	1-34	(230.)	—	5	50
M48-252	1-33	(530.)	—	5	50	M49-029	1-34	(230.)	—	5	50
M48-300	1-32	(3,750.)	—	40	200	M49-032	1-3+1-7	500.	—	—	—
M48-301	1-32	(3,750.)	—	40	200	M49-033	1-36	1,500.	A	10	50
M48-302	1-32	(4,500.)	—	50	200	M49-035	1-9+36	700.	A	—	50
M48-303	1-32	(4,500.)	—	50	200	M49-036	1-35	1,700.	A	—	—
M48-304	1-32	(1,500.)	—	50	150	M49-040	1-35	(925.)	—	—	—
M48-305	1-32	(550.)	—	5	50	M49-050	1-36	1,050.	A	10	50
M48-306	1-33	(500.)	—	5	50	M49-202	1-28	(70.)	—	—	—
M48-307	1-32	(400.)	—	5	50	M49-203	1-33	(65.)	—	—	—
M48-308	1-32	(3,750.)	—	40	200	M49-204	1-33	(130.)	—	—	—
M48-309	1-32	(3,750.)	—	40	200	M49-205	1-34	(70.)	—	—	—
M48-350	1-33	(250.)	—	5	50	M49-206	7-1	200.			
M48-351	1-33	(250.)	—	5	50	M49-300	7-2	$300/Student Week			
M48-352	1-33	(250.)	—	5	50	M49-301	7-2	$300/Student Week			
M48-353	1-29	800.	A	20	100	M49-303	7-2	$300/Student Week			
M48-354	1-29	900.	A	30	100	M49-304	7-2	$300/Student Week			
M48-355	1-29	1,500.	A	40	100	M49-305	7-2	$300/Student Week			
M48-400	1-28	390.	A	5	75	M49-307	7-2	$2,500/Week			
M48-450	1-29	500.	A	20	100	M49-308	7-2	$2,500/Week Plus Preparation			
M48-500	1-28	390.	A	5	75	M49-309	7-3	$300/Student Week			
M48-601	1-34	(750.)	—	—	50	M49-310	7-3	$300/Student Week			
M48-602	1-34	(1,040.)	—	10	50	M49-311	7-3	$300/Student Week			
M48-603	1-32	900.	A	20	150	M49-312	7-3	$300/Student Week			
M48-604	1-28	300.	A	—	50	M49-313	7-3	$300/Student Week			
M48-605	1-28	300.	A	—	50	M49-314	7-3	$300/Student Week			
M48-606	1-34	300.	A	—	50	M49-315	7-3	$300/Student Week			
M48-607	1-32	250.	A	—	—	M49-316	7-3	$300/Student Week			
M48-608	1-33	(1,400.)	—	20	200	M49-317	7-3	$300/Student Week			
M48-609	1-33	(1,400.)	—	20	200	M49-402	1-37	500.	A	—	—
M48-610	1-32	(100.)	—	—	—	M49-404	1-37	1,250.	A	—	—
M48-612	1-29	(90.)	—	—	—	M49-405	1-37	750.	A	—	—
M48-613	1-29	(60.)	—	—	—	M49-410	1-37	350.	A	—	—
M48-614	1-29	(100.)	—	—	—	M51-000	1-1	1,400.	A	30	200

PRODUCT NUMBER	PAGE NUMBERS	LIST PRICE (NON-DISC PORTION)	DISC TYPE	MON SVC RATE	FIELD INST.	PRODUCT NUMBER	PAGE NUMBERS	LIST PRICE (NON-DISC PORTION)	DISC TYPE	MON SVC RATE	FIELD INST.
M51-001	1-1	2,000.	A	35	200	M61-114	1-3	(60.)	—	—	—
M51-002	1-1	2,800.	A	45	200	M61-115	1-3	500.	A	—	—
M51-003	1-1	3,400.	A	50	200	M61-116	1-3	500.	A	5	50
M51-004	1-1	4,000.	A	55	200	M61-304	1-3	200.	A		—
M51-005	1-1	4,600.	A	60	200	M70-103	1-3+1-5	1000.	A	10	150
M51-006	1-1	5,200.	A	70	200	M70-104	1-10	600.	A	10	100
M51-007	1-1	5,800.	A	80	100	M70-105	1-9+10	100.	A		—
M51-100	1-1	250.	A	—	—	M70-106	1-10	250.	A		—
M51-101	1-1	75.	A	—	—	M70-107	1-10	250.	A		—
M51-102	1-1	100.	A	—	—	M70-108	1-10	250.	A		—
M51-103	1-1	100.	A	—	50	M71-101	1-7	350.	A	2	50
M51-104	1-1	(600.)	—	—	—	M71-102	1-7	660.	A	5	50
M51-105	1-1	300.	A	—	—	M73-042	1-6	11,695.	A	160	400
M51-106	1-1	(60.)	—	—	—	M73-043	1-6	17,800	A	245	400
M51-107	1-1	(60.)	—	—	—	M73-100	1-7	400.	A	2	25
M61-011	1-2	2,800.	A	40	200	M73-101	1-7	1,800.	A	30	150
M61-012	1-2	3,300.	A	60	200	M73-103	1-7	900.	A	5	100
M61-013	1-2	4,800.	A	60	200	M73-104	1-7	3,500.	A	25	100
M61-014	1-2	8,200.	A	80	200	M73-105	1-7+1-9	1,000.	A	10	150
M61-015	1-2	3,700.	A	45	200	M73-106	1-7	5,950.	A	50	CSQ
M61-016	1-2	3,900.	A	55	200	M73-107	1-7	1,000.	A	5	50
M61-017	1-2	5,500.	A	65	200	M73-111	1-7	1,400.	A	—	100
M61-018	1-2	8,900.	A	80	200	M73-112	1-7	1,200.	A	10	100
M61-019	1-2	4,100.	A	45	200	M73-115	1-7	4,500.	A	45	300
M61-020	1-2	4,300.	A	55	200	M73-300	1-6	4,500.	A	45	200
M61-021	1-2	5,800.	A	65	200	M73-301	1-6	5,000.	A	45	200
M61-022	1-2	9,200.	A	80	200	M73-310	1-6	6,550.	A	60	200
M61-023	1-2	2,200.	A	40	200	M73-311	1-6	7,050.	A	60	200
M61-024	1-2	2,800.	A	50	200	M81-000	1-4	5,800.	A	65	200
M61-026	1-2	4,000.	A	60	200	M81-001	1-4	6,500.	A	70	200
M61-030	1-2	7,700.	A	80	200	M81-002	1-4	6,900.	A	70	200
M61-101	1-3	400.	A	2	25	M81-006	1-4	9,200.	A	90	200
M61-102	1-3	100.	A	5	50	M81-007	1-4	9,900.	A	95	200
M61-103	1-3	300.	A	10	50	M81-008	1-4	10,300.	A	95	200
M61-104	1-3	350.	A	10	50	M81-100	1-5	2,800.	A	30	200
M61-105	1-3	100.	A	—	—	M81-101	1-5	3,800.	A	40	300
M61-107	1-3	950.	A	10	50	M81-102	1-5	400.	A	2	25
M61-108	1-3	100.	A	—	50	M81-103	1-5	100.	A	—	50
M61-109	1-3	350.	A	2	50	M81-104	1-5	100.	A	5	50
M61-110	1-3+2-2	600.	A	5	50	M81-105	1-5	350.	A	2	50
M61-112	1-3	(90.)	—	—	—	M81-106	1-5	600.	A	5	50
M61-113	1-3	(60.)	—	—	—	M81-107	1-5	300.	A	10	50

