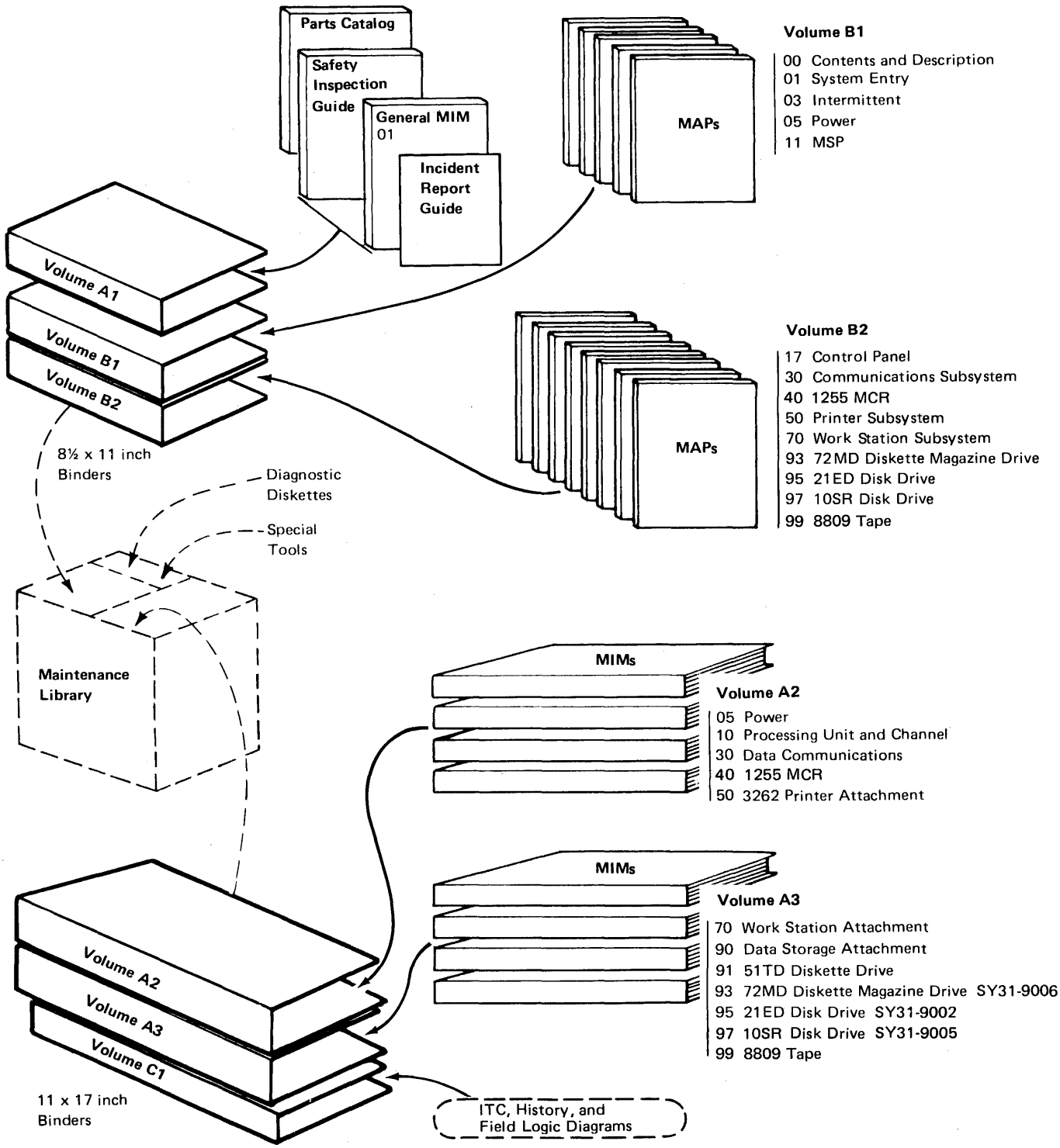

EC 826380			PN 2597096
27MAY83			

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IBM has prepared this maintenance documentation for use by IBM customer engineers in the installation, maintenance, and repair of the specific machines indicated.

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MAP NUMB	MAP D	MAP I	MAP H C	MAP TITLE	PART NUMBER	EC NUMBER
0370		X		Work station Intermittent MAP	4177286	842350
0391		X		Diskette Intermittent MAP	4177339	826487
0395		X		21ED Intermittent MAP	4177270	826487
0397		X		10SR Intermittent MAP	4177340	826487
0399		X		8809 Tape Intermittent Map	2597080	842375
05XX				Power Hardmaps		
0500		X		Power Entry	4177287	839954
0501		X		Power Logic Reset	4177288	826487
0502		X		Dead Machine Entry	4177289	826487
0503		X		Power Check Entry	4177290	839954
0505		X		Cable Unseated - Base Assemblies	4177292	826487
0506		X		Cable Unseated - A2 Power	4177293	826487
0507		X		Cable Unseated - A3 Supply	4177294	839954
0508		X		Cable Unseated - Expansion	4177337	826487
0509		X		CS Light Status Entry	4177295	826487
0511		X		Power Logic Interface Problem	4177297	826487
0512		X		Base Power All UV Entry	4177298	842350
0513		X		Base Power All Levels with F2 Bad	4177299	826487
0515		X		Power Supply All UV	4177300	826487
0516		X		A2 Supply - Any UV	4177301	839954
0518		X		A2 1.7V Regulator UV	4177302	826487
0519		X		Overcurrent Isolation On 21ED drive	2596198	826487
0520		X		Overcurrent Isolation	4177303	826487
0521		X		No AC to Disk Drive A and B	4177304	826487
0522		X		No AC Voltage to Power Fan	4177305	826487
0523		X		No AC Voltage To Gate Fans	4177306	826487
0524		X		No AC To Diskette AC Motor	4177307	826487
0525		X		No AC to Disk Fan	4177308	826487
0527		X		A2 Supply - Disk Drive OC	4177309	826487
0528		X		A2 Supply - +5V Level	4177310	826487
0529		X		A2 1.7V Regulator OC	4177311	826487
0530		X		A3 Supply - All UV	4177312	839954
0531		X		A3 Supply - Any UV	4177313	842375
0532		X		A3 Supply - Any OV	4177314	842375
0533		X		A3 Supply - OC	4177315	839954
0535		X		Base Power +5V Level OC	4177317	842375
0536		X		Base Power +12V Level OC	4177318	826487
0537		X		Base Power +24V Level OC	4177319	826487
0538		X		Base Power -5V Level OC	4177320	826487

MAP NUMB	MAP D	MAP H	MAP C	MAP TITLE	PART NUMBER	EC NUMBER
0539		X		Base Power +8.5V or -12V Level OC	4177321	826487
0540		X		Base 1.7V Regulator OC	4177322	842375
0541		X		Base Power - All UV	4177323	842350
0542		X		Base Power +5V level UV	4177324	826487
0543		X		Base Power +12V Level UV	4177325	826487
0544		X		Base Power +24V Level UV	4177326	826487
0545		X		Base Power -5V Level UV	4177327	839954
0546		X		Base Power +8.5V or -12V Regulator UV	4177328	842350
0548		X		Base 1.7V Regulator UV	4177329	842350
0551		X		Base Power -5 Level OV	4177331	826487
0552		X		Base Power +8.5V or -12V Level OV	4177332	826487
0553		X		Base 1.7V Regulator OV	4177333	826487
0555		X		A2 Power Supply - Any OV	4177334	826487
0556		X		A2 1.7V Regulator OV	4177335	826487
0561		X		Dead Machine (CB1)	4177336	826487
0572		X		Bad Fuses or Missing CS level	4177341	842375
0574		X		Relay K1 Control Circuit	4177342	826487
0576		X		No Response To Power Key	4177343	842350
0577		X		Unit Emergency Switch Power Off	4177344	826487
0582		X		Temperature Check	4177345	826487
0584		X		Lamp Circuit MAP	4177346	842375
0588		X		Dead Machine Entry	2597086	839954
0589		X		Dead Machine (CB1) Dual Phase	2597081	826487
0590		X		All UV Expansion	2597082	826487
0591		X		Expansion Supply - Any UV Expansion	2597083	826487
0592		X		A2 Supply - Any OV Expansion	2597084	826487
0593		X		Expansion Supply - Any OC Expansion	2597085	826487
0599		X		Voltage Missing MAP	4177347	839954
11XX				Main Storage Processor Hardmaps		
1100		X		MSP Entry IPL MAP	4177348	842375
1102		X		CSP Timeout MAP	2596196	826487
1103		X		External System Bus MAP	2596200	826487
1104		X		MSP CSP IPL MAP	4177349	826487A
1105		X		MSP Unexpected Error MAP	4177350	826487A
1106		X		MSP Load Register Time Out MAP	4177351	826487A
1107		X		MSP MSAR Parity Check MAP 1	4177352	842350
1108		X		MSP MSAR Parity Check MAP 2	4177353	826487A
1109		X		MSP MSAR Parity Check MAP 3	4177354	826487A
1110		X		Cause MSAR Parity Check	4177355	826487A

MAP NUMB	MAP D	MAP I	MAP C	MAP TITLE	PART NUMBER	EC NUMBER
1112		X		Checks During Sense MSP Registers	4177356	826487A
1114		X		Sense Status Bytes 0, 2 and PSR MAP 3	4177357	826487A
1116		X		Sense Status Byte 2	4177358	826487
1118		X		Sense Status Byte 0 and PSR	4177359	826487
1120		X		Sense Status Byte 0, 2 and PSR MAP 1	4177360	826487
1122		X		Sense Status Byte 0, 2 and PSR MAP 2	4177361	826487A
1124		X		Load and Sense PSR MAP 1	4177362	826487A
1126		X		Load and Sense PSR MAP 2	4177363	826487
1128		X		MSP LSR Load and Sense MAP	4177364	826487A
1129		X		MSP Two Byte Sense/Load MAP	4177365	826487A
1130		X		MSP Interrupt Level 5 MAP	4177366	826487A
1131		X		MSP CCR MAP	4177367	826487
1132		X		MSP PMR and CMR Load and Sense	4177368	826487
1133		X		MSP Control Parity MAP	4177369	826487A
1134		X		Invalid Address Check	4177370	826487A
1135		X		MSP Interrupt 5 MAP	4177371	826487A
1136		X		Load and Sense MSP ATRs	4177372	842350
1137		X		MSP Time Out MAP	4177373	826487A
1140		X		MSP SVC Instruction MAP 1	4177374	826487
1142		X		MSP SVC Instruction MAP 2	4177375	826487
1144		X		MSP SVC Instruction MAP 3	4177376	826487
1146		X		MSP SVC Instruction MAP 4	4177377	842350
1148		X		MSP Load Register Instruction MAP	4177378	842350
1150		X		MSP Branch On Condition MAP	4177379	826487
1152		X		MSP Jump Backward MAP	4177380	826487
1154		X		MSP Load PMR MAP	4177381	826487
1156		X		MSP Store Register Instruction MAP	4177382	826487
1158		X		MSP Compare Logical Immediate MAP	4177383	826487
1160		X		MSP Test Bits On/Off MAP	4177384	842350
1162		X		MSP Add To Register MAP	4177385	842350
1163		X		MSP Edit Instruction MAP	4177386	826487
1164		X		MSP Performance MAP	4177387	826487
1165		X		MSP Insert and Test Character MAP	4177388	826487
1166		X		MSP Add Logical Character MAP	4177389	826487
1167		X		MSP Pact MAP	4177390	826487
1168		X		MSP Alternate Mode MAP	4177391	826487
1170		X		R/W Main Storage MAP 1	2596822	842375
1175		X		MS Parity MAP	2596216	842375
1176		X		Address Bit 6 Error	4177280	842375
1177		X		Write and Read Main Storage MAP 1	4177281	842375

MAP NUMB	MAP D	MAP I	MAP H/C	MAP TITLE	PART NUMBER	EC NUMBER
1178			X	Write and Read Main Storage MAP 2	4177282	842375
1179			X	Write and Read Main Storage MAP 3	4177392	842375
1180			X	Storage Swap MAP 3	4177283	842375
1181			X	Storage Swap MAP 2	4177394	842375
1182			X	Isolate Main Storage Error MAP 1	4177395	826487A
1183			X	Main Storage Card Select MAP	4177396	842350
1184			X	Main Storage SBME MAP	4177397	842375
1185			X	MS Multiple Bit Error MAP	4177398	842350
1186			X	Main Storage Time Out Check	4177399	826487
1187			X	Main Storage Access Time 1	4177400	842350
1188			X	Main Storage Parity Error	4177401	826487
1189			X	R/W, Byte Select MAP	2596217	842375
1190			X	Write and Read Main Storage MAP 4	4177402	842375
1191			X	Isolate Main Storage Error MAP 2	4177403	842375
1192			X	Storage Swap MAP 3	4177404	842375
1193			X	Read Buffer Always Down	4177405	826487
1194			X	Main Storage Access Time 2	4177284	842375
1195			X	Main Storage Access Time 3	4177285	842375
1197			X	MS Multiple Bit Error MAP 2	2596239	842375
1198			X	MS Address MAP	2596242	842375
1199			X	MS Data MAP	2596243	842375
17XX				Control Panel Hardmaps		
1700			X	Control Panel MAP 1	4177406	842375
1701			X	Control Panel MAP 2	4177407	842375
1702			X	Control Panel MAP 3	2597087	842375
1703			X	Control Panel MAP 4	2597088	842375
1704			X	Control Panel MAP 5	2596825	842375
30XX				Communications Hardmaps		
				Volume A2		
3000			X	Data Communications Entry (ELCA)	4233805	842375
3001			X	MLCA Controller Errors	4177409	826487
3002			X	Multiple Adaptor Error	4177410	842375
3003			X	Data Communications Entry (SLCA, MLCA)	4177411	842375
3004			X	Data Communications (MLCA) (Line 1)	4177412	826487
3005			X	Data Communications (MLCA) (Line 2)	4177413	826487
3006			X	Data Communications (MLCA) (Line 3)	4177414	826487
3007			X	Data Communications (MLCA) (Line 4)	4177415	826487
3008			X	Data Communications Error Log MAP	4177416	826487

MAP NUMB	MAP D	MAP H	MAP C	MAP TITLE	PART NUMBER	EC NUMBER
3009		X		Data Communications IFRL	4177417	839954
3010		X		Data Communications Entry MAP Line 1	4177418	826487
3011		X		Data Comm Indicator MAP (SLCA, MLCA)	4177419	839954
3012		X		Data Communications (SLCA)	2597060	826487
3014		X		Autocall Interface Chart Line 1-4	4177420	826487
3020		X		EIA/CCITT Interface Chart Line 1-4	4177422	826487
3021		X		EIA On Line Test	4177423	826487
3023		X		DDSA Remote Loop-Back Test	4177424	826487
3024		X		DDSA Interface Chart MLCA Line 1	4177425	826487
3025		X		DDSA Interface Chart Line 2	4177426	826487
3026		X		DDSA Interface Chart Line 3	4177427	826487
3027		X		DDSA Interface Chart Line 4	4177428	826487
3028		X		DDSA Online Test	4177429	826487
3029		X		DDSA Interface Chart SLCA	2597061	826487
3031		X		1200 I.M. Auto Answer SLCA	2597062	826487
3032		X		1200 I.M. Interface Chart SLCA	2597063	826487
3033		X		1200 I.M. (PSN) SLCA	2597064	826487
3034		X		1200 I.M. Answer Tone Line 4	2597065	826487
3035		X		1200 I.M. No Answer SLCA	2597066	826487
3036		X		Data Comm Indicator MAP (ELCA)	4233806	842375
3037		X		EIA/CCITT and Autocall Interface Chart ELCA	4233807	842375
3038		X		DDSA Interface Chart ELCA	4233808	842375
3039		X		X.21 Interface Chart ELCA	4233809	842375
3040		X		Data Comm Error MAP ELCA	4233810	842375
3049		X		V.35 Interface Chart (ELCA)	4233819	839954
3050		X		1200 I.M. Auto Answer Line 1	2596036	826487
3051		X		1200 I.M. Auto Answer Line 2	2596037	826487
3052		X		1200 I.M. Auto Answer Line 3	2596038	826487
3053		X		1200 I.M. Auto Answer Line 4	2596039	826487
3054		X		1200 I.M. Online Test	2596040	826487
3055		X		1200 I.M. Interface Chart MLCA Line 1	2596041	826487
3056		X		1200 I.M. Interface Chart Line 2	2596042	826487
3057		X		1200 I.M. Interface Chart Line 3	2596043	826487
3058		X		1200 I.M. Interface Chart Line 4	2596044	826487
3059		X		1200 I.M. (PSN) line 1	2596045	826487
3060		X		1200 I.M. (PSN) line 2	2596046	826487
3061		X		1200 I.M. (PSN) line 3	2596047	826487
3062		X		1200 I.M. (PSN) line 4	2506048	826487
3063		X		1200 IM Answer Tone MLCA Line 1	2596049	826487

MAP NUMB	MAP I	MAP D	MAP H	MAP C	MAP TITLE	PART NUMBER	EC NUMBER
3064		X			1200 IM Answer Tone Line 2	2596050	826487
3065		X			1200 IM Answer Tone Line 3	2596051	826487
3066		X			1200 IM Answer Tone Line 4	2596052	826487
3067		X			1200 IM No Answer MLCA Line 1	2596053	826487
3068		X			1200 IM No Answer Line 2	2596054	826487
3069		X			1200 IM No Answer Line 3	2596055	826487
3070		X			1200 IM No Answer Line 4	2596056	826487
3073		X			X.21 I.M. Interface Chart SLCA	2597067	839954
3074		X			X.21 I.M. Interface Chart MLCA Line 1	2596057	826487
3075		X			X.21 I.M. Interface Chart Line 2	2596058	826487
3076		X			X.21 I.M. Interface Chart Line 3	2596059	826487
3077		X			X.21 I.M. Interface Chart Line 4	2596060	826487
3078		X			X.21 Online Test	2596061	826487
3080		X			V.35 Interface Chart Line 4	2596062	826487
3090		X			ELCA Online Tests	4233829	842375
3091		X			Communications Controller Error MAP	2596294	839954
40XX					1255 MCR Softmaps		
4001	X				1255 Channel Interface Test 1		
4003	X				1255 Channel Interface Test 2		
4004	X				1255 Ctrlr Command Latch Test		
4005	X				1255 Ctrlr Register Test		
4007	X				1255 Ctrlr PCR Test		
4009	X				1255 Ctrlr Storage Test		
4011	X				1255 Ctrlr INT, LTO, & BAL Test		
4013	X				1255 Ctrlr Instruction Test 1		
4015	X				1255 Ctrlr Instruction Test 2		
4017	X				1255 Driver/Receiver/Cable Test1		
4019	X				1255 Driver/Receiver/Cable Test2		
4021	X				1255 MCR A4 Logic Board Test 1		
4023	X				1255 MCR A4 Logic Board Test 2		
4031	X				1255 Channel Interface Failure		
4033	X				1255 Ctrlr Datapath Failure Test		
4035	X				1255 Ctrlr Data Bus Error Test 1		
4037	X				1255 Ctrlr Data Bus Error Test 2		
4041	X				1255 Controller & Memory Test		
4051	X				1255 Dr/Rec Failure Test 1		
4053	X				1255 Dr/Rec Failure Test 2		
4055	X				1255 Dr/Rec/Cbl Failure In T40B1		
4057	X				1255 Dr/Rec/Cbl All Wraps Fail		

MAP NUMB	MAP D	MAP I	H C	MAP TITLE	PART NUMBER	EC NUMBER
4058	X			1255 CPU Stopped Wrap Error		
4059	X			1255 Start Reset Wrap Error		
4060	X			1255 T-R Valid Wrap Error Test		
4061	X			1255 Acct No. Valid Wrap Error		
4062	X			1255 I-O Ready Wrap Error Test		
4063	X			1255 Ext I-O Light Wrap Error		
4065	X			1255 Dr/Rec/Cbl Failure in T40B2		
4066	X			1255 Read Call Wrap Error Test		
4067	X			1255 Doc Under Rd Hd Wrap Error		
4068	X			1255 Doc To Be Read Wrap Error		
4069	X			1255 Engage Wrap Error Test		
4070	X			1255 Dr/Rec/Cbl Failure in T40B4		
4071	X			1255 Disengage Wrap Error Test		
4072	X			1255 Auto Sel Wrap Error Test		
4073	X			1255 Ser No Valid Wrap Error		
4074	X			1255 Dr/Rec/Cbl Failure in T40B5		
4075	X			1255 Service Resp Wrap Error		
4076	X			1255 Amt Fld Valid Wrap Error		
4077	X			1255 Proc Ctrl Vld Wrap Error		
4078	X			1255 I/O Disconnect Wrap Error		
4079	X			1255 Stacker 0 Wrap Error Test		
4080	X			1255 Stacker 1 Wrap Error Test		
4081	X			1255 Stacker 2 Wrap Error Test		
4082	X			1255 Stacker 3 Wrap Error Test		
4083	X			1255 Stacker 4 Wrap Error Test		
4084	X			1255 Stacker 5 Wrap Error Test		
4085	X			1255 Stacker 6 Wrap Error Test		
4086	X			1255 Stacker 7 Wrap Error Test		
4087	X			1255 Stacker 8 Wrap Error Test		
4088	X			1255 Stacker 9 Wrap Error Test		
4089	X			1255 Dr/Rec/Cbl Failure in T40C7		
4090	X			1255 Stacker R Wrap Error Test		
4091	X			1255 Sorter Stopped Wrap Error		
4092	X			1255 Fld 6 Vld Wrap Error Test		
4093	X			1255 Stacker A Wrap Error Test		
4094	X			1255 Stacker Bit 0-3 Failure		
4095	X			1255 MCR Init Error Test 1		
4096	X			1255 MCR Init Error Test 2		
4097	X			1255 MCR Feed Error Test		
4098	X			1255 MCR Char Read Error Test		

MAP NUMB	D	H C	MAP TITLE	PART NUMBER	EC NUMBER
4099	X		1255 MCR Check Read Error Test		
41XX			1255 MCR Hardmaps		
4100		X	1255-MCR Entry MAP	2597000	839954
4101		X	Adapter Reset	2597001	826487
4102		X	Controller Load	2597002	826487
4103		X	Single Cycle	2597003	826487
4104		X	Controller Reset	2597004	826487
4106		X	Data Bus Wrap Bit 0	2597005	826487
4107		X	Data Bus Wrap Bit 1	2597006	826487
4108		X	Data Bus Wrap Bit 2	2597007	826487
4109		X	Data Bus Wrap Bit 3	2597008	826487
4110		X	Data Bus Wrap Bit 4	2597009	826487
4111		X	Data Bus Wrap Bit 5	2597010	826487
4112		X	Data Bus Wrap Bit 6	2597011	826487
4113		X	Data Bus Wrap Bit 7	2597012	826487
4114		X	Data Bus Wrap Bit P	2597013	826487
4115		X	Data Bus Wrap Multi Bit Failure	2597014	826487
4116		X	Storage Address Test Failure	2597015	826487
4117		X	Storage Test Failure	2597016	826487
4118		X	Controller SAR,IAR	2597017	826487
4122		X	Reg/Aux Reg Selection	2597018	826487
4125		X	Controller ALU Zero Ind	2597019	826487
4126		X	Controller ALU Non-Zero Ind	2597020	826487
4127		X	Controller ALU Carry Ind	2597021	826487
4131		X	1255 Controller Is Stopped	2597022	826487
4132		X	Transit Routing FLD Valid	2597023	826487
4133		X	Account Number Field Valid	2597024	826487
4134		X	I-O Ready	2597025	826487
4135		X	External I-O Light	2597026	826487
4136		X	Read Call	2597027	826487
4137		X	Document Under Read Head	2597028	826487
4138		X	Document To Be Read	2597029	826487
4139		X	Engage	2597030	826487
4140		X	Field Seven Valid	2597031	826487
4141		X	Disengage	2597032	826487
4142		X	Auto Select	2597033	826487
4143		X	Serial Number FLD Valid	2597034	826487
4144		X	Service Response	2597035	826487
4145		X	Amount Field Valid	2597036	826487
4146		X	Process Control FLD Valid	2597037	826487

MAP NUMB	D	H C	MAP TITLE	PART NUMBER	EC NUMBER
4147		X	I-O Disconnect	2597038	826487
4148		X	Permit Service Request	2597039	826487
4149		X	1255 Data Bit 5	2597040	826487
4150		X	1255 Data Bit 6	2597041	826487
4151		X	1255 Data Bit 7	2597042	826487
4152		X	End Transmission	2597043	826487
4153		X	Service Request	2597044	826487
4154		X	1255 Data Parity Bit	2597045	826487
4155		X	1255 Data Bit 0	2597046	826487
4156		X	1255 Data Bit 1	2597047	826487
4157		X	1255 Data Bit 2	2597048	826487
4158		X	1255 Data Bit 3	2597049	826487
4159		X	Sorter Is Stopped	2597050	826487
4160		X	Field 6 Valid	2597051	826487
4161		X	1255 Data Bit 4	2597052	826487
4162		X	Stacker 0 Bit	2597053	826487
4163		X	Stacker 1 Bit	2597054	826487
4164		X	Stacker 2 Bit	2597055	826487
4165		X	Stacker 3 Bit	2597056	826487
4171		X	1255 Attach Exerciser Hardmap 71	2597057	826487
50XX			3262 Printer Hardmaps		
5000		X	Printer Symptom Index	2596063	826487
5001		X	Printer Entry MAP	2596064	826487
5002		X	Printout Analysis MAP	2596065	826487
5004		X	Printer Power On MAP	2596066	826487
5006		X	Printer Controller MAP	2596067	826487
5008		X	Printer Console Light MAP	2596068	826487
5010		X	Printer Console Key Error MAP	2596069	826487
5012		X	Printer Control Switch MAP	2596070	826487
5014		X	Printer Belt Go Error MAP	2596071	826487
5016		X	Belt Up To Speed and Ribbon Test MAP	2596072	826487
5018		X	Printer Sense Test Error MAP	2596073	826487
5020		X	Printer Belt Timing Error MAP	2596074	826487
5022		X	Printer Subscan Register Error MAP	2596075	826487
5024		X	Printer Carriage Emitter MAP	2596076	826487
5026		X	Print Data Wrap Error MAP	2596077	826487
5028		X	Forms Jam Test MAP	2596078	826487
5030		X	Hammer Echo Return Test MAP	2596079	826487
5032		X	Printer Reset Test MAP	2596080	826487

MAP NUMB	MAP D	MAP I	MAP C	MAP TITLE	PART NUMBER	EC NUMBER
5034			X	Hammer Sample Test MAP	2596081	826487
5036			X	Cable Interlock MAP	2596082	826487
5038			X	Wrap Return Bit Error MAP	2596083	826487
5040			X	Cable Test MAP	2596084	826487
5042			X	Thermal and Carriage Pedestal Check	2596085	826487
5044			X	Printer Data Protect Error MAP	2596086	826487
61XX	X			Controller Softmaps		
6101	X			Controller Good Machine Path MAP		
6102	X			6102 Controller Call MAP		
6105	X			6105 Controller Coupler Call MA		
65XX	X			DSA Softmaps		
65FF	X			Introductory MAP		
6501	X			DSA Good Machine Path 1		
6502	X			DSA Good Machine Path 2		
70XX				Work station Hardmaps		
7001			X	Work station Subsystem Entry Point	2596087	842350
81XX				Communications Softmaps		
8101	X			8101 Comm MLCA Control MAP 1		
8102	X			8102 Comm MLCA Control MAP 2		
8103	X			8103 Comm SLCA Control MAP 1		
8106	X			8106 Comm Transparent TU Call MAP		
8107	X			8107 Comm Adapter TU Call MAP		
8108	X			8108 Comm Indicator Check MAP		
8110	X			8110 Comm External Modem Wrap (38LS)		
8111	X			8111 Comm EIA End Of Cable Wrap		
8112	X			8112 Comm EIA Cable Tower Wrap		
8113	X			8113 Comm EIA Cable Socket Wrap		
8114	X			8114 Comm Adapter VTL Wrap		
8116	X			8116 Comm External Modem Wrap (LPDA)		
8117	X			8117 Comm DDSA Int/Cable Wrap		
8118	X			8118 Comm DDSA Cable Tower Wrap		
8119	X			8119 Comm DDSA Cable Socket Wrap		
8120	X			8120 Comm DDSA VTL Wrap		
8125	X			8125 Comm Acall End Of Cable Wrap		
8131	X			8131 Comm Transparent Isolation E1		

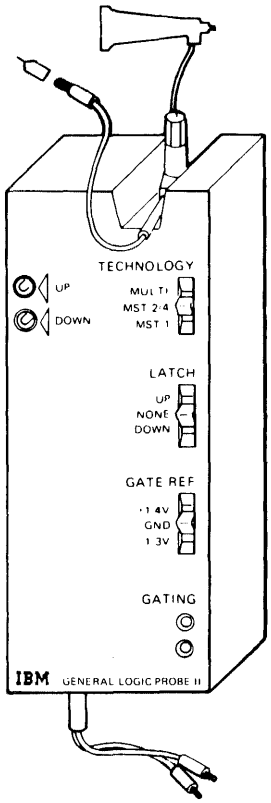
MAP NUMB	MAP D	MAP H	MAP C	MAP TITLE	PART NUMBER	EC NUMBER
8132	X			8132 Comm Transparent Isolation E2		
8133	X			8133 Comm Transparent Isolation E3		
8136	X			8136 Comm 1200 Int/Cable Wrap (LL)		
8137	X			8137 Comm 1200 (LL) Cable Tower Wrap		
8138	X			8138 Comm 1200 (LL) Cable Socket Wrap		
8139	X			8139 Comm 1200 VTL Wrap		
8140	X			8140 Comm X.21 Cab Twr Wrp (SW, No DCE)		
8141	X			8141 Comm X.21 Int/DCE Wrap (sw)		
8142	X			8142 Comm X.21 Cab Twr Wrp (LL, No DCE)		
8143	X			8143 Comm X.21 Cab Twr Wrp (LL, DCE)		
8144	X			8144 Comm X.21 Rcve Clock Error		
8151	X			Comm V.35 Ext Cab/DCE Wrap		
8161	X			8161 Comm EIA (X.25) Duplex Wrap		
8162	X			8162 Comm X.21 (X.25) Duplex Wrap		
8152	X			Comm V.35 Cable Tower Wrap		
93XX				72MD Disk Hardmaps		
9300		X		72MD Autoloader Bed Errors	2596190	826487
9301		X		72MD Autoloader Picker Errors	2596191	826487
95XX				21ED Disk Entry Hardmaps		
9500		X		21ED Disk Entry MAP	4177279	842375
97XX				10SR Hardmaps		
9700		X		10SR Disk Entry MAP	2596192	842375
9730		X		10SR Hardmap	2596193	842375
9750		X		10SR Power MAP	4177393	826487
99XX				8809 Tape Attachment Hardmaps		
9900		X		8809 Attachment Entry MAP	2596245	842375
9905		X		8809 Attachment (Swap DSA Cards)	2597068	842375
9910		X		8809 Attachment (Cable Wrap)	2596244	842375
A2XX				21ED File Attachment Softmaps		
A201	X			21ED MAP 01		
A220	X			21ED MAP 20		
A221	X			21ED MAP 21		
A222	X			21ED MAP 22		
A223	X			21ED MAP 23		

MAP NUMB	MAP D	MAP H	MAP C	MAP TITLE	PART NUMBER	EC NUMBER
A224	X			21ED MAP 24		
A225	X			21ED MAP 25		
A226	X			21ED MAP 26		
A227	X			21ED MAP 27		
A228	X			21ED MAP 28		
A229	X			21ED MAP 29		
A230	X			21ED MAP 30		
A231	X			21ED MAP 31		
A233	X			21ED MAP 33		
A234	X			21ED MAP 34		
A235	X			21ED MAP 35		
A236	X			21ED MAP 36		
A237	X			21ED MAP 37		
A3XX				10SR Adapter Softmaps		
A301	X			Good Machine Path MAP 1		
A302	X			Good Machine Path MAP 2		
A310	X			TA301 Error Isolation MAP		
A311	X			TA302 Error Isolation MAP 1		
A312	X			TA302 Error Isolation MAP 2		
A313	X			TA305 Error Isolation MAP		
A314	X			TA306 Error Isolation MAP		
A315	X			TA307 Error Isolation MAP		
A319	X			Cable Continuity Isolation MAP		
A320	X			TA312 Error Isolation MAP 1		
A321	X			TA311 Error Isolation MAP 1		
A322	X			TA312 Error Isolation MAP 2		
A323	X			TA313 Error Isolation MAP		
A330	X			Good Machine Path		
A331	X			Select Fix MAP 2		
A332	X			Select Fix MAP 1		
A333	X			Changing TU Results		
A335	X			Interlock/Motor Path Part 1		
A336	X			Motor Stopped		
A339	X			Servo Probe MAP		
A340	X			Read Probe MAP 2		
A341	X			Write Probe MAP		
A344	X			Fix MAP B1 Part 1		
A345	X			Servo Clock		
A346	X			Control Bus Part 1		

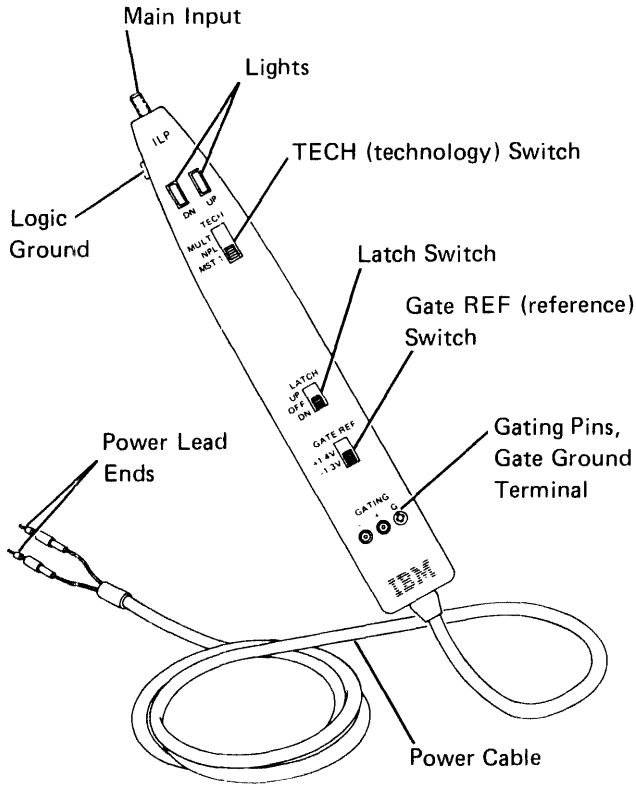
MAP NUMB	MAP D	MAP H	MAP C	MAP TITLE	PART NUMBER	EC NUMBER
A347	X			Tag Parity		
A348	X			Write Tests		
A349	X			Read Tests		
A350	X			VCM Driver Assembly Part 1		
A351	X			Read Probe MAP 1		
A355	X			Fix MAP A1		
A357	X			Guard Band Early		
A358	X			Guard Band Late		
A359	X			Guard Band Pulsing		
A360	X			Fix MAP B1 Part 2		
A361	X			Fix MAP B1 Part 3		
A362	X			Fix MAP B1 Part 4		
A363	X			Fix MAP B1 Part 5		
A370	X			Interlock/Motor Path Part 2		
A372	X			Control Bus Part 2		
A373	X			VCM Driver Assembly Part 2		
A380	X			Fix MAP C1 Part 1		
A381	X			Fix MAP C1 Part 2		
A382	X			Fix MAP C1 Part 3		
B1XX				8809 Tape Adapter Softmaps		
B101	X			Data Storage/8809 Tape Entry		
B102	X			8809 Adapter - Good Machine Path		
B103	X			8809 Adapter - Good Machine Path		
B104	X			8809 Adapter - Interface Entry		
B105	X			8809 Adapter - Interface Test 1		
B106	X			8809 Adapter - Interface Test 2		
B107	X			8809 Adapter - Interface Test 3		
B108	X			8809 Adapter - Interface Test 3		
B109	X			8809 Adapter - Interface Test 5		
B110	X			8809 Adapter - Interface Test 6		
D2XX				Diskette Softmaps		
D201	X			DLC Bus and Configuration Check		
D202	X			72MD Autoloader Interface and Command		
D203	X			51TD Diskette Seek and Read Tests		
D204	X			51TD Write Tests		
D205	X			72MD Seek and Read Tests		
D206	X			72MD Diskette Write Tests		

MAP NUMB	MAP D	MAP I	MAP H	MAP C	MAP TITLE	PART NUMBER	EC NUMBER
D207	X				51TD Head Load and Read Loop Tests		
D208	X				51TD Diskette Write Loop Tests		
D209	X				72MD Head Load and Read Loop Tests		
D210	X				72MD Diskette Write Loop Tests		
E2XX					3262 Printer Softmaps		
E201	X				3262 Channel Interface Test		
E253	X				3262 Controller Instruction Test 1		
E255	X				3262 Controller Instruction Test 2		
E257	X				3262 Printer Console Lamp Test		
E259	X				3262 Printer Interface Test 1		
E261	X				3262 Printer Interface Test 2		
E263	X				3262 Functional Printing Test		
E265	X				3262 Printer Control Switch Test		
E267	X				3262 Printer Console Switch Test		
E269	X				3262 Status Error Decode 1		
E271	X				3262 Status Error Decode 2		
E273	X				3262 State Sequencer Test		
E275	X				3262 Console Sw/Int Failure Test		
E277	X				3262 Printer Interface Failure 1		
E279	X				3262 Printer Interface Failure 2		
E281	X				3262 Printer Interface FAilure 3		
E283	X				3262 Printer Interface Failure 4		
E285	X				3262 Printer Interface Failure 5		
E287	X				3262 Printer Interface Failure 6		
E289	X				3262 Printer Interface Failure 7		
E295	X				3262 Carriage Failure Test		
E297	X				3262 Belt Interface Failure Test		

General Logic Probe II



Integrated Logic Probe



Logic Probe Power Sources

	POWER (red lead)	GROUND (black lead)
5360 Logic Gate	any D03 pin (card sockets C through T)	any D08 pin
10SR Disk Logic Gate	any D03 pin	any D08 pin

MAP NUMBER	MDI MAP	MAP DESCRIPTION
01XX		System Main Entry MAPs
0101		This MAP is the entry point for all S/36 MAPs.
0105		This MAP is part of the good machine path through the system entry MAPs. CSIPL from the diskette to load DCP. If that fails, then CSIPL from disk is attempted to load SSP.
0113		This MAP contains the system reference codes 0000 through 19FF. Any code which is not listed in 0113, MAP 0114, MAP 0115, MAP 0116 or MAP 0118 is not a valid reference code.
0114		This MAP contains the system reference codes 1A00 through 1AFF. Any code which is not listed in MAP 0113, MAP 0114, MAP 0115, MAP 0116 or MAP 0118 is not a valid reference code.
0115		This MAP contains the system reference codes 1b00 through 9FFF. Any code not listed in this MAP, MAP 0113, MAP 0114, MAP 0116 or MAP 0118 are not valid.
0116		This MAP contains the system reference codes A000 through FFFF. Any code not listed in this MAP, MAP 0113, 0114, 0115 or 0118 are not valid.
0118		This MAP is a quick fix MAP. You have the option of replacing the FRUs in order of probability specified by the power reference codes or in proceding with the MAP reference provided to reduce the number of probable FRUs.
0121		This MAP checks basic CSP functions to determine if voltage or the CSP is causing CSIPL start failures.
0179		This MAP instructs the CE/CSR to run the drive test diskette and MDI tests for the diskette.
0190		This MAP will remove all I/O adapters that interface to the channel bus that are not required for IPL.

0199		This MAP supplies a MAP index to run all the MDI MAPs in the system. It also has a list of other diagnostic tests that can be run to aid in isolating system problems.
03XX		Intermittent & Error Log MAPs
0300		Intermittent introduction and index.
0301		This MAP points to FRU's based on CSP proc error byte, ECC error byte, channel error byte and status bytes 4 and 5 in the ERAP display. This MAP should only be used after MAP 0113, 0114, 0115 and 0116 is used to translate the system reference code.
0305		
0309		Electrostatic discharge checkout procedure.
0310		This MAP attempts to find intermittent errors in the main storage and main storage processor.
0312		This MAP points to FRU's based on status bytes 4 and 5 in the ERAP MSP display. This MAP should only be used after MAP 0113 is used to translate the system reference code.
0350		This MAP provides information for fixing an intermittent 3262 printer problem.
0370		Work station maintenance strategy for detecting intermittent failures.
0391		This is this diskette intermittent failure MAP. This MAP will use the diskette MIM and ERAP to identify action.
0395		This is this 21ED intermittent failure and 21ED system reference code MAP.
0397		This is this 10SR intermittent failure and 10SR system reference code MAP.

0399		8809 Tape Intermittent Map
05XX		System Power MAPs
0500		This MAP determines the type of power failure.
0501		This MAP locates the source of bad information after the logic has been reset.
0502		This MAP checks the AC and DC fuses, CB1 and other causes of a dead machine.
0503		This MAP displays the power check condition.
0505		This MAP guides the CE/CSR to the base assemblies which shows a cable unseated condition.
0506		This MAP guides the CE/CSR to the A2 power which shows a cable unseated condition.
0507		This MAP guides the CE/CSR to the A3 power supply with built-in 1.7-volt regulator and the A3 power supply with separate 1.7-volt regulator/preload assembly which shows a Cable Unseated condition.
0508		This MAP guides the CE/CSR to the Cable Unseated condition.
0509		This MAP determines the cause of the CS light not on.
0511		This MAP seperates AC, DC and signal problems.
0512		This MAP determines if the cause of the failure is in the AC box, controller, or assemblies.
0513		This MAP locates a failing FRU in the base power when fuse F2 is bad.
0515		This MAP locates the failing FRU for the A2 power supply.
0516		This MAP locates the failing FRU for the A2 power supply.

0518 | This MAP locates the failing FRU causing a UV on the A2 1.7V regulator.

0519 | This MAP isolates a FRU with a short circuit in the 21ED file.

0520 | This MAP isolates a FRU with a short circuit.

0521 | This MAP leads to the failing FRU that caused the no AC to drive symptom.

0522 | This MAP leads the CE/CSR to the failing FRU that caused the power fan not to turn.

0523 | This MAP leads the CE/CSR to the failing FRU that caused the fan failure.

0524 | This MAP leads the CE/CSR to the failing FRU that caused AC to be missing at diskette drive.

0525 | This MAP leads the CE/CSR to the failing FRU that caused the fan failure.

0527 | This MAP locates the failing FRU for the A2 power supply.

0528 | This MAP locates the failing FRU for the A2 power supply.

0529 | This MAP locates the cause of the OC condition. The A2 1.7V regulator has an overcurrent condition.

0530 | This MAP locates the failing FRU for the A3 power supply with built-in 1.7-volt regulator and the A3 power supply with separate 1.7-volt regulator/preload assembly.

0531 | This MAP locates the failing FRU for the A3 power supply with built-in 1.7-volt regulator and the A3 power supply with separate 1.7-volt regulator/preload assembly.

0532 | This MAP locates the failing FRU for the A3 power supply with built-in 1.7-volt regulator and the A3

power supply with separate 1.7-volt regulator/preload assembly.

0533 This MAP locates the failing FRU for the A3 power supply with built-in 1.7-volt regulator and the A3 power supply with separate 1.7-volt regulator/preload assembly.

0535 This MAP locates the cause of the OC condition.

0536 This MAP locates the cause of the OC condition.

0537 This MAP locates the cause of the OC condition.

0538 This MAP locates the cause of the OC condition.

0539 This MAP locates the cause of the OC condition.

0540 This MAP locates the cause of the OC condition.

0541 This MAP locates a failing FRU or goes to another MAP.

0542 This MAP locates the area of failure in the base power

0543 This MAP locates a failing FRU in the base power.

0544 This MAP locates a failing FRU in the base power.

0545 This MAP locates a failing FRU in the base power.

0546 This MAP locates a failing FRU in the base power.

0548 This MAP locates the failing FRU in the base power.

0551 This MAP locates the cause of the OV condition.

0552 This MAP locates the cause of the OV condition.

0553 This MAP locates the cause of the OV condition.

0555 This MAP locates the failing FRU for the A2 power supply.

0556 This MAP locates the cause of the OV condition.

0561	This MAP leads to the failing FRU (inside the AC box) that caused the dead machine (CB1).
0572	This MAP finds the failing FRU which causes a DC voltage fuse to be bad or a control supply voltage to be missing.
0574	This MAP checks the contactor control line for an open before assuming the module is bad.
0576	This MAP isolates the cause of no response to the Power key.
0577	This MAP checks for a short circuit.
0582	This MAP verifies the thermal switches.
0584	This MAP verifies lamp circuits.
0588	This MAP checks the AC and DC fuses, CB1 and other causes of a dead machine.
0589	This MAP leads to the failing FRU (inside the AC box) that caused the dead machine (CB1).
0590	This MAP locates the failing FRU for the Expansion Power Supply.
0591	This MAP locates the failing FRU for the Expansion Power Supply.
0592	This MAP locates the failing FRU for the Expansion Power Supply.
0593	This MAP locates the failing FRU for the Expansion Power Supply.
0599	This MAP is used when the symptom is a missing voltage and the system does not power down with a power check. This MAP will isolate the missing voltage between the power supply, the DC distribution cables and the logic boards.

11XX | | Main Storage Processor MAPs

1100 | | This MAP instructs the CE/CSR to loop on the IPL third load diagnostics. If that fails to find an error, the CE/CSR is instructed to run the IPL diagnostics.

1102 | | A CSP timeout error has occurred. This can be caused by cards A-A1N2, A-A1P2 or A-A1Q2.

1103 | | The CSP is attempting to load different addresses into the MSAR and is getting an MSP checks in TU 81 for some addresses used. This could be caused by the MSP wrongly executing the CSP register load storage and causing storage checks or it could be caused by the problem with the external system bus.

1104 | | The MSP prevents the CSP IPL diagnostics from running because the MSP wrongly gates data to the external system bus. The first steps of this MAP verify clock signals to ensure the MSP is not hung because of missing clocks.

1105 | | An unexpected error occurred while running the MSP diagnostics. There are several lines that can cause the MSP diagnostics to fail.

1106 | | The CSP is attempting to load different addresses into the MSAR and is getting a time out check in TU 2080.

1107 | | The CSP is attempting to load different addresses into the MSAR and is getting an MSP check in TU 2080 or 2081 for some addresses used. This could be caused by the MSP wrongly executing the CSP register load as a storage access and causing storage checks. Storage is not initialized now.

1108 | | The CSP is attempting to load different addresses into the MSAR and is getting an MSP check in TU 2080 or 2081 for most addresses used. The error is not caused by a data bus.

1109 | | In TU 2080 the CSP is attempting to load different addresses into the MSAR and gets an MSP parity check for some addresses used. This results if the MSP

			control decodes that a load of an illegal register is attempted and the load operation C2 clock is not extended.
1110			The CSP does not cause an MSP check if loading MSP registers using addresses with wrong parity in TU T2082.
1112			The CSP gets an SDR parity check while sensing status bytes 0 or 2 or the PSR in TU 2071. This MAP interprets the result bytes of TU 2071 to determine which bit in the flow of data from the MSP control card to the MSP data flow card is not correct.
1114			A check other than an SDR parity check occurred when sensing status bytes 0,2 or the program status register after a reset in TU 2071.
1116			In TU 2071 the CSP gets the wrong results sensing status byte 2 after a reset. The error could be that this status byte is not addressed correctly or that some of the status bits passed are not correct.
1118			In TU 2071 the CSP gets the wrong results when sensing status byte 0 and the program status register after a reset.
1120			The CSP gets the wrong results when sensing status byte 0 or 2 and the program status register after a reset in TU 2071.
1122			The CSP receives the wrong results when sensing status bytes 0, 2 and the program status register after a a reset in TU 2071. This is the first MSP register sense. The status bytes are addressed by the op reg. The status bytes are placed on the x gate control, y gate control and ALU control lines are passed from the MSP control card to the MSP data flow card. The MSP control card instructs the data flow card to pass the data to the external system bus using control lines.
1124			The CSP loads different data patterns into the program status register and senses the program status register in TU 2072. None of the senses are correct. This is

			the first register load. The lines that the MSP uses to determine a load or a sense will be probed in this MAP.
1126			The CSP loads various data patterns into the program status register and senses the program status register in TU 2072. Some the the patterns fail. The data is passed from the MSP data flow card to the control card through the q register.
1128			The CSP gets the wrong results when loading and sensing the MSP LSR in TU 2073.
1129			The CSP is not getting the correct results when doing two byte loads and senses of the MSP LSR in TU 2088.
1130			In TU 2064 an interrupt on level 5 from the MSP is not occurring.
1131			In TU T2070 the CCR is not loaded or sensed correctly.
1132			The CSP cannot load and sense the MSP registers, PMR and CMR in TU T2075. There could be an address error or an error in these registers, which are in the A-A1Q2 card.
1133			In TU T2060 a control parity check is not caused by loading status byte 1. The check is verified by sensing status byte 2.
1134			The CSP attempts to cause main storage invalid address checks in TU T2076. Either an invalid address check did not occur if it should have or it occurred if it should not. The error may be that the MSP performs a register load instead of a storage write, that the wrong address translation register is used for the storage write, or that the invalid address check logic on the MSP data flow is failing.
1135			In TU T2064 an interrupt from the MSP is not reset or a machine check occurs while attempting to reset the interrupt request.
1136			The CSP loads and senses the MSP address translation

registers in TU T2077. This test failed. A possible address error will be tested.

1137 In TU T2069 a CSP time out check occurred during a write or read of main storage. This occurs if the MSP control or data flow card lines fail to indicate a storage read or write correctly, but the time out period is so long that probing cannot be done.

1140 In TU T2020 the MSP fails to execute an SVC instruction correctly if using the ATR group 0 address translation.

1142 In TU T2020 the MSP fails to execute the second SVC instruction correctly if using the address translation registers group 1 address translation.

1144 In TU T2020 the MSP attempts to execute the first instruction, an SVC, using a PACT register. During the second storage read the MSP got FF from main storage.

1146 In TU T2020 the MSP fails to correctly execute the first instruction, an SVC, using a PACT register.

1148 In TU T2025 the MSP fails to execute the load register instruction correctly. This is the first one operand instruction to be executed.

1150 In TU T2021 the MSP fails to execute the branch on condition instruction correctly.

1152 In TU T2023 the MSP fails to execute the jump backward instruction correctly.

1154 In TU T2024 the MSP fails to execute the load program mode register instruction correctly.

1156 In TU T2026 the MSP fails to execute the store register instruction correctly. This is the first instruction that writes main storage to be tested.

1158 In TU T2027 the MSP fails to execute the compare logical immediate instruction correctly. In this instruction the ALU is used to compare two bytes.

1160		In TU T2031 the MSP fails to correctly execute a test bits on or test bits off instruction.
1162		In TU 2032 the MSP fails to execute the add to register instruction correctly. TU 2082 is used to verify q register decodes.
1163		In TU T2041 the MSP fails to execute the edit instruction correctly. TU 2032 is used for probing.
1164		In TU T2051 the MSP executes a group of instructions too slowly. This could occur if the main storage buffer is not being correctly used or if too many MSP clock times are being extended an extra 100 nanoseconds.
1165		In TU T2042 the MSP fails to execute the insert and test character instruction correctly. TU 3028 is used to verify an MSP data flow decode.
1166		In TU T2044 the MSP fails to execute the add logical character instruction correctly. TU 2020 is used to verify an MSP control signal.
1167		In TU T2052 the MSP fails to correctly execute an instruction using a PACT register.
1168		In TU T2046 the MSP fails to correctly execute instructions while the CSP does main storage accesses. TU 2020 is used to check several MSP control signals.
1175		This a Bi-di parity problem. This can be caused by either the A-A1Q2 or A-A1U2 card. This MAP determines which card is bad.
1176		TU 20A7 failed. A (+ address bit 6) has caused the problem. This MAP tests the (+ address bit 6) signal to determine if it is a bad A-A1Q2 card or a bad A-A1U2 card.
1179		Main storage write and read tests failed. This can be caused by card A-A1P2, A-A1Q2 or any bad main storage card. This MAP determines which card is bad. The card A-A1U2 location is used as a card test location. The

			128Kb main storage cards are inserted into this location one at a time and tested. If it is determined that every main storage card is good, then go to MAP 1101 to determine if it is an A-A1P2 or A-A1Q2 card that is bad.
1180			A main storage write and read test failed. This can be caused by cards A-A1P2, A-A1Q2 or any bad main storage card. This MAP determines if a 256 Kb storage card is bad. The main storage and control storage cards are swapped and the CSIPL first and second loads are then run. For the 256 Kb card, this test is run twice; once to test the upper half and once to test the lower half. If these loads are completed correctly, then either the A-A1P2 or A-A1Q2 card is bad and MAP 1191 determines which card is bad. If these loads are not ok, then the main storage card swapped into the A-A1N2 location is bad.
1182			Main storage accesses fail for every main storage card. This MAP attempts to isolate the problem between the two MSP cards. Main storage is assumed to be good.
1183			Main storage write and read tests failed. This can be caused by card A-A1Q2 or any bad main storage card. It has been determined that a main storage card select (- clock enable) has caused the problem. This MAP tests the appropriate card select and determines if it is a bad A-A1Q2 or a main storage card.
1184			In TU T2061, the MSP cannot cause a single bit storage error on one or more of the main storage cards. Either a bad MSP data flow card (A-A1Q2) or any main storage card can cause this.
1185			In TU T2061, the MSP cannot cause a multiple bit storage error on one or more of the main storage cards. This can be caused by either a bad MSP data flow card (A-A1Q2) or any main storage card.
1186			A main storage write and read test failed because of a main storage time out check. This can be caused by card A-A1Q2 or any bad main storage card. This MAP tests (- MS clock enable) and (- MS card select 1) signal to

		determine if it is a bad A-A1Q2 card or a main storage card.
1187		A main storage write and read test (T2068) failed. The main storage access time to do a storage write or read is too long. This can be caused by cards A-A1Q2 or any bad main storage card. This MAP tests (- MS clock enable) signal to determine if it is a bad A-A1Q2 card or go to MAP 1179 to determine which 128 Kb main storage card is bad.
1188		In TU T2094 the MSP cannot cause a storage parity check. This can be caused by card A-A1Q2 or any bad main storage card. It has been determined that a (- MS parity error) has caused the problem. This MAP tests the (- MS parity error) signal to determine if it is a bad A-A1Q2 card or a main storage card.
1189		There is a Read/Write problem. This can be caused by cards A-A1Q2 or A-A1U2. This MAP determines whether the A-A1Q2 or A-A1U2 card is bad.
1193		In TU T2089, it was determined that (- read buffer) is always down. This can be caused by cards A-A1Q2 or A-A1U2. This MAP tests the read buffer signal to determine if it is a bad A-A1Q2 or A-A1U2 card.
1197		TU 20A3 failed. A (- MS multiple bit error) is causing the problem. This can be caused by cards A-A1Q2 or a bad main storage card. This MAP determines if it is a bad A-A1Q2 card or a bad A-A1U2 card.
1198		It has been determined that there is an address problem. TU20A9 determines which address bit is stuck. The problem could be caused by the A-A1Q2 card or the A-A1U2 card. This MAP determines which card is bad.
1199		TU 20A8 failed. It has been determined that a single data line is causing the problem. This could be caused by the A-A1Q2 card or the A-A1U2 card. This MAP determines which card is bad.
17XX		Control Panel MAPs

1700 | This MAP checks out display lights on the control panel and determines what causes display problem.

1701 | This MAP checks out key failures.

1702 | This MAP checks out display lights on the control panel and determines what causes display problem.

1703 | This MAP checks out key failures.

30XX | Communications MAPs

3000 | This MAP instructs the CE to run the concurrent diagnostic tests for data communications (ELCA).

3001 | This MAP provides the FRU isolation between the data communications controller card and the channel cables.

3002 | This MAP is used to direct the CE/CSR during periods when the machine has to be powered down.

3003 | This MAP instructs the CE to run the MDI tests for data communications (MLCA, SLCA).

3004 | This MAP describes how to install the diagnostic wrap card on the communications logic board for SLCA line 1 problems.

3005 | This MAP describes how to install the diagnostic wrap card on the communications logic board for SLCA line 2 problems.

3006 | This MAP describes how to install the diagnostic wrap card on the communications logic board for SLCA line 3 problems.

3007 | This MAP describes how to install the diagnostic wrap card on the communications logic board for SLCA line 4 problems.

3008 | This MAP instructs the CE/CSR to analyze the data communications error logs. This MAP also instructs the CE/CSR to attempt to trap or obtain a trace of the

transmitted and received data while attempting to duplicate an error condition. This MAP also lists specific data communications failures that are assumed to have a feature visibility, some of them during a trap or trace.

3009 This MAP lists all the cards pertaining to the SLCA, MLCA and ELCA Data Communications area and their configurations. Because there is no specific symptom to be listed, the user may install the cards in any sequence.

3010 This is the Data Communications Entry MAP.

3011 This MAP will isolate a data communications indicator problem to the failing FRU.

3012 This MAP describes how to install the diagnostic wrap card on the communications logic board for SLCA line problems.

3014 This MAP is an autocall interface chart. It shows all the interface pins or the logic cards and cables supplying the interface. The chart can be used to trace cable problems.

3020 This MAP is an EIA/CCITT interface chart. It shows all the interface pins or the logic cards and cables supplying the interface. The chart can be used to trace cable problems.

3021 This MAP runs the Online test.

3023 This MAP tests the remote DDSA Loop-back test. Do not use this MAP on a multipoint network. Aid from a remote system is necessary to complete this test.

3024 This MAP contains the DDSA interface charts. It shows all the interface pins on the logic cards and cables supplying the interface. Use the charts to trace any cable problems and to free-lance scoping (line 1).

3025 This MAP contains the DDSA interface charts. It shows all the interface pins on the logic cards and cables

		supplying the interface. Use the charts to trace any cable problems and to free-lance scoping (line 2).
3026		This MAP contains the DDSA interface charts. It shows all the interface pins on the logic cards and cables supplying the interface. Use the charts to trace any cable problems and to free-lance scoping (line 3).
3027		This MAP contains the DDSA interface charts. It shows all the interface pins on the logic cards and cables supplying the interface. Use the charts to trace any cable problems and to free-lance scoping (line 4).
3028		This MAP runs the DDSA Online test.
3029		This MAP contains the DDSA interface charts. It shows all the interface pins on the logic cards and cables supplying the interface. Use the charts to trace any cable problems and free-lance scoping (SLCA).
3031		This MAP tests the auto-answer function of the 1200 BPS integrated modem (SLCA).
3032		This charts show the 1200 BPS integrated modem board and cable interface wiring. Use these charts to check continuity and as a free-lance tool in trouble shooting trace signals and data flow for the 1200 IM SLCA.
3033		This MAP checks the World Trade Public Switched Network (PSN) 1200 integrated modem connection to the telephone network (SLCA).
3034		This MAP determines why no answer tone is supplied to incoming calls.
3035		This MAP determines why the system does not answer incoming calls.
3036		This MAP will isolate a data communications indicator problem to the failing FRU.
3037		This MAP is an EIA/CCITT and autocall interface chart. It shows all the interface pins of the logic cards and

cables supplying the interface. The chart can be used to trace cable problems.

3038 This MAP contains the DDSA interface charts. It shows all the interface pins on the logic cards and cables supplying the interface. Use the charts to trace any cable problems and to free-lance scoping.

3039 This MAP contains the charts showing the X.21 adapter board and cable wiring. Use these charts for continuity checking and as a free-lance tool in trouble shooting trace signals and data flow for the X.21 adapter.

3040 This is the Data Communications Error MAP.

3049 This MAP is a V.35 interface chart. It shows all the interface pins of the logic cards and cables supplying the interface. The chart can be used to trace cable problems and free-lance scoping.

3050 This MAP tests the auto-answer function of the 1200 BPS integrated modem (MLCA line 1).

3051 This MAP tests the auto-answer function of the 1200 BPS integrated modem (MLCA line 2).

3052 This MAP tests the auto-answer function of the 1200 BPS integrated modem (MLCA line 3).

3053 This MAP tests the auto-answer function of the 1200 BPS integrated modem (MLCA line 4).

3054 This MAP attempts to establish an Online test with a remote system.

3055 The charts in this MAP show the 1200 BPS integrated modem board and cable interface wiring. Use these charts to check continuity and as a free-lance tool in trouble shooting trace signals and data flow for the 1200 IM line 1.

3056 The charts in this MAP show the 1200 BPS integrated modem board and cable interface wiring. Use these

charts to check continuity and as a free-lance tool in trouble shooting trace signals and data flow for the 1200 IM line 2.

3057 The charts in this MAP show the 1200 BPS integrated modem board and cable interface wiring. Use these charts to check continuity and as a free-lance tool in trouble shooting trace signals and data flow for the 1200 IM line 3.

3058 The charts in this MAP show the 1200 BPS integrated modem board and cable interface wiring. Use these charts to check continuity and as a free-lance tool in trouble shooting trace signals and data flow for the 1200 IM line 4.

3059 This MAP checks the World Trade Public Switched Network (PSN) 1200 integrated modem connection to the telephone network (line 1).

3060 This MAP checks the World Trade Public Switched Network (PSN) 1200 integrated modem connection to the telephone network (line 2).

3061 This MAP checks the World Trade Public Switched Network (PSN) 1200 integrated modem connection to the telephone network (line 3).

3062 This MAP checks the World Trade Public Switched Network (PSN) 1200 integrated modem connection to the telephone network (line 4).

3063 This MAP determines why no answer tone is supplied to incoming calls.

3064 This MAP determines why no answer tone is supplied to incoming calls.

3065 This MAP determines why no answer tone is supplied to incoming calls.

3066 This MAP determines why no answer tone is supplied to incoming calls.

3067		This MAP determines why the system does not answer incoming calls.
3068		This MAP determines why the system does not answer incoming calls.
3069		This MAP determines why the system does not answer incoming calls.
3070		This MAP determines why the system does not answer incoming calls.
3073		The charts in this MAP show the X.21 adapter board and cable wiring. Use these charts for continuity checking and as a free-lance tool in trouble shooting trace signals and data flow for the X.21 adapter SLCA.
3074		The charts in this MAP show the X.21 adapter board and cable wiring. Use these charts for continuity checking and as a free-lance tool in trouble shooting trace signals and data flow for the X.21 adapter 1.
3075		The charts in this MAP show the X.21 adapter board and cable wiring. Use these charts for continuity checking and as a free-lance tool in trouble shooting trace signals and data flow for the X.21 adapter 2.
3076		The charts in this MAP show the X.21 adapter board and cable wiring. Use these charts for continuity checking and as a free-lance tool in trouble shooting trace signals and data flow for the X.21 adapter 3.
3077		The charts in this MAP show the X.21 adapter board and cable wiring. Use these charts for continuity checking and as a free-lance tool in trouble shooting trace signals and data flow for the X.21 adapter 4.
3078		This MAP attempts to extablish an on-line test with a remote system.
3080		This MAP is a V.35 interface chart. It shows all the interface pins of the logic cards and cables supplying the interface. The chart can be used to trace cable problems and free-lance scoping.

3090		This procedure uses SSP procedures to display status and diagnose difficult communications problems.
3091		This procedure uses COMMTEST (an SSP procedure) to diagnose communications controller problems.
40XX		1255 MCR MAPs
4001	X	This MAP tests the ability of the Channel to communicate with the 1255 Attachment card.
4003	X	This MAP tests the ability of the Channel to communicate with the 1255 Controller via the Attachment card.
4004	X	This MAP tests the ability of the 1255 Controller to set its 1255 Command latches.
4005	X	This MAP tests the 1255 Controller's Internal Registers and ALU PCR bits (zero, non-zero, and carry).
4007	X	This MAP tests the 1255 Controller's ALU status conditions.
4009	X	This MAP tests storage used by the 1255 Attachment. Base Storage is on A2N2 and P2 cards, while the Extended Storage Feature uses A2L4 and M4 cards. This MAP tests Base addressing, then Base storage, then Extended addressing, then Extended storage.
4011	X	This MAP tests the 1255 Controller Branch and Link and Long Timeout circuits.
4013	X	This MAP tests the 1255 Controller's ability to perform instructions correctly.
4015	X	This MAP tests the 1255 Controller's ability to perform instructions correctly.
4017	X	This MAP tests half of the 1255 Attachment Drivers, Receivers, and Cabling.

4019	X	This MAP tests half of the 1255 Attachment Drivers, Receivers, and Cabling.
4021	X	This MAP tests the 1255 hardware used to interface to the Host System.
4023	X	This MAP tests the 1255 hardware used to interface to the Host System.
4031	X	This MAP tests the Channel's ability to communicate with the 1255 Controller.
4033	X	This MAP tests the 1255 Controller's Data paths.
4035	X	This MAP isolates 1255 Controller data problems to a bit or many bits.
4037	X	This MAP isolates 1255 Controller data problems to a bit or many bits.
4041	X	A wrap error has been isolated to '-Disengage'.
4051	X	This MAP determines which Driver/Receiver combination is always active.
4053	X	This MAP determines which Driver/Receiver combination is always active.
4055	X	This MAP determines which Driver or Receiver tested in T40B1 is failing.
4057	X	This MAP determines why the first Wrap test fails completely.
4058	X	A 'CPU' is Stopped wrap failure is isolated to the failing FRU.
4059	X	A 'Start Reset' wrap failure is isolated to the failing FRU.
4060	X	A 'Transit Routing' wrap failure is isolated to the failing FRU.
4061	X	An 'Account Number' wrap failure is isolated to the

		failing FRU.
4062	X	An 'I-O Ready' wrap failure is isolated to the failing FRU.
4063	X	An 'External I/O Light' wrap failure is isolated to the failing FRU.
4065	X	This MAP determines which Driver or Receiver tested in T40B2 is failing.
4066	X	A 'Read Call' wrap failure is isolated to the failing FRU.
4067	X	A 'Document Under Read Head' wrap failure is isolated to the failing FRU.
4068	X	A 'Document To Be Read' wrap failure is isolated to the failing FRU.
4069	X	The 'Engage' wrap failure is isolated to the failing FRU.
4070	X	This MAP determines which Driver or Receiver tested in T40B4 is failing.
4071	X	A 'Disengage' wrap failure is isolated to the failing FRU.
4072	X	An 'Auto Select' wrap failure is isolated to the failing FRU.
4073	X	A 'Serial Number Field Valid' wrap failure is isolated to the failing FRU.
4074	X	This MAP determines which Driver or Receiver tested in T40B5 is failing.
4075	X	A 'Service Response' wrap failure is isolated to the failing FRU.
4076	X	An 'Amount Field Valid' wrap failure is isolated to the failing FRU.

4077		X	A 'Process Control Field Valid' wrap failure is isolated to the failing FRU.
4078		X	The 'I-O Disconnect' wrap failure is isolated to the failing FRU.
4079		X	The 'Stacker 0' wrap failure is isolated to the failing FRU.
4080		X	The 'Stacker 1' wrap failure is isolated to the failing FRU.
4081		X	The 'Stacker 2' wrap failure is isolated to the failing FRU.
4082		X	The 'Stacker 3' wrap failure is isolated to the failing FRU.
4083		X	The 'Stacker 4' wrap failure is isolated to the failing FRU.
4084		X	The 'Stacker 5' wrap failure is isolated to the failing FRU.
4085		X	The 'Stacker 6' wrap failure is isolated to the failing FRU.
4086		X	The 'Stacker 7' wrap failure is isolated to the failing FRU.
4087		X	The 'Stacker 8' wrap failure is isolated to the failing FRU.
4088		X	The 'Stacker 9' wrap failure is isolated to the failing FRU.
4089		X	This MAP determines which Driver or Receiver tested in T40C7 is failing.
4090		X	A 'Stacker R' wrap failure is isolated to the failing FRU.
4091		X	A 'Sorter Is Stopped' wrap failure is isolated to the failing FRU.

4092	X	A 'Field 6 Valid' wrap failure is isolated to the failing FRU.
4093	X	The 'Stacker A' wrap failure is isolated to the failing FRU.
4094	X	A 1255 Attach Stacker Select failure is isolated to the failing FRU.
4095	X	The incorrect 1255 status condition at initialization time is isolated.
4096	X	The incorrect 1255 status condition at initialization time is isolated.
4097	X	The incorrect 1255 status following a command to feed a check without reading is analyzed to find the failing area in the 1255.
4098	X	The 1255 incorrect status following a command to read only a single character from a check is analyzed to find the failing area in the 1255.
4099	X	The incorrect 1255 status following a command to read two complete checks is analyzed to find the failing area in the 1255.
41XX		3262 MCR MAPs
4100		This Entry MAP isolates a failure to the 1255 or 1255 Attachment Feature, and it gives instructions on use of the 1255 Aoftmaps (MDIs).
4101		This MAP isolates the failure of the Adapter Reset function to either the controller card or the attachment card. All lines are correct except one, the controller error.
4102		This MAP isolates the failure of the Controller load latch to either card A-A2N2 (1255 Attachment) or card A-A2P2 (1255 Controller).
4103		This MAP isolates the failure of the Single cycle

latch to either card A-A2N2 (1255 Attachment) or card A-A2P2 (1255 Controller).

4104 This MAP isolates the failure of the Controller reset latch to either card A-A2N2 (1255 Attachment) or card A-A2P2 (1255 Controller).

