

LENGTH OF PRG 00357

1 IDENT TVHNDLR

```

2
3 *****
4 *
5 * THIS ROUTINE IS THE CRT (CDC 3290 C/D OR 3290-2) DRIVER *
6 *
7 * THE TABLES FOR THIS DRIVER ARE BUILT BY INITIAL. THIS DRIVER *
8 * SHOULD HANDLE ANY REASONABLE NUMBER OF CRT'S THE ONLY *
9 * RESTRICTION BEING THAT THEY ALL MUST BE ON THE SAME CHANNEL *
10 *****

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12 MACRO LABEL, FUNCTION

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13 NAME ISSUE
14 $LABEL ENA $FUNCTION
15 RTJ SEL ISSUE THE FUNCTION
16 END

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00275 P
00000 P
00054 P
00073
00335 P
00075

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17
18
19 ENTRY TVCON
20 ENTRY TVINIT ENTRY TO INITIATE OPERATION
21 ENTRY TVINT ENTRY CN DISPLAY INTERRUPT
22 ENTRY TVREAD
23 ENTRY TVTABLE
24 ENTRY TVWRITE

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25
26
27 EXT BIT10
28 EXT BIT19
29 EXT BIT21
30 EXT CMBITS
31 EXT CMCODE
32 EXT CMQSET ROUTINE TO PLACE USER INTO CONTROL
33 EXT CONNECT ROUTINE TO CONNECT TO DEVICES
34 EXT CONTROLA
35 EXT CR CONDITION REGISTER IS LOCATION OF
36 EXT CREATE
37 EXT IOCLEAR
38 EXT LUNLIST POINTER IN PSA FOR LOGICAL UNIT L
39 EXT NBIT21
40 EXT NTVWAIT IOBOUND BIT FOR CRT
41 EXT PCHARS
42 EXT PSABLK
43 EXT SYSCM SYSTEM CONTROL MODE WORD
44 EXT SYSCODE
45 EXT TERMINAL
46 EXT TVBLOCK TABLE OF PSAs FOR DISPLAYS
47 EXT TVNE NORMAL END RETURN
48 EXT TVUNIT LUNLIST ELEMENT FOR DISPLAY
49 EXT UNCON ROUTINE TO RELEASE CHANNEL

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01400	51	CMODE	EQU	1400B	CONTROL MODE INDICATOR
01414	52	FMCODE	EQU	1414B	FILE MARK INDICATOR
00022	53	EOP	EQU	22B	FUNCTION FOR EOP INTERRUPT
00023	54	REOP	EQU	23B	RELEASE EOP INTERRUPT
07773	55	DINT	EQU	7773B	
00000	56	IMPURE	EQU	0	
00000	57	IO	EQU	0	
00010	58	RESET	EQU	10B	FUNCTION FOR RESET
00000	59	SELECT	EQU	0	
00026	60	STINT	EQU	26B	FUNCTION FOR INTERRUPT ON SEND
00027	61	RSTINT	EQU	27B	RELEASE INTERRUPT ON SEND
00001	62	X1	EQU	1	
00002	63	X2	EQU	2	
00003	64	X3	EQU	3	
00001	65	BLK	EQU	X1	
00003	66	PSA	EQU	X3	
	67				
00073	68	TVREAD	EQU	73B	INFC
00075	69	TVWRITE	EQU	75B	OUTC
00120	70	TVPFAREA	EQU	120B	STATE FIVE

```

73 *
74 * SECTION TO INITIATE OPERATION ON BOOB TC08 *
75 * * *
76 * ENTER WITH THE FOLLOWING SEQUENCE: *
77 * ENI REQUEST,X1 TVREAD OR TVWRITE *
78 * ENI RETURN,X2 *
79 * ENI PSA POINTER,X3 *
80 * ENQ WORD COUNT *
81 * ENA FWA *
82 * UJP TVINIT *
83 *
*****
    
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85
00000 77730000 86 TVINIT VFD A12/DINT
00001 13000002 87 SHAQ 2
00002 46000051 P 88 SCHA FWA
00003 53040000 89 AQA ADD WORD COUNT
00004 46000050 P 90 SCHA LWA
00005 53100000 91 TIA X1 REQUEST CODE TO A
00006 42000240 P 00050 0 92 SACH LWA