PRODUCT NUMBER	PAGE NUMBERS	LIST PRICE (NON-DISC PORTION)	DISC TYPE	MON SVC RATE	FIELD INST.	PRODUCT NUMBER	PAGE NUMBERS	LIST PRICE (NON-DISC PORTION)	DISC TYPE	MON SVC RATE	FIELD INST.
M81-108	1-5	350.	A	10	50	S90-008-99	3-5	50.			
M81-109	1-5	100.	A	—	—	S90-008-31	3-5	2,500.			
M81-110	1-5	200.	A	—	—	S90-008-71	3-5	2,500.			
M81-111	1-5	500.	A	5	50	S90-008-61	3-5	2,800.			
M81-112	1-5	950.	A	10	50	S90-008-91	3-5	800.			
M81-300	1-4	4,500.	A	45	200	S90-010-99	3-9	200.			
M81-301	1-4	5,000.	A	45	200	S90-010-26	3-9	1,400.			
M83-025	1-8	51,900.	A	500	800	S90-010-36	3-9	1,400.			
M83-030	1-8	63,100	A	500	800	S90-010-76	3-9	1,400.			
M83-102	1-9	350.	A	—	—	S90-010-46	3-9	750.			
M83-103	1-9	1,200.	A	10	100	S90-010-56	3-9	1,750.			
M83-107	1-9	1,000.	A	—	—	S90-010-66	3-9	1,700.			
M83-108	1-9	4,000.	A	30	CSQ	S90-010-96	3-9	400.			
M83-110	1-8	5,000.	A	20	200	S90-010-86	3-9	1,400.			
M83-111	1-9	6,500.	A	40	CSQ	S90-011-99	3-10	100.			
M83-310	1-8	19,000.	A	180	400	S90-011-26	3-10	800.			
M83-311	1-8	20,000.	A	180	400	S90-011-36	3-10	800.			
M83-312	1-8	18,500.	A	180	400	S90-011-76	3-10	800.			
M83-313	1-8	19,500.	A	180	400	S90-011-56	3-10	1,000.			
M83-314	1-8	18,000.	A	180	400	S90-011-66	3-10	1,100.			
M83-315	1-8	19,000.	A	180	400	S90-011-96	3-10	200.			
M83-316	1-8	18,500.	A	180	400	S90-011-86	3-10	800			
M83-317	1-8	19,500.	A	180	400	S90-012-26	3-9	325.			
M83-318	1-8	18,000.	A	180	400	S90-012-36	3-9	325.			
M83-319	1-8	19,000.	A	180	400	S90-012-76	3-9	325.			
M83-320	1-9	26,000.	A	180	400	S90-012-56	3-9	325.			
M83-321	1-9	27,000	A	180	400	S90-012-66	3-9	325.			
M83-322	1-9	25,000	A	180	400	S90-015-99	3-6	25.			
M83-323	1-9	26,000	A	180	400	S90-015-31	3-6	1,750.			
16-398	1-37	70.	A	—	—	S90-015-71	3-6	1,750.			
27-039	1-21	(200.)	—	—	—	S90-015-51	3-6	1,930.			
27-056	1-21	(270.)	—	—	—	S90-015-61	3-6	1,970.			
28-009	1-37	40.	A	—	—	S90-200-99	3-12	25.			
28-014	1-37	40.	A	—	—	S90-200-26	3-12	250.			
28-017	1-37	1,500.	A	—	—	S90-200-36	3-12	250.			
S90-000-99	3-11	30.				S90-200-76	3-12	250.			
S90-000-16	3-11	375.				S90-200-56	3-12	450.			
S90-000-26	3-11	375.				S90-200-66	3-12	550.			
S90-000-36	3-11	375.				S90-200-86	3-12	250.			
S90-000-76	3-11	375.				S90-201-16	3-13	650.			
S90-000-46	3-11	375.				S90-201-26	3-13	650.			
S90-000-96	3-11	200.				S90-201-36	3-13	650.			
S90-000-86	3-11	375.				S90-201-76	3-13	650.			
S90-006-99	3-4	100.				S90-201-56	3-13	850.			
S90-006-31	3-4	5,000.				S90-201-66	3-13	950.			
S90-006-71	3-4	5,000.				S90-201-39	3-13	1,000.			
S90-006-61	3-4	5,300.				S90-201-79	3-13	1,000.			
S90-006-91	3-4	800.				S90-201-99	3-13	30.			