4106 A single bit failure has been found in the 1255 Controller's data bus (bit 0).

4107 A single bit failure has been found in the 1255 Controller's data bus (bit 1).

4108 A single bit failure has been found in the 1255 Controller's data bus (bit 2).

4109 A single bit failure has been found in the 1255 Controller's data bus (bit 3).

4110 A single bit failure has been found in the 1255 Controller's data bus (bit 4).

4111 A single bit failure has been found in the 1255 Controller's data bus (bit 5).

4112 A single bit failure has been found in the 1255 Controller's data bus (bit 6).

4113 A single bit failure has been found in the 1255 Controller's data bus (bit 7).

4114 A single bit failure has been found in the 1255 Controller's data bus (bit P).

4115 This MAP isolates failures of more than one bit in the data bus wrap test.

4116 This MAP isolates storage failures between the Storage Expansion Feature and basic Storage.

4117 This MAP isolates the failure between the Storage Expansion Feature and basic Storage.

4118 A wrap of the 1255 Controller's data buses has

failed.

4122 This MAP isolates failures found in the Controller register selection function.

4125 This MAP isolates a failure of the 1255 controller ALU zero indicator.

4126 This MAP isolates a failure of the 1255 controller ALU non-zero indicator.

4127 This MAP isolates a failure of the 1255 controller ALU carry indicator.

4131 A wrap error has been isolated to -CPU (1255 Controller) is stopped.

4132 A wrap error has been isolated to +Transit routing field valid.

4133 A wrap error has been isolated to +Account number field valid.

4134 A wrap error has been isolated to +I-O Ready.

4135 A wrap error has been isolated to +External I-O light.

4136 A wrap error has been isolated to -Read call.

4137 A wrap error has been isolated to +Document under read head.

4138 A wrap error has been isolated to +Document to be read.

4139 A wrap error has been isolated to -Engage.

4140 A wrap error has been isolated to +Field seven valid.

4141 A wrap error has been isolated to -Disengage.

4142 A wrap error has been isolated to +Auto select.

4143		A wrap error has been isolated to +Serial number field valid.
4144		A wrap error has been isolated to +Service response.
4145		A wrap error has been isolated to +Amount field valid.
4146		A wrap error has been isolated to +Process control field valid.
4147		A wrap error has been isolated to -I-O Disconnect.
4148		A wrap error has been isolated to +Permit service request.
4149		A wrap error has been isolated to +1255 data bit 5.
4150		A wrap error has been isolated to +1255 data bit 6.
4151		A wrap error has been isolated to +1255 data bit 7.
4152		A wrap error has been isolated to +End transmission.
4153		A wrap error has been isolated to +Service request.
4154		A wrap error has been isolated to +1255 data parity bit.
4155		A wrap error has been isolated to +1255 data bit o. 0.
4156		A wrap error has been isolated to +1255 data bit 1.
4157		A wrap error has been isolated to +1255 data bit 2.
4158		A wrap error has been isolated to +1255 data bit 3.
4159		A wrap error has been isolated to +Sorter is stopped.

4160		A wrap error has been isolated to +Field 6 valid.
4161		A wrap error has been isolated to +1255 data bit 4.
4162		A wrap error has been isolated to -Stacker 0 bit.
4163		A wrap error has been isolated to -Stacker 1 bit.
4164		A wrap error has been isolated to -Stacker 2 bit.
4165		A wrap error has been isolated to -Stacker 3 bit.
4171		This MAP is a guide to using an exerciser to run the 1255 online.
50XX	3262 Printer MAPs	
5000		This is the printer error symptom MAP. It goes to the correct MAP for the symptom indicated.
5001		This is the printer entry MAP. This MAP aids in determining the correct action to take in diagnosing failures in the printer and the printer attachment.
5002		This MAP will determine if the print transport mechanism is operating properly. It will also analyze the print quality of the output.
5004		This MAP aids you in determining the cause of the printer power problem.
5006		This is the printer controller error MAP.
5008		This is the printer console light error MAP. This MAP finds the failing FRU or, if necessary, goes to the 3262 printer entry MAP.
5010		This is the printer console key error MAP. This MAP finds the failing FRU or goes to the correct printer box MAP if necessary.
5012		This is the printer control switch and CE error MAP. This MAP finds the failing FRU or goes to the 3262

		printer entry MAP.
5014		This is the printer -belt go error MAP. This MAP finds the failing FRU or, if necessary, goes to the 3262 printer entry MAP.
5016		This is the printer belt up to speed, ribbon check and printer busy error test MAP. This MAP finds the failing FRU or, if necessary, goes to the 3262 printer entry MAP.
5018		This is the printer data parity check and power problem MAP. This MAP finds the failing FRU or, if necessary, goes to the 3262 printer entry MAP.
5020		This is the printer belt timing error MAP.
5022		This is the fire tier (1-5) error MAP. This MAP finds the failing FRU or, if necessary, goes to the 3262 printer entry MAP.
5024		This is the printer carriage advance test MAP. This MAP finds the failing FRU or, if necessary, goes to the 3262 printer entry MAP.
5026		This is the data bit (0-7) and parity bit wrap error MAP. This MAP finds the failing FRU or, if necessary, goes to the 3262 printer entry MAP.
5028		This is the printer forms jam test MAP. This MAP finds the failing FRU or, if necessary, goes to the 3262 printer entry MAP.
5030		This is the printer hammer echo return test MAP. This MAP finds the failing FRU or, if necessary, goes to the 3262 printer entry MAP.
5032		This is the printer reset test MAP. This MAP finds the failing FRU or, if necessary, goes to the 3262 printer entry MAP.
5034		This MAP is the hammer sample test MAP. This MAP finds the failing FRU or, if necessary, goes to the 3262 printer entry MAP.

5036		This is the cable interlock MAP. This MAP aids you in finding the cause of a cable interlock problem between the 3262 printer and the attachment.
5038		This is the printer wrap, return bit error MAP. This MAP finds the failing FRU.
5040		This MAP tests three interface lines - hammer echo return, + POR (power on reset) or - close contactor for an open. If necessary it will go to the 3262 printer entry MAP.
5042		This is the thermal check and carriage pedestal check MAP. This MAP finds the failing FRU or, if necessary, goes to the 3262 printer entry MAP.
5044		This is the printer - data protect MAP. This MAP finds the failing FRU.
61XX		Controller MAPs
6101	X	Controller Good Machine Path MAP.
6102	X	Controller call MAP.
6105	X	Controller Good Machine Path MAP.
65XX		DSA MAPs
65FF	X	This map permits the CE/CSR to bypass selected sections of the Good Machine Path.
6501	X	This MAP tests the channel/DSA interface.
6502	X	This map tests the DSA/adapter interface.
70XX		Work station MAPs
7001		This is the entry point to the work station subsystem MAPs. Directions will be provided to assist in isolating local work station problems.
81XX		Communications Softmaps

8101	X	This is the data communications entry MAP. The correct diagnostics will be executed depending on the hardware configuration.
8102	X	This is the data communications entry MAP. The correct diagnostics will be executed depending on the hardware configuration.
8103	X	This is the data communications entry MAP. The correct diagnostics will be executed depending on the hardware configuration.
8106	X	This MAP executes two transparent TUs to the communications adapter cards.
8107	X	This MAP tests the data communications adapter card for good operation.
8108	X	This MAP tests the communications adapter card and display lights.
8110	X	This MAP will test an IBM standalone modem with wrap for good machine operation.
8111	X	This MAP tests the EIA card and cables that make up an EIA configuration. Wraps are made to the end of the external cable.
8112	X	This MAP isolates the external cable by performing a cable tower wrap.
8113	X	This error MAP isolates the internal cable by performing a wrap at the board cable socket.
8114	X	This MAP isolates the line adapter by performing a wrap at the communications adapter card.
8116	X	This MAP tests standalone 3863, 3864 and 3865 modems by executing an LPDA self test and checks the data quality with an LPDA status test.
8117	X	This MAP tests the DDSA card with an internal wrap and the cables with a data wrap to the end of the external

		cable.
8118	X	This MAP assumes the external cable data wrap test T8150 failed. A cable tower data wrap will now be run to isolate the external cable.
8119	X	This error MAP isolates the internal cable by performing a wrap at the board cable socket.
8120	X	This MAP isolates the line adapter with a communications adapter wrap.
8125	X	This MAP tests the autocall hardware for good operation.
8131	X	This MAP isolates the controller when multiple adapter errors have been found.
8132	X	This MAP isolates the controller or adapter when multiple adapter errors have been found.
8133	X	This MAP isolates the adapter when multiple adapter errors have been found.
8136	X	This MAP runs internal wraps to the 1200 BPS integrated modem hardware.
8137	X	This MAP wraps data to the cable tower on a 4 wire non-switched configuration.
8138	X	This MAP wraps data to the board cable socket on a 4 wire non-switched configuration.
8139	X	This MAP wraps data to the 1200 line adapter socket.
8140	X	This MAP tests the X.21 switched adapter card for good operation.
8141	X	This MAP tests the X.21 switched adapter card for good operation.
8142	X	This MAP tests the X.21 non-switched adapter card for good operation.

8143	X	This MAP tests the X.21 non-switched adapter card for good operation.
8144	X	This error MAP isolates the Receive Clock test failure.
8151	X	This MAP tests the V.35 hardware for good operation.
8152	X	A wrap to the cable tower will be done to isolate the failing FRU.
93XX		72MD Disk MAPs
9300		This MAP isolates the carriage bed failures (72MD).
9301		This MAP isolates the picker failures (72MD).
95XX		21ED Disk Failure MAP
9500		This MAP instructs the CE/CSR to run the MDI tests for the 21ED disk drives.
97XX		10SR MAPs
9700		The MAP is the Disk Entry MAP. It instructs the CE/CSR in isolating solid, media and intermittent errors.
9730		This MAP is for FRU isolation on the 10SR disk drive that requires the system to be powered off.
9750		This MAP will isolate the FRU on the 10SR disk drive that is short cicuiting a voltage.
99XX		8809 MAPs
9900		Tape and Data Storage subsystem.
9905		Swap A2K2 and A2E2 cards.
9910		Cable wrap test procedure.
A2XX		21ED File Attachment Softmaps
A201	X	This MAP calls in the introductory MAP (65FF) which checks processors and buffers in the system channel.

		If no problems are found in the up-channel devices, control goes to the 21ED/ADAPTER MDIs.
A220	X	This MAP begins the good machine path. This MAP performs data WRAPs to the ADAPTER and 21ED drive interface in attempts to distinguish between ADAPTER, cable, or 21ED drive failures. The cable continuity is checked. The following 21ED drive functions are tested: motor start and ready, gain control, seek and settle times, servo control, baseline adjust control.
A221	X	This MAP performs data WRAPs to the ADAPTER and 21ED drive interface in attempts to distinguish between ADAPTER, cable, or 21ED drive failures. The cable continuity is checked. Power to the ADAPTER CARD is also checked.
A222	X	This MAP performs data WRAPs to the ADAPTER and 21ED drive interface in attempts to distinguish between ADAPTER, cable, or 21ED drive failures. The cable continuity is checked.
A223	X	This MAP performs data WRAPs to the ADAPTER and 21ED drive interface in attempts to distinguish between ADAPTER, cable, or 21ED drive failures. The cable continuity and cable interlock are checked. The following 21ED drive functions are tested to verify that the DIGITAL CARD is failing: power on and motor start, motor overcurrent, the operation of modules on the DIGITAL CARD, gain control, reset and recalibrate.
A224	X	This MAP performs motor tests in attempts to distinguish between DIGITAL CARD, DRIVE CARD, or DISK ENCLOSURE failures. The motor tests include: motor phase, motor turn, motor overcurrent. The power to the DRIVE CARD is checked. The motor is checked for shorted or open windings. The motor cable is checked. The motor phase and hall snesors are checded.
A225	X	This MAP checks sector and index ratios, and performs recalibrations and resets in attempts to distinguish between DIGITAL, ANALOG, or DISK ENCLOSURE failures.

A226	X	This MAP performs 21ED drive functions in attempts to distinguish between failures in any of the drive subsystem FRUs. The following 21ED drive functions are tested: servo control, sector and indexes ratios, actuator advance and resistance, recalibration, position error signals. The power to the DRIVE CARD is checked also the voltage on a DRIVE CARD capacitor.
A227	X	This MAP performs 21ED drive functions in attempts to distinguish between DIGITAL and DISK ENCLOSURE failures. The following 21ED drive functions are tested: read ID and head select, recalibrate and reset, VFO, sector and indexes ratios, track seeks, servo and actuator.
A228	X	The following 21ED drive tests are performed in attempt to distinguish between DIGITAL, ANALOG, or DISK ENCLOSURE failures: version status, write, recalibration and reset, track seek, drive ready, servo, read IDs.
A229	X	This MAP attempts to distinguish between 21ED drive drive subsystem FRUs. The following tests are performed: read IDs, read data, write data, head select. The cable continuity is checked.
A230	X	This MAP tests motor functions in attempts to distinguish between ADAPTER, DIGITAL, or DRIVE card failures. The cable continuity is checked. The following 21ED drive functions are tested: power on and reset, module tests on the DIGITAL card, motor start and drive, motor phase.
A231	X	This MAP checks DRIVE card capacitor control voltages and actuator movement in attempts to distinguish between failing 21ED drive subsystem FRUs.
A232	X	This MAP checks the hall sensors to detect DIGITAL, DRIVE or DISK ENCLOSURE failures.
A233	X	This MAP performs drive functions to distinguish between failing FRUs. The following functions are tested: wraps, motor turn, motor start, sector/index ratio. The cable continuity is checked. The card

		interlocks are checked. The power to the ANALOG card is checked.
A234	X	This MAP continues the good machine path. This MAP performs the following functions to distinguish between 21ED drive subsystem failures: position error signal (pes), read ID, sector/index ratio (sid), access, VFO, read ID/head select. The power to the ADAPTER card is checked.
A235	X	This MAP continues the good machine path. This MAP reads and writes data to check for a failing ADAPTER card.
A236	X	This MAP performs the following tests to isolate a failure in the 21ED subsystem FRUs: motor start, motor safe speed, drive ready, motor turn, read ID, auto gain control, actuator, head select, sector/index ratio. The power to the DRIVE and ANALOG cards is checked.
A237	X	This MAP tests the following functions to isolate a failure in the 21ED drive subsystem FRUs: servo/actuator, read ID, unlock solenoid. The actuator unlock assembly is checked. The power to the DRIVE card is checked.
A3XX		10SR Adapter Softmaps
A301	X	This MAP is the good machine path for the 10SR adapter card.
A302	X	This MAP is the good machine path for the 10SR adapter card/10SR disk drive interface.
A310	X	This MAP isolates the FRU if TU TA301 senses an error.
A311	X	This MAP isolates the FRU if TU TA302 senses an error and the result is 88 00.
A312	X	This map isolates the FRU if TU TA302 senses an error and the result is not 88 00.
A313	X	This MAP isolates the FRU if TU TA305 senses an

		error.
A314	X	This MAP isolates the FRU if TU TA306 senses an error.
A315	X	This MAP isolates the FRU if TU TA307 senses an error.
A319	X	This MAP isolates the FRU if cable continuity error is sensed.
A320	X	This MAP isolates the FRU if TU TA312 senses an error and the disk sense parity check bit is off.
A321	X	This MAP isolates the FRU if TU TA311 senses an error.
A322	X	This MAP isolates the FRU if TU TA312 senses an error
A323	X	This MAP isolates the FRU if TU TA313 senses an error.
A330	X	10SR Good Machine Path.
A331	X	This MAP is a sorting MAP for servo related problems.
A332	X	This MAP is a sorting MAP that determines the general area of failure.
A333	X	This MAP isolates the problem if TU results are changing.
A335	X	This MAP isolates problems with the motor and the interlock link.
A336	X	This MAP isolates the problem when there is a motor stopped condition.
A339	X	This MAP probes the servo circuits to isolate the problem.
A340	X	This MAP probes the read circuits to isolate the problem.

A341	X	This MAP probes the write circuits to isolate the problem.
A344	X	This MAP contains the final steps of problem isolation.
A345	X	This MAP isolates servo clock problems.
A346	X	This MAP isolates control bus problems.
A347	X	This MAP isolates tag parity problems.
A348	X	This MAP isolates write problems.
A349	X	This MAP isolates read problems.
A350	X	This MAP isolates VCM Driver Assembly problems.
A351	X	This MAP probes the read circuits to isolate the problem.
A355	X	This MAP uses TU results to perform general problem isolation.
A357	X	This MAP isolates guard band early problems.
A358	X	This MAP isolates guard band late problems.
A359	X	This MAP isolates guard band pulsing problems.
A360	X	This MAP contains the final steps of problem isolation.
A361	X	This MAP contains the final steps of problem isolation.
A362	X	This MAP contains the final steps of problem isolation.
A363	X	This MAP contains the final steps of problem isolation.
A370	X	This MAP isolates problems with the motor and the

		interlock link.
A372	X	This MAP isolates control bus problems.
A373	X	This MAP isolates VCM Driver Assembly problems.
A380	X	This MAP contains the final steps of problem isolation.
A381	X	This MAP contains the final steps of problem isolation.
A382	X	This MAP contains the final steps of problem isolation.
B1XX		8809 Tape Adapter Softmaps
B101	X	MDI running TU120 and TU121.
B102	X	MDI running TU121 and 122.
B103	X	MDI running TU123 through TU136.
B104	X	MDI running TU137.
B105	X	MDI isolates DB0 bits 0, 1, 2 and Tag Bus bits 0, 4, 6.
B106	X	MDI isolates DBI bits 0-3 line failures.
B107	X	MDI isolates DBI bits 4-7 line failures.
B108	X	MDI isolates DBI bit P, Normal End, Tag Valid, and Select Alert line failures.
B109	X	MDI isolates DB0, Tag and Select line failures.
B110	X	MDI isolates Check End and Select Alert line failures.
D2XX		Diskette Softmaps
D201		This MAP executes TDs 201, 202, 203, and 204.
D202		This MAP executes TDs 210, 211, 212, 213, and 214.

D203		This MAP executes TDs 215 and 216.
D204		This MAP executes TDs 217, 218, 219, 220, and 234.
D205		This MAP executes TDs 215 and 216.
D206		This MAP executes TDs 217, 218, 219, 220 and 234.
D207		This MAP executes TDs 231 and 232.
D208		This MAP executes TD 230.
D209		This MAP executes TDs 231 and 232.
D210		This MAP executes TD230.
E2XX		3262 Printer Softmaps
E201	X	Printer adapter good machine path. This MAP tests the System/Adapter interface. This MAP also finds the failing FRU or goes to another MAP if necessary.
E253	X	Printer adapter good machine path. This MAP partially tests the printer Controller card A-A2R2. It includes all the storage addressing and data wrap tests. It finds the failing FRU or goes to another MAP if necessary.
E255	X	Printer adapter good machine path. This MAP partially tests the printer Controller card A-A2R2. This MAP finds the failing FRU or goes to another MAP if necessary.
E257	X	Printer adapter good machine path. This MAP performs a software lamp test for the 3262 printer unit console. This MAP does not include a test for the printer unit Power On indicator. If you suspect a problem in this area, go to MAP 5004, Entry Point A.
E259	X	Printer adapter good machine path. This MAP will test all the various printer control registers on the adapter card A-A2S2 and will test the remaining printer interface lines. It also finds the failing FRU

		or goes to the correct MAP if necessary.
E261	X	Printer adapter good machine path. This MAP will test all the various printer control registers on the adapter card A-A2S2 and will test the remaining printer interface lines. It also finds the failing FRU or goes to the correct MAP if necessary.
E263	X	Printer adapter good machine path. This MAP runs the following function tests: Hammer Matrix Print test, H Pattern Print test, T Pattern Print test, Ripple Print test and Carriage Space/Skip test. If an error occurs, it will be displayed on the screen along with the corrective action to take.
E265	X	This MAP is the Throat Interlock/End of Forms switch MAP.
E267	X	Printer adapter good machine path. This MAP finds the failing FRU or goes to the 3262 printer entry MAP if necessary.
E269	X	This MAP will decode the error status as it is returned to the diagnostic function test being run. This is the same status that is reported to the system and recorded in the error log. The error MAPs and descriptions should be used to diagnose the error.
E271	X	This MAP will decode the error status as it is is returned to the diagnostic function test being run. This is the same status that is reported to the system and recorded in the error log. The error MAPs and descriptions should be used to diagnose the error.
E273	X	Printer adapter good machine path. This MAP partially tests the State Sequencer card A-A2T2. This MAP also finds the failing FRU or goes to another MAP if necessary.
E275	X	There is a failure in the printer console interface. This MAP identifies the failing line or FRU.
E277	X	There is a failure in the printer/adapter interface. This MAP identifies the failing interface line and

		goes to a MAP which isolates the error to one of the following: 1.printer adapter card, 2.printer cables (system or interface), 3.printer unit.
E279	X	There is a failure in the printer/adapter interface. This MAP identifies the failing line or FRU.
E281	X	There is a failure in the printer/adapter interface. This MAP identifies the failing line or FRU.
E283	X	There is a failure in the printer/adapter interface. This MAP identifies the failing line or FRU.
E285	X	There is a failure in the printer/adapter interface. This MAP identifies the failing line or FRU.
E287	X	There is a failure in the printer/adapter interface. This MAP identifies the failing line or FRU.
E289	X	There is a failure in the printer/adapter interface. This MAP identifies the failing line or FRU.
E295	X	There is a failure in the printer carriage interface. This MAP identifies the failing line or FRU.
E297	X	There is a failure in the printer/adapter interface. This MAP identifies the failing interface line and goes to a MAP which isolates the error to one of the following: 1.printer adapter card, 2.printer cables (system or interface), 3.printer unit.

EC 826380			PN 2597097
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ENTRY POINTS

FROM	ENTER THIS MAP		
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
A2XX	B	4	008
A3XX	B	4	008
0105	A	2	001
0105	B	4	008
0105	G	7	030
0199	A	2	001
0511	A	2	001
1100	A	2	001
1700	N	11	062
1701	A	2	001
3002	A	2	001
3003	A	2	001
9500	A	2	001
9700	A	2	001
9700	C	5	010

EXIT POINTS

EXIT THIS MAP		TO	
PAGE NUMBER	STEP NUMBER	MAP NUMBER	ENTRY POINT
11	067	0105	A
13	095	0105	A
13	100	0105	A
13	099	0105	A
6	020	0118	A
16	126	0118	A
17	137	0121	A
6	019	0500	A
17	136	0500	A
7	024	0500	A
8	035	0500	A
10	047	0500	A
10	055	0500	A
10	059	0500	A
9	045	0584	A
16	125	0584	A
10	052	0584	A
10	048	1700	A
10	056	1700	A
10	057	1700	A
11	061	1700	B
12	071	1700	B
11	063	1701	A
11	066	1701	A
12	069	1701	A
12	073	1701	A
12	075	1701	A
12	077	1701	A
12	083	1701	A
12	085	1701	A
13	087	1701	A
13	089	1701	A
13	091	1701	A
8	033	1701	D
16	121	1701	E
12	079	1701	E
12	081	1701	F

EXIT POINTS

EXIT THIS MAP		TO	
PAGE NUMBER	STEP NUMBER	MAP NUMBER	ENTRY POINT
7	027	1701	G
8	039	1701	G
9	041	1701	G
16	127	3011	A
16	128	3011	A
18	139	4100	A
16	118	5001	A
18	141	9900	A

001
(Entry Point A)
The following sections in the General Maintenance Information Manual (VOL B1) should be read before going on:

01-000 Safety and Maintenance Overview
01-100 Starting the System
01-200 Displaying and Changing System Information

MAPs or MDIs are designed to diagnose a solid symptom (indicator) to a fault (FRU). If the symptom is not solid, use the MAPs and MDIs to attempt isolating the problem. Also, review the intermittent MAPs 0300. If the MAPs and MDIs fail to find the fault (FRU), do the following:

- Unless directed to do otherwise, always power off the system before attempting to remove or replace or reinstall any FRU.

When probing, the general logic probe is to be set as follows unless directed to set in another position:
Technology switch = multi
Latch switch = none
Gate ref = +1.4V

(Step 001 continues)

MAP DESCRIPTION:
This MAP is the entry point for all S/36 maps.

START CONDITIONS:
This is the first entry point in the MAPs.

FRUs TESTED:
None

The MAP collects the failing symptoms and determines the FRU causing the problem.

(Step 001 continued)
- If the system is left with an error indication, record on/off status of all lights on the control panel and on the printer unit console (if installed).
- See General MIM Section 01-300 for information on displaying checks/status.

A 4 character reference code may be provided by the customer or the system may be displaying one either on the system console or in the control panel display.

System reference codes appearing in the control panel display that are 0000 through 0255 with the program check lights on are programming type errors and you should contact a PSR. If any of these codes appear and the program check light is not on, it means the CSP is not running and the SRC is invalid. (See General MIM section 01-340.)

- Record any pertinent information the system operator has observed, include MIC and or system reference code (SRC) and/or wrap errors.

If the customer is using the system, you may be able to perform some concurrent maintenance activities with customer approval. Concurrent maintenance can be performed on the 8809 tape drive unit and the 6157 tape. (See MIM section 01-020 for other concurrent activities)

Do you have a 4 character SRC between 1b40 and 1bFF or a suspected 8809 tape problem?
Y N

002
Do you have a 4 character SRC 17xx or a suspected 6157 tape problem?
Y N

003
Do you suspect a 1255 MCR problem?
Y N

18A 18B 18C D

D

004
To use these MAPs beyond this point requires a dedicated system.
- Be sure that the cards/cables are seated properly. (make sure top card connectors are oriented properly and are in proper position).
- See FLD's AB100 and AB200.

- Place the security switch in the service position before starting through these MAPs and place the security switch to the normal position before returning the system to the customer.

- Refer to General MIM sections 01-380 and 01-390 for IPL error definition and display information.

- If you have a reference code but cannot find it in the reference code list (MAP 0113, 0114, 0115 and 0116), take the no leg.

Do you have a 4 character system reference code?
Y N

005
Go to Page 5, Step 010, Entry Point C.

006
Have you already replaced the FRU'S called out by the reference code?
Y N

007
MAP 0113, 0114, 0115 and 0116 are quick fix MAPs.
- Read the System Reference Code (SRC) comment section for additional information about the problem and for further directions on how to proceed.
- If the comment section does not give directions on how to proceed, you have the following options:
  a) Replace FRU(S) in the order of probability specified by the SRC.
  b) Proceed with the MAP or MDI referenced without replacing FRU(S) in an effort to reduce

(Step 007 continues)

4E

(Step 007 continued)
the number of probable FRU(S).

Note: If there are multiple SRCs read the comment section to see if some codes can be ignored. If the comment section does not identify the predominate reference code then proceed as follows:

- If the SRCs point to common FRU(s) then add the probabilities for each FRU to create a combined FRU probability list.

- If the SRCs do not point to common FRU(s) then treat them as multiple failures.

- If the MAP specified does not reduce the FRU(s) called or if there is no MAP or MDI reference then replace the FRU(S) in the order of probability.

- Complete the action specified in the respective SRC MAP.

Go to Step 008, Entry Point B.

008

(Entry Point B)

- If you have not replaced any FRUs or the FRUs replaced did not fix the problem, take the no leg.

Did the FRU replaced fix the problem?

Y N

009

- Select mode 6.
- Press the Power key (power off).
- Remove any new cards you may have installed because of an SRC; reinstall the old cards in their places. This is to return the system to its original state.
- Press the Power key (power on).
- Compare the location of the FRU/FRUs called out by the reference code with the following list:

A-A1E2	A-A2E2	A-A3S2
A-A1H2	A-A2J2	A-A3P2
A-A1K2	A-A2N2	
A-A1L2	A-A2S2	
A-A1N2	A-A2T2	

Was any card called out located in one of the above locations?

Y N

010

(Entry Point C)

Is the Power Check light or Temperature Check light on?

Y N

011

Is system power on?

Y N

012

- Make sure that the security switch is in the service position.
- Press the Power key (power on).

Did the system power up and remain up?

Y N

013

- Set the security switch to the normal position.
- Press the Power key (power on).

Did system power up and remain up?

Y N

1 1 1
7 7 6 7 7 6
H J K L M N

These cards all interface to the channel.

014

- Press Lamp Test and observe the CS light on the control panel.

Did the CS light come on?

Y N

The CS light coming on means that CB1 is on and that power is getting to the system.

015

- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Did system power up and remain up?

Y N

016

(Entry Point D)

- Check to see that the UEPO (Unit Emergency Power Off) witch is on (left end of system).

Was the UEPO switch on?

Y N

017

- Set the UEPO switch on.
- Press the Power key (power on).

Did the system power up and remain up?

Y N

018

Did the Power Check light come on?

Y N

019

Go To Map 0500, Entry Point A.

020

Go To Map 0118, Entry Point A.

021

(Entry Point E)

Was power the only problem?

Y N

022

Go to Page 7, Step 028, Entry Point F.

023
- Return system to operator.

024
Go To Map 0500, Entry Point A.

025
Go to Page 6, Step 021, Entry Point E.

026
Go to Page 6, Step 016, Entry Point D.

027
Go To Map 1701, Entry Point G.

028
(Entry Point F)
- If you are satisfied that power and the control panel are functioning correctly, take the no leg.
- If you are in doubt, take the yes leg.

If you are satisfied that the problem is not in the control panel or in the power on/off sequencing then you should take the no leg. The yes leg will take you through power off then power on and then through several steps checking out control panel lights and functions.

Do you want to check out the control panel or power sequencing?
Y N

029
Go to Page 9, Step 043, Entry Point H.

030
(Entry Point G)
This step starts power off sequence. See note.
- Select mode 6.
- Do not press the Power key at this time.

Note: Power off will reset any error conditions or information in registers, main storage or control storage. Be sure you have recorded all possible status and error information before continuing. See General MIM 01-300.

Is 6 displayed in the Mode Select display?
Y N

031
- Set CB1 to the Off position (05-215).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Go to Page 10, Step 050, Entry Point I.

032

Did the system power remain on?

Y N

033

Go To Map 1701, Entry Point D.

034

- Press the power key (power off).

Note: After pressing the Power key, the Power Check light will flash until the power sequences down.

Did the system power down?

Y N

035

Go To Map 0500, Entry Point A.

036

- Check the control panel to see if any power status lights are on without pressing the Power Status key.

None of the communications/power status lights located in the lower left corner of the control panel should be on at this time.

Are any power status lights on?

Y N

037

- Set the security switch to the locked position.
- Press the Power key (power on).

Did the system power up?

Y N

038

- Set the security switch to the normal position.
- Press the Power key (power on).

Did the system power up and remain up?

Y N

039

Go To Map 1701, Entry Point G.

040
- Select mode 6.
- Press the Power key (power off).
- Set the security switch to the service position.
- Press the Power key (power on).

Did the system power up?
Y N

041
Go To Map 1701, Entry Point G.

042
- If you are satisfied that the control panel is functioning correctly, take the no leg.
- If you have any doubts, take the yes leg.

Do you want to continue with the control panel check out?
Y N

043
(Entry Point H)
The following step is to give a quick check of the control panel indicators.
- Press and hold the Lamp Test key.

Did all indicators come on and all displays show 8's?
Y N

044
The Power Check, Temperature Check and all Power Status lights should all come on when Lamp test is pressed.

Did all these lights come on?
Y N

045
Go To Map 0584, Entry Point A.

046
- Press the Power Status key.

Did the CS light come on?
Y N

This completes the power on/off sequence check. The control panel check out is next.

047
Go To Map 0500, Entry Point A.

048
Go To Map 1700, Entry Point A.

049
Go to Page 13, Step 092, Entry Point K.

050
(Entry Point I)
- Press and hold the Lamp Test key.

All indicator lights should be on and all character displays should show 8's.
Are all lights and displays correct?
Y N

051
The Power Check, Temperature Check and all Power Status lights should all come on when Lamp test is pressed.
Did all these lights come on?
Y N

052
Go To Map 0584, Entry Point A.

053
Power On Reset may be active.
- Probe the following pin for good condition:

```
Up   Light: On
Down Light: Off
```

A-A1A5D04 (- Power On Reset).
Are the lights correct?
Y N

A A A
B C D

054

```
Up   Light: Off
Down Light: On
```

A-A1A5D12 (+ Power On Reset).
Are the lights correct?
Y N

055
Go To Map 0500, Entry Point A.

056
Go To Map 1700, Entry Point A.

057
Go To Map 1700, Entry Point A.

058
- Press the Power Status key.

Did the CS light come on?
Y N

059
Go To Map 0500, Entry Point A.

060
- Check for the following normal conditions after power up:
  Power light is on
  Parity Check light - on or off (Note: Parity Check light forced off on Stage 2 systems)
  Mode select - 0
  Output Display light - on or off
  Interrupt Level - blank
  MSP Run light - off
  CSP Run light - off
  Diskette In Use light off
  System In Use light off
  All check lights on right end of control panel off
  Load light off
  Display - any 4 valid characters
  Adr Cmp Stop CSP light - off
  Main Storage Sel light - off

(Step 060 continues)

(Step 060 continued)
MSP Stop light - off
Force CSP Run light - off
Are the light/displays correct?
Y N

061
Go To Map 1700, Entry Point B.

062
(Entry Point N)
- Press the Line Select key.
- Press input key 0.
- Observe Line Select Display for '0' select indication.
- Repeat above sequence using each input key in turn until all line selections have been tried ('0' through 'F').

This routine checks both the line select display and the input keys.

Were all line select indications correct?
Y N

063
Go To Map 1701, Entry Point A.

064
Do not insert a diskette or close the cover.
- Select mode E.
- Press the Load key.

Did the Load light come on and remain on?
Y N

065
Did the sign-on screen come up on the work station?
Y N

066
Go To Map 1701, Entry Point A.

067
Go To Map 0105, Entry Point A.

068
- Press the Clear Input key.

Does the display show 0000?

Y N

069
Go To Map 1701, Entry Point A.

070
Is the Output Displayed light off?

Y N

071
Go To Map 1700, Entry Point B.

072
- Press the Display Output key.

Is the Output Displayed light on?

Y N

073
Go To Map 1701, Entry Point A.

074
- Press the Display Input key.

Is the Output Displayed light off and the display shows 0000?

Y N

075
Go To Map 1701, Entry Point A.

076
- Press and hold the Input + 1 key.

Does the display show 0001?

Y N

077
Go To Map 1701, Entry Point A.

AF

078
- Release the Input + 1 Key.
- Set the security switch to the normal position.
- Press the MSP Stop key (the Stop light should not appear).

Did the Stop light remain off?

Y N

079
Go To Map 1701, Entry Point E.

080
- Set the security switch to the service position.
- Press the MSP Stop key.

Did the Stop light come on?

Y N

081
Go To Map 1701, Entry Point F.

082
- Press the CSP Start key and observe the CSP Run light.

Did the CSP Run appear?

Y N

083
Go To Map 1701, Entry Point A.

084
- Press the Force CSP Run key twice and observe the Force CSP Run light.

Did the Force CSP Run light appear when the key is pressed and disappear when the key is pressed again?

Y N

085
Go To Map 1701, Entry Point A.

086
- Select mode 1.
- Press the System Reset key.

Is the Load light off?

Y N

087
Go To Map 1701, Entry Point A.

088
- Press the Adr Cmp Stop CSP key twice and observe the Adr Cmp Stop CSP light.

Did the Adr Cmp Stop light appear when the key is pressed and disappear when the key is pressed again?

Y N

089
Go To Map 1701, Entry Point A.

090
- Press the Main Stg Sel key twice and observe the Main Stg Sel light.

Did the Main Stg Sel light appear when the key is pressed and disappear when the key is pressed again?

Y N

091
Go To Map 1701, Entry Point A.

092
(Entry Point K)
Is a 3262 Printer installed on the system?

Y N

093
(Entry Point P)
Is there an 8809 tape drive installed on the system?

Y N

14AH 14AJ 14AK

094
(Entry Point R)
Is there a 1255 MCR installed on the system?

Y N

095
Go To Map 0105, Entry Point A.

096
Is the 1255 Power On light on?

Y N

097
- Press the 1255 Power On key.

Did the 1255 Power Up?

Y N

098
Go to 1255 TMM SY24-3555 Section 10.2.

099
Go To Map 0105, Entry Point A.

100
Go To Map 0105, Entry Point A.

101
Is the 8809 tape drive Ready light on for Drive 1 and Drive 2 if installed (drive console)?

Y N

102
Is the 8809 tape drive Power light for Drive 1 and Drive 2 if installed (drive console)?

Y N

103
- Check line cord to see that it plugged into an outlet.
- Press the tape drive Power Off key.
- Press the tape drive Power On key.

Is the tape drive Power light on?

Y N

14AL 14AM 14AN 14AP

104
Go To 8809 Tape Drive MIM, Start section.

105
- Make sure a reel of tape is mounted and properly threaded on Drive 1 and Drive 2 if installed.
- Press the Load Rewind key (tape console).
- Watch the tape movement.

Did the tape move to the BOT (beginning of tape) marker and the Ready light come on?

Y N

106
Go To 8809 Tape Drive MIM, Start section.

107
Go to Page 13, Step 094, Entry Point R.

108
- Make sure a reel of tape is mounted and properly threaded on Drive 1 and Drive 2 if installed.
- Secure the drive cover.
- Press the Load Rewind key (tape console).

Does the tape drive Ready light come on?

Y N

109
Go To 8809 Tape Drive MIM, Start section.

110
Go to Page 13, Step 094, Entry Point R.

111
Go to Page 13, Step 094, Entry Point R.

112
Is the printer Power On light on (printer unit console)?

Y N

113

Is the printer Power On/Off switch in the On position?

Y N

This is the main power switch on the side of the printer.

114

- Select mode 6.
- Press the Power key on the control panel (power off).
- Press the Power key on the control panel (power on).
- Set the printer Power On/Off switch to On.

Did the printer Power light come on and remain on?

Y N

The printer power on is controlled by the system power on sequence.

115

The printer will not power up.

Go to Step 117, Entry Point M.

116

Go to Page 13, Step 093, Entry Point P.

117

(Entry Point M)

The printer will not power up.

- Set the printer Power On/Off switch to Off.
- Ensure that the circuit breakers CP1, CP2, CP3, CP4, and CB01 in the printer unit are in the up position. See 3262 Printer MIM, 11-100.
- Set the printer Power On/Off switch to On.
- Select mode 6.
- Press the Power key (power off).

Note: Security switch must be in either the Normal or Service position before power on can be accomplished.

- Press the Power key (power on).

Did the printer Power On light appear and remain on?

Y N

16AS 16AT

118
Printer power problem.
Go To Map 5001, Entry Point A.

119
Go to Page 13, Step 093, Entry Point P.

120
Go to Page 13, Step 093, Entry Point P.

121
Go To Map 1701, Entry Point E.

122
Is there an A-A3 board installed?
Y N

123
Is there a card in slot A-A1K2?
Y N

124
Is there a 2 character power reference code?
Y N

125
Go To Map 0584, Entry Point A.

126
Go To Map 0118, Entry Point A.

127
Go To Map 3011, Entry Point A.

128
Go To Map 3011, Entry Point A.

129
Is the system stopped? (both MSP Run and CSP Run lights off)
Y N

1 1
7 7
A A
U V

130
- Press mode select.
- Press 1 key.

Is 1 displayed in mode select display?
Y N

131
Go to Page 7, Step 030, Entry Point G.

132
- Enter 000b.

Is 000b displayed?
Y N

133
Go to Page 7, Step 030, Entry Point G.

134
- Press the Display Output key.
- Record the results displayed.
- Look up the reference code in MAP 0113, 0114, 0115 and 0116.
- If you find a match, perform the FRU replacement unless directed to perform some other function by the comments section. If no match is found or if FRUs have already been replaced, then,

Go to Page 7, Step 030, Entry Point G.

Register 000b may contain a valid reference code and because we are about to power down the system, we record the code first.

135
Go to Page 7, Step 028, Entry Point F.

136
Go To Map 0500, Entry Point A.

137
Indications are that a card on the channel bus is causing the problem. MAP 0121 will start checking the channel.
Go To Map 0121, Entry Point A.

138
- Verify that the system is fixed and return it to the operator.

139
Go To Map 4100, Entry Point A.

140
The 6157 tape supports only SRC maps. OLPD is the main diagnostic tool and systest is used for intermittent problems.

141
Go To Map 9900, Entry Point A.

ENTRY POINTS

FROM	ENTER THIS MAP		
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
0101	A	1	001
0116	G	13	082
0159	A	1	001
0159	B	4	013
0179	A	1	001
0199	A	1	001

EXIT POINTS

EXIT THIS MAP		TO	
PAGE NUMBER	STEP NUMBER	MAP NUMBER	ENTRY POINT
9	050	0101	B
9	044	0101	B
10	054	0101	B
6	025	0101	G
8	031	0121	A
13	084	0121	A
9	048	0179	A
9	053	0179	A
13	085	0179	A
11	078	0199	A
7	030	1701	H
10	057	7001	AA
9	043	9500	A
13	088	9500	A
9	042	9700	A
13	087	9700	A

001
(Entry Point A)

MAP DESCRIPTION:
This MAP is part of the good machine path through the system entry MAPs. CSIPL from the diskette to load DCP. If that fails, then CSIPL from disk is attempted to load SSP.

START CONDITIONS:
The machine powers up correctly and the control panel has been checked out.

FRUs PARTIALLY TESTED:
A-A1E2, A-A2E2, A-A1F2, A-A2F2, A-A1C2, A-A2C2, A-A2J2, A-A2K2
diskette CSIPL

To CSIPL from the diskette, do the following:
- Select mode 1.
(Step 001 continues)

By entering '0000' all IPL diagnostics and wraps will be run. This takes approximately 3 and one half minutes. This is the first attempt for the system entry
(Step 001 continues)

(Step 001 continued)
- Press the System Reset key.
- Select mode E.
- Enter 0000.
- Insert DIAG21 (DIAG41 for Stage 3 as indicated on top of panel decal) or magazine M1.
- Make sure diskette drive cover switch is closed (72MD drive).
- Press and release the Load key (Load light should come on and go off).

Did the Load light come on and then go off?
Y N

002
Is this the first time you have been here on this problem?
Y N

003
Go to Page 4, Step 015, Entry Point D.

004
- Look for obvious problems with diskette and drive:
  Foreign material in or on diskette or diskette drive.
  No diskette inserted.
  The cover is open.
  Diskette is not inserted correctly.
  The AC motor capacitor is broken or distorted.
  The AC motor is not turning.
  The drive band is broken or damaged.
  The belt is off of the pulley or is damaged.
  Pulley is not turning or is slipping.
  The cables for attachment or power are not seated.

Did you find the problem in the list?
Y N

005
Go to Page 4, Step 015, Entry Point D.

006
- Fix the obvious problem and try again.

Go to Page 1, Step 001, Entry Point A.

(Step 001 continued)
MAPs to CSIPL the system.

007

- IPL may take up to 20 minutes.

Did the DCP Menu appear on the system console?

Y N

008

If the SSP Sign-on screen appears instead of the DCP Menu, this means that the system loaded from disk instead of diskette.

Did the SSP Sign-on screen appear?

Y N

009

Did the Console Check light come on (control panel)?

Y N

010

Is there one or more system reference codes displayed on the system console (workstation display)?

Y N

011

Is the system stopped (both CSP Run and MSP Run lights off)?

Y N

012

- Look for a reference code in the MAB register.
- Select mode 1.
- Press the System Reset key.
- Enter 000b.
- Press the Display Output key.
- Record the reference code displayed for possible use in step 014.

Register 000b may contain a valid reference code. If the system is looping, this is the only way to display it.

Go to Page 4, Step 013, Entry Point B.

013

(Entry Point B)

Does control panel display show FFFF or F090?

Y N

014

- Compare control panel display or the reference code recorded in step 012 above, with the system reference code list (MAP 0113, 0114, 0115 and 0116).

Did you find the displayed code in the list and does it call out a FRU or give a MAP entry point?

Y N

015

(Entry Point D)

- Select mode 1.
- Press the System Reset key.
- Select mode 0.
- Enter 0000.
- Press the Load key.

Did the SSP Sign-on screen appear (system console)?

Y N

016

Does control panel display show FFFF or F090?

Y N

017

Have you been through these steps before on this problem?

Y N

1 1
0 0 9 9 9 5
G H J K L M

At this point, we have determined that the system will not CSIPL from diskette, no useable reference code is displayed. CSIPL from disk, run wraps and load SSP.

018

- Compare control panel with the system reference code list MAP 0113, 0114, 0115 and 0116.

Did you find the displayed code in the list and does it call out a FRU or give a MAP entry point?

Y N

019

(Entry Point E)

- Select mode 1.
- Press the System Reset key.
- Select mode 0.
- Enter FF00.
- Press the Load key.

Did the SSP Sign-on screen appear?

Y N

CSIPL from disk, bypass wraps and load SSP.

020

Does the control panel display show FFFF or F090?

Y N

021

Have you been through these steps before on this problem?

Y N

022

- Compare control panel with the system reference code list MAP 0113, 0114, 0115 and 0116.

Did you find the displayed code in the list and does it call out a FRU or give a MAP entry point?

Y N

9 9 9 9 9 6
N P Q R S T

023

(Entry Point F)

- Select mode 1.
- Press the System Reset key.
- Select mode E.
- Enter FF00.
- Press the Load key.

Did the DCP menu appear?

Y N

The load from disk, bypassing wraps has failed. Load DCP from diskette and bypass wraps.

024

- Select mode 6.
- Press the Power key (power off).

Did system power off?

Y N

025

Go To Map 0101, Entry Point G.

026

CAUTION

When the 6157 adapter card (A-A1E2) is installed, the disk adapter card will be on the A2 board.
To prevent damage to the 21ED disk drives, if installed, disconnect cables from J25 and J26 (05-240) before removing A-A1C2 and A-A1D2 (if present) or A-A2C2 and A-A2D2 (if present).

The disk adapter card is removed to see if it is causing the problem.

TCC = Top card connector

- Remove the disk adapter card at A-A1C2 (and A-A1D2 if present) or A-A2C2 (and A-A2D2 and A-A2C4 and A-A2D4 if present)
- Reinstall the TCC on remaining cards.

The TCC plugs in the X location.
Note: The connector must be oriented properly before it will plug in.

- Press the Power key (power on).
- Select mode E.
- Enter FF00.
- Press the Load key.

Did the DCP menu appear?

Y N

027

- Select mode 6.
- Press the Power key (power off).
- Reinstall the disk adapter card at A-A1C2 (and A-A1D2 if present) or A-A2C2 (and A-A2D2 and A-A2C4 and A-A2D4 if present).
- If 21ED, reconnect cables at J25 and J26 (05-240).
- Remove the diskette adapter card at A-A1F2 or A-A2F2.
- Reinstall the TCC(s) on remaining cards.

The TCC plugs in the X (and Z)).

- See FLD AB100 and AB200.
- Press the Power key (power on).
- Select mode 0.
- Enter FF00.
- Press the Load key.

Load should start after disk comes ready (about 20 seconds)

Did the SSP Sign-on screen appear?

Y N

Still fails so we reinstall the disk adapter card and remove the diskette adapter card.

Note: The connector must be oriented properly before it will plug in.

028

Is there an 8809 tape drive attached to the system?

Y N

029

(Entry Point H)

- Select mode 6.
- Press the Power key (power off).
- Reinstall diskette adapter card at A-A1F2 or A-A2F2.
- Reinstall the top card connector.
- Connect probe to A-A1A5D12.
- Press the Power key and observe the down light on the probe as the power appears.

Did the down light flicker before coming on solid?

Y N

The problem appears to be something that is common to the disk and diskette or the channel bus. MAP 0121 will start checking out the CSP.

030

Go To Map 1701, Entry Point H.

031
Go To Map 0121, Entry Point A.

032
- Select mode 6.
- Press the Power key (power off).
- Reinstall the diskette or adapter card at A-A1F2 or A-A2F2.
- Remove the tape DSA card at A-A2K2 and TCC at X position.
- Press the Power key (power on).
- Select mode 0.
- Enter FF00.
- Press the Load key.

Did '135b' appear in the control panel display with a processor check?
Y N

033
- Select mode 6.
- Press the Power key (power off).
- Remove card at A-A2E2.
- Install the card removed from A-A2K2 in the A-A2E2 position.
- Reinstall TCC in the X and Z position (if present).
- Press the Power key (power on).
- Select mode 0.
- Enter FF00.
- Press the Load key.

Did '135b' appear in the control panel display with a processor check?
Y N

034
- Select mode 6.
- Press the Power key (power off).
- Remove the card at A-A2E2 and reinstall it in the A-A2K2 position.
- Reinstall the TCC in the X position.
- Reinstall the A-A2E2 card.

Go to Page 7, Step 029, Entry Point H.

035
The card just removed from A-A2E2 is bad.

036
Bad card:
A-A2K2.

037
Bad diskette adapter card - replace it.
A-A1F2
A-A2F2 (only one will be in the system)
---or---
A-A1E2
A-A2E2 (only one will be in the system).

038
- Select mode 6.
- Press the Power key (power off).
- Reinstall disk adapter card at A-A1C2 or A-A2C2 (and A-A2C4 if present).
- Reinstall the TCC(s) on the remaining cards. TCC(s) plug in the X (and Z).
- Press the Power key (power on).
- Select mode E.
- Enter FF00.
- Press the Load key.

Did the DCP menu appear?
Y N

039
Bad disk adapter card - replace it.
A-A1C2
A-A2C2
A-A2C4 (if present)
---or---
A-A1E2
A-A2E2 (only one will be in the system).
- If 21ED, reconnect cables at J25 and J26 (05-240).

040
Bad disk adapter card - replace it.
A-A1D2 (if present)
A-A2D2 (if present)
A-A2D4 (if present)
---or---
A-A1E2
A-A2E2 (only one will be in the system).
- If 21ED, reconnect cables at J25 and J26 (05-240).

041
Loads correctly from diskette when wraps are bypassed and fails from disk when wraps are bypassed.
- Go run disk MDIs.
Does the system have 21ED disk drives?
Y N

042
Go To Map 9700, Entry Point A.

043
Go To Map 9500, Entry Point A.

044
- Replace FRU or go to MAP indicated in the list. If you replace a FRU,
Go To Map 0101, Entry Point B.

045
Go to Page 6, Step 023, Entry Point F.

046
Go to Page 6, Step 023, Entry Point F.

047
- Select mode 1.
- Press the System Reset key.
- Select mode E.
- Enter FF00.
- Press the Load key.
Did DCP menu appear?
Y N

048
Loads correctly from disk when bypassing wraps and fails from diskette when bypassing wraps.
- Go run diskette diagnostics and MDI.
Go To Map 0179, Entry Point A.

049
Loads correctly from both disk and diskette when wraps are bypassed.
- Make sure all cards and cables are seated properly.
- Run device MDIs in this sequence: printer, communications, diskette, disk, workstation, then tape (if tape is installed).

050
- Replace FRU or go to MAP indicated in the list. If you replace a FRU,
Go To Map 0101, Entry Point B.

051
Go to Page 5, Step 019, Entry Point E.

052
Go to Page 5, Step 019, Entry Point E.

053
Go To Map 0179, Entry Point A.

054
- Replace FRU or go to MAP indicated in the list. If you replace a FRU,

Go To Map 0101, Entry Point B.

055

Go to Page 4, Step 015, Entry Point D.

056
- Refer to General MIM sections 01-370 and 01-380 for wrap error definition and display information.
- Find the wrap error reference code in MAP 0116 for the FRU to replace or other action to be performed.

057
Work station problem.

Go To Map 7001, Entry Point AA.

058
- Select mode E.

Is there a card in A-A1E2?

Y N

059
Probe the following pin for good condition:

```
Up   Light: Off
Down Light: On
```

A-A2E2P06.

Are the lights correct?

Y N

060

Go to Page 11, Step 070, Entry Point C.

061
Bad card:
A-A2E2.

A
C

062
Probe the following pin for good condition:

```
Up   Light: Off
Down Light: On
```

A-A1E2P06.

Are the lights correct?

Y N

063

Go to Page 11, Step 070, Entry Point C.

064
Bad card:
A-A1E2.

065
CSIPL from diskette is correct.
- Do a power off/on sequence to establish a known system condition.
- Select mode 6.
- Press the Power key (power off) after the system powers down, then power up.
- Press the Power key (power on).

CSIPL from disk is being tested.
- Press the Load key.

Did SSP Sign-on screen appear (system console)?

Y N

066

Did the DCP menu appear?

Y N

067

Go to Page 5, Step 019, Entry Point E.

068

Is there a card in A-A1E2?

Y N

069
- Select mode 6.
- Press the Power key (power off).
- Remove card from A-A2E2.
- Press the Power key (power on).
- Select mode 0.
- Probe the following pin for good condition:

```
Up   Light: Don't care
Down Light: Off
```

A-A2E2P06.

Are the lights correct?

Y N

070

(Entry Point C)

Is A1M2 a 2-wide card?

Y N

071

Bad card:
A-A1B4
---or---
Bad cable:
(if installed)
from A-A1Z1 to A-A2Y1.

072

Bad card:
A-A1M2
---or---
Bad cable:
(if installed)
from A-A1Z1 to A-A2Y1.

073

Bad card:
A-A2E2.

074
- Select mode 6.
- Press the Power key (power off).
- Remove card from A-A1E2.
- Press the Power key (power on).
- Select mode 0.
- Probe the following pin for good condition:

```
Up   Light: Don't care
Down Light: Off
```

A-A1E2P06.

Are the lights correct?

Y N

075

Go to Step 070, Entry Point C.

076

Bad card:
A-A1E2.

077

CSIPL worked correctly from both disk and diskette.

Do you have a failure symptom (given to you by the customer or by observation)

Y N

078

MAP 0199 will CSIPL disk, run ERAP, run SYSTEST and the MDIs to check out the remainder of the system.

Go To Map 0199, Entry Point A.

079

- See the symptom chart to see if the symptom you have is contained in the chart.

Symptom Chart

Failing symptoms	MAP or action
Power checks	0500,A
Temperature checks	0500,A
Won't power up	0101,C
Won't power down	0500,A
Won't IPL	0105,A
Processor checks	0105,A
Program checks	Talk to PSR
Work station problems	7001,AA
Wrap errors	0116,A
MIC messages	customer PD
Diskette failures	0179,A diskette MDI
Printer failures	5001,A printer MDI
10SR disk problem	9700,A
21ED disk problem	9500,A
Communications failures	3003,A
Tape drive	9900,A
1255 MCR	4100,A
Jobs run slow	0199,A
Media problems	Diskette, tape, communications
CSU failure	CSU manual customer PD

Does the symptom you have match any in the chart?

Y N

080

MAP 0199 will continue to check out the system to isolate the problem.

081

- Go to MAP or procedure indicated by the chart.

082
(Entry Point G)
- Insert DIAG21/41.
- Select mode 1.
- Press the System Reset key.
- Select mode E.
- Enter FFF0.
- Press the Load key.

Did the DCP menu appear?
Y N

083
- Select mode 0.
- Enter FF00.
- Press the Load key.

Did the SSP screen appear?
Y N

084
Go To Map 0121, Entry Point A.

085
Go To Map 0179, Entry Point A.

086
Does the system have 21ED disk(s)?
Y N

087
Go To Map 9700, Entry Point A.

088
Go To Map 9500, Entry Point A.

ENTRY POINTS

FROM MAP NUMBER	ENTER THIS MAP: ENTRY POINT	PAGE NUMBER	STEP NUMBER
0101	A	1	001
0199	A	1	001

001
(Entry Point A)

MAP DESCRIPTION:
This MAP contains the system reference codes 0000 through 19FF. Any code which is not listed in 0113, MAP 0114, MAP 0115, MAP 0116 or MAP 0118 is not a valid reference code.

Note: SRCs that have 00 in the left two positions normally indicates a program problem and a PSR should be informed. Any SRC with 00, 01 or 02 in the left two positions that show up in the CSP error log are program errors and are to be given to a PSR.

START CONDITIONS:
A failure has occurred and has resulted in a 4 character code being logged or displayed. Each code represents a condition of failure.
- Use the MAP reference to isolate to the failing FRU or FRU group.

Multiple Unit:
- If a SRC points to two or more units (such as Drive A, Drive B), use ERAP to determine the failing unit.

Reference Code Index for MAP 0113

SRC	Device or Function	Device MAP Entry
01xx	Work station Display	7001,AA
02xx	Work station Printer	7001,AA
10xx	CSP/Channel	0105,A
12xx	MSP	1100,A
13xx	Data Storage Controller	9900,A, 0179,A
15xx	1255 MCR	1255 TM/DM
16xx	CSP/SS	0105,A
17xx	6157 Tape	None
18xx	Communications	3003,A
19xx	21ED Disk	9500,A

********** Programming SRCs **********

0000	Program						With program check on--- Storage dump has been requested.
0001	Program						With program check on--- Module ID not found in control storage library.
0002	Program						With program check on--- Attempt to relocate a module that has no RLDs.
0003	Program						With program check on--- Control storage module link, load addrs unequal.
0004	Program						With program check on--- Dump requested by pressing stop key.
0005	Program						With program check on--- Quiesce counter has negative value.
0006	Program						With program check on--- Priviliged operation issued in nonprivileged mode.
0007	Program						With program check on--- Register stack underflow or overflow.
0008	Program						With program check on--- Address translation error logging comm line data.
0009	Program						With program check on--- Address translation error relocating MS module.
0010	Program						With program check on--- Disk IOB parameters not

						valid.
0011	Program					With program check on--- Permanent disk read error.
0012	Program					With program check on--- Dump requested because of hardware error.
0013	Program					With program check on--- Main storage program exception.
0014	Program					With program check on--- Main storage address access by MSP not valid.
0015	Program					With program check on--- Main storage op code not valid.
0016	Program					With program check on--- Storage dump has been requested.
0017	Program					With program check on--- Address translation error during load SVC.
0018	Program					With program check on--- Error stack overflow.
0020	Program					With program check on--- Timer queue part not valid
0021	Program					With program check on--- Address translation error on $TRB parameter list.
0022	Program					With program check on--- System date flag found in Syscom not valid.
0023	Program					With program check on---

							Nonprivileged program issued timer load request.
0024	Program						With program check on--- Type specified with timer request not valid.
0025	Program						With program check on--- Nonprivileged pgm issued mulitplewait timer req.
0026	Program						With program check on--- ITYPE specified with timer request not valid.
0027	Program						With program check on--- Negative time value specified with timer request.
0028	Program						With program check on--- Inline parm specified with timer request not valid.
0029	Program						With program check on--- Timer ID from $SIT or $RIT not valid.
0030	Program						With program check on--- Disk error during translated assign recovery
0031	Program						With program check on--- Permanent diskette error during IPL from diskette.
0032	Program						With program check on--- Address translation error moving main storage pgm.
0033	Program						With program check on--- Disk error--unrecoverable disk operation.

0034	Program						With program check on--- Disk error--unrecoverable hardware error.
0035	Program						With program check on--- Disk error--unrecoverable or sector not valid.
0036	Program						With program check on--- Disk error--no alternative sectors available.
0037	Program						With program check on--- Error TB address is not valid.
0038	Program						With program check on--- Disk error--data accessed may not be valid.
0039	Program						This is a test
**********	Work station Controller SRCs **********						
0040	Hdwre - - Program						Data set ready line inactive. --- OR --- With program check on--- Branch to a relocatable CS module that is not loaded.
0041	Hdwre - Program						Idle detected. --- OR --- With program check on--- System is in a wait or infinite loop.
0042	Hdwre						Receive clock failed.
0043	Hdwre						Data set ready line active (switched only).
0044	Hdwre						30 second time out

	|-	|	|	|	|	|	|(switched only).
	|-	|	|	|	|	|	--- OR ---
	|Program	|	|	|	|	|	With program check on---
	|	|	|	|	|	|	|Program is larger than
	|	|	|	|	|	|	|main storage user area.
0045	|Hdwre	|	|	|	|	|	|Data set will not activate
	|-	|	|	|	|	|	|(X.25 only).
	|-	|	|	|	|	|	--- OR ---
	|Program	|	|	|	|	|	With program check on---
	|	|	|	|	|	|	|Task already in abnormal
	|	|	|	|	|	|	|termination.
0046	|Hdwre	|	|	|	|	|	|Frame reject received
	|-	|	|	|	|	|	|(X.25 only).
	|-	|	|	|	|	|	--- OR ---
	|Program	|	|	|	|	|	With program check on---
	|	|	|	|	|	|	|Error ACE is the dump ACE.
0047	|Hdwre	|	|	|	|	|	|DM/Disc received
	|-	|	|	|	|	|	|(X.25 only).
	|-	|	|	|	|	|	--- OR ---
	|Program	|	|	|	|	|	With program check on---
	|	|	|	|	|	|	|Main storage 2K segment
	|	|	|	|	|	|	|error.
0048	|Program	|	|	|	|	|	With program check on---
	|	|	|	|	|	|	|Tape IOB parameters not
	|	|	|	|	|	|	|valid.
0049	|Program	|	|	|	|	|	With program check on---
	|	|	|	|	|	|	|Device-to-device IOB
	|	|	|	|	|	|	|parameter not valid.
0050	|Hdwre	|	|	|	|	|	|Clear to send error.
	|-	|	|	|	|	|	--- OR ---
	|Program	|	|	|	|	|	With program check on---
	|	|	|	|	|	|	|Disk error--loading
	|	|	|	|	|	|	|control storage module.
0051	|Hdwre	|	|	|	|	|	|Transmit clock failed.
0052	|Hdwre	|	|	|	|	|	|Transmit hardware error.
	|-	|	|	|	|	|	--- OR ---

	Program						With program check on--- Assign SVC or free SVC parameters not valid.
0053	Hdwre - -						T1 timer retry count expired (X.25 only). --- OR ---
	Program						With program check on--- Disk error--loading control storage transient.
0054	Program						With program check on--- Sector address calculated on task work area request not valid.
0055	Program						With program check on--- Nonprivileged pgm accessing privileged transient.
0056	Program						With program check on--- Dump requested by SETDUMP utility.
0058	Program						With program check on--- I/O device address in a work station IOB not valid.
0059	Program						With program check on--- Permanent work station error during MSIPL.
****	Some 006x SRCs are counters set up to track remote Work station controller functions, or with program check ON, they are program errors. Read comments section carefully						**********
0060	RemWSC - - - - -						Appears in ERAP table for remote work station controller. (SDLC only) Counts the test frames received from the host system with CRC

	|-	|	|	|	|	|	|errors during a link test.
	|-	|	|	|	|	|	| --- OR ---
	|-	|	|	|	|	|	|(X.25 only) Counts all the
	|-	|	|	|	|	|	|'receive not ready'
	|-	|	|	|	|	|	|commands sent to the host
	|-	|	|	|	|	|	|system.
	|-	|	|	|	|	|	| --- OR ---
	|Program|	|	|	|	|	|	| With program check on---
	|	|	|	|	|	|	|Permanent assign failure.
	|	|	|	|	|	|	|
0061	|RemWSC |	|	|	|	|	|	|Appears in ERAP table for
	|-	|	|	|	|	|	|remote work station
	|-	|	|	|	|	|	|controller.
	|-	|	|	|	|	|	|(SDLC only) Counts the
	|-	|	|	|	|	|	|test frames received from
	|-	|	|	|	|	|	|the host system without
	|-	|	|	|	|	|	|CRC errors during a link
	|-	|	|	|	|	|	|test.
	|-	|	|	|	|	|	| --- OR ---
	|-	|	|	|	|	|	|(X.25 only) Counts all the
	|-	|	|	|	|	|	|'receive not ready'
	|-	|	|	|	|	|	|commands sent to the host
	|-	|	|	|	|	|	|system.
	|-	|	|	|	|	|	| --- OR ---
	|Program|	|	|	|	|	|	| With program check on---
	|	|	|	|	|	|	|Emulation instruction not
	|	|	|	|	|	|	|valid.
0062	|RemWSC |	|	|	|	|	|	|Appears in ERAP table for
	|-	|	|	|	|	|	|remote work station
	|-	|	|	|	|	|	|controller.
	|-	|	|	|	|	|	|Counts the underrun
	|-	|	|	|	|	|	|conditions found by the
	|-	|	|	|	|	|	|communications adapter.
	|-	|	|	|	|	|	| --- OR ---
	|Program|	|	|	|	|	|	| With program check on---
	|	|	|	|	|	|	|MCR IOB parameter not
	|	|	|	|	|	|	|valid.
0063	|RemWSC |	|	|	|	|	|	|Appears in ERAP table for
	|-	|	|	|	|	|	|remote work station
	|-	|	|	|	|	|	|controller.
	|-	|	|	|	|	|	|Counts the overrun

	|-	|	|	|	|	|	|conditions found by the
	|-	|	|	|	|	|communications adapter.
	|-	|	|	|	|	| --- OR ---
	|Program	|	|	|	|	| With program check on---
	|	|	|	|	|	|MCR IOB address must be a
	|	|	|	|	|	|real address.
0064	|RemWSC	|	|	|	|	|	|Appears in ERAP table for
	|-	|	|	|	|	|	|remote work station
	|-	|	|	|	|	|	|Controller.
	|-	|	|	|	|	|	|Counts the loss of the
	|-	|	|	|	|	|	|'receive line signal
	|-	|	|	|	|	|	|detect' signal during a
	|-	|	|	|	|	|	|receive operation.
	|-	|	|	|	|	|	| --- OR ---
	|Program	|	|	|	|	|	| With program check on---
	|	|	|	|	|	|	|ATR load error on MCR IOB
	|	|	|	|	|	|	|data buffer address.
0065	|RemWSC	|	|	|	|	|	|Appears in ERAP table for
	|-	|	|	|	|	|	|remote work station
	|-	|	|	|	|	|	|controller.
	|-	|	|	|	|	|	|Counts the loss of the
	|-	|	|	|	|	|	|'clear to send' line
	|-	|	|	|	|	|	|during a transmit
	|-	|	|	|	|	|	|operation.
	|-	|	|	|	|	|	| --- OR ---
	|Program	|	|	|	|	|	| With program check on---
	|	|	|	|	|	|	|ATR load error on logging
	|	|	|	|	|	|	|MCR data.
0066	|RemWSC	|	|	|	|	|	|Appears in ERAP table for
	|-	|	|	|	|	|	|remote work station
	|-	|	|	|	|	|	|controller.
	|-	|	|	|	|	|	|Counts the loss of the
	|-	|	|	|	|	|	|'data set ready' line
	|-	|	|	|	|	|	|during a transmit or
	|-	|	|	|	|	|	|receive operation.
	|-	|	|	|	|	|	| --- OR ---
	|Program	|	|	|	|	|	| With program check on---
	|	|	|	|	|	|	|MCR ERB not found.
0067	|RemWSC	|	|	|	|	|	|Appears in ERAP table for
	|-	|	|	|	|	|	|remote work station

	\-						controller.
	\-						Counts the loss of the
	\-						'reject' commands sent
	\-						by the work station
	\-						controller.
	\-						--- OR ---
	Program						With program check on---
							Disk error during MCR
							controller load.
0068	RemWSC						Appears in ERAP table for
	\-						remote work station
	\-						controller.
	\-						Counts the frame or groups
	\-						of frames that must be
	\-						transmitted again by the
	\-						work station controller to
	\-						the host system because
	\-						the host system did not
	\-						receive them correctly.
	\-						--- OR ---
	Program						With program check on---
							Program exceeds MAPMAX
							value.
0069	RemWSC						Appears in ERAP table for
	\-						remote work station
	\-						controller.
	\-						Counts the frames that
	\-						were received that have
	\-						a CRC error.
	\-						--- OR ---
	Program						With program check on---
							Storage management failure
006A	RemWSC						Appears in ERAP table for
							remote work station
							controller.
							Counts the number of times
							an abort is received by
							the work station
							controller.
006b	RemWSC						Appears in ERAP table for

							remote work station controller. Counts the detected failures of the XLCA communications card.
006C	RemWSC						Appears in ERAP table for remote work station controller. Counts the number of times the T1 counter expires.
006d	RemWSC						Appears in ERAP table for remote work station controller. PDU retransmission (X.25 with ELLC).
006E	RemWSC						Appears in ERAP table for remote work station controller. Counts the number of information frames transmitted.
006F	RemWSC						Appears in ERAP table for remote work station controller. Counts the number of valid information frames received.
**********	Work Station SRCs						**********
0070	Hdwre - - Program						Remote cluster feature hardware error. --- OR --- With program check on-- Diskette sector address not valid.
0071	Program						With program check on-- Emulation address not valid.

0072	Hdwre - - Program						Remote cluster feature overrun. --- OR --- With program check on--Read DSC storage IOB parameter not valid.
0073	Hdwre						Remote cluster feature write error.
0075	Program						With program check on--Disk error--no disk recovery block found.
0079	Program						With program check on--SVC requested not valid.
0080	Program						With program check on--Translated IOB not valid--not mapped or not permitted.
0081	Program						With program check on--Translated buffer not valid -- not aligned or not mapped.
0082	Program						With program check on--Translated parameter list not valid--not mapped.
0083	Program						With program check on--SVC map parameter list is in error.
0084	Program						With program check on--Zero quick-lock address passed.
0085	Program						With program check on--Communication IOB has header length which is not valid.