00007 20377777 X 93 LDA TERMINAL,PSA LOAD THE TERMINAL NUMBER
00010 12077760 94 SHA -15
00011 05600001 95 ASG 1 SKIP IF NOT THE PHANTOM
00012 14677777 X 96 ENA TVBLOCK
00013 14100007 97 ENI 7,X1 8 EQUIPMENTS / CHANNEL
00014 21100337 P 98 LDQ TVTERMIN,X1
00015 03600017 P 99 AQJ,GE *+2
00016 02500014 P 100 IJD *-2,X1
00017 03400016 P 101 AQJ,EQ *-1
00020 16577777 102 XQJ,S 7777B
00021 53040000 103 AQA GET THE PROPER UNIT NUMBER
00022 44000025 P 104 SWA SAVE THE UNIT NUMBER
00023 14600014 105 ENA TVIO
00024 01000270 P 106 UJP TVIOBIT+TVIOXBIT
CON
107
00025 15600000 108 TVIO XOA IMPURE FORM THE CONNECT CODE
00026 42001470 P 00316 0 109 SACH UIOFLAG SET THE FLAG
00027 44000037 P 110 SWA TVIOCON SAVE THE CONNECT CODE FOR LATER
00030 44000241 P 111 SWA RESETCON SAVE FOR RESETTING THE SCREEN
00031 53700000 112 TAI X3 CONNECT CODE TO X3
00032 14600022 113 ISSUE EOP SELECT END OP OPERATION INTERRUPT
00034 14600027 114 ISSUE RSTINT RELEASE STATION INTERRUPT
00036 14300004 115 ENI 4,X3
00037 77000000 116 TVIOCON CON IMPURE,I0
00040 02700037 P 117 IJD *-1,X3
00041 05300001 118 ISG 1,X3
00042 01000062 P 119 UJP TVINTA IGNORE THE FINK IF NO CONNECT
00043 14300024 120 ENI 20,X3
00044 77511377 121 CIL0 377B
00045 14600005 122 ENA TVPFAREA/2+4 RELOCATION FOR THE I/O
00046 77100010 123 SEL RESET,SELECT
00047 02700044 P 124 IJD *-3,X3
00050 00000000 125 LWA VFD A6/IMPURE,01/0,C17/IMPURE I/O INSTRUCTION
00051 04400000 126 FWA VFD A3/I0,04/11,C17/IMPURE CH INT WITH WC CONTROL
00052 01000050 P 127 UJP *-2 REJECT
00053 01200000 128 UJP 0,X2 EXIT
    
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00054	53300000	P	130	TVINT	EQU	*	ENTER HERE ON DISPLAY INTERRUPTS
00055	53600000		131		TIA	X3	RETURN ADDRESS TO X2
00056	53100000		132		TAI	X2	
00057	12077774		133		TIA	X1	INTERRUPT CODE TO (A)
00060	53500000		134		SHA	-3	
00061	77730000		135		TAI	X1	EQUIPMENT NUMBER BACK TO X1
00062	20100347	P	136	TVINTA	VFD	A12/DINT	
00063	17600005		137		LDA	STATUS,X1	LOAD THE STATUS WORD
00064	03100115	P	138		ANA	EXITBITS	DO WE HAVE ANY UNFINISHED
00065	14600003		139		AZJ,NE	DSNS	BUSINESS JUMP IF SO
00066	01000270	P	140		ENA	SINTBIT+SINTXBIT	ENTER THE PROPER BITS
			141		UJP	CON	
			142				
			143	STATINT	EQU	*	
00067	14300004	P	144		ENI	4,X3	
00070	44000071	P	145		SWA	*+1	
00071	77000000		146		CON	IMPURE,IO	CONNECT TO THE PROPER CONTROLLER
00072	02700071	P	147		IJD	*-1,X3	
00073	05300001		148		ISG	1,X3	
00074	01000275	P	149		UJP	TVCON	IGNORE FAKE INTERRUPTS
00075	77511377		150		CIL0	377B	
00076	14600325	P	151		ENA	CSBUFF	COMPUTE THE ADDRESS OF THE
00077	53140000		152		AIA	X1	PROPER CONTROL STATEMENT BUFFER
00100	44000112	P	153		SWA	STATFWA	AND SAVE IT
00101	53700000		154		TAI	X3	BUFFER ADDRESS TO X3
00102	15600001		155		INA	1	
00103	44000111	P	156		SWA	STATLWA	