PRODUCT NUMBER	PAGE NUMBERS	LIST PRICE (NON-DISC PORTION)	DISC TYPE	MON SVC RATE	FIELD INST.
S90-201-86	3-13	650.			
S90-204-99	3-20	25.			
S90-204-16	3-20	150.			
S90-204-26	3-20	150.			
S90-204-36	3-20	150.			
S90-204-76	3-20	150.			
S90-204-56	3-20	350.			
S90-204-66	3-20	450.			
S90-204-11	3-20	150.			
S90-204-21	3-20	150.			
S90-204-31	3-20	150.			
S90-204-71	3-20	150.			
S90-204-51	3-20	350.			
S90-204-61	3-20	450.			
S90-204-39	3-20	1,000.			
S90-204-79	3-20	1,000.			
S90-204-86	3-20	150.			
S90-205-99	3-19	25.			
S90-205-16	3-19	450.			
S90-205-26	3-19	450.			
S90-205-36	3-19	450.			
S90-205-76	3-19	450.			
S90-205-56	3-19	650.			
S90-205-66	3-19	750.			
S90-205-11	3-19	450.			
S90-205-21	3-19	450.			
S90-205-31	3-19	450.			
S90-205-71	3-19	450.			
S90-205-51	3-19	650.			
S90-205-61	3-19	750.			
S90-205-86	3-19	450.			
S90-208-99	3-17	25.			
S90-208-26	3-17	400.			
S90-208-36	3-17	400.			
S90-208-76	3-17	400.			
S90-208-56	3-17	400.			
S90-208-66	3-17	450.			
S90-208-96	3-17	200.			
S90-208-39	3-18	2,000.			
S90-208-79	3-18	2,000.			
S90-208-59	3-18	2,000.			
S90-208-69	3-18	2,000.			
S90-208-86	3-17	400.			
S90-210-21	3-17	400.			
S90-210-31	3-17	400.			
S90-210-71	3-17	400.			
S90-210-51	3-17	400.			
S90-210-61	3-17	450.			
S90-210-91	3-17	200.			
S90-211-21	3-17	400.			
S90-211-31	3-17	400.			
S90-211-71	3-17	400.			
S90-211-51	3-17	400.			
S90-211-61	3-17	450.			
S90-211-91	3-17	200.			
S90-212-99	3-14	50.			
S90-212-21	3-14	650.			
S90-212-31	3-14	650.			
S90-212-71	3-14	650.			
S90-212-51	3-14	850.			
S90-212-61	3-14	950.			
S90-212-39	3-14	1,000.			
S90-212-79	3-14	1,000.			
S90-212-59	3-14	1,200.			
S90-212-69	3-14	1,300.			
S90-213-99	3-15	50.			
S90-213-21	3-15	500.			
S90-213-31	3-15	500.			
S90-213-71	3-15	500.			
S90-213-51	3-15	700.			
S90-213-61	3-15	800.			
S90-214-99	3-16	30.			
S90-214-31	3-16	7,000.*			
S90-214-71	3-16	7,000.*			
S90-214-61	3-16	7,000.*			
S90-214-31	3-16	4,500.**			
S90-214-71	3-16	4,500.**			
S90-214-61	3-16	4,500.**			
S90-400-99	3-21	25.			
S90-400-16	3-21	100.			
S90-402-99	3-22	10.			
S90-402-16	3-22	50.			
S90-403-99	3-22	10.			
S90-403-11	3-22	50.			
S90-404-99	3-27	350.			
S90-404-26	3-27	100.			
S90-404-36	3-27	100.			
S90-404-76	3-27	100.			
S90-404-56	3-27	300.			
S90-404-66	3-27	400.			
S90-404-86	3-27	100.			
S90-405-99	3-27	350.			
S90-405-21	3-27	100.			
S90-405-31	3-27	100.			
S90-405-71	3-27	100.			
S90-405-51	3-27	300.			

* Initial Copy

** Additional Copy

PRODUCT NUMBER	PAGE NUMBERS	LIST PRICE (NON-DISC PORTION)	DISC TYPE	MON SVC RATE	FIELD INST.
S90-405-61	3-27	400.			
S90-406-21	3-22	500.			
S90-406-31	3-23	500.			
S90-406-71	3-22	500.			
S90-406-51	3-22	500.			
S90-406-61	3-22	500.			
S90-406-99	3-22	50.			
S90-407-99	3-23	25.			
S90-407-26	3-23	75.			
S90-407-36	3-23	75.			
S90-407-76	3-23	75.			
S90-407-56	3-23	275.			
S90-407-66	3-23	375.			
S90-407-21	3-23	75.			
S90-407-31	3-23	75.			
S90-407-71	3-23	75.			
S90-407-51	3-23	275.			
S90-407-61	3-23	375.			
S90-407-86	3-23	75.			
S90-901	7-1	200.			
S90-902	7-1	2,500.			
S90-903	7-1	75/Hour			
S90-904	7-1	100/Hour			
S90-905	3-9+7-1	2,000.			
S90-950	7-4	$300/Student Week			
S90-952	7-4	$300/Student Week			
S90-953	7-4	$300/Student Week			
S90-954	7-5	$300/Student Week			
S90-956	7-4	$300/Student Week			
S90-958	7-5	$300/Student Week			
S90-959	7-5	$300/Student Week			
S90-962	7-5	$2,500/Per Week			
S90-963	7-5	$2,500/Per Week Plus Preparation			
S90-966	7-5	$300/Student Week			
S90-967	7-4	$300/Student Week			
S90-968	7-5	$180/Student Week			
S90-969	7-5	$180/Student Week			

SECTION VII

HARDWARE, SOFTWARE, SYSTEMS ENGINEERING AND PROGRAM MANAGEMENT SERVICES

1. SYSTEMS ENGINEERING AND SOFTWARE SERVICES

SYSTEMS ENGINEERING SERVICES

For fulfilling customer requirements with respect to Software, Documentation and Equipment Engineering Services performed at Ocean-port, New Jersey.

$280Day
$1,400/Week
$6,160/Month

The above prices are based upon a regular work day; material, travel and subsistance as required is additional and billable as incurred on a cost reimbursement basis.

OS/32 MT OPERATING SYSTEM INSTALLATION

The first copy of OS/32 MT includes installation at customer site. Installation is composed of system generation on site or at an INTERDATA facility and three days of on-site support for installation demonstration of OS/32 MT. Installation applies to standard INTERDATA supported products only. Assistance for customer written system or application programs is available at standard rates. Requests of this type should be referred to your local INTERDATA Sales Office. Included in the price of installation is travel and living expenses.

S90-902

SOFTWARE SUBSCRIPTION SERVICE

This service provides an INTERDATA user with regular software bulletins describing new INTERDATA software, software defects and the patches or alternatives associated with such defects. In addition, other valuable information will be available to subscribers such as functional specifications and other detailed information which will aid the user. Subscribers to the service will also be able to purchase revisions to previously purchased standard software packages at reduced rates.

S90-901

HARDWARE SUBSCRIPTION SERVICE

This service entitles an INTERDATA user to receive Product Improvement Notices (PINs) which contain change information to insure safe error free operation of their system. In addition to change information the subscriber will receive general information bulletins, preventive maintenance procedures and other information helpful to the operation and maintenance effort.

M49-206

16 BIT PROCESSOR COMPUTER TIME

Rental of 16 bit processor time is available by the hour from the INTERDATA Computer Centers located in key cities throughout the United States. Computer Center operators are optionally available for 1st or 2nd shift operation. Contact your local sales engineer for additional information as to local site facilities and available equipment.

S90-903

32 BIT PROCESSOR COMPUTER TIME

Rental of 32 bit processor time is available by the hour from the INTERDATA Computer Centers located in key cities throughout the United States. Computer Center operators are optionally available for the 1st or 2nd shift operation. Contact your local sales engineer for additional information as to local site facilities and available equipment.

S90-904

OS/16MT OPERATING SYSTEM INSTALLATION

Installation is composed of system generation on-site or at an INTERDATA facility (at INTERDATA's option) and three days of on-site support for installation demonstration of OS/16MT2. Installation applies to standard INTERDATA supported products only. Travel and Living expenses are included in the price.