0086	Program						With program check on-- Post of communication ERB not valid.
0087	Program						With program check on-- XASGN request not valid.
0088	Program						With program check on-- XFREE request not valid.
0089	Program						With program check on-- CSP main storage program exception.
0090	Program						With program check on-- CSP main storage program exception.
0092	Program						With program check on-- I/O buffer is aligned on an odd byte boundry.
0093	Program						With program check on-- Control storage address not valid.
0094	Program						With program check on-- Control storage program timed out while looping.
0095	Program						With program check on-- Wild branch taken by a control storage program.
0096	Program						With program check on-- Power off command not valid.
0097	Program						With program check on-- Task work area deallocate request not valid.
0098	Hdwre -						Undefined remote hardware error.

	|-	|	|	|	|	|	--- OR ---
	|Program|	|	|	|	|	| With program check on--
	|	|	|	|	|	|Not enough task work
	|	|	|	|	|	|area reserved.
0100	|36 W/S |	|	|	|	|	|The work station display
	|Display|	60|	|	|	|	|has not responded to a
	|WS cbl |	30|	|	|	|	|command in the specified
	|A-A1J2 |	5|	|	|	WJ-100|	|amount of time (127 micro
	|A-A1V4 |	4|	|	|	|	|seconds).
	|-	|	|	|	|	|	|Twinax/IBM cabling system
	|72 W/S |	|	|	|	|	|Run network analysis.
	|Display|	60|	|	|	|	|
	|WS cbl |	30|	|	|	|	|
	|A-A3T2 |	5|	|	|	|	|
	|A-A3V4 |	4|	|	|	|	|
0101	|36 W/S |	|	|	|	|	|Some condition is causing
	|A-A1J2 |	50|	7001AA	|	WJ-100|	|the twin-axial driver/
	|WS cbl |	30|	|	|	|	|receiver to fail.
	|Display|	16|	|	|	|	|
	|A-A1V4 |	3|	|	|	|	|
	|72 W/S |	|	|	|	|	--- OR ---
	|A-A3T2 |	50|	|	|	|	| With program check on--
	|WS cbl |	30|	|	|	|	|Device unit block has a
	|Display|	16|	|	|	|	|device ID which is not
	|A-A3V4 |	3|	|	|	|	|valid.
	|-	|	|	|	|	|	|Twinax/IBM cabling system
	|Program|	|	|	|	|	|Run network analysis.
0102	|Program|	|	|	|	|	| With program check on--
	|	|	|	|	|	|	|$NUPD was called for an
	|	|	|	|	|	|	|unsupported function.
0103	|36 W/S |	|	|	|	|	|A parity error has been
	|Noise |	60|	7001AA	|	|	|detected by the work
	|WS cbl |	30|	|	|	|	|station attachment. The
	|A-A1V4 |	5|	|	|	|	|most probable cause is
	|Display|	3|	|	|	|	|noise.
	|A-A1J2 |	2|	|	|	WJ-100|	|
	|-	|	|	|	|	|	|Twinax/IBM cabling system
	|72 W/S |	|	|	|	|	|Run network analysis.
	|Noise |	60|	|	|	|	|
	|WS cbl |	30|	|	|	|	|

	A-A3V4	5					
	Display	3					
	A-A3T2	2					
0104	36 W/S						A parity error has been detected by the work station attachment. The most probable cause is noise. Twinax/IBM cabling system Run network analysis.
	Noise	60					
	WS cbl	30					
	Display	4					
	A-A1V4	4					
	A-A1J2	2				WJ-100	
	-						
	72 W/S						
	Noise	60					
	WS cbl	30					
	Display	4					
	A-A3V4	4					
	A-A3T2	2					
0105	Hdwre						Work station not accessible. --- OR --- With program check on-- POST1 failure of a task.
	-						
	-						
	Program						
0106	36 W/S						A byte count error has been detected by the work station attachment. --- OR --- With program check on-- Task work area SVC cannot honor WSWA get/put request. Twinax/IBM cabling system Run network analysis.
	Display	40	7001AA				
	WS cbl	8					
	A-A1J2	4				WJ-100	
	A-A1V4	2					
	72 W/S						
	Display	40					
	WS cbl	8					
	A-A3T2	4					
	A-A3V4	2					
	-						
	Program						
0107	Hdwre						Wrong work station responded. --- OR --- With program check on-- Task work area deallocate request not valid.
	-						
	-						
	Program						

0108	36 W/S						The work station display
	Display	95	7001AA				was reset at the wrong
	A-A1J2	2				WJ-100	time.
	WS cbl	1					
	A-A1V4	1					
	72 W/S						
	Display	95					--- OR ---
	A-A3T2	2					With program check on--
	WS cbl	1					Task work area base ID
	A-A3V4	1					does not exist.
	-						Twinax/IBM cabling system
	Program						Run network analysis.
0109	36 W/S						The work station display
	Noise	40	7001AA				did not respond to a
	Display	30					command from the work
	A-A1J2	20				WJ-100	station attachment. Noise
	WS cbl	8					is the most probable cause
	A-A1V4	2					
	72 W/S						
	Noice	40					--- OR ---
	Display	30					With program check on--
	A-A3T2	20					Task work area operation
	WS cbl	8					not valid.
	A-A3V4	2					Twinax/IBM cabling system
	Program						Run network analysis.
0110	Program						With program check on--
							WRK SVC parameter list is
							in error.
0111	36 W/S						Scan code for work
	Display	80					station cisplay not valid.
	WS cbl	10					
	A-A1J2	5				WJ-100	
	A-A1H2	4				WH-100	
	A-A1V4	1					
	-						
	72 W/S						
	Display	80					
	WS cbl	10					
	A-A3T2	5					
	A-A3S2	4					
	A-A3V4	1					

	|-						--- OR ---
	|Program						With program check on--
							Active mapping count
							underflow.
							Twinax/IBM cabling system
							Run network analysis.
0112	Program						With program check on--
							CSP accessed a main
							storage address which is
							not valid.
0113	Program						With program check on--
							I/O operation issued to
							active IOB.
0120	36 W/S						The command sent to the
	Noise	40	7001AA				work station display was
	Display	25					not a valid command.
	A-A1J2	20				WJ-100	Noise is the most probable
	WS cbl	8					cause.
	A-A1H2	5				WH-100	
	A-A1V4	2					Twinax/IBM cabling system
	72 W/S						Run network analysis.
	Noise	40					
	Display	25					
	A-A3T2	20					
	WS cbl	8					
	A-A3S2	5					
	A-A3V4	2					
0121	36 W/S						The address counter value
	Noise	40	7001AA				sent to the work station
	Display	25					display was too large.
	A-A1J2	20				WJ-100	Noise is the most probable
	WS cbl	8					cause.
	A-A1H2	5				WH-100	
	A-A1V4	2					Twinax/IBM cabling system
	72 W/S						Run network analysis.
	Noise	40					
	Display	25					
	A-A3T2	20					
	WS cbl	8					
	A-A3S2	5					

	A-A3V4	2					
0122	36 W/S						The amount of command bytes sent to the work station display was too large. Twinax/IBM cabling system Run network analysis.
	A-A1J2	35	7001AA			WJ-100	
	A-A1H2	35				WH-100	
	Display	20					
	WS cbl	8					
	A-A1V4	1					
	72 W/S						
	A-A3T2	35					
	A-A3S2	35					
	Display	20					
	WS cbl	8					
	A-A3V4	1					
0123	36 W/S						The address counter value sent to the work station display was not a valid value. Noise is the most probable cause. Twinax/IBM cabling system Run network analysis.
	Noise	40	7001AA				
	Display	25					
	A-A1J2	20				WJ-100	
	WS cbl	8					
	A-A1H2	5				WH-100	
	A-A1V4	2					
	72 W/S						
	Noise	40					
	Display	25					
	A-A3T2	20					
	WS cbl	8					
	A-A3S2	5					
	A-A3V4	2					
0124	36 W/S						A not valid activate command was sent to the work station display Noise is the most probable cause. Twinax/IBM cabling system Run network analysis.
	Noise	40	7001AA				
	Display	25					
	A-A1J2	20				WJ-100	
	WS cbl	8					
	A-A1H2	5				WH-100	
	A-A1V4	2					
	72 W/S						
	Noise	40					
	Display	25					
	A-A3T2	20					
	WS cbl	8					
	A-A3S2	5					
	A-A3V4	2					

0125	36 W/S						The work station display has reported an error, but the status is not valid.
	Display	30	7001AA				
	WS cbl	8					
	A-A1H2	5				WH-100	
	A-A1J2	5				WJ-100	
	A-A1V4	2					Twinax/IBM cabling system Run network analysis.
	72 W/S						
	Display	30					
	WS cbl	8					
	A-A3S2	5					
	A-A3T2	5					
	A-A3V4	2					
0127	36 W/S						The address counter value sent to an IGC work station display in extended character mode was too large. Twinax/IBM cabling system Run network analysis.
	Display	25	7001AA				
	A-A1J2	20				WJ-100	
	WS cbl	8					
	A-A1H2	5				WH-100	
	A-A1V4	2					
	72 W/S						
	Display	25					
	A-A3T2	20					
	WS cbl	8					
	A-A3S2	5					
	A-A3V4	2					
0149	A-A1H2	40	7001AA			WH-100	The work station attachment has reported an error, but the error status is not valid.
0181	Hdwre						Magnetic stripe reader error.
0182	Hdwre						Device type error.
0183	Hdwre						Wrong size display assemble.
0184	Hdwre						Wrong keyboard ID.
0185	Hdwre						Wrong keyboard specified.

0186	36 W/S						The work station display
	Display	75	7001AA				indicated that a magnetic
	WS cbl	8					stripe reader operation
	A-A1H2	5				WH-100	occurred when no magnetic
	A-A1J2	5				WJ-100	stripe reader was
	A-A1V4	2					installed.
	72 W/S						Twinax/IBM cabling system
	Display	75					
	WS cbl	8					
	A-A3S2	5					
	A-A3T2	5					
	A-A3V4	2					
0189	36 W/S						The work station display
	Display	75	7001AA				indicated that a magnetic
	WS cbl	8					stripe reader operation
	A-A1H2	5				WH-100	occurred but no data was
	A-A1J2	5				WJ-100	sent to the work station
	A-A1V4	2					attachment.
	72 W/S						Twinax/IBM cabling system
	Display	75					
	WS cbl	8					
	A-A3S2	5					
	A-A3T2	5					
	A-A3V4	2					
0190	Display	99	7001AA				The work station display
							has not changed the even/
							odd time out bit in 400
							milliseconds. Indicated a
							work station display
							error.
0191	Display	99	7001AA				The work station display
							can not complete a command
							in 460 milliseconds.
							Indicates a work station
							display failure.
**********	Work Station Printers						**********
0200	36 W/S						The work station printer
	Printer	60	7001AA				has not responded to a
	WS cbl	30					command in the specified
	A-A1J2	5				WJ-100	amount of time.

	A-A1V4	4					Twinax/IBM cabling system
	72 W/S						
	Printer	60					
	WS cbl	30					
	A-A3T2	5					
	A-A3V4	4					
0201	36 W/S						Some condition is cuasing
	A-A1J2	50	7001AA			WJ-100	the twinax driver receiver
	WS cbl	30					to fail work station.
	Printer	16					
	A-A1V4	3					
	72 W/S						
	A-A3T2	50					
	WS cbl	30					--- OR ---
	Printer	16					With program check on--
	A-A3V4	3					Assign failure on external
	-						DCB.
	Program						Twinax/IBM cabling system
0202	Program						With program check on--
							Disk error--loading file
							subsystem transient.
0203	36 W/S						A parity error has been
	Noise	60	7001AA				detected by the work
	WS cbl	30					station attachment. The
	A-A1V4	5					most probable cause is
	Printer	3					noise.
	A-A1J2	2				WJ-100	
	72 W/S						
	Noise	60					
	WS cbl	30					
	A-A3T2	2					--- OR ---
	Printer	3					With program check on--
	A-A3V4	5					Block count < threshold on
	-						assign of internal DCB.
	Program						Twinax/IBM cabling system
0204	36 W/S						A parity error has been
	Noise	60	7001AA				detected by the work
	WS cbl	30					station printer. The most
	Printer	4					probable cause is noise.
	A-A1V4						

	A-A1J2	2				WJ-100	
	72 W/S						
	Noise	60					
	WS cbl	30					
	A-A3V4	4					--- OR ---
	Printer	4					With program check on--
	A-A3T2	2					Block count < threshold on
	-						free of external DCB.
	Program						Twinax/IBM cabling system
0205	Hdwre						Work station not
	-						accessible.
	-						--- OR ---
	Program						With program check on--
							DSC register stack
							underflow/overflow.
0206	36 W/S						A byte count error has
	Printer	40	7001AA				been detected by the work
	A-A1J2	20				WJ-100	station attachment.
	WS cbl	8					
	A-A1V4	2					
	72 W/S						
	Printer	40					
	A-A3T2	20					--- OR ---
	WS cbl	8					With program check on--
	A-A3V4	2					IOB found in DCB not
	-						valid.
	Program						Twinax/IBM cabling system
0207	Hdwre						Wrong work station
	-						responded.
	-						--- OR ---
	Program						With program check on--
							ATR error from DSC -- data
							buffer length is not
							valid.
0208	36 W/S						The work station printer
	Printer	95	7001AA				was reset at the wrong
	A-A1J2	2				WJ-100	time.
	A-A1V4	1					--- OR ---
	WS cbl	1					With program check on--
	72 W/S						Buffer address in buffer

	Printer	95					deallocation in the DSC
	A-A3T2	2					not valid.
	A-A3V4	1					Twinax/IBM cabling system.
	WS cbl	1					
	-						
	Program						
0209	36 W/S						The work station printer
	Noise	40	7001AA				did not respond to a
	Printer	30					command from the work
	A-A1J2	20				WJ-100	station attachment. Noise
	WS cbl	8					is the most probable cause
	A-A1V4	2					--- OR ---
	-						With program check on--
	72 W/S						No buffer space for
	Noise	40					diskette ERP under device-
	Printer	30					to-device.
	A-A3T2	20					Twinax/IBM cabling system.
	WS cbl	8					
	A-A3V4	2					
	-						
	Program						
0211	Hdwre						Machine check - 5219/5224/
	-						5225/4234/work station
	-						printers.
	-						--- OR ---
	-						DMA operation time-out for
	-						5553/5557 work station
	-						printers.
	-						--- OR ---
	Program						With program check on--
							Device ID in IOB on return
							from DSC not valid.
0212	Hdwre						Machine check - 5219 work
	-						station printers.
	-						--- OR ---
	Program						With program check on--
							SIO logging IOB not valid.
0214	Program						With program check on--
							SMF IOB not valid.

0220	36 W/S					The command sent to the
	Noise	40	7001AA			work station was not a
	Printer	25				valid command. Noise is
	A-A1J2	20			WJ-100	most probable cause.
	WS cbl	8				
	A-A1H2	5			WH-100	
	A-A1V4	2				Twinax/IBM cabling system
	-					
	72 W/S					
	Noise	40				
	Printer	25				
	A-A3T2	20				
	WS cbl	8				
	A-A3S2	5				
	A-A3V4	2				
0221	36 W/S					The work station printer
	Printer	30	7001AA			has reported an error.
	WS cbl	8				The exception status is
	A-A1H2	5			WH-100	not valid.
	A-A1J2	5			WJ-100	
	A-A1V4	2				Twinax/IBM cabling system
	-					
	72 W/S					
	Printer	30				
	WS cbl	8				
	A-A3S2	5				
	A-A3T2	5				
	A-A3V4	2				
0222	36 W/S					The number of command
	A-A1H2	35	7001AA		WH-100	bytes sent to the work
	A-A1J2	35			WJ-100	station printer was too
	Printer	20				large.
	WS cbl	5				
	A-A1V4	1				Twinax/IBM cabling system
	-					
	72 W/S					
	A-A3S2	35				
	A-A3T2	35				
	Printer	20				
	WS cbl	5				
	A-A3V4	1				

0223	36 W/S						The work station printer
	Printer	50	7001AA				did not respond to an
	WS cbl	8					active command and did not
	A-A1H2	5				WH-100	report a parity error.
	A-A1J2	5				WJ-100	
	A-A1V4	2					Twinax/IBM cabling system
	-						
	72 W/S						
	Printer	50					
	WS cbl	8					
	A-A3S2	5					
	A-A3T2	5					
	A-A3V4	2					
0224	36 W/S						A not valid activete
	Noise	40	7001AA				command was sent to the
	Printer	25					work station printer.
	A-A1J2	20				WJ-100	Noise is the most probable
	WS cbl	8					cause.
	A-A1H2	2				WH-100	
	A-A1V4	2					Twinax/IBM cabling system
	-						
	72 W/S						
	Noise	40					
	Printer	25					
	A-A3T2	20					
	WS cbl	8					
	A-A3S2	2					
	A-A3V4	2					
0225	36 W/S						The work station printer
	Printer	30	7001AA				has reported an error.
	WS cbl	8					Undefined exception status
	A-A1H2	5				WH-100	
	A-A1J2	5				WJ-100	
	A-A1V4	2					Twinax/IBM cabling system
	-						
	72 W/S						
	Printer	30					
	WS cbl	8					
	A-A3S2	5					
	A-A3T2	5					
	A-A3V4	2					

0226	Printer	99	7001AA				The work station printer has reported an unprintable character. See the work station printer MIM.
0228	Printer	99	7001AA				Printer data stream command not valid. See the work station printer MIM.
0229	Printer	99	7001AA				Printer data stream parameter not valid. See the work station printer MIM.
0230	Printer	99	7001AA				Printer mechanism not ready. See the work station printer MIM.
0231	Printer	99	7001AA				Print check. See the work station printer MIM.
0232	Printer - - - - Program	99	7001AA				The work station printer has reported a unit error. See the work station printer MIM. --- OR --- With program check on-- OXREF resident table exceeded.
0233	Printer - - - - Program	99	7001AA				The work station printer has reported a unit error. See the work station printer MIM. --- OR --- With program check on-- Cannot free this library format-1 -- has active owners.

0234	Printer	99					The work station printer has reported a unit error. See the work station printer MIM.
0235	Printer	99	7001AA				The work station printer has reported a unit error. See the work station printer MIM. --- OR --- With program check on-- Program check in termination exit routine.
	-						
	-						
	-						
	-						
	Program						
0236	Printer	99					Print check. See the work station printer MIM.
0237	Printer	99					Print check. See the work station printer MIM.
0238	Printer	99					Print check. See the work station printer MIM.
0239	Printer	99	7001AA				The work station printer has reported a unit error. See the work station printer MIM. --- OR --- With program check on-- SSP not valid.
	-						
	-						
	-						
	-						
	Program						
0240	Printer	99	7001AA				The work station printer has reported a unit error. See the work station printer MIM. --- OR --- With program check on-- Program tried to cancel a noncancelable task.
	-						
	-						
	-						
	-						
	Program						
0241	Printer	99	7001AA				The work station printer

	|-	|	|	|	|	|	|has reported a unit error.
	|-	|	|	|	|	|	|See the work station
	|-	|	|	|	|	|	|printer MIM.
	|-	|	|	|	|	|	| --- OR ---
	|Program|	|	|	|	|	|	| With program check on--
	|	|	|	|	|	|	|Disk error while
	|	|	|	|	|	|	|condensing the system
	|	|	|	|	|	|	|library.
0242	|Printer|	|99|	|7001AA	|	|	|	|The work station printer
	|-	|	|	|	|	|	|has reported a unit error.
	|-	|	|	|	|	|	|See the work station
	|-	|	|	|	|	|	|printer MIM.
	|-	|	|	|	|	|	| --- OR ---
	|Program|	|	|	|	|	|	| With program check on--
	|	|	|	|	|	|	|Deallocate or termination
	|	|	|	|	|	|	|found PSB with no TUB.
0243	|Printer|	|99|	|7001AA	|	|	|	|The work station printer
	|-	|	|	|	|	|	|has reported a unit error.
	|-	|	|	|	|	|	|See the work station
	|-	|	|	|	|	|	|printer MIM.
	|-	|	|	|	|	|	| --- OR ---
	|Program|	|	|	|	|	|	| With program check on--
	|	|	|	|	|	|	|Command processor task or
	|	|	|	|	|	|	|user task has no JCB.
0244	|Printer|	|99|	|7001AA	|	|	|	|The work station printer
	|-	|	|	|	|	|	|has reported a unit error.
	|-	|	|	|	|	|	|See the work station
	|-	|	|	|	|	|	|printer MIM.
	|-	|	|	|	|	|	| --- OR ---
	|Program|	|	|	|	|	|	| With program check on--
	|	|	|	|	|	|	|MICs 3700, 3712, 3713 not
	|	|	|	|	|	|	|found in ##MSG2 member.
0245	|Printer|	|99|	|7001AA	|	|	|	|The work station printer
	|-	|	|	|	|	|	|has reported a unit error.
	|-	|	|	|	|	|	|See the work station
	|-	|	|	|	|	|	|printer MIM.
	|-	|	|	|	|	|	| --- OR ---
	|Program|	|	|	|	|	|	| With program check on--
	|	|	|	|	|	|	|MICs 3710 or 3711 not
	|	|	|	|	|	|	|found in ##MSG2 member.

0246	Printer	99	7001AA				The work station printer has reported a unit error. See the work station printer MIM. --- OR --- With program check on-- Syslog function called by the command processor.
	-						
	-						
	-						
	-						
	Program						
0247	Printer	99	7001AA				The work station printer has reported a unit error. See the work station printer MIM. --- OR --- With program check on-- IBM module has WTG table which is not valid or format index table.
	-						
	-						
	-						
	-						
	Program						
0248	Printer	99	7001AA				The work station printer has reported a unit error. See the work station printer MIM. --- OR --- With program check on-- Library/file use count is less than zero.
	-						
	-						
	-						
	-						
	Program						
0249	Printer	99	7001AA				The work station printer has undefined error status See the work station printer MIM. --- OR --- With program check on-- Required SSP module not found during MSIPL.
	-						
	-						
	-						
	-						
	Program						
0250	Printer	99	7001AA				Forms jam or end of forms. See the work station printer MIM. --- OR --- With program check on-- Format-5 extents partially
	-						
	-						
	-						
	Program						

							free during file delete.
0251	Printer	99	7001AA				Printer not available. See the work station printer MIM. --- OR --- With program check on-- Format-5 file count is less than zero.
0252	Program						With program check on-- An AFA Format 1 has a file type not valid.
0253	Program						With program check on-- Unexpected return code from diskette VTOC R/W.
0254	Program						With program check on-- Unexpected return code from disk VTOC access.
0255	Printer						Shared printer busy. --- OR ---
	Program						With program check on-- SDLC detected communications failure.
0258	Printer	99	7001AA				End of ribbon. See the work station printer MIM.
0259	36 W/S						Some condition is causing the twinaxial driver/ receiver to fail. See MAP 7001. Twinax/IBM cabling system
	A-A1J2	50					
	WS cbl	30					
	Wrkstn	16					
	A-A1V4	3					
	-						
	72 W/S						
	A-A3T2	50					
	WS cbl	30					
	Wrkstn	16					
	A-A3V4	3					

0260	36 W/S						The work station failed its hardware interrupts level test. See MAP 7001.
	A-A1J2	40					
	A-A1H2	30					
	Wrkstn	20					
	WS cbl	8					
	A-A1V4	2					Twinax/IBM cabling system
	-						
	72 W/S						
	A-A3T2	40					
	A-A3S2	30					
	Wrkstn	20					
	WS cbl	8					
	A-A3V4	2					
0261	Wrkstn	75					Display stations and/or printers on a port are not responding. Go to the device maintenance manual(s) and MAP 7001. Twinax/IBM cabling system
	WS cbl	25					
0266	Printer	99	7001AA				The work station printer (5219) has a data stream error. See the work station printer MIM.
0267	Printer	99	7001AA				The work station printer (5219) has a data stream error. See the work station printer MIM.
0268	Printer	99	7001AA				The work station printer (5219) has a data stream error. See the work station printer MIM.
0269	Printer	99	7001AA				The work station printer (5219) has a data stream error. See the work station printer MIM.

0281	Printer	99	7001AA				The work station printer has a cover check or machine check. See the work station printer MIM.
0283	Printer	99	7001AA				The work station printer has a print check. See the work station printer MIM.
0284	Printer	99	7001AA				The work station printer has a print check. See the work station printer MIM.
0285	Printer	99	7001AA				The work station printer has a print check. See the work station printer MIM.
0286	Printer	99	7001AA				The work station printer has a print check. See the work station printer MIM.
0287	Printer	99	7001AA				The work station printer has a machine check. See the work station printer MIM.
0288	Printer	99	7001AA				The work station printer has a ribbon jam. See the work station printer MIM.
0289	Printer	99	7001AA				The work station printer has a ribbon jam. See the work station printer MIM.
0290	Printer	99	7001AA				The work station printer has not changed the even/

							odd time out bit in 8 seconds indicating a work station printer error.
0291	Printer	99	7001AA				The work station printer has not completed a command inside of 8 seconds indicating a work station printer error.
********** MSP 0bxx **********							
0bXX			0105A				Display LSR 0d. XX may be 00 to FF. If the contents are between dA01-dAff and the Processor Check light is on, replace A-A1P2 and A-A1Q2 with new FRUs.
********** CSP and Channel 10xx **********							
1001	A-A1N2	92				CN-1XX	A system bus P check occurred during I/O instruction. MS = main storage
	A-A1M2	2					
	A-A1L2	2				CL-1XX	
	MS	1				CK-1XX	
	A-A1Q2	1				CQ-1XX	
	A-A1P2	1				CP-1XX	
	A-A1 Bd	1				AB-1XX	
1002	A-A1N2	95				CN-1XX	A sys bus P check occurred during cycle steal. MS = main storage.
	A-A1M2	1				CL-1XX	
	MS	1				CU-1XX	
	A-A1Q2	1				CQ-1XX	
	A-A1P2	1				CP-1XX	
	A-A1L2	1				CK-1XX	
1003	A-A1N2	92				CN-1XX	A SDR P check occurred.
	A-A1M2	2					
	A-A1L2	2				CL-1XX	
	MS	1				CK-1XX	MS = main storage.
	A-A1Q2	1				CQ-1XX	
	A-A1P2	1				CP-1XX	
	A-A1 Bd	1				AB-1XX	
1004	A-A1N2	92				CN-1XX	A SDR P check occurred.
	A-A1M2	2				CL-1XX	

	A-A1L2	2				CK-1XX	
	MS	1					MS = main storage.
	A-A1Q2	1				CQ-1XX	
	A-A1P2	1				CP-1XX	
	A-A1 Bd	1				AB-1XX	
1005	A-A1N2	96				CN-1XX	A MDR parity check
	A-A1M2	1				CL-1XX	occurred.
	A-A1L2	1				CK-1XX	
	A-A1Q2	1				CQ-1XX	
	A-A1 Bd	1				AB-1XX	
1041	A-A1N2	73				CN-1XX	The data written to
	A-A1L2	23				CK-1XX	storage had bad parity.
	A-A1Q2	1				CQ-1XX	
	A-A1M2	1				CL-1XX	
	A-A1P2	1				CP-1XX	
	A-A1 Bd	1				AB-1XX	
1042	A-A1L2	77				CP-1XX	The data written to
	A-A1N2	19				CN-1XX	storage during a cycle
	A-A1M2	1				CL-1XX	steal had bad parity.
	A-A1P2	1				CP-1XX	
	A-A1Q2	1				CQ-1XX	
	A-A1 Bd	1				AB-1XX	
1043	A-A1N2	99				CN-1XX	There was an unrecoverable
							error when data was read
							from storage.
1044	A-A1N2	99				CN-1XX	There was an unrecoverable
							error when data was read
							from storage during a
							cycle steal.
1045	A-A1N2	34				CN-1XX	A SDR parity check
	A-A1M2	31				CL-1XX	occurred.
	A-A1L2	25				CK-1XX	
	MS	6					MS = main storage
	A-A1Q2	2				CQ-1XX	
	A-A1P2	1				CP-1XX	
	A-A1 Bd	1				AB-1XX	
1046	A-A1N2	73				CN-1XX	A MDR parity check

	A-A1M2	23				CL-1XX	occurred.
	A-A1Q2	1				CQ-1XX	
	A-A1L2	1				CQ-1XX	
	A-A1P2	1				CP-1XX	
	A-A1 Bd	1				AB-1XX	
1070	A-A1M2	79					The data written to
	A-A1Q2	12					storage had bad parity
	A-A1U2	6					A-A1U2 is a 512Kb storage
	A-A1L2	1					card.
	A-A1P2	1					
	A-A1 Bd	1					
1071	A-A1M2	79					The data written to
	A-A1Q2	12					storage had bad parity
	A-A1T2	6					A-A1T2 is a 512Kb storage
	A-A1L2	2					card.
	A-A1P2	1					
1072	A-A1M2	79					The data written to
	A-A1Q2	12					storage had bad parity
	A-A1S2	6					A-A1S2 is a 512Kb storage
	A-A1L2	2					card.
	A-A1P2	1					
1073	A-A1M2	75				CL-1XX	The data written to
	A-A1Q2	12				CQ-1XX	storage had bad parity.
	A-A1R2	10				CR-1XX	A1R2 is a 256Kb storage
	A-A1L2	1				CK-1XX	card.
	A-A1P2	1				CP-1XX	
1074	A-A1U2	50				CU-1XX	The data written to
	A-A1M2	40				CU-1XX	storage had bad parity.
	A-A1Q2	7				CL-1XX	A1U2 is a 128kb storage
	A-A1L2	1				CQ-1XX	card.
	A-A1P2	1				CK-1XX	
	A-A1 Bd	1				CP-1XX	
						AB-1XX	
1075	A-A1T2	50				CT-1XX	Main storage write parity
	A-A1M2	40				CL-1XX	check. A1T2 is a 128Kb
	A-A1Q2	7				CQ-1XX	storage card.
	A-A1L2	1				CK-1XX	
	A-A1P2	1				CP-1XX	

1076	A-A1S2	50					The data written to storage had bad parity A-A1S2 is a 128Kb storage card.
	A-A1M2	40					
	A-A1Q2	7					
	A-A1L2	1					
	A-A1P2	1					
1077	A-A1R2	50					The data written to storage had bad parity A-A1S2 is a 128Kb storage card.
	A-A1M2	40					
	A-A1Q2	7					
	A-A1L2	1					
	A-A1P2	1					
1078	A-A1M2	74			CU-1XX	The data written to storage had bad parity. A1U2 is a 256Kb storage card.	
	A-A1Q2	12			CL-1XX		
	A-A1U2	10			CQ-1XX		
	A-A1L2	1			CK-1XX		
	A-A1P2	1			CP-1XX		
	A-A1 Bd	1			AB-1XX		
1079	A-A1M2	75			CT-1XX	Main storage write parity check. A1T2 is a 256Kb storage card.	
	A-A1Q2	12			CL-1XX		
	A-A1T2	10			CQ-1XX		
	A-A1L2	1			CK-1XX		
	A-A1P2	1			CP-1XX		
107A	A-A1M2	75			CL-1XX	The data written to storage had bad parity. A1S2 is a 256Kb storage card.	
	A-A1Q2	12			CQ-1XX		
	A-A1S2	10			CS-1XX		
	A-A1L2	1			CK-1XX		
	A-A1P2	1			CP-1XX		
107C	A-A1M2	79					The data written to storage had bad parity A-A1R2 is a 512Kb storage card.
	A-A1Q2	12					
	A-A1R2	6					
	A-A1L2	2					
	A-A1P2	1					
1080	A-A1Q2	60					Main storage write parity check. A-A1U2 is a 512Kb storage card.
	A-A1U2	38					
	A-A1P2	1					
	A-A1L2	1					
1081	A-A1Q2	60					Main storage write

	A-A1T2	38					parity check.
	A-A1P2	1					A-A1T2 is a 512Kb storage
	A-A1L2	1					card.
1082	A-A1Q2	60					Main storage write
	A-A1S2	38					parity check.
	A-A1P2	1					A-A1S2 is a 512Kb storage
	A-A1L2	1					card.
1083	A-A1R2	50				CR-1XX	Main storage write
	A-A1Q2	48				CQ-1XX	parity check.
	A-A1P2	1				CP-1XX	A1R2 is a 256Kb storage
	A-A1L2	1				CK-1XX	card.
1084	A-A1U2	87				CU-1XX	Main storage write parity
	A-A1Q2	11				CQ-1XX	check. A1U2 is a 128Kb
	A-A1P2	1				CP-1XX	storage card.
	A-A1L2	1				CK-1XX	
1085	A-A1T2	87				CT-1XX	Main storage write parity
	A-A1Q2	11				CQ-1XX	check. A1T2 is a 128Kb
	A-A1P2	1				CP-1XX	storage card.
	A-A1L2	1				CK-1XX	
1086	A-A1S2	87					Main storage write
	A-A1Q2	11					parity check.
	A-A1P2	1					A-A1S2 is a 128Kb storage
	A-A1L2	1					card.
1087	A-A1R2	87					Main storage write
	A-A1Q2	11					parity check.
	A-A1P2	1					A-A1R2 is a 128Kb storage
	A-A1L2	1					card.
1088	A-A1U2	50				CU-1XX	Main storage write parity
	A-A1Q2	48				CQ-1XX	check. A1U2 is a 256Kb
	A-A1P2	1				CP-1XX	storage card.
	A-A1L2	1				CK-1XX	
1089	A-A1T2	50				CT-1XX	Main storage write parity
	A-A1Q2	48				CQ-1XX	check. A1T2 is a 256Kb
	A-A1P2	1				CP-1XX	storage card.
	A-A1L2	1				CK-1XX	

108A	A-A1S2	50				CS-1XX	Main storage write
	A-A1Q2	48				CQ-1XX	parity check.
	A-A1P2	1				CP-1XX	A1S2 is a 256Kb storage
	A-A1L2	1				CK-1XX	card.
108C	A-A1Q2	60					Main storage write
	A-A1R2	38					parity check.
	A-A1P2	1					A-A1R2 is a 512Kb storage
	A-A1L2	1					card.
1091	A-A1E2/	75				CE-1XX	DBI parity check during
	A-A2E2/					CK-1XX	a cycle steal from the
	A-A2J2						disk or diskette.
	A-A1L2	20					
	X-Over	5					
1092	A-A3S2/	75				CS-1XX	DBI parity check during
	A-A3P2					CK-1XX	a cycle steal from the
	A-A1L2	20					Communications controller.
	X-Over	5					
1093	A-A1N2	75				CN-1XX	DBI parity check during
	A-A1L2	25				CK-1XX	a cycle steal from the
							work station controller.
1094	A-A1H2	25				CH-1XX	Not valid device address
	A-A1E2/	25				CE-1XX	during a cycle steal.
	A-A2E2/					CS-1XX	
	A-A2J2					CK-1XX	
	A-A3S2/	25					
	A-A3P2						
	A-A1L2	25					
1095	A-A1E2/	20				CE-1XX	Wrong response to a sense
	A-A2E2/					CH-1XX	interrupt level status
	A-A2J2					CS-1XX	byte (SISLB) command on
	A-A1H2	20				CT-1XX	IL4.
	A-A2S2	20				CK-1XX	
	A-A2T2	20					
	A-A2K2	20					
1096	A-A1E2/	33				CE-1XX	Not a valid main storage
	A-A2E2/					CL-1XX	address and sys bus P
	A-A2J2					CK-1XX	check during a cycle

	A-A1M2	33					steal to the DSA.
	A-A1L2	33					
10A1	A-A3S2/	80				CS-1XX	Not a valid main storage
	A-A3P2					CL-1XX	Address during a cycle
	A-A1M2	10				CK-1XX	steal from/to the
	A-A1L2	10					communications controller.
10A2	A-A1E2/	80				CE-1XX	Not a valid main storage
	A-A2E2/					CL-1XX	Address during a cycle
	A-A2J2					CK-1XX	steal from/to the file.
	A-A1M2	10					
	A-A1L2	10					
10A3	A-A1H2	80				CH-1XX	Not a valid main storage
	A-A1M2	10				CL-1XX	address during a cycle
	A-A1L2	10				CK-1XX	steal from/to the work
							station.
10A4	A-A1E2/	33				CE-1XX	Cycle steal timeout during
	A-A2E2/					CL-1XX	a cycle steal to/from the
	A-A2J2					CK-1XX	disk or diskette.
	A-A1M2	33					
	A-A1L2	33					
10A5	A-A3S2/	33				CS-1XX	Cycle steal timeout during
	A-A3P2					CL-1XX	a cycle steal to/from the
	A-A1M2	33				CK-1XX	Communications controller.
	A-A1L2	33					
10A6	A-A1H2	80				CH-1XX	Cycle steal timeout during
	A-A1M2	10				CL-1XX	a cycle steal to/from the
	A-A1L2	10				CK-1XX	work station controller.
10d3	A-A1M2	51				CL-1XX	System bus check during a
	A-A1N2	17				CN-1XX	cycle steal to the disk
	A-A1U2	16				CU-1XX	or diskette.
	A-A1Q2	10				CQ-1XX	
	A-A1L2	4				CK-1XX	
	A-A1P2	1				CP-1XX	
	A-A1E2/	1				CE-1XX	
	A-A2E2/						
	A-A2J2						

10d4	A-A3S2/	33				CS-1XX	Not a valid main storage
	A-A3P2					CK-1XX	address and sys bus P
	A-A1M2	33				CK-1XX	check during a cycle steal
	A-A1L2	33					to the communications
							controller.
10d5	A-A1H2	33				CH-1XX	Not a valid main storage
	A-A1M2	33				CK-1XX	address and a sys bus P
	A-A1L2	33				CK-1XX	check during a CS to/from
							the work station
							controller.
10d8	A-A3S2/	90				CS-1XX	A channel check occurred
	A-A1K2					CT-1XX	during an I/O instruction
	A-A1L2	10				CK-1XX	to the data communications
							attachment (DBO P chk, DBI
							P chk, I/O timeout, not
							valid adr).
10d9	A-A3P2	90					
	A-A1L2	10					
10dA	A-A1E2/	90				CE-1XX	A channel check occurred
	A-A2E2/					CK-1XX	during an I/O instruction
	A-A2J2					CK-1XX	to the disk or diskette
	A-A1L2	10					(DBO P chk, DBI P chk, I/O
							timeout, not valid adr).
10db	A-A3S2/	50				CS-1XX	Wrong response to a sense
	A-A3P2/					CT-1XX	interrupt level status
	A-A1K2					CK-1XX	byte (SILSB) command on
	A-A1L2	50					IL2.
10dC	A-A1H2	90				CH-1XX	A channel check occurred
	A-A1L2	10				CK-1XX	during an I/O instruction
						CK-1XX	to the work station
							controller (DBO P chk, DBI
							P chk, I/O timeout, not
							valid adr).
10dE	A-A2T2	45				CT1XXX	A channel check occurred
	A-A1L2	45				CK-1XX	during an I/O instruction
						CK-1XX	to the 3262 printer (DBO
							P chk, DBI P chk, I/O

							timeout, not valid adr).
10E1	A-A1M2	90				CL-1XX	X-register parity check.
	A-A1N2	10					
10E2	A-A1M2	90				CL-1XX	SAR parity check.
	A-A1N2	10					
10E3	A-A1M2	90				CL-1XX	Not a valid control
	A-A1N2	10					storage address.
10E4	A-A1M2	90				CL-1XX	Storage time out check.
	A-A1N2	10					
10E5	A-A1M2	90				CL-1XX	Storage time out check.
	A-A1N2	10					
10E6	A-A1M2	90				CL-1XX	SAR parity check during
	A-A1N2	10					
10E7	A-A1M2	62				CL-1XX	Time out check.
	A-A1Q2	17				CQ-1XX	
	A-A1N2	17				CK-1XX	
	A-A1P2	3				CP-1XX	
	A-A1 Bd	1					
10E8	A-A1M2	59				CL-1XX	Wrong ECC write parity
	A-A1Q2	41				CQ-1XX	error.
	A-A1N2	1					
10E9	A-A1M2	51				CL-1XX	A system bus P check
	A-A1N2	17				CN-1XX	during a cycle steal.
	MS	16					MS = main storage
	A-A1Q2	10				CQ-1XX	
	A-A1P2	1				CK-1XX	
	A-A3S2/	1				CP-1XX	
	A-A3P2						
10EA	A-A1M2	94				CL-1XX	MSP MSAR parity check.
	A-A1Q2	6				CQ-1XX	
	A-A1N2	1					
10Eb	A-A1M2	58				CL-1XX	wrong ECC wrt P check
	A-A1Q2	40				CQ-1XX	during cycle steal to

	A-A1N2	2				CK-1XX	main storage.
10EC	A-A1M2	79				CL-1XX	MSP MSAR parity check
	A-A1N2	16				CK-1XX	during cycle steal.
	A-A1Q2	5				CQ-1XX	
10F0	A-A1M2	30	0105A				A CSP error occurred.
	A-A1N2	20					RE|PL the system then
	A-A1L2	15					run the new SRC in ERAP
	MS	15					CSP error history table
							and use MAP 0113, 0114,
							0115, and 0116 for
							definition of new SRC.
10F1			0105A				MSP error: main storage
							access timeout.
							RE|PL the system then
							run the new SRC in ERAP
							CSP error history table
							and use MAP 0113, 0114,
							0115, and 0116 for
							definition of new SRC.
10F2	A-A1P2	80	0105A				MSP error: parity checks.
							RE|PL the system then
							run the new SRC in ERAP
							CSP error history table
							and use MAP 0113, 0114,
							0115, and 0116 for
							definition of new SRC.
10F3	A-A1L2	10	0105A				A channel error occurred.
	A-A1H2	10					RE|PL the system then
	A-A3S2/	10					run the new SRC in ERAP
	A-A3P2						CSP error history table
	A-A2N2	10					and use MAP 0113, 0114,
	A-A1K2	10					0115, and 0116 for
	A-A1M2	5					definition of new SRC.
	A-A1N2	5					Check all DC voltages on
	A-A2J2	5					all boards to insure
	A-A1E2/	5					proper tolerances. Ref:
	A-A2E2						FLD AE100-AE300 for
	A-A2T2	5					probe points. Ref: MIM
	A-A1J2	5					05-400 for tolerances.

	A-A2S2 A-A3T2 Term	5 5					NOTE: Check for bad channel terminator card. Only one will be present at either A1B3, A2U3, A3U3 or A3U4. Terminator cd P/N 4234073
10F4	A-A1N2	50	0105A				A control storage ECC occurred. REIPL the system then run the new SRC in ERAP CSP error history table and use MAP 0113, 0114, 0115, and 0116 for definition of new SRC.
10F5			0101C				Interrupt level 1 occurred for an unknown device. REIPL the system then run the new SRC in ERAP CSP error history table and use MAP 0113, 0114, 0115, and 0116 for definition of new SRC.
10F6	A-A1L2 A-A1K2 A-A3S2/ A-A3P2	30 30 30	0101C				Interrupt level 2 occurred for an unknown device. Could be any card on the channel bus causing the problem. REIPL the system then run the new SRC in ERAP CSP error history table and use MAP 0113, 0114, 0115, and 0116 for definition of new SRC.
10F7			0101C				Interrupt level 3 occurred for an unknown device. REIPL the system then run the new SRC in ERAP CSP error history table and use MAP 0113, 0114, 0115, and 0116 for

						definition of new SRC.
10F8			0101C			Interrupt level 4 occurred for an unknown device. REIPL the system then run the new SRC in ERAP CSP error history table and use MAP 0113, 0114, 0115, and 0116 for definition of new SRC.
10FF	A-A1L2	10	0301			See MAP 0301 for more information on this system reference code. Check all DC voltages on all boards to insure proper tolerance Ref: FLD AE100-AE300 for probe points. Ref: MIM 05-400 for tolerances.
	A-A1M2	10				
	A-A1N2	10				
	A-A1P2	10				
	A-A1Q2	10				
	A-A1R2	10				
	A-A1S2	10				
	A-A1T2	10				
	A-A1U2	10				
	A-A1Z2	10				
**********			Default Code			**********
1111						This is the hardware default code and indicates that no hardware error condition was evaluated. RE-IPL to obtain a refined SRC. If system completes IPL, look in ERAP for SRCs at the time of the RE-IPL.
**********			MSP 12xx			**********
1200	A-A1U2	99				RelPL, if no failure replace FRU(s), if failure go to 0301A.
1201	A-A1T2	94				RelPL, if no failure replace FRU(s), if failure go to 0301A.
	A-A1Q2	4				
1202	A-A1S2	94				RelPL, if no failure replace FRU(s), if failure go to 0301A.
	A-A1Q2	4				

1203	A-A1R2 A-A1Q2	95 4				CR-1XX CQ-1XX	A1R2 is a 256Kb storage card. REIPL, if no failure replace FRU(s), if failure go to 0301A.
1204	A-A1U2	99	0310A			CU-1XX	A1U2 is a 128Kb storage card.
1205	A-A1T2 A-A1Q2	95 4				CT-1XX CQ-1XX	A1T2 is a 128Kb storage card. REIPL, if no failure replace FRU(s), if failure go to 0301A.
1206	A-A1S2 A-A1Q2	94 4					ReIPL, if no failure replace FRU(s), if failure go to 0301A.
1207	A-A1R2 A-A1Q2	94 4					ReIPL, if no failure replace FRU(s), if failure go to 0301A.
1208	A-A1U2	99				CU-1XX	A1U2 is a 256Kb storage card.
1209	A-A1T2 A-A1Q2	95 4				CT-1XX CQ-1XX	A1T2 is a 256Kb storage card. REIPL, if no failure replace FRU(s), if failure go to 0301A.
120A	A-A1S2 A-A1Q2	95 4				CS-1XX CQ-1XX	A1S2 is a 256Kb storage card. REIPL, if no failure replace FRU(s), if failure go to 0301A.
120C	A-A1R2 A-A1Q2	94 4					ReIPL, if no failure replace FRU(s), if failure go to 0301A.
120d	A-A1Q2	96				CQ-1XX	REIPL, if no failure

	A-A1P2	3				CP-1XX	replace FRU(s), if failure go to 0310A.
120E	A-A1Q2	97				CQ-1XX	RE|PL, if no failure
	A-A1P2	2				CP-1XX	replace FRU(s), if failure go to 0310A.
1210	A-A1Q2	87					Re|PL, if no failure
	A-A1U2	11					replace FRU(s), if
	A-A1P2	1					failure go to 0301A.
1211	A-A1Q2	87					Re|PL, if no failure
	A-A1T2	11					replace FRU(s), if
	A-A1P2	1					failure go to 0301A.
1212	A-A1Q2	87					Re|PL, if no failure
	A-A1S2	11					replace FRU(s), if
	A-A1P2	1					failure go to 0301A.
1213	A-A1Q2	74				CQ-1XX	A1R2 is a 256Kb storage
	A-A1R2	24				CR-1XX	card.
	A-A1P2	1				CP-1XX	RE|PL, if no failure
							replace FRU(s), if
							failure go to 0310A.
1214	A-A1Q2	60				CQ-1XX	A1U2 is a 128Kb storage
	A-A1U2	35				CU-1XX	card.
	A-A1P2	5				CP-1XX	RE|PL, if no failure
							replace FRU(s), if
							failure go to 0310A.
1215	A-A1Q2	60				CQ-1XX	A1T2 is a 128Kb storage
	A-A1T2	35				CT-1XX	card.
	A-A1P2	5				CP-1XX	RE|PL, if no failure
							replace FRU(s), if
							failure go to 0310A.
1216	A-A1Q2	60					Re|PL, if no failure
	A-A1S2	35					replace FRU(s), if
	A-A1P2	5					failure go to 0301A.
1217	A-A1Q2	60					Re|PL, if no failure
	A-A1R2	35					replace FRU(s), if
	A-A1P2	5					failure go to 0301A.

1218	A-A1Q2	74				CQ-1XX	A1U2 is a 256Kb storage
	A-A1U2	24				CU-1XX	card.
	A-A1P2	1				CP-1XX	REIPL, if no failure
	A-A1T2	1					replace FRU(s), if
							failure go to 0310A.
1219	A-A1Q2	74				CQ-1XX	A1T2 is a 256Kb storage
	A-A1T2	24				CT-1XX	card.
	A-A1P2	1				CP-1XX	REIPL, if no failure
							replace FRU(s), if
							failure go to 0310A.
121A	A-A1Q2	74				CQ-1XX	A1S2 is a 256Kb storage
	A-A1S2	24				CS-1XX	card.
	A-A1P2	1				CP-1XX	REIPL, if no failure
							replace FRU(s), if
							failure go to 0310A.
121C	A-A1Q2	87					ReIPL, if no failure
	A-A1R2	11					replace FRU(s), if
	A-A1P2	1					failure go to 0301A.
121d	A-A1P2	98				CP-1XX	REIPL, if no failure
	A-A1Q2	1				CQ-1XX	replace FRU(s), if
							failure go to 0310A.
121E	A-A1P2	98				CP-1XX	REIPL, if no failure
	A-A1Q2	1				CQ-1XX	replace FRU(s), if
							failure go to 0310A.
1220	A-A1Q2	86					ReIPL, if no failure
	A-A1U2	12					replace FRU(s), if
	A-A1P2	1					failure go to 0301A.
1221	A-A1Q2	86					ReIPL, if no failure
	A-A1T2	12					replace FRU(s), if
	A-A1P2	1					failure go to 0301A.
1222	A-A1Q2	86					ReIPL, if no failure
	A-A1S2	12					replace FRU(s), if
	A-A1P2	1					failure go to 0301A.
1223	A-A1Q2	72				CQ-1XX	A1R2 is a 256Kb storage

	A-A1R2	26				CR-1XX	card.
	A-A1P2	1				CP-1XX	REIPL, if no failure replace FRU(s), if failure go to 0310A.
1224	A-A1Q2	60				CQ-1XX	A1U2 is a 128Kb storage
	A-A1U2	38				CU-1XX	card.
	A-A1P2	2				CP-1XX	REIPL, if no failure replace FRU(s), if failure go to 0310A.
1225	A-A1Q2	60				CQ-1XX	A1T2 is a 128Kb storage
	A-A1T2	38				CT-1XX	card.
	A-A1P2	2				CP-1XX	REIPL, if no failure replace FRU(s), if failure go to 0310A.
1226	A-A1Q2	60					REIPL, if no failure
	A-A1S2	38					replace FRU(s), if
	A-A1P2	2					failure go to 0301A.
1227	A-A1Q2	60					REIPL, if no failure
	A-A1R2	38					replace FRU(s), if
	A-A1P2	2					failure go to 0301A.
1228	A-A1Q2	72				CQ-1XX	A1U2 is a 256Kb storage
	A-A1U2	26				CU-1XX	card.
	A-A1P2	1				CP-1XX	REIPL, if no failure replace FRU(s), if failure go to 0310A.
1229	A-A1Q2	72				CQ-1XX	A1T2 is a 256Kb storage
	A-A1T2	26				CT-1XX	card.
	A-A1P2	1				CP-1XX	REIPL, if no failure replace FRU(s), if failure go to 0310A.
122A	A-A1Q2	72				CQ-1XX	A1S2 is a 256Kb storage
	A-A1S2	26				CS-1XX	card.
	A-A1P2	1				CP-1XX	REIPL, if no failure replace FRU(s), if failure go to 0310A.
122C	A-A1Q2	86					REIPL, if no failure

	A-A1R2	12					replace FRU(s), if
	A-A1P2	1					failure go to 0301A.
122d	A-A1Q2	99	0310A			CQ-1XX	
122E	A-A1Q2	99	0310A			CQ-1XX	
1230	A-A1Q2	88					RE|PL, if no failure
	A-A1U2	9					replace FRU(s), if
	A-A1P2	3					failure go to 0301A.
1231	A-A1Q2	88					RE|PL, if no failure
	A-A1T2	9					replace FRU(s), if
	A-A1P2	2					failure go to 0301A.
1232	A-A1Q2	88					RE|PL, if no failure
	A-A1S2	9					replace FRU(s), if
	A-A1P2	2					failure go to 0301A.
1233	A-A1Q2	78				CQ-1XX	A1R2 is a 256Kb storage
	A-A1R2	19				CR-1XX	card.
	A-A1P2	1				CP-1XX	RE|PL, if no failure
							replace FRU(s), if
							failure go to 0310A.
1234	A-A1Q2	70				CQ-1XX	A1U2 is a 128Kb storage
	A-A1U2	25				CU-1XX	card.
	A-A1P2	5				CP-1XX	RE|PL, if no failure
							replace FRU(s), if
							failure go to 0310A.
1235	A-A1Q2	70				CQ-1XX	A1T2 is a 128Kb storage
	A-A1T2	25				CT-1XX	card.
	A-A1P2	5				CP-1XX	RE|PL, if no failure
							replace FRU(s), if
							failure go to 0310A.
1236	A-A1Q2	70					RE|PL, if no failure
	A-A1S2	25					replace FRU(s), if
	A-A1P2	5					failure go to 0301A.
1237	A-A1Q2	70					RE|PL, if no failure
	A-A1R2	25					replace FRU(s), if
	A-A1P2	5					failure go to 0301A.

1238	A-A1Q2 A-A1U2 A-A1P2	78 19 2			CQ-1XX CU-1XX CP-1XX	A1U2 is a 256Kb storage card. REIPL, if no failure replace FRU(s), if failure go to 0310A.
1239	A-A1Q2 A-A1T2 A-A1P2	78 19 1			CQ-1XX CT-1XX CP-1XX	A1T2 is a 256Kb storage card. REIPL, if no failure replace FRU(s), if failure go to 0310A.
123A	A-A1Q2 A-A1S2 A-A1P2	78 19 1			CQ-1XX CS-1XX CP-1XX	A1S2 is a 256Kb storage card. REIPL, if no failure replace FRU(s), if failure go to 0310A.
123C	A-A1Q2 A-A1R2 A-A1P2	88 9 2				REIPL, if no failure replace FRU(s), if failure go to 0301A.
123d	A-A1P2 A-A1Q2	98 1			CP-1XX CQ-1XX	REIPL, if no failure replace FRU(s), if failure go to 0310A.
123E	A-A1P2 A-A1Q2	97 2			CP-1XX CQ-1XX	REIPL, if no failure replace FRU(s), if failure go to 0310A.
1240	A-A1Q2 A-A1U2 A-A1P2	74 25 1				REIPL, if no failure replace FRU(s), if failure go to 0301A.
1241	A-A1Q2 A-A1T2 A-A1P2	74 25 1				REIPL, if no failure replace FRU(s), if failure go to 0301A.
1242	A-A1Q2 A-A1S2 A-A1P2	74 25 1				REIPL, if no failure replace FRU(s), if failure go to 0301A.
1243	A-A1Q2	53			CQ-1XX	A1R2 is a 256Kb storage

	A-A1R2	45				CR-1XX	card.
	A-A1P2	1				CP-1XX	REIPL, if no failure replace FRU(s), if failure go to 0310A.
1244	A-A1Q2	50				CQ-1XX	A1U2 is a 128Kb storage
	A-A1U2	48				CU-1XX	card.
	A-A1P2	2				CP-1XX	REIPL, if no failure replace FRU(s), if failure go to 0310A.
1245	A-A1Q2	50				CQ-1XX	A1T2 is a 128Kb storage
	A-A1T2	48				CT-1XX	card.
	A-A1P2	2				CP-1XX	REIPL, if no failure replace FRU(s), if failure go to 0310A.
1246	A-A1Q2	50					RelPL, if no failure
	A-A1S2	48					replace FRU(s), if
	A-A1P2	2					failure go to 0301A.
1247	A-A1Q2	50					RelPL, if no failure
	A-A1R2	48					replace FRU(s), if
	A-A1P2	2					failure go to 0301A.
1248	A-A1Q2	53				CQ-1XX	A1U2 is a 256Kb storage
	A-A1U2	45				CU-1XX	card.
	A-A1P2	1				CP-1XX	REIPL, if no failure replace FRU(s), if failure go to 0310A.
1249	A-A1Q2	53				CQ-1XX	A1T2 is a 256Kb storage
	A-A1T2	45				CT-1XX	card.
	A-A1P2	1				CP-1XX	REIPL, if no failure replace FRU(s), if failure go to 0310A.
124A	A-A1Q2	53				CQ-1XX	A1S2 is a 256Kb storage
	A-A1S2	45				CS-1XX	card.
	A-A1P2	1				CP-1XX	REIPL, if no failure replace FRU(s), if failure go to 0310A.
124C	A-A1Q2	74					RelPL, if no failure

	A-A1R2	25					replace FRU(s), if
	A-A1P2	1					failure go to 0301A.
124d	A-A1P2	99	0310A			CP-1XX	
124E	A-A1P2	99	0310A			CP-1XX	
1250	A-A1Q2	68					RelPL, if no failure
	A-A1U2	30					replace FRU(s), if
	A-A1P2	1					failure go to 0301A.
1251	A-A1Q2	68					RelPL, if no failure
	A-A1T2	30					replace FRU(s), if
	A-A1P2	1					failure go to 0301A.
1252	A-A1Q2	68					RelPL, if no failure
	A-A1S2	30					replace FRU(s), if
	A-A1P2	1					failure go to 0301A.
1253	A-A1R2	50				CR-1XX	A1R2 is a 256Kb storage
	A-A1Q2	48				CQ-1XX	card.
	A-A1P2	1				CP-1XX	RelPL, if no failure
							replace FRU(s), if
							failure go to 0310A.
1254	A-A1Q2	48				CQ-1XX	A1U2 is a 128Kb storage
	A-A1U2	46				CU-1XX	card.
	A-A1P2	4				CP-1XX	RelPL, if no failure
							replace FRU(s), if
							failure go to 0310A.
1255	A-A1Q2	48				CQ-1XX	A1T2 is a 128Kb storage
	A-A1T2	46				CT-1XX	card.
	A-A1P2	4				CP-1XX	RelPL, if no failure
							replace FRU(s), if
							failure go to 0310A.
1256	A-A1Q2	48					RelPL, if no failure
	A-A1S2	46					replace FRU(s), if
	A-A1P2	4					failure go to 0301A.
1257	A-A1Q2	48					RelPL, if no failure
	A-A1R2	46					replace FRU(s), if
	A-A1P2	4					failure go to 0301A.

1258	A-A1U2	50				CU-1XX	A1U2 is a 256Kb storage
	A-A1Q2	48				CQ-1XX	card.
	A-A1P2	1				CP-1XX	REIPL, if no failure
							replace FRU(s), if
							failure go to 0310A.
1259	A-A1T2	50				CT-1XX	A1T2 is a 256Kb storage
	A-A1Q2	48				CQ-1XX	card.
	A-A1P2	1				CP-1XX	REIPL, if no failure
							replace FRU(s), if
							failure go to 0310A.
125A	A-A1S2	50				CS-1XX	A1S2 is a 256Kb storage
	A-A1Q2	48				CQ-1XX	card.
	A-A1P2	1				CP-1XX	REIPL, if no failure
							replace FRU(s), if
							failure go to 0310A.
125C	A-A1Q2	68					ReIPL, if no failure
	A-A1R2	30					replace FRU(s), if
	A-A1P2	1					failure go to 0301A.
125E	A-A1P2	99	0310A			CP-1XX	
1260	A-A1Q2	80					ReIPL, if no failure
	A-A1P2	10					replace FRU(s), if
	A-A1U2	9					failure go to 0301A.
1261	A-A1Q2	80					ReIPL, if no failure
	A-A1P2	10					replace FRU(s), if
	A-A1T2	9					failure go to 0301A.
1262	A-A1Q2	80					ReIPL, if no failure
	A-A1P2	10					replace FRU(s), if
	A-A1S2	9					failure go to 0301A.
1263	A-A1Q2	59				CQ-1XX	A1R2 is a 256Kb storage
	A-A1R2	36				CR-1XX	card.
	A-A1P2	4				CP-1XX	REIPL, if no failure
							replace FRU(s), if
							failure go to 0310A.
1264	A-A1Q2	53				CQ-1XX	A1U2 is a 128Kb storage

	A-A1U2	43				CU-1XX	card.
	A-A1P2	4				CP-1XX	REIPL, if no failure replace FRU(s), if failure go to 0310A.
1265	A-A1Q2	53				CQ-1XX	A1T2 is a 128Kb storage
	A-A1T2	43				CT-1XX	card.
	A-A1P2	4				CP-1XX	REIPL, if no failure replace FRU(s), if failure go to 0310A.
1266	A-A1Q2	53					RelPL, if no failure
	A-A1S2	43					replace FRU(s), if
	A-A1P2	4					failure go to 0301A.
1267	A-A1Q2	53					RelPL, if no failure
	A-A1R2	43					replace FRU(s), if
	A-A1P2	4					failure go to 0301A.
1268	A-A1Q2	76				CQ-1XX	A1U2 is a 256Kb storage
	A-A1U2	13				CU-1XX	card.
	A-A1P2	10				CP-1XX	REIPL, if no failure replace FRU(s), if failure go to 0310A.
1269	A-A1Q2	76				CQ-1XX	A1T2 is a 256Kb storage
	A-A1T2	13				CT-1XX	card.
	A-A1P2	10				CP-1XX	REIPL, if no failure replace FRU(s), if failure go to 0310A.
126A	A-A1Q2	59				CQ-1XX	A1S2 is a 256Kb storage
	A-A1S2	36				CS-1XX	card.
	A-A1P2	4				CP-1XX	REIPL, if no failure replace FRU(s), if failure go to 0310A.
126C	A-A1Q2	80					RelPL, if no failure
	A-A1P2	10					replace FRU(s), if
	A-A1R2	9					failure go to 0301A.
126E	A-A1P2	99	0310A			CP-1XX	
1270	A-A1U2	66					RelPL, if no failure

	A-A1Q2	19					replace FRU(s), if
	A-A1P2	14					failure go to 0301A.
1271	A-A1T2	66					ReIPL, if no failure
	A-A1Q2	19					replace FRU(s), if
	A-A1P2	14					failure go to 0301A.
1272	A-A1S2	66					ReIPL, if no failure
	A-A1Q2	19					replace FRU(s), if
	A-A1P2	14					failure go to 0301A.
1273	A-A1R2	86				CR-1XX	A1R2 is a 256Kb storage
	A-A1Q2	8				CQ-1XX	card.
	A-A1P2	5				CP-1XX	ReIPL, if no failure
							replace FRU(s), if
							failure go to 0310A.
1274	A-A1U2	70				CU-1XX	A1U2 is a 128Kb storage
	A-A1Q2	20				CQ-1XX	card.
	A-A1P2	10				CP-1XX	ReIPL, if no failure
							replace FRU(s), if
							failure go to 0310A.
1275	A-A1T2	70				CT-1XX	A1T2 is a 128Kb storage
	A-A1Q2	20				CQ-1XX	card.
	A-A1P2	10				CP-1XX	ReIPL, if no failure
							replace FRU(s), if
							failure go to 0310A.
1276	A-A1S2	70					ReIPL, if no failure
	A-A1Q2	20					replace FRU(s), if
	A-A1P2	10					failure go to 0301A.
1277	A-A1R2	70					ReIPL, if no failure
	A-A1Q2	20					replace FRU(s), if
	A-A1P2	10					failure go to 0301A.
1278	A-A1U2	86				CU-1XX	A1U2 is a 256Kb storage
	A-A1Q2	8				CQ-1XX	card.
	A-A1P2	5				CP-1XX	ReIPL, if no failure
							replace FRU(s), if
							failure go to 0310A.
1279	A-A1T2	86				CT-1XX	A1T2 is a 256Kb storage

	A-A1Q2	8				CQ-1XX	card.
	A-A1P2	5				CP-1XX	RE|PL, if no failure replace FRU(s), if failure go to 0310A.
127A	A-A1S2	86				CS-1XX	A1S2 is a 256Kb storage
	A-A1Q2	8				CQ-1XX	card.
	A-A1P2	5				CP-1XX	RE|PL, if no failure replace FRU(s), if failure go to 0310A.
127C	A-A1R2	66					Re|PL, if no failure replace FRU(s), if failure go to 0301A.
	A-A1Q2	19					
	A-A1P2	14					
127d	A-A1Q2	92				CQ-1XX	RE|PL, if no failure replace FRU(s), if failure go to 0310A.
	A-A1P2	7				CP-1XX	
1280	A-A1U2	98					Re|PL, if no failure replace FRU(s), if failure go to 0301A.
	A-A1Q2	1					
1281	A-A1T2	98					Re|PL, if no failure replace FRU(s), if failure go to 0301A.
	A-A1Q2	1					
1282	A-A1S2	98					Re|PL, if no failure replace FRU(s), if failure go to 0301A.
	A-A1Q2	1					
1283	A-A1R2	98				CR-1XX	A1R2 is a 256Kb storage
	A-A1Q2	1				CQ-1XX	card.
						CP-1XX	RE|PL, if no failure replace FRU(s), if failure go to 0310A.
1284	A-A1U2	98				CU-1XX	A1U2 is a 128Kb storage
	A-A1Q2	1				CQ-1XX	card.
							RE|PL, if no failure replace FRU(s), if failure go to 0310A.
1285	A-A1T2	98				CT-1XX	A1T2 is a 128Kb storage

	A-A1Q2	1				CQ-1XX	card.
							REIPL, if no failure
							replace FRU(s), if
							failure go to 0310A.
1286	A-A1S2	98					ReIPL, if no failure
	A-A1Q2	1					replace FRU(s), if
							failure go to 0301A.
1287	A-A1R2	98					ReIPL, if no failure
	A-A1Q2	1					replace FRU(s), if
							failure go to 0301A.
1288	A-A1U2	98				CU-1XX	A1U2 is a 256Kb storage
	A-A1Q2	1				CQ-1XX	card.
							REIPL, if no failure
							replace FRU(s), if
							failure go to 0310A.
1289	A-A1T2	98				CT-1XX	A1T2 is a 256Kb storage
	A-A1Q2	1				CQ-1XX	card.
							REIPL, if no failure
							replace FRU(s), if
							failure go to 0310A.
128A	A-A1S2	98				CS-1XX	A1S2 is a 256Kb storage
	A-A1Q2	1				CQ-1XX	card.
						CP-1XX	REIPL, if no failure
							replace FRU(s), if
							failure go to 0310A.
128C	A-A1R2	98					ReIPL, if no failure
	A-A1Q2	1					replace FRU(s), if
							failure go to 0301A.
12d0	A-A1Q2	51					ReIPL, if no failure
	A-A1U2	47					replace FRU(s), if
	A-A1P2	1					failure go to 0301A.
12d1	A-A1Q2	51					ReIPL, if no failure
	A-A1T2	47					replace FRU(s), if
	A-A1P2	1					failure go to 0301A.
12d2	A-A1Q2	51					ReIPL, if no failure

	A-A1S2	47					replace FRU(s), if
	A-A1P2	1					failure go to 0301A.
12d3	A-A1Q2	51				CQ-1XX	A1R2 is a 256Kb storage
	A-A1R2	47				CR-1XX	card.
	A-A1P2	1				CP-1XX	RE|PL, if no failure
							replace FRU(s), if
							failure go to 0310A.
12d4	A-A1Q2	51				CQ-1XX	A1U2 is 128Kb storage
	A-A1U2	47				CU-1XX	card.
	A-A1P2	1				CP-1XX	RE|PL, if no failure
							replace FRU(s), if
							failure go to 0310A.
12d5	A-A1Q2	51				CQ-1XX	A1T2 is 128Kb storage
	A-A1T2	47				CT-1XX	card.
	A-A1P2	1				CP-1XX	RE|PL, if no failure
							replace FRU(s), if
							failure go to 0310A.
12d6	A-A1Q2	51					Re|PL, if no failure
	A-A1S2	47					replace FRU(s), if
	A-A1P2	1					failure go to 0301A.
12d7	A-A1Q2	51					Re|PL, if no failure
	A-A1R2	47					replace FRU(s), if
	A-A1P2	1					failure go to 0301A.
12d8	A-A1Q2	51				CQ-1XX	A1U2 is 256Kb storage
	A-A1U2	47				CU-1XX	card.
	A-A1P2	1				CP-1XX	RE|PL, if no failure
							replace FRU(s), if
							failure go to 0310A.
12d9	A-A1Q2	51				CQ-1XX	A1T2 is 256Kb storage
	A-A1T2	47				CT-1XX	card.
	A-A1P2	1				CP-1XX	RE|PL, if no failure
							replace FRU(s), if
							failure go to 0310A.
12dA	A-A1Q2	51				CQ-1XX	A1S2 is a 256Kb storage
	A-A1S2	47				CS-1XX	card.
	A-A1P2	1				CP-1XX	RE|PL, if no failure

							replace FRU(s), if failure go to 0310A.
12dC	A-A1Q2	51					RelPL, if no failure replace FRU(s), if failure go to 0301A.
	A-A1R2	47					
	A-A1P2	1					
12E0	A-A1U2	63					RelPL, if no failure replace FRU(s), if failure go to 0301A.
	A-A1Q2	19					
	A-A1P2	17					
12E1	A-A1T2	63					RelPL, if no failure replace FRU(s), if failure go to 0301A.
	A-A1Q2	19					
	A-A1P2	17					
12E2	A-A1S2	63					RelPL, if no failure replace FRU(s), if failure go to 0301A.
	A-A1Q2	19					
	A-A1P2	17					
12E3	A-A1R2	84				CR-1XX	A1R2 is a 256Kb storage card. RelPL, if no failure replace FRU(s), if failure go to 0310A.
	A-A1Q2	8				CQ-1XX	
	A-A1P2	7				CP-1XX	
12E4	A-A1U2	70				CU-1XX	A1U2 is a 128Kb storage card. RelPL, if no failure replace FRU(s), if failure go to 0310A.
	A-A1Q2	20				CQ-1XX	
	A-A1P2	10				CP-1XX	
12E5	A-A1U2	70				CT-1XX	A1T2 is a 128Kb storage card. RelPL, if no failure replace FRU(s), if failure go to 0310A.
	A-A1Q2	20				CQ-1XX	
	A-A1P2	10				CP-1XX	
12E6	A-A1S2	70					RelPL, if no failure replace FRU(s), if failure go to 0301A.
	A-A1Q2	20					
	A-A1P2	10					
12E7	A-A1R2	70					RelPL, if no failure replace FRU(s), if failure go to 0301A.
	A-A1Q2	20					
	A-A1P2	10					

12E7	A-A1R2	88				CR-1XX	REIPL, if no failure
	A-A1Q2	6				CQ-1XX	replace FRU(s), if
	A-A1P2	5				CP-1XX	failure go to 0310A.
12E8	A-A1U2	84				CU-1XX	A1U2 is a 256Kb storage
	A-A1Q2	8				CQ-1XX	card.
	A-A1P2	7				CP-1XX	REIPL, if no failure
							replace FRU(s), if
							failure go to 0310A.
12E9	A-A1T2	84				CT-1XX	A1T2 is a 256Kb storage
	A-A1Q2	8				CQ-1XX	card.
	A-A1P2	7				CP-1XX	REIPL, if no failure
							replace FRU(s), if
							failure go to 0310A.
12EA	A-A1S2	84				CS-1XX	A1S2 is a 256Kb storage
	A-A1Q2	8				CQ-1XX	card.
	A-A1P2	7				CP-1XX	REIPL, if no failure
							replace FRU(s), if
							failure go to 0310A.
12EC	A-A1R2	63					REIPL, if no failure
	A-A1Q2	19					replace FRU(s), if
	A-A1P2	17					failure go to 0301A.
12F0	A-A1U2	97					REIPL, if no failure
	A-A1Q2	2					replace FRU(s), if
							failure go to 0301A.
12F1	A-A1T2	97					REIPL, if no failure
	A-A1Q2	2					replace FRU(s), if
							failure go to 0301A.
12F2	A-A1S2	97					REIPL, if no failure
	A-A1Q2	2					replace FRU(s), if
							failure go to 0301A.
12F3	A-A1R2	98				CR-1XX	A1R2 is a 256Kb storage
	A-A1Q2	1				CQ-1XX	card.
						CP-1XX	REIPL, if no failure
							replace FRU(s), if
							failure go to 0310A.