00104	14100012		157		ENI	10,X1	
00105	11377770		158		ECHA	37770B	GENERATE AN IMPCSSABLE UNIT
00106	40300000		159		STA	0,X3	NUMBER
00107	77100022		160		SEL	EOP,SELECT	
00110	02500105	P	161		IJD	*-3,X1	PERSIST FOR A WHILE
00111	74000000		162	STATLWA	INPW,INT	IO,IMPURE,IMPURE	
00112	00400000		163	STATFWA	EQU	STATLWA+1	
00113	01000111	P	164		UJP	*-2	REJECT
00114	01200000		165		UJP	0,X2	EXIT

77776 0

00115	17600001	P	167	DSNS	EQU	*		IS THIS STATION INTERRUPT EXIT
00116	03000275	P	168		ANA	SINTXBIT		JUMP IF NCT
00117	20100325	P	169		AZJ, EQ	TVCON		LOAD THE WORD WE READ FROM THE
00120	13077733		170		LDA	CS3UFF, X1		SCREEN AND GET THE UNIT NUMBER
00121	05500015		171		SHAQ	-12-24		HAD THE NEXT THREE LINES BEEN
00122	05500000		172		QSG, S	12+1		IN THE CODE ON 11/14/71 THEY
00123	01000275	P	173		QSG, S	0		WOULD HAVE PREVENTED SOME CRASHES
00124	22401564	P	174	00335 0	UJP	TVCON		LOAD THE HIGHEST UNIT NUMBER
00125	03700275	P	175		LACH	TVTABLE, X1		JUMP IF ILLEGAL
00126	13000030		176		AQJ, LT	TVCON		
00127	30100337	P	177		SHAQ	24		
00130	47200216	P	178		ADA	TVTERMIN, X1		FORM THE OS3 TERMINAL NUMBER
00131	47100144	P	179		STI	CSDRET, X2		SAVE THE RETURN ADDRESS
00132	14700012	X	180		STI	DSNPSA, X1		SAVE THE EQUIPMENT NUMBER
00133	00100136	P	180+001		ENQ	TVBLOCK		IS THIS THE PHANTOM TV
00134	03500136	P	180+002		SJ1	*+3		JUMP TO ALLOW USER TO USE IT
00135	14600000		180+003		AQJ, NE	*+2		JUMP IF NCT PHANTOM
00136	53500000		180+004		ENA	000		ENTER PHANTOMS TERM NUMBER
	00137	P	181		TAI	BLK		SAVE TERMINAL NUMBER FOR CREATE
00137	20177777	X	182	DSNS02	EQU	*		
00140	53700000		183		LDA	PSABLK, BLK		LOAD THE PSA ADDRESS
00141	03000144	P	184		TAI	PSA		INTO INDEX
00142	14477777	X	185		AZJ, EQ	DSNPSA		
00143	00777777	X	186		ENA, S	NTVWAIT		
00144	14200000		187		RTJ	IOCLEAR		ALLOW OPERATION TO PROCEED
00145	20200325	P	188	DSNPSA	ENI	IMPURE, X2		ENTER THE CONTROLLER NUMBER
00146	17607777		189		LDA	CS3UFF, X2		LOAD THE WORD WE READ AGAIN
00147	04601414		190		ANA	7777B		LOOK AT THE CHARACTERS WE READ
00150	01000156	P	191		ASE	FMCODE		SKIP IF A FILE MARK
00151	05300001		192		UJP	DSNFM		
00152	01000216	P	193		ISG	1, PSA		CHECK FOR LOGGED ON
00153	20077777	X	194		UJP	CSDRET		FILE MARK IGNORED IF NOT
00154	35377777	X	195		LDA	BIT21		LOAD FILE MARK BIT
00155	01000214	P	196		SSA	CR, PSA		
	00156	P	197		UJP	SETCR		GO SET THE CR WORD
00156	17607700		198	DSNFM	EQU	*		
00157	14701400		199		ANA	7700B		
00160	03400167	P	200		ENQ	CMODE		IS IT A CONTROL STATEMENT
00161	04300000		201		AQJ, EQ	DSNFM02		JUMP IF SC
00162	01000212	P	202		ISE	0, PSA		SKIP IF NO ONE LOGGED IN
00163	04100132	X	203		UJP	SETREAD		GO SET THE READ ALLOWED BIT
00164	01000216	P	204		ISE	TVBLOCK, BLK		SKIP IT THE CHARACTERS ARE FOR
00165	14100000		205		UJP	CSDRET		THE PHANTOM ELSE EXIT