S90-905

2. HARDWARE MAINTENANCE TRAINING

MODEL 70 MAINTENANCE COURSE (M70)

This three week course is designed to familiarize personnel with basic repair and maintenance concepts of the Model 70. Circuit board analysis, installation and configuration rules, I/O theory, ROM theory and instruction set among other details are taught.

Students attending this course should have previous programmable digital computer experience with a familiarity of INTERDATA programing techniques and logic symbology.

M49-300

MODEL 80/85 MAINTENANCE COURSE (M80/85)

This three week course is designed to familiarize maintenance personnel with the inherent characteristics of the Model 80/85. A basic understanding of MOS memory, control store, circuit board analysis, interpretation of diagnostic programs, I/O techniques among other details will be taught.

Students attending this course should have previous programmable digital computer experience with a familiarity of INTERDATA programming techniques and logic symbology.

M49-301

COMMUNICATION INTERFACES (COMM INT)

This one week course is designed to familiarize maintenance personnel with basic characteristics of the INTERDATA communications modules. Emphasis is placed on the circuit analysis of PALS, synchronous and asynchronous data set adapters and other communications related modules.

Students attending this course should be familiar with communications and the INTERDATA input/output scheme.

M49-303

MODEL 6/16 MAINTENANCE COURSE (M6/16)

This two week course is designed to familiarize maintenance personnel with enough information to recognize, diagnose, isolate and repair hardware failures of the Model 6/16 processor using current maintenance manuals, diagnostics and troubleshooting aids an procedures.

M49-314

MODEL 7/16 BASIC MAINTENANCE COURSE (M7/16)

This two week course is designed to familiarize maintenance personnel with repair and maintenance concepts of the Model 7/16. Circuit board analysis, uses of the test set, processor operation, functional schematics and hex display panel will be discussed.

Students attending this course should have previous experience on a programmable digital computer.

M49-304

ON-SITE EDUCATIONAL SERVICE (OSS)

Arrangements can be made to have a standard or special course conducted at a customer's facility. The customer must provide a classroom and all necessary laboratory equipment.

M49-307   On-Site Standard Course
M49-308   On-Site Special Course

Includes applicable documentation for up to ten (10) students. Additional charges of $200/student are applied for all students above ten (10).

For courses of less than one week (5 days) in duration, the charge is $500/day with a 3 day minimum, plus an additional charge for preparation when applicable.

See the INTERDATA Training Manual for further information.

MODEL 7/16 HSALU MAINTENANCE COURSE (M7/16H)

This three week course is designed to familiarize maintenance personnel with basic repair and maintenance concepts of the Model 7/16 with High Speed Arithmetic Logic Unit. Installation, configurations, I/O theory, ROM theory, instruction set and circuit board analysis are discussed.

38-094/8-1-77

2. HARDWARE MAINTENANCE TRAINING (CONTINUED)

Students attending this course should have previous maintenance experience on a programmable digital computer and be familiar with INTERDATA programming techniques.

M49-309

MODEL 7/32 MAINTENANCE COURSE (M7/32)

This four week course is designed to familiarize maintenance personnel with the repair concepts of extended memory machines. Topics include 7/32 instruction set, circuit board analysis, interpretation and diagnositc routines and memory management tehcniques.

Students attending this course should have previous maintenance experience on a programmable digital computer.

M49-305

MODEL 8/32 MAINTENANCE COURSE (M8/32)

This four week course is designed to familiarize maintenance personnel with the repair concepts of extended memory machines. Topics include 8/32 instruction set, circuit board analysis, interpretation and diagnostic routines and memory management techniques.

Students attending this course should have previous maintenance experience on a programmable computer.

M49-313

MULTIPLEXOR BUS INTERFACES (MUX BUS)

This one week course includes basic multiplexor bus characteristics and standard peripheral interfaces and devices to include, TTY, Card Reader, Line Printer and High Speed Paper Tape, CRT, Universal Clock, Loader Storage Unit, Mux Bus Switch and Mux Bus Buffer.

Students attending this course should be familiar with the INTERDATA I/O scheme.

M49-311

MATNETIC TAPE INTERFACES (MAG TAPE)

This one week course is designed to familiarize maintenance personnel with the characteristics of the INTERDATA magnetic tape interfaces. Basic PM and adjustment theory of the cassette, 800 and 1600 BPI tape drives will be taught.

Students attending this course should be familiar with the INTERDATA processor I/O structure.

M49-312

DISC INTERFACES (DISC INT)

This one week course includes basic selector channel characteristics and a discussion of the INTERDATA supported disc devices and interfaces. Test Programs and preventive maintenance procedures are also discussed.

Students attending this course should be familiar with general disc characteristics and the INTERDATA I/O scheme.

M49-310

16 BIT SYSTEMS ERROR ANALYSIS COURSE (16 BIT ERROR)

This one week course is designed to familiarize the student with basic systems configurations allowing him to approach a problem from a system rather than a processor or peripheral point of view. Operating system I/O scheme, interpretation of error messages and systematic troubleshooting procedures will be taught.

Students attending this class should be familiar with INTERDATA's OS/16 MT I/O structure and multiplexor bus theory.

M49-315

32 BIT SYSTEMS ERROR ANALYSIS COURSE (32 BIT ERROR)

This one week course is designed to familiarize the student with basic systems configurations allowing him to approach a problem from a system rather than a processor or peripheral point of view. Operating system I/O scheme, interpretation of error messages and systematic troubleshooting procedures will be taught.

Students attending this class shluld be familiar with INTERDATA's OS/16 MT I/O structure and multiplexor bus theory.

M49-316

CAROUSEL MAINTENANCE COURSE (CAROUSEL)

This one week course is designed to familiarize maintenance personnel with the use, block diagrams, logical theory of operation and trouble-shooting techniques of the Carousel Terminal.

Students should be familiar with the INTERDATA multiplexor bus characteristics along with experience in maintaining electro-mechanical devices.

M49-317

3. SOFTWARE EDUCATION

INTRODUCTION TO ASSEMBLY LANGUAGE (INTRO)

This one week course is designed for the student with no computer or assembly language background. It covers basic fundamentals of computer concepts and assembly language programming.

No prerequisites.

S90-967

16 BIT PROGRAMMING COURSE (P16)

This one week course provides the student with the basic skills to write assembly language programs for INTERDATA 16-bit series processors. The emphasis is upon generation, execution, editing and modification of source codes and object programs using standard stand alone INTERDATA utilities.

The students should be an experienced assembly language programmer, and should be familiar with assemblers, loaders, editors and debugging routines.

S90-950

16 BIT OPERATING SYSTEMS (BOSS, DOS) (16OS)

This one week course covers the conceptual operation of INTERDATA's Basic Operating System (BOSS) and Disc Operating System (DOS). The emphasis is upon generation, execution, editing, and debugging of programs using standard INTERDATA operating system utilities.