12F4	A-A1U2 A-A1Q2	98 1			CU-1XX CQ-1XX	A1U2 is a 128Kb storage card. REIPL, if no failure replace FRU(s), if failure go to 0310A.
12F5	A-A1T2 A-A1Q2	98 1			CT-1XX CQ-1XX	A1T2 is a 128Kb storage card. REIPL, if no failure replace FRU(s), if
12F6	A-A1S2 A-A1Q2	98 1				ReIPL, if no failure replace FRU(s), if failure go to 0301A.
12F7	A-A1R2 A-A1Q2	98 1				ReIPL, if no failure replace FRU(s), if failure go to 0301A.
12F8	A-A1U2 A-A1Q2	98 1			CU-1XX CQ-1XX	A1U2 is a 256Kb storage card. REIPL, if no failure replace FRU(s), if failure go to 0310A.
12F9	A-A1T2 A-A1Q2	98 1			CT-1XX CQ-1XX	A1T2 is a 256Kb storage card. REIPL, if no failure replace FRU(s), if failure go to 0310A.
12FA	A-A1S2 A-A1Q2	98 1			CS-1XX CQ-1XX CP-1XX	A1S2 is a 256Kb storage card. REIPL, if no failure replace FRU(s), if failure go to 0310A.
12FC	A-A1R2 A-A1Q2	97 2				eIPL, if no failure replace FRU(s), if failure go to 0301A.
12FE	A-A1P2 A-A1Q2	38 38			CP-1XX CQ-1XX	MSP/MS error occurred, but could not be

	MS	20				CR-1XX	logged.
						CS-1XX	RE IPL, if no failure
						CT-1XX	replace FRU(s), if
						CU-1XX	failure go to 0310A.
12FF	A-A1P2	38				CP-1XX	Unexpected error. Use
	A-A1Q2	38				CQ-1XX	MAP 0312 to interpret the
	MS	20				CR-1XX	MSP check. R2, S2 or T2
						CS-1XX	may not be present
						CT-1XX	depending on main store
						CU-1XX	size.
							* = RE IPL, if no failure
							replace FRU(s), if
							failure go to 0312A.
********** Data Storage Controller 13xx **********							
1301			9900A		90-110		Data storage controller
							not valid IL4 condition.
1302	A-A2J2	99					Data storage controller
							invalid IL2 condition.
1303							Data storage controller
							Error during IPL.
135b	A-A2J2	70	9900A		90-110	TJ-200	Data storage controller
	A-A2K2	30				TK-200	not valid device assigned
							(ID).
135d	A-A2J2	70	9900A		90-110	TJ-200	Data storage controller
	A-A2K2	30				TK-200	not valid CS address.
135E	A-A2J2	90	9900A		90-110	TJ-200	Data storage controller
	A-A2K2	3				TK-200	2 second timeout.
	A-A2L2	3				TL-200	
135F	A-A2J2	70	9900A		90-110	TJ-200	Data storage controller
	A-A2K2	20				TK-200	wild branch.
13F0	A-A2J2	90	9900A		90-110	TJ-200	Data storage controller
	A-A2K2	10				TK-200	LSR parity check.
13F3	A-A2J2	80	9900A		90-110	TJ-200	Data storage controller
	A-A2K2	20				TK-200	DBI/DBO parity check.

13F4	A-A2J2	99	9900A		90-110	TJ-200	Data storage controller store parity check.
13F5	A-A2J2	80	9900A		90-110	TJ-200	Data storage controller device timeout.
	A-A2K2	5				TK-200	
	A-A2E2	5					Data storage controller channel.
13F6	A-A2J2	99	9900A				Data storage controller is in a hung state to the CPU channel.
**********	1255 MCR						**********
1503	A-A2P2	70	4100A			MP-200	DBI/DBO parity check
	A-A2N2	25				MM-200	(sense byte 0, bit 3).
	I/E Cbl	1					
	A-A2	1					
1505	A-A2L4	30	4100A			ML-220	Memory parity check
	A-A2M4	30				MM-220	(sense byte 0, bit 5).
	A-A2P2	10				MP-200	
	A-A2N2	10				MN-200	
	I/E cbl	1					
	A-A2	1					
1506	A-A2P2	90	4100A			MP-200	Long time-out check
							(sense byte 0, bit 6).
1507	1255	70	4100A				Sorter stopped
	A-A2P2	15				MP-200	(sense byte 0, bit 7).
	A-A2N2	10				MN-200	
	A-A2Q2	3					
	I/E cbl	1					
	A-A2	1					
15FF	1255	90	4100A				Run 1255 I/O Exerciser.
	A-A2	1					See 1255 MIM.
	I/E cbl	1					
**********	CSP/SS (Stage 2 CSP)						**********
1600	A-A1N2	45	0105A				Error during cycle steal
	A-A3S2	45					to communications
	X-Over	1					controller.

1601	A-A1N2 A-A1K2/ A-A3S2 X-Over	45 45 1	0105A				I/O time out, P check or address not valid during data communications.
1602	A-A1N2 A-A3P2 X-Over	45 45 1	0105A				I/O time out, P check or address not valid during data communications.
1605	A-A1N2 A-A1E2/ A-A2E2/ A-A2J2 X-Over	45 45 1	0105A				Error during cycle steal to/from DSA or controller. Error during I/O instruction.
1606	A-A1N2 A-A3P2 X-Over	45 45 1	0105A				Error during cycle steal to communications controller.
1607	A-A1N2 A-A3S2 X-Over	45 45 1					Error during cycle steal or I/O instruction to/from 2nd work station controller.
160A	A-A1N2 A-A1H2/ A-A1J2 X-Over	45 45 1	0105A				Error during cycle steal with work station controller or error during I/O instruction.
160F							See MAP 0301 for more information on this system reference code.
1611							See MAP 0301 for more information on this system reference code.
1616							See MAP 0301 for more information on this system reference code.
161C	A-A1N2 A-A1Q2	30 30	0105A				Error during cycle steal between MSP and

	A-A3S2	30					communications controller.
	X-Over	1					
161E	A-A1N2	30	0105A				Error during cycle steal
	A-A1Q2	30					between MSP and DSA or
	A-A1E2/	30					controller.
	A-A2E2/						
	A-A2J2						
	X-Over	1					
1620	A-A1N2	30	0105A				Error during cycle steal
	A-A1Q2	30					between MSP and work
	A-A1H2	30					station controller.
	X-Over	1					
1622	A-A1N2	30	0105A				Error during cycle steal
	A-A1Q2	30					between MSP and comm
	A-A3P2	30					controller.
	X-Over	1					
1623	A-A1N2	30					Error during cycle steal
	A-A1Q2	30					between MSP and 2nd work
	A-A3S2	30					station controller.
	X-Over	1					
1625							See MAP 0301 for more
							information on this system
							reference code.
162A							See MAP 0301 for more
							information on this system
							reference code.
162F							See MAP 0301 for more
							information on this system
							reference code.
1630	A-A1N2	33	0105A				3 second time out during
	A-A1Q2	33					cycle steal.
	MS	33					
1635	A-A1N2	90	0105A				Storage check or LSR
	A-A1M2	5					check.

163A	A-A1N2	45	0105A				Error during I/O instruction to 1255/MCR.
	A-A2N2	45					
	X-Over	1					
163F	A-A1N2	45	0105A				Error during I/O instruction to 3262 printer.
	A-A2S2/	45					
	A-A2T2/						
	A-A2R2						
	X-Over	1					
1640	A-A1N2	48	0105A				DBO P check during I/O instruction to SLCA.
	A-A1K2	48					
	X-Over	1					
1645	A-A1N2	15	0105A				Error during SILSB on interrupt level 4.
	A-A2N2	15					
	A-A1H2	15					
	A-A1E2/	15					
	A-A2E2/						
	A-A2J2						
	A-A2S2/	15					
	A-A2R2						
	A-A2N2	15					
	X-Over	1					
164A	A-A1N2	45	0105A				Error during SILSB on interrupt level 2.
	A-A1K2/	45					
	A-A1H2/						
	A-A3S2						
	A-A3P2						
	X-Over	1					
164F	A-A1N2	30	0105A				DPO P check during SILSB.
	A-A1K2/	30					
	A-A2N2	30					
	X-Over	1					
1650	A-A1N2	75	0105A				3 or 4 second time out.
	A-A1Q2	10					
	A-A1M2	10					
1670	A-A1N2	80					The data written to storage had bad parity. A-A1U2 is a 512Kb storage
	A-A1Q2	12					
	A-A1U2	6					

	A-A1P2	1					card.
	A-A1 Bd	1					
1671	A-A1N2	81					The data written to
	A-A1Q2	12					storage had bad parity.
	A-A1T2	6					A-A1T2 is a 512Kb storage
	A-A1P2	1					card.
1672	A-A1N2	81					The data written to
	A-A1Q2	12					storage had bad parity.
	A-A1S2	6					A-A1R2 is a 512Kb storage
	A-A1P2	1					card.
1673	A-A1N2	76					The data written in to
	A-A1Q2	12					storage had bad parity.
	A-A1R2	10					A1R2 is a 256Kb storage
	A-A1P2	1					card.
1674	A-A1N2	47					The data written to stg
	A-A1U2	43					had bad parity. A1U2 is a
	A-A1Q2	6					128Kb storage card.
	A-A1P2	3					
	A-A1 Bd	1					
1675	A-A1N2	47					Main stg write parity
	A-A1T2	43					check. A1T2 is a 128Kb
	A-A1Q2	6					storage card.
	A-A1P2	4					
1676	A-A1N2	47					The data written to
	A-A1Q2	43					storage had bad parity.
	A-A1S2	6					A-A1S2 is a 128Kb storage
	A-A1P2	3					card.
	A-A1 Bd	1					
1677	A-A1N2	47					The data written to
	A-A1Q2	43					storage had bad parity.
	A-A1R2	6					A-A1R2 is a 128Kb storage
	A-A1P2	4					card.
1678	A-A1N2	75					The data written to stg
	A-A1Q2	12					had bad parity. A1U2 is a
	A-A1U2	10					256Kb storage card.
	A-A1P2	1					

	A-A1 Bd	1					
1679	A-A1N2	76					Main stg write parity chk.
	A-A1Q2	12					A1T2 is a 256Kb storage
	A-A1T2	10					card.
	A-A1P2	1					
167A	A-A1N2	76					The data written in to
	A-A1Q2	12					storage had bad parity.
	A-A1S2	10					A1S2 is a 256Kb storage
	A-A1P2	1					card.
167C	A-A1N2	81					The data written to
	A-A1Q2	12					storage had bad parity.
	A-A1R2	6					A-A1R2 is a 512Kb storage
	A-A1P2	1					card.
1680	A-A1Q2	60					Main storage write parity
	A-A1U2	38					check.
	A-A1P2	1					A-A1U2 is a 512Kb storage
	A-A1N2	1					card.
1681	A-A1Q2	60					Main storage write parity
	A-A1T2	38					check.
	A-A1P2	1					A-A1T2 is a 512Kb storage
	A-A1N2	1					card.
1682	A-A1Q2	60					Main storage write parity
	A-A1S2	38					check.
	A-A1P2	1					A-A1S2 is a 512Kb storage
	A-A1N2	1					card.
1683	A-A1R2	50					Main stg write parity
	A-A1Q2	48					check. A1R2 is a 256Kb
	A-A1P2	1					storage card.
	A-A1N2	1					
1684	A-A1U2	87					Main stg write parity
	A-A1Q2	11					check. A1U2 is a 128Kb
	A-A1P2	1					storage card.
	A-A1N2	1					
1685	A-A1T2	87					Main stg write parity
	A-A1Q2	11					check. A1T2 is a 128Kb

	A-A1P2	1					storage card.
	A-A1N2	1					
1686	A-A1S2	87					Main storage write parity
	A-A1Q2	11					check.
	A-A1P2	1					A-A1S2 is a 128Kb storage
	A-A1N2	1					card.
1687	A-A1R2	87					Main storage write parity
	A-A1Q2	11					check.
	A-A1P2	1					A-A1R2 is a 128Kb storage
	A-A1N2	1					card.
1688	A-A1U2	50					Main stg write parity
	A-A1Q2	48					check. A1U2 is a 256Kb
	A-A1P2	1					storage card.
	A-A1N2	1					
1689	A-A1T2	50					Main stg write parity
	A-A1Q2	48					check. A1T2 is a 256Kb
	A-A1P2	1					storage card.
	A-A1N2	1					
168A	A-A1S2	50					Main stg write parity
	A-A1Q2	48					check. A1S2 is a 256Kb
	A-A1P2	1					storage card.
	A-A1N2	1					
168C	A-A1Q2	60					Main storage write parity
	A-A1R2	38					check.
	A-A1P2	1					A-A1R2 is a 512Kb storage
	A-A1N2	1					card.
16E8	A-A1N2	59					Wrong MSP error.
	A-A1Q2	41					
16EA	A-A1N2	94					MSP MSAR Parity Check.
	A-A1Q2	6					
16Eb	A-A1N2	60					Wrong MSP error during
	A-A1Q2	40					cycle steal.
16EC	A-A1N2	60					MSP MSAR Parity Check
	A-A1Q2	40					during cycle steal.

16F0	A-A1N2	90	0105A				A CSP error occurred.
	A-A1M2	5					REIPL the system then look
							up the new SRC in ERAP
							CSP error history table
							and use MAP 0113, 0114,
							0115, and 0116 for
							definition of new SRC.
16F1	MS	75	0105A				MSP error: main storage
	A-A1Q2	20					access timeout.
							REIPL the system then
							run the new SRC in ERAP
							CSP error history table
							and use MAP 0113, 0114,
							0115, and 0116 for
							definition of new SRC.
16F2	A-A1P2	50	0105A				MSP error: parity checks.
	A-A1Q2	30					REIPL the system then
	MS	15					run the new SRC in ERAP
	A-A1N2	2					CSP error history table
							and use MAP 0113, 0114,
							0115, and 0116 for
							definition of new SRC.
16F3	A-A1N2	10	0105A				A channel error occurred.
	A-A1E2/	10					REIPL the system then
	A-A2E2/						run the new SRC in ERAP
	A-A2J2						CSP error history table
	A-A1H2	10					and use MAP 0113, 0114,
	A-A1K2/	10					0115, and 0116 for
	A-A3S2/						definition of new SRC.
	A-A3P2						Check for bad Channel
	A-A2N2	10					terminator card. Only one
	A-A2S2/	10					will be present at either
	A-A2T2						A1B5, A2U3, A3U3 or A3U4.
	A-A1J2	5					Terminator cd P/N 4234073.
	X-Over	5					
	A-A1L2	1					
16F4	A-A1N2	90	0105A				A control storage ECC
	A-A1M2	5					occurred.
							REIPL the system then

							run the new SRC in ERAP CSP error history table and use MAP 0113, 0114, 0115, and 0116 for definition of new SRC.
16F5	A-A1N2	75	0101C				Interrupt level 1 occurred for an unknown device. REIPL the system then run the new SRC in ERAP CSP error history table and use MAP 0113, 0114, 0115, and 0116 for definition of new SRC.
16F6	A-A1N2 A-A1K2/ A-A3S2/ A-A3P2	45 45	0101C				Interrupt level 2 occurred for an unknown device. Could be any card on the channel bus causing the problem. REIPL the system then run the new SRC in ERAP CSP error history table and use MAP 0113, 0114, 0115, and 0116 for definition of new SRC.
16F7	A-A1N2	75	0101C				Interrupt level 3 occurred for an unknown device. REIPL the system then run the new SRC in ERAP CSP error history table and use MAP 0113, 0114, 0115, and 0116 for definition of new SRC.
16F8	A-A1N2 A-A1H2 A-A3S2 A-A1E2/ A-A2E2/ A-A2J2 A-A2N2 A-A2S2	10 10 10 10 10 10	0101C				Interrupt level 4 occurred for an unknown device. REIPL the system then run the new SRC in ERAP CSP error history table and use MAP 0113, 0114, 0115, and 0116 for definition of new SRC.

16FF	A-A1N2	10	0301				See MAP 0301 for more information on this system reference code.
	A-A1P2	10					
	A-A1Q2	10					
	MS	10					
	A-A1M2	10					
	A-A1Z2	10					
	X-Over	5					
**********			6157	Tape			**********
1702	A-A1E2	95					DSA3 cycle steal parity check on read.
1703	A-A1E2	95					DSA3 cycle steal parity check on write.
1704	A-A1E2	60					DSA3 Tactical Bus out parity check. * Run tape OLPD. Reseat A-A1D2 and topcard connector before replacing FRUs.
	A-A1D2	35					
1705	A-A1D2	65					DSA3 Tactical Bus in parity check. * Run tape OLPD. Reseat A-A1D2 and topcard connector before replacing FRUs.
	A-A1E2	30					
1706	A-A1E2	65					DSA3 data out parity check detected by DLC (tactical bus) * Run tape OLPD. Reseat A-A1D2 and topcard connector before replacing FRUs.
	A-A1D2	30					
1707	A-A1E2	60					Incorrect end op conditions * Run tape OLPD. Reseat A-A1D2 and topcard connector before
	A-A1D2	30					
	A-A1N2	5					

							replacing FRUs.
1708	A-A1E2	45					DSA3 system DPC load/
	A-A1D2	30					sense parity check
	A-A1N2	20					* Run tape OLPD.
							Reseat A-A1D2 and
							topcard connector before
							replacing FRUs.
1709	A-A1E2	50					Incorrect DSA3 DLC
	A-A1D2	45					address counter value
							* Run tape OLPD procedures
							before replacing FRUs.
							Reseat card (A-A1D2) and
							topcard connector before
							replacing FRUs. Run OLPD.
170A	A-A1D2	95					Data length check (HDW)
							* Run tape OLPD.
							Reseat card (A-A1D2) and
							topcard connector before
							replacing FRUs.
170b	A-A1D2	65					DLC Transfer complete
	A-A1E2	15					not active
	T Unit	15					* Run tape OLPD.
							Reseat A-A1D2 and
							topcard connector before
							replacing FRUs.
170C	A-A1E2	65					Cycle steal LSR ending
	A-A1N2	30					value incorrect
170d	A-A1D2	50					DSA3 Transfer Ready not
	A-A1E2	45					active for data transfer
							* Run tape OLPD.
							Reseat A-A1D2 and
							topcard connector before
							replacing FRUs.
170E	Program						Invalid tape volume
							sequence check
							* Wrong tape volume -

1710	Program					Command not valid
1711	Program					End of Volume encountered normal - completion.
1712	Program					Stack pointer overflow
1713	Program					Invalid command modifier.
1714	Program					Invalid tape data length associated with command.
1716	Program					Invalid command in write mode.
1717	Program					Invalid command in read mode.
1718	Program					Invalid command with file open.
1719	Program					Invalid command with file closed.
171A	Program					Invalid command with file suspended.
171C	Program					Invalid command with tape at beginning of tape.
171E	Program					Invalid command with file not suspended.
171F	Program					Invalid command sequence.
1721	Program					Invalid command invalid label.
1722	Program					Stack pointer underflow
1723	Program					Command not valid with tape not at Gap 0
1726	Program					Invalid file number

							specified.
1728	Program						Indeterminate error
1729	A-A1E2 A-A1D2 T Unit	60 20 15					Permanent tape subsystem error. * Run tape OLPD. Reseat A-A1D2 and topcard connector before replacing FRUs.
172A	Program						MSP buffer not large enough on a read / write block command
172b	T Unit Program	95					Data block contains invalid data on a read command
172F	Program						File is on previous tape volume. * Wrong tape cartridge, file not on this tape.
1730	Program						Tape drive is unable to receive or send data * Busy executing command.
1734	Program						Data length shorter than requested
1735	T Unit A-A1D2 Program	85 10					Invalid volume ID * Blank cartridge or not IBM SL format.
1736	T Unit Program	95					LEOT found searching for label * Wrong cartridge, file not on tape
1738	T Unit A-A1D2 Program	85 10					File block counter not equal to count in trailer label or block descriptor * 10CH code

1739	T Unit A-A1D2 Program	85 10					Invalid header label Cartridge not IBM format.
173A	T Unit	95					Beginning of tape found, but not expected.
173b	T Unit A-A1D2 Program	85 10					Invalid trailer label Cartridge not IBM format.
173C	Program						Previous device-to-device op failed
173d	T Unit Program	95					Invalid file mark encountered Cartridge not IBM format.
173E	T Unit A-A1D2 Program	85 10					Invalid tape format.
173F	Program						Write attempted without retension or erase.
1740	A-A1D2 T Unit A-A1A3	50 40 5					Timeout waiting for command to be accepted * Run tape OLPD. Reseat A-A1D2, top card connector and internal cable A-A1A3 before replacing FRUs.
1741	T Unit A-A1D2 A-A1A3	50 40 5					Bad parity on tape bus during read * Run tape OLPD. Reseat A-A1D2, top card connector and internal cable A-A1A3 before replacing FRUs.
1742	A-A1D2 T Unit A-A1A3	50 40 5					Unable to reset ready end or exception interrupt. * Run tape OLPD. Reseat A-A1D2, top card connector

							and internal cable A-A1A3 before replacing FRUs.
1743	T Unit A-A1D2 A-A1A3	50 40 5					Timeout waiting for command termination * Run tape OLPD. Reseat A-A1D2, top card connector and internal cable A-A1A3 before replacing FRUs.
1744	A-A1D2 A-A1E2	70 25					Tape data in parity check is stuck on. * Run tape OLPD. Reseat A-A1D2, top card connector and internal cable A-A1A3 before replacing FRUs.
1745	Program						Data length longer than requested
1746	T Unit A-A1D2 A-A1A3	70 20 5					Exception is on unexpectedly * Run tape OLPD. Reseat A-A1D2, top card connector and internal cable A-A1A3 before replacing FRUs.
1747	T Unit A-A1D2 A-A1A3	45 40 10					Drive not ready to accept command * Run tape OLPD. Reseat A-A1D2, top card connector and internal cable A-A1A3 before replacing FRUs.
1748	T Unit A-A1D2 A-A1A3	45 40 10					No ready response when command issued * Run tape OLPD. Reseat A-A1D2, top card connector and internal cable A-A1A3 before replacing FRUs.
174A	A-A1N2 Program	80 15					Second error during error recovery

174b	A-A1D2	85					Unexpected interrupt
	T Unit	5					by the Tape DLC
	A-A1A3	5					* Run tape OLPD. Reseat
							A-A1D2, top card connector
							and internal cable A-A1A3
							before replacing FRUs.
1750	T Unit	60					Reset command failed
	A-A1D2	35					to reset interface. Drive
	A-A1A3	5					not powered on or unit not
							connected properly.
							* Run tape OLPD. Reseat
							A-A1D2, top card connector
							and internal cable A-A1A3
							before replacing FRUs.
1751	T Unit	85					Reset command failed
	A-A1D2	5					* Run tape OLPD. Reseat
	A-A1A3	5					A-A1D2, top card connector
							and internal cable A-A1A3
							before replacing FRUs.
1752	A-A1D2	50					No ready end to indicate a
	T Unit	45					status byte is available.
							* Run tape OLPD. Reseat
							A-A1D2, top card connector
							and internal cable A-A1A3
							before replacing FRUs.
1753	A-A1D2	60					Tape data in parity
	T Unit	30					check during command
	A-A1A3	5					response (DPC)
							* Run tape OLPD. Reseat
							A-A1D2, top card connector
							and internal cable A-A1A3
							before replacing FRUs.
1755	T Unit	80					Ready not off after
	A-A1D2	15					reading status byte
							* Run tape OLPD. Reseat
							A-A1D2, top card connector
							and internal cable A-A1A3
							before replacing FRUs.

1766	Media T Unit	90 5					Write abort. * Operator may have moved loading lever on tape drive unit while drive in operation. If unable to separate media/operator/ hardware run tape OLPD.
1768	Media T Unit	90 5					EOM detected while executing command * If unable to separate media/operator/hardware run tape OLPD.
1769	Media T Unit	90 5					Read error. No data detected & EOM detected. Run Tape OLPD.
176b	Media T Unit	90 5					Read error. Bad block transferred. * If unable to separate media/operator/hardware run tape OLPD.
176C	Media T Unit	90 5					Read error. Filler block transferred * If unable to separate media/operator/hardware run tape OLPD.
176d	Media T Unit	90 5					Read error. No data detected & BOM detected. * If unable to separate media/operator/hardware run tape OLPD.
1770	A-A1D2 T Unit A-A1A3	60 30 5					Illegal Tape command specified * Run tape OLPD. Reseat A-A1D2, top card connector and internal cable A-A1A3 before replacing FRUs.
1771	A-A1D2	60					Bad parity on Tape bus

	T Unit	30					during write
	A-A1A3	5					* Run tape OLPD. Reseat A-A1D2, top card connector and internal cable A-A1A3 before replacing FRUs.
1772	Media	70					Device fault error.
	T Unit	30					* Media potential. Verify cartridge turns freely, etc. Run OLPD.
1773	T Unit	50					Unexpected exception (status byte) condition
	A-A1D2	35					
	A-A1E2	10					Invalid status from drive.
1774	T Unit	95					Unexpected power On/Reset detected
1781	User	90					* No tape cartridge or cartridge not in place. Operator may have moved loading lever on tape drive unit while drive in operation. If unable to separate media/operator/hardware run tape OLPD.
	T Unit	5					
17A6	User	70					Tape file protected on write operation * Inspect cartridge case to verify the media is wound on both reels and is visible through the door on the cartridge. If unable to separate media/operator/hardware run tape OLPD.
	T Unit	5					
17E0	T Unit	50					Self Test Invalid format results returned from drive * Run tape OLPD. Reseat A-A1D2, top card connector
	A-A1D2	25					
	A-A1A3	20					

							and internal cable A-A1A3 before replacing FRUs.
17E1	T Unit Media	95 3					Self Test Speed or Sensor error encountered. * Verify the media is wound on both reels and is visible through the door on the cartridge. Verify the cartridge is installed correctly.
17F0	A-A1D2 A-A1E2	85 10					Adapter error (OLPD) * Run tape OLPD. Reseat A-A1D2, top card connector and internal cable A-A1A3 before replacing FRUs.
17F1	A-A1A3	95					Cable error (OLPD) * Reseat wrap connector and internal cable A-A1A3 before replacing FRUs. Run OLPD.
17F2	Program						Invalid screen number from SRC during OLPD.
17F5	A-A1D2 A-A1E2	50 45					Tactical bus during OLPD. * Reseat A-A1D2 and top card connector before replacing FRUs. Run OLPD
17F6	A-A1D2 A-A1A3	60 35					Tape Interface during OLPD * Reseat wrap connector and internal cable A-A1A3 before replacing FRUs.
17F7	Program						Undetermined error during OLPD wraps.
17F8	A-A1E2 A-A1D2	85 10					DSA error during OLPD.
17F9	T Unit	95					Tape Unit error

17Fb	T Unit	95					File mark not read during OLPD.
17FC	T Unit	65					Data compare error during OLPD.
	A-A1D2	15					
	A-A1E2	15					
17Fd	User	70					Cartridge not write protected during OLPD.
	T Unit	25					
**********	Communications 18xx						**********
1800							No failure detected. For communication line problems, go to MAP 3003A. For communications controller problems look up the latest communication controller ERAP entries. If SRCs other than 1800 are recorded, replace indicated FRUs. If the latest entries are 1800s, go to MAP 3091 and use the charts to isolate the FRU. If no failure can be detected and no FRU information is obtained from controller ERAP, use the FRUs listed in MAP 3009 as an intermittent FRU replacement list.
1810	A-A3S2	60	3003A		30-700	SS-300	Controller load failure.
	X-Over	25					
1811	A-A3S2	90	3003A	T6101	30-700	SS-300	Bus coupler failed test (controller wrap test failure).
	X-Over	5		T6102			
				T6103			
				T6104			
1814	A-A3S2	95	3003A		30-700	SS-300	Controller failure

	X-Over	2					(controller wrap test failure).
1815	A-A3S2 X-Over	95 2	3003A		30-700	SS-300	Controller storage failure (controller wrap test failure).
1816	A-A3P2 A-A3F2/ A-A3G2/ A-A3H2/ A-A3J2/ A-A3K2/ A-A3L2/ A-A3M2/ A-A3N2/ X-Over	90 9 1	3000A				Controller failure, controller wrap test failure.
1821	A-A3R2 A-A3S2 X-Over	85 12 1	3003A		30-700	SR-300 SS-300	Line 1 - test failed on line 1 adapter (controller wrap test failure).
1822	A-A3Q2 A-A3S2	85 12	3003A		30-700	SQ-300 SS-300	Line 2 - test failed on line 2 adapter (controller wrap test failure).
1823	A-A3S2 A-A3Q2 A-A3R2	49 25 25	3003A			SS-300	Test failed on lines 1 & 2 (controller wrap test failure).
1824	A-A3P2 A-A3S2	85 12	3003A		30-700	SP-300 SS-300	Line 3 - test failed on line 3 adapter (controller wrap test failure).
1825	A-A3S2 A-A3R2 A-A3P2	49 25 25	3003A		30-700	SS-300	Test failed on lines 1 & 3 (controller wrap test failure).
1826	A-A3S2 A-A3Q2 A-A3P2	49 25 25	3003A			SS-300	Test failed on lines 2 & 3 (controller wrap test failure).
1827	A-A3S2	49	3003A		30-700	SS-300	Test failed on lines 1,

	A-A3R2	15					2 & 3 (controller wrap
	A-A3Q2	15					test failure).
	A-A3P2	15					
1828	A-A3N2	85	3003A		30-700	SN-300	Line 4 - test failed on
	A-A3S2	12				SS-300	line 4 adapter (controller
							wrap test failure.
1829	A-A3S2	49	3003A		30-700	SS-300	Test failed on lines 2 &
	A-A3R2	25					4 (controller wrap test
	A-A3N2	25					failure).
182A	A-A3S2	49	3003A		30-700	SS-300	Test failed on lines 2 &
	A-A3N2	25					4 (controller wrap test
	A-A3Q2	25					failure).
182b	A-A3S2	49	3003A		30-700	SS-300	Test failed on lines 1, 2
	A-A3R2	15					& 4 (controller wrap test
	A-A3Q2	15					failure).
	A-A3N2	15					
182C	A-A3S2	49	3003A		30-700	SS-300	Test failed on lines 3 &
	A-A3P2	25					4 (controller wrap test
	A-A3N2	25					failure).
182d	A-A3S2	49	3003A		30-700	SS-300	Test failed on lines 1, 3
	A-A3R2	15					& 4 (controller wrap test
	A-A3P2	15					failure).
	A-A3N2	15					
182E	A-A3S2	49	3003A		30-700	SS-300	Test failed on lines 2, 3
	A-A3Q2	15					& 4 (controller wrap test
	A-A3P2	15					failure).
	A-A3N2	15					
182F	A-A3S2	55	3003A		30-700	SS-300	Test failed on all line
	A-A3N2	10					adapters (controller
	A-A3P2	10					wrap test failure).
	A-A3Q2	10					
	A-A3R2	10					
1830							BSC Receive Time-out Data
							Mode.
							See MIM Sections 30-510 to

							30-517 for more information.
1831							BSC Not Data Set Ready. See MIM Sections 30-510 to 30-517 for more information.
1832							BSC Abortive Disconect. See MIM Sections 30-510 to 30-517 for more information.
1833							BSC Receive Adapter Check. See MIM Sections 30-510 to 30-517 for more information.
1834							BSC Transmit Adapter Check. See MIM Sections 30-510 to 30-517 for more information.
1835							BSC Block Check (LRC/CRC/VRC) error. See MIM Sections 30-510 to 30-517 for more information.
1836							BSC Receive Time-out. See MIM Sections 30-510 to 30-517 for more information.
1837							BSC ASCII Character not valid. See MIM Sections 30-510 to 30-517 for more information.
1838							SDLC Adapter Check (Overrun/Underrun). See MIM Sections 30-520 to

							30-527 for more information.
1839							SDLC Abortive Disconnect (DCE clear- X.21 only). See MIM Sections 30-520 to 30-527 for more information.
183A							SDLC Not Data Set Ready. See MIM Sections 30-520 to 30-527 for more information.
183b							SDLC Time-out (if primary station, this is a 16-second nonproductive time-out. If secondary, this is a 32-second inactivity time-out). See MIM Sections 30-520 to 30-527 for more information.
183C							SDLC Idle Detected (primary station). See MIM Sections 30-520 to 30-527 for more information.
183d							SDLC Frame not valid. See MIM Sections 30-520 to 30-527 for more information.
183E							SDLC Frame Check (data check). See MIM Sections 30-520 to 30-527 for more information.
183F							SDLC Receive Buffer Overrun. See MIM Sections 30-520 to

							30-527 for more information.
1840	A-A3P2 A-A3F2/ A-A3G2/ A-A3H2/ A-A3J2/ A-A3K2/ A-A3L2/ A-A3M2/ A-A3N2/	90 10	3000A				Test failed on multiple communications adapters. Controller wrap test failure.
1841	A-A3F2 A-A3P2	95 5	3000A				Test failed on line 1 communication line adapter. Communications line adapter type is unknown. Controller wrap test fail.
1842	A-A3G2 A-A3P2	95 5	3000A				Test failed on line 2 communication line adapter. Communications line adapter type is unknown. Controller wrap test fail.
1843	A-A3H2 A-A3P2	95 5	3000A				Test failed on line 3 communication line adapter. Communications line adapter type is unknown. Controller wrap test fail.
1844	A-A3J2 A-A3P2	95 5	3000A				Test failed on line 4 communication line adapter. Communications line adapter type is unknown. Controller wrap test fail.
1845	A-A3K2 A-A3P2	95 5	3000A				Test failed on line 5 communication line adapter. Communications

							line adapter type is unknown. Controller wrap test fail.
1846	A-A3L2 A-A3P2	95 5	3000A				Test failed on line 6 communication line adapter. Communications line adapter type is unknown. Controller wrap test fail.
1847	A-A3M2 A-A3P2	95 5	3000A				Test failed on line 7 communication line adapter. Communications line adapter type is unknown. Controller wrap test fail.
1848	A-A3N2 A-A3P2	95 5	3000A				Test failed on line 8 communication line adapter. Communications line adapter type is unknown. Controller wrap test fail.
1849	A-A3F2/ A-A3G2/ A-A3H2/ A-A3J2/ A-A3K2/ A-A3L2/ A-A3M2/ A-A3N2/ A-A1K2/ A-A3P2	96 1	3000A				EIA/CCITT communication line adapter failure. Basic communication diagnostic test failure.
184A	A-A3F2/ A-A3G2/ A-A3H2/ A-A3J2/ A-A3K2/ A-A3L2/ A-A3M2/ A-A3N2/	96 	3000A				DDSA communication line adapter failure.

	A-A1K2/						
	A-A3P2	1					
184b	A-A3F2/	96	3000A				X.21 communication line
	A-A3G2/						adapter failure.
	A-A3H2/						Basic communication
	A-A3J2/						diagnostic test failure.
	A-A3K2/						
	A-A3L2/						
	A-A3M2/						
	A-A3N2/						
	A-A1K2/						
	A-A3P2	1					
184C	A-A3F2/	96	3000A				V.35 communication line
	A-A3G2/						adapter failure.
	A-A3H2/						Basic communication
	A-A3J2/						diagnostic test failure.
	A-A3K2/						
	A-A3L2/						
	A-A3M2/						
	A-A3N2/						
	A-A3P2	1					
1851	SLCA		3003A		30-700		Test 1 - test buffer
	A-A1K2	95					register
	MLCA						
	A-A3R2/	95				SR-300	Line 1- Line adapter error
	A-A3Q2/					SQ-300	Line 2- Line adapter error
	A-A3P2/					SP-300	Line 3- Line adapter error
	A-A3N2					SN-300	Line 4- Line adapter error
1852	SLCA		3003A		30-700		Test 2 - test control
	A-A1K2	95					output register
	MLCA						
	A-A3R2/	95				SR-300	Line 1- Line adapter error
	A-A3Q2/					SQ-300	Line 2- Line adapter error
	A-A3P2/					SP-300	Line 3- Line adapter error
	A-A3N2					SN-300	Line 4- Line adapter error
1853	SLCA		3003A		30-700		Test 3 - test DSR
	A-A1K2	95					w/interrupt
	MLCA						
	A-A3R2/	95				SR-300	Line 1- Line adapter error

	A-A302/					SQ-300	Line 2- Line adapter error
	A-A3P2/					SP-300	Line 3- Line adapter error
	A-A3N2					SN-300	Line 4- Line adapter error
1854	SLCA		3003A	T8109	30-700		Test 4 - test timer w/interrupt
	A-A1K2	95					
	MLCA						
	A-A3R2/	95				SR-300	Line 1- Line adapter error
	A-A3Q2/					SQ-300	Line 2- Line adapter error
	A-A3P2/					SP-300	Line 3- Line adapter error
	A-A3N2					SN-300	Line 4- Line adapter error
1855	SLCA		3003A		30-700		Test 5 - test overrun
	A-A1K2	95					
	MLCA						
	A-A3R2/	95				SR-300	Line 1- Line adapter error
	A-A3Q2/					SQ-300	Line 2- Line adapter error
	A-A3P2/					SP-300	Line 3- Line adapter error
	A-A3N2					SN-300	Line 4- Line adapter error
1856	SLCA		3003A		30-700		Test 6 - test transmit data
	A-A1K2	95					
	MLCA						
	A-A3R2/	95				SR-300	Line 1- Line adapter error
	A-A3Q2/					SQ-300	Line 2- Line adapter error
	A-A3P2/					SP-300	Line 3- Line adapter error
	A-A3N2					SN-300	Line 4- Line adapter error
1857	SLCA		3003A		30-700		Test 7 - test receive data
	A-A1K2	95					
	MLCA						
	A-A3R2/	95				SR-300	Line 1- Line adapter error
	A-A3Q2/					SQ-300	Line 2- Line adapter error
	A-A3P2/					SP-300	Line 3- Line adapter error
	A-A3N2					SN-300	Line 4- Line adapter error
1858	Xcable	99	3000A				EIA/CCITT external cable failure. Basic communication diagnostic test failure.
1859	Xcable	99	3000A				Autocall external cable failure. Basic communication

							diagnostic test failure.
185A	Xcable DCE	50 50	3000A				X.21 external cable or DCE failure. Basic communication diagnostic test failure.
185b	Xcable Modem	50 50	3000A				V.35 external cable or modem. Basic communication diagnostic test failure.
185C	Xcable	99	3000A				DDSA external cable failure. Basic communication diagnostic test failure.
1860	Lmodem Network Rmodem	60 20 6				Modem manual	LPDA local/remote status test (no response from local modem)
1868	Network Lmodem Rmodem	55 35 6				Modem manual	LPDA local/remote status test (local data quality = 8).
1869	Network Lmodem Rmodem	55 35 6				Modem manual	LPDA local/remote status test (local data quality = 9).
186A	Network Lmodem Rmodem	55 35 6				Modem manual	LPDA local/remote status test (local data quality =10).
186b	Network Lmodem Rmodem	55 35 6				Modem manual	LPDA local/remote status test (local data quality =11).
186C	Network Lmodem Rmodem	55 35 6				Modem manual	LPDA local/remote status test (local data quality =12).
186d	Network Lmodem Rmodem	55 35 6				Modem manual	LPDA local/remote status test (local data quality =13).

186E	Network Lmodem Rmodem	55 35 6				Modem manual	LPDA local/remote status test (local data quality =14).
186F	Network Lmodem Rmodem	55 35 6				Modem manual	LPDA local/remote status test (local data quality =13).
1870	DCE A-A3F2/ A-A3G2/ A-A3H2/ A-A3J2/ A-A3K2/ A-A3L2/ A-A3M2/ A-A3N2/ Xcable Icable	40 30 20 10	3000A				Adapter error Japan V.35 DCE wrap test 1. Xcable = V.35 external cable Basic communication diagnostic test failure.
1871	Lmodem A-A3F2/ A-A3G2/ A-A3H2/ A-A3J2/ A-A3K2/ A-A3L2/ A-A3M2/ A-A3N2/ Xcable Icable	40 30 20 10	3000A				Adapter error Japan V.35 DCE wrap test 2. Xcable = V.35 external cable Basic communication diagnostic test failure.
1872	DCE A-A3F2/ A-A3G2/ A-A3H2/ A-A3J2/ A-A3K2/ A-A3L2/ A-A3M2/ A-A3N2/ Xcable Icable	40 30 20 10	3000A				Adapter error during X.21 DCE test or cable tower wrap. Xcable = X.21 external cable Basic communication diagnostic test failure.

1873	A-A3F2/	50	3000A				EIA/CCITT adapter error
	A-A3G2/						Japan cable wrap transmit
	A-A3H2/						to receive. Xcable = EIA
	A-A3J2/						external cable
	A-A3K2/						(including stub cable)
	A-A3L2/						
	A-A3M2/						
	A-A3N2/						
	A-A1K2/						
	Xcable	35					Basic communication
	Icable	15					diagnostic test failure.
1874	A-A3F2/	50	3000A				EIA/CCITT adapter error
	A-A3G2/						Japan cable wrap DTR DSR
	A-A3H2/						RTS CTS EIA/CCITT.
	A-A3J2/						Xcable = EIA external
	A-A3J2/						cable
	A-A3K2/						(including stub cable).
	A-A3L2/						
	A-A3M2/						
	A-A3N2/						
	A-A1K2/						
	Xcable	35					Basic communication
	Icable	15					diagnostic test failure.
1875	Lmodem	40	3000A				EIA/CCITT adapter error
	A-A3F2/	30					Japan cable wrap, no
	A-A3G2/						receive timing.
	A-A3H2/						
	A-A3J2/						Xcable = EIA external
	A-A3K2/						
	A-A3L2/						
	A-A3M2/						
	A-A3N2/						
	A-A1K2/						
	Xcable	20					Basic communication
	Icable	10					diagnostic test failure.
187A	I/E cbl	30	3003A	T8158	36-XXX	SL-350	Line 4 - line adapter
	LDCE	30				SN-300	error during Japan V.35
	A-A3L4	30					DCE wrap test 1 (line
	A-A3N2	5					wrap test failure).
							LDCE = local DCE.

187b	I/E cbl	30	3003A	T8159	36-XXX	SL-350 SN-300	Line 4 - line adapter error during Japan V.35 DCE wrap test 2 (line wrap test failure).
	LDCE A-A3L4 A-A3N2	30 30 5					
187C	SLCA: I/E cbl LDCE A-A1G2 A-A1K2 MLCA: I/E cbl LDCE A-A3M2/ A-A3L2/ A-A3M4/ A-A3L4 A-A3R2/ A-A3Q2/ A-A3P2/ A-A3N2	 30 30 30 5 30 30 30 5 	3003A	T8140	36-XXX		line adapter error during X.21 DCE wrap test. (line test wrap error) LDCE = Local DCE
187d	SLCA: I/E cbl LDCE A-A1G2 A-A1K2 MLCA: I/E cbl LDCE A-A3M2/ A-A3L2/ A-A3M4/ A-A3L4 A-A3R2/ A-A3Q2/ A-A3P2/ A-A3N2	 50 20 20 10 50 20 20 10 	3003A				Line adapter error. Japan cable wrap to receive. (line wrap test failure) LDCE = local DCE
187E	SLCA: I/E cbl A-A1G2	 70 20	3003A				Line adapter error. Japan cable wrap DTR, DSR, RTS, CTS

	A-A1K2	10					(line wrap test failure)
	MLCA:						
	I/E cbl	70					
	A-A3M2/	20					
	A-A3L2/						
	A-A3M4/						
	A-A3L4						
	A-A3R2/	10					
	A-A3Q2/						
	A-A3P2/						
	A-A3N2						
187F	SLCA:		3003A				Line adapter error. Japan
	LDCE	55					cable wrap receive timing
	Ext cbl	25					(line wrap test failure)
	A-A1G2	10					
	A-A1K2	10					LDCE = local DCE
	MLCA						
	LDCE	55					
	Ext cbl	25					
	A-A3M2/	10					
	A-A3L2/						
	A-A3M4/						
	A-A3L4						
	A-A3R2/	10					
	A-A3Q2/						
	A-A3P2/						
	A-A3N2						
1880	Card 1	40	3003A			Modem	LPDA local selftest error
	Card 2	30				manual	(no response from local
	Card 3	20					Modem)
	Coupler	5					No P/N supplied, see
	CALA	5					local LPDA Modem.
							* The Modem cards listed
							are valid only for 386x
							Modems.
							CALA = Comm Adapter, Line
							Adapter or Cables.
1881	Coupler	90				Modem	LPDA local selftest error
	Card 3	2				manual	(local extrnl modem fail)
	Card 2	2					No P/N supplied, see
	Card 1	2					local LPDA Modem.

							* The Modem cards listed are valid only for 386x Modems.
1882	Card 3 Card 1 Coupler Card 2	91 3 2 2				Modem manual	LPDA local selftest error (local extrnl modem fail) No P/N supplied, see local LPDA Modem. * The Modem cards listed are valid only for 386x Modems.
1883	Card 3 Coupler Card 2 Card 1	50 40 2 2				Modem manual	LPDA local selftest error (local extrnl modem fail) No P/N supplied, see local LPDA Modem. * The Modem cards listed are valid only for 386x Modems.
1884	Card 2 Card 1 Card 3 Coupler	72 15 2 2				Modem manual	LPDA local selftest error (local extrnl Modem fail) No P/N supplied, see local LPDA Modem. * The Modem cards listed are valid only for 386x Modems.
1885	Card 2 Coupler Card 1 Card 3	50 40 2 2				Modem manual	LPDA local selftest error (local extrnl modem fail) No P/N supplied, see local LPDA Modem. * The Modem cards listed are valid only for 386x Modems.
1886	Card 2 Coupler Card 1 Card 3	50 40 2 2				Modem manual	LPDA local selftest error (local extrnl modem fail) No P/N supplied, see local LPDA Modem. * The Modem cards listed are valid only for 386x Modems.

1887	Card 2	40				Modem manual	LPDA local selftest error (local extrnl modem fail) No P/N supplied, see local LPDA Modem. * The Modem cards listed are valid only for 386x Modems.
	Card 3	27					
	Coupler	25					
	Card 1	2					
1888	Card 1	73				Modem manual	LPDA local selftest error (local extrnl modem fail) No P/N supplied, see local LPDA Modem. * The Modem cards listed are valid only for 386x Modems.
	Coupler	5					
	Card 2	5					
	Card 3	2					
1889	Card 1	50				Modem manual	LPDA local selftest error (local extrnl modem fail) No P/N supplied, see local LPDA Modem. * The Modem cards listed are valid only for 386x Modems.
	Coupler	40					
	Card 2	2					
	Card 3	2					
188A	Card 1	50				Modem manual	LPDA local selftest error (local extrnl modem fail) No P/N supplied, see local LPDA Modem. * The Modem cards listed are valid only for 386x Modems.
	Card 3	40					
	Coupler	2					
	Card 2	2					
188b	Card 1	40				Modem manual	LPDA local selftest error (local extrnl modem fail) No P/N supplied, see local LPDA Modem. * The Modem cards listed are valid only for 386x Modems.
	Card 3	27					
	Coupler	25					
	Card 2	2					
188C	Card 1	50				Modem manual	LPDA local selftest error (local extrnl modem fail) No P/N supplied, see local LPDA Modem.
	Card 2	40					
	Card 3	2					
	Coupler	2					

							* The Modem cards listed are valid only for 386x Modems.
188d	Card 1 Card 2 Coupler Card 3	40 27 25 2				Modem manual	LPDA local selftest error (local extrnl modem fail) No P/N supplied, see local LPDA Modem. * The Modem cards listed are valid only for 386x Modems.
188E	Card 2 Card 3 Coupler Card 1	40 27 25 2				Modem manual	LPDA local selftest error (local extrnl modem fail) No P/N supplied, see local LPDA Modem. * The Modem cards listed are valid only for 386x Modems.
188F	Coupler Card 3 Card 2 Card 1	20 20 20 20				Modem manual	LPDA local selftest error (local extrnl modem fail) No P/N supplied, see local LPDA Modem. * The Modem cards listed are valid only for 386x Modems.
188F	Coupler Card 3 Card 2 Card 1	20 20 20 20				Modem manual	LPDA local selftest error (local external modem failure). FRU callouts, see local LPDA modem - no P/N supplied. The modem cards listed below are valid only for 386x modems. Card 1 - front end card. Card 2 - receiver card. Card 3 - Processor card. Coupler- modem coupler.
1890	A-A3F2/ A-A3G2/	60	3000A				EIA end of cable wrap failure (every FRU).

	A-A3H2/						
	A-A3J2/						Xcable = EIA external
	A-A3K2/						cable
	A-A3L2/						
	A-A3M2/						
	A-A3N2/						
	A-A1K2/						Basic communication
	Xcable	30					diagnostic test failure.
	Icable	10					
1891	A-A3F2/	80	3000A				EIA cable tower wrap
	A-A3G2/						failure (CA & ICable) or
	A-A3H2/						autocall cable tower wrap
	A-A3J2/						failure (CA & ICable)
	A-A3K2/						EIA, P/N 2597420 autocall
	A-A3L2/						
	A-A3M2/						
	A-A3N2/						Basic communication
	A-A1K2/						diagnostic test failure.
	Icable	20					
1892	A-A3F2/	60	3000A				DDSA end of cable wrap
	A-A3G2/						failure. Xcable = DDSA
	A-A3H2/						external cable
	A-A3J2/						
	A-A3K2/						
	A-A3L2/						
	A-A3M2/						
	A-A3N2/						
	A-A1K2/						
	Xcable	30					Basic communication
	Icable	10					diagnostic test failure.
1893	A-A3F2/	80	3000A				DDSA cable tower wrap
	A-A3G2/						failure (CA & ICable)
	A-A3H2/						
	A-A3J2/						
	A-A3K2/						
	A-A3L2/						
	A-A3M2/						
	A-A3N2/						Basic communication
	A-A1K2/						
	Icable	20					diagnostic test failure.

1894	A-A3F2/	80	3000A				X.21 cable tower wrap
	A-A3G2/						failure (CA & ICable)
	A-A3H2/						
	A-A3J2/						
	A-A3K2/						
	A-A3L2/						
	A-A3M2/						
	A-A3N2/						Basic communication
	A-A1K2/						
	Icable	20					diagnostic test failure.
1895	A-A3F2/	80	3000A				V.35 WB cable tower wrap
	A-A3G2/						failure (CA & ICable)
	A-A3H2/						
	A-A3J2/						
	A-A3K2/						
	A-A3L2/						
	A-A3M2/						
	A-A3N2/						Basic communication
	Icable	20					diagnostic test failure.
1896	A-A3F2/	60	3000A				Autocall end of cable wrap
	A-A3G2/						failure (every FRU).
	A-A3H2/						Xcable = A. C. external
	A-A3J2/						cable
	A-A3K2/						
	A-A3L2/						
	A-A3M2/						
	A-A3N2/						
	Xcable	30					Basic communication
	Icable	10					diagnostic test failure.
1897	SLCA:		3003A	T8150	34-XXX		Line 1 - 4-wire cable
	A-A1G2	80					tower wrap failure w/DDSA
	A-A1K2	10					(line wrap test failure).
	Int cbl	10					
	MLCA:						
	A-A3M2/	80				SM-300	
	A-A3L2/					SL-300	
	A-A3M4/					SM-350	
	A-A3L4					SL-350	
	A-A3R2/	10				SR-300	
	A-A3Q2/						
	A-A3P2/						

	A-A3N2						
	Int cbl	10					
1899	A-A3L4	80				SL-350	Line 4 - V35 cable tower
	Int cbl	10				SN-300	wrap error
	A-A3N2	10					(line wrap test failure)
189A	SLCA		3003A	T8151	30-XXX		Line 1 - EIA/CCITT or
	A-A1G2	80		T8152	-or-		autocall cable tower wrap
	A-A1K2	10			30-XXX		error (line wrap test
	Int cbl	10					(line wrap test failure)
	MLCA						
	A-A3M2/	80				SM-300	
	A-A3L2/					SL-300	
	A-A3M4/					SM-350	
	A-A3L4					SL-350	
	A-A3R2/	10				SR-300	
	A-A3Q2/						
	A-A3P2/						
	A-A3N2						
	Int cbl	10					
18A0	Lmodem	90				Modem	LPDA local status test
	Network	10				manual	error (no response).
18A8	Network	65				Modem	LPDA local status test
	Lmodem	16				manual	error (data quality = 8).
	Rmodem	16					
18A9	Network	65				Modem	LPDA local status test
	Lmodem	16				manual	error (data quality = 9).
	Rmodem	16					
18AA	Network	65				Modem	LPDA local status test
	Lmodem	16				manual	error (data quality = 10).
	Rmodem	16					
18Ab	Network	65				Modem	LPDA local status test
	Lmodem	16				manual	error (data quality =
	Rmodem	16					11).
18AC	Network	65				Modem	LPDA local status test
	Lmodem	16				manual	error (data quality =
	Rmodem	16					12).

18Ad	Network Lmodem Rmodem	65 16 16				Modem manual	LPDA local status test error (data quality = 13).
18AE	Network Lmodem Rmodem	65 16 16				Modem manual	LPDA local status test error (data quality = 14).
18AF	Network Lmodem Rmodem	65 16 16				Modem manual	LPDA local status test error (data quality = 15).
18b0							Line allocation failed (return code not recognized) or test selection is not valid. Program error.
18b1	SLCA: A-A1G2 A-A1K2 MLCA: A-A3M2/ A-A3L2/ A-A3M4/ A-A3L4 A-A3R2/ A-A3Q2/ A-A3P2/ A-A3N2	 90 10 90 10 	3003A	T8149	34-XXX	 SM-300 SL-300 SM-350 SL-350 SR-300 SQ-300 SP-300 SN-300	Line 1 - DDSA card wrap error (LS type wrap (line wrap test failure).
18b2	Externl modem/ network	70	3003A				Communications SRC. No DSR - (from problem determination tests) but not enough known to do FRU isolation. CE/CSR run MDIs. Suspected external problem.
18b3	Externl modem/ network	50	3003A				Communications SRC. No CTS - (from problem determination tests) but not enough known to do

							FRU isolation. CE/CSR run MDIs. Suspected external problem.
18b4	Externl modem/ network	60	3003A				Communications SRC. No external receive clocking nor DSR - (from problem determination tests) but not enough known to do FRU isolation. CE/CSR run MDIs. Suspected external problem.
18b5	SLCA A-A1G2 A-A1K2 MLCA A-A3M2/ A-A3L2/ A-A3M4/ A-A3L4/ A-A3R2/ A-A3Q2/ A-A3P2/ A-A3N2	 90 10 90 10 	3003A	T8146	33-XXX	 SM-300 SL-300 SM-350 SL-350 SR-300 SQ-300 SP-300 SN-300	Line 1 - 1200 I.M. card wrap error (LS type wrap) (line wrap test failure).
18b6	IBM Externl modem	80	0101A	T8149		Modem Manual	External IBM modem failure. Modem number unknown.
18b7	User						Remote loopback test failure. Suspected external problem or operator problem from problem determination test
18b8	Xmodem A-A3F2/ A-A3G2/ A-A3H2/ A-A3J2/ A-A3K2/ A-A3L2/ A-A3M2/	80 12	3000A				No DSR from external modem Xmodem = external modem Xcable = EIA external cable

	A-A3N2/						
	A-A1K2/						
	Xcable	6					
	Icable	2					
18b9	Xmodem	80	3000A				No CTS from external modem
	A-A3F2/	12					Xmodem = external modem
	A-A3G2/						Xcable = EIA external
	A-A3H2/						cable
	A-A3J2/						
	A-A3K2/						
	A-A3L2/						
	A-A3M2/						
	A-A3N2/						
	A-A1K2/						
	Xcable	6					
	Icable	2					
18bA	Xmodem	80	3000A				No external receive clock
	A-A3F2/	12					from external modem.
	A-A3G2/						Xcable = EIA external
	A-A3H2/						cable
	A-A3J2/						
	A-A3K2/						
	A-A3L2/						
	A-A3M2/						
	A-A3N2/						
	A-A1K2/						
	Xcable	6					Xmodem = external modem
	Icable	2					
18bb	Xmodem	80	3000A				External modem failure.
	A-A3F2/	12					Xmodem = external modem
	A-A3G2/						Xcable = EIA external
	A-A3H2/						cable
	A-A3J2/						
	A-A3K2/						
	A-A3L2/						
	A-A3M2/						
	A-A3N2/						
	A-A1K2/						
	Xcable	6					
	Icable	2					

18bE	Xmodem	99					External modem failure. (Modem is only FRU) If this is Japan and an EIA/CCITT interface, suspect missing clocking from the modem.
18C0	Network Rmodem Lmodem	50 45 5				Modem manual	LPDA remote selftest error (no response from remote modem).
18C1	Coupler Card 3 Card 2	90 2 2				Modem manual	LPDA remote selftest error (remote LPDA modem failure. No P/Ns supplied, see remote LPDA modem. * The modem cards listed below are valid only for 386x modems.
18C2	Card 3 Card 1 Coupler Card 2	91 3 2 2				Modem manual	LPDA remote selftest error (remote LPDA modem failure). No P/Ns supplied, see remote LPDA modem. * The modem cards listed below are valid only for 386x modems.
18C3	Card 3 Coupler Card 1 Card 2	50 40 2 2				Modem manual	LPDA remote selftest error (remote LPDA modem failure). No P/Ns supplied, see remote LPDA modem. * The modem cards listed below are valid only for 386x modems.
18C4	Card 2 Card 1 Card 3 Coupler	72 15 10 2				Modem manual	LPDA remote selftest error (remote LPDA modem failure). No P/Ns supplied, see remote LPDA modem. * The modem cards listed

							below are valid only for 386x modems.
18C5	Card 2 Coupler Card 1 Card 3	50 40 2 2				Modem manual	LPDA remote selftest error (remote LPDA modem failure). No P/Ns supplied, see remote LPDA modem. * The modem cards listed below are valid only for 386x modems.
18C6	Card 2 Card 3 Coupler Card 1	50 40 2 2				Modem manual	LPDA remote selftest error (remote LPDA modem failure). No P/Ns supplied, see remote LPDA modem. * The modem cards listed below are valid only for 386x modems.
18C7	Card 2 Card 3 Coupler Card 1	40 27 25 2				Modem manual	LPDA remote selftest error (remote LPDA modem failure). No P/Ns supplied, see remote LPDA modem. * The modem cards listed below are valid only for 386x modems.
18C8	Card 1 Coupler Card 3 Card 2	73 5 2 2				Modem manual	LPDA remote selftest error (remote LPDA modem failure). No P/Ns supplied, see remote LPDA modem. * The modem cards listed below are valid only for 386x modems.
18C9	Card 1 Coupler Card 3 Card 2	50 40 2 2				Modem manual	LPDA remote selftest error (remote LPDA modem failure). No P/Ns supplied, see remote LPDA modem.

							* The modem cards listed below are valid only for 386x modems.
18CA	Card 1 Card 3 Coupler Card 2	50 40 2 2				Modem manual	LPDA remote selftest error (remote LPDA modem failure). No P/Ns supplied, see remote LPDA modem. * The modem cards listed below are valid only for 386x modems.
18Cb	Card 1 Card 3 Coupler Card 2	40 27 25 2				Modem manual	LPDA remote selftest error (remote LPDA modem failure). No P/Ns supplied, see remote LPDA modem. * The modem cards listed below are valid only for 386x modems.
18CC	Card 1 Card 2 Card 3 Coupler	50 40 2 2				Modem manual	LPDA remote selftest error (remote LPDA modem failure). No P/Ns supplied, see remote LPDA modem. * The modem cards listed below are valid only for 386x modems.
18Cd	Card 1 Card 2 Coupler Card 3	40 27 25 2				Modem manual	LPDA remote selftest error (remote LPDA modem failure). No P/Ns supplied, see remote LPDA modem. * The modem cards listed below are valid only for 386x modems.
18CE	Card 2 Card 3 Coupler Card 1	40 27 25 2				Modem manual	LPDA remote selftest error (remote LPDA modem failure). No P/Ns supplied, see

							remote LPDA modem. * The modem cards listed below are valid only for 386x modems.
18CF	Coupler Card 3 Card 2 Card 1	20 20 20 20				Modem manual	LPDA remote selftest error (remote LPDA modem failure). No P/Ns supplied, see remote LPDA modem. * The modem cards listed below are valid only for 386x modems.
18d0							Asynchronous receive parity error.
18d1							Asynchronous transmit adapter check.
18d2							Asynchronous receive overrun.
18d3							Asynchronous invalid stop bit.
18d4							Asynchronous break detected.
18d5							Asynchronous not clear to send.
18d6							Asynchronous not data set ready.
18d7							Asynchronous receive without DSR.
18d8							AUTOCALL Data Line Occupied (DLO) error. See MIM Sections 30-540 to 30-547 for more information.

18d9							AUTOCALL Abandon Call Retry (ACR) error. See MIM Sections 30-540 to 30-547 for more information.
18dA							AUTOCALL Present Next Digit (PND) error. See MIM Sections 30-540 to 30-547 for more information.
18db							AUTOCALL Distant Station Connected (DSC) error. See MIM Sections 30-540 to 30-547 for more information.
18dC							AUTOCALL Power Indicate (PWI) error. See MIM Sections 30-540 to 30-547 for more information.
18dd							AUTOCALL unit has received a command that was not valid. See MIM Sections 30-540 to 30-547 for more information.
18dE							AUTOCALL unit has received a telephone number with a length of zero. See MIM Sections 30-540 to 30-547 for more information.
18dF							AUTOCALL Data Terminal Ready (DTR) is off for the communications line. See MIM Sections 30-540 to 30-547 for more information.

18E0	Network	45			Modem manual	LPDA local/remote status test (no response from remote modem)
	Rmodem	45				
	Lmodem	6				
18E8	Network	65			Modem manual	LPDA local/remote test (remote data quality = 8).
	Rmodem	16				
	Lmodem	16				
18E9	Network	75			Modem manual	LPDA local/remote test (remote data quality = 9).
	Rmodem	11				
	Lmodem	11				
18EA	Network	85			Modem manual	LPDA local/remote test (remote data quality = 10).
	Rmodem	6				
	Lmodem	6				
18Eb	Network	85			Modem manual	LPDA local/remote test (remote data quality = 11).
	Rmodem	6				
	Lmodem	6				
18EC	Network	85			Modem manual	LPDA local/remote test (remote data quality = 12).
	Rmodem	6				
	Lmodem	6				
18Ed	Network	85			Modem manual	LPDA local/remote test (remote data quality = 13).
	Rmodem	6				
	Lmodem	6				
18EE	Network	85			Modem manual	LPDA local/remote test (remote data quality = 14).
	Rmodem	6				
	Lmodem	6				
18EF	Network	85			Modem manual	LPDA local/remote test (remote data quality = 15).
	Rmodem	6				
	Lmodem	6				
18F1						LPDA remote test. Remote modem test can not be run. Local Modem is not configured as a control modem. Configuration or operator problem. LPDA problem

						determination test.
18F2						X.21 Adapter Check (Overrun) occurred while attempting to make a call. See MIM Sections 30-550 to 30-555 for more information.
18F3						X.21 DCE was not ready or did not become ready after a clear. See MIM Sections 30-550 to 30-555 for more information.
18F4						X.21 DCE clear was done while attempting to make a call. See MIM Sections 30-550 to 30-555 for more information.
18F5						X.21 DCE responded to the selection sequence with a 2X through 8X call progress signal. See MIM Sections 30-550 to 30-555 for more information.
18F6						X.21 Parity error was sensed while attempting to make a call. See MIM Sections 30-550 to 30-555 for more information.
18F7						X.21 T3A Time-out. The DCE did not respond after responding with a call progress signal. See MIM Sections 30-550 to 30-555 for more

						information.
18F8						X.21 T3B Time-out. The DCE did not respond after responding with an 01, 02, or 03 call progress signal. See MIM Sections 30-550 to 30-555 for more information.
18F9						X.21 T2 Time-out. The DCE did not respond to the selection sequence. See MIM Sections 30-550 to 30-555 for more information.
18FA						X.21 T1 Time-out. The DCE did not respond to a call request. See MIM Sections 30-550 to 30-555 for more information.
18Fb						X.25 Normal completion. See MIM Sections 30-560 to 30-567 for more information.
18FC						X.25 Error completion. See MIM Sections 30-560 to 30-567 for more information.
18Fd						X.25 Attention completion. See MIM Sections 30-560 to 30-567 for more information.
18FE						Unknown communications error. See MIM Section 30-500 for more information.