00166	01000137	P	206		ENI	0, BLK		THE CHARACTERS ARE FOR PHANTOM
	00167	P	207		UJP	DSNS02		
00167	05300001		208	DSNFM02	EQU	*		
00170	01000204	P	209		ISG	1, PSA		SKIP IF PSA PRESENT
00171	11777777		210		UJP	BLOGON		NO PSA
00172	00700143	X	211		VFD	09/117, A15/CMBITS		ECHA, S 300000B+CMBITS
00173	20377777	X	212		RTJ	IOCLEAR		
00174	03100176	P	213		LDA	CMCODE, PSA		
00175	14677777	X	214		AZJ, NE	*+2		JUMP IF A REQUEST EXISTS
00176	40300173	X	215		ENA	CONTROLA		
00177	20377777	X	216		STA	CMCODE, PSA		INDICATE A USER CONTROL-A
00200	03300212	P	217		LDA	SYSCM, PSA		CHECK FOR IN CONTROL MODE
00201	14600175	X	218		AZJ, LT	SETREAD		ALL READY IN CONTROL MODE
00202	00777777	X	219		ENA	CONTROLA		INDICATE A MANUAL ENTRY INTO CM
00203	01000212	P	220		RTJ	CMQSET		
	00204	P	221		UJP	SETREAD		
	14200216	P	222					
00204	00777777	X	223	BLOGON	EQU	*		
00205	14677777	X	224		ENI	CSDRET, X2		
00206	40377777	X	225		RTJ	CREATE		
00207	20077777	X	226		ENA	TVUNIT		PLACE 800B TOCB TYPE IN LUNLIST
00210	34377777	X	227		STA	LUNLIST, PSA		
00211	20077777	X	228		LDA	BIT18		TV BIT
	20300154	X	229		RAD	SYSCODE, PSA		ADD SYSTEM CODE TO SYSCODE
00212	37077777	X	230					
00213	35077777	X	231	SETREAD	LDA	CR, PSA		LOAD THE CR WORD
00214	40300212	X	232		LPA	NBIT21		CLEAR FILE MARK ON SCREEN BIT
00215	14200000		233	SETCR	SSA	BIT19		SET READ ALLOWED BIT
	01000275	P	234		STA	CR, PSA		
00216	14200000		235					
00217	01000275	P	236	CSDRET	ENI	IMPURE, X2		RESTORE THE RETURN ADDRESS
			237		UJP	TVCON		
			238					

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00220 00220 P 240 TVEXIT EQU *
00221 53700000 241 TAI X3
00222 20100347 P 242 LDA STATUS,X1
00223 03100303 P 243 AZJ,NE CONSRCH
00224 16300015 244 XOI 15B,X3
00225 47000272 P 245 STI CONFLAG,0
00226 14600023 246 ISSUE (REOP)
00227 14600026 247 ISSUE (STINT)
00231 14300007 248 ENI 7,X3
00232 20300347 P 249 LDA STATUS,X3
00233 03100272 P 250 AZJ,NE CONFLAG
00234 02700232 P 251 IJD *-2,X3
00235 00235 P 252 EQU *
00236 23001470 P 00316 0 253 EQCH UIOFLAG
00237 05700001 254 QSG 1
00238 01077777 X 255 UJP UNCON
00240 42001470 P 00316 0 256 SACH UIOFLAG
00241 77000000 257 RESETCO CON IMPURE,I0
00242 01000245 P 258 UJP *+3
00243 77100010 259 SEL RESET,SELECT
00244 14000000 260 NOP 0
00245 47200250 P 261 STI *+3,X2
00246 14200250 P 262 ENI *+2,X2
00247 01000237 X 263 UJP UNCON
00250 14200000 264 ENI IMPURE,X2
00251 01077777 X 265 UJP TVNE
266
267
268

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*****
270 *
271 * SECTION TO ISSUE CONTROLLER FUNCTION CODES *
272 * *
273 * THIS CODE WILL CONNECT TO DIFFERENT UNITS ON THE CONTROLLER *
274 * UNTIL IT FINALLY ISSUES THE FUNCTION CODE OR UNTIL TWO *
275 * MILLISECOND HAVE PASSED *
276 *
*****

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00252 00252 P 278 REJ EQU *