The student should be an experienced assembly language programmer, and should be familiar with assemblies, loaders, editors and debuging routines. INTERDATA's 16 Bit Programming Course is recommended as a prerequisite.

S90-952

PROGRAMMING FOR 32 BIT PROCESSORS (P32)

This one week course will prepare the student to write assembly language programs for the INTERDATA 32-bit series processors using both the instruction set and the Common Assembly Language (CAL) syntax.

The student must be an experienced assembly language programmer and be familiar with the general operation and purpose of assemblers and loaders.

S90-956

OS/16 MT2 USER COURSE (OS/16MT2U)

This one week course covers the conceptual operation of OS/16 MT within the multi-task environment. The student will generate and run a multi-task system as part of the course.

Students must be familiar with the basic concepts of operating system programming and the use of INTERDATA's Disc Operating System (DOS) or Basic Operating System (BOSS).

S90-953

3. SOFTWARE EDUCATION (CONTINUED)

OS/16 MT2 INTERNALS (OS/16MT21)

This one week course covers the operation of the OS/16 MT system modules with respect to program flow and functions. The student will modify the course form of a particular module, and then integrate the modified modules into a working system.

Students should be familiar with INTERDATA assembly level programming and possess a working knowledge of operating system programming.

S90-954

OS/32 MT USER (OS/32MTU)

This one week course prepares the student to generate tasks to run in a real time, multi-task environment. As part of the course the student will prepare an OS/32 MT System geared to his particular needs.

The student should be familiar with the basic concepts of operating system programming.

S90-958

OS/32 MT INTERNALS (OS/32 MTI)

This one week course covers the operation of the OS/32 MT system modules with respect to program flow and functions. The student wil modify the course form of a particular module, and then integrate the module, and then integrate the modified modules into a working systems.

Students should be familiar with Interdata Assembly Level Programming and possess a working knowledge of Operating System Programming.

S90-959

OS/16 MT1/REAL TIME OPERATING SYSTEM (OS/16 MT1/RTOS)

This one week course prepares the student to generate FORTRAN or assembler level tasks to run in real time under a multi-task Operating System. The conceptual operation of a multi-task environment is covered as is the preparation and generation of a system module.

The student should be familiar with the basic concepts of Operating Systems programming, and with the use of INTERDATA Disc Operating System (DOS) or Basic Operating System (BOSS) Software. A working knowledge of fortran IV or INTERDATA assembler language is required.

S90-966

ITAM 16

This three day course will familiarize the student with the design and structure of Interdata's telecommunications adcess method. Basic communications theory will also be taught.

The student should be an experienced Assembly Level Programmer.

S90-968

ITAM 32

This three day course will familiarize the student with the design and structure of Interdata's telecommunications access method. Basic communications theory will also be taught.

S90-969

ON SITE TRAINING COURSES

Arrangements can be made to have a standard or special course conducted at a customer's facility. The customer must provide a classroom and all necessary laboratory equipment.

S90-962   On-Site Standard Courses
S90-963   On-Site Special Course

Includes applicable documentation for up to ten students, additional charges of $200 per student are applied.

Courses less than one week (5 days) the charge is $500 per day with a 3 day minimum plus an additional charge for preparation when applicable.

SECTION VIII
CUSTOMER SERVICE SUPPORT

The Customer Service Department is organized to provide comprehensive maintenance service geared to the needs of the OEM User. Our field service force is comprised of carefully selected, experienced, well trained individuals backed up by a group of service specialists located at our Oceanport, N.J. facility.

Customer engineers are located in major cities throughout the world to provide service on a local level. Each Service Center is stocked with spare parts, tools and special test equipment to facilitate rapid repair.

FIELD INSTALLATION FIXED PRICE

The charges for field installation of a system or expansion shall be the sum of the installation prices plus a one-time travel charge from the nearest INTERDATA service office. A minimum installation charge of $200 plus the travel charge is applicable. Installation consists of functional, operational testing and system performance as demonstrated by applicable INTERDATA test programs. This service is available for items purchased directly from INTERDATA and must be ordered prior to shipment of the equipment.

Travel Charges are as follows:

Distance from service Center	Travel Charge
0— 20 Miles	No Charge
21—100 Miles	$ 50
101—300 Miles	$150
301—500 Miles	$250

FIELD SERVICE CENTERS

INTERDATA presently maintains Service Centers in the following cities:

UNITED STATES

Atlanta, Ga.	*Englewood Cliffs, N.J.	Omaha, Neb.	St. Louis, Mo.
*Chicago, Ill.	Hartford, Conn.	*Oceanport, N.J.	San Diego, Calif.
Cleveland, Ohio	Houston, Tex.	Orlando, Fla.	Santa Clara, Calif.
*Dallas, Tex.	Huntsville, Ala	Philadelphia, Pa.	Seattle, Wash.
Dayton, Ohio	Kansas City, Kan.	Phoenix, Ariz.	Tulsa, Okl.
Detroit, Mich.	*Los Angeles, Calif.	Pittsburgh, Pa.	Waltham, Mass.
Denver, Colo.	New Orleans, La.	Rosslyn, Va.	

CANADA	UNITED KINGDOM	GERMANY	AUSTRALIA
INTERDATA of Canada Ltd.	INTERDATA, LTD.	INTERDATA, GmbH	INTERDATA Computers, Ltd.
Calgary	*Manchester	Dusseldorf	Canberra
Montreal	*Uxbridge, Middlesex	Munich	Melbourne
Ottawa			*Perth
*Toronto			Sydney
Vancouver			

*Locations with Depot repair capabilities.

WARRANTY
Total Service For the OEM Customer

INTERDATA's purchase agreements are structured to make available a comprehensive package of services to assure efficient, successful system implementation.

For the hardware, the unique INTERDATA Full Service Warranty provides a 90 day on-site parts and labor warranty for the greater of $300 or 3% of the list price of the system. For the software, a one year subscription to the comprehensive INTERDATA Software Subscription Service is included with the purchase of all standard operating systems.

The full Service Warranty and the Software Subscription Service are also available as an option on additional system purchased under the INTERDATA OEM Agreement.

FULL SERVICE WARRANTY

Buyer receives installation and 90 days on site service warranty, including replacement parts, for the system as supplied by INTERDATA and commencing on the date of installation will be provided at the buyer's designated shipping point within the Continental United States and will consist of functional operations testing and systems performance as demonstrated by applicable INTERDATA test programs. Field testing of interfaces and controllers purchased without associated peripheral device will not be done. All remedial maintenance required during the 90 day period to correct defects in material and workmanship will be provided at no additional charge for installation sites within 200 miles of the nearest INTERDATA Service Center. Buyer will reimburse INTERDATA for all travel and subsistence expenses for installation sites that are beyond 200 miles. Service is provided during the normal 40 hour business week. When purchased as an option the charge for Full Service is the greater of $300 or 3% of the system's list price and must be ordered prior to delivery of the system M46-910.