**********	21ED Disk - 19xx					**********
1901	A-A1E2/ A-A2E2	90	9500A			Replace FRU only if MAPs do not isolate failure.
1902	A-A1C2/ A-A2C2/ A-A1E2/ A-A2E2	60 30	9500A			Run MDIs against Drive A. Replace FRUs listed only if MAPs do not isolate failure.
1903	A-A1D2/ A-A2D2 A-A1E2/ A-A2E2	60 30	9500A			Run MDIs against Drive B. Replace FRUs listed only if MAPs do not isolate failure.
1906	A-A1D2/ A-A2D2 Drive B	60 30	9500A			Run MDIs against Drive B.
1908			9500A			Take system dump. Disk interrupt caused error not valid.
190A	A-A1C2/ A-A2C2 Drive A	60 30	9500A			Run MDIs against Drive A. May need to customize or reload SSP.
190b	A-A1D2/ A-A2D2 Drive B	60 30	9500A			Run MDIs against Drive B.
190d	A-A1D2/ A-A2D2 Drive B	60 30	9500A			Run MDIs against Drive B.
190E			9500A			Permanent ECC check, sector reassigned to new sector. Customer may need to run 'BUILD' procedure.
1910	Drive A A-A1E2/ A-A2E2	 48	9500A			

	A-A1C2/	48					
	A-A2C2						
	Drive B						
	A-A1E2/	48					
	A-A2E2						
	A-A1D2/	48					
	A-A2D2						
1911	Drive A		9500A				
	A-A1C2/	48					
	A-A2C2						
	F-A1A2	48					
	Drive B						
	A-A1D2/	48					
	A-A2D2						
	G-A1A2	48					
1912	Drive A		9500A				
	F-A1A2	48					
	F-B1A3	48					
	Drive B						
	G-A1A2	48					
	G-B1A3	48					
1913	Drive A		9500A				
	F-A1A2	32					
	F-B1A3	32					
	DE	32					
	Drive B						
	G-A1A2	32					
	G-B1A3	32					
	DE	32					
1914	Drive A		9500A				
	F-A1A2	96					
	Drive B						
	G-A1A2	96					
1915	Drive A		9500A				
	F-A1A2	50					
	A-A1C2/	26					
	A-A2C2						
	F-B1A3	20					
	Drive B						

	G-A1A2	50				
	A-A1D2/	26				
	A-A2D2					
	G-B1A3	20				
1916	Drive A		9500A			
	F-A1A2	48				
	F-C1A1	48				
	Drive B					
	G-A1A2	48				
	G-C1A1	48				
1917	A-A1E2/	96	9500A			
	A-A2E2					
1918	Drive A		9500A			Run 'Build' procedure
	A-A1C2/	40				first. Replace FRU if
	A-A2C2					problem persists.
	Drive B					
	A-A1D2/	40				
	A-A2D2					
1919	Drive A		9500A			Run 'BUILD' procedure
	A-A1E2/	64				first. Replace FRUs
	A-A2E2					if problem persists.
	A-A1C2/	32				
	A-A2C2					
	Drive B					
	A-A1E2/	64				
	A-A2E2					
	A-A1D2/	32				
	A-A2D2					
1920	Drive A		9500A			Disk Interface Parity Chk
	A-A1C2/	50				
	A-A2C2					
	F-A1A2	40				
	Drive B					
	A-A1D2/	50				
	A-A2D2					
	G-A1A2	40				
1921	Drive A		9500A			Card Unsafe.
	F-B1A3	40				

	F-A1A2	30					
	F-C1A1	15					
	DE	10					
	Drive B						
	G-B1A3	40					
	G-A1A2	30					
	G-C1A1	15					
	DE	10					
1922	Drive A		9500A				DE Unsafe.
	F-A1A2	40					
	F-B1A3	30					
	A-A1C2/	20					
	A-A2C2						
	F-C1A1	5					
	DE	1					
	Drive B						
	G-A1A2	40					
	G-B1A3	30					
	A-A1D2/	20					
	A-A2D2						
	G-C1A1	5					
	DE	1					
1923	Drive A		9500A				Operation Unsafe.
	A-A1C2/	40					
	A-A2C2						
	F-A1A2	30					
	F-B1A3	20					
	Drive B						
	A-A1D2/	40					
	A-A2D2						
	G-A1A2	30					
	G-B1A3	20					
1924	Drive A		9500A				Seek Unsafe.
	F-A1A2	40					
	F-B1A3	30					
	A-A1C2/	20					
	A-A2C2						
	F-C1A1	5					
	DE	1					
	Drive B						
	G-A1A2	40					

	G-B1A3	30					
	A-A1D2/	20					
	A-A2D2						
	G-C1A1	5					
	DE	1					
1925	Drive A		9500A				Sync Unsafe.
	F-A1A2	50					
	F-C1A1	40					
	Drive B						
	G-A1A2	50					
	G-C1A1	40					
1926	Drive A		9500A				Sync Unsafe.
	F-A1A2	40					
	F-B1A3	30					
	A-A1C2/	20					
	A-A2C2						
	F-C1A1	5					
	DE	1					
	Drive B						
	G-A1A2	40					
	G-B1A3	30					
	A-A1D2/	20					
	A-A2D2						
	G-C1A1	5					
	DE	1					
1927	Drive A		9500A				Servo Unsafe.
	F-B1A3	40					
	F-A1A2	30					
	F-C1A1	15					
	DE	10					
	Drive B						
	G-B1A3	45					
	G-A1A2	30					
	G-C1A1	15					
	DE	10					
1928	Drive A		9500A				Motor/Proc Unsafe.
	F-A1A2	40					
	F-C1A1	30					
	DE	25					
	Drive B						

	G-A1A2	40				
	G-C1A1	30				
	DE	25				
1929	Drive A		9500A			Interrupt Timeout Check.
	A-A1E2/	50				
	A-A2E2					
	A-A1C2/	40				
	A-A2C2					
	Drive B					
	A-A1E2/	50				
	A-A2E2					
	A-A1D2/	40				
	A-A2D2					
192A	A-A1E2/	90	9500A			Cycle Steal Address Check.
	A-A2E2					
192b	Drive A		9500A			Command Parity Check.
	A-A1E2/	50				
	A-A2E2					
	A-A1C2/	40				
	A-A2C2					
	Drive B					
	A-A1E2/	50				
	A-A2E2					
	A-A1D2/	40				
	A-A2D2					
192C	A-A1E2/	90	9500A			Cycle Steal Parity Check.
	A-A2E2					
192d	A-A1E2/	90	9500A			DSA Buffer Write Check.
	A-A2E2					
192E	Drive A		9500A			Interface Timeout.
	A-A1C2/	50				
	A-A2C2					
	A-A1E2/	40				
	A-A2E2					
	Drive B					
	A-A1D2/	50				
	A-A2D2					
	A-A1E2/	40				

	A-A2E2						
192F	Drive A		9500A				DSA Data Bus Parity Check.
	A-A1E2/	50					
	A-A2E2						
	A-A1C2/	40					
	A-A2C2						
	Drive B						
	A-A1E2/	50					
	A-A2E2						
	A-A1D2/	40					
	A-A2D2						
1930	Drive A		9500A				Data Overrun Check.
	A-A1C2/	40					
	A-A2C2						
	F-A1A2	30					
	A-A1E2/	20					
	A-A2E2						
	Drive B						
	A-A1D2/	40					
	A-A2D2						
	G-A1A2	30					
	A-A1E2/	20					
	A-A2E2						
1931	Drive A		9500A				CRC/ECC Check.
	A-A1C2/	50					
	A-A2C2						Run 'BUILD' procedure
	F-B1A3	30					first. If problem
	F-C1A1	10					persists, replace FRU.
	DE	1					
	Drive B						
	A-A1D2/	50					
	A-A2D2						
	G-B1A3	30					
	G-C1A1	10					
	DE	1					
1932	Drive A		9500A				No Record Found.
	A-A1C2/	50					
	A-A2C2						Run 'BUILD' procedure
	F-B1A3	30					first. If problem
	F-C1A1	10					persists, replace FRU.

	DE	1				
	Drive B					
	A-A1D2/	50				
	A-A2D2					
	G-B1A3	30				
	G-C1A1	10				
	DE	1				
1933	Drive A		9500A			Command Cycle Pty Check.
	A-A1C2/	50				
	A-A2C2					
	A-A1E2/	40				
	A-A2E2					
	Drive B					
	A-A1D2/	50				
	A-A2D2					
	A-A1E2/	40				
	A-A2E2					
1934	Drive A		9500A			Cable Continuity Check.
	A-A1C2/	40				
	A-A2C2					
	F-A1A2	30				
	F-B1A2	20				
	Drive B					
	A-A1D2/	40				
	A-A2D2					
	G-A1A2	30				
	G-B1A2	20				
1935	Drive A		9500A			Data Cycle Parity Check.
	A-A1E2/	50				
	A-A2E2					
	A-A1C2/	40				
	A-A2C2					
	Drive B					
	A-A1E2/	50				
	A-A2E2					
	A-A1D2/	40				
	A-A2D2					
1936	Drive A		9500A			Sync Not Found Check.

	A-A1C2/	40				
	A-A2C2					Run 'BUILD' procedure
	Drive B					first. If problem
	A-A1D2/	40				persists, replace FRU.
	A-A2D2	40				
1937	Drive A		9500A			Disk Write Data Check.
	A-A1C2/	40				
	A-A2C2					
	F-A1A2	30				
	F-B1A3	20				
	Drive B					
	A-A1D2/	40				
	A-A2D2					
	G-A1A2	30				
	G-B1A3	20				
1938	Drive A		9500A			Command Reject.
	A-A1C2/	50				
	A-A2C2					
	A-A1E2/	40				
	A-A2E2					
	Drive B					
	A-A1D2/	50				
	A-A2D2					
	A-A1E2/	40				
	A-A2E2					
1939	Drive A		9500A			Data Cycle Underrun Check.
	F-A1A2	50				
	F-B1A3	40				
	Drive B					
	G-A1A2	50				
	G-B1A3	40				
193A	Drive A		9500A			
	A-A1C2/	50				
	A-A2C2					
	F-A1A2	40				
	Drive B					
	A-A1D2/	50				
	A-A2D2					
	G-A1A2	40				

197F			9500A			Undetermined error. Run disk MDIs against failing drive to determine.
1990	Drive A		9500A			
	A-A1E2/	48				
	A-A2E2					
	A-A1C2/	48				
	A-A2C2					
	Drive B					
	A-A1E2/	48				
	A-A2E2					
	A-A1D2/	48				
	A-A2D2					
1991	Drive A		9500A			
	A-A1C2/	48				
	A-A2C2					
	F-A1A2	48				
	Drive B					
	A-A1D2/	48				
	A-A2D2					
	G-A1A2	48				
1992	Drive A		9500A			
	F-A1A2	48				
	F-B1A3	48				
	Drive B					
	G-A1A2	48				
	G-B1A3	48				
1993	Drive A		9500A			
	F-A1A2	32				
	F-B1A3	32				
	DE	32				
	Drive B					
	G-A1A2	32				
	G-B1A3	32				
	DE	32				
1994	Drive A		9500A			
	F-A1A2	96				
	Drive B					
	G-A1A2	96				

1995	Drive A		9500A				
	F-A1A2	50					
	A-A1C2/	26					
	A-A2C2						
	F-B1A3	20					
	Drive B						
	G-A1A2	50					
	A-A1D2/	26					
	A-A2D2						
	G-B1A3	20					
1996	Drive A		9500A				
	F-A1A2	48					
	F-C1A1	48					
	Drive B						
	G-A1A2	48					
	G-C1A1	48					
1997	A-A1E2/	96	9500A				
	A-A2E2						
1998	Drive A		9500A				Run 'BUILD' procedure first. Replace FRU if problem persists.
	A-A1C2/	40					
	A-A2C2						
	Drive B						
	A-A1D2/	40					
	A-A2D2						
1999	Drive A		9500A				Run 'BUILD' procedure first. Replace FRUs if problem persists.
	A-A1E2/	64					
	A-A2E2						
	A-A1C2/	32					
	A-A2C2						
	Drive B						
	A-A1E2/	64					
	A-A2E2						
	A-A1D2/	32					
	A-A2D2						
19A0	Drive A		9500A				Disk Interface Parity Check.
	A-A1C2/	50					
	A-A2C2						
	F-A1A2	40					

	Drive B						
	A-A1D2/	50					
	A-A2D2						
	G-A1A2	40					
19A1	Drive A		9500A				Card Unsafe.
	F-B1A3	40					
	F-A1A2	30					
	F-C1A1	15					
	DE	10					
	Drive B						
	G-B1A3	40					
	G-A1A2	30					
	G-C1A1	15					
	DE	10					
19A2	Drive A		9500A				DE Unsafe.
	F-A1A2	40					
	F-B1A3	30					
	A-A1C2/	20					
	A-A2C2						
	F-C1A1	5					
	DE	1					
	Drive B						
	G-A1A2	40					
	G-B1A3	30					
	A-A1D2/	20					
	A-A2D2						
	G-C1A1	5					
	DE	1					
19A3	Drive A		9500A				Operation Unsafe.
	A-A1C2/	40					
	A-A2C2						
	F-A1A2	30					
	F-B1A3	20					
	Drive B						
	A-A1D2/	40					
	A-A2D2						
	G-A1A2	30					
	G-B1A3	20					
19A4	Drive A		9500A				Seek Unsafe.
	F-A1A2	40					

	F-B1A3	30					
	A-A1C2/	20					
	A-A2C2						
	F-C1A1	5					
	DE	1					
	Drive B						
	G-A1A2	40					
	G-B1A3	30					
	A-A1D2/	20					
	A-A2D2						
	G-C1A1	5					
	DE	1					
19A5	Drive A		9500A				Sync Unsafe
	F-A1A2	50					
	F-C1A1	40					
	Drive B						
	G-A1A2	50					
	G-C1A1	40					
19A6	Drive A		9500A				Sync Unsafe.
	F-A1A2	40					
	F-B1A3	30					
	A-A1C2/	20					
	A-A2C2						
	F-C1A1	5					
	DE	1					
	Drive B						
	G-A1A2	40					
	G-B1A3	30					
	A-A1D2/	20					
	A-A2D2						
	G-C1A1	5					
	DE	1					
19A7	Drive A		9500A				Servo Unsafe.
	F-B1A3	40					
	F-A1A2	30					
	F-C1A1	15					
	DE	10					
	Drive B						
	G-B1A3	45					
	G-A1A2	30					
	G-C1A1	15					

	DE	10					
19A8	Drive A		9500A				Motor/Proc Unsafe.
	F-A1A2	40					
	F-C1A1	30					
	DE	25					
	Drive B						
	G-A1A2	40					
	G-C1A1	30					
	DE	25					
19A9	Drive A		9500A				Interrupt Timeout Check.
	A-A1E2/	50					
	A-A2E2						
	A-A1C2/	40					
	A-A2C2						
	Drive B						
	A-A1E2/	50					
	A-A2E2						
	A-A1D2/	40					
	A-A2D2						
19AA	A-A1E2/	90	9500A				Cycle Steal Address Check.
	A-A2E2						
19Ab	Drive A		9500A				Command Parity Check.
	A-A1E2/	50					
	A-A2E2						
	A-A1C2/	40					
	A-A2C2						
	Drive B						
	A-A1E2/	50					
	A-A2E2						
	A-A1D2/	40					
	A-A2D2						
19AC	A-A1E2/	90	9500A				Cycle Steal Parity Check.
	A-A2E2						
19Ad	A-A1E2/	90	9500A				DSA Buffer Write Check.
	A-A2E2						
19AE	Drive A		9500A				Interface Timeout.
	A-A1C2/	50					

	A-A2C2					
	A-A1E2/	40				
	A-A2E2					
	Drive B					
	A-A1D2/	50				
	A-A2D2					
	A-A1E2/	40				
	A-A2E2					
19AF	Drive A		9500A			DSA Data Bus Parity Check.
	A-A1E2/	50				
	A-A2E2					
	A-A1C2/	40				
	A-A2C2					
	Drive B					
	A-A1E2/	50				
	A-A2E2					
	A-A1D2/	40				
	A-A2D2					
19b0	Drive A		9500A			Data Overrun Check.
	A-A1C2/	40				
	A-A2C2					
	F-A1A2	30				
	A-A1E2/	20				
	A-A2E2					
	Drive B					
	A-A1D2/	40				
	A-A2D2					
	G-A1A2	30				
	A-A1E2/	20				
	A-A2E2					
19b1	Drive A		9500A			CRC/ECC Check.
	A-A1C2/	50				
	A-A2C2					Run 'BUILD' procedure
	F-B1A3	30				first. If problem
	F-C1A1	10				persists, replace FRU.
	DE	1				
	Drive B					
	A-A1D2/	50				
	A-A2D2					
	G-B1A3	30				
	G-C1A1	10				

	DE	1					
19b2	Drive A		9500A				No Record Found.
	A-A1C2/	50					
	A-A2C2						Run 'BUILD' procedure
	F-B1A3	30					first. If problem
	F-C1A1	10					persists, replace FRU.
	DE	1					
	Drive B						
	A-A1D2/	50					
	A-A2D2						
	G-B1A3	30					
	G-C1A1	10					
	DE	1					
19b3	Drive A		9500A				Command Cycle Parity
	A-A1C2/	50					Check.
	A-A2C2						
	A-A1E2/	40					
	A-A2E2						
	Drive B						
	A-A1D2/	50					
	A-A2D2						
	A-A1E2/	40					
	A-A2E2						
19b4	Drive A		9500A				Cable Continuity Check.
	A-A1C2/	40					
	A-A2C2						
	F-A1A2	30					
	F-B1A2	20					
	Drive B						
	A-A1D2/	40					
	A-A2D2						
	G-A1A2	30					
	G-B1A2	20					
19b5	Drive A		9500A				Data Cycle Parity Check.
	A-A1E2/	50					
	A-A2E2						
	A-A1C2/	40					
	A-A2C2						
	Drive B						
	A-A1E2/	50					

	A-A2E2						
	A-A1D2/	40					
	A-A2D2						
19b6	Drive A		9500A				Sync Not Found Check.
	A-A1C2/	40					
	A-A2C2						Run 'BUILD' procedure
	Drive B						first. If problem
	A-A1D2/	40					persists, replace FRU.
	A-A2D2	40					
19b7	Drive A		9500A				Disk Write Data Check.
	A-A1C2/	40					
	A-A2C2						
	F-A1A2	30					
	F-B1A3	20					
	Drive B						
	A-A1D2/	40					
	A-A2D2						
	G-A1A2	30					
	G-B1A3	20					
19b8	Drive A		9500A				Command Reject.
	A-A1C2/	50					
	A-A2C2						
	A-A1E2/	40					
	A-A2E2						
	Drive B						
	A-A1D2/	50					
	A-A2D2						
	A-A1E2/	40					
	A-A2E2						
19b9	Drive A		9500A				Data Cycle Underrun Check.
	F-A1A2	50					
	F-B1A3	40					
	Drive B						
	G-A1A2	50					
	G-B1A3	40					
19bA	Drive A		9500A				
	A-A1C2/	50					
	A-A2C2						
	F-A1A2	40					

	Drive B A-A1D2/ A-A2D2 G-A1A2	50 40				
19FF			9500A			Undetermined error. Run disk MDIs against failing drive to determine.

ENTRY POINTS

FROM MAP NUMBER	ENTER THIS MAP ENTRY POINT	PAGE NUMBER	STEP NUMBER
0101	A	1	001
0199	A	1	001

001
(Entry Point A)

MAP DESCRIPTION:
This MAP contains the system reference codes 1A00 through 1AFF. Any code which is not listed in MAP 0113, MAP 0114, MAP 0115, MAP 0116 or MAP 0118 is not a valid reference code.

START CONDITIONS:
A failure has occurred and has resulted in a 4 character code being logged or displayed. Each code represents a condition of failure.
- Use the MAP reference to isolate to the failing FRU or FRU group.

Multiple Unit:
- If a SRC points to two or more units (such as Drive A, Drive B), use ERAP to determine the failing unit.

Reference Code Index for MAP 0114

SRC	Device or Function	Device MAP Entry
1Axx	10SR Disk	9700,A

********** 10SR Disk - 1Axx **********

1A01	A-A2E2 Channel A-A2J2	70 20 5	0105A		90-210 10-100		DSA-1 or Channel error.
1A02	A-A2C2 A-A2E2	60 30	9700A		90-210 97-200		Run MDIs against Drive A. DSA-1/Adapter (Dr A) error
1A03	A-A2D2 A-A2E2	60 30	9700A		90-210 97-200		Run MDIs against Drive B. DSA-1/Adapter (Dr B) error
1A04	A-A2C4 A-A2E2	60 30	9700A		90-210 97-200		Run MDIs against Drive C. DSA-1/Adapter (Dr C) error
1A05	A-A2D4 A-A2E2	60 30	9700A		90-210 97-200		Run MDIs against Drive D. DSA-1/Adapter (Dr D) error
1A06	A-A2E2 Channel A-A2J2	40 40 1	0105A		90-210 10-100		DSA-1 or Channel error.
1A08			9700A				Go to MAP 9700, A. Invalid Disk interrupt caused error.
1A0A	A-A2C2 Disk A		9700A		97-200 97-215		Run MDIs against Drive A. Adapter/10SR CSA error
1A0b	A-A2D2 Disk B		9700A		97-200 97-215		Run MDIs against Drive B. Adapter/10SR CSA error
1A0C	A-A2C4 Disk C		9700A		97-200 97-215		Run MDIs against Drive C. Adapter/10SR CSA error
1A0d	A-A2D4 Disk D		9700A		97-200 97-215		Run MDIs against Drive D. Adapter/10SR CSA error
1A0E			9700A				Permanent ECC check, sector reassigned to new sector. Customer may need to run 'BUILD' Utility.
1A10	A-A2E2	57	9700A		90-210		Permanent error occurred.

	Channel	42			10-100		
	A-A2J2	1					
1A11	A-A2E2	59	9700A		90-210		Permanent error occurred.
	Channel	38			10-100		
	A-A2C2/	1			97-200		Fault may be in Drive A,
	A-A2D2/						B, C, or D (if installed)
	A-A2C4/						Run ERAP to determine
	A-A2D4						failing location.
	A-A2J2	1					
1A13	A-A2E2	59	9700A		10-100		Permanent error occurred.
	A-A2C2/	38			97-200		Fault may be in Drive A,
	A-A2D2/				90-210		B, C, or D (if installed)
	A-A2C4/						Run ERAP to determine
	A-A2D4						failing location.
	Channel	1					
	A-A2J2	1					
	F-A1B2	1					
1A14	A-A2E2	56	9700A		97-200		Permanent error occurred.
	A-A2C2/	39			10-100		Fault may be in Drive A,
	A-A2D2/				90-210		B, C, or D (if installed)
	A-A2C4/				97-215		Run ERAP to determine
	A-A2D4						failing location.
	Channel	1					
	A-A2J2	1					
	F-A1C2	1					
	F-A1A3	1					
1A15	A-A2E2	48	9700A		97-200		Permanent error was one of
	A-A2C2/	42			90-210		the following:
	A-A2D2/						* Cycle Steal Address Ck
	A-A2C4/						* Command Cycle Parity Ck
	A-A2D4						* Command Parity Check
	A-A2J2	10					* Cycle Steal Parity Ck
							* DSA Buffer Write Check
							* Interface Time-out
							* DSA Data Bus Parity Ck
							* Data Cycle Underrun Ck
							* Data Cycle Overrun Ck
							Fault may be in Drive A,
							B, C, or D (if installed)
							Run ERAP to determine

							failing location. (See MIM 97-508)
1A16	F-A1B2 A-A2C2/ A-A2D2/ A-A2C4/ A-A2D4 F-A1A4 F-A1A5 F-A1C2 F-A1A3 A-A2E2	34 22 16 16 5 4 1	9700A		97-200 90-210 97-215		Permanent error was one of the following: * Disk Interrupt Check * Data Overrun Check * Command Error * Command Reject * Device Busy * Disk Not Ready * Cable Continuity Error * Disk Access Time-out * No Control Sample Rcvd * Disk Sense Parity Check * Servo Interrupt - Guard band 2 Fault may be in Drive A, B, C, or D (if installed) Run ERAP to determine failing location. (See MIM 97-508/97-518)
1A17	F-A1C2 A-A2C2/ A-A2D2/ A-A2C4/ A-A2D4 F-A1A3 F-A1B2 F-A1D2	46 21 20 12 1	9700A		97-200 97-215		Permanent error was one of the following: * Data Unsafe - Write and servo off track - Write active and not in data field - Write and read both active - Write active and AE select error - Write active and AE Unsafe Fault may be in Drive A, B, C, or D (if installed) Run ERAP to determine failing location.
1A19	F-A1B2 F-A1C2 F-A1D2	30 27 5	9700A		97-215 97-200 97-235		Permanent error detected was: * Unseated card or cable

	F-A1E2	5			90-210		
	F-A1E5	5					Corrective Action:
	F-W1B1	5					Reseat all 10SR CSA cards
	F-HDA	5					and cables.
	A-A2C2/	1					
	A-A2D2/						Fault may be in Drive A,
	A-A2C4/						B, C, or D (if installed).
	A-A2D4						Run ERAP to determine
	A-A2E2	1					failing location.
1A1A	F-A1C2	43	9700A		97-235		Permanent error was one of
	F-A1B2	42			97-215		the following:
	F-A1D2	1					* Data Unsafe
	F-A1E2	1					- Write and not ready
	F-A1E5	1					both active
	F-W1B1	1					- Write not active and
	F-HDA	1					AE unsafe with an
							AE selected
							* Servo Interrupt
							- (Not) Power Good
							- Disk speed / VCO check
							Fault may be in Drive A,
							B, C, or D (if installed).
							Run ERAP to determine
							failing location.
							(See MIM 97-518)
1A1b	F-A1D2	34	9700A		97-235		Permanent error was one of
	F-A1B2	28			97-215		the following:
	F-A1C2	26					* Sector Check
	F-W1B1	1					* Disk Write Data Check
	F-A1E5	1					* Servo Interrupt
	F-HDA	1					- PLO out of sync
	F-VCM	1					- Seek time-out
							- Servo off track
							- Unexpected guard band
							Fault may be in Drive A,
							B, C, or D (if installed).
							Run ERAP to determine
							failing location.
							(See MIM 97-508/97-518)
1A1C	F-A1C2	45	9700A		97-235		Permanent error was one of
	F-HDA	16			97-215		the following:

	F-A1E2	15					* Disk Format Check
	F-A1A3	12					* Data Unsafe
	A-A2C2/	1					- AE unsafe without
	A-A2D2/						an AE selected
	A-A2C4/						Fault may be in Drive A,
	A-A2D4						B, C, or D (if installed).
	F-A1B2	1					Run ERAP to determine
	F-W1B1	1					failing location.
							(See MIM 97-508/97-518)
1A1F	Media	30	9700A		97-235		Permanent error was one of
	F-A1C2	20			97-215		the following:
	F-A1B2	10					* No Record Found Check
	F-HDA	1					* Sync Not Found Check
	F-A1E2	1					* CRC/ECC Check
	F-W1B1	1					Corrective Action:
	A-A2C2/	1					Run Analysis (MIM 01-730)
	A-A2D2/						to check for bad sector ID
	A-A2C4/						or bad data written on the
	A-A2D4						HDA.
	F-A1D2	1					Fault may be in Drive A,
	F-A1A3	1					B, C, or D (if installed).
							Run ERAP to determine
							failing location.
							(See MIM 97-508)
1A20	A-A2E2	56	9700A		90-210		Permanent error occurred.
	A-A2C2/	43			97-200		Fault may be in Drive A,
	A-A2D2/						B, C, or D (if installed).
	A-A2C4/						Run ERAP to determine
	A-A2D4						failing location.
1A21	A-A2E2	99	9700A		90-210		Permanent error occurred.
1A22	A-A2E2	49	9700A		90-210		Permanent error occurred.
	A-A2C2/	37			97-200		Fault may be in Drive A,
	A-A2D2/				97-215		B, C, or D (if installed).
	A-A2C4/						Run ERAP to determine
	A-A2D4						failing location.
	F-A1B2	10					
	F-A1A3	1					
1A24	Drive A		9700A				Permanent error occurred.
	A-A2E2	60			90-210		

	A-A2C2/	32			97-200		
	A-A2D2/				97-215		Fault may be in Drive A,
	A-A2C4/				10-100		B, C, or D (if installed).
	A-A2D4						Run ERAP to determine
	F-A1C2	1					failing location.
	F-A1A3	1					
	Channel	1					
1A25	A-A2E2	48	9700A		90-210		Permanent error was one of
	A-A2C2/	42			97-200		the following:
	A-A2D2/						* Cycle Steal Address Ck
	A-A2C4/						* Command Parity Ck
	A-A2D4						* Cycle Steal Parity Ck
	A-A2J2	10					* DSA Buffer Write Check
							* Interface Time-out
							* DSA Data Bus Parity Ck
							* Data Cycle Underrun Ck
							* Data Cycle Overrun Ck
							* Command Cycle Parity Ck
							Fault may be in Drive A,
							B, C, or D (if installed).
							Run ERAP to determine
							failing location.
							(See MIM 97-508)
1A26	F-A1B2	34	9700A		97-200		Permanent error was one of
	A-A2C2/	22			90-210		the following:
	A-A2D2/						* Disk Not Ready
	A-A2C4/						* Cable Continuity Error
	A-A2D4						* Disk Access Time-out
	F-A1A4	16					* Data Overrun Check
	F-A1A5	16					* Command Error
	F-A1C2	5					* Command Reject
	F-A1A3	4					* Device Busy
	A-A2E2	1					* No Control Sample Rcvd
							* Disk Sense Parity Check
							* Disk Interrupt Check
							* Servo Interrupt
							- Guard band 2
							Fault may be in Drive A,
							B, C, or D (if installed).
							Run ERAP to determine
							failing location.
							(See MIM 97-508/97-518)

1A27	F-A1C2	46	9700A		97-200		Permanent error was one of
	A-A2C2/	21			97-215		the following:
	A-A2D2/						* Data Unsafe
	A-A2C4/						- Write and servo off
	A-A2D4						track
	F-A1A3	21					- Write active and not
	F-A1B2	12					in data field
	F-A1D2	1					- Write and read both
							active
							- Write active and
							AE select error
							- Write active and
							AE Unsafe
							Fault may be in Drive A,
							B, C, or D (if installed).
							Run ERAP to determine
							failing location.
							(See MIM 97-518)
1A29	F-A1B2	30	9700A		97-200		Permanent error occurred.
	F-A1C2	27			97-235		Error detected was:
	F-A1D2	5			90-210		* Unseated card or cable
	F-A1E2	5			97-215		
	F-A1E5	5					Corrective Action:
	F-W1B1	5					Reseat all 10SR CSA cards
	F-HDA	5					and cables.
	A-A2C2/	1					
	A-A2D2/						Fault may be in Drive A,
	A-A2C4/						B, C, or D (if installed).
	A-A2D4						Run ERAP to determine
	A-A2E2	1					failing location.
1A2A	F-A1C2	43	9700A		97-235		Permanent error was one of
	F-A1B2	42			97-215		the following:
	F-A1D2	1					* Data Unsafe
	F-A1E2	1					- Write and not ready
	F-A1E5	1					both active
	F-W1B1	1					- Write not active and
	F-HDA	1					AE unsafe with an
							AE selected
							* Servo Interrupt
							- (Not) Power Good
							- Disk speed / VCO check

						Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location. (See MIM 97-518)
1A2b	F-A1D2	34	9700A		97-235	Permanent error was one of the following:
	F-A1B2	28			97-215	* Sector Check
	F-A1C2	26				* Disk Write Data Check
	F-W1B1	1				* Servo Interrupt
	F-A1E5	1				- Servo off track
	F-HDA	1				- Unexpected guard band
	F-VCM	1				- Seek time-out
						Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location. (See MIM 97-508/97-518)
1A2C	F-A1C2	45	9700A		97-235	Permanent error was one of the following:
	F-HDA	16			97-215	* Disk Format Check
	F-A1E2	15				* Data Unsafe
	F-A1A3	12				- AE unsafe without an AE selected
	A-A2C2/	1				Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location. (See MIM 97-508/97-518)
	A-A2D2/					
	A-A2C4/					
	A-A2D4					
	F-A1B2	1				
	F-W1B1	1				
1A2F	Media	30	9700A		97-235	Permanent error was one of the following:
	F-A1C2	20			97-215	* Sync Not Found Check
	F-A1B2	10				* CRC/ECC Check
	F-HDA	1				* No Record Found Check
	F-A1E2	1				Corrective Action: Run Analysis (MIM 01-730) to check for bad sector ID or bad data written on the HDA.
	F-W1B1	1				
	A-A2C2/	1				
	A-A2D2/					
	A-A2C4/					
	A-A2D4					
	F-A1D2	1				Fault may be in Drive A, B, C, or D (if installed).
	F-A1A3	1				

	F-A1A3	1					Run ERAP to determine failing location. (See MIM 97-508)
1A30	F-A1B2	33	9700A		97-215		Permanent error occurred.
	A-A2C2/	33			97-200		* Cable continuity Check
	A-A2D2/						Fault may be in Drive A,
	A-A2C4/						B, C, or D (if installed).
	A-A2D4						Run ERAP to determine
	F-A1A3	27					failing location.
	F-A1A4	1					Corrective Action:
	F-A1A5	1					Reseat cards and cables.
1A32	A-A2C2/	43	9700A		97-200		Permanent error occurred.
	A-A2D2/						
	A-A2C4/						Fault may be in Drive A,
	A-A2D4						B, C, or D (if installed).
	F-A1B2	28			97-215		Run ERAP to determine
	F-A1A4	22					failing location.
	F-A1A5	1					
	F-A1A3	1					
1A34	F-A1C2	57	9700A		97-215		Permanent error occurred.
	A-A2C2/	29			97-200		
	A-A2D2/						Fault may be in Drive A,
	A-A2C4/						B, C, or D (if installed).
	A-A2D4						Run ERAP to determine
	F-A1A3	27					failing location.
	F-A1A5	1					
	F-A1A3	1					
1A3A	F-A1B2	41	9700A		97-215		Permanent error occurred.
	A-A2C2/	28			97-200		
	A-A2D2/						Fault may be in Drive A,
	A-A2C4/						B, C, or D (if installed).
	A-A2D4						Run ERAP to determine
	F-A1A4	11			90-210		failing location.
	F-A1A5	9					
	F-A1A3	1					See MAP 9700,A.
	A-A2E2	1					
	F-A1C2	1					
1A3b	F-A1B2	61	9700A		97-215		Permanent error occurred.
	F-A1C2	24			97-200		

	F-A1D2	6			90-210		Fault may be in Drive A,
	A-A2C2/	1					B, C, or D (if installed).
	A-A2D2/						Run ERAP to determine
	A-A2C4/						failing location.
	A-A2D4						
	A-A2E2	1					
	F-A1A5	1					
	F-A1A4	1					
1A3C	F-A1B2	37	9700A		97-215		Permanent error occurred.
	A-A2C2/	25			97-200		Fault may be in Drive A,
	A-A2D2/						B, C, or D (if installed).
	A-A2C4/						Run ERAP to determine
	A-A2D4						failing location.
	F-A1A3	14					
	F-A1A4	11					
	F-A1A5	10					
	F-A1C2	1					
1A3d	F-A1B2	64	9700A		97-215		Permanent error occurred.
	A-A2C2/	13			97-200		
	A-A2D2/						Fault may be in Drive A,
	A-A2C4/						B, C, or D (if installed).
	A-A2D4						Run ERAP to determine
	F-A1C2	11					failing location.
	F-A1A5	1					
	F-A1A4	1					
	F-A1A3	1					
1A3E	F-A1B2	46	9700A		97-215		Permanent error occurred.
	A-A2C2/	16			97-200		Fault may be in Drive A,
	A-A2D2/						B, C, or D (if installed).
	A-A2C4/						Run ERAP to determine
	A-A2D4						failing location.
	F-A1C2	15			90-210		
	A-A2E2	7			10-100		
	F-A1A4	1					
	F-A1A3	1					
	F-A1A5	1					
	F-A1D2	1					
	Channel	1					
1A40	F-A1B2	50	9700A		97-215		Permanent error occurred.
	F-A1C2	1			97-235		* Unseated card or cbl Ck

	F-A1D2	1					Fault may be in Drive A,
	F-A1E2	1					B, C, or D (if installed).
	F-A1E5	1					Run ERAP to determine
	F-HDA	1					failing location.
	F-W1B1	1					Corrective Action:
							reseat cards and cables.
1A41	F-A1B2	98	9700A		97-215		Permanent error occurred.
	F-A1E2	1					Fault may be in Drive A,
							B, C, or D (if installed).
							Run ERAP to determine
							failing location.
1A42	F-A1B2	66	9700A		97-215		Permanent error occurred.
	F-A1A3	33					Fault may be in Drive A,
							B, C, or D (if installed).
							Run ERAP to determine
							failing location.
1A43	F-A1C2	98	9700A		97-215		Permanent error occurred.
							Fault may be in Drive A,
							B, C, or D (if installed).
							Run ERAP to determine
							failing location.
1A45	F-A1B2	82	9700A		97-215		Permanent error occurred.
	F-A1C2	17					Fault may be in Drive A,
							B, C, or D (if installed).
							Run ERAP to determine
							failing location.
1A46	F-A1C2	60	9700A		97-215		Permanent error occurred.
	F-A1B2	35					Fault may be in Drive A,
	F-A1A3	1					B, C, or D (if installed).
							Run ERAP to determine
							failing location.
1A47	F-A1B2	64	9700A		97-215		Permanent error occurred.
	F-A1C2	35					Fault may be in Drive A,
	F-A1A3	1					B, C, or D (if installed).
							Run ERAP to determine
							failing location.
1A48	F-A1C2	70	9700A		97-215		Permanent error occurred.

	F-A1B2	35					Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location.
1A4A	F-A1C2	71					Permanent error occurred.
	F-W1B1	18	9700A		97-215		Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location.
	F-A1E2	10			97-235		
1A4b	F-A1C2	44	9700A		97-215		Permanent error occurred.
	F-W1B1	35			97-235		Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location.
	F-A1E2	20					
	F-A1B1	1					
1A50	F-A1D2	98	9700A		97-215		Permanent error occurred. Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location.
1A52	F-A1B2	50	9700A		97-215		Permanent error occurred. Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location.
	F-A1A3	27					
	F-A1D2	22					
1A54	F-A1B2	67	9700A		97-215		Permanent error occurred. Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location.
	F-A1C2	25					
	F-A1D2	7					
1A55	F-A1D2	87	9700A		97-215		Permanent error occurred. Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location.
	F-A1C2	12					
1A58	F-A1D2	71	9700A		97-215		Permanent error occurred. Fault may be in Drive A, B, C, or D (if installed).
	F-A1C2	12					
	F-A1B2	10					

	F-VCM	1					Run ERAP to determine failing location.
1A5A	F-A1D2	60	9700A		97-215		Permanent error occurred.
	F-A1C2	27			97-200		
	A-A2C2/	1					Fault may be in Drive A,
	A-A2D2/						B, C, or D (if installed).
	A-A2C4/						Run ERAP to determine
	A-A2D4						failing location.
	F-A1A3	1					
1A5C	F-A1D2	49	9700A		97-215		Permanent error occurred.
	F-A1E5	26					Fault may be in Drive A,
	F-HDA	14					B, C, or D (if installed).
	Media	10					Run ERAP to determine
							failing location.
							Corrective Action:
							Run Analysis (MIM 01-730)
							to check for bad sector ID
							or bad data written on HDA
1A60	F-A1B2	48	9700A		97-215		Permanent error occurred.
	F-A1C2	24			97-200		
	F-A1D2	15					Fault may be in Drive A,
	A-A2C2/	1					B, C, or D (if installed).
	A-A2D2/						Run ERAP to determine
	A-A2C4/						failing location.
	A-A2D4						
	F-VCM	1					
	F-A1E5	1					
	F-A1A5	1					
	F-A1A4	1					
	F-A1A3	1					
	F-HDA	1					
	F-A1E2	1					
1A61	F-A1B2	54	9700A		97-215		Permanent error occurred.
	F-A1C2	23					
	F-A1D2	19					Fault may be in Drive A,
	F-VCM	1					B, C, or D (if installed).
	F-A1E5	1					Run ERAP to determine
							failing location.
1A63	F-A1C2	39	9700A		97-215		Permanent error occurred.

	F-A1B2	33					Fault may be in Drive A,
	F-A1D2	1					B, C, or D (if installed).
	F-A1E5	1					Run ERAP to determine
	F-HDA	1					failing location.
1A64	F-A1C2	48	9700A		97-215		Permanent error occurred.
	F-A1D2	25					Fault may be in Drive A,
	F-A1E5	13					B, C, or D (if installed).
	F-HDA	12					Run ERAP to determine
							failing location.
1A65	F-A1C2	45	9700A		97-215		Permanent error occurred.
	F-A1B2	25					Fault may be in Drive A,
	F-A1E2	15					B, C, or D (if installed).
	F-HDA	12					Run ERAP to determine
							failing location.
1A67	F-A1D2	31	9700A		97-215		Permanent error occurred.
	F-A1C2	27			97-200		Fault may be in Drive A,
	F-A1B2	13			97-235		B, C, or D (if installed).
	F-W1B1	10					Run ERAP to determine
	F-A1E2	1					failing location.
	F-HDA	1					
	F-VCM	1					
	A-A2C2/	1					
	A-A2D2/						
	A-A2C4/						
	A-A2D4						
	F-A1A3	1					
1A68	F-A1D2	44	9700A		97-215		Permanent error occurred.
	F-A1B2	31					Fault may be in Drive A,
	F-A1C2	18					B, C, or D (if installed).
	F-VCM	1					Run ERAP to determine
	F-A1E5	1					failing location.
	F-HDA	1					
1A69	F-A1D2	45	9700A		97-215		Permanent error occurred.
	F-A1B2	27					Fault may be in Drive A,
	F-A1C2	21					B, C, or D (if installed).
	F-VCM	1			97-225		Run ERAP to determine
	F-A1E5	1			97-230		failing location.
	F-HDA	1					Corrective Action:
	Pwr cbl	1					Reseat power distribution

							cables to 10SR. Check
							'Power Good' (FLD GA915)
1A6A	F-A1C2	30	9700A		97-215		Permanent error occurred.
	F-A1B2	33			97-200		Fault may be in Drive A,
	F-W1B1	8			97-235		B, C, or D (if installed).
	F-HDA	7					Run ERAP to determine
	F-A1E2	1					failing location.
	A-A2C2/	1					
	A-A2D2/						
	A-A2C4/						
	A-A2D4						
	F-A1A3	1					
	F-A1D2	1					
	F-A1E5	1					
	F-A1A5	1					
	F-A1A4	1					
1A6b	F-A1B2	57	9700A		97-215		Permanent error occurred.
	F-A1C2	18			97-235		Fault may be in Drive A,
	F-A1E2	1					B, C, or D (if installed).
	F-A1D2	1			97-225		Run ERAP to determine
	F-W1B1	1			97-230		failing location.
	Pwr cbl	1					Corrective Action:
	F-A1E5	1					Reseat power distribution
	F-HDA	1					cables to 10SR. Check
							'Power Good' (FLD GA915)
1A6C	F-A1B2	32	9700A		97-215		Permanent error occurred.
	F-A1C2	24			97-200		Fault may be in Drive A,
	F-A1D2	23			97-235		B, C, or D (if installed).
	F-A1E2	1					Run ERAP to determine
	F-VCM	1					failing location.
	F-A1E5	1					
	A-A2D2	1					
	F-HDA	1					
	F-W1B1	1					
	F-A1A5	1					
	F-A1A3	1					
	F-A1A4	1					
1A6d	F-A1C2	36	9700A		97-215		Permanent error occurred.
	F-HDA	12			97-200		Fault may be in Drive A,
	F-W1B1	9			97-235		B, C, or D (if installed).

	A-A2C2/	1					Run ERAP to determine
	A-A2D2/						failing location.
	A-A2C4/						
	A-A2D4						
	F-A1A3	1					
	F-A1D2	1					
	F-A1E5	1					
	F-A1E2	1					
1A6F	F-W1B1	34	9700A		97-235		Permanent error occurred.
	F-A1C2	27			97-215		Fault may be in Drive A,
	F-HDA	13			97-200		B, C, or D (if installed).
	F-A1E2	10					Run ERAP to determine
	F-A1D2	1					failing location.
	A-A2C2/	1					
	A-A2D2/						
	A-A2C4/						
	A-A2D4						
	F-A1B2	1					
	F-A1E5	1					
	F-A1A3	1					
1A70	F-A1B2	27	9700A		97-215		Permanent error occurred.
	F-A1D2	19			97-200		Fault may be in Drive A,
	A-A2C2/	18			90-210		B, C, or D (if installed),
	A-A2D2/						Run ERAP to determine
	A-A2C4/						failing location.
	A-A2D4						Corrective Action:
	A-A2E2	14			10-100		Reseat cards and cables.
	F-A1C2	10					Run Analysis (MIM 01-730)
	F-A1A4	1					to check for bad sector ID
	F-A1A5	1					or bad data written to HDA
	F-A1A3	1					
	F-VCM	1					
	F-A1E5	1					
	Channel	1					
	A-A2J2	1					
	F-HDA	1					
	Media	1					
1A71	F-A1C2	34	9700A		97-215		Permanent error occurred.
	A-A2C2/	16			97-200		Fault may be in Drive A,
	A-A2D2/						B, C, or D (if installed),
	A-A2C4/						Run ERAP to determine

	A-A2D4					failing location.
	F-A1B2	16			90-210	
	A-A2E2	8			10-100	Corrective Action:
	F-W1B1	1			97-235	reseat cards and cables.
	F-A1D2	1				Run Analysis (MIM 01-730)
	F-A1A5	1				to check for bad sector ID
	F-HDA	1				or bad data written on HDA
	F-A1A3	1				
	F-A1A4	1				
	F-A1A5	1				
	F-A1E5	1				
	Channel	1				
	A-A2J2	1				
	Media	1				
1A72	F-A1C2	38	9700A		97-215	Permanent error occurred.
	F-A1B2	17			97-200	Fault may be in Drive A,
	F-HDA	11			97-235	B, C, or D (if installed),
	F-A1E2	10			90-210	Run ERAP to determine
	F-W1B1	1				failing location.
	A-A2C2	1				
	F-A1A3	1				Corrective Action:
	F-A1D2	1				reseat cards and cables.
	A-A2E2	1				Run Analysis (MIM 01-730)
	F-A155	1				to check for bad sector ID
	F-A1A5	1				or bad data written on HDA
	F-A1A4	1				
	Media	1				
1A73	F-A1C2	28	9700A		97-215	Permanent error occurred.
	F-A1B2	24			97-200	Fault may be in Drive A,
	A-A2C2/	16			90-210	B, C, or D (if installed).
	A-A2D2/				97-235	Run ERAP to determine
	A-A2C4/					failing location.
	A-A2D4					
	A-A2E2	7				Corrective Action:
	F-A1D2	7				reseat cards and cables.
	F-A1A3	1				Run Analysis (MIM 01-730)
	F-A1A4	1				to check for bad sector ID
	F-A1A5	1				or bad data written on HDA
	F-HDA	1				
	F-W1B1	1				
	F-A1E2	1				
	F-VCM	1				

	F-A1E5	1					
	Media	1					
1A7F					97-110		Go to MAP 9700, A.
					90-110		Permanent error occurred.
							Unable to determine FRU.
							Attempt to recreate error,
							or use other SRC codes.
1A90	A-A2E2	57	9700A		90-210		Temporary error occurred.
	Channel	42			10-100		
	A-A2J2	1					
1A91	A-A2E2	59	9700A		10-100		Temporary error occurred.
	Channel	38			97-200		Fault may be in Drive A,
	A-A2C2/	1			90-210		B, C, or D (if installed).
	A-A2D2/						Run ERAP to determine
	A-A2C4/						failing location.
	A-A2D4						
	A-A2J2	1					
1A93	A-A2E2	59	9700A		10-100		Temporary error occurred.
	A-A2C2/	38			97-200		Fault may be in Drive A,
	A-A2D2/				90-210		B, C, or D (if installed).
	A-A2C4/						Run ERAP to determine
	A-A2D4						failing location.
	Channel	1					
	A-A2J2	1					
1A94	A-A2E2	56	9700A		97-200		Temporary error occurred.
	A-A2C2/	39			10-100		Fault may be in Drive A,
	A-A2D2/						B, C, or D (if installed).
	A-A2C4/						Run ERAP to determine
	A-A2D4						failing location.
	Channel	1			97-215		
	A-A2J2	1			90-210		
	F-A1C2	1					
	F-A1A3	1					
1A95	A-A2E2	48	9700A		97-200		Temporary error was one of
	A-A2C2/	42			90-210		the following:
	A-A2D2/				97-215		* Cycle Steal Address Ck
	A-A2C4/						* Command Parity Ck
	A-A2D4						* Cycle Steal Parity Ck

	A-A2J2	10					* DSA Buffer Write Ck * Interface Time-out * DSA Data Bus Parity Ck * Data Cycle Underrun Ck * Data Cycle Overrun Ck * Command Cycle Parity Ck Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location. (See MIM 97-508)
1A96	F-A1B2 A-A2C2/ A-A2D2/ A-A2C4/ A-A2D4 F-A1A4 F-A1A5 F-A1C2 F-A1A3 A-A2E2	34 22 16 16 5 4 1	9700A		97-200 90-210 97-215		Temporary error was one of the following: * Data Overrun Check * Command Error * Command Reject * Device Busy * Disk Not Ready * Cable Continuity Error * Disk Access Time-out * No Control Sample Rcvd * Disk Sense Parity Ck * Disk Interrupt Check * Servo Interrupt - Guard Band 2 Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location. (See MIM 97-508/97-518)
1A97	F-A1C2 A-A2C2/ A-A2D2/ A-A2C4/ A-A2D4 F-A1A3 F-A1B2 F-A1D2	46 21 21 12 1	9700A		97-200 97-215		Temporary error was one of the following: * Data Unsafe - Write & Servo off track - Write active & not in Data field - Write & Read both actv - Write actv & Select Err - Write actv & AE Unsafe Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine

							failing location. (See MIM 97-518)
1A99	F-A1B2 F-A1C2 F-A1D2 F-A1E2 F-A1E5 F-W1B1 F-HDA A-A2C2/ A-A2D2/ A-A2C4/ A-A2D4 A-A2E2	30 27 5 5 5 5 5 1			97-200 97-235 90-210 97-215		Temporary error was: * Unseated card or cable Fault may be in Drive A, B, C, or D (if installed) Run ERAP to determine failing location. Corrective Action: Reseat all IOSR cards and cables. (See MIM 97-518)
1A9A	F-A1C2 F-A1B2 F-A1D2 F-A1E2 F-A1E5 F-W1B1 F-HDA	43 42 1 1 1 1 1	9700A		97-235 97-215		Temporary error was one of the following: * Data Unsafe - Write & Not Ready both active - Write not active & AE Unsafe w/AE Selected * Servo Interrupt - (Not) Power Good - Disk Speed / VCO check Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location. (See MIM 97-518)
1A9b	F-A1D2 F-A1B2 F-A1C2 F-W1B1 F-A1E5 F-HDA F-VCM	34 28 26 1 1 1 1	9700A		97-235 97-215		Temporary Error was one of the following: * Sector Check * Disk Write Data Check * Servo Interrupt - Servo off track - Unexpected guard band - Seek Time-out - PLO out of sync Fault may be in Drive A, B, C, or D (if installed).

							Run ERAP to determine failing location. (See MIM 97-508/97-518)
1A9C	F-A1C2	45	9700A		97-235		Temporary error was one of the following: * Disk Format Unsafe * Data Unsafe - AE unsafe w/o AE select Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location. (See MIM 97-508/97-518)
	F-HDA	16			97-215		
	F-A1E2	15					
	F-A1A3	12					
	A-A2C2/	1					
	A-A2D2/						
	A-A2C4/						
	A-A2D4						
	F-A1B2	1					
	F-W1B1	1					
1A9F	Media	30	9700A		97-235		Temporary error was one of the following: * Sync Not Found check * CRC/ECC check * No Record Found check Corrective Action: Run Analysis (MIM 01-730) to check for bad sector ID or bad data written on the HDA. Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location. (See MIM 97-508)
	F-A1C2	20			97-215		
	F-A1B2	10					
	F-HDA	1					
	F-A1E2	1					
	F-W1B1	1					
	A-A2C2/	1					
	A-A2D2/						
	A-A2C4/						
	A-A2D4						
	F-A1D2	1					
	F-A1A3	1					
1AA0	A-A2E2	56	9700A		90-210		Temporary error occurred. Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location.
	A-A2C2/	43			97-200		
	A-A2D2/						
	A-A2C4/						
	A-A2D4						
1AA1	A-A2E2	99	9700A		90-210		Temporary error occurred.
1AA2	A-A2E2	49	9700A		90-210		Temporary error occurred. Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location.
	A-A2C2/	37			97-200		
	A-A2D2/						
	A-A2C4/						
	A-A2D4						

	F-A1B2	10			97-215		
	F-A1A3	1					
1AA4	A-A2E2	60	9700A		90-210		Temporary error occurred.
	A-A2C2/	32			97-200		Fault may be in Drive A,
	A-A2D2/						B, C, or D (if installed).
	A-A2C4/						Run ERAP to determine
	A-A2D4						failing location.
	F-A1C2	1			97-215		
	F-A1A3	1			10-100		
	Channel	1					
	F-A1B2	1					
1AA5	A-A2E2	48	9700A		97-200		Temporary error was one of
	A-A2C2/	42			90-210		the following:
	A-A2D2/						* Cycle Steal Address Ck
	A-A2C4/						* Command Parity check
	A-A2D4						* Cycle Steal Parity Ck
	A-A2J2	10					* DSA Buffer Write check
							* Interface Time-out
							* Data Bus Parity check
							* Data Cycle Underrun Ck
							* Data Cycle Overrun Ck
							* Command Cycle Parity Ck
							Fault may be in Drive A,
							B, C, or D (if installed).
							Run ERAP to determine
							failing location.
							(See MIM 97-508)
1AA6	F-A1B2	34	9700A		97-200		Temporary error was one of
	A-A2C2/	22			90-210		the following:
	A-A2D2/				97-215		* Data Overrun check
	A-A2C4/						* Command Error
	A-A2D4						* Command Reject
	F-A1A4	16					* Device Busy
	F-A1A5	16					* Disk Not Ready
	F-A1C2	5					* Cable Continuity Error
	F-A1A3	4					* Disk Access Time-out
	A-A2E2	1					* No Control Sample Rcvd
							* Disk Sense Parity Check
							* Disk Interrupt Check
							* Servo Interrupt
							- Guard band 2

							Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location. (See MIM 97-508/97-518)
1AA7	F-A1C2	46	9700A		97-200		Temporary error was one of the following: * Data Unsafe - Write & Servo off track - Write active & not in data field - Write & Read both actv - Write active & AE select error - AE Unsafe
	A-A2C2/	21			97-215		
	A-A2D2/						
	A-A2C4/						
	A-A2D4						
	F-A1A3	21					
	F-A1B2	12					
	F-A1D2	1					
							Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location. (See MIM 97-518)
1AA9	F-A1B2	30	9700A		97-200		Temporary error occurred. Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location. Error detected was: * Unseated card or cable Corrective Action: Reseat all IOSR cards and cables.
	F-A1C2	27			97-235		
	F-A1D2	5			90-210		
	F-A1E2	5			97-215		
	F-A1E5	5					
	F-W1B1	5					
	F-HDA	5					
	A-A2C2/	1					
	A-A2D2/						
	A-A2C4/						
	A-A2D4						
	A-A2E2	1					
1AAA	F-A1C2	43	9700A		97-235		Temporary error was one of the following: * Data Unsafe - Write and Not Ready both active - Write Not Active & AE Unsafe w/AE selected * Servo Interrupt - (Not) Power Good
	F-A1B2	42			97-215		
	F-A1D2	1					
	F-A1E2	1					
	F-A1E5	1					
	F-W1B1	1					
	F-HDA	1					

						- Disk Speed / VCO check Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location. (See MIM 97-518)
1AAb	F-A1D2 F-A1B2 F-A1C2 F-W1B1 F-A1E5 F-HDA F-VCM	34 28 26 1 1 1 1	9700A		97-235 97-215	Temporary error was one of the following: * Sector Check * Disk Write Data Check * Servo Interrupt - Servo off track - Unexpected guard band - Seek Time-out - PLO out of sync Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location. (See MIM 97-508/97-518)
1AAC	F-A1C2 F-HDA F-A1E2 F-A1A3 A-A2C2/ A-A2D2/ A-A2C4/ A-A2D4 F-A1B2 F-W1B1	45 16 15 12 1 1 1	9700A		97-235 97-215	Temporary error was one of the following: * Disk Format Check * Data Unsafe - AE Unsafe without an AE selected Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location. (See MIM 97-518)
1AAF	Media F-A1C2 F-A1B2 F-HDA F-A1E2 F-W1B1 A-A2C2/ A-A2D2/ A-A2C4/ A-A2D4	30 20 10 1 1 1 1 	9700A		97-235 97-215	Temporary error was one of the following: * Sync Not Found Check * CRC/ECC Check * No Record Found Check Corrective Action: Run Analysis (MIM 01-730) to check for bad sector ID or bad data written on the HDA

	F-A1D2	1					See MIM 97-508 for
	F-A1A3	1					additional information on
							Fault may be in Drive A,
							B, C, or D (if installed).
							Run ERAP to determine
							failing location.
							(See MIM 97-508)
1Ab0	F-A1B2	33	9700A		97-215		Temporary error was:
	A-A2C2/	33			97-200		* Cable continuity Check
	A-A2D2/						Corrective Action:
	A-A2C4/						Reseat cards and cables
	A-A2D4						Fault may be in Drive A,
	F-A1A3	27					B, C, or D (if installed)
	F-A1A4	1					Run ERAP to determine
	F-A1A5	1					failing location.
1Ab2	A-A2C2/	43	9700A		97-200		Temporary error occurred.
	A-A2D2/						Fault may be in Drive A,
	A-A2C4/						B, C, or D (if installed).
	A-A2D4						Run ERAP to determine
	F-A1B2	28			97-215		failing location.
	F-A1A4	22					
	F-A1A5	1					
	F-A1A3	1					
1Ab4	F-A1C2	57	9700A		97-215		Temporary error occurred.
	A-A2C2/	29			97-200		
	A-A2D2/						Fault may be in Drive A,
	A-A2C4/						B, C, or D (if installed).
	A-A2D4						Run ERAP to determine
	F-A1A3	27					failing location.
	F-A1A5	1					
	F-A1A3	1					
1AbA	F-A1B2	41	9700A		97-215		Temporary error occurred.
	A-A2C2/	28			97-200		
	A-A2D2/						Fault may be in Drive A,
	A-A2C4/						B, C, or D (if installed).
	A-A2D4						Run ERAP to determine
	F-A1A4	11			90-210		failing location.
	F-A1A5	9					
	F-A1A3	1					
	A-A2E2	1					

1Abb	F-A1B2	61	9700A		97-215		Temporary error occurred.
	F-A1C2	24			97-200		
	F-A1D2	6			90-210		Fault may be in Drive A,
	A-A2C2/	1					B, C, or D (if installed).
	A-A2D2/						Run ERAP to determine
	A-A2C4/						failing location.
	A-A2D4						
	A-A2E2	1					
	F-A1A5	1					
	F-A1A4	1					
1AbC	F-A1B2	37	9700A		97-215		Temporary error occurred.
	A-A2C2/	25			97-200		
	A-A2D2/						Fault may be in Drive A,
	A-A2C4/						B, C, or D (if installed).
	A-A2D4						Run ERAP to determine
	F-A1A3	14					failing location.
	F-A1A4	11					
	F-A1A5	10					
	F-A1C2	1					
1Abd	F-A1B2	64	9700A		97-215		Temporary error occurred.
	A-A2C2/	13			97-200		
	A-A2D2/						Fault may be in Drive A,
	A-A2C4/						B, C, or D (if installed).
	A-A2D4						Run ERAP to determine
	F-A1C2	11					failing location.
	F-A1A5	1					
	F-A1A4	1					
	F-A1A3	1					
1AbE	F-A1B2	46	9700A		97-215		Temporary error occurred.
	A-A2C2/	16			97-200		
	A-A2D2/						Fault may be in Drive A,
	A-A2C4/						B, C, or D (if installed).
	A-A2D4						Run ERAP to determine
	F-A1C2	15			90-210		failing location.
	A-A2E2	7			10-100		
	F-A1A4	1					
	F-A1A3	1					
	F-A1A5	1					
	F-A1D2	1					
	Channel	1					

1AC0	F-A1B2	50	9700A	97-215		Temporary error was:
	F-A1C2	1		97-235		* Unseated Card or Cable
	F-A1D2	1				Corrective Action:
	F-A1E2	1				Reseat all IOSR cards and
	F-A1E5	1				cables.
	F-HDA	1				Fault may be in Drive A,
	F-W1B1	1				B, C, or D (if installed)
						Run ERAP to determine
						failing location.
1AC1	F-A1B2	98	9700A	97-215		Temporary error occurred.
						Fault may be in Drive A,
						B, C, or D (if installed).
						Run ERAP to determine
						failing location.
1AC2	F-A1B2	66	9700A	97-215		Temporary error occurred.
	F-A1A3	33				Fault may be in Drive A,
						B, C, or D (if installed).
						Run ERAP to determine
						failing location.
1AC3	F-A1C2	98	9700A	97-215		Temporary error occurred.
						Fault may be in Drive A,
						B, C, or D (if installed).
						Run ERAP to determine
						failing location.
1AC5	F-A1B2	82	9700A	97-215		Temporary error occurred.
	F-A1C2	17				Fault may be in Drive A,
						B, C, or D (if installed).
						Run ERAP to determine
						failing location.
1AC6	F-A1C2	60	9700A	97-215		Temporary error occurred.
	F-A1B2	35				Fault may be in Drive A,
	F-A1A3	1				B, C, or D (if installed).
						Run ERAP to determine
						failing location.
1AC7	F-A1B2	64	9700A	97-215		Temporary error occurred.
	F-A1C2	35				Fault may be in Drive A,
	F-A1A3	1				B, C, or D (if installed).

							Run ERAP to determine failing location.
1AC8	F-A1C2	70	9700A		97-215		Temporary error occurred. Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location.
	F-A1B2	30					
1ACA	F-A1C2	71	9700A		97-215		Temporary error occurred. Fault may be in Drive A, B, C, or D (if installed) Run ERAP to determine failing location.
	F-W1B1	18			97-235		
	F-A1E2	10					
1ACb	F-A1C2	44	9700A		97-215		Temporary error occurred. Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location.
	F-W1B1	35			97-235		
	F-A1E2	20					
1Ad0	F-A1D2	98	9700A		97-215		Temporary error occurred. Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location.
1Ad2	F-A1B2	50	9700A		97-215		Temporary error occurred. Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location.
	F-A1A3	27					
	F-A1D2	22					
1Ad4	F-A1B2	67	9700A		97-215		Temporary error occurred. Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location.
	F-A1C2	25					
	F-A1D2	7					
1Ad5	F-A1D2	87	9700A		97-215		Temporary error occurred. Fault may be in Drive A, B, C, or D (if installed). Run ERAP to determine failing location.
	F-A1C2	12					

1Ad8	F-A1D2	71	9700A		97-215		Temporary error occurred.
	F-A1C2	12					Fault may be in Drive A,
	F-A1B2	10					B, C, or D (if installed).
	F-VCM	1					Run ERAP to determine
							failing location.
1AdA	F-A1D2	60	9700A		97-215		Temporary error occurred.
	F-A1C2	27			97-200		Fault may be in Drive A,
	A-A2C2/	1					B, C, or D (if installed).
	A-A2D2/						Run ERAP to determine
	A-A2C4/						failing location.
	A-A2D4						
	F-A1A3	1					
1AdC	F-A1D2	49	9700A		97-215		Temporary error occurred.
	F-A1E5	26					Fault may be in Drive A,
	F-HDA	14					B, C, or D (if installed).
	Media	10					Run ERAP to determine
							failing location.
							Corrective action:
							Run Analysis (MIM 01-730)
							to check for bad sector ID
							or bad data on the HDA.
1AE0	F-A1B2	48	9700A		97-215		Temporary error occurred.
	F-A1C2	24			97-200		Fault may be in Drive A,
	F-A1D2	15					B, C, or D (if installed).
	A-A2C2/	1					Run ERAP to determine
	A-A2D2/						failing location.
	A-A2C4/						
	A-A2D4						
	F-VCM	1					
	F-A1E5	1					
	F-A1A5	1					
	F-A1A4	1					
	F-A1A3	1					
	F-HDA	1					
	F-A1E2	1					
1AE1	F-A1B2	54	9700A		97-215		Temporary error occurred.
	F-A1C2	23					Fault may be in Drive A,
	F-A1D2	19					B, C, or D (if installed).
	F-VCM	1					Run ERAP to determine

	F-A1E5	1					failing location.
1AE3	F-A1C2	39	9700A		97-215		Temporary error occurred.
	F-A1B2	33					Fault may be in Drive A,
	F-A1D2	1					B, C, or D (if installed).
	F-A1E5	1					Run ERAP to determine
	F-HDA	1					failing location.
1AE4	F-A1C2	48	9700A		97-215		Temporary error occurred.
	F-A1D2	25					Fault may be in Drive A,
	F-A1E5	13					B, C, or D (if installed).
	F-HDA	12					Run ERAP to determine
							failing location.
1AE5	F-A1C2	45	9700A		97-215		Temporary error occurred.
	F-A1B2	25					Fault may be in Drive A,
	F-A1E2	15					B, C, or D (if installed).
	F-HDA	12					Run ERAP to determine
							failing location.
1AE7	F-A1D2	31	9700A		97-215		Temporary error occurred.
	F-A1C2	27			97-200		Fault may be in Drive A,
	F-A1B2	13			97-235		B, C, or D (if installed).
	F-W1B1	10					Run ERAP to determine
	F-A1E2	1					failing location.
	F-HDA	1					
	F-VCM	1					
	A-A2C2/	1					
	A-A2D2/						
	A-A2C4/						
	A-A2D4						
	F-A1A3	1					
1AE8	F-A1D2	44	9700A		97-215		Temporary error occurred.
	F-A1B2	31					Fault may be in Drive A,
	F-A1C2	18					B, C, or D (if installed)
	F-VCM	1					Run ERAP to determine
	F-A1E5	1					failing location.
	F-HDA	1					
1AE9	F-A1D2	45	9700A		97-215		Temporary error occurred.
	F-A1B2	27			97-225		Fault may be in Drive A,
	F-A1C2	21			97-230		B, C, or D (if installed)

	F-VCM	1					Run ERAP to determine
	F-A1E5	1					failing location.
	F-HDA	1					Reseat power distribution
	Pwr cbl	1					cables to 10SR. Check
							'Power Good' (FLD GA915)
1AEA	F-A1C2	30	9700A		97-215		Temporary error occurred.
	F-A1B2	33			97-200		Fault may be in Drive A,
	F-W1B1	8			97-235		B, C, or D (if installed)
	F-HDA	7					Run ERAP to determine
	F-A1E2	1					failing location.
	A-A2C2/	1					
	A-A2D2/						
	A-A2C4/						
	A-A2D4						
	F-A1A3	1					
	F-A1D2	1					
	F-A1E5	1					
	F-A1A5	1					
	F-A1A4	1					
1AEb	F-A1B2	57	9700A		97-215		Temporary error occurred.
	F-A1C2	18			97-235		Fault may be in Drive A,
	F-A1E2	1					B, C, or D (if installed)
	F-A1D2	1			97-225		Run ERAP to determine
	F-W1B1	1			97-230		failing location.
	F-HDA	1					Reseat power distribution
	Pwr cbl	1					cables to 10SR. Check
	F-A1E5	1					'Power Good' (FLD GA915)
1AEC	F-A1B2	32	9700A		97-215		Temporary error occurred.
	F-A1C2	24			97-200		Fault may be in Drive A,
	F-A1D2	23			97-235		B, C, or D (if installed)
	F-A1E2	1					Run ERAP to determine
	F-VCM	1					failing location.
	F-A1E5	1					
	A-A2D2	1					
	F-HDA	1					
	F-W1B1	1					
	F-A1A5	1					
	F-A1A3	1					
	F-A1A4	1					
1AEd	F-A1C2	36	9700A		97-215		Temporary error occurred.

	F-HDA	12			97-200	Fault may be in Drive A,
	F-W1B1	9			97-235	B, C, or D (if installed).
	A-A2C2/	1				Run ERAP to determine
	A-A2D2/					failing location.
	A-A2C4/					
	A-A2D4					
	F-A1A3	1				
	F-A1D2	1				
	F-A1E5	1				
	F-A1E2	1				
1AEF	F-W1B1	34	9700A		97-235	Temporary error occurred.
	F-A1C2	27			97-215	Fault may be in Drive A,
	F-HDA	13			97-200	B, C, or D (if installed).
	F-A1E2	10				Run ERAP to determine
	F-A1D2	1				failing location.
	A-A2C2/	1				
	A-A2D2/					
	A-A2C4/					
	A-A2D4					
	F-A1B2	1				
	F-A1E5	1				
	F-A1A3	1				
1AF0	F-A1D2	19	9700A		97-200	Temporary error occurred.
	A-A2C2/	18			90-210	Corrective Action:
	A-A2D2/				97-215	Run Analysis (MIM 01-730)
	A-A2C4/				10-100	to check for bad sector ID
	A-A2D4					or bad data written on the
	A-A2E2	14				HDA.
	F-A1C2	10				Fault may be in Drive A,
	F-A1A4	1				B, C, or D (if installed)
	F-A1A5	1				Run ERAP to determine
	F-A1A3	1				failure location.
	F-VCM	1				
	F-A1E5	1				
	Channel	1				
	A-A2J2	1				
	F-HDA	1				
	Media	1				
1AF1	F-A1C2	34	9700A		97-215	Temporary error occurred.
	A-A2C2/	16			97-200	Fault may be in Drive A,
	A-A2D2/				97-235	B, C, or D (if installed).

	A-A2C4/			90-210		Run ERAP to determine
	A-A2D4			10-100		failing location.
	F-A1B2	16				Corrective Action:
	A-A2E2	8				Reseat cards and cables.
	F-W1B1	1				Run Analysis (MIM 01-730)
	F-A1D2	1				to check for bad sector ID
	F-A1A5	1				or bad data written on the
	F-HDA	1				HDA.
	F-A1A3	1				
	F-A1A4	1				
	F-A1A5	1				
	F-A1E5	1				
	Channel	1				
	A-A2J2	1				
	Media	1				
1AF2	F-A1C2	38	9700A	97-215		Temporary error occurred.
	F-A1B2	17		97-200		Fault may be in Drive A,
	F-HDA	11		97-235		B, C, or D (if installed).
	F-A1E2	10		90-210		Run ERAP to determine
	F-W1B1	1				failing location.
	A-A2C2/	1				Corrective Action:
	A-A2D2/					Reseat cards and cables.
	A-A2C4/					Run Analysis (MIM 01-730)
	A-A2D4					to check for bad sector ID
	F-A1A3	1				or bad data written on the
	F-A1D2	1				HDA.
	A-A2E2	1				
	F-A1E5	1				
	F-A1A5	1				
	F-A1A4	1				
	Media	1				
1AF3	F-A1C2	28	9700A	97-215		Temporary error occurred.
	F-A1B2	24		97-200		Fault may be in Drive A,
	A-A2C2/	16		97-235		B, C, or D (if installed).
	A-A2D2/			90-210		Run ERAP to determine
	A-A2C4/					failing location.
	A-A2D4					Corrective Action:
	A-A2E2	7				Run Analysis (MIM 01-730)
	F-A1D2	7				to check for bad sector ID
	F-A1A3	1				or bad data written on the
	A-A1A4	1				HDA.
	F-A1A5	1				

	F-HDA	1				
	F-W1B1	1				
	F-A1E2	1				
	F-VCM	1				
	F-A1E5	1				
	Media	1				
1AFF				97-110		Go to MAP 9700, A.
				90-110		Temporary error occurred.
						Unable to determine FRU.
						Attempt to recreate error,
						or use other SRC codes.

ENTRY POINTS

FROM MAP NUMBER	ENTER THIS MAP ENTRY POINT	PAGE NUMBER	STEP NUMBER
0101	A	1	001
0199	A	1	001

001
(Entry Point A)

MAP DESCRIPTION:
This MAP contains the system reference codes 1b00 through 9FFF. Any code not listed in this MAP, MAP 0113, MAP 0114, MAP 0116 or MAP 0118 are not valid.