00253 15300001 279 INI 1,X3
00254 17307017 280 ANI 07017B,X3
00255 47300255 P 281 STI *+1,X3
00256 77000000 282 CON IMPURE,I0
00257 14000000 283 NOP 0
00258 53010022 284 TMQ 22B
00259 15577775 285 INQ,S -2
00260 03700264 P 286 AQJ,LT SEL
00261 77100000 287 ISUF SEL IMPURE,SELECT
00262 01000252 P 288 UJP REJ
00263 01000000 289 SEL UJP IMPURE
00264 44000262 P 290 SWA ISUF
00265 53020022 291 TMA 22B
00266 01000252 P 292 UJP REJ
293

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TRY ANOTHER CCNECT CODE
GET CLOCK AND CHECK TO SEE
IF WE HAVE WAITED LONG
ENOUGH
ISSUE THE I/O FUNCTION
BAD NEWS, REJECTED
TO ISSUE SELECT COMMANDS
SAVE FUNCTION CODE
GET THE CURRENT CLOCK
TRY THE SELECT

```

00270	35100347	P	295	CON	EQU	*		
00271	40100347	P	296		SSA	STATUS,X1	SET THE BITS INTO THE STATUS	
00272	04000000	P	297		STA	STATUS,X1	SAVE THE NEW STATUS WORD BACK	
00273	01200000		298	CONFLAG	ISE	IMPURE,0	HAVE WE CALLED CONNECT	
00274	47200272	P	299		UJP	0,X2		
00275	14100000		300	TVCON	STI	CONFLAG,X2	SET THE FLAG	
00276	14701750		301		ENI	IMPURE,X1	ENTER A CONNECT CODE	
00277	14300277	P	302		ENQ	1000	SAY ONE SECOND	
00300	01077777	X	303		ENI	*,X3		
00301	14000000		304		UJP	CONNECT		
00302	01200000		305		NOB	0	IGNORE CHANNEL INTERRUPTS	
	00303	P	306	CONSRCH	UJP	0,X2	THE CALL WAS QUEUED	
00303	14300003		307		EQU	*		
00304	14600010		308		ENI	NUMBITS-1,X3		
00305	14700010		309		ENA	MAXBIT		
	00306	P	310	SRCHLOOP	ENQ	MAXBIT		
00306	14100007		311		EQU	*		
00307	06100347	P	312		ENI	7,X1	8 EQUIPMENTS	
00310	01000322	P	313		MEQ	STATUS,1		
00311	16477777		314		UJP	LOOPEND	DID NOT FIND THAT BIT	
00312	34100347	P	315		XOA,S	7777B	CLEAR THE BIT	
00313	53100000		316		RAD	STATUS,X1		
00314	12000011		317		TIA	X1	EQUIPMENT NUMBER TO A	
00315	01700316	P	318		SHA	9		
	01470	P	319		UJP,I	*+1,X3	JUMP TO THE PROPER ROUTINE	
00316	00000220	P	320					
	00001	P	321	UIOFLAG	EQU,C	*		
00317	00000067	P	322		00	TVEXIT	STATION INTERRUPT EXIT	
	00002	P	323	SINTXBIT	EQU	01B		
00320	00000220	P	324		00	STATINT	STATION INTERRUPT	
	00004	P	325	SINTBIT	EQU	02B		
00321	00000025	P	326		00	TVEXIT	USER I/O EXIT	
	00010	P	327	TVIOXBIT	EQU	04B		
	00010		328		00	TVIO	USER I/O	
	00004		329	TVIOBIT	EQU	10B		
	00005		330	MAXBIT	EQU	10B		
			331	NUMBITS	EQU	4		
			332	EXITBITS	EQU	TVIOXBIT+SINTXBIT		
00322	13077776		333					
00323	02700306	P	334	LOOPEND	SHAQ	-1		
00324	01000235	P	335		IJD	SRCHLOOP,X3		
			336		UJP	EXITING		
00325			337					
00335			338	CSBUFF	BSS	8		
			339	TVTABLE	BSS	2+8	NUMBER OF UNITS / CONTROLLER	
00347	00337	P	340	TVTERMIN	EQU	TVTABLE+2	LOWEST TERMINAL ON EACH CONTROLLE	
			341	STATUS	BSS	8		
			342		END			

NO LINES WITH ERRORS

BIT18	X		27	229	00210P					
BIT19	X		28	234	00214P					
BIT21	X		29	195	00153P					