FACTORY WARRANTY

The responsibilities of INTERDATA under this warranty are at its option to repair or replace, without extra charge, any defective component part manufactured or assembled by INTERDATA. Obligation under this warranty shall not arise until buyer returns the defective product to the INTERDATA plant in Oceanport, New Jersey with all shipping and insurance costs the responsibility of the buyer.

THE PRECEDING WARRANTIES DO NOT EXTEND AND SHALL NOT APPLY TO:

1. Products which have been repaired by personnel other than those employed by INTERDATA unless Buyer has properly maintained and and repaired the products in accordance with the procedures previously approved in writing by INTERDATA, or,

2. Products which have been altered by personnel other than those employed by INTERDATA, unless alterations have been previously approved in writing by INTERDATA and have been properly performed in accordance with such approval; or,

3. Products which have been subject to misuse, neglect, accident, or improper installation.

THE ABOVE WARRANTIES ARE VOID:

For any Interdata Equipment to which has been added any foreign equipment, either residing in an Interdata chassis or connecting to the Interdata Equipment other than via an Interdata Supplied Interface Device.

PURCHASE AGREEMENT PROVISIONS

Table 1

Agreement		Full Service	Factory Warrany	Training	Documentation
Dollar Volume	Initial System	Included	NA	2 Man Weeks	Standard
	Additional Systems	Included	NA	2 Man Weeks Per System	Standard
	Expansions	Note 1	60 Days	None	Standard
OEM Purchase	Initial System	Mandatory 1st Unit Each Model	NA	2 Man Weeks	All Standard
	Additional Systems	Optional	30/30	None	All Maintenance
	Expansions	Note 1	30 Days	None	All Maintenance

NOTE 1: Full Service option is not available for expansion orders. Installation service at the fixed prices applicable to the expansion being installed.

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A number of distinct type of maintenance service are offered after the warranty expires. INTERDATA customers can choose the type of service plan which best meets their specific maintenance needs. Three types of service contracts are available and described briefly below.

CONTRACT MAINTENANCE

Contract Maintenance is the recommended form of service for most INTERDATA systems. It affords the user a means of obtaining maximum effective system use at reasonable and predicted rates. For a fixed monthly charge, a Contract Maintenance policy provides scheduled PM visits, all emergency repair service, replacement parts, and travel expenses. The monthly charge is derived from the system configuration, scheduled operational use and the number of hours per day that coverage is in effect. Contract Maintenance Service are available for 1, 2, or 3 shift operation, Monday through Friday, Additional coverage for weekends will be quoted on an as available basis. Minimum rates for contract coverage are established by the distance from the nearest INTERDATA Service Office.

RESIDENT MAINTENANCE

Resident Maintenance is a full time, on-site approach. Resident Maintenance normally appeals to customers with large, complex systems with high rates of usage or where the system application dictates on-site coverage. With a Resident Contract, INTERDATA provides an on-site customer engineer with all necessary tools and test equipment for maintenance of INTERDATA manufactured equipment.

DEPOT REPAIR SERVICE OPTIONS

1. Depot Contract—Defective items are returned to the nearest depot for repair. A fixed charge covers all parts and labor.

2. Fixed Price Board Repair and Exchange—INTERDATA provides a fixed price board repair service for current products as well as board exchange program. Consult your local service office or depot for rates and availability.

3. Hourly Rates—Repairs at hourly rates plus parts as applicable.

FIXED PRICE DEPOT REPAIR AND EXCHANGE SERVICE

Description

Fixed Price depot repair and exchange service provides the user with the ability to rapidly return his system to operational status or obtain repairs at predetermined rates. This service eliminates lengthly quotation procedure and open or "will advise" purchase orders.

Provisions

Standard current products, manufactured by Interdata, will be repaired for the fixed price then in effect, or, at the customer's option, an exchange unit will be provided for a fixed fee plus the repair cost. When exchange items are requested they will, based upon availability, be shipped the same day or the next business day. Items being returned under exchange terms must be received at the appropriate depot within 10 days of the replacement date or additional charges per item will be applicable.

A thirty (30) day depot warranty is extended for all items repaired or exchanged, provided that failures are not a result of misuse or external sources. All shipping costs are the responsibility of the buyer. Collect shipments will not be accepted.

Exclusions

Items which have been subjected to misuse, abuse, modification, or exhibit catastrophic failure characteristics will not be accepted under the terms of fixed price repair and exchange service. Additionally, those items classified as obsolete (not in the current price book) do not qualify. Notification after inspection with a quotation and/or recommendation will be provided for those items that do not qualify for fixed price repair. A $50 per item handling charge is applied to unqualified items and to items whch do not exhibit any failures when received.

ACTIVE DEPOTS

INTERDATA, INc.
2 Crescent Place
Oceanport, N.J. 07757
(201) 229-4040

INTERDATA, Inc.
415 W. Golf Road
Arlington Heights, Ill. 60005

Interdata Inc.
140 Sylvan Avenue
Englewood Cliffs, N.J.

INTERDATA, Inc.
Suite 666
11222 La Cienega Blvd.
Inglewood, Ca. 90304
(213)641-4881

INTERDATA, Inc.
Suite 624
13771 No. Central Expwy.
Dallas, Texas 75231
(214) 234-8880

BACK-UP MAINTENANCE

Backup Mainteanace is an houly approach to service on a per-request basis. This approach is of particular interest to customers who have qualified service personnel to perform all routine maintenance. No Contract is required, only a customer purchase order at the time the request for service is initiated. Backup Maintenance service is provided on a first-come first-serve basis and, where conflict exists, Contract Maintenance service calls are given priority.

Hardware Installation Service

Field installation of new systems or expansions purchased from Interdata will be performed by Interdata at the fixed price field installation rates specified in the current Hardware Price Book. Consult your local Customer Service office for price and scheduling.

Depot Repair Services

Interdata has established five service depots: Los Angeles, Dallas, Chicago, Englewood Cliffs, and Oceanport, N.J. Each is capable of performing repairs both at the circuit board level and the systems level. Depot repair services are available to all Interdata customers at fixed price repair rates for current products and at time and materials rates for non-current products. Consult your local Service Depot for details.