START CONDITIONS:
A failure has occurred and has resulted in a 4 character code being logged or displayed. Each code represents a condition of failure.
- Use the MAP reference to isolate the failing FRU or FRU group.

Multiple Unit:
- If a SRC points to two or more units (such as Drive A, Drive B), use ERAP to determine the failing unit.

Reference Code Index for MAP 0115

SRC	Device or Function	Device MAP Entry
1bxx	8809 Tape	9900,A
1Cxx	Work station Attachment	7001,AA
1dxx	Diskette	0179,A
1Exx	3262 Printer	5001,A
2xxx	SSP Program	(talk to PSR)
4xxx	Sungate	

5xxx Customer Set Up (see CSU Manual)
71xx Remote Display
72xx Remote Printer
81xx Work station Display
82xx Work station Printer

**********			Tape	1bxx			**********
1b01	A-A2K2	60	9900A		99-110	TK-200	Unable to reset interrupt.
	A-A2L2	30				TL-200	
	A-A2J2	10				TJ-200	
1b02	A-A2K2	90	9900A		99-110	TK-200	DSA cycle steal parity
	A-A2J2	10				TJ-200	check.
1b03	A-A2K2	90	9900A		99-110	TK-200	DSA bus out parity check.
	A-A2J2	5				TJ-200	
	A-A2L2	5					
1b04	A-A2K2	50	9900A		99-110	TK-200	DSA bus in parity check.
	A-A2J2	30				TJ-200	
	A-A2L2	10				TL-200	
1b05	A-A2K2	90	9900A		99-110	TK-200	Not write mode, buffer
	A-A2J2	10				TJ-200	select.
1b06	A-A2K2	80	9900A		99-110	TK-200	Wrong end op.
	A-A2J2	5				TJ-200	
	A-A2L2	5				TL-200	
	8809-C2	5					
1b07	A-A2K2	90	9900A		99-110	TK-200	Wrong DSA counters.
	A-A2J2	10				TJ-200	
1b08	A-A2K2	80	9900A		99-110	TK-200	Wrong channel address.
	A-A2J2	20				TJ-200	
1b09	A-A2K2	80	9900A		99-110	TK-200	Wrong DLC counter.
	A-A2J2	10				TJ-200	
	A-A2L2	5				TL-200	
1b0A	A-A2K2	80	9900A		99-110	TK-200	DSA length check.
	A-A2J2	10				TJ-200	
	A-A2L2	5				TL-200	
	8809-C2	5					

1b0b	A-A2L2	60	9900A		99-110	TL-200	Transfer complete not
	A-A2K2	40				TK-200	active.
1b0C	A-A2J2	50	9900A		99-110	TJ-200	Wrong cycle steal LSR.
	A-A2K2	50				TK-200	
1b0d	A-A2K2	80	9900A		99-110	TK-200	Transfer ready not on.
	A-A2J2	10				TJ-200	
	A-A2L2	5				TL-200	
1b0E	A-A2J2	90	9900A		90-110	TJ-200	A not valid vol
	A-A2K2	10				TK-200	sequencing.
1b0F	A-A2L2	80	9900A		99-110	TL-200	Tactical bus in parity
	A-A2K2	10				TK-200	check on a DPC operation.
	A-A2J2	5				TJ-200	
1b10							
1b11							
1b12							
1b13							
1b14							
1b15							
1b16							
1b17							
1b18							
1b19							
1b1A							
1b1b							
1b1C							
1b1d							

1b1E							
1b1F							
1b1x	A-A2J2	70	9900A		99-110	TJ-200	Not a valid command.
	8809-C2	10					
	8809-G2	10					
	A-A2L2	2					
	A-A2U4	2					
1b20	A-A2J2	99	9900A		90-110	TJ-200	Not a valid command.
1b21	A-A2J2	99	9900A		90-110	TJ-200	Not a valid command.
1b22	A-A2J2	99	9900A		90-110	TJ-200	Not a valid command.
1b23	A-A2J2	80	9900A		90-110	TJ-200	Not a valid command.
	8809-C2	20					
1b24	A-A2J2	80	9900A		90-110	TJ-200	Not a valid cont command.
	8809-C2	20					
1b25	A-A2J2	99	9900A		90-110	TJ-200	Not a valid block length.
1b26	A-A2J2	99	9900A		90-110	TJ-200	Not a valid file number specified.
1b28	A-A2L2	50	9900A		90-110	TL-200	Unknown error.
	A-A2K2	20				TK-200	
	A-A2J2	20				TJ-200	
	A-A2E2	10					
1b29	A-A2L2	70	9900A		99-110	TL-200	Unknown error.
	A-A2K2	10				TK-200	
	A-A2J2	10				TJ-200	
	A-A2E2	10					
1b30	A-A2J2	45	9900A		99-110	AA005	Tape drive busy.
	A-A2K2	20				TJ-200	
	A-A2L2	10				TL-200	
	8809-C2	10					
	A-A2U4	5					

1b31	A-A2J2	80	9900A		99-110	TJ-200	Position lost on tape.
	A-A2L2	10				TL-900	
	A-A2U4	5					
	8809-C2	5					
1b34	A-A2J2	99	9900A		90-110	TJ-200	Data length short.
1b35	A-A2J2	70	9900A		90-110	TJ-200	Invalid volume ID.
	8809-C2	15					
	Prog	10					
1b36	A-A2J2	70	9900A		90-110	TJ-200	EOT found searching for
	8809-C2	15					label * PDP will direct
	Prog	10					customer to look for EOT
							marker in wrong place.
1b37	A-A2J2	80	9900A		90-110	TJ-200	Tape mark detected.
	8809-C2	20					
1b38	A-A2J2	80	9900A		90-110	TJ-200	Disk block counter not
	8809	20					equal to count label.
1b39	A-A2J2	80	9900A		90-110	TJ-200	Not a valid header label.
	8809	20					
1b3A	A-A2J2	80	9900A		90-110	TJ-200	EOT found not expected.
	8809	20					*EOT will check both
							marker.
1b3b	A-A2J2	80	9900A		90-110	TJ-200	Not a valid trailer label.
	8809	20					
1b3C	A-A2J2	80	9900A		99-110	AA005	Previous op failed.
	A-A2K2	10				TJ-200	
	A-A2L2	5					
1b40	8809-C2	40	9900A		99-110	AA005	Tape bus in parity error
	8809-G2	20					on data.
	8809-H2	10					
	A-A2L2	20					
	A-A2U4	10					
1b41	8809-C2	40	9900A		99-110	AA005	Active control Line (DCI)
	8809-G2	20					

	8809-H2	20					
	A-A2L2	10				TL-200	before selection.
	A-A2U5	5				TL-900	
	A-A2K2	1					
	A-A2U4	1					
1b42	8809-C2	50	9900A		99-110	AA005	Select active still on
	8809-G2	30					
	A-A2L2	10				TL-200	after deselection.
	A-A2U5	5				TL-900	
1b43	8809-C2	40	9900A		99-110	AA005	Time out waiting for tag
	8809-G2	10					
	8809-H2	10					
	8809-F2	10					
	A-A2L2	10				TL-200	valid (not on selection).
	A-A2U5	3				TL-900	
	A-A2U4	3					
1b44	8809-G2	40	9900A		99-110	AA005	Time out waiting for
	8809-F2	10					
	8809-C2	10					
	8809-H2	10					
	A-A2L2	10				TL-200	normal end (on immediate
	A-A2U5	5				TL-900	command).
1b45	8809-G2	80	9900A		99-110	AA005	Sync in more often than
	A-A2L2	20				TL-200	sync out.
1b46	8809-C2	40	9900A		99-110	AA005	Time out waiting for
	8809-G2	20					
	8809-H2	10					
	A-A2J2	10				TJ-200	poll response.
	A-A2K2	5					
	A-A2L2	5					
	A-A2U4	5					
	A-A2U5	5					
1b47	8809-G2	50	9900A		8809	AA005	Data security erase
	8809-F2	20					
	8809-H2	10					
	8809-HD	10			MIM		failure.
1b48	8809-G2	50	9900A		99-110	AA005	No op complete after a

	8809-C2	30					
	8809-H2	5					
	A-A2U4	5				TL-900	valid poll response.
	A-A2U5	5				TL-900	
	A-A2L2	5				TL-200	
1b49	8809-G2	50	9900A		99-110	AA005	Timeout.
	8809-C2	20					
	8809-H2	10					
	A-A2U5	5				TL-900	Run tape MDIs before
	A-A2U4	5				TL-900	replacing FRUs.
	A-A2L2	5				TL-200	
1b4A	8809-G2	70	9900A		99-110	AA005	Normal end not set on
	A-A2L2	20				TL-200	select, poll, or disc.
	A-A2U4	5				TL-900	
	A-A2U5	5					
1b4b	8809-G2	60	9900A		99-110	AA005	Tape bus in parity chk
	8809-C2	30					
	A-A2L2	5				TL-200	on command sequence.
	A-A2U4	5				TL-900	
1b4C	8809-C2	50	9900A		99-110	AA005	Select active not set
	8809-G2	30					
	A-A2L2	14				TL-200	after selection.
	A-A2U4	3				TL-900	Cont-Cab = Control cable
	A-A2U5	3					
1b4d	8809-G2	80	9900A		99-110	AA005	Normal end control line
	A-A2U4	5				TL-900	is active early during a
	A-A2U5	5				TL-900	write operation.
	A-A2L2	5				TL-200	
1b4E	8809-G2	40	9900A		99-110	AA005	Select active set before
	8809-C2	30					
	A-A2L2	20				TL-200	select hold set.
	A-A2U5	5					
1b4F	8809-G2	60	9900A		99-110	AA005	Wrong or no address
	8809-C2	20					
	A-A2K2	5				TK-200	return on selection.
	A-A2L2	5					
	A-A2U4	5					

1b50	8809-G2	60	9900A		8809	AA005	Sync out check.
	8809-C2	30					
	A-A2L2	5			MIM	TL-200	
	A-A2U5	5				TL-900	
1b51	8809-G2	50	9900A		99-110	AA005	DCI seq check.
	8809-C2	30					
	A-A2L2	10				TL-200	
	A-A2U4	5				TL-900	
	A-A2U5	5					
1b52	A-A2L2	50	9900A		99-110	TL-200	Tag parity check.
	8809-G2	20				AA005	
	8809-C2	10					
	8809-F2	5					
	8809-HD	5					
	A-A2U4	5				TL-900	
	A-A2U5	5					
1b53	A-A2L2	60	9900A		99-110	TL-200	Bus out parity check.
	8809-C2	20				AA005	
	8809-G2	10					
	A-A2U4	5				TL-900	
	A-A2U5	5				TL-900	
1b54	8809-G2	50	9900A		8809	AA005	Format read fail.
	8809-H2	12					
	8809-F2	10					
	8809-HD	10			MIM		
1b55	8809-G2	60	9900A		8809	AA005	Format write error.
	8809-H2	30			MIM		
1b56	8809-C2	50	9900A		8809	AA005	Sense bus parity check.
	8809-G2	30					
	8809-H2	10			MIM		
1b57	8809-H2	50	9900A		8809	AA005	Clock parity error.
	8809-G2	40			MIM		
1b5A	8809-G2	50	9900A		8809	AA005	Bus out reg parity check.
	8809-C2	30					
	8809-H2	10			MIM		

1b5b	8809-G2 8809-H2 8809-C2	50 30 10	9900A		8809 MIM	AA005	Command reg parity check.
1b60	8809-H2	50	9900A		8809 MIM	AA005	Power ampere cable.
1b61	8809-TD 8809-H2	50 40	9900A		8809 MIM	AA005	Reel size sensor failure.
1b62	8809-TD 8809-H2	40 30	9900A		8809 MIM	AA005	Tape present sensor fail.
1b63	8809-TD 8809-H2	40 30	9900A		8809 MIM	AA005	BOT/EOT sensor failure.
1b64	8809-H2	60	9900A		8809 MIM	AA005	Cover/reel latch inter/ latch = 0.
1b65	8809-H2	60	9900A		8809 MIM	AA005	Cover/reel latch inter/ latch = 1.
1b66	8809-TD 8809-H2	40 40	9900A		8809 MIM	AA005	Idler tach rotation check.
1b67	8809-TD 8809-H2	40 40	9900A		8809 MIM	AA005	Disk tach failure.
1b6A	8809-TD 8809-H2	45 40	9900A		8809 MIM	AA005	Machine tach failure.
1b6b	8809-TD 8809-H2	40 40	9900A		8809 MIM	AA005	Idler tach failure.
1b6C	8809	90	9900A		8809 MIM	AA005	Machine ampere saturation.
1b6d	8809	99	9900A		8809 MIM	AA005	Disk ampere saturation.
1b6E	8809-H2	90	9900A		8809 MIM	AA005	Servo analog failure.

1b6F	8809-H2	90	9900A		8809 MIM	AA005	Servo logic failure.
1b70	8809-H2	90	9900A		8809 MIM	AA005	Drive control failure.
1b71	8809-TD 8809-H2	40 40	9900A		8809 MIM	AA005	Seq error and load check.
1b72	8809-H2 8809-TD	50 40	9900A		8809 MIM	AA005	Seq error and tension check.
1b73	8809-H2	90	9900A		8809 MIM	AA005	Seq error.
1b74	8809-H2 8809-TD	40 40	9900A		8809 MIM	AA005	PEID check. TM detected.
1b75	8809-H2	80	9900A		8809 MIM	AA005	End velocity check.
1b76	8809-H2	80	9900A		8809 MIM	AA005	Start velocity check.
1b77	8809-H2 8809-G2	40 40	9900A		8809 MIM	AA005	Gap control check.
1b78	8809-G2 8809-H2	40 40	9900A		8809 MIM	AA005	
1b7A	8809-G2 8809-H2	50 30	9900A		8809 MIM	AA005	Drive control parity chk.
1b7b	8809-G2 8809-H2 8809-F2 8809-HD	40 30 10 10	9900A		8809 MIM	AA005	Drive response check.
1b7C	8809-H2	90	9900A		8809 MIM	AA005	Not ready caused by the reset key.
1b7d	8809-H2 8809-F2	50 40	9900A		8809 MIM	AA005	Not ready.

1b7E	8809-H2	90	9900A		8809 MIM	AA005	Load check.
1bA0	8809-G2 8809-H2 8809-F2 8809-HD	40 30 10 10	9900A		8809 MIM	AA005	Read back and formatted read failure (pos media).
1bA1	8809-G2 8809-F2 8809-HD	50 30 10	9900A		8809 MIM	AA005	Write bus parity check.
1bA2	8809-H2 8809-HD	50 40	9900A		8809 MIM	AA005	Write current failure.
1bA3	8809-H2 8809-HD	50 40	9900A		8809 MIM	AA005	Write enable failure.
1bA4	8809-F2 8809-G2 8809-HD	40 30 10	9900A		8809 MIM	AA005	Read bus parity check.
1bA5	8809-G2 8809-C2 8809-H2	50 30 10	9900A		8809 MIM	AA005	Select alert and no error condition on.
1bA6	8809-H2 8809-TD 8809-G2	40 30 10	9900A		8809 MIM	AA005	Write enable error.
1bA7	8809-F2 8809-G2 8809-H2 8809-HD	40 30 10 10	9900A		8809 MIM	AA005	Not capable space disk.
1bC0	8809-H2 8809-TD	40 40	9900A		8809 MIM	AA005	Data check on write. EOT after a write op.
1bC1	8809-G2	90	9900A		8809 MIM	AA005	Data check on read. Tape mark detected.
1bC3	8809-G2 8809-H2 8809-C2	40 25 15	9900A		99-110	AA005	Data overrun.

	A-A2L2	10				TL-200	
	A-A2K2	5				TK-200	
	A-A2U4	5				TU-900	
1bC4	8809-G2	40	9900A		8809	AA005	Not capable after wrt 0.
	8809-H2	30					
	8809-F2	20			MIM		
1bC5	8809-G2	40	9900A		8809	AA005	PEID check after wrt 0.
	8809-H2	30					
	8809-F2	20					
	8809-HD	10			MIM		
1bC6	8809-F2	40	9900A		8809	AA005	Write tape mark error.
	8809-G2	30					
	8809-HD	10					
					MIM		
1bC7	8809-F2	40	9900A		8809	AA005	Multitrack error after
	8809-G2	30					
	8809-HD	10			MIM		wrt op.
1bCA	8809-F2	40	9900A		8809	AA005	Envelope check after
	8809-G2	30					
	8809-H2	10					
	8809-HD	10			MIM		wrt op (media).
1bCb	8809-G2	40	9900A		8809	AA005	Start read check after
	8809-F2	30					
	8809-HD	10			MIM		wrt op.
1bCC	8809-G2	30	9900A		8809	AA005	End data check after
	8809-H2	20					
	8809-F2	20					
	8809-HD	10			MIM		wrt op.
1bCd	8809-G2	40	9900A		8809	AA005	Not capable after non
	8809-F2	20					
	8809-H2	20					
	8809-HD	10			MIM		wrt op.
1bCE	8809-F2	40	9900A		8809	AA005	Crease after A non wrt
	8809-G2	30					
	8809-HD	20			MIM		op (media).

1bCF	8809-F2	30	9900A		99-110	AA005	No track pointer after
	8809-G2	30					
	8809-HD	10					
	A-A2L2	10				TL-200	wrt op (media).
	A-A2K2	5				TK-900	
	A-A2U4	5				TL-900	
1bd0	8809-F2	40	9900A		8809	AA005	Multitrack error after
	8809-G2	30					
	8809-HD	10			MIM		a non write op.
1bd1	8809-F2	40	9900A		8809	AA005	Skew error after non
	8809-G2	30					
	8809-HD	10			MIM		write op.
1bd2	8809-G2	40	9900A		8809	AA005	Start read check after
	8809-H2	20					
	8809-F2	10					
	8809-HD	10			MIM		a non write op.
1bd3	8809-G2	40	9900A		8809	AA005	Read data check after
	8809-H2	20					
	8809-F2	20					
	8809-HD	10			MIM		a non write op.
1bd4	8809-G2	30	9900A		8809	AA005	PEID check- LWR.
	8809-C2	20					
	8809-F2	20					
	8809-H2	10					
	8809-HD	10			MIM		
1bd5	8809-G2	40	9900A		8809	AA005	End data check on LWR.
	8809-F2	30					
	8809-HD	20			MIM		
1bd6	8809-G2	40	9900A		8809	AA005	Multitrack error after a
	8809-F2	30					LWR.
	8809-HD	20					
	8809-H2	10			MIM		
1bd7	8809-G2	40	9900A		99-110	AA005	Envelope check after a
	8809-F2	30					LWR.
	8809-HD	20					

	A-A2U5	5				TL-900	
1bdA	8809-G2	30	9900A		8809	AA005	Start read check after a
	8809-F2	20					LWR.
	8809-H2	20					
	8809-HD	10			MIM		
1bdb	8809-G2	30	9900A		8809	AA005	End data check after a
	8809-F2	20					LWR.
	8809-H2	20					
	8809-HD	10			MIM		
1bF0	8809-C2	50	9900A		8809	AA005	Timeout on data transfer
	8809-H2	40			MIM		
1bF1	8809-C2	80	9900A		8809	AA005	Select alert but sense
	A-A2L2	10			MIM	TL-200	data does not specify
	A-A2U5	10				TL-900	cause.
1bF2	8809-C2	80	9900A		8809	AA005	Check end but no data
	A-A2L2	10			MIM	TL-200	check.
	A-A2U5	10				TL-900	
1bF4	8809-C2	75	9900A		8809	AA005	Timeout on data transfer.
	A-A2L2	10			MIM	TL-200	
	A-A2K2	10				TK-200	
	A-A2J2	5				TJ-200	
1bF5			9900A		99-110		Tape OLPD detected an
							error condition.
1bFF	8809-C2	30	9900A		99-110	AA005	Time out waiting for
	8809-G2	20					tag valid on selection.
	A-A2U4	10				TL-900	
	A-A2U5	10					
	A-A2L2	10					
	A-A2K2	10					
**********			Work station 1Cxx				**********
1C00	A-A1H2	30	0101B				Default error code for
	A-A3S2	30					w/s attachment.
	A-A1J2	15					
	A-A3T2	15					

1C01	A-A1H2	69	0101B			WH-100	Failure in w/s attachment.
	A-A1J2	30				WJ-100	
1C02	A-A1H2	99	0101B			WH-100	W/S attachment controller failed.
1C03	A-A1J2	95	0101B			WH-100	Failure with w/s adapter.
	A-A1H2	2					
	A-A1V4	2					
1C04	Mcode	89	0101B				A w/s microcode error has been detected.
	A-A1H2	5					
	A-A1J2	5					

********** Diskette Drive Code 1dxx **********

1d01	A-A1F2/	70	0179C	DSA	91-620	DF-100	DSA detected parity error
	A-A2F2				93-620	DF-200	during data transfer or
	A-A1E2/	25			91-700	HE-100	DPC sense of adapter card.
	A-A2E2				93-700	HE-200	Run MDIs for additional
					90-700		isolation before replacing
							FRUs.
1d02	A-A1F2/	70	0179C	DSA	91-620	DF-100	Adapter card timed out.
	A-A2F2				93-620	DF-200	Adapter card interface
	A-A1E2/	25			91-700	HE-100	busy time out. Run MDIs
	A-A2E2				93-700	HE-200	for additional isolation
	A-A1G4/	4			90-700		before replacing FRUs.
	A-A2G4						
1d03	Channel	90	0179C				DSA detected a not valid
	A-A1E2/	10		DSA	90-700	HE-100	parity during a cycle
	A-A2E2				93-620	HE-200	steal operation on
					93-700		system channel.
1d04	A-A1E2/	70	0179C	DSA	90-700	HE-100	DA detected not valid
	A-A2E2				91-620	HE-200	parity during data
	A-A1F2/	25			91-700	DF-100	transfer or DPC load to
	A-A2F2				93-620	DF-200	DA. Run MDIs for
					93-700		additional isolation
							before replacing FRUs.
1d05	A-A1E2/	55	0179C	DSA	90-700	HE-100	Overrun or underrun
	A-A2E2				91-620	HE-200	condition sensed during
	A-A1F2/	30			93-620	DF-100	data operation. Run MDIs

	A-A2F2				91-700	DF-200	for additional isolation
	System	15			93-700		before replacing FRUs.
1d06	A-A1F2/	75	0179C	DSKT	91-620	DF-100	Not a valid write gate/
	A-A2F2				93-620	DF-200	erase gate wrap or
	DCC	18			91-700	EA-7XX	unsafe.
					93-700	DF-9XX	DCC = drive control card.
	Head	5			91-311	EX-7XX	Check for open read/write
	A-A1V5/	2			93-394		or erase coils or
	A-A2V5				93-245		connector.
1d07	Drive	50	0179C	DSKT	91-352	EA-700	Diskette not at speed
					93-420	EA-750	(quick); hard-sector
	Diskete	50					(multiple hole) dskt.
							Run MDIs for additional
							isolation before replacing
							FRUs.
1d08	A-A1F2/	88	0179C	DSKT	93-620	DF-100	72 MD parity error.
	A-A2F2				93-700	EA-700	DCC = drive control card.
	DCC	10			93-245	DF-900	Run MDIs for additional
	A-A1V5/	02					isolation before replacing
	A-A2V5						FRUs.
1d09	Auto	80	0179C	DSKT	93-310	DF-900	72MD motion check
	loader				93-805		detected or wrap error.
	hdware						Picker fails or no
							diskette in slot selected.
							DCC = drive control card.
	DCC	20				EA-700	Run MDIs for additional
							isolation before replacing
							FRUs.
1d0A	Media/	60	0179A				Diskette not at speed
	op						(stopped or slow). No
							diskette in drive. If
	Drive	30					unable to separate media/
	A-A1F2/	10					operator, go to MAP 0179,
	A-A2F2						Entry Point A.
1d0b	User	95					System received not valid
	Program						parameter (noop).
	A-A1V5/						
	A-A2V5						

	DCC						
1d0C	A-A1F2/	40	0179C	Dskt	91-620		Cylinder mismatch. Run
	A-A2F2				93-620		MDIs for additional
	DCC	30					isolation.
	Drive	30					DCC = drive control card.
1d0F	Media/	94	0179A		91-302		CRC error; missing AM; ID
	op				93-303		not found; invoked ECC;
	A-A1F2/	1					not a valid control
	A-A2F2						record;
	DCC	1					write verify mismatch;
	A-A1G4/	1					72MD cover not closed
	A-A2G4						or cover switch failing.
	A-A1V5/	1					If unable to separate
	A-A2V5						media/operator/hardware
	Head	1					go to MAP 0179, Entry
	Pwr cbl	1					Point A.
********** Diskette Drive Test Status Codes 1dAx **********							
1dA0	A-A1F2/	95		Dskt			Write control or read
	A-A2F2						control error while
							running diskette drive
							test. Run diskette MDIs
							for FRU isolation.
1dA1	A-A1F2/	25		DSA	91-309		Cannot read cylinder 0
	A-A2F2				93-392		head 0 while running
	DCC	25			93-394		diskette drive test.
	A-A1G4/	20			91-311		Run diskette MDIs for
	A-A2G4						additional FRU isolation.
	Head	29					
1dA2	A-A1F2/	20		Dskt	91-309		Worn-head test fails on
	A-A2F2				93-392		head 0 while running
	DCC	30			93-394		diskette drive test.
	Head	48			91-311		Run diskette MDIs for
	A-A1V5/	1					additional FRU isolation.
	A-A2V5						
1dA3	A-A1F2/	20		Dskt	91-309		Worn-head test fails on
	A-A2F2				93-392		head 1.while running
	DCC	30			93-394		diskette drive test.
	Head	48			91-311		Run diskette MDIs for

	A-A1V5/	1					additional FRU isolation.
	A-A2V5						
1dA4	A-A1F2/	20		Dskt	91-309		Worn-head test fails on
	A-A2F2				93-392		both 0 and 1 while running
	DCC	30			93-394		diskette drive test.
	Head	48			91-311		Run diskette MDIs for
	A-A1V5/	1					additional FRU isolation.
	A-A2V5						
1dA5	DCC	80	0179C	Dskt			Scan test fails (hardware
	A-A1F2/	20					error) during OLPD after
	A-A2F2						drive test ran correctly.
							Run diskette MDIs for
							additional FRU isolation.
**********	3262 Printer Attachment 1Exx						**********
1E11	A-A2T2	60	5001A			PT-200	Hex 86 controller error
	A-A2R2	30				PR-205	caused by a program loop
	A-A2S2	8				PS-200	time out.
	A-A1L2	1					The 131 milisecond clock
	TCC/Bd	1					may be the cause of the
							problem.
1E12	A-A2S2	70	5001A			PS-200	Hex 96 controller error
	A-A2R2	20				PR-205	caused by a DBI/DBO parity
	A-A2T2	9				PT-200	error.
	TCC/Bd	1					
1E13	A-A2T2	75	5001A			PT-200	Hex B6 controller error
	A-A2R2	20				PR-205	caused by a storage parity
	A-A2S2	4				PS-200	error.
	TCC/Bd	1					
1E26	Program	99					Unprintable character
	error						check. The data sent to
							the 3262 printer has a
							character not in the
							belt image and the
							option to stop on
							unprintable characters has
							been set. See the
							functions reference
							manual.

1E28	Program error	99					Program error occurred while using the 3262 printer. Not a valid SCS command. This error indicates that there is a character string in the range of hex 00 through 3F data stream and it is not a valid SCS command. This error may be the result of a spool job having been abnormally terminated because the system was either powered down or an IPL was attempted while the job was running. See the functions reference manual.
1E29	Program error	99					Program error occurred while using the 3262 printer. Not a valid SCS parameter. (This error may be caused by the same condition described for not valid SCS command. It may also be the result of directing output to a printer which cannot process correctly). See the functions reference manual.
1E30	3262	80					Go to 3262 Printer Entry Map 0010.
	A-A2S2	10	5001A			PS-200	Any hammer-on check occurred (a hammer driver is on in the 3262 printer during not print time).
	A-A2T2	5				PT-200	
	I/O cbl	3					
	A-A2R2	1				PR-205	
	TCC/Bd	1					
1E31	A-A2S2	69	5001A			PS-200	Fire tier check (fire

	3262	15					tier pulses are out of
	A-A2T2	10				PT-200	sequence).
	I/O cbl	4					Go to 3262 Printer Entry
	A-A2R2	1				PR-205	MAP 0010.
	TCC/Bd	1					
1E32	3262	68					Go to 3262 Printer Entry
	A-A2S2	23	5001A			PS-200	MAP 0010.
	A-A2T2	5				PT-200	Hammer echo check (an
	I/O cbl	2					optioned hammer failed to
	A-A2R2	1				PR-205	fire or a hammer that was
	TCC/Bd	1					not optioned is on).
1E33	3262	95					Go to 3262 Printer Entry
							MAP 0010.
	A-A2S2	3	5001A			PS-200	Carriage pedestal check (a
	I/O cbl	1					short circuited carriage
	TCC/Bd	1					pedestal driver in the
							3262 Printer has been
							detected).
1E34	3262	58					Go to 3262 Printer Entry
	A-A2S2	25	5001A			PS-200	MAP 0010.
	A-A2T2	14				PT-200	Printer subscan emitter
	A-A2R2	1				PR-205	check (an expected
	I/O cbl	1				PS-200	transition in the PSS
	TCC/Bd	1					emitter did not occur or
							occurred too soon).
1E35	3262	80					Go to 3262 Printer Entry
	A-A2S2	10	5001A			PS-200	MAP 0010.
	A-A2R2	2				PR-205	Belt sync check (possible
	A-A2T2	2				PT-200	that the print belt
	I/O cbl	2					installed on the printer
	TCC/Bd	1					does not match the belt
	Program	3					image defined to the
	Error						system).
1E36	3262	80					Go to 3262 Printer Entry
							MAP 0010.
	A-A2S2	15	5001A			PS-200	Belt up to speed check
	I/O cbl	4					(the print belt did not
	TCC/Bd	1					reach running speed in 4.5
							seconds).

1E37	3262	85					Go to 3262 Printer Entry
	A-A2S2	12	5001A			PS-200	MAP 0010.
	I/O cbl	2					Belt speed check (belt up
	TCC/Bd	1					to speed inactive while
							belt go was active).
1E38	3262	95					Go to 3262 Printer Entry
							MAP 0010.
	A-A2S2	3	5001A			PS-200	Print busy too long check
	I/O cbl	1					(printer busy was active
	TCC/Bd	1					longer than three seconds
							during a print cycle).
1E39	A-A2T2	43	5001A			PT-200	Data parity check (even
	3262	35					parity on the hammer
	A-A2S2	10				PS-200	address bus was detected
	I/O cbl	10					during a print cycle).
	A-A2R2	1					Go to 3262 Printer Entry
	TCC/Bd	1					MAP 0010.
1E40	3262	77					Go to 3262 Printer Entry
							MAP 0010.
	A-A2S2	20	5001A			PS-200	Carriage check 4 (the
	I/O cbl	2					1st 3 carriage advance
	TCC/Bd	1					pulses were not received
							in 6 ms after activating
							carriage go).
							Note: Noise on the 512
							msec clock may be a
							cause of this
							problem.
1E41	3262	77					Go to 3262 Printer Entry
							MAP 0010.
	A-A2S2	20	5001A			PS-200	Carriage check 3
	I/O cbl	2					(indicates, on carriage
	TCC/Bd	1					skips beyond one line,
							any five consecutive
							carriage advance pulses
							were not received in 2.7
							ms (+0.0, -0.7) to 6.6
							ms (0.6, -0.0 MS) while
							carriage go was active).

							Note: Noise on the 512 msec clock may be a cause of this problem.
1E42	3262	77					Go to 3262 Printer Entry MAP 0010.
	A-A2S2	20	5001A			PS-200	Carriage check 1 (indicates that the third (last) carriage advance pulse after the fall of carriage go was not received by the controller in 10 ms (+/ 0.5MS)). Note: Noise on the 512 msec clock may be a cause of this problem.
	I/O cbl	2					
	TCC/Bd	1					
1E43	3262	77					Go to 3262 Printer Entry MAP 0010.
	A-A2S2	20	5001A			PS-200	Forms jam (no forms movement was detected in the last 10 to 22 lines of print).
	I/O cbl	2					
	TCC/Bd	1					
1E49			0105A				Undefined error (the system printer error determination procedure (EDP) could not identify the failure). Go to MAP 0105, Entry Point A.
1E50	3262	95					Go to 3262 Printer Entry MAP 0010. End of forms.
	A-A2S2	3	5001A			PS-200	
	I/O cbl	1					
	TCC/Bd	1					
1E51	3262	80					
	A-A2T2	10	5001A			PT-200	Printer is not ready. May be the result of the stop reset key being pressed.
	A-A2R2	5				PR-205	
	A-A2S2	3				PS-200	
	I/O cbl	1					
	TCC/Bd	1					

1E52	3262 A-A2S2 I/O cbl	95 4 1	5001A			PS-200	Go to 3262 Printer Entry MAP 0010. 3262 CE switch is on.
1E53	3262 A-A2S2 I/O cbl TCC/Bd	95 3 1 1	5001A			PS-200	Go to 3262 Printer Entry MAP 0010. Print unit open or belt cover not in place.
1E61	Program error	99					Program error occurred while using the 3262 printer. Not valid IOB command, command modifier or data length is not valid. This error indicates that the command or command modifier field of the printer IOB contains a not valid value or that the data length field contains a value larger than 256. See the functions reference manual.
1E62	Program error	99					Program error occurred while using the 3262 printer. Data stream reject. The printer control unit has detected a procedural problem with the data stream it received. See the functions reference manual.
1E80	3262 A-A2S2 I/O cbl TCC/Bd	90 5 4 1	5001A			PS-200	Go to 3262 Printer Entry MAP 0010. Cable interlock check has occurred. Either the cables are installed correctly or the system contains the

							hardware for a 3262 printer but the printer is not attached to the system.
1E81	3262	95					Go to 3262 Printer Entry MAP 0010.
	A-A2S2	3	5001A			PS-200	Thermal check 1 (thermal switch opened in belt motor, hammer unit fan, hammer unit or power supply).
	I/O cbl	1					
	TCC/Bd	1					
1E82	3262	95					Go to 3262 Printer Entry MAP 0010.
	A-A2S2	3	5001A			PS-200	Thermal check 2 (indicates a circuit protector in the 3262 has tripped because of an overcurrent condition).
	I/O cbl	1					
	TCC/Bd	1					
1E83	3262	85					Go to 3262 Printer Entry MAP 0010.
	A-A2T2	10	5004A			PT-200	Printer not powered on.
	A-A2S2	3				PS-200	Power is turned off or power failure has occurred.
	I/O cbl	1					
	TCC/Bd	1					
1E84	A-A2T2	49	5001A			PT-200	Data transfer check (this error occurs when either data is lost or too much data is transferred between the input/output control handler (IOCH) and the printer control unit).
	A-A2S2	49				PS-200	
	Program Error	2					
1E89	3262	95					Go to 3262 Printer Entry MAP 0100.
	A-A2S2	3	5001A			PS-200	Ribbon check (the ribbon is stuck or is moving too slow or both ribbon reverse switches are on).
	I/O cbl	1					
	TCC/Bd	1					