BLK		00001	65	181	00136P	183	00137P	204	00163P	206 00165P
BLOGON		00204P	224	210	00170P					
CMBITS	X		30	211	00171P					
CMCODE	X		31	214	00173P	217	00176P			
CMODE		01400	51	200	00157P					
CMQSET	X		32	221	00202P					
CON		00270P	295	106	00024P	141	00066P			
CONFLAG		00272P	298	245	00224P	250	00233P	300	00274P	
CONNECT	X		33	304	00300P					
CONSRCH		00303P	307	243	00222P					
CONTROLA	X		34	216	00175P	220	00201P			
CR	X		35	196	00154P	232	00212P	235	00215P	
CREATE	X		36	226	00205P					
CSBUFF		00325P	338	151	00076P	170	00117P	189	00145P	
CSDRET		00216P	237	179	00130P	194	00152P	205	00164P	225 00204P
DINT		07773	55	86	00000P	136	00061P			
DSNFM		00156P	198	192	00150P					
DSNFM02		00167P	208	201	00160P					
DSNPSA		00144P	188	180	00131P	185	00141P			
DSNS		00115P	167	139	00064P					
DSNS02		00137P	182	207	00166P					
EOP		00022	53	15	00032P	160	00107P			
EXITBITS		00005	332	138	00063P					
EXITING		00235P	252	336	00324P					
FMCODE		01414	52	191	00147P					
FWA		00051P	126	88	00002P					
IMPURE		00000	56	108	00025P	116	00037P	125	00050P	125 00050P
				162	00111P	162	00111P	188	00144P	126 00051P
				283	00255P	288	00262P	290	00264P	237 00216P
				116	00037P	126	00051P	146	00071P	257 00241P
				187	00143P	212	00172P	162	00111P	257 00241P
				291	00265P					264 00250P
				314	00310P					301 00275P
				228	00207P					298 00272P
				90	00004P	92	00006P			301 00275P
				309	00304P	310	00305P			257 00241P
				233	00213P					283 00255P
				186	00142P					
				308	00303P					
				93	00007P	184	00140P	193	00151P	196 00154P
				214	00173P	217	00176P	218	00177P	196 00154P
				235	00215P					202 00161P
				183	00137P					209 00167P
				289	00263P	293	00267P			232 00212P
				15	00225P					
				123	00046P	259	00243P			
				111	00030P					
				15	00034P					
				16	00033P	16	00035P	16	00226P	16 00230P
				123	00046P	160	00107P	259	00243P	287 00261P
				197	00155P					288 00262P
				203	00162P	219	00200P	222	00203P	
				140	00065P	140	00065P	168	00115P	
				153	00100P					
				324	00317P					
				163	00113P	156	00103P			
				137	00062P	242	00221P	249	00232P	296 00270P
				316	00312P					297 00271P
				15	00227P					313 00307P
				218	00177P					
				230	00211P					
				93	00007P					
				96	00012P	180+1	00132P	204	00163P	
				19	00000P	149	00074P	169	00116P	174 00123P
				322	00316P	326	00320P			176 00125P
				20	00000P					238 00217P
				21	00000P					
				119	00042P					
				104	00022P	328	00321P			
				105	00023P					
				110	00027P					
				332	00322P	105	00023P			
				265	00251P					
IO		00000	57	116	00037P	116	00037P	125	00050P	125 00050P
IOCLEAR	X		37	187	00143P	162	00111P	188	00144P	126 00051P
ISUF		00262P	288	291	00265P	288	00262P	290	00264P	237 00216P
LOOPEND		00322P	334	314	00310P	290	00264P	298	00272P	257 00241P