PRODUCT #	H	W	D	WEIGHT	PRODUCT #	H	W	D	WEIGHT
M07-860	5.25	19	11	8	M46-235	—	—	—	1.0
M07-861	—	—	—	2	M46-236	16.5		18	75
M07-862	—	—	—	2	M46-237	16.5		18	75
M07-864	5.25	19	11	6	M46-238	19.5	17.5	18.5	55
M07-865	70	19	12	20	M46-239	19.5	17.5	18.5	55
M10-022	—	—	—	1.5	M46-240	7	19	6.25	26.5
M10-054	—	—	—	3	M46-241	7	19	6.25	26.5
M10-056	—	—	—	10	M46-242	10.5	19	12	60
M46-000	33	22	19	57	M46-243	10.5	19	12	60
M46-001	39	40	24	225	M46-250	—	—	—	1.0
M46-002	33	22	19	57	M46-400	7	19	15	19
M46-003	39	40	24	225	M46-420	—	—	—	10
M46-004	33	22	19	57	M46-421	—	—	—	1.0
M46-005	33	22	19	57	M46-471	—	—	—	—
M46-030	19.5	21.5	23.5	50	M46-472	—	—	—	—
M46-031	19.5	21.5	23.5	50	M46-490	70	24	30	475
M46-033	—	—	—	—	M46-491	70	24	30	475
M46-034	—	—	—	—	M46-492	70	24	30	475
M46-035	19.5	21.5	23.5	50	M46-493	70	24	30	475
M46-036	—	—	—	—	M46-494	70	24	30	525
M46-037	19.5	21.5	23.5	50	M46-495	70	24	30	500
M46-041	19.5	21.5	23.5	50	M46-496	70	24	30	500
M46-042	19.5	21.5	23.5	50	M46-497	70	24	30	500
M46-044	—	—	—	—	M46-500	—	—	—	1.5
M46-045	—	—	—	—	M46-501	24	19	15	100
M46-046	19.5	21.5	23.5	50	M46-502	24	19	15	100
M46-048	19.5	21.5	23.5	50	M46-503	—	—	—	1.5
M46-050	—	—	—	—	M46-504	—	—	—	1.5
M46-055	—	—	—	—	M46-505	—	—	—	1.5
M46-056	—	—	—	—	M46-506	24	19	15	100
M46-060	9	28	25	50	M46-507	24	19	15	100
M46-061	9	28	25	50	M46-508	24	19	15	100
M46-062	9	28	25	50	M46-509	24	19	15	100
M46-063	9	28	25	50	M46-512	—	—	—	1.5
M46-064	9	28	25	50	M46-513	30	19	19	125
M46-065	9	28	25	50	M46-514	30	19	19	125
M46-105	—	—	—	10	M46-515	30	19	19	125
M46-106	—	—	—	10	M46-516	30	19	19	125
M46-108	4.15	19	28.5	78	M46-600	34	19	34	125
M46-109	41.5	19	28.5	78	M46-601	34	19	34	125
M46-202	—	—	—	1.0	M46-602	34	19	34	125
M46-204	12	28	20	156	M46-603	34	19	34	125
M46-205	12	28	20	156	M46-604	36.2	23	36	550
M46-206	—	—	—	1.0	M46-605	36.2	23	36	550
M46-207	45	36	28	375	M46-606	36.2	23	36	550
M46-208	45	36	28	375	M46-607	36.2	23	36	550
M46-209	44	36	25	650	M46-609	—	—	—	8
M46-210	44	36	25	650	M46-610	—	—	—	15
M46-234	—	—	—	—	M46-611	7	17.6	22	95

PRODUCT #	H	W	D	WEIGHT	PRODUCT #	H	W	D	WEIGHT
M46-612	7	17.6	22	95	M47-005	—	—	—	—
M46-613	7	17.6	22	95	M47-007	—	—	—	—
M46-614	7	17.6	22	95	M47-008	—	—	—	—
M46-621	—	—	—	5	M47-010	—	—	—	—
M46-622	—	—	—	2	M47-100	—	—	—	1.5
M46-623	—	—	—	5	M47-101	—	—	—	1.5
M46-624	—	—	—	2	M47-102	—	—	—	1.0
M46-625	—	—	—	5	M47-202	5.25	19	3.5 I/OPAN	7
M46-626	—	—	—	2	M47-203	5.25	19	3.5 I/OPAN	7
M46-627	—	—	—	5	M48-000	—	—	—	1.0
M46-628	—	—	—	2	M48-001	—	—	—	1.0
M46-630	10.5	19	14.5	46	M48-002	—	—	—	1.0
M46-631	10.5	19	14.5	60	M48-004	7	19	6	30
M46-632	10.5	19	14.5	46	M48-005	—	—	—	1.0
M46-633	10.5	19	14.5	60	M48-006	—	—	—	3
M46-634	—	—	—	14	M48-007	7	19	6	30
M46-635	—	—	—	32	M48-008	7	19	6	30
M46-636	10.5	19	14.5	46	M48-012	—	—	—	1.0
M46-637	10.5	19	14.5	60	M48-013	—	—	—	2.0
M46-638	10.5	19	14.5	46	M48-014	—	—	—	4
M46-639	10.5	19	14.5	60	M48-016	—	—	—	5
M46-640	—	—	—	0.4	M48-017	—	—	—	2
M46-641	—	—	—	32	M48-018	1.75	19	2	2
M46-642	—	—	—	32	M48-019	1.75	19	2	2
M46-643	—	—	—	14	M48-020	—	—	—	1.5
M46-644	—	—	—	14	M48-021	—	—	—	1.0
M46-645	7.75	17.6	22	95	M48-024	—	—	—	1.0
M46-646	7.75	17.6	22	95	M48-025	—	—	—	1.5
M46-647	7.72	17.5	22	95	M48-026	7	19	28	52
M46-648	15.5	17.6	22	190	M48-027	—	—	—	1.5
M46-649	15.5	17.6	22	190	M48-033	—	—	—	1.0
M46-650	7.75	17.6	22	95	M48-035	67.8	23.6	32	349
M46-651	7.75	17.6	22	95	M48-038	67.8	23.	32	391
M46-652	7.75	17.6	22	95	M48-040	67.8	236	32	462
M46-653	15.5	17.6	22	190	M48-041	7	19	28	27.5
M46-654	15.5	17.6	22	190	M48-042	7	19	28	29
M46-810	—	—	—	10	M48-043	7	19	28	30.5
M46-811	—	—	—	10	M48-044	7	19	28	32
M46-821	—	—	—	4	M48-045	—	—	—	—
M46-845	—	—	—	—	M48-050	—	—	—	—
M46-860	—	—	—	—	M48-056	70	24	31	331
M46-865	—	—	—	—	M48-057	70	24	31	331
M46-881	—	—	—	—	M48-200	—	—	—	0.6
M46-906	—	—	—	2	M48-201	—	—	—	0.6
M47-000	—	—	—	1.5	M48-202	—	—	—	0.6
M47-001	—	—	—	1.5	M48-203	—	—	—	0.6
M47-002	—	—	—	—	M48-207	—	—	—	—
M47-003	—	—	—	—	M48-212	—	—	—	1.0
M46-004	—	—	—	—	M48-213	—	—	—	1.0