**** The following codes are a result of an error during IPL and **

```
**** will give you an indication at what step the failure occurred.*
**** Refer to MIM section 01-300 for procedures to read out system**
**** status.                                                       **
2000|       |  |     |     |01-300|      |CSIPL load 1 start - $IPL
----+-------+--+-----+-----+------+------+-------------------------
2001|       |  |     |     |01-300|      |Initialize page tables -
    |       |  |     |     |      |      |$IPL.
----+-------+--+-----+-----+------+------+-------------------------
2002|       |  |     |     |01-300|      |Initialize main storage -
    |       |  |     |     |      |      |$IPL.
----+-------+--+-----+-----+------+------+-------------------------
2010|       |  |     |     |01-300|      |CSIPL load 2 start -
    |       |  |     |     |      |      |$IPLML.
----+-------+--+-----+-----+------+------+-------------------------
2012|       |  |     |     |01-300|      |First disk operation -
    |       |  |     |     |      |      |$IPLML.
----+-------+--+-----+-----+------+------+-------------------------
2013|       |  |     |     |01-300|      |First disk operation
    |       |  |     |     |      |      |complete - $IPLML.
----+-------+--+-----+-----+------+------+-------------------------
2014|       |  |     |     |01-300|      |Process unit definition
    |       |  |     |     |      |      |table - $IPLML.
----+-------+--+-----+-----+------+------+-------------------------
2016|       |  |     |     |01-300|      |Call $IPLOG for logging
    |       |  |     |     |      |      |tables - $IPLML.
----+-------+--+-----+-----+------+------+-------------------------
2018|       |  |     |     |01-300|      |Start communications
    |       |  |     |     |      |      |controller
    |       |  |     |     |      |      |load - $IPLML.
----+-------+--+-----+-----+------+------+-------------------------
2019|       |  |     |     |      |      |IPL the LAN controller.
    |       |  |     |     |      |      |Problem due to loading
    |       |  |     |     |      |      |controller code or the
    |       |  |     |     |      |      |communications hardware.
    |       |  |     |     |      |      |Run auto-configure/
    |       |  |     |     |      |      |customize. Re-IPL with
    |       |  |     |     |      |      |wraps.
----+-------+--+-----+-----+------+------+-------------------------
201A|       |  |     |     |01-300|      |DSA controller load -
    |       |  |     |     |      |      |$IPLML.
----+-------+--+-----+-----+------+------+-------------------------
201C|       |  |     |     |01-300|      |Work station controller
    |       |  |     |     |      |      |load - $IPLML.
----+-------+--+-----+-----+------+------+-------------------------
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201E					01-300		3262 controller load - $IPLML.
2020					01-300		MSIPL from disk - mode 0 - $IPLML.
2021					01-300		Disk operation - read bootstrap - $IPLML.
2030					01-300		MSIPL from diskette - mode F - $IPLML.
2031					01-300		Diskette operation - abort - $IPLML.
2032					01-300		Diskette operation - orient - $IPLML.
2033					01-300		Diskette operation - select - $IPLML.
2034					01-300		Diskette operation - recalibrate - $IPLML.
2035					01-300		Diskette operation - read valid - $IPLML.
2036					01-300		Diskette operation - read bootstrap - $IPLML.
2040					01-300		Start logging table initialization - $IPLML.
240F	Program						System Entry not in system UDT. Run Configure.
24CC	Custmiz Program						Diskette I/O error.
24E1	Custmiz Program						The Personal Computer DSKT01 is not in the microcode level table.
24E2	Custmiz						The DSKT01 part number

	Program					does not match the part number in the microcode level table.
24E3	Custmiz Program					The RPQ table in the microcode level table is full.
24E4	Custmiz Program					The first message library is not on the diskette.
24E5	Custmiz Program					The second message library is not on the diskette.
24E6	Custmiz Program					The third message library is not on the diskette.
24E7	Custmiz Program					The fourth message library is not on the diskette.
24E8	Custmiz Program					The display code is not on the microcode diskette.
24E9	Custmiz Program					The PARM table is not on the microcode diskette.
24EA	Custmiz Program					An invalid screen number was specified or screen not found.
24EE	Custmiz Program					An invalid message number was specified or message not found.
24EF	Custmiz Program					Diskette I/O error.
24FF	Custmiz Program					Program error. See Setting Up Your Computer Manual.
**********	CSP/C	(Stage 3 CSP)				**********
2600	A-A1N2 A-A1K2/ A-A3P2/	45 45	0105A			Error during cycle steal to communications controller or SLCA.

	A-A3S2 / X-Over	1				
2601	A-A1N2 / A-A3S2 / X-Over	45 / 45 / 1	0105A			I/O time out, P check or address not valid during data communications.
2602	A-A1N2 / A-A1K2/ A-A3P2 / X-Over	45 / 45 / 1	0105A			I/O time out, P check or address not valid during data communications.
2603	A-A1N2 / A-A1E2 / X-Over	45 / 45 / 1	0105A			Error during cycle steal to/from 6157 tape DSA. Error during I/O instruction.
2605	A-A1N2 / A-A2E2/ A-A2J2 / X-Over	45 / 45 / 1	0105A			Error during cycle steal to/from DSA or controller. Error during I/O instruction.
2606	A-A1N2 / A-A1K2/ A-A3P2 / X-Over	45 / 45 / 1	0105A			Error during cycle steal to communications controller.
2607	A-A1N2 / A-A3S2/ A-A3T2 / X-Over	45 / 45 / 1				Error during cycle steal or I/O instruction to/from 2nd work station controller.
2609	A-A1N2 / A-A1L2 / X-Over	45 / 45 / 1				Error during cycle steal or I/O instruction to/from LAN adapter card.
260A	A-A1N2 / A-A1H2/ A-A1J2 / X-Over	45 / 45 / 1	0105A			Error during cycle steal with work station controller or error during I/O instruction.
260F						See MAP 0301 for more information on this system

							reference code.
2611							See MAP 0301 for more information on this system reference code.
2616							See MAP 0301 for more information on this system reference code.
261C	A-A1N2	30	0105A				Error during cycle steal between MSP and communications controller.
	A-A1P2	30					
	A-A3S2	30					
	X-Over	1					
261E	A-A1N2	30	0105A				Error during cycle steal between MSP and DSA or controller.
	A-A1P2	30					
	A-A1E2/	30					
	A-A2E2/						
	A-A2J2						
	X-Over	1					
2620	A-A1N2	30	0105A				Error during cycle steal between MSP and work station controller.
	A-A1P2	30					
	A-A1H2	30					
	X-Over	1					
2621	A-A1N2	30	0105A				Error during cycle steal between MSP and 6157 tape DSA.
	A-A1P2	30					
	A-A1E2	30					
	X-Over	1					
2622	A-A1N2	30	0105A				Error during cycle steal between MSP and comm controller.
	A-A1P2	30					
	A-A1K2/	30					
	A-A3P2/						
	A-A3S2						
	X-Over	1					
2623	A-A1N2	30					Error during cycle steal between MSP and 2nd work station controller.
	A-A1P2	30					
	A-A3S2	30					
	X-Over	1					

2624	A-A1N2	30					Error during cycle steal between MSP and LAN adapter.
	A-A1P2	30					
	A-A1L2	30					
	X-Over	1					
2625							See MAP 0301 for more information on this system reference code.
262A							See MAP 0301 for more information on this system reference code.
262F							See MAP 0301 for more information on this system reference code.
2630	A-A1N2	33	0105A				3 second time out during cycle steal.
	A-A1P2	33					
	MS	33					
2635	A-A1N2	90	0105A				Storage check or LSR check.
	A-A1M2	5					
263A	A-A1N2	45	0105A				Error during I/O instruction to 1255/MCR.
	A-A2N2	45					
	X-Over	1					
263F	A-A1N2	45	0105A				Error during I/O instruction to 3262 printer.
	A-A2S2/	45					
	A-A2T2/						
	A-A2R2						
	X-Over	1					
2640	A-A1N2	48	0105A				DBO P check during I/O instruction to SLCA.
	A-A1K2	48					
	X-Over	1					
2645	A-A1N2	15	0105A				Error during SILSB on interrupt level 4.
	A-A2N2	15					
	A-A1H2	15					
	A-A1E2/	15					
	A-A2E2/						
	A-A2J2						

	A-A2S2/	15					
	A-A2R2						
	A-A2S2	15					
	X-Over	1					
264A	A-A1N2	30	0105A				Error during SILSB on interrupt level 2.
	A-A1L2	30					
	A-A1K2/	30					
	A-A3P2/						
	A-A3S2						
	X-Over	1					
264F	A-A1N2	30	0105A				DPO P check during SILSB.
	A-A1K2	30					
	A-A2N2	30					
	X-Over	1					
2650	A-A1N2	75	0105A				3 or 4 second time out.
	A-A1P2	10					
	A-A1M2	10					
2670	A-A1N2	80					The data written to storage had bad parity.
	A-A1P2	13					
	A-A1U2	6					
	A-A1 Bd	1					
2671	A-A1N2	81					The data written to storage had bad parity.
	A-A1P2	13					
	A-A1T2	6					
2672	A-A1N2	81					The data written to storage had bad parity.
	A-A1P2	13					
	A-A1S2	6					
2673	A-A1N2	76					The data written in to storage had bad parity.
	A-A1P2	13					
	A-A1R2	10					
2674	A-A1N2	47					The data written to stg had bad parity.
	A-A1U2	43					
	A-A1P2	9					

	A-A1 Bd	1				
2675	A-A1N2	47				Main stg write parity check.
	A-A1T2	43				
	A-A1P2	10				
2676	A-A1N2	47				The data written to storage had bad parity.
	A-A1P2	46				
	A-A1S2	6				
	A-A1 Bd	1				
2677	A-A1N2	47				The data written to storage had bad parity.
	A-A1P2	47				
	A-A1R2	6				
2678	A-A1N2	76				The data written to stg had bad parity.
	A-A1P2	13				
	A-A1U2	10				
	A-A1 Bd	1				
2679	A-A1N2	76				Main stg write parity chk.
	A-A1P2	13				
	A-A1T2	10				
267A	A-A1N2	76				The data written in to storage had bad parity.
	A-A1P2	13				
	A-A1S2	10				
267C	A-A1N2	81				The data written to storage had bad parity.
	A-A1P2	13				
	A-A1R2	6				
2680	A-A1P2	61				Main storage write parity check.
	A-A1U2	38				
	A-A1N2	1				
2681	A-A1P2	61				Main storage write parity check.
	A-A1T2	38				
	A-A1N2	1				

2682	A-A1P2	61					Main storage write parity check.
	A-A1S2	38					
	A-A1N2	1					
2683	A-A1R2	50					Main stg write parity check.
	A-A1P2	49					
	A-A1N2	1					
2684	A-A1U2	87					Main stg write parity check.
	A-A1P2	12					
	A-A1N2	1					
2685	A-A1T2	87					Main stg write parity check.
	A-A1P2	12					
	A-A1N2	1					
2686	A-A1S2	87					Main storage write parity check.
	A-A1P2	12					
	A-A1N2	1					
2687	A-A1R2	87					Main storage write parity check.
	A-A1P2	12					
	A-A1N2	1					
2688	A-A1U2	50					Main stg write parity check.
	A-A1P2	49					
	A-A1N2	1					
2689	A-A1T2	50					Main stg write parity check.
	A-A1P2	49					
	A-A1N2	1					
268A	A-A1S2	50					Main stg write parity check.
	A-A1P2	49					
	A-A1N2	1					
268C	A-A1R2	38					Main storage write parity check.
	A-A1P2	60					
	A-A1N2	1					

26E8	A-A1N2 A-A1P2	59 41					Wrong MSP error.
26EA	A-A1N2 A-A1P2	94 6					MSP Parity Check.
26Eb	A-A1N2 A-A1P2	60 40					Wrong MSP error during cycle steal.
26EC	A-A1N2 A-A1P2	60 40					MSP Parity Check during cycle steal.
26F0	A-A1N2 A-A1M2	90 5	0105A				A CSP error occurred. RE|PL the system then look up the new SRC in ERAP CSP error history table and use MAP 0113, 0114, 0115, and 0116 for definition of new SRC.
26F1	MS A-A1P2	75 20	0105A				MSP error: main storage access timeout. RE|PL the system then run the new SRC in ERAP CSP error history table and use MAP 0113, 0114, 0115, and 0116 for definition of new SRC.
26F2	A-A1P2 MS A-A1N2	80 15 2	0105A				MSP error: parity checks. RE|PL the system then run the new SRC in ERAP CSP error history table and use MAP 0113, 0114, 0115, and 0116 for definition of new SRC.
26F3	A-A1N2 A-A1E2/ A-A2E2/ A-A2J2 A-A1H2	10 10 10	0105A				A channel error occurred. RE|PL the system then run the new SRC in ERAP CSP error history table and use MAP 0113, 0114,

	A-A1K2/	10					0115, and 0116 for
	A-A3S2/						definition of new SRC.
	A-A3P2						Check for bad Channel
	A-A2N2	10					terminator card. Only one
	A-A2S2/	10					will be present at either
	A-A2T2						A1B5, A2U3, A3U3 or A3U4.
	A-A1J2	5					Terminator cd P/N 4234073.
	X-Over	5					If SLCA is installed on
	A-A1L2	1					the system, ensure that it
							is configured as SLCA-E
							(feature 2550).
26F4	A-A1N2	90	0105A				A control storage ECC
	A-A1M2	5					occurred.
							REIPL the system then
							run the new SRC in ERAP
							CSP error history table
							and use MAP 0113, 0114,
							0115, and 0116 for
							definition of new SRC.
26F5	A-A1N2	75	0101C				Interrupt level 1 occurred
							for an unknown device.
							REIPL the system then
							run the new SRC in ERAP
							CSP error history table
							and use MAP 0113, 0114,
							0115, and 0116 for
							definition of new SRC.
26F6	A-A1N2	45	0101C				Interrupt level 2 occurred
	A-A1K2/	45					for an unknown device.
	A-A3S2/						Could be any card on the
	A-A3P2						channel bus causing the
							problem.
							REIPL the system then
							run the new SRC in ERAP
							CSP error history table
							and use MAP 0113, 0114,
							0115, and 0116 for
							definition of new SRC.
26F7	A-A1N2	75	0101C				Interrupt level 3 occurred
							for an unknown device.

							REIPL the system then run the new SRC in ERAP CSP error history table and use MAP 0113, 0114, 0115, and 0116 for definition of new SRC.
26F8	A-A1N2	10	0101C				Interrupt level 4 occurred for an unknown device. REIPL the system then run the new SRC in ERAP CSP error history table and use MAP 0113, 0114, 0115, and 0116 for definition of new SRC.
	A-A1H2	10					
	A-A3S2	10					
	A-A1E2/	10					
	A-A2E2/						
	A-A2J2						
	A-A2N2	10					
	A-A2S2	10					
26FF	A-A1N2	10	0301				See MAP 0301 for more information on this system reference code.
	A-A1P2	10					
	MS	10					
	A-A1M2	10					
	A-A1Z2	10					
	X-Over	5					
**********	30XX Hardware errors detected by software **********						
3006			9500A or 9700A				Permanent disk error. Dump could not be taken. Go to MAP 9500,A (21ED) or 9700,A (10SR).
300b			9500A or 9700A				Permanent disk error. Dump could not be taken. Go to MAP 9500,A (21ED) or 9700,A (10SR).
301E			9500A or 9700A				Permanent disk error. Dump could not be taken. Go to MAP 9500,A (21ED) or 9700,A (10SR).
3032			9500A or 9700A				Permanent disk error. Dump could not be taken. Go to MAP 9500,A (21ED) or 9700,A (10SR).

3035			9500A or 9700A				Permanent disk error. Dump could not be taken. Go to MAP 9500,A (21ED) or 9700,A (10SR).
3039	A-A1H2 A-A1J2	75 20	7001A				First work station controller error occurred. See MAP 7001.
3043			9500A or 9700A				Permanent disk error. Dump could not be taken. Go to MAP 9500,A (21ED) or 9700,A (10SR).
3049			7001AA				Work station error. System dump could not be taken because of an error with work station controller.
304A			0179A				Diskette error during system dump.
304C			9500A or 9700A 7100AA or 9700A				Permanent disk error or work station error. Go to MAP 9500,A (21ED) or 9700,A (10SR). If the disk MAP does not identify a failure, then go to work station MAP 7001,A.
304d							Permanent tape error during system dump. The dump could not be taken.
3069	A-A3S2 A-A3T2	75 20	7001A				Second work station controller error occurred. See MAP 7001.
30CA			9500A or 9700A				Permanent disk error. Dump could not be taken. Go to MAP 9500,A (21ED) or 9700,A (10SR).

30F1			9500A				Permanent disk error
			or				during condense of
			9700A				system library.
							Go to MAP 9500,A (21ED)
							or 9700,A (10SR).
**********			Sungate				**********
4204	A-A1U2	60					Reipl, if No failure
	A-A1P2	30					replace FRU(s). If failure
	A-A1N2	5					go to 0301A
4205	A-A1T2	50					Reipl, if No failure
	A-A1P2	40					replace FRU(s). If failure
	A-A1N2	5					go to 0301A
4206	A-A1S2	50					Reipl, if No failure
	A-A1P2	40					replace FRU(s). If failure
	A-A1N2	5					go to 0301A
4207	A-A1R2	50					Reipl, if No failure
	A-A1P2	40					replace FRU(s). If failure
	A-A1N2	5					go to 031A
4208	A-A1U2	50					Reipl, if No failure
	A-A1P2	40					replace FRU(s). If failure
	A-A1N2	5					go to 0301A
4209	A-A1T2	50					Reipl, if No failure
	A-A1P2	40					replace FRU(s). If failure
	A-A1N2	5					go to 0301A
420A	A-A1S2	50					Reipl, if No failure
	A-A1P2	40					replace FRU(s). If failure
	A-A1N2	5					go to 0301A
420B	A-A1R2	50					Reipl, if No failure
	A-A1P2	40					replace FRU(s). If failure
	A-A1N2	5					go to 0301A
420E	A-A1P2	60					Reipl, if No failure
	A-A1N2	35					replace FRU(s). If failure
							go to 0301A

421C	A-A1P2	90					Re-IPL, if no failure
	A-A1N2	8					replace FRU(s)
							If failure go to 0301A.
422C	A-A1P2	90					Re-IPL, if no failure
	A-A1N2	8					replace FRU(s)
							If failure go to 0301A.
422E	A-A1P2	80					Reipl, if No failure
	A-A1N2	15					replace FRU(s). If failure
							go to 0301A
424C	A-A1P2	70					Reipl, if No failure
	A-A1N2	25					replace FRU(s). If failure
							go to 0301A
426C	A-A1P2	90					Re-IPL, if no failure
	A-A1N2	8					replace FRU(s)
							If failure go to 0301A.
426D	A-A1P2	50					Re-IPL, if no failure
	A-A1U2	40					replace FRU(s)
	A-A1N2	8					If failure go to 0301A.
4284	A-A1U2	60					A1U2 is a 1 meg card
	A-A1P2	30					
	A-A1N2	5					
4285	A-A1T2	60					A1T2 is a 1 meg card
	A-A1P2	30					
	A-A1N2	5					
4286	A-A1S2	60					A1S2 is a 1 meg card
	A-A1P2	30					
	A-A1N2	5					
4287	A-A1R2	60					A1R2 is a 1 meg card
	A-A1P2	30					
	A-A1N2	5					
4288	A-A1U2	60					A1U2 is a 2 meg card
	A-A1P2	30					
	A-A1N2	5					

4289	A-A1T2	60					A1T2 is a 2 meg card
	A-A1P2	30					
	A-A1N2	5					
428A	A-A1S2	60					A1S2 is a 2 meg memory
	A-A1P2	30					card
	A-A1N2	5					
428B	A-A1R2	60					A1R2 is a 2 meg memory
	A-A1P2	30					card
	A-A1N2	5					
428C	A-A1P2	60					Reipl, if No failure
	A-A1N2	35					replace FRU(s). If failure
							go to 0301A
429C	A-A1P2	90					Reipl, if No failure
	A-A1N2	7					replace FRU(s). If failure
							go to 0301A
42FF	A-A1P2	38					Unexpected error. Go
	A-A1N2	38					to 0312 to interpret. The
	MS	20					MSP check. R2, S2, T2,
							may not be present.
4321	A-A1P2	40					R2, S2, T2 may not be
	A-A1U2	13					present.
	A-A1T2	13					
	A-A1S2	13					
	A-A1R2	13					
	A-A1N2	8					
4E00	PC	75					TR Adapter Card
TO	PC	24					Cables or Access Unit
4EEF	Program	01					Run OLPD.
							Call for software service.
4F10	PC	60					LAN Attch Adapter or
TO							PC failing
4F1F	A-A1L2	30					LAN Adapter card.
	A-A1B2	09					LAN Controller cable
	Program	01					Run OLPD.
							Call for software service

4F20	A-A1L2	70					Cable parity error - Run OLPD
	PC	15					
	A-A1B2	10					
	PC	05					
4F21	A-A1L2	85					PC Hardware Interface Hung - Run OLPD
	PC	05					
	A-A1B2	05					
	PC	05					
4F22	PC	80					PC has Reset - Run OLPD
	A-A1B2	05					
	PC	05					
	PC	05					
	A-A1L2	05					
4F23	A-A1L2	90					LAN Adapter card Memory Error - Run OLPD
	PC	05					
	A-A1B2	05					
4F24	Program	99					Default in error return Call for Software Service
4F25	PC	90					Turn PC Power Switch to ON position if off, else - Run OLPD
	PC	02					
	PC	02					
	A-A1L2	02					
	A-A1B2	01					
4F26	PC	95					PC has BATS failure - Run OLPD
	PC	02					
	A-A1L2	01					
	A-A1B2	01					
4F27	PC	75					PC not responding - Run OLPD
	A-A1L2	20					
	A-A1B2	04					
	PC	01					
4F28	PC	75					PC Port error

	A-A1L2	20					- Run OLPD
	A-A1B2	04					
	PC	01					
4F29	PC	70					PC Failed to xfer block of
	A-A1L2	20					code.
	A-A1B2	05					- Run OLPD
	PC	05					
4F2A	A-A1L2	75					ECC Error - Run OLPD
	PC	20					
	A-A1B2	04					
	PC	01					
4F2B	PC	90					PC Port clear
	A-A1L2	05					failed - Run OLPD
	A-A1B2	04					
	PC	01					
4F2C	PC	85					PC Failed enable interface
	A-A1L2	05					- Run OLPD
	PC	05					
	A-A1B2	05					
4F2d	PC	85					PC Failed Down-Load
	A-A1L2	05					- Run OLPD
	PC	05					
	A-A1B2	05					
4F2F	PC	80					PC not executing valid
	PC	05					code - Run OLPD.
	A-A1L2	05					
	A-A1B2	05					- Call for software
	Program	05					service
4F30	Program	99					Invalid LLC command from
							PC - Call for software
							service.
4F31	PC	70					PC Timed out during
	PC	20					Download - Run OLPD.
	A-A1L2	05					
	A-A1B2	05					

4F32	PC	70					Interrupt Handshaking Test
	A-A1L2	20					on LAN feature
	A-A1B2	05					Failed - Run OLPD.
	PC	05					
4F40	Program	99					Failure in OLPD Program
							- Call for software serv.
4F41	A-A1L2	99					LAN Adapter not configured
							Present or Failing.
4F42	A-A1L2	99					Failing LAN Adapter Card
	A-A1B2	1					or LAN Controller Cable.
4F44	PC	99					PC Failure - OLPD can not
							isolate the problem
							Disconnect LAN cable from
							PC, Load and run the
							following diagnostics from
							your PC:
							- PC Diagnostics
							- LAN Attch Adapter Diagn
							- Token Ring Adpt Diagn
4F45	Program	99					#LANLIB not found or Diagn
							not in #LANLIB - Reapply
							LAN Communication Program
							product.
4F48	PC	70					Token Ring Adapter Cable
	PC	29					or token Ring Adapter card
							Failure
4F49	PC	99					Token Ring Adapter Cable
							failure.
4F4A	PC	99					Access Unit Failure
4F4b	PC	99					Token Ring Patch Cable
							Failure
4F61	PC	70					LAN Attachment adapter
	PC	10					failure - Run OLPD.

	A-A1L2	10					
	A-A1B2	10					
4F62	PC	40					Interface to expansion
	A-A1L2	40					failure - Run OLPD.
	PC	10					
	A-A1B2	10					
4F63	PC	99					Adapter not present or
							configuration wrong or
							adapter failing on Line 9
4F64	PC	99					Adapter not present or
							Configuration wrong or
							Adapter failing on Line 10
4F70	PC	98					Token Ring Adapter fail-
	PC	01					ure on Line 9 or PC Planar
							Board Failure.
4F74	PC	98					Token Ring Adapter on Line
	PC	01					10 or PC Planar Board
							failing.
4F86	PC	75					TR Adapter Card
TO	PC	24					Cables or Access Unit
4F99	Program	01					Run OLPD
							Call for Software service.
4FF0	A-A1L2	98					LAN Adapter Card or LAN
	A-A1B2	01					Controller Cable failing.
4FF1	A-A1L2	99					LAN Adapter Card or LAN
	A-A1B2	01					Controller Cable failing.
4FF2	PC	98					LAN Attch Adapter Card
	PC	01					or PC Planar Failing.
**********			Customer set up reference codes				**********
5010							An error occurred on the
							display station address
							X on port Y.
							Options are: 0 to bypass
							1 to retry

5020							The work station printer address X on port Y is not ready. Options are: 0 to bypass 1 to retry
5021							The work station printer address X on port Y is out of forms. Options are: 0 to bypass 1 to retry
5022							The work station printer address X on port Y has a forms check. Options are: 0 to bypass 1 to retry
5023							The work station printer address X on port Y has a graphic check. Options are: 0 to bypass 1 to retry
5024							The work station printer address X on port Y has a print check. Options are: 0 to bypass 1 to retry
5025							The work station printer address X on port Y has a machine check. Options are: 0 to bypass 1 to retry
5026							The work station printer address X on port Y has a paper jam. Options are: 0 to bypass 1 to retry
5027							The work station printer

							address X on port Y has a ribbon jam. Options are: 0 to bypass 1 to retry
5028							The work station printer address X on port Y has an unrecoverable error. Options are: 0 to bypass
5030							A communications error has occurred on line N. Options are: 0 to bypass 1 to retry
50CE							The UDT is bad or 3262 I/O not found on disk.
5099							CSU pass 2 driver module not found on diskette in slot 1 or diskette I/O error.
51CE							MSP error , bad diskette PMSDIF not found , bad diskette.
52CE							MSP error , bad diskette PMSDIF not found , bad diskette.
5360							CSU pass 1 completed correctly.
5b4F			9900A		99-110		An 8809 tape drive has a cable connection problem.
5b50	T Unit A-A1D2 A-A1A3	60 30 5					Reset command failed to reset interface (power/ cable) during 6157 CSU. Tape drive is not powered on or the drive is not responding. * Run tape OLPD. Reseat

						A-A1D2, top card connector and internal cable A-A1A3 before replacing FRUs.
5b7C			9900A		99-110	An 8809 tape drive is not ready
5b81	T Unit Media	90 5				No tape cartridge or cartridge not in place during 6157 CSU.
5bA6	T Unit Media	90 5	9900A		99-110	8809 file protect ring is not installed or 6157 tape file protected on write operation during CSU
5bCE			9900A		99-110	An 8809 tape drive has an unrecoverable error.
5bd3			9900A		99-110	An 8809 tape drive has a media problem.
5bF4	T Unit A-A1D2 A-A1A3	80 10 5				6157 tape unit has an uncoverable error during CSU. * Run tape OLPD. Reseat A-A1D2, top card connector and internal cable A-A1A3 before replacing FRUs.
5bFd	T Unit Media	90 5				Cartridge not write protected during 6157 CSU.
5bFe	A-A1A3 A-A1D2 A-A1E2	60 25 10				6157 tape subsystem internal to 5360 has a problem during CSU. Reseat wrap connector and retry. * Run tape OLPD. Reseat A-A1D2, top card connector and internal cable A-A1A3 before replacing FRUs.
5bFF			9900A		99-110	8809 tape drive 1 is not

						installed.
5CCE						The system console has an error.
5E43						The 3262 printer has a forms jam. Options are: 0 to bypass 1 to retry
5E50						The 3262 printer is out of forms. Options are: 0 to bypass 1 to retry
5E51						The 3262 printer is not ready. Options are: 0 to bypass 1 to retry
5E80						The 3262 printer has a cable interlock check. Options are: 0 to bypass 1 to retry
5E83						The 3262 printer is not powered on. Options are: 0 to bypass 1 to retry
5E87						The 3262 printer unit or belt cover is not in place. The only option is: 0 to bypass
5ECE						The 3262 printer has an unrecoverable error. Options are: 0 to bypass 1 to retry
**********	Remote Displays 71xx					**********
7151	Program					Work station error code program problem.

							SNA function not supported (work station display).
7154							Undefined remote error (work station display). Run communications problem determination.
7156	Program						Work station error code program problem. SNA state error (work station display).
7157	Program						Work station error code program problem. SNA RH usage error (work station display).
7158	Program						Work station error code program problem. SNA path error (work station display).
7163	Program						Work station error code program problem. Undefined data link protocol (DLP) detected error (work station display).
7164	Program						Work station error code program problem. Request-on-line received (work station display).
7165							DLP time-out condition (work station display). Run communications problem determination.
7166							Severe line degradation (work station display). Run communications problem determination.

7167	Program						Work station error code program problem. Protocol violation (work station display).
7168							Permanent DLP hardware error (work station display). Run communications problem determination.
7169							SNA request not valid (work station display). Run communications problem determination.
716A	Program						Work station error code program problem. DLP communication error (work station display).
716b							DLP communication reset (work station display). Run communications problem determination.
**********	Remote Printers 72xx						**********
7251	Program						Work station error code program problem. SNA function not supported (work station printer).
7254							Undefined remote error (work station printer). Run communications problem determination.
7255	Program						Work station error code program problem. Change direction sent to printer (work station printer).

7256	Program						Work station error code program problem. SNA state error (work station printer).
7257	Program						Work station error code program problem. SNA RH usage error (work station printer).
7258	Program						Work station error code program problem. SNA path error (work station printer).
7263	Program						Work station error code program problem. Undefined data link protocol (DLP) detected error (work station printer).
7264	Program						Work station error code program problem. Request-on-line received (work station printer).
7265							DLP time-out condition (work station printer). Run communications problem determination.
7266							Severe line degradation (work station printer). Run communications problem determination.
7267	Program						Work station error code program problem. Protocol violation (work station printer).
7268							Permanent DLP hardware error

						(work station printer). Run communications problem determination.
7269	Program					Work station error code program problem. SNA request not valid (work station printer).
726A	Program					Work station error code program problem. DLP communication error (work station printer).
726b						DLP communication reset (work station printer). Run communications problem determination.
**********	Work station Displays 81xx **********					
8101						Premature end of the data stream detected (work station display). Run communications problem determination.
8102	Program					Work station error code program problem. Invalid row/column address (work station display).
8103	Program					Work station error code program problem. Fields not defined in ascending address order (work station display).
8104	Program					Work station error code program problem. Either there is an escape character missing or there is an invalid command code after an escape character

						(work station display).
8105	Program					Work station error code program problem. Invalid start field length (work station display).
8106	Program					Work station error code program problem. Invalid start field address (work station display).
8107	Program					Work station error code program problem. A restore command has been sent to the wrong display or data not completed has been sent with the restore command (work station display).
8108	Program					Work station error code program problem. An attempt has been made to define an input field that extends passed the end of the display screen (work station display).
8109	Program					Work station error code program problem. Format table overflow. Too many input fields have been defined (work station display).
8110	Program					Work station error code program problem. An attempt has been made to write data past the end of the display screen (work station display).

8111	Program						Work station error code program problem. Start of header length does not equal 3 (work station display).
8112	Program						Work station error code program problem. Roll parameter error. Invalid data following a roll command has been detected (work station display).
8113	Program						Work station error code program problem. Missing or invalid start field attribute or field format word (work station display).
8114	Program						Work station error code program problem. Invalid load display station memory command (work station display).
8115	Program						Work station error code program problem. Invalid clear unit alternate parameter (work station display).
8116	Program						Work station error code program problem. Invalid structured field length (work station display).
8117	Program						Work station error code program problem. Invalid structured field class or type value (work station display).

8118	Program						Work station error code program problem. Invalid structured field parameter value (work station display).
8127	Program						Work station error code program problem. Invalid data stream command in WP mode. (work station display)
8128	Program						Work station error code program problem. Invalid data stream command in DP mode.
8129	Program						Work station error code program problem. Command not allowed to display with unlocked Keyboard.
8130	Program						Work station error code program problem. Command not valid for specified display (IGC (EPOCH), or data entry or Katakana Keyboard)
8131	Program						Work station error code program problem. Invalid field length. An invalid input field length has been detected on the display screen (work station display).
8132	Program						Work station error code program problem. Resequence error. There is an invalid resequencing field control

							word in the format table (work station display).
8134	Program						Work station error code program problem. Shift character omission or misplacement in an IGC open field (work station display).
8142	Program						Work station error code program problem. Invalid data stream byte count of a request to configure a new work station (work station display).
8143	Program						Work station error code program problem. Invalid work station unit address (work station display).
8144	Program						Work station error code program problem. Unit address already configured (work station display).
8145	Program						Work station error code program problem. Attempt to configure too many work stations (work station display).
8160	Program						Work station error code program problem. System detects a value greater than 4096 in the length field of a display station IOB (work station display).

8161	Program						Work station error code program problem. IOB command modifier is invalid (work station display).
8162	Program						Work station error code program problem. The work station controller has detected a value of zero (0) in the length field of a display station IOB (work station display).
8163	Program						Work station error code program problem. Invalid unit address (work station display).
8164	Program						Work station error code program problem. Byte count for read fields not equal to number of field positions (work station display).
8166	Program						Work station error code program problem. Display station in error mode (work station display).
8167	Program						Work station error code program problem. Display station not in session (work station display).
8169	Program						Work station error code program problem. Not ready because of operator error mode or system request mode

						(work station display).
8170	Program					Work station error code program problem. Read issued to unlocked keyboard (work station display).
**********	Work Station Printer 82xx					**********
8220	Program					Work station error code program problem. Invalid byte count specified for Read Text Screen command.
8221	Program					Work station error code program problem. Invalid WSCF Command in WP mode.
8222	Program					Work station error code program problem. Invalid WSCF Command in DP mode.
8260	Program					Work station error code program problem. Value greater than 4096 in length field of printer IOB (work station printer).
8261	Program					Work station error code program problem. IOB modifier is invalid (work station printer).
8262	Program					Work station error code program problem. Invalid byte count in printer IOB (work station printer).
8263	Program					Work station error code

							program problem. Invalid unit address in unit address field of printer IOB (work station printer).
8265	Program						Work station error code program problem. Print buffer not available (work station printer).
8266	Program						Work station error code program problem. Printer in error mode (work station printer).
8267	Program						Work station error code program problem. Printer not in session (work station printer).
8269	Program						Work station error code program problem. Cancel request (work station printer).
8305	Program						Work station error code program problem. State error. Command not allowed in Operator Error mode or System Reset mode.

ENTRY POINTS

FROM	ENTER THIS MAP		
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
0101	A	1	001
0199	A	1	001

001
(Entry Point A)

MAP DESCRIPTION:
This MAP contains the system reference codes A000 through fFFF. Any code not listed in this MAP, MAP 0113, 0114, 0115 or 0118 are not valid.

START CONDITIONS:
A failure has occurred and has resulted in a 4 character code being logged or displayed. Each code represents a condition of failure.
- Use the MAP reference to isolate the failing FRU or FRU group.

Multiple Unit:
- If a SRC points to two or more units (such as Drive A, Drive B), use ERAP to determine the failing unit.

Reference Code Index for MAP 0116

SRC	Device or Function	Device MAP Entry
Axxx	DCP program	(See AXXX code)
bxxx	Work station Controller	7001,AA
C00x	DCP Wrap Errors	0105,A
C1xx	6157 Tape Wraps	None
C18x	DSA 3 Wrap	None
C20x	MSP Bad 2K Pages	1100,A
C3xx	Data Storage Controller	9900,A
C4xx	Sungate	
C5xx	1255 MCR	4100,A
C6xx	Work station Controller MAP	7001,A
C8xx	Communications Wrap	3003,A
C9xx	21ED Disk Wrap	9500,A
CAxx	10SR Disk Wrap	9700,A
Cbxx	8809 Tape	9900,A
CCxx	Work station Attachment Wrap	7001,A
Cd8x	DSA-1 Wrap	0179,A - 9500,A - 9700,A
Cdxx	Diskette Wrap	0179,A
CExx	3262 Printer Wrap	5001,A
CFxx	Unexpected Wrap	(see CFxx code)
dxxx	MSP Load Diagnostics	11xx,A
Exxx	CSP Instruction Diagnostics	0105,A - 0121,A
Fxxx	CSIPL Diagnostics	0105,A

********** DCP Diagnostic Reference Codes **********							
A000			0101C				Unexpected error. Re-customize and/or use a new set of diskettes. If problem persists, initialize disk A and re-customize.
A001							Unexpected error. Re-customize and/or use a new set of diskettes. If problem persists, initialize disk A and re-customize.
A1A0			9500A or 9700A				Disk I/O error. Press CSP Start to retry. Run System Customize from DCP Menu with 'CECE' entered on the panel display. MAP Ref if 21ED=9500, if 10SR=9700.
A1b0							Disk IOB program error.
A1C1			0101A				Work station I/O data stream error. Ensure that he console was powered on. Ensure that system console address is 0. Attempt a different diskette or go to MAP 0101.
A1C2	A-A1J2 A-A1H2 A-A1V4 WS cbl	50 40 3 3	7001,AA				Work station I/O hardware error. FIRST, Go to MAP 7001.The problem could also be a bad cable on PORT 0. See cable checkout procedure in the w/s attachment MIM.

							SECOND, If the problem occurred during IPL, go to MAP 0190 before replacing any FRUs. This SRC can come up if the UDT is not configured correctly (see MIM 01-290). If this SRC comes up during operations replace FRUs indicated, then go to MAP 0190 only if the FRUs did not fix the problem. TWINAX/IBM cabling system.
A1C3	Mcode A-A1Q2 A-A1H2	79 10 10	0190A				Work station functional microcode not found. Could be a failing diskette or misconfigured disk or diskette. If there have not been any changes made to your disk or diskette, you may have a hardware error. Go to MAP 0190, A.
A1E0			0101C				Printer I/O error. DCP, system hardware or diskette is bad; disk or diskette is misconfigured. Press CSP Start to retry. If the error occurred during IPL then re-IPL using 0000, FFF0, or FF00 to bypass the error.
A2A0			0101C				Disk I/O module not found on IPL diskette. Bad diskette media. Go to MAP 0101, Entry Point C.
A2E0			0101C				Printer I/O module not found on IPL diskette. Bad diskette media. Go to MAP 0101, Entry Point C.

AF90			0101C			Disk error while loading SSP microcode. Bad or misconfigured diskette.
AF91	A-A1C2/ A-A2C2	80	9500A or 9700A			Disk drive A error while loading SSP microcode. MAP ref if 21ED=9500, if 10SR=9700.
AF92	A-A1E2/ A-A2E2	80	9500A or 9700A			Disk drive error while loading SSP microcode. MAP ref if 21ED=9500, if 10SR=9700.
AF93	A-A1C2/ A-A2C2	80	9500A or 9700A			Disk drive A error while loading SSP microcode. MAP ref if 21ED=9500, if 10SR=9700.
********** Unexpected interrupt -- AFFX **********						
AFF2			0101C			Unexpected interrupt on Interrupt Level 2. Devices on this interrupt: Data Communication Adapt (MIM 30-205) CSP (Interval Timer) (MIM 10-200)
AFF4			0101C			Unexpected interrupt on Interrupt Level 4 Attempt to restart the current operation. Devices on this interrupt: Work Station Controller (MIM 70-210) System Printer Adapter (MIM 50-210) Data Storage Attachment - 1 (MIM 90-210) Data Storage Attachment - 2 (MIM 90-210)

							Data Storage Controller (MIM 90-210)
**********	Work station controller bxxx **********						
****	These bxxx codes are for information purposes **********						
b1xx							Work station TU select stop code (XX = the last two characters of the TU that just ran) see the work station attachment MIM 70-420 to interpret the result bytes in work registers WR6 and WR7.
b2xx							The work station MDI MAP stop code (XX = the MAP ID) go to hard copy MAP and entry point indicated in work registers WR4 and WR5 (L) respectively. To read out WR4 and WR5: Select mode 1. Enter 0004. Press Display Output and record contents. Enter 0005. Press Display Output and record contents.
b421							Normal halt for work station MDIs. Press CSP Start to continue running work station MDIs.
b500							The selected work station MDI MAP was not found. Check for proper diskette or damaged diskette.
b501							The selected work station load module was not found. Check for

						proper or damaged diskette
b502						The selected work station TU was not found. Verify the TU selected is valid or check diskette.
b503						The selected work station is not configured or may be configured wrongly. Use the system configure utility (01-290) to configure the work station.
********** DCP Wrap Errors **********						
C000		0105A				Default wrap supervisor halt code; RelPL.
C001						Wrap module not found. Misconfigured or bad disk or diskette. Check UDT for correct configuration (see MIM 01-290).
C002						System reference code module ID (WFE00) not found in wrap address table. Misconfigured or bad disk or diskette.
C003						Primary system reference code table entry missing. Misconfigured or bad disk or diskette.
C004						Secondary system reference code table entry missing. Misconfigured or bad disk or diskette.
C005		0101C				Proc Check while sensing

							file configuration.
							Channel or file attachment
							error.
C181	A-A1E2	95					Test buffer reset command
	A-A1D2	1					Run OLPD.
C182	A-A1E2	95					Test DLC address load.
	A-A1D2	1					Run OLPD.
C183	A-A1E2	95					Buffer latch test.
	A-A1D2	1					Run OLPD.
C184	A-A1E2	90					Enable DLC interrupt.
	A-A1D2	5					Run OLPD.
C185	A-A1E2	90					Disable DLC interrupt.
	A-A1D2	5					Run OLPD.
C186	A-A1E2	95					Enable/disable timer test.
	A-A1D2	1					Run OLPD.
C187	A-A1E2	90					Buffer 1 addressing test.
	A-A1D2	5					Run OLPD.
C188	A-A1E2	90					Buffer 2 addressing test.
	A-A1D2	5					Run OLPD.
C189	A-A1E2	85					Wrap buffer 1 to buffer 2.
	A-A1D2	10					Run OLPD.
C18A	A-A1E2	85					Wrap buffer 1 to buffer 2.
	A-A1D2	10					Run OLPD.
C18b	A-A1E2	85					Buffer 1 scan test.
	A-A1D2	10					Run OLPD.
C18C	A-A1E2	85					Buffer 2 scan test.
	A-A1D2	10					Run OLPD.
C18d	A-A1E2	85					Base cycle steal test.
	A-A1D2	10					Run OLPD.
C18F	A-A1E2	85					Extended wrap.

	A-A1D2	10					Run OLPD.
C1F0	A-A1D2	85					Adapter error
	A-A1E2	10					* Reseat A-A1D2 and top card connector. Run OLPD
C1F1	A-A1A3	95					Cable error * Reseat wrap connector and internal cable A-A1A3 before replacing FRU.
C1F5	A-A1D2	50					Tactical bus
	A-A1E2	45					* Reseat A-A1D2 and top card connector before replacing FRU.
C1F6	A-A1D2	60					Tape Interface
	A-A1A3	35					* Reseat wrap connector and internal cable A-A1A3 before replacing FRU.
C1F7	Program						Undetermined return code from tape adapter during IPL wraps.
********** MSP C2xx **********							
C201	MS	90	1100A				Bad 2Kb main storage
	MS					CQ-110	page. Use MAP 1100 to find
	A-A1Q2	5					the bad card.
	A-A1P2	5					Possible configuration error.
							MS = main storage
********** Data Storage Controller C3xx **********							
C301	A-A2J2	99	9900A	6101	90-110	TJ200	If you have wrap error SRCs for disk (C9xx or CAxx) or diskette (Cdxx) along with the tape SRC (Cbxx), perform the activity defined for the disk/diskette SRCs first.
C302	A-A2J2	99	9900A	6102	90-110	TJ200	If you have wrap error SRCs for disk (C9xx or

							CAxx) or diskette (Cdxx) along with the tape SRC (Cbxx), perform the activity defined for the disk/diskette SRCs first.
C303	A-A2J2	99	9900A	6103	90-110	TJ200	If you have wrap error SRCs for disk (C9xx or CAxx) or diskette (Cdxx) along with the tape SRC (Cbxx), perform the activity defined for the disk/diskette SRCs first.
C304	A-A2J2	99	9900A	6104	90-110	TJ200	If you have wrap error SRCs for disk (C9xx or CAxx) or diskette (Cdxx) along with the tape SRC (Cbxx), perform the activity defined for the disk/diskette SRCs first.
C306	A-A2J2 A-A2K2	80 20	9900A	6106	90-110	TJ200	If you have wrap error SRCs for disk (C9xx or CAxx) or diskette (Cdxx) along with the tape SRC (Cbxx), perform the activity defined for the disk/diskette SRCs first.
C308	A-A2J2 A-A2L2	94 5	9900A	6108	90-110	TJ200	If you have wrap error SRCs for disk (C9xx or CAxx) or diskette (Cdxx) along with the tape SRC (Cbxx), perform the activity defined for the disk/diskette SRCs first.
C309	A-A2J2	99	9900A	6109	90-110	TJ200	If you have wrap error SRCs for disk (C9xx or CAxx) or diskette (Cdxx) along with the tape SRC (Cbxx), perform the activity defined for the

							disk/diskette SRCs first.
C310	A-A2J2	80	9900A	6110	90-110	TJ200	If you have wrap error
	A-A2K2	20					SRCs for disk (C9xx or
							CAxx) or diskette (Cdxx)
							along with the tape SRC
							(Cbxx), perform the
							activity defined for the
							disk/diskette SRCs first.
C311	A-A2J2	99	9900A	6111	90-110	TJ200	If you have wrap error
							SRCs for disk (C9xx or
							CAxx) or diskette (Cdxx)
							along with the tape SRC
							(Cbxx), perform the
							activity defined for the
							disk/diskette SRCs first.
C312	A-A2J2	99	9900A	6112	90-110	TJ200	If you have wrap error
							SRCs for disk (C9xx or
							CAxx) or diskette (Cdxx)
							along with the tape SRC
							(Cbxx), perform the
							activity defined for the
							disk/diskette SRCs first.
C313	A-A2J2	99	9900A	6113	90-110	TJ200	If you have wrap error
							SRCs for disk (C9xx or
							CAxx) or diskette (Cdxx)
							along with the tape SRC
							(Cbxx), perform the
							activity defined for the
							disk/diskette SRCs first.
C314	A-A2J2	99	9900A	6114	90-110	TJ200	If you have wrap error
							SRCs for disk (C9xx or
							CAxx) or diskette (Cdxx)
							along with the tape SRC
							(Cbxx), perform the
							activity defined for the
							disk/diskette SRCs first.
C315	A-A2J2	99	9900A	6115	90-110	TJ200	If you have wrap error
							SRCs for disk (C9xx or

							CAxx) or diskette (Cdxx) along with the tape SRC (Cbxx), perform the activity defined for the disk/diskette SRCs first.
C316	A-A2J2	99	9900A	6116	90-110	TJ200	If you have wrap error SRCs for disk (C9xx or CAxx) or diskette (Cdxx) along with the tape SRC (Cbxx), perform the activity defined for the disk/diskette SRCs first.
C317	A-A2J2	99	9900A	6117	90-110	TJ200	If you have wrap error SRCs for disk (C9xx or CAxx) or diskette (Cdxx) along with the tape SRC (Cbxx), perform the activity defined for the disk/diskette SRCs first.
C318	A-A2J2	99	9900A	6118	90-110	TJ200	If you have wrap error SRCs for disk (C9xx or CAxx) or diskette (Cdxx) along with the tape SRC (Cbxx), perform the activity defined for the disk/diskette SRCs first.
********** SUNGATE **********							
C401	A-A1L2 A-A1B2	98 01					LAN Adapter Card failed or LAN Controller Cable failed during IPL.
********** 1255 MCR C5XX **********							
C510	A-A2N2 A-A2P2	70 25	4100A	4001 4002 4004 05-09 4012 4029 4065	40-820	MN-200 MP-200	Initialization

C511	A-A2P2	70	4100A	4041	40-820	MP-200	ALU
	A-A2N2	25		4042		MN-200	
				43-52			
				4071			
				4072			
				73-90			
				4094			
C512	A-A2N2	20	4100A	See note	40-410	MN-200	Failing TUs: 4010, 14, 16-18, 21, 22, 24, 27, 67, 68, 69. See TUSELECT for description.
	A-A2P2	20				MP-200	
	A-A2Q2	20				MQ-200	
	A-A2L4	10					
	A-A2M4	10					
C513	A-A2P2	50	4100A	4015	40-820	MP-200	Control.
	A-A2N2	20		4019		MN-200	
	A-A2L4	10		4023			
	A-A2M4	10		4026			
				4034			
				4035			
				36-40			
				4063			
				4064			
				4070			
				4092			
				4093			
C514	A-A2L4	30	4100A	4011	40-820	ML-200	Memory.
	A-A2M4	30		4030		MM-200	
	A-A2P2	10		4031		MP-200	
	A-A2N2	10		4032		MN-200	
				4033			
				4055			
				4056			
				4057			
C515	A-A2N2	30	4100A	4013 or 4028	40-410	MN-200	
	A-A2P2	30				MP-200	
	A-A2L4	15					
	A-A2M4	15					
C516	A-A2N2	30	4100A	See note	40-410	MN-200	Failing TUs: 40B1 to 40B9, and 40C0 to 40C8 inclusive.
	A-A2Q2	30				MQ-200	
	Cables	30				MQ-900	

							Manufacturing wrap test, requires wrap plug.
C517	A-A2N2	20	4100A	See note	40-410	MN-200	Failing TUs: 4053, 4054, 4055, 4056, 4057. See TUSELECT for description.
	A-A2P2	20				MP-200	
	A-A2L4	20				ML-200	
	A-A2M4	20				MM-200	
C518	A-A2N2	45	4100A	40C9	40-410	MN-200	Manufacturing wrap test, requires plug.
	A-A2P2	45				MP-200	
C519	A-A2N2	90	4100A	40CA	40-410	MN-200	Requires 1255 wrap plug. See TU-Select Menu for 1255, for description of failing FRU. See 1255 TMM SY24-3555-3.
C51A	1255	95	4100A	40A0	40-410		Requires 1255 wrap plug. See TU-Select Menu for 1255 for description of failing TU.
				40A2			
				40A3			
				40A4			
				40A5			
				40A7			
				40A8			
********** Work station controller C6xx **********							
C601	A-A1H2	50	0101B	6101		WH-100	If FRU replacement does not fix, return to MAP 0101, Entry Point B.
	A-A3S2	45				WJ-100	
	A-A1J2	2					
C602	A-A1H2	95	0101B			WH-100	If FRU replacement does not fix, return to MAP 0101, Entry Point B.
	A-A1J2	2		6102		WJ-100	
C603	A-A1H2	95	0101B			WH-100	If FRU replacement does not fix, return to MAP 0101, Entry Point B.
	A-A1J2	2		6103		WJ-100	
	A-A1L2	2					
	A-A1M2	1					
C604	A-A1H2	95	0101B			WH-100	If FRU replacement doese not fix, return to MAP . 0101, Entry Point B.
	A-A1J2	2		6104		WJ-100	
	A-A1L2	2					
	A-A1M2	1					

C606	A-A1H2 A-A1J2 A-A1L2 A-A1M2	90 4 2 1	0105A	6106		WH-100 WJ-100	If FRU replacement does not fix, go to MAP 0105, Entry Point A.
C608	A-A1H2 A-A1J2 A-A1L2 A-A1M2	90 4 2 1	0105A	6108		WH-100 WJ-100	If FRU replacement does not fix, go to MAP 0105, Entry Point A.
C609	A-A1H2 A-A1J2 A-A1L2 A-A1M2	90 4 2 1	0105A	6109		WH-100 WJ-100	If FRU replacement does not fix, go to MAP 0105, Entry Point A.
C610	A-A1H2 A-A1J2 A-A1M2	65 32 2	0101B	6110		WH-100 WJ-100	If FRU replacement does not fix, return to MAP 0101, Entry Point B.
C611	A-A1H2 A-A1J2	95 2	0101B	6111		WH-100 WJ-100	If FRU replacement does not fix, return to MAP 0101, Entry Point B.
C612	A-A1H2 A-A1J2	95 2	0101B	6112		WH-100 WJ-100	If FRU replacement does not fix, return to MAP 0101, Entry Point B.
C613	A-A1H2 A-A1J2	95 2	0101B	6113		WH-100 WJ-100	If FRU replacement does not fix, return to MAP 0101, Entry Point B.
C614	A-A1H2 A-A1J2	95 2	0101B	6114		WH-100 WJ-100	If FRU replacement does not fix, return to MAP 0101, Entry Point B.
C615	A-A1H2 A-A1J2	95 2	0101B	6115		WH-100 WJ-100	If FRU replacement does not fix, return to MAP 0101, Entry Point B.
C616	A-A1H2 A-A1J2	95 2	0101B	6116			If FRU replacement does not fix, return to MAP 0101, Entry Point B.
C617	A-A1H2	95	0101B	6117			If FRU replacement does

	A-A1J2	2					not fix, return to MAP 0101, Entry Point B.
C618	A-A1H2	95	0101B	6118			If FRU replacement does not fix, return to MAP 0101, Entry Point B.
	A-A1J2	2					
C623	A-A1H2	95	0101B			WH-100	If FRU replacement does not fix, return to MAP 0101, Entry Point B.
	A-A1J2	2		6103		WJ-100	
	A-A1N2	2					
C624	A-A1H2	95	0101B			WH-100	If FRU replacement does not fix, return to MAP 0101, Entry Point B.
	A-A1J2	2		6104		WJ-100	
	A-A1N2	2					
C626	A-A1H2	90	0105A	6106		WH-100	If FRU replacement does not fix, go to MAP 0105, Entry Point A.
	A-A1J2	4				WJ-100	
	A-A1N2	2					
C628	A-A1H2	90	0105A	6108		WH-100	If FRU replacement does not fix, go to MAP 0105, Entry Point A.
	A-A1J2	4				WJ-100	
	A-A1N2	2					
C629	A-A1H2	90	0105A	6109		WH-100	If FRU replacement does not fix, go to MAP 0105, Entry Point A.
	A-A1J2	4				WJ-100	
	A-A1N2	2					
C630	A-A1H2	65	0101B			WH-100	If FRU replacement does not fix, return to MAP 0101, Entry Point B.
	A-A1J2	32		6110		WJ-100	
	A-A1N2	2					
C631	A-A3S2	95	0101B				If FRU replacement does not fix, return to MAP 0101, Entry Point B.
	A-A3T2	2					
C632	A-A3S2	95	0101B				If FRU replacement does not fix, return to MAP 0101, Entry Point B.
	A-A3T2	2					
C633	A-A1H2	95					The A1H2 card failed the W/S MDIs.
	A-A1J2	4					
C641	A-A3S2	95	0101B				If FRU replacement does not fix, return to MAP
	A-A3T2	2					

							0101, Entry Point B
C642	A-A3S2 A-A3T2	95 2	0101B				If FRU replacement does not fix, return to MAP 0101, Entry Point B.
C643	A-A3S2 A-A3T2	95 2	0101B				If FRU replacement does not fix, return to MAP 0101, Entry Point B.
C644	A-A3S2 A-A3T2	95 2	0101B				If FRU replacement does not fix, return to MAP 0101, Entry Point B.
C645	A-A3S2 A-A3T2	95 2	0101B				If FRU replacement does not fix, return to MAP 0101, Entry Point B.
C646	A-A3S2 A-A3T2	95 2	0101B				If FRU replacement does not fix, return to MAP 0101, Entry Point B.
C647	A-A3S2 A-A3T2	95 2	0101B				If FRU replacement does not fix, return to MAP 0101, Entry Point B.
C648	A-A3S2 A-A3T2	95 2	0101B				f FRU replacement does not fix, return to MAP 0101, Entry Point B.
C653	A-A3S2 A-A3T2 A-A1N2	95 2 2	0101B				If FRU replacement does not fix, return to MAP 0101, Entry Point B.
C654	A-A3S2 A-A3T2 A-A1N2	95 2 2	0101B				If FRU replacement does not fix, return to MAP 0101, Entry Point B.
C656	A-A3S2 A-A3T2 A-A1N2	90 4 2	0101B				If FRU replacement does not fix, go to MAP 0101, Entry Point B.
C658	A-A3S2 A-A3T2	90 4	0101B				If FRU replacement does not fix, go to MAP 0101,

	A-A1N2	2					Entry Point B.
C659	A-A3S2	90	0101B				If FRU replacement does
	A-A3T2	4					not fix, go to MAP 0101,
	A-A1N2	2					Entry Point B.
C660	A-A3S2	65	0101B				If FRU replacement does
	A-A3T2	32					not fix, return to MAP
	A-A1N2	2					0101, Entry Point B.
C663	A-A3S2	95					If FRU replacement does
	A-A3T2	4					not fix, return to MAP
							0101, Entry Point B.
**********	Communications (MLCA) **********						
C800	A-A3S2	90	3003A	T6101	30-700	SS-300	Bus coupler TUs to comm
	A-A1N2	5		T6102		SR-300	controller failed. Ignore
	X-Over	5		T6103			any other C8XX SRCs for TU
				T6104			Select MLCA controller
							option.
							NOTE: A 32KW or 64KW
							controller is required
							for X.21 Switched or X.25.
**********	Communications (SLCA) **********						
C801	A-A1K2	90	3003A	T8108	30-700	ST-300	Internal wrap of control
	A-A1G2	5					output register.
	A-A1N2	5					
C802	A-A1K2	90	3003A	T8106	30-700	ST-300	If new installation, check
	X-Over	10					device adr switches on
							comm adapter card (SW 5 &
							6) should be on/off).
							Also ensure that SLCA
							(feature 2500) was
							installed, if SLCA-E
							(feature 2550) was
							installed, then the con-
							figuration is incorrect.
C803	A-A1K2	90	3003A	T8108	30-700	ST-300	Internal wrap of control
	A-A1G2	5					output register.
	A-A1L2	5					

C804	A-A1K2	75	3003A	T8109	30-700	ST-300	Timer test failed, system
	A-A1L2	20				SU-310	clocks possibly bad to
	A-A1B3/	3				SU-310	comm board. A-A1B3/A-A2U3
	A-A2U3						terminates system clock
							lines.
							A-A1L2 is source for
							system clocks.
C805	A-A1K2	95	3003A	T8112	30-700	ST-300	If new installation, check
							NRZ switch (SW 4) on
							A-A1K2 card must be set
							to off.
C807	A-A1B2	90	3003A	T8119	30-630	ST-300	If new installation,
	A-A1K2	10			30-700	SU-300	Verify configuration is
							ok. MDI TU T8119 runs only
							when internal clock is
							configured.
C808	A-A1K2	90	3003A	see	30-700	ST-300	MDI TU T8107, T8110
	A-A1L2	5		cmnt			through T8118 and T8120
							through T8128 can cause
							this SRC.
C809	A-A1G2	95	3003A	T8141	36-XXX	SM-300	X.21 (SW) internal wrap
	A-A1K2	5					TU failed.
C80b	A-A1K2	75	3003A	T8109	30-700	ST-300	Timer test failed, system
	A-A1N2	20				SU-310	clocks possibly bad to
	A-A1B3/	3				SU-310	comm board. A-A1B3/A-A2U3
	A-A2U3						terminates system clock
							lines.
							A-A1N2 is source for
							system clocks.
C80C	A-A1G2	95	3003A	T8146	33-XXX	SM-300	1200 I.M. internal wrap
	A-A1K2	5					TU failed.
C80d	A-A1G2	95	3003A	T8149	34-XXX	SM-300	DDSA internal wrap TU
	A-A1K2	5					failed.
C80E	A-A1K2	90	3003A	see	30-700	ST-300	MDI TU T8107, T8110
	A-A1N2	5		cmnt			through T8118 and T8120
							through T8128 can cause

							this SRC.
**********	Communications (MLCA Line 1) **********						
C810	A-A3S2	90	3003A	T6101	30-700	SS-300	Bus coupler TUs to
	A-A1L2	5		T6102		SR-300	communications controller
	X-Over	5		T6103			failed. Ignore any other
				T6104			C8xx SRCs.
							For TU Select, select MLCA
							controller option.
							NOTE: A 32KW or 64KW
							controller is required
							for X.21 Switched or X.25.
C811	A-A3S2	95	3003A	see cmnt	30-700	SS-300	Controller TUs to
							communications controller
							failed TUs 6106, 6108
							through 610C, 610F, 6110
							through 6116 and 6118.
							Ignore any other C8xx SRCs
							NOTE: A 32KW or 64KW
							controller is required
							for X.21 Switched or X.25.
C812	A-A3R2	95	3003A	T8106	30-700	SR-300	If all comm lines fail
	A-A3S2	5					with C8x2, suspect A-A3S2
							(50 %).
							NOTE: A 32KW or 64KW
							controller is required
							for X.21 Switched or X.25.
C813	A-A3R2	95	3003A	T8108	30-700	SR-300	Internal wrap of control
	A-A3M2	5					output register.
C814	A-A3R2	75	3003A	T8109	30-700	SR-300	Timer test failed. If only
	A-A1L2	20				SU-310	one line fails with C8x4,
	A-A3U3	3					rule out A-A1L2, A-A3U3,
	X-Over	2					channel cables. This is
							common logic to all MLCA
							lines.
C815	A-A3R2	95	3003A	T8112	30-700	SR-300	If new installation, check
							NRZ switch (SW 4) on
							A-A3R2 card. Must be off.

C817	A-A3U2 A-A3R2	90 10	3003A	T8119	30-630 30-700	SU-300	If new installation, verify configuration is ok. MDI TU T8119 runs only when configured for internal clock.
C818	A-A3R2	95	3003A	see cmnt	30-700	ST-300	MDI TU T8107, T8110 through T8118 and T8120 through T8128 can cause this SRC.
C819	A-A3M2 A-A3R2	95 5	3003A	T8141	36-XXX	SM-300	X.21 (SW) internal wrap TU failed.
C81b	A-A3R2 A-A1N2 A-A3U3 X-Over	75 20 3 2	3003A	T8109	30-700	SR-300 SU-310	Timer test failed. If only one line fails with C8x4, rule out A-A1N2, A-A3U3, channel cables. This is common logic to all MLCA lines.
C81C	A-A3M2 A-A3R2	95 5	3003A	T8146	33-XXX	SM-300	1200 I.M. internal wrap TU failed.
C81d	A-A3M2 A-A3R2	95 5	3003A	T8149	34-XXX	SM-300	DDSA internal wrap TU failed.
********** Communications (MLCA Line 2) **********							
C822	A-A3Q2 A-A3S2	95 5	3003A	T8106	30-700	SQ-300	If all comm lines fail with C8x2, suspect A-A3S2 (50 %). NOTE: A 32KW or 64KW controller is required for X.21 Switched or X.25.
C823	A-A3Q2 A-A3L2	95 5	3003A	T8108	30-700	SQ-300	Internal wrap of control output register.
C824	A-A3Q2 A-A1L2 A-A3U3 X-Over	75 20 3 2	3003A	T8109	30-700	SQ-300 SU-310	Timer test failed. If only one line fails with C8x4, rule out A-A1L2, A-A3U3, channel cables. This is common logic to all MLCA lines.

C825	A-A3Q2	95	3003A	T8112	30-700	SQ-300	If new installation, check NRZ switch (SW 4) on A-A3Q2 card. Must be off.
C827	A-A3U2 A-A3Q2	90 10	3003A	T8119	30-630 30-700	SU-300	If new installation, verify configuration is ok. MDI TU T8119 runs only when configured for internal clock.
C828	A-A3Q2	95	3003A	see cmnt cmnt	30-700	SQ-300	MDI TU T8107, T8110 through T8118 and T8120 through T8128 can cause this SRC.
C829	A-A3L2 A-A3Q2	95 5	3003A	T8141	36-XXX	SL-300	X.21 (SW) internal wrap TU failed.
C82b	A-A3Q2 A-A1N2 A-A3U3 X-Over	75 20 3 2	3003A	T8109	30-700	SQ-300 SN-310	Timer test failed. If only one line fails with C8x4, rule out A-A1N2, A-A3U3, channel cables. This is common logic to all MLCA lines.
C82C	A-A3L2 A-A3Q2	95 5	3003A	T8146	33-XXX	SL-300	1200 I.M. internal wrap TU failed.
C82d	A-A3L2 A-A3Q2	95 5	3003A	T8149	34-XXX	SL-300	DDSA internal wrap TU failed.
********** Communications (MLCA Line 3) **********							
C832	A-A3P2 A-A3S2	95 5	3003A	T8106	30-700	SP-300	If all comm lines fail with C8x2, suspect A-A3S2 (50 %). NOTE: A 32KW or 64KW controller is required for X.21 Switched or X.25.
C833	A-A3P2 A-A3M4	95 5	3003A	T8108	30-700	SP-300	Internal wrap of control output register.
C834	A-A3P2	75	3003A	T8109	30-700	SP-300	Timer test failed. If only

	A-A1L2	20				SU-310	one line fails with C8x4,
	A-A3U3	3					rule out A-A1L2, A-A3U3,
	X-Over	2					channel cables. This is
							common logic to all MLCA
							lines.
C835	A-A3P2	95	3003A	T8112	30-700	SP-300	If new installation, check
							NRZ switch (SW 4) on
							A-A3P2 card. Must be off.
C837	A-A3U2	90	3003A	T8119	30-630	SU-300	If new installation,
	A-A3P2	10			30-700		verify configuration is
							ok. MDI TU T8119 runs only
							when configured for
							internal clock.
C838	A-A3P2	95	3003A	see cmnt	30-700	SP-300	MDI TU T8107, T8110
							through T8118 and T8120
							through T8128 can cause
							this SRC.
C839	A-A3M4	95	3003A	T8141	36-XXX	SM-350	X.21 (SW) internal wrap TU
	A-A3P2	5					failed.
C83b	A-A3P2	75	3003A	T8109	30-700	SP-300	Timer test failed. If only
	A-A1N2	20				SN-310	one line fails with C8x4,
	A-A3U3	3					rule out A-A1N2, A-A3U3,
	X-Over	2					channel cables. This is
							common logic to all MLCA
							lines.
C83C	A-A3M4	95	3003A	T8146	33-XXX	SM-350	1200 I.M. internal wrap TU
	A-A3P2	5					failed.
C83d	A-A3M4	95	3003A	T8149	34-XXX	SM-350	DDSA internal wrap TU
	A-A3P2	5					failed.
********** Communications (MLCA Line 4) **********							
C842	A-A3N2	95	3003A	T8106	30-700	SN-300	If all comm lines fail
	A-A3S2	5					with C8x2, suspect A-A3S2
							(50 %).
							NOTE: A 32KW or 64KW
							controller is required
							for X.21 Switched or X.25.

C843	A-A3N2 A-A3L4	95 5	3003A	T8108	30-700	SN-300	Internal wrap of control output register.
C844	A-A3N2 A-A1L2 A-A3U3 X-Over	75 20 3 2	3003A	T8109	30-700	SN-300 SU-310	Timer test failed. If only one line fails with C8x4, rule out A-A1L2, A-A3U3, channel cables. This is common logic to all MLCA lines.
C845	A-A3N2	95	3003A	T8112	30-700	SN-300	If new installation, check NRZ switch (SW 4) on A-A3N2 card. Must be off.
C847	A-A3U2 A-A3N2	90 10	3003A	T8119	30-630 30-700	SU-300	If new installation, verify configuration is ok. MDI TU T8119 runs only when configured for internal clock.
C848	A-A3N2	95	3003A	see cmnt	30-700	SN-300	MDI TU T8107, T8110 through T8118 and T8120 through T8128 can cause this SRC.
C849	A-A3L4 A-A3N2	95 5	3003A	T8141	36-XXX	SL-350	X.21 (SW) internal wrap TU failed.
C84b	A-A3N2 A-A1N2 A-A3U3 X-Over	75 20 3 2	3003A	T8109	30-700	SN-300 SN-310	Timer test failed. If only one line fails with C8x4, rule out A-A1N2, A-A3U3, channel cables. This is common logic to all MLCA lines.
C84C	A-A3L4 A-A3N2	95 5	3003A	T8146	33-XXX	SL-350	1200 I.M. internal wrap TU failed.
C84d	A-A3L4 A-A3N2	95 5	3003A	T8149	34-XXX	SL-350	DDSA internal wrap TU failed.
**********		Communications MLCAEX					**********
C850	A-A1K2	96					EIA/CCITT communications

	A-A1N2	1					adapter failure SLCA.
	A-A1N2						CSIPL failure.
C851	A-A3F2	96	3000A				EIA/CCITT communications
	A-A3P2	1					adapter failure line 1.
							Note: If more than one
							comm SRC appears, suspect
							A-A3P2 (50%) or use MAP
							3000, entry point A to
							isolate failing adapter
							card. CSIPL Failure.
C852	A-A3G2	96	3000A				EIA/CCITT communications
	A-A3P2	1					adapter failure line 2.
							Note: If more than one
							comm SRC appears, suspect
							A-A3P2 (50%) or use MAP
							3000, entry point A to
							isolate failing adapter
							card. CSIPL Failure.
C853	A-A3H2	96	3000A				EIA/CCITT communications
	A-A3P2	1					adapter failure line 3.
							Note: If more than one
							comm SRC appears, suspect
							A-A3P2 (50%) or use MAP
							3000, entry point A to
							isolate failing adapter
							card. CSIPL Failure
C854	A-A3J2	96	3000A				EIA/CCITT communications
	A-A3P2	1					adapter failure line 4.
							Note: If more than one
							comm SRC appears, suspect
							A-A3P2 (50%) or use MAP
							3000, entry point A to
							isolate failing adapter
							card. CSIPL Failure
C855	A-A3K2	96	3000A				EIA/CCITT communications
	A-A3P2	1					adapter failure line 5.
							Note: If more than one
							comm SRC appears, suspect
							A-A3P2 (50%) or use MAP

							3000, entry point A to isolate failing adapter card. CSIPL Failure
C856	A-A3L2 A-A3P2	96 1	3000A				EIA/CCITT communications adapter failure line 6. Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure
C857	A-A3M2 A-A3P2	96 1	3000A				EIA/CCITT communications adapter failure line 7. Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure
C858	A-A3N2 A-A3P2	96 1	3000A				EIA/CCITT communications adapter failure line 8. Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure
C860	A-A1K2 A-A1N2 A-A1N2	96 1					DDSA communications adapter failure SLCA. CSIPL failure.
C861	A-A3F2 A-A3P2	96 1	3000A				DDSA communications adapter failure line 1. Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure

C862	A-A3G2 A-A3P2	96 1	3000A				DDSA communications adapter failure line 2. Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure
C863	A-A3H2 A-A3P2	96 1	3000A				DDSA communications adapter failure line 3. Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure
C864	A-A3J2 A-A3P2	96 1	3000A				DDSA communications adapter failure line 4. Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure.
C865	A-A3K2 A-A3P2	96 1	3000A				DDSA communications adapter failure line 5. Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure
C866	A-A3L2 A-A3P2	96 1	3000A				DDSA communications adapter failure line 6. Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure.

C867	A-A3M2 A-A3P2	96 1	3000A				DDSA communications adapter failure line 7. Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure
C868	A-A3N2 A-A3P2	96 1	3000A				DDSA communications adapter failure line 8. Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure
C870	A-A1K2 A-A1N2 A-A1N2	96 1					X.21 communications adapter failure SLCA. CSIPL failure.
C871	A-A3F2 A-A3P2	96 1	3000A				X.21 communications adapter failure line 1. Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure
C872	A-A3G2 A-A3P2	96 1	3000A				X.21 communications adapter failure line 2 Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure
C873	A-A3H2 A-A3P2	96 1	3000A				X.21 communications adapter failure line 3. Note: If more than one

							comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure
C874	A-A3J2 A-A3P2	96 1	3000A				X.21 communications adapter failure line 4. Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure
C875	A-A3K2 A-A3P2	96 1	3000A				X.21 communications adapter failure line 5. Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure
C876	A-A3L2 A-A3P2	96 1	3000A				X.21 communications adapter failure line 6 Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure
C877	A-A3M2 A-A3P2	96 1	3000A				X.21 communications adapter failure line 7. Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure
C878	A-A3N2 A-A3P2	96 1	3000A				X.21 communications adapter failure line 8.

							Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure
C881	A-A3F2 A-A3P2	96 1	3000A				V.35 communications adapter failure line 1. Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure
C882	A-A3G2 A-A3P2	96 1	3000A				V.35 communications adapter failure line 2. Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure
C883	A-A3H2 A-A3P2	96 1	3000A				V.35 communications adapter failure line 3. Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure
C884	A-A3J2 A-A3P2	96 1	3000A				V.35 communications adapter failure line 4. Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure
C885	A-A3K2	96	3000A				V.35 communications

	A-A3P2	1					adapter failure line 5. Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure
C886	A-A3L2	96	3000A				V.35 communications
	A-A3P2	1					adapter failure line 6. Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure
C887	A-A3M2	96	3000A				V.35 communications
	A-A3P2	1					adapter failure line 7. Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure
C888	A-A3N2	96	3000A				V.35 communications
	A-A3P2	1					adapter failure line 8. Note: If more than one comm SRC appears, suspect A-A3P2 (50%) or use MAP 3000, entry point A to isolate failing adapter card. CSIPL Failure.
C8AA	A-A3P2	90	3000A				Bus coupler TUs to Comm
	A-A1N2	2					controller failed.
	X-Over	2					Note: CSIPL failure.
	A-A3U4	2					(Ignore any other C8xx SRCs.)
C8Ab	A-A3P2	90	3000A				Controller TUs to comm
	A-A3F2/	8					controller failed.
	A-A3G2/						(Ignore any other C8xx

	A-A3H2/						SRCs.) Use MAP 3000 to
	A-A3J2/						isolate the failing
	A-A3K2/						adapter card.
	A-A3L2/						
	A-A3M2/						
	A-A3N2/						
	A-A3U4	1					
C8AC	A-A3P2	90	3000A				Bus coupler TUs to comm
	A-A1L2	2					controller failed.
	X-Over	2					Note: CSIPL failure
	A-A3U4	2					(Ignore any other C8xx
							SRCs.)
**********			21ED Disk - C9xx				**********
C911	A-A1C2/	60	9500A	TA202	95-705	GC6XX	Adapter reg wrap failed.
	A-A2C2				95-720		
	A-A1E2/	15					
	A-A2E2						
	A-A1A2/	4					
	A-A2A2						
C912	A-A1C2/	60	9500A	TA215	95-605	GC6XX	Set interrupt req failed.
	A-A2C2						Run Drive A MDIs.
	A-A1E2/	15					
	A-A2E2						
	A-A1A2/	4					
	A-A2A2						
C913	A-A1C2/	50	9500A	TA203	95-705	GC6XX	Adapter/Disk interface
	A-A2C2				95-710		wrap failed. Run MDIs for
	F-A1A2	45					Drive A
	A-A1A2/	4					
	A-A2A2						
C914	Drive A	95	9500A	TA250	95-850	GC6XX	Motor Stop/POR test failed
	A-A1C2/	5					Run Disk MDIs for Drive A.
	A-A2C2						
C915	F-A1A2	75	9500A	TA251	95-805	GC6XX	Disk interface register
	A-A1C2/	20			95-810		wrap failed. Run MDIs for
	A-A2C2						Drive A.
	A-A1A2/	5					
	A-A2A2						

C917			9500A	TA253	95-845	GC6XX	Motor Start test failed. Run Disk MDIs for Drive A.
C918			9500A	TA256	95-815	GC6XX	Recalibrate Head 0 failed. Run Disk MDIs for Drive A.
C919			9500A	TA257	95-815	GC6XX	Recalibrate Head 1 failed. Run Disk MDIs for Drive A.
C91A			9500A	TA282	95-820 95-825	GC6XX	Multi-cylinder Seek failed Run Disk MDIs for Drive A.
C91b			9500A	TA283	95-820	GC6XX	Multi-cylinder seek failed Run Disk MDIs for Drive A.
C91C			9500A	TA284	95-820	GC6XX	Diagnostic Seek failed. Run Disk MDIs for Drive A.
C91d			9500A	TA280		GC6XX	Servo Surface Analysis Heads 0 & 1 failed. Run Disk MDIs for Drive A.
C91E			9500A	TA265		GC6XX	Data time interval timing test failed. Run Disk MDIs for Drive A.
C91F			9500A	TA260		GC6XX	Sector/Index timing test failed. Run Disk MDIs for Drive A.
C920	A-A1C2/ A-A2C2 Drive A	60 40	9500A	TA207	95-605	GC6XX	Adapter access test failed Run Disk MDIs for Drive A.
C921	A-A1C2/ A-A2C2 A-A1E2/ A-A2E2 Drive A	80 10 10	9500A	TA206	95-605	GC6XX	Loop VFO test failed. Run Disk MDIs for Drive A.
C922			9500A	TA285	95-830	GC6XX	Read ID all heads failed. Run Disk MDIs for Drive A.

C923	A-A1C2/	80	9500A	TA208	95-605	GC6XX	Read ID Head 0 failed.
	A-A2C2						Run Disk MDIs for Drive A.
	Drive A	20					
C924	A-A1C2/	60	9500A	TA209	95-605	GC6XX	Read Data Head 0 failed.
	A-A2C2						Run Disk MDIs for Drive A.
	Drive A	20					
C925	A-A1C2/	80	9500A	TA20A	95-605	GC6XX	Read Verify failed.
	A-A2C2						Run Disk MDIs for Drive A.
	Drive A	20					
C926			9500A	TA286	95-835	GC6XX	Write Data all heads failed. Run Disk MDIs for Drive A.
C927	A-A1C2/	60	9500A	TA20C	95-605	GC6XX	Write Data Head 0 failed.
	A-A2C2						Run Disk MDIs for Drive A.
	Drive A	40					
C928	A-A1C2/	60	9500A	TA20B	95-605	GC6XX	Read Diagnostic failed.
	A-A2C2						Run Disk MDIs for Drive A.
	Drive A	40					
C929	A-A1C2/	60	9500A	TA20E	95-605	GC6XX	Correct ECC failed.
	A-A2C2						Run Disk MDIs for Drive A.
	Drive A	40					
C92A			9500A	TA281		GC6XX	Servo Surface Analysis Heads 2 & 3 failed. Run Disk MDIs for Drive A.
C931	A-A1D2/	80	9500A	TA202	95-705	GC6XX	Adapter reg wrap failed.
	A-A2D2				90-720		Run Disk MDIs for Drive B.
	A-A1E2/	15					
	A-A2E2						
	A-A1A3/	4					
	A-A2A3						
C932	A-A1D2/	80	9500A	TA215	95-605	GC6XX	Set interrupt req failed.
	A-A2D2						Run Disk MDIs for Drive B.
	A-A1E2/	15					
	A-A2E2						
	A-A1A3/	4					

	A-A2A3						
C933	A-A1D2/ A-A2D2 G-A1A2 A-A1A3/ A-A2A3	50 45 4	9500A	TA203	95-705 95-710	GC6XX	Adapter/Disk interface wrap failed. Run Disk MDIs for Drive B.
C934	Drive B A-A1D2/ A-A2D2	95 5	9500A	TA250	95-850	GC6XX	Motor Stop/POR test failed Run Disk MDIs for Drive B.
C935	G-A1A2 A-A1D2/ A-A2D2 A-A1A3/ A-A2A3	75 20 5	9500A	TA251	95-805 95-810	GC6XX	Disk interface register wrap failed. Run Disk MDIs for Drive B.
C937			9500A	TA253	95-845	GC6XX	Motor Start test failed. Run Disk MDIs for Drive B.
C938			9500A	TA256	95-815	GC6XX	Recalibrate Head 0 failed. Run Disk MDIs for Drive B.
C939			9500A	TA257	95-815	GC6XX	Recalibrate Head 1 failed. Run Disk MDIs for Drive B.
C93A			9500A	TA282	95-820 95-825	GC6XX	Multitrack Seek 1 failed. Run Disk MDIs for Drive B.
C93b			9500A	TA283	95-820	GC6XX	Multitrack Seek 2 failed. Run Disk MDIs for Drive B.
C93C			9500A	TA284	95-820	GC6XX	Diagnostic Seek failed. Run Disk MDIs for Drive B.
C93d			9500A	TA280		GC6XX	Servo Surface Analysis Heads 0 & 1 failed. Run Disk MDIs for Drive B.
C93E			9500A	TA265		GC6XX	Data time interval timing test failed. Run Disk MDIs for Drive B.

C93F			9500A	TA260		GC6XX	Sector/Index timing test failed. Run Disk MDIs for Drive B.
C940	A-A1D2/ A-A2D2 Drive B	60 40	9500A	TA207	95-605	GC6XX	Adapter access test failed Run Disk MDIs for Drive B.
C941	A-A1D2/ A-A2D2 A-A1E2/ A-A2E2 Drive B	80 10 10	9500A	TA206	95-605	GC6XX	Loop VFO test failed. Run Disk MDIs for Drive B.
C942			9500A	TA285	95-830	GC6XX	Read ID all heads failed. Run Disk MDIs for Drive B.
C943	A-A1D2/ A-A2D2 Drive B	80 20	9500A	TA208	95-605	GC6XX	Read ID Head 0 failed. Run Disk MDIs for Drive B.
C944	A-A1D2/ A-A2D2 Drive B	60 40	9500A	TA209	95-605	GC6XX	Read Data Head 0 failed. Run Disk MDIs for Drive B.
C945	A-A1D2/ A-A2D2 Drive B	80 20	9500A	TA20A	95-605	GC6XX	Read Verify failed. Run Disk MDIs for Drive B.
C946			9500A	TA286	95-835	GC6XX	Write Data all heads failed. Run Disk MDIs for Drive B.
C947	A-A1D2/ A-A2D2 Drive B	60 40	9500A	TA20C	95-605	GC6XX	Write Data Head 0 failed. Run Disk MDIs for Drive B.
C948	A-A1D2/ A-A2D2 Drive B	60 40	9500A	TA20B	95-605	GC6XX	Read Diagnostic failed. Run Disk MDIs for Drive B.
C949	A-A1D2/ A-A2D2 Drive B	60 40	9500A	TA20E	95-605	GC6XX	Correct ECC failed. Run Disk MDIs for Drive B.

C94A			9500A	TA281	GC6XX	Servo Surface Analysis Heads 2 & 3 failed. Run Disk MDIs for Drive B.
**********			10SR Disk - CAxx			**********
CA10			9700A	TA301		Run MDIs against Drive A.
CA12			9700A	TA306		Run MDIs against Drive A.
CA14			9700A	TA321		Run MDIs against Drive A.
CA16			9700A	TA332		Run MDIs against Drive A.
CA17			9700A	TA333		Run MDIs against Drive A.
CA18			9700A	TA323		Disk configuration may be incorrect, check 10SR model numbers. Run MDIs against Drive A.
CA1A			9700A	TA364		Run MDIs against Drive A.
CA1C			9700A	TA363		Run MDIs against Drive A.
CA1D			9700A	TA352		Disk configuration may be incorrect, check 10SR model numbers. Run MDIs against Drive A.
CA1E			9700A	TA3BD		Run MDIs against Drive A.
CA1F			9700A			Run MDIs against Drive A.
CA20			9700A	TA301		Run MDIs against Drive B.
CA22			9700A	TA306		Run MDIs against Drive B.
CA24			9700A	TA321		Run MDIs against Drive B.
CA26			9700A	TA332		Run MDIs against Drive B.
CA27			9700A	TA333		Run MDIs against Drive B.

CA28		9700A	TA323			Disk configuration may be incorrect, check 10SR model numbers. Run MDIs against Drive B.
CA2A		9700A	TA364			Run MDIs against Drive B.
CA2C		9700A	TA363			Run MDIs against Drive B.
CA2D		9700A	TA352			Disk configuration may be incorrect, check 10SR model numbers. Run MDIs against Drive B.
CA2E		9700A	TA3BD			Run MDIs against Drive B.
CA2F		9700A				Run MDIs against Drive B.
CA30		9700A	TA301			Run MDIs against Drive C.
CA32		9700A	TA306			Run MDIs against Drive C.
CA34		9700A	TA321			Run MDIs against Drive C.
CA36		9700A	TA332			Run MDIs against Drive C.
CA37		9700A	TA333			Run MDIs against Drive C.
CA38		9700A	TA323			Disk configuration may be incorrect, check 10SR model numbers. Run MDIs against Drive C.
CA3A		9700A	TA364			Run MDIs against Drive C.
CA3C		9700A	TA363			Run MDIs against Drive C.
CA3D		9700A	TA352			Disk configuration may be incorrect, check 10SR model numbers. Run MDIs against Drive C.
CA3E		9700A	TA3BD			Run MDIs against Drive C.

CA3F			9700A				Run MDIs against Drive C.
CA40			9700A	TA301			Run MDIs against Drive D.
CA42			9700A	TA306			Run MDIs against Drive D.
CA44			9700A	TA321			Run MDIs against Drive D.
CA46			9700A	TA332			Run MDIs against Drive D.
CA47			9700A	TA333			Run MDIs against Drive D.
CA48			9700A	TA323			Disk configuration may be incorrect, check IOSR model numbers. Run MDIs against Drive D.
CA4A			9700A	TA364			Run MDIs against Drive D.
CA4C			9700A	TA363			Run MDIs against Drive D.
CA4D			9700A	TA352			Disk configuration may be incorrect, check IOSR model numbers. Run MDIs against Drive D.
CA4E			9700A	TA3BD			Run MDIs against Drive D.
CA4F			9700A				Run MDIs against Drive D.

********** Tape Cbxx **********

Cb20	A-A2L2	60	9900A	TB120	99-110	TL200	Check tape attach ID.
	A-A2K2	40				TK200	
Cb21	A-A2L2	50	9900A	TB121	99-110	TL200	Check all latches after reset.
	A-A2K2	30				TK200	
	A-A2U5	10				TL900	
	8809-C2	10					
Cb22	A-A2L2	80	9900A	TB122	99-110	TL200	Check status register.
	A-A2K2	20				TK200	
Cb23	A-A2L2	80	9900A	TB123	99-110	TL200	Check control out register.
	A-A2K2	20				TK200	

Cb24	A-A2L2	80	9900A	TB124	99-110	TL200	Check tag bus out register.
	A-A2K2	20				TK200	
Cb25	A-A2L2	80	9900A	TB125	99-110	TL200	Check cmd/cntl in register.
	A-A2K2	20				TK200	
Cb26	A-A2L2	80	9900A	TB126	99-110	TL200	Check data out/in register.
	A-A2K2	20				TK200	
Cb27	A-A2L2	99	9900A	TB127	99-110	TL200	Check data out/in register.
Cb28	A-A2L2	99	9900A	TB128	99-110	T1200	Degate tape parity check.
Cb29	A-A2L2	80	9900A	TB129	99-110	TL200	Check recycle latch.
	A-A2K2	20				TK200	
Cb2A	A-A2L2	99	9900A	TB12A	99-110	TL200	Seq read chk/xfer inactive
Cb2b	A-A2L2	99	9900A	TB12b	99-110	TL200	Seq read chk/xfer active.
Cb2C	A-A2L2	99	9900A	TB12C	99-110	TL200	Seq read err/xfer active.
Cb2d	A-A2L2	99	9900A	TB12d	99-110	TL200	Seq write chk/xfer inactive.
Cb2E	A-A2L2	99	9900A	TB12E	99-110	TL200	Seq write chk/xfer active.
Cb2F	A-A2L2	99	9900A	TB12F	99-110	TL200	Seq write err/xfer active.
Cb31	A-A2L2	80	9900A	TB131	99-110	TL200	Seq alert intr check.
	A-A2K2	10				TK200	
	A-A2J2	5				TJ200	
2b32	A-A2L2	99	9900A	TB132	99-110	TL200	Check end intr check.
Cb33	A-A2L2	99	9900A	TB133	99-110	TL200	Normal end intr check.
Cb34	A-A2L2	99	9900A	TB134	99-110	TL200	Buffer xfer rdy check.
Cb35	A-A2L2	99	9900A	TB135	99-110	TL200	Data in parity intr check.
Cb36	A-A2L2	99	9900A	TB136	99-110	TL200	Data out parity intr check

Cb81	A-A2K2	90	9900A	T6501	90-110	TK200	Test buffer reset command.
	A-A2J2	7			99-110	TJ200	
	A-A2L2	1				TL200	
	A-A2E2	1					
Cb82	A-A2K2	90	9900A	T6507	90-110	TK200	Test DLC address load.
	A-A2J2	7			99-110	TJ200	
	A-A2L2	1				TL200	
	A-A2E2	1					
Cb83	A-A2K2	90	9900A	T6509	90-110	TK200	Buffer latch test.
	A-A2J2	7			99-110	TJ200	
	A-A2L2	1				TL200	
	A-A2E2	1					
Cb84	A-A2K2	80	9900A	T6510	90-110	TK200	Enable DLC interrupt.
	A-A2J2	10			99-110	TJ200	
	A-A2L2	5				TL200	
	A-A2E2	1					
	8809-C2	1					
Cb85	A-A2K2	80	9900A	T6511	90-110	TK200	Disable DLC interrupt.
	A-A2J2	10			99-110	TJ200	
	A-A2L2	5				TL200	
	A-A2E2	1					
Cb86	A-A2K2	90	9900A	T6512	90-110	TK200	Enable/disable timer test.
	A-A2J2	7			99-110	TJ200	
	A-A2L2	1				TL200	
	A-A2E2	1					
Cb87	A-A2K2	80	9900A	T6524	90-110	TK200	Buffer #1 addressing test.
	A-A2J2	10			99-110	TJ200	
	A-A2L2	5				TL200	
	A-A2E2	1					
Cb88	A-A2K2	80	9900A	T6525	90-110	TK200	Buffer #2 addressing test.
	A-A2J2	10			99-110	TJ200	
	A-A2L2	5				TL200	
	A-A2E2	1					
Cb89	A-A2K2	75	9900A	T6531	90-110	TK200	Wrap buffer 1 to buffer 2.
	A-A2J2	10			99-110	TJ200	

	A-A2L2	10				TL200	
	A-A2E2	1					
Cb8A	A-A2K2	75	9900A	T6534	90-110	TK200	Wrap buffer 1 to buffer 2.
	A-A2J2	10			99-110	TJ200	
	A-A2L2	10				TL200	
	A-A2E2	1					
Cb8b	A-A2K2	75	9900A	T6538	90-110	TK200	Buffer 1 scan test.
	A-A2J2	10			99-110	TJ200	
	A-A2L2	10				TL200	
	A-A2E2	1					
Cb8C	A-A2K2	75	9900A	T6539	90-110	TK200	Buffer 2 scan test.
	A-A2J2	10			99-110	TJ200	
	A-A2L2	10				TL200	
	A-A2E2	1					
Cb8d	A-A2J2	80	9900A	T6540	90-110	TJ200	Base cycle steal test.
	A-A2K2	15			99-110	TK200	
	A-A2E2	2				TL200	
	A-A2L2	1					
Cb8F	A-A2K2	75	9900A		90-110	TK200	Extended wrap.
	A-A2J2	10			99-110	TJ200	
	A-A2L2	10				TL200	
	A-A2E2	1					
**********	Work station attachment CCxx						**********
CC2A	A-A1J2	90	0101B			WJ-100	Replace FRUs first.
	A-A1H2	6				WH-100	If FRUs fail to fix, go
				C23A			to MAP 0101, Entry Point
	A-A1N2	1					B.
CC35	A-A1J2	60	0101B			WJ-100	Replace FRUs first.
	A-A1H2	37				WH-100	If FRUs fail to fix, go to
				C235			MAP 0101, Entry Point B.
CC36	A-A1J2	60	0101B			WJ-100	Replace FRUs first.
	A-A1H2	37				WH-100	If FRUs fail to fix, go to
				C236			MAP 0101, Entry Point B.
CC37	A-A1J2	95	0101B			WJ-100	Replace FRUs first.
	A-A1H2	2		C237		WH-100	If FRUs fail to fix, go to

							MAP 0101, Entry Point B.
CC38	A-A1J2	90	0101B			WJ-100	Replace FRUs first.
	A-A1H2	7				WH-100	If FRUs fail to fix, go to
							MAP 0101, Entry Point B.
CC39	A-A1J2	90	0101B			WJ-100	Replace FRUs first.
	A-A1H2	7				WH-100	If FRUs fail to fix, go to
							MAP 0101, Entry Point B.
CC3A	A-A1J2	90	0101B			WJ-100	Replace FRUs first.
	A-A1H2	6				WH-100	If FRUs fail to fix, go to
				C23A			MAP 0101, Entry Point B.
	A-A1L2	1					
CC3b	A-A1J2	50	0101B			WJ-100	Replace FRUs first.
	A-A1H2	47				WH-100	If FRUs fail to fix, go to
							MAP 0101, Entry Point B.
CC3C	A-A1J2	90	0101B			WJ-100	Replace FRUs first.
	A-A1H2	7				WH-100	If FRUs fail to fix, go to
				C23C			MAP 0101, Entry Point B.
CC3d	A-A1J2	90	0101B			WJ-100	Replace FRUs first.
	A-A1H2	7				WH-100	If FRUs fail to fix, go to
							MAP 0101, Entry Point B.
CC3E	A-A1J2	90	0101B			WJ-100	Replace FRUs first.
	A-A1H2	2		C23E		WH-100	If FRUs fail to fix, go to
							MAP 0101, Entry Point B.
CC3F	A-A1J2	48	0101B			WJ-100	Port 0 problem.
	A-A1V4	17					Replace FRUs first.
	WS cbl	20					If FRUs fail to fix, go to
	Display	10					MAP 0101, Entry Point B.
	A-A1H2	2				WH-100	Twinax/IBM cabling system
CC40	Display	35	0101B			WJ-100	NOTE-There must be a
	A-A1J2	50				WH-100	display station on port 6,
	A-A1H2	7					address 0 (and powered on)
	WS cbl	5					or the 1st controller MDIs
							will fail here. Replace
							the FRUs and if FRUs fail
							to fix, go to Map 0101,

							Entry point B.
CC41	A-A1J2	60	0101B			WJ-100	The work station display
	Display	25					can cause this. Verify
	WS cbl	8					that the display is
	A-A1H2	2				WH-100	powered on. Then replace
	A-A1V4	2		C241			FRUs. If FRUs fail to fix
							the problem, go to MAP
							0101, Entry Point B.
							Twinax/IBM cabling system
CC42	A-A1J2	80	0101B			WJ-100	Replace FRUs first.
	A-A1H2	12				WH-100	If FRUs fail to fix, go to
				C242			MAP 0101, Entry Point B.
CC43	A-A1J2	85	0101B			WJ-100	Replace FRUs first.
	A-A1H2	12				WH-100	If FRUs fail to fix, go to
				C243			MAP 0101, Entry Point B.
CC44	A-A1J2	50	0101B			WJ-100	The work station display
	Display	35					can also cause this.
	WS cbl	8					Verify that the display is
	A-A1H2	2				WH-100	is powered on before
	A-A1V4	2		C244			replacing FRUs. Replace
							FRUs first. If FRUs fail
							to fix the problem go to
							MAP 0101, Entry Point B.
							Twinax/IBM cabling system
CC46	A-A1J2	50	0101B			WJ-100	Replace FRUs first.
	A-A1H2	47				WH-100	If FRUs fail to fix, go to
				C246			MAP 0101, Entry Point B.
CC47	A-A1H2	97					
CC48	A-A1H2	99					The 1st Work Station
							controller storage size
							does not match the
							configuration.
CC4F	A-A1J2	48	0101B			WJ-100	Port 1 problem.
	A-A1V4	17					Replace FRUs first.
	WS cbl	20					If FRUs fail to fix, go to
	Display	10					MAP 0101, Entry Point B.

	A-A1H2	2				WH-100	Twinax/IBM cabling system
CC5F	A-A1J2	48	0101B			WJ-100	Port 2 problem.
	A-A1V4	17					Replace FRUs first.
	WS cbl	20					If FRUs fail to fix, go to
	Display	10					MAP 0101, Entry Point B.
	A-A1H2	2				WH-100	Twinax/IBM Cabling system
CC6F	A-A1J2	48	0101B			WJ-100	Port 3 problem.
	A-A1V4	17					Replace FRUs first.
	WS cbl	20					If FRUs fail to fix, go to
	Display	10					MAP 0101, Entry Point B.
	A-A1H2	2				WH-100	Twinax/IBM cabling system.
CC7F	A-A1J2	48	0101B			WJ-100	Port 4 problem.
	A-A1V4	17					Replace FRUs first.
	WS cbl	20					If FRUs fail to fix, go to
	Display	10					MAP 0101, Entry Point B.
	A-A1H2	2				WH-100	Twinax/IBM cabling system
CC8F	A-A1J2	48	0101B			WJ-100	Port 5 problem.
	A-A1V4	17					Replace FRUs first.
	WS cbl	20					If FRUs fail to fix, go to
	Display	10					MAP 0101, Entry Point B.
	A-A1H2	2				WH-100	Twinax/IBM cabling system
CCA5	A-A3T2	60	0101B				Replace FRUs first.
	A-A3S2	37					If FRUs fail to fix, go to
							MAP 0101, Entry Point B.
CCA6	A-A3T2	60	0101B				Replace FRUs first.
	A-A3S2	37					If FRUs fail to fix, go to
							MAP 0101, Entry Point B.
CCA7	A-A3T2	95	0101B				Replace FRUs first.
	A-A3S2	2					If FRUs fail to fix, go to
							MAP 0101, Entry Point B.
CCA8	A-A3T2	90	0101B				Replace FRUs first.
	A-A3S2	7					If FRUs fail to fix, go to
							MAP 0101, Entry Point B.
CCA9	A-A3T2	90	0101B				Replace FRUs first.
	A-A3S2	7					If FRUs fail to fix, go to

							MAP 0101, Entry Point B.
CCAA	A-A3T2	90	0101B				Replace FRUs first.
	A-A3S2	6					If FRUs fail to fix, go to
							MAP 0101, Entry Point B.
	A-A1N2	1					
CCAb	A-A3T2	50	0101B				Replace FRUs first.
	A-A3S2	47					If FRUs fail to fix, go to
							MAP 0101, Entry Point B.
CCAC	A-A3T2	90	0101B				Replace FRUs first.
	A-A3S2	7					If FRUs fail to fix, go to
							MAP 0101, Entry Point B.
CCAd	A-A3T2	90	0101B				Replace FRUs first.
	A-A3S2	7					If FRUs fail to fix, go to
							MAP 0101, Entry Point B.
CCAE	A-A3T2	90	0101B				Replace FRUs first.
	A-A3S2	2					If FRUs fail to fix, go to
							MAP 0101, Entry Point B.
CCAF	A-A3T2	48	0101B				Port 6 problem.
	WS cbl	20					Replace FRUs first.
	A-A3V4	17					If FRUs fail to fix, go to
	Display	10					MAP 0101, Entry Point B.
	A-A3S2	2					Twinax/IBM cabling system.
CCb0	Display	35	0101B				NOTE - There must be a
	A-A3T2	50					display station on port 6
	A-A3S2	7					address 0 (and pwrd on)
	WS cbl	5					or the 2nd controller MDIs
							will fail here. Replace
							the FRUs and if FRUs fail
							to fix, go to MAP 0101,
							Entry point B.
CCb1	A-A3T2	60					Replace FRUs first.
	Display	25					If FRUs fail to fix the
	WS cbl	8					the problem, go to MAP
	A-A3S2	2					0101, Entry Point B.
	A-A3V4	2					Twinax/IBM cabling system

CCb2	A-A3T2	80	0101B				Replace FRUs first.
	A-A3S2	12					If FRUs fail to fix, go to
							MAP 0101, Entry Point B.
CCb3	A-A3T2	85	0101B				Replace FRUs first.
	A-A3S2	12					If FRUs fail to fix, go to
							MAP 0101, Entry Point B.
CCb4	Display	35					The work station display
	A-A3T2	50					on port 6 address 0 can
	WS cbl	8					cause this.Verify that the
	A-A3S2	2					display is powered on.
							Then replace FRUs. If FRUs
	A-A3V4	2					fail to fix the problem,
							go to MAP 0101, Entry
							Point B.
							Twinax/IBM cabling system.
CCb6	A-A3T2	50	0101B				Replace FRUs first.
	A-A3S2	47					If FRUs fail to fix, go to
							MAP 0101, Entry Point B.
CCbF	A-A3T2	48	0101B				Port 7 problem.
	WS cbl	20					Replace FRUs first.
	A-A3V4	17					If FRUs fail to fix, go to
	Display	10					MAP 0101, Entry Point B.
	A-A3S2	2					Twinax/IBM cabling system.
CCCF	A-A3T2	48	0101B				Port 8 problem.
	WS cbl	20					Replace FRUs first.
	A-A3V4	17					If FRUs fail to fix, go to
	Display	10					MAP 0101, Entry Point B.
	A-A3S2	2					Twinax/IBM cabling system.
CCdF	A-A3T2	48	0101B				Port 9 problem.
	WS cbl	20					Replace FRUs first.
	A-A3V4	17					If FRUs fail to fix, go to
	Display	10					MAP 0101, Entry Point B.
	A-A3S2	2					Twinax/IBM cabling system.
CCEF	A-A3T2	48	0101B				Port 10 problem.
	WS cbl	20					Replace FRUs first.
	A-A3V4	17					If FRUs fail to fix, go to
	Display	10					MAP 0101, Entry Point B.

	A-A3S2	2				Twinax/IBM cabling system.
CCFF	A-A3T2	48	0101B			Port 11 problem.
	WS cbl	20	0101B			Replace FRUs first.
	A-A3V4	17				If FRUs fail to fix, go to
	Display	10				MAP 0101, Entry Point B.
	A-A3S2	2				Twinax/IBM cabling system.
********** Diskette Cdxx **********						
Cd01	A-A1E2/	55	0179A	TD201		TU TD201 failed during
	A-A2E2					wrap.
	A-A1F2/	40				
	A-A2F2					
	A-A1G4/	5				
	A-A2G4					
Cd02	A-A1F2/	60	0179A	TD202		TU TD202 failed during
	A-A2F2					wrap.
	A-A1E2/	40				
	A-A2E2					
Cd03	A-A1F2/	95	0179A	TD203		TU TD203 failed during
	A-A2F2					wrap.
	Other	5				
Cd04	A-A1F2/	80	0179A	TD204		TU TD204 failed during
	A-A2F2					wrap.
	DCC	15				DCC = drive control card.
	A-A1G4/	5				
	A-A2G4					
Cd10	A-A1F2/	50	0179A	TD210		TU TD210 failed during
	A-A2F2					wrap.
	DCC	15				DCC = drive control card.
********** Data Storage Adapter 1 - Cd8x **********						
Cd81	A-A1E2/	90	0179A		90-210	C9xx(21ED), CAxx(10SR),
	A-A2E2		9500A	T6501		and Cd0x - Cd1x (Diskette)
	A-A2J2	4	9700A			system reference codes,
	A-A2K2	4				if present, should be used
						before using this code.
						The UDT may be wrong.
						Reconfigure the system,

							then RelPL. If SRC was obtained from Mode 0 CSIPL then go to MAP 0179, A. If SRC was obtained from Mode E CSIPL then go to MAP 9500,A (21ED) or MAP 9700,A (10SR). Replace FRU(s) listed only if MAPs do not isolate failure.
Cd82	A-A1E2/ A-A2E2 A-A2J2 A-A2K2	98 4 4	0179A 9500A 9700A	T6507	90-210		C9xx(21ED), CAxx(10SR), and Cd0x - Cd1x (Diskette) system reference codes, if present, should be used before using this code. If SRC was obtained from Mode 0 CSIPL then go to MAP 0179, A. If SRC was obtained from Mode E CSIPL then go to MAP 9500,A (21ED) or MAP 9700,A (10SR). Replace FRU(s) listed only if MAPs do not isolate failure.
Cd83	A-A1E2/ A-A2E2 A-A2J2 A-A2K2	90 4 4	0179A 9500A 9700A	T6509	90-210		C9xx(21ED), CAxx(10SR), and Cd0x - Cd1x (Diskette) system reference codes, if present, should be used before using this code. If SRC was obtained from Mode 0 CSIPL then go to MAP 0179, A.

							If SRC was obtained from
							Mode E CSIPL then go to
							MAP 9500,A (21ED) or
							MAP 9700,A (10SR).
							Replace FRU(s) listed only
							if MAPs do not isolate
							failure.
Cd84	A-A1E2/	70	0179A		90-210		C9xx(21ED), CAxx(10SR),
	A-A2E2		9500A	T6510			and Cd0x - Cd1x (Diskette)
	A-A1F2/	5	9700A				system reference codes,
	A-A2F2						if present, should be used
	A-A1C2/	5					before using this code.
	A-A2C2						
	A-A1D2/	5					If SRC was obtained from
	A-A2D2						Mode 0 CSIPL then
	A-A2J2	1					go to MAP 0179, A.
	A-A2C4	1					
	A-A2D4	1					If SRC was obtained from
	A-A2K2	1					Mode E CSIPL then go to
							MAP 9500,A (21ED) or
							MAP 9700,A (10SR).
							Replace FRU(s) listed only
							if MAPs do not isolate
							failure.
Cd85	A-A1E2/	70	0179A		90-210		C9xx(21ED), CAxx(10SR),
	A-A2E2		9500A	T6511			and Cd0x - Cd1x (Diskette)
	A-A1F2/	5	9700A				system reference codes,
	A-A2F2						if present, should be used
	A-A1C2/	5					before using this code.
	A-A2C2						
	A-A1D2/	5					If SRC was obtained from
	A-A2D2						Mode 0 CSIPL then
	A-A2J2	1					go to MAP 0179, A.
	A-A2C4	1					
	A-A2D4	1					If SRC was obtained from
	A-A2K2	1					Mode E CSIPL then go to
							MAP 9500,A (21ED) or
							MAP 9700,A (10SR).
							Replace FRU(s) listed only

							if MAPs do not isolate failure.
Cd86	A-A1E2/ A-A2E2	90	0179A 9500A	T6512	90-210		C9xx(21ED), CAxx(10SR), and Cd0x - Cd1x (Diskette) system reference codes, if present, should be used before using this code. If SRC was obtained from Mode 0 CSIPL then go to MAP 0179, A. If SRC was obtained from Mode E CSIPL then go to MAP 9500,A (21ED) or MAP 9700,A (10SR). Replace FRU(s) listed only if MAPs do not isolate failure.
	A-A2J2	4	9700A				
	A-A2K2	4					
	A-A1L2	1					
Cd87	A-A1E2/ A-A2E2	70	0179A 9500A	T6524	90-210		C9xx(21ED), CAxx(10SR), and Cd0x - Cd1x (Diskette) system reference codes, if present, should be used before using this code. If SRC was obtained from Mode 0 CSIPL then go to MAP 0179, A. If SRC was obtained from Mode E CSIPL then go to MAP 9500,A (21ED) or MAP 9700,A (10SR). Replace FRU(s) listed only if MAPs do not isolate failure.
	A-A1F2/ A-A2F2	5	9700A				
	A-A1C2/ A-A2C2	5					
	A-A1D2/ A-A2D2	5					
	A-A2J2	1					
	A-A2C4	1					
	A-A2D4	1					
	A-A2K2	1					
Cd88	A-A1E2/ A-A2E2	70	0179A 9500A	T6525	90-210		C9xx(21ED), CAxx(10SR), and Cd0x - Cd1x (Diskette) system reference codes,
	A-A1F2/	5	9700A				

	A-A2F2						if present, should be used
	A-A1C2/	5					before using this code.
	A-A2C2						
	A-A1D2/	5					If SRC was obtained from
	A-A2D2						Mode 0 CSIPL then
	A-A2J2	1					go to MAP 0179, A.
	A-A2C4	1					
	A-A2D4	1					If SRC was obtained from
	A-A2K2	1					Mode E CSIPL then go to
							MAP 9500,A (21ED) or
							MAP 9700,A (10SR).
							Replace FRU(s) listed only
							if MAPs do not isolate
							failure.
Cd89	A-A1E2/	50	0179A		90-210		C9xx(21ED), CAxx(10SR),
	A-A2E2		9500A	T6531			and Cd0x - Cd1x (Diskette)
	A-A1F2/	10	9700A				system reference codes,
	A-A2F2						if present, should be used
	A-A1C2/	10					before using this code.
	A-A2C2						
	A-A1D2/	10					If SRC was obtained from
	A-A2D2						Mode 0 CSIPL then
	A-A2J2	1					go to MAP 0179, A.
	A-A2C4	1					
	A-A2D4	1					If SRC was obtained from
	A-A2K2	1					Mode E CSIPL then go to
							MAP 9500,A (21ED) or
							MAP 9700,A (10SR).
							Replace FRU(s) listed only
							if MAPs do not isolate
							failure.
Cd8A	A-A1E2/	50	0179A		90-210		C9xx(21ED), CAxx(10SR),
	A-A2E2		9500A	T6534			and Cd0x - Cd1x (Diskette)
	A-A1F2/	10	9700A				system reference codes,
	A-A2F2						if present, should be used
	A-A1C2/	10					before using this code.
	A-A2C2						
	A-A1D2/	10					If SRC was obtained from
	A-A2D2						Mode 0 CSIPL then
	A-A2J2	1					go to MAP 0179, A.

	A-A2C4	1					
	A-A2D4	1					If SRC was obtained from
	A-A2K2	1					Mode E CSIPL then go to
							MAP 9500,A (21ED) or
							MAP 9700,A (10SR).
							Replace FRU(s) listed only
							if MAPs do not isolate
							failure.
Cd8b	A-A1E2/	50	0179A		90-210		C9xx(21ED), CAxx(10SR),
	A-A2E2		9500A	T6538			and Cd0x - Cd1x (Diskette)
	A-A1F2/	10	9700A				system reference codes,
	A-A2F2						if present, should be used
	A-A1C2/	10					before using this code.
	A-A2C2						
	A-A1D2/	10					If SRC was obtained from
	A-A2D2						Mode 0 CSIPL then
	A-A2J2	1					go to MAP 0179, A.
	A-A2C4	1					
	A-A2D4	1					If SRC was obtained from
	A-A2K2	1					Mode E CSIPL then go to
							MAP 9500,A (21ED) or
							MAP 9700,A (10SR).
							Replace FRU(s) listed only
							if MAPs do not isolate
							failure.
Cd8C	A-A1E2/	50	0179A		90-210		C9xx(21ED), CAxx(10SR),
	A-A2E2		9500A	T6539			and Cd0x - Cd1x (Diskette)
	A-A1F2/	10	9700A				system reference codes,
	A-A2F2						if present, should be used
	A-A1C2/	10					before using this code.
	A-A2C2						
	A-A1D2/	10					If SRC was obtained from
	A-A2D2						Mode 0 CSIPL then
	A-A2J2	1					go to MAP 0179, A.
	A-A2C4	1					
	A-A2D4	1					If SRC was obtained from
	A-A2K2	1					Mode E CSIPL then go to
							MAP 9500,A (21ED) or
							MAP 9700,A (10SR).

							Replace FRU(s) listed only if MAPs do not isolate failure.
Cd8d	A-A2J2 A-A2E2 A-A2K2	80 15 2	0179A 9500A 9700A	T6540	90-210		C9xx(21ED), CAxx(10SR), and Cd0x - Cd1x (Diskette) system reference codes, if present, should be used before using this code. If SRC was obtained from Mode 0 CSIPL then go to MAP 0179, A. If SRC was obtained from Mode E CSIPL then go to MAP 9500,A (21ED) or MAP 9700,A (10SR). Replace FRU(s) listed only if MAPs do not isolate failure.
Cd8E	A-A1E2/ A-A2E2 A-A2J2 A-A2K2 A-A1N2	90 4 4 1	0179A 9500A 9700A	T6512	90-210		C9xx(21ED), CAxx(10SR), and Cd0x - Cd1x (Diskette) system reference codes, if present, should be used before using this code. If SRC was obtained from Mode 0 CSIPL then go to MAP 0179, A. If SRC was obtained from Mode E CSIPL then go to MAP 9500,A (21ED) or MAP 9700,A (10SR). Replace FRU(s) listed only if MAPs do not isolate failure.
Cd8F	A-A1E2/ A-A2E2	50	0179A 9500A		90-210		C9xx(21ED), CAxx(10SR), and Cd0x - Cd1x (Diskette)

	A-A1F2/	10	9700A				system reference codes,
	A-A2F2						if present, should be used
	A-A1C2/	10					before using this code.
	A-A2C2						
	A-A1D2/	10					If SRC was obtained from
	A-A2D2						Mode 0 CSIPL then
	A-A2J2	1					go to MAP 0179, A.
	A-A2C4	1					
	A-A2D4	1					If SRC was obtained from
	A-A2K2	1					Mode E CSIPL then go to
							MAP 9500,A (21ED) or
							MAP 9700,A (10SR).
							Replace FRU(s) listed only
							if MAPs do not isolate
							failure.
**********			3262 Printer CExx				**********
CE01	3262	70					Hardware problem with 3262
							printer is indicated. You
							may either run the 3262
							printer exerciser 'ripple
							print' or the 3262
							printer MDI diagnostics to
							further define the
							problem.
	A-A2S2	20	5001A			PS-200	One of these TUs failed
	I/O cbl	5					during IPL wrap: TE262,
	A-A2R2	4				PR-205	TE265, TE296.
	TCC/Bd	1					Note: Ensure the printer
							Unit Emergency switch is
							in the Power Enable
							position.
CE02	3262	70					Hardware problem with 3262
							printer is indicated. You
							may either run the 3262
							printer exerciser 'ripple
							print' or the 3262
							printer MDI diagnostics to
							further define the
							problem.
	A-A2T2	18	5001A			PT-200	One of these TUs failed
	A-A2S2	18				PS-200	during IPL wrap: TE263,

	A-A2R2	3				PR-200	TE266.
	TCC/Bd	1					
CE03	A-A2R2	88	5001A			PR-205	One of these TUs failed
	A-A2S2	10				PS-200	during IPL wrap: TE230,
	A-A2T2	1				PT-200	TE231, TE232.
	TCC/Bd	1					
CE04	A-A2R2	95	5001A			PR-205	One of these TUs failed
	A-A2S2	2				PS-200	during IPL wrap: TE220,
	A-A2T2	2				PT-200	TE221, TE222, TE223,
	TCC/Bd	1					TE224, TE225, TE226,
							TE227, TE228, TE229,
							TE22A, TE22B, TE238,
							TE239, TE23A, TE23B,
							TE23C, TE23D, TE23E,
							TE23F, TE240, TE241,
							TE242, TE243, TE244,
							TE245, TE246, TE247,
							TE248, TE249, TE24A,
							TE24B, TE24C, TE24D,
							TE24E, TE24F
CE05	A-A2S2	70	5001A			PS-200	One of these TUs failed
	A-A2R2	24				PR-205	during IPL wrap: TE206,
	A-A2T2	4				PT-200	TE208, TE20A.
	A-A1L2	1					
	TCC/Bd	1					
CE06	A-A2S2	90	5001A			PS-200	One of these TUs failed
	A-A2T2	8				PT-200	during IPL wrap: TE201,
	A-A2R2	1				PR-205	TE205, TE209.
	TCC/Bd	1					
CE07	A-A2S2	94	5001A			PS-200	One of these TUs failed
	A-A2T2	5				PT-200	during IPL wrap: TE203,
	TCC/Bd	1					TE203.
CE08	A-A2R2	59	5001A			PR-205	One of these TUs failed
	A-A2T2	20				PS-200	during IPL wrap: TE21E,
	A-A2S2	20				PT-200	TE22E.
	TCC/Bd	1					
CE09	A-A2S2	80	5001A			PS-200	One of these TUs failed

	A-A2R2	19				PR-205	during IPL wrap: TE207,
	TCC/Bd	1					TE267, TE236, TE237,
							TE273, TE275, TE27A.
CE10	A-A2S2	78	5001A			PS-200	One of these TUs failed
	A-A2T2	10				PT-200	during IPL wrap: TE267,
							TE26A, TE26B, TE26C,
							TE276, TE277, TE279,
							TE27B, TE27C.
	3262	8					Hardware problem with 3262
							printer is indicated. You
							may either run the 3262
	I/O cbl	2					printer exerciser 'ripple
	A-A2R2	1				PR-205	print' or the 3262
	TCC/Bd	1					printer MDI diagnostics to
							further define the
							problem.
CE11	A-A2S2	80	5001A			PS-200	One of these TUs failed
							during IPL wrap: TE264,
							TE26F, TE278.
	3262	15					Hardware problem with 3262
							printer is indicated. You
							may either run the 3262
	I/O cbl	3					printer exerciser 'ripple
	A-A2R2	1				PR-205	print' or the 3262
	TCC/Bd	1					printer MDI diagnostics to
							further define the
							problem.
CE12	A-A2S2	70	5001A			PS-200	TU TE210 failed during
	A-A2T2	20				PT-200	IPL wrap.
	A-A2R2	9				PR-205	
	TCC/Bd	1					
CE13	A-A2S2	80	5001A			PS-200	TU TE272 failed during
	A-A2R2	12				PR-205	IPL wrap.
	3262	5					Hardware problem with 3262
							printer is indicated. You
							may either run the 3262
							printer exerciser 'ripple
	I/O cbl	2					print' or the 3262
	TCC/Bd	1					printer MDI diagnostics to
							further define the

							problem.
CE14	A-A2S2	70	5001A			PS-200	One of these TUs failed
	A-A2T2	15				PT-200	during IPL wrap: TE261,
							TE26B, TE270.
	3262	10					Hardware problem with 3262
							printer is indicated. You
							may either run the 3262
	I/O cbl	3					printer exerciser 'ripple
	A-A2R2	1				PR-205	print' or the 3262
	TCC/Bd	1					printer MDI diagnostics to
							further define the
							problem.
CE15	A-A2T2	96	5001A			PT-200	One of these TUs failed
	A-A2R2	3				PR-205	during IPL wrap: TE286,
	TCC/Bd	1					TE287, TE288, TE289,
							TE28A, TE28B, TE2A1,
							TE2A2, TE2A3, TE2A4,
							TE2A6, TE2A7, TE2A8,
							TE2A9, TE2AA.
CE16	A-A2T2	80	5001A			PT-200	One of these TUs failed
	A-A2S2	10				PS-200	during IPL wrap: TE21F,
	A-A2R2	9				PR-205	TE28D.
	TCC/Bd	1					
CE17	A-A2T2	80	5001A			PT-200	One of these TUs failed
	A-A2S2	15				PS-200	during IPL wrap: TE280,
	A-A2R2	4				PR-205	TE281, TE282, TE284,
	TCC/Bd	1					TE285, TE28D, TE28F,
							TE2A0.
CE18	A-A2S2	77	5001A			PS-200	One of these TUs failed
	I/O cbl	20					during IPL wrap: TE2D0,
	A-A2R2	2				PR-205	TE2D1, TE2D2, TE2D4,
	TCC/Bd	1					TE2D6, TE2D7, TE2ED,
							TE2EE.
CE19	A-A2T2	42	5001A			PT-200	One of these TUs failed
	A-A2S2	35				PS-200	during IPL wrap: TE2D5,
	I/O cbl	20					TE2E4, TE2E5, TE2E6,
	A-A2R2	2				PR-205	TE2E7, TE2E8, TE2EA,
	TCC/Bd	1					TE2EC.

CE20	A-A2S2	70	5001A			PS-200	One of these TUs failed
	I/O cbl	20					during IPL wrap: TE2D3,
	A-A2T2	7				PT-200	TE2EB.
	A-A2R2	2				PR-205	
	TCC/Bd	1					
CE21	I/O cbl	90	5001A				TU TE2E9 failed during
	A-A2S2	7				PS-200	IPL wrap. Cable interlock
	A-A2R2	2				PR-205	is open.
	TCC/Bd	1					
CE22	A-A2S2	77	5001A			PS-200	One of these TUs failed
	I/O cbl	20					during IPL wrap: TE2D8,
	A-A2R2	2				PR-205	TE2D9, TE2DA, TE2DB,
	TCC/Bd	1					TE2DC, TE2DD
CE23	A-A2S2	77	5001A			PS-200	One of these TUs failed
	I/O cbl	20					during IPL wrap: TE2DE,
	A-A2R2	2				PR-205	TE2DF, TE2E0, TE2E1,
	TCC/Bd	1					TE2E2, TE2E3
CE24	A-A2S2	70	5001A			PS-200	One of these TUs failed
	A-A2R2	24				PR-205	during IPL wrap: TE206,
	A-A2T2	4				PT-200	TE208, TE20A.
	A-A1N2	1					Unexpected IPL wrap error
	TCC/Bd	1					or CSU wrap error.
********** CFxx Wrap Errors **********							
**** Note: The following CFxx SRCs are unexpected IPL or CSU ****							
**** wrap errors. The last two characters of the SRC ****							
**** is the failing device ID. ****							
CF01							Initialization wrap error.
CF40			4100A				CF40 - 1255 MCR
CF61	A-A2K2/	10	0190A				CF61 - tape controller
	A-A2J2		0190A				CF61 - wrkstn controller
	A-A1H2	10	0190A				CF61 - MLCA controller
	A-A3S2/	10					
	A-A3P2						
CF65	A-A1E2/	90	9500A				21ED/10SR/Dskt; DSA-1
	A-A2E2/		9700A				8809 Tape; DSA-2

	A-A2K2		0179A				6157 Tape; DSA-3
			9900A				
CF71	A-A1L2	98					LAN Adapter Card failed
	A-A1B2	01					or LAN Controller Cable
							failed .
CF81			3003A				CF81 - communications (3003,A)
CF84			3003A				CF84 - communications SLCA (3003,A)
CF82			3003A				CF82 - communications (3003,A)
CFA2			9500A				CFA2 - 21ED disk (9500,A)
CFA3			9700A				CFA3 - 10SR disk (9700,A)
CFb1	A-A2K2	10	9900A				CFb1 - 8809 tape (9900,A)
	A-A2J2	10					
CFb2							6157 CSU IPL wraps failed.
							*IPL DIAG21/41 MODE E0000,
							use SRC for FRU isolation.
CFC2			7001AA				CFC2 - work station (7001,A)
CFd2	A-A2J2	10	0179A				CFD2 - diskette (0179,A)
CFE2			5001A				CFE2 - printer (5001,A)
							Unexpected wrap error.
							The last 2 characters of
							the SRC is the failing
							device ID.
********** MSP Diagnostics Dxxx **********							
d074	MS	70	1179A				CSIPL 3rd load.
	A-A1Q2	25					Main storage cards are
	A-A1P2	3					512Kb, 256Kb and 128Kb.
							MS = main storage
							Autoconfigure Failed.

							Go to MAP 1179 Entry point A.
d079	MS	73	1179A				CSIPL 3rd load. Main storage cards are 512Kb, 256Kb and 128Kb. MS = main storage Go to MAP 1179 to isolate the failing card
	A-A1Q2	20					
	A-A1P2	5					
d083	MS	74	1183A				CSIPL 3rd load. Main storage cards are 128Kb, 256Kb and 512Kb. MS = main storage Go to MAP 1183 to isolate the failing card.
	A-A1Q2	24					
d084	MS	74	1184A				CSIPL 3rd load. Main storage cards are 512Kb, 256Kb and 128Kb. MS = main storage Go to MAP 1184 to isolate the failing card.
	A-A1Q2	24					
	A-A1 Bd	1					
d085	MS	74	1185A				CSIPL 3rd load. If MS is the problem, MS card MS card sizes are: 128Kb, 256Kb and 512Kb. MS = main storage Go to MAP 1185 to isolate the failing card.
	A-A1Q2	25					
d087	MS	74	1187A				CSIPL 3rd load. Main storage cards are 512Kb, 256Kb and 128Kb. MS = main storage Go to MAP 1187 to isolate the failing card.
	A-A1Q2	24					
d144	A-A1Q2	60	1144A				CSIPL 3rd load. A-A1U2 is a 512Kb storage card. Go to MAP 1144 to isolate the failing card.
	A-A1U2	30					
	A-A1P2	7					

d146	A-A1P2	60	1146A				CS IPL 3rd load.
	A-A1Q2	30					A-A1U2 is a 512Kb storage
	A-A1U2	7					card.
							Go to MAP 1146 to isolate
							the failing card.
d175	A-A1U2	60	1175A				CS IPL 3rd load.
	A-A1Q2	39					Main storage cards are
							512Kb storage cards.
							MS = main storage
							Go to MAP 1175 to isolate
							the failing card.
d179	MS	73	1179A				CS IPL 3rd load.
	A-A1Q2	20					Main storage cards are
	A-A1P2	5					512Kb storage cards.
							MS = main storage
							Go to MAP 1179 to isolate
							the failing card.
d183	MS	74	1183A				CS IPL 3rd load.
	A-A1Q2	24					Main storage cards are
							512Kb storage cards.
							MS = main storage
							Go to MAP 1183 to isolate
							the failing card.
d184	MS	74	1184A				CS IPL 3rd load. If MS is
	A-A1Q2	24					the problem , MS card
							sizes are 128Kb , 256Kb
							and 512Kb.
							MS = main storage
							Go to MAP 1184 to isolate
							the failing card.
d185	MS	74	1185A				CS IPL 3rd load. If MS is
	A-A1Q2	24					the problem , MS card
							sizes are 128Kb , 256Kb
							and 512Kb.
							MS = main storage
							Go to MAP 1185 to isolate
							the failing card.

d186	MS	74	1186A				CSIPL 3rd load.
	A-A1Q2	24					Main storage cards are
							512Kb storage cards.
							MS = main storage
							Go to MAP 1186 to isolate
							the failing card.
d187	MS	74	1187A				CSIPL 3rd load.
	A-A1Q2	24					Main storage cards are
							512Kb storage cards.
							MS = main storage
							Go to MAP 1187 to isolate
							the failing card.
d188	A-A1U2	74	1188A			CU-1XX	CSIPL 3rd load.
	A-A1Q2	24				CQ-1XX	A1U2 is a 256Kb storage
	A-A1 Bd	1					card.
							Go to MAP 1188 to isolate
							the failing card.
d189	A-A1Q2	55	1189A				CSIPL 3rd load.
	A-A1U2	43					A-A1U2 is a 512Kb storage
							card.
							Go to MAP 1189 to isolate
							the failing card.
d193	A-A1U2	75	1193A				CSIPL 3rd load.
	A-A1Q2	24					A-A1U2 is a 512Kb storage
							card.
							Go to MAP 1193 to isolate
							the failing card.
d197	A-A1U2	74	1197A				CSIPL 3rd load.
	A-A1Q2	25					A-A1U2 is a 512Kb storage
							card.
							Go to MAP 1197 to isolate
							the failing card.
d198	A-A1U2	59	1198A				CSIPL 3rd load.
	A-A1Q2	40					A-A1U2 is a 512Kb storage
							card.
							Go to MAP 1198 to isolate
							the failing card.

d199	A-A1U2	59	1199A				CS IPL 3rd load.
	A-A1Q2	40					A-A1U2 is a 512Kb storage
							card.
							Go to MAP 1199 to isolate
							the failing card.
d201	A-A1U2	99					CS IPL 3rd load.
							A-A1T2 is a 512Kb storage
							card.
d202	A-A1T2	99					CS IPL 3rd load.
							A-A1T2 is a 512Kb storage
							card.
d204	A-A1S2	99					CS IPL 3rd load.
							A-A1S2 is a 512Kb storage
							card.
d208	A-A1R2	99					CS IPL 3rd load.
							A-A1R2 is a 512Kb storage
							card.
d211	A-A1U2	55					CS IPL 3rd load.
	A-A1Q2	45					A-A1U2 is a 512Kb storage
							card.
d346	A-A1P2	50	1146A			CP-1XX	CS IPL 3rd load.
	A-A1Q2	30				CQ-1XX	A1U2 is a 256Kb storage
	A-A1U2	10				CU-1XX	card.
	A-A1N2	7				CN-1XX	A1N2 is the CSP.SS card.
	A-A1 Bd	1					
d444	A-A1Q2	60	1144A			CQ-1XX	CS IPL 3rd load.
	A-A1U2	30				CU-1XX	A1U2 is a 256Kb storage
	A-A1P2	7				CP-1XX	card.
	A-A1 Bd	1					Go to MAP 1144 to isolate
							the failing card.
d446	A-A1P2	50	1146A			CP-1XX	CS IPL 3rd load.
	A-A1Q2	30				CQ-1XX	A1U2 is a 256Kb storage
	A-A1U2	10				CU-1XX	card.
	A-A1N2	7					Go to MAP 1146 to isolate
	A-A1 Bd	1					the failing card.

d475	A-A1U2	60	1175A			CU-1XX	CS	IPL 3rd load.
	A-A1Q2	39				CQ-1XX		A1U2 is a 256Kb storage
	A-A1 Bd	1						card.
								Go to MAP 1175 to isolate
								the failing card.
d476	A-A1U2	60	1176A			CU-1XX	CS	IPL 3rd load.
	A-A1Q2	38				CQ-1XX		A1U2 is a 256Kb storage
	A-A1 Bd	1						card.
								Go to MAP 1176 to isolate
								the failing card.
d477	MS	73	1177A				CS	IPL 3rd load.
	A-A1Q2	20				CQ-1XX		Main storage cards are
	A-A1P2	5				CP-1XX		256Kb cards.
	A-A1 Bd	1						MS = main storage
								Go to MAP 1177 to isolate
								the failing card.
d479	MS	73	1179A				CS	IPL 3rd load.
	A-A1Q2	20						Main storage cards are
	A-A1P2	5						256Kb cards.
								MS = main storage
								Go to MAP 1179 to isolate
								the failing card.
d480	A-A1U2	73	1180A			CU-1XX	CS	IPL 3rd load.
	A-A1Q2	20				CQ-1XX		A1U2 is a 256Kb storage
	A-A1P2	5				CP-1XX		card.
	A-A1 Bd	1						Go to MAP 1180 to isolate
								the failing card.
d483	MS	74	1183A				CS	IPL 3rd load.
	A-A1Q2	24				CQ-1XX		A1U2 is a 256Kb storage
	A-A1 Bd	1						card.
								MS = main storage.
								Go to MAP 1183 to isolate
								the failing card.
d484	MS	74	1184A				CS	IPL 3rd load.
	A-A1Q2	24				CQ-1XX		MS is a 256Kb storage
	A-A1 Bd	1						card.
								MS = main storage.
								Go to MAP 1184 to isolate

							the failing card.
d485	MS	74	1185A				CSIPL 3rd load.
	A-A1Q2	25				CQ-1XX	A1U2 is a 256Kb storage
							card.
							MS = main storage.
							Go to MAP 1185 to isolate
							the failing card.
d486	A-A1U2	74	1186A			CU-1XX	CSIPL 3rd load.
	A-A1Q2	24				CQ-1XX	A1U2 is a 256Kb storage
	A-A1 Bd	1					card.
							Go to MAP 1186 to isolate
							the failing card.
d487	MS	74	1187A				CSIPL 3rd load.
	A-A1Q2	25					All main storage cards are
							256Kb.
							MS = main storage.
							Go to MAP 1187 to isolate
							the failing card.
d488	A-A1U2	74	1188A			CU-1XX	CSIPL 3rd load.
	A-A1Q2	24				CQ-1XX	A1U2 is a 256Kb storage
	A-A1 Bd	1					card.
							Go to MAP 1188 to isolate
							the failing card.
d489	A-A1Q2	55	1189A			CQ-1XX	CSIPL 3rd load.
	A-A1U2	43				CU-1XX	A1U2 is a 256Kb storage
	A-A1 Bd	1					card.
							Go to MAP 1189 to isolate
							the failing card.
d492	A-A1Q2	60	1192A			CQ-1XX	CSIPL 3rd load.
	A-A1U2	20				CU-1XX	A1U2 is a 256Kb storage
	A-A1P2	19				CP-1XX	card.
	A-A1 Bd	1					Go to MAP 1192 to isolate
							the failing card.
d493	A-A1U2	75	1193A			CU-1XX	CSIPL 3rd load.
	A-A1Q2	24				CQ-1XX	A1U2 is a 256Kb storage
							card.
							Go to MAP 1193 to isolate

							the failing card.
d494	MS	74	1194A				CSIPL 3rd load.
	A-A1Q2	24				CQ-1XX	All main storage cards are
	A-A1 Bd	1					256Kb.
							MS = main storage.
							Go to MAP 1194 to isolate
							the failing card.
d497	A-A1U2	74	1197A			CU-1XX	CSIPL 3rd load.
	A-A1Q2	25				CQ-1XX	A1U2 is a 256Kb storage
	A-A1 Bd	1					card.
							Go to MAP 1197 to isolate
							the failing card.
d498	A-A1U2	60	1198A			CU-1XX	CSIPL 3rd load.
	A-A1Q2	38				CQ-1XX	A1U2 is a 256Kb storage
	A-A1 Bd	1					card.
							Go to MAP 1198 to isolate
							the failing card.
d499	A-A1U2	59	1199A			CU-1XX	CSIPL 3rd load.
	A-A1Q2	40				CQ-1XX	A1U2 is a 256Kb storage
	A-A1 Bd	1					card.
							Go to MAP 1199 to isolate
							the failing card.
d501	A-A1U2	99				CU-1XX	CSIPL 3rd load. A1U2 is a
							256Kb storage card.
d502	A-A1T2	99				CT-1XX	CSIPL 3rd load. A1T2 is a
							256Kb storage card.
d504	A-A1S2	99				CS-1XX	CSIPL 3rd load. A1S2 is a
							256Kb storage card.
d508	A-A1R2	99				CR-1XX	CSIPL 3rd load. A1R2 is a
							256Kb storage card.
d511	A-A1U2	55				CU-1XX	CSIPL 3rd load. A1U2 is a
	A-A1Q2	45				CQ-1XX	256Kb storage card.
d678	MS	73	1178A				CSIPL 3rd load.
	A-A1Q2	20				CQ-1XX	Main storage cards are

	A-A1P2	5				CP-1XX	256Kb and 128Kb cards.
	A-A1 Bd	1					MS = main storage
							Go to MAP 1178 to isolate
							the failing card.
d679	MS	73	1178A				CSIPL 3rd load.
	A-A1Q2	20					Main storage cards are
	A-A1P2	5					256Kb and 128Kb cards.
							MS = main storage
							Go to MAP 1178 to isolate
							the failing card.
d683	MS	74	1183A				CSIPL 3rd load.
	A-A1Q2	24					Main storage cards are
							256Kb and 128Kb cards.
							MS = main storage
							Go to MAP 1183 to isolate
							the failing card.
d684	MS		1184A				
							Go to MAP 1184 to isolate
							the failing card.
d685	MS	74	1185A				CSIPL 3rd load. If MS is
	A-A1Q2	24					the problem , MS card
							sizes are 128Kb , 256Kb
							and 512Kb.
							MS = main storage
							Go to MAP 1185 to isolate
							the failing card.
d687	MS	74	1187A				CSIPL 3rd load.
	A-A1Q2	24					Main storage cards are
							256Kb and 128Kb cards.
							MS = main storage
							Go to MAP 1187 to isolate
							the failing card.
d695	MS	74	1195A				CSIPL 3rd load.
	A-A1Q2	24				CQ-1XX	Main storage cards are
	A-A1 Bd	1					256Kb and 128Kb cards.
							MS = main storage.
							Go to MAP 1195 to isolate
							the failing card.

d700	A-A1P2	90					CSP IPL 3rd Load.
	A-A1N2	8					
d701	A-A1P2	58					CSP IPL 3rd Load.
	A-A1N2	40					
d702	MS	80					CSP IPL 3rd Load.
	A-A1P2	18					Go to Map 1170
d703							CSP IPL 3RD Load.
							Configure Error
							Go to Map 0105
d704							CSP IPL 3rd Load.
							Unexpected Failure.
d779	MS	73	1179A				CS IPL 3rd load.
	A-A1Q2	20					Main storage cards are
	A-A1P2	5					512Kb and 128Kb.
							MS = main storage
							Go to MAP 1179 to isolate
							the failing card.
d783	MS	74	1183A				CS IPL 3rd load.
	A-A1Q2	25					Main storage cards are
							512Kb and 128Kb.
							MS = main storage
							Go to MAP 1183 to isolate
							the failing card.
d784	MS	74	1184A				CS IPL 3rd load.
	A-A1Q2	24					Main storage cards are
	A-A1 Bd	1					512Kb and 128Kb.
							MS = main storage
							Go to MAP 1184 to isolate
							the failing card.
d785	MS	74	1185A				CS IPL 3rd load. If MS is
	A-A1Q2	24					the problem , MS card
							sizes are 128Kb , 256Kb
							and 512Kb.
							MS = main storage
							Go to MAP 1185 to isolate

							the failing card.
d787	MS A-A1Q2	74 25	1187A				CSIPL 3rd load. Main storage cards are 512Kb and 128Kb. MS = main storage Go to MAP 1187 to isolate the failing card.
d879	MS A-A1Q2 A-A1P2	73 20 5	1179A				CSIPL 3rd load. Main storage cards are 512Kb and 256Kb. MS = main storage Go to MAP 1179 to isolate the failing card.
d883	MS A-A1Q2	74 24	1183A				CSIPL 3rd load. Main storage cards are 256Kb and 512Kb MS = main storage Go to MAP 1183 to isolate the failing card.
d884	MS A-A1Q2	74 24	1184A				CSIPL 3rd load. Main storage cards are 512Kb and 256Kb. MS = main storage Go to MAP 1184 to isolate the failing card.
d885	MS A-A1Q2	74 24	1185A				CSIPL 3rd load. If MS is the problem , MS card sizes are 128Kb , 256Kb and 512Kb. MS = main storage Go to MAP 1185 to isolate the failing card.
d887	MS A-A1Q2	74 24	1187A				CSIPL 3rd load. Main storage cards are 512Kb and 256Kb. MS = main storage Go to MAP 1187 to isolate the failing card.

d940	A-A1N2	98				CN-1XX	CS IPL 3rd load. A-A1N2 is a CSP/SS card.
d950	A-A1N2 A-A1Q2	33 33				CN-1XX CQ-1XX	CS IPL 3rd load. The A1N2 is a CSP/SS card.
d970	A-A1N2 A-A1P2 A-A1Q2	33 33 33				CN-1XX CP-1XX CQ-100	CS IPL 3rd load. The A1N2 is a CSP/SS card.
dAXX							CS IPL 3rd load. dAXX will only appear in stop mode (EE00) or stop on error mode (Fb03). XX indicates the TU just executed. XX may be 00 - 9F.
db00	A-A1Q2 A-A1P2 A-A1N2 A-A1 Bd	50 30 18 1	1100A			CQ-1XX CP-1XX CN-1XX	CS IPL 3rd load. Go to MAP 1100 to isolate the failing card. A1N2 is a CSP/SS card.
db02	A-A1N2 A-A1Q2 A-A1P2 A-A1M2 A-A1 Bd	50 30 15 1 1	1102A	62		CN-1XX CQ-1XX CP-1XX CP-1XX	CS IPL 3rd load. Go to MAP 1102 to isolate the failing card. A1N2 is a CSP/SS card.
db03	A-A1Q2 A-A1N2 A-A1P2 A-A1 Bd	77 11 10 1	1103A			CQ-1XX CN-1XX CP-1XX	CS IPL 3rd load. Go to MAP 1103 to isolate the failing card. A1N2 is a CSP/SS card.
db06	A-A1Q2 A-A1P2 A-A1N2 A-A1 Bd	40 30 27 1	1106A			CQ-1XX CP-1XX CN-1XX	CS IPL 3rd load. Go to MAP 1106 to isolate the failing card. A1N2 is a CSP/SS card.
db07	A-A1Q2 A-A1N2 A-A1P2 A-A1 Bd	77 11 10 1	1107A			CQ-1XX CN-1XX CP-1XX	CS IPL 3rd load. Go to MAP 1107 to isolate the failing card. A1N2 is a CSP/SS card.

db08	A-A1Q2	50	1108A			CQ-1XX	CSIPL 3rd load.
	A-A1P2	30				CP-1XX	Go to MAP 1108 to isolate
	A-A1N2	17				CN-1XX	the failing card.
	A-A1 Bd	1					A1N2 is a CSP/SS card.
db09	A-A1Q2	50	1109A			CQ-1XX	CSIPL 3rd load.
	A-A1P2	40				CP-1XX	Go to MAP 1109 to isolate
	A-A1N2	8				CN-1XX	the failing card.
	A-A1 Bd	1					A1N2 is a CSP/SS card.
db10	A-A1Q2	50	1110A			CQ-1XX	CSIPL 3rd load.
	A-A1P2	35				CP-1XX	Go to MAP 1110 to isolate
	A-A1N2	12				CN-1XX	the failing card.
	A-A1 Bd	1					A1N2 is a CSP/SS card.
db12	A-A1P2	50	1112A			CP-1XX	CSIPL 3rd load.
	A-A1Q2	48				CQ-1XX	Go to MAP 1112 to isolate
	A-A1N2	2				CN-1XX	the failing card.
							A1N2 is a CSP/SS card.
db14	A-A1P2	60	1114A			CP-1XX	CSIPL 3rd load.
	A-A1Q2	30				CQ-1XX	Go to MAP 1114 to isolate
	A-A1N2	7				CN-1XX	the failing card.
	A-A1 Bd	1					A1N2 is a CSP/SS card.
db22	A-A1P2	50	1122A			CP-1XX	CSIPL 3rd load.
	A-A1Q2	40				CQ-1XX	Go to MAP 1122 to isolate
	A-A1N2	7				CN-1XX	the failing card.
	A-A1 Bd	1					A1N2 is a CSP/SS card.
db24	A-A1Q2	60	1124A			CQ-1XX	CSIPL 3rd load.
	A-A1P2	30				CP-1XX	Go to MAP 1124 to isolate
	A-A1N2	7				CN-1XX	the failing card.
	A-A1 Bd	1					A1N2 is a CSP/SS card.
db28	A-A1Q2	70	1128A			CQ-1XX	CSIPL 3rd load.
	A-A1P2	24				CP-1XX	Go to MAP 1128 to isolate
	A-A1N2	3				CN-1XX	the failing card.
	A-A1 Bd	1					A1N2 is a CSP/SS card.
db29	A-A1Q2	44	1129A			CQ-1XX	CSIPL 3rd load.
	A-A1P2	34				CP-1XX	Go to MAP 1129 to isolate
	A-A1N2	20				CN-1XX	the failing card.

	A-A1 Bd	1					A1N2 is a CSP/SS card.
db30	A-A1N2	70	1130A			CN-1XX	CSIPL 3rd load.
	A-A1P2	28				CP-1XX	Go to MAP 1130 to isolate
	A-A1 Bd	1					the failing card.
							A1N2 is a CSP/SS card.
db33	A-A1P2	40	1133A	60		CP-1XX	CSIPL 3rd load.
	A-A1Q2	40				CQ-1XX	Go to MAP 1133 to isolate
	A-A1N2	17				CM-1XX	the failing card.
	A-A1 Bd	1					The system co tains a
							CSP/SS.
db34	A-A1Q2	50	1134A			CQ-1XX	CSIPL 3rd load.
	A-A1P2	30				CP-1XX	Go to MAP 1134 to isolate
	A-A1N2	17				CN-1XX	the failing card.
	A-A1 Bd	1					A1N2 is a CSP/SS card.
db35	A-A1N2	69	1135A			CN-1XX	CSIPL 3rd load.
	A-A1P2	30				CP-1XX	Go to MAP 1135 to isolate
							the failing card.
							A1N2 is a CSP/SS card.
db37	A-A1Q2	45	1137A			CQ-1XX	CSIPL 3rd load.
	A-A1P2	35				CP-1XX	Go to MAP 1137 to isolate
	A-A1N2	18				CN-1XX	the failing card.
	A-A1 Bd	1					A1N2 is a CSP/SS card.
db46	A-A1P2	50	1146A			CP-1XX	CSIPL 3rd load.
	A-A1Q2	30				CQ-1XX	Go to MAP 1146 to isolate
	A-A1U2	10					the failing card.
	A-A1N2	7				CN-1XX	A1N2 is a CSP/SS card.
	A-A1 Bd	1					
db48	A-A1P2	60	1148A			CP-1XX	CSIPL 3rd load.
	A-A1Q2	36				CQ-1XX	Go to MAP 1148 to isolate
	A-A1N2	1				CN-1XX	the failing card.
	A-A1 Bd	1					A1N2 is a CSP/SS card.
db82	A-A1Q2	60	1182A			CQ-1XX	CSIPL 3rd load.
	A-A1P2	27				CP-1XX	Go to MAP 1182 to isolate
	A-A1N2	10				CN-1XX	the failing card.
	A-A1 Bd	1					A1N2 is a CSP/SS card.

dC00	A-A1Q2	50	1100A			CQ-1XX	CSIPL 3rd load.
	A-A1P2	30				CP-1XX	Go to MAP 1100 to isolate
	A-A1M2	15				CM-1XX	the failing card.
	A-A1L2	3				CL-1XX	
	A-A1 Bd	1					
dC06	A-A1Q2	40	1106A	80		CQ-1XX	CSIPL 3rd load.
	A-A1P2	30				CP-1XX	Go to MAP 1106 to isolate
	A-A1M2	20				CM-1XX	the failing card.
	A-A1L2	7				CL-1XX	
	A-A1 Bd	1					
dC07	A-A1Q2	77	1107A	80		CQ-1XX	CSIPL 3rd load.
	A-A1P2	10				CP-1XX	Go to MAP 1107 to isolate
	A-A1M2	8				CM-1XX	the failing card.
	A-A1L2	3				CN-1XX	
	A-A1 Bd	1					
dC08	A-A1Q2	50	1108A	80		CQ-1XX	CSIPL 3rd load.
	A-A1P2	30				CP-1XX	Go to MAP 1108 to isolate
	A-A1M2	14				CM-1XX	the failing card.
	A-A1L2	3				CL-1XX	
	A-A1 Bd	1					
dC09	A-A1Q2	50	1109A	80		CQ-1XX	CSIPL 3rd load.
	A-A1P2	40				CP-1XX	Go to MAP 1109 to isolate
	A-A1M2	8				CM-1XX	the failing card.
	A-A1 Bd	1					
dC10	A-A1P2	50	1110A	82		CP-1XX	CSIPL 3rd load.
	A-A1Q2	35				CQ-1XX	Go to MAP 1110 to isolate
	A-A1M2	12				CM-1XX	the failing card.
	A-A1L2	1				CL-1XX	
	A-A1 Bd	1					
dC12	A-A1P2	50	1112A	71		CP-1XX	CSIPL 3rd load.
	A-A1Q2	48				CQ-1XX	
	A-A1M2	2				CM-1XX	
dC14	A-A1P2	60	1114A	71		CP-1XX	CSIPL 3rd load.
	A-A1Q2	30				CQ-1XX	Go to MAP 1114 to isolate
	A-A1M2	7				CM-1XX	the failing card.
	A-A1 Bd	1					

dC16	A-A1P2	60	1116A	71			CP-1XX	CSIPL 3rd load.
	A-A1Q2	38					CQ-1XX	
dC18	A-A1P2	50	1118A	71			CP-1XX	CSIPL 3rd load.
	A-A1Q2	48					CQ-1XX	
dC20	A-A1P2	55	1120A	71			CP-1XX	CSIPL 3rd load.
	A-A1Q2	43					CQ-1XX	
dC22	A-A1P2	50	1122A	71			CP-1XX	CSIPL 3rd load.
	A-A1Q2	40					CQ-1XX	Go to MAP 1122 to isolate
	A-A1M2	7					CM-1XX	the failing card.
	A-A1 Bd	1						
dC24	A-A1Q2	60	1124A	72			CQ-1XX	CSIPL 3rd load.
	A-A1P2	30					CP-1XX	Go to MAP 1124 to isolate
	A-A1M2	7					CM-1XX	the failing card.
	A-A1 Bd	1						
dC26	A-A1P2	60	1126A	72			CP-1XX	CSIPL 3rd load.
	A-A1Q2	38					CQ-1XX	
dC28	A-A1Q2	70	1128A	73			CQ-1XX	CSIPL 3rd load.
	A-A1P2	24					CP-1XX	Go to MAP 1128 to isolate
	A-A1M2	3					CM-1XX	the failing card.
	A-A1 Bd	1						
dC29	A-A1Q2	44	1129A	88			CQ-1XX	CSIPL 3rd load.
	A-A1P2	34					CP-1XX	Go to MAP 1129 to isolate
	A-A1M2	20					CM-1XX	the failing card.
	A-A1 Bd	1						
dC30	A-A1L2	40	1130A	64			CL-1XX	CSIPL 3rd load.
	A-A1M2	30					CM-1XX	Go to MAP 1130 to isolate
	A-A1P2	28					CP-1XX	the failing card.
	A-A1 Bd	1						
dC31	A-A1Q2	70	1131A	70			CQ-1XX	CSIPL 3rd load.
	A-A1P2	28					CP-1XX	
dC32	A-A1Q2	70	1132A	75			CQ-1XX	CSIPL 3rd load.
	A-A1P2	28					CP-1XX	
dC33	A-A1P2	40	1133A	60			CP-1XX	CSIPL 3rd load.

	A-A1Q2	40				CQ-1XX	Go to MAP 1133 to isolate
	A-A1B4	17				CB-1XX	the failing card.
	A-A1 Bd	1					
dC34	A-A1Q2	50	1134A	66		CQ-1XX	CS IPL 3rd load.
	A-A1P2	30				CP-1XX	Go to MAP 1134 to isolate
	A-A1M2	17				CM-1XX	the failing card.
	A-A1 Bd	1					
dC35	A-A1L2	40	1135A	64		CL-1XX	CS IPL 3rd load.
	A-A1P2	30				CP-1XX	Go to MAP 1135 to isolate
	A-A1M2	29				CM-1XX	the failing card.
dC36	A-A1Q2	70	1136A	77		CQ-1XX	CS IPL 3rd load.
	A-A1P2	28				CP-1XX	
dC37	A-A1Q2	45	1137A	69		CQ-1XX	CS IPL 3rd load.
	A-A1P2	35				CP-1XX	Go to MAP 1137 to isolate
	A-A1M2	18				CM-1XX	the failing card.
	A-A1 Bd	1				AB-1XX	
dC40	A-A1Q2	60	1140A	20		CQ-1XX	CS IPL 3rd load.
	A-A1P2	38				CP-1XX	
dC42	A-A1Q2	60	1142A	20		CQ-1XX	CS IPL 3rd load.
	A-A1P2	38				CP-1XX	
dC44	A-A1Q2	60	1144A	20		CQ-1XX	CS IPL 3rd load.
	A-A1U2	30				CU-110	If MS is the problem, the
	A-A1P2	7				CP-1XX	failure is a 128Kb card.
	A-A1 Bd	1					
dC46	A-A1P2	50	1146A	20		CP-1XX	CS IPL 3rd load.
	A-A1Q2	30				CQ-1XX	If MS is the problem, the
	A-A1U2	10				CU-110	failure is a 128Kb card.
	A-A1M2	7				CM-1XX	
	A-A1 Bd	1					
dC48	A-A1P2	60	1148A	25		CP-1XX	CS IPL 3rd load.
	A-A1Q2	36				CQ-1XX	
	A-A1L2	1				CL-1XX	
	A-A1 Bd	1					
dC50	A-A1P2	70	1150A	21		CP-1XX	CS IPL 3rd load.

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    |A-A1Q2 |28|      |      |      |CQ-1XX|
----+-------+--+------+------+------+------+-------------------------
dC52|A-A1P2 |70|1152A|  23  |      |CP-1XX|CS|PL 3rd load.
    |A-A1Q2 |28|      |      |      |CQ-1XX|
----+-------+--+------+------+------+------+-------------------------
dC54|A-A1P2 |60|1154A|  24  |      |CP-1XX|CS|PL 3rd load.
    |A-A1Q2 |38|      |      |      |CQ-1XX|
----+-------+--+------+------+------+------+-------------------------
dC56|A-A1P2 |60|1156A|  26  |      |CP-1XX|CS|PL 3rd load.
    |A-A1Q2 |38|      |      |      |CQ-1XX|
----+-------+--+------+------+------+------+-------------------------
dC58|A-A1Q2 |60|1158A|  27  |      |CQ-1XX|CS|PL 3rd load.
    |A-A1P2 |38|      |      |      |CP-1XX|
----+-------+--+------+------+------+------+-------------------------
dC60|A-A1P2 |50|1160A|  31  |      |CP-1XX|CS|PL 3rd load.
    |A-A1Q2 |48|      |      |      |CQ-1XX|
----+-------+--+------+------+------+------+-------------------------
dC62|A-A1P2 |60|1162A|  32  |      |CP-1XX|CS|PL 3rd load.
    |A-A1Q2 |38|      |      |      |CQ-1XX|
----+-------+--+------+------+------+------+-------------------------
dC63|A-A1P2 |60|1163A|  41  |      |CP-1XX|CS|PL 3rd load.
    |A-A1Q2 |38|      |      |      |CQ-1XX|
----+-------+--+------+------+------+------+-------------------------
dC64|A-A1Q2 |60|1164A|  51  |      |CQ-1XX|CS|PL 3rd load. A1U2 is
    |A-A1P2 |28|      |      |      |CP-1XX|128Kb storage card.
    |A-A1U2 |10|      |      |      |CU-110|
----+-------+--+------+------+------+------+-------------------------
dC65|A-A1P2 |60|1165A|  42  |      |CP-1XX|CS|PL 3rd load.
    |A-A1Q2 |38|      |      |      |CQ-1XX|
----+-------+--+------+------+------+------+-------------------------
dC66|A-A1P2 |60|1166A|  44  |      |CP-1XX|CS|PL 3rd load.
    |A-A1Q2 |38|      |      |      |CQ-1XX|
----+-------+--+------+------+------+------+-------------------------
dC67|A-A1Q2 |60|1167A|  52  |      |CQ-1XX|CS|PL 3rd load.
    |A-A1P2 |38|      |      |      |CP-1XX|
----+-------+--+------+------+------+------+-------------------------
dC68|A-A1Q2 |60|1168A|  46  |      |CQ-1XX|CS|PL 3rd load.
    |A-A1P2 |30|      |      |      |CP-1XX|
    |A-A1N2 | 5|      |      |      |CP-1XX|
    |A-A1M2 | 3|      |      |      |CP-1XX|
----+-------+--+------+------+------+------+-------------------------
dC75|MS     |73|1175A|      |      |      |A1U2 is 128Kb storage
    |A-A1Q2 |20|      |      |      |CQ-1XX|card.
    |A-A1P2 | 5|      |      |      |CP-1XX|CS|PL 3rd load.
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	A-A1 Bd	1					MS = main storage.
dC79	MS	73	1179A				A1U2 is 128Kb storage
	A-A1Q2	20				CQ-1XX	card.
	A-A1P2	5				CP-1XX	CSIPL 3rd load.
	A-A1 Bd	1					MS = main storage.
dC81	A-A1U2	73	1181A			CU-110	A1U2 is 128Kb storage
	A-A1Q2	20				CQ-1XX	card.
	A-A1P2	5				CP-1XX	CSIPL 3rd load.
	A-A1 Bd	1					
dC82	A-A1Q2	60	1182A			CQ-1XX	CSIPL 3rd load.
	A-A1P2	27				CP-1XX	Go to MAP 1182 to isolate
	A-A1L2	5				CL-1XX	the failing card.
	A-A1M2	5				CM-1XX	
	A-A1 Bd	1					
dC83	MS	74	1183A				CSIPL 3rd load. If MS is
	A-A1Q2	24				CQ-1XX	the problem, the failing
	A-A1T2	1					card is a 128Kb storage
	A-A1 Bd	1					card. MS = main storage.
dC84	MS	74	1184A	61			CSIPL 3rd load. If MS is
	A-A1Q2	24				CQ-1XX	the problem, the failing
	A-A1 Bd	1					card is a 128Kb storage
							card. MS = main storage.
dC85	MS	74	1185A	61			CSIPL 3rd load. If MS is
	A-A1Q2	25				CQ-1XX	the problem, the failing
							card is a 128Kb storage
							card. MS = main storage.
dC86	A-A1U2	74	1186A			CU-1XX	A1U2 is 128Kb storage
	A-A1Q2	24				CQ-1XX	card. CSIPL 3rd load.
	A-A1 Bd	1					
dC87	MS	74	1187A				A1U2 is 128Kb storage
	A-A1Q2	24				CQ-1XX	card. CSIPL 3rd load.
	A-A1 Bd	1					MS = main storage.
dC88	A-A1U2	74	1188A	94		CU-1XX	A1U2 is 128Kb storage
	A-A1Q2	24				CQ-1XX	card. CSIPL 3rd load.
	A-A1 Bd	1					

dC89	MS	73	1189A				A1U2 is 128Kb storage
	A-A1Q2	20				CQ-1XX	card.
	A-A1P2	5				CP-1XX	CSIPL 3rd load.
	A-A1 Bd	1					MS = main storage.
dC92	MS	73	1192A				A1U2 is 128Kb storage
	A-A1Q2	20				CQ-1XX	card.
	A-A1P2	5				CP-1XX	CSIPL 3rd load.
	A-A1 Bd	1					MS = main storage.
dC93	A-A1U2	75	1193A	89		CU-110	A1U2 is 128Kb storage
	A-A1Q2	24				CQ-1XX	card. CSIPL 3rd load.
dC96	MS	73	1196A				A1U2 is 128Kb storage
	A-A1Q2	20				CQ-1XX	card.
	A-A1P2	5				CP-1XX	CSIPL 3rd load.
	A-A1 Bd	1					MS = main storage.
dC97	MS	73	1197A				A1U2 is 128Kb storage
	A-A1Q2	20				CQ-1XX	card.
	A-A1P2	5				CP-1XX	CSIPL 3rd load.
	A-A1 Bd	1					MS = main storage.
dC98	MS	73	1198A				A1U2 is 128Kb storage
	A-A1Q2	20				CQ-1XX	card.
	A-A1P2	5				CP-1XX	CSIPL 3rd load.
	A-A1 Bd	1					MS = main storage.
dC99	MS	73	1199A				A1U2 is 128Kb storage
	A-A1Q2	20				CQ-1XX	card.
	A-A1P2	5				CP-1XX	CSIPL 3rd load.
	A-A1 Bd	1					MS = main storage.
dd01	A-A1U2	90				CU-1XX	128Kb ECC storage card.
	A-A1Q2	9					CSIPL 3rd load.
dd02	A-A1T2	99				CT-1XX	128Kb ECC storage card.
							CSIPL 3rd load.
dd04	A-A1S2	99				CT-1XX	128Kb ECC storage card.
							CSIPL 3rd load.
dd08	A-A1R2	99				CT-1XX	128Kb ECC storage card.

							CSIPL 3rd load.
dd10	A-A1Q2	98				CQ-1XX	CSIPL 3rd load. If replacing FRU does not correct the problem, check to see that the UDT is correct (see MIM 01-290).
dd11	A-A1U2	55				CU-1XX	CSIPL 3rd load. A-A1U2 is
	A-A1Q2	45				CQ-1XX	a 128Kb storage card.
dd20	A-A1P2	98				CP-1XX	CSIPL 3rd load.
dd30	A-A1P2	49				CP-1XX	CSIPL 3rd load.
	A-A1Q2	49				CQ-1XX	
dd31	A-A1Q2	60				CQ-1XX	A1U2 is 128Kb storage
	A-A1P2	25				CP-1XX	card. CSIPL 3rd load,
	A-A1U2	14				CU-1XX	TU 51 failed.
dd40	A-A1M2	98				CM-1XX	CSIPL 3rd load.
dd50	A-A1L2	55				CL-1XX	CSIPL 3rd load.
	A-A1Q2	45				CQ-1XX	
dd70	A-A1M2	33				CM-1XX	CSIPL 3rd load.
	A-A1P2	33				CP-1XX	
	A-A1Q2	33				CQ-1XX	
dEXX			0105A				CSIPL 3rd load. Test unit XX is not in the load module. Go to MAP 0105, Entry Point A.
dF91	A-A1C2/ A-A2C2 Drive A	90 10	9500A or 9700A				This code is generated when a severe file/adapter error occurs while loading DCP from Disk. 9700A for 10SR Disk; 9500A for 21ED Disk.
dF92	A-A1E2/ A-A2E2	80	9500A or				This code is generated when a DSA error occurs

	Drive A	10	9700A				when loading DCP from Disk 9700A for 10SR Disk; 9500A for 21ED Disk.
dF93	A-A1C2/ A-A2C2 Drive A	90 or 10	9500A or 9700A				This code is generated when a Interrupt Timeout occurs while loading DCP from disk. 9700A for 10SR Disk; 9500A for 21ED Disk.
dFFA			1100A				CSIPL 3rd load. MSP cannot be initialized with input option FF00.
dFFb			0105A				CSIPL 3rd load. Configure error class. Go to MAP 0105, Entry Point A.
dFFC	A-A1E2/ A-A2E2	1	0105A				CSIPL 3rd load. This code is generated when an error which can not be identified occurs while loading DCP from disk or diskette. Go to MAP 0105, Entry Point A.
dFFd			0105A				CSIPL 3rd load. MSP TU CS length too much. Go to MAP 0105, Entry Point A.
dFFE			0105A				CSIPL 3rd load. Not a valid MSP MDI rule found. Go to MAP 0105, Entry Point A.
dFFF			1105A				CSIPL 3rd load. Unknown error condition while running MSP IPL diagnostics.

**********	CSP Diagnostics Exxx						**********
E000	A-A1M2						Code problem on panel processor card.
E002	A-A1M2	50	0121A				Bad parity from CSP/SS.
	A-A1N2	50					
E004	A-A1M2	50	0121A				CSP/SS won't stop.
	A-A1N2	50					
E011	A-A1M2	70	0121A				PCB bit (s) or PCB strobe grounded.
	A-A1N2	30					
E012	A-A1M2	50	0121A				CSP/SS bus bit(s) or parity bit(s) grounded.
	A-A1N2	50					
E013	A-A1M2	50	0121A				CSP/SS bus bit(s), PCB bit(s) or parity bit(s) floating.
	A-A1N2	50					
E014	A-A1N2	80	0121A				Storage error at location '0000'.
	A-A1M2	20					
E015	A-A1N2	30	0121A				CSP is stopped or proc chk is active or not on main pgm level.
	A-A1M2	10					
	A-A1H2	10					
	A-A1E2/	10					
	A-A2E2						
	A-A3S2	10					
	A-A3P2	10					
	A-A1L2	10					
	A-A2J2	10					
E016	A-A1N2	80	0121A				CSP is active or proc chk is active or MAR is not '0000'.
	A-A1M2	20					
E017	A-A1N2	80	0121A				CSP is active or proc chk is active or not on main pgm level.
	A-A1M2	20					
	A-A1L2	1					
E018	A-A1M2	50	0121A				Check/Run is floating.

	A-A1N2	50					
E019	A-A1M2	40	0121A				IMPL cycle or IMPL disk/
	A-A1E2/	40					diskette is grounded.
	A-A2E2						
	X-Over	20					
E020	A-A1N2	80	0121A				Unable to load MCMAB.
	A-A1M2	20					
E080	A-A1N2	99	0121A				Unconditional branch
							failed.
							Module 1.
E081	A-A1N2	99	0121A				Conditional branch failed.
							Module 2.
E082	A-A1N2	99	0121A				Branch and link failed.
							Module 3.
E083	A-A1N2	99	0121A				TM instruction failed.
							Module 4.
E084	A-A1N2	99	0121A				HI/LO work register
							selection failed.
							Module 5.
E085	A-A1N2	99	0121A				CI instruction failed.
							Module 6.
E086	A-A1N2	99	0121A				SI instruction failed.
							Module 7.
E087	A-A1N2	90	0121A				One byte logical
	A-A1M2	9					instruction failed.
							Module 8.
E088	A-A1N2	99	0121A				One byte arithmetic
							instruction failed.
							Module 9.
E089	A-A1N2	99	0121A				Two byte logical
							instruction failed.
							Module 10.

E08A	A-A1N2	99	0121A				Two byte arithmetic instruction failed. Module 11.
E08C	A-A1N2	99	0121A				Hex branch failed. Module 12.
E08E	A-A1N2	99	0121A				Hex move failed. Module 13.
E08F	A-A1N2	99	0121A				Initialization of low 32Kb of memory failed. Module 14.
E090	A-A1N2	99	0121A				Memory test of high 32Kb of memory failed. Module 15.
E091	A-A1N2	99	0121A				Write of low 32Kb of memory to high 32Kb of memory failed. Module 15.
E092	A-A1N2 A-A1M2	90 10	0121A				Memory test of low 32Kb of memory failed. Module 15.
E093	A-A1N2	99	0121A				Write of high 32Kb of memory to low 32Kb of memory failed. Module 15.
E094	A-A1N2	99	0121A				Base plus displacement instruction failed or bar bit wrong. Module 16.
E095	A-A1N2	99	0121A				Read or write of word to or from storage failed. Module 17.
E096	A-A1N2	99	0121A				Read or write of byte to or from storage or bar bit

							wrong. Module 17.
E097	A-A1N2	99	0121A				Load from control store direct area failed. Module 17.
E098	A-A1N2	99	0121A				Load or sense of channel register failed. Module 18.
E099	A-A1N2 A-A1H2 A-A1E2/ A-A2E2 A-A2S2 A-A2T2 A-A1K2 A-A3S2 A-A3P2 A-A1L2 A-A2N2 A-A1M2 X-Over Term	10 10 10 10 10 10 10 10 10 1 1 6 6	0190A				Channel DBO/DBI bits wrong. Go to MAP 0190, Entry Point A to isolate FRU. Module 18.
E09A	A-A1N2 A-A1H2 A-A1E2/ A-A2E2 A-A3S2 A-A3P2 A-A1L2 A-A2J2 A-A1M2 X-Over	10 10 10 10 10 10 10 1 10	0190A				Channel tag bits or ARS bits wrong. Go to MAP 0190, Entry Point A to isolate FRU. Module 18.
E09C	A-A1N2	99	0121A				Software set mach chk interrupt failed. Module 18.
E09E	A-A1N2	99	0121A				Disable checks failed. Module 18.

E09F	A-A1N2	20	0121A				Force MC interrupt through
	A-A1M2	10					device addr which is not
	A-A1E2/	10					valid failed or enable
	A-A2E2						checks failed. Module 18.
	A-A2S2	10					Go to MAP 0190, Entry
	A-A2T2	10					Point A to isolate FRU.
	A-A1K2	10					The channel terminator
	A-A3S2	10					card may be in one of 4
	A-A3P2	10					different locations:
	A-A1L2	10					A-A1B3,
	A-A2N2	1					A-A2U3,
	A-A1H2	1					A-A3U3 or A-A3U4
	X-Over	6					Go to Map 0190, Entry
	Term	6					Point A to isolate FRU.
E0A0	A-A1N2	99	0121A				Force MC interrupt through
							LSR parity check failed.
							Module 18.
E0A1	A-A1N2	99	0121A				Force MC interrupt through
							storage parity check
							failed.
							Module 18.
E0A2	A-A1N2	10	0190A				Channel tag interrupt
	A-A1H2	10					requests wrong. Go to
	A-A1E2/	10					MAP 0190, Entry Point A to
	A-A2E2						isolate FRU.
	A-A2S2	10					Module 19.
	A-A2J2	10					
	A-A1K2	10					
	A-A3S2	10					
	A-A3P2	10					
	A-A1L2	10					
	A-A2N2	1					
	X-Over	6					
	A-A1M2	3					
E0A3	A-A1N2	99	0121A				Interrupt level 5
							structure test failed or
							enable interrupts failed.
							Module 19.
E0A4	A-A1N2	99	0121A				Disable interrupts failed.

							Module 20.
E0A5	A-A1N2	99	0121A				One of interrupt 1 through 4 failed. Module 20.
E0A6	A-A1N2	99	0121A				Load/sense of run control byte failed. Module 21.
E0A7	A-A1N2	99	0121A				Clearing of LSRs failed (move register instruction). Module 22.
E0A8	A-A1N2	20	0121A				Self test complete in CSP but failure to continue IPL.
	A-A1M2	20					
	A-A1H2/	5					
	A-A1E2/	5					
	A-A2E2						
	A-A2S2	5					
	A-A2J2	5					
	A-A1K2	5					
	A-A3S2	5					
	A-A3P2	5					
	A-A1L2	5					
	A-A2N2	1					
E100	A-A1M2	36	0121A			CM-1XX	A failure occurred
	A-A1N2	25				CN-1XX	before load routine 09.
	A-A1L2	25				CL-1XX	
	A-A1Q2	12				CQ-1XX	
	A-A1P2	2				CP-1XX	
E109	A-A1M2	90				CM-1XX	CSP diagnostics test
	A-A1N2	10				CN-100	LA1-DEC by 1.
E110	A-A1M2	90				CM-1XX	CSP diagnostics test
	A-A1N2	10				CN-100	LA1-INC by 1.
E111	A-A1M2	90				CM-1XX	CSP diagnostics test
	A-A1N2	10				CN-100	LA2-DEC by 1.
E112	A-A1M2	90				CM-1XX	CSP diagnostics add reg

	A-A1N2	10				CN-100	LA2 2 bytes + 1 byte.
E113	A-A1M2	90				CM-1XX	CSP diagnostics add reg
	A-A1N2	10				CN-100	LA2 2 bytes.
E114	A-A1M2	90				CM-1XX	CSP diagnostics subtract
	A-A1N2	10				CN-100	regs - LA2 2 bytes.
E115	A-A1M2	90				CM-1XX	CSP diagnostics storage
	A-A1N2	10				CN-1XX	direct - read L.
E116	A-A1M2	80				CM-1XX	CSP diagnostics storage
	A-A1N2	20				CN-1XX	direct - write ST.
E117	A-A1M2	90	0121A			CM-1XX	CSP diagnostics - load
	A-A1N2	10				CN-1XX	register from control
							store.
E118	A-A1M2	80				CM-1XX	CSP diagnostics reg to
	A-A1N2	20				CN-1XX	control store STC.
E119	A-A1L2	50	0121A			CL-1XX	CSP diagnostics. Sense and
	A-A1M2	50				CM-1XX	load channel register,
							sense CEB.
E120	A-A1M2	50	0121A			CM-1XX	CSP diagnostics. Reset,
	A-A1L2	50				CL-1XX	load, sense PCR.
E121	A-A1M2	90				CM-1XX	CSP diagnostics subtract
	A-A1N2	10				CN-1XX	lmm SI.
E122	A-A1M2	90				CM-1XX	CSP diagnostics inc reg
	A-A1N2	10				CN-1XX	by 1 LA2, 2 bytes.
E123	A-A1M2	90				CM-1XX	CSP diagnostics or regs
	A-A1N2	10				CN-1XX	LA1, 1 byte.
E124	A-A1M2	90				CM-1XX	CSP diagnostics and regs
	A-A1N2	10				CN-1XX	LA1, 1 byte.
E125	A-A1M2	90				CM-1XX	CSP diagnostics shift left
	A-A1N2	10				CN-1XX	logical LA1, 1 byte.
E190	A-A1L2	30	0105G			CL-1XX	A failure occurred while

	A-A1H2	30				CH-1XX	loading the CSIPL load 2
	A-A1M2	20				CM-1XX	tests.
	A-A1N2	9				CN-1XX	
	A-A2K2	1				CK-1XX	
	A-A2J2	1					Depending on the
	A-A1E2/	1					system configuration, the
	A-A2E2						terminator card can be in
	A-A1C2/	1					one of 4 locations --
	A-A2C2						A1B5, A2U3, A3U3 or A3U4
	A-A1D2/	1					
	A-A2D2						
	A-A2C4	1					
	A-A2D4	1					
	A-A2S2	1					
	A-A2T2	1					
	A-A2N2	1					
	A-A3S2	1					
	A-A3P2	1					
	A-A1K2/	1					
	A-A3F2/						
	A-A3G2/						
	A-A3H2/						
	A-A3J2/						
	A-A3K2/						
	A-A3L2/						
	A-A3M2/						
	A-A3N2/						
	Drive A	1					
	X-Over	1					
	Term	1					
E191	A-A1C2/	90	9500A				This code is generated
	A-A2C2		or				when a severe file/adapter
	Drive A	10	9700A				error occurs while
							attempting a CSIPL Load 2
							from disk.
							9700 for 10SR Disk;
							9500 for 21ED Disk.
E192	A-A1E2/	80	9500A				This code is generated
	A-A2E2		or				when a DSA error occurs
	Drive A	10	9700A				when attempting a CSIPL
							Load 2 from disk.
							9700 for 10SR Disk;

							9500 for 21ED Disk.
E193	A-A1C2/ A-A2C2	60	9500A or 9700A				This code is generated when an Interrupt Timeout occurs when attempting a CSIPL Load 2 from disk. 9700 for 10SR