LUNLIST	X		38	228	00207P	146	00071P	162	00111P	257 00241P
LWA		00050P	125	90	00004P					
MAXBIT		00010	330	309	00304P	310	00305P			
NBIT21	X		39	233	00213P					
NTVWAIT	X		40	186	00142P					
NUMBITS		00004	331	308	00303P					
*PCHARS	X		41							
PSA		00003	66	93	00007P	184	00140P	193	00151P	196 00154P
				214	00173P	217	00176P	218	00177P	196 00154P
				235	00215P					202 00161P
				183	00137P					209 00167P
				289	00263P	293	00267P			232 00212P
				15	00225P					
				123	00046P	259	00243P			
				111	00030P					
				15	00034P					
				16	00033P	16	00035P	16	00226P	16 00230P
				123	00046P	160	00107P	259	00243P	287 00261P
				197	00155P					288 00262P
				203	00162P	219	00200P	222	00203P	
				140	00065P	140	00065P	168	00115P	
				153	00100P					
				324	00317P					
				163	00113P	156	00103P			
				137	00062P	242	00221P	249	00232P	296 00270P
				316	00312P					297 00271P
				15	00227P					313 00307P
				218	00177P					
				230	00211P					
				93	00007P					
				96	00012P	180+1	00132P	204	00163P	
				19	00000P	149	00074P	169	00116P	174 00123P
				322	00316P	326	00320P			176 00125P
				20	00000P					238 00217P
				21	00000P					
				119	00042P					
				104	00022P	328	00321P			
				105	00023P					
				110	00027P					
				332	00322P	105	00023P			
				265	00251P					
PSA3LK	X		42							
REJ		00252P	279	289	00263P	293	00267P			
REOP		00023	54	15	00225P					
RESET		00010	58	123	00046P	259	00243P			
RESETCON		00241P	257	111	00030P					
RSTINT		00027	61	15	00034P					
SEL		00264P	290	16	00033P	16	00035P	16	00226P	16 00230P
SELECT		00000	59	123	00046P	160	00107P	259	00243P	287 00261P
SETR		00214P	234	197	00155P					288 00262P
SETREAD		00212P	232	203	00162P	219	00200P	222	00203P	
SINTBIT		00002	325	140	00065P					
SINTXBIT		00001	323	332	00322P	140	00065P	168	00115P	
SRCHLOOP		00306P	311	335	00323P					
STATFWA		00112P	163	153	00100P					
STATINT		00067P	143	324	00317P					
STATLWA		00111P	162	163	00113P	156	00103P			
STATUS		00347P	341	137	00062P	242	00221P	249	00232P	296 00270P
				316	00312P					297 00271P
				15	00227P					313 00307P
				218	00177P					
				230	00211P					
				93	00007P					
				96	00012P	180+1	00132P	204	00163P	
				19	00000P	149	00074P	169	00116P	174 00123P
				322	00316P	326	00320P			176 00125P
				20	00000P					238 00217P
				21	00000P					
				119	00042P					
				104	00022P	328	00321P			
				105	00023P					
				110	00027P					
				332	00322P	105	00023P			
				265	00251P					
STINT		00026	60	15	00227P					
SYSCM	X		43	218	00177P					
SYSCODE	X		44	230	00211P					
TERMINAL	X		45	93	00007P					
TVBLOCK	X		46	96	00012P	180+1	00132P	204	00163P	
TVCON		00275P	301	19	00000P	149	00074P	169	00116P	174 00123P
TVEXIT		00220P	240	322	00316P	326	00320P			176 00125P
TVINIT		00000P	86	20	00000P					