PRODUCT #	H	W	D	WEIGHT	PRODUCT #	H	W	D	WEIGHT
M48-214	—	—	—	1.0	M49-020	7	19	19	8
M48-215	—	—	—	1.0	M49-021	7	19	16	20
M48-216	—	—	—	—	M49-025	7	19	9	29
M48-217	—	—	—	—	M49-028	5.25	19	9.5	18
M48-250	14	19	18	50	M49-029	5.25	19	9.5	18
M48-251	14	19	18	50	M49-032	—	—	—	18
M48-300	14	19	18	50	M49-033	7	19	9	50
M48-301	15	19	18	50	M49-035	7	19	19	8
M48-302	14	19	18	50	M49-036	70	24	31	330
M48-303	14	19	18	50	M49-040	70	24	30	315
M48-304	7	19	18	35	M49-050	7	19	9	31
M48-305	—	—	—	0.8	M49-202	—		—	—
M48-306	—	—	—	0.8	M49-203	—		—	—
M48-307	—	—	—	0.8	M49-204	—		—	—
M48-308	14	19	18	50	M49-205	—		—	—
M48-309	14	19	18	50	M49-402	5	5	3	3
M48-350	—	—	—	0.4	M49-404	—		—	2
M48-351	—	—	—	0.4	M49-405	—	—	—	4
M48-352	—	—	—	0.4	M49-410	6.5	3.25	3.5	3
M48-353	—	—	—	1.0	M51-000	—		—	1.5
M48-354	—	—	—	1.0	M51-001	—		—	1.5
M48-355	—	—	—	1.0	M51-002	—		—	2
M48-400	—	—	—	1.0	M51-003	—		—	2
M48-450	—	—	—	1.0	M51-004	—		—	2
M48-500	—	—	—	1.0	M51-005	—		—	2
M48-601	8.75	19	4	23	M51-006	—		—	2
M48-602	8.75	19	4	23	M51-007	—		—	.5
M46-603	—	—	—	3.5	M51-100	7	19	20	40
M48-604	12	19	2	15	M51-101	—		—	—
M48-605	12	19	2	15	M51-102	—		—	—
M48-606	7	19	2.7	5.0	M51-103	5.25	19	2.5	3
M48-607	—	—	—	1.0	M51-104	—		—	—
M48-608	7	19	18	50	M51-105	—		—	.5
M48-609	7	19	18	50	M51-106	—		—	—
M48-610	—	—	—	0.3	M51-107	—		—	—
M46-612	—	—	—	1.0	M61-011	7	19	28	55
M48-613	—	—	—	0.5	M61-012	7	19	28	55
M48-614	—	—	—	0.5	M61-013	7	19	28	55
M48-615	—	—	—	1.0	M61-014	7	19	28	55
M48-616	—	—	—	1.0	M61-015	7	19	28	55
M48-617	1	—	—	1.0	M61-016	7	19	28	55
M48-618	—	—	—	0.5	M61-017	7	19	28	55
M48-619	—	—	—	0.5	M61-018	7	19	28	55
M48-620	1	—	—	1.0	M61-019	14	19	28	75
M49-003	—	—	—	1.0	M61-020	14	19	28	60
M49-010	1.75	19	.75	1.0	M61-021	14	19	28	60
M49-011	5.25	19	0.75	2.0	M61-022	14	19	28	60
M49-012	7	19	.75	3.0	M61-023	7	19	20	40
M49-013	10.5	19	.75	4.0	M61-024	7	19	20	40

PRODUCT #	H	W	D	WEIGHT	PRODUCT #	H	W	D	WEIGHT
M61-026	7	19	20	40	M81-118	14	19	28	60
M61-030	7	19	20	40	M81-100	—	—	—	3.5
M61-101	—	—	—	.5	M81-101	—	—	—	3.5
M61-102	—	—	—	1.0	M81-102	—	—	—	.5
M61-103	—	—	—	1.0	M81-103	5.25	19	2.5	3.0
M61-104	—	—	—	1.0	M81-104	—	—	—	1.0
M61-105	—	—	—	—	M81-105	5.25	19	2.5	3.0
M61-108	5.25	19	2.5	3	M81-106	5.25	19	2.5	3.0
M61-109	5.25	19	2.5	3.0	M81-107	—	—	—	1.0
M61-110	5.25	19	2.5	3.0	M81-108	—	—	—	1.0
M61-112	—	—	—	5.0	M81-109	—	—	—	—
M61-113	—	—	—	5.0	M81-110	—	—	—	—
M61-114	—	—	—	5.0	M81-111	—	—	—	0.5
M61-115	—	—	—	2.0	M81-112	—	—	—	1.0
M61-116	—	—	—	0.5	M81-300	—	—	—	1.5
M61-304	—	—	—	—	M81-301	—	—	—	1.5
M70-103	—	—	—	1.0	M83-025	70	24	30	450
M70-104	—	—	—	1.0	M83-030	70	24	30	450
M70-105	—	—	—	—	M83-102	—	—	—	—
M70-106	—	—	—	—	M83-103	—	—	—	—
M70-107	—	—	—	—	M83-107	—	—	—	—
M70-108	—	—	—	—	M83-108	—	—	—	8
M71-101	5.25	19	2.5	3.0	M83-110	—	—	—	—
M71-102	5.25	19	2.5	3.0	M83-111	—	—	—	—
M73-042	14	19	28	100	M83-310	14	19	19	40
M73-043	14	19	28	105	M83-311	14	19	19	40
M73-100	—	—	—	0.5	M83-312	—	—	—	24
M73-103	—	—	—	1.5	M83-313	—	—	—	24
M73-104	—	—	—	1.5	M83-314	—	—	—	6
M73-105	—	—	—	1.5	M83-315	—	—	—	6
M73-106	—	—	—	1.5	M83-316	14	19	19	22
M73-107	—	—	—	—	M83-317	14	19	19	22
M73-111	14	19	19	16	M83-318	—	—	—	6
M73-112	—	—	—	—	M83-319	—	—	—	6
M73-115	—	—	—	3.0	M83-320	—	—	—	24
M73-300	—	—	—	1.5	M83-321	—	—	—	24
M73-301	—	—	—	—	M83-322	—	—	—	6
M73-310	—	—	—	1.5	M83-323	—	—	—	6
M73-311	—	—	—	—	16-398	—	—	—	1.0
M81-000	7	19	28	40	27-056	—	—	—	—
M81-001	7	19	28	40	28-039	—	—	—	—
M81-002	14	19	28	60	28-009	—	—	—	1.0
M81-006	7	19	28	40	28-014	—	—	—	1.0
M81-007	7	19	28	40	28-017	—	—	—	1.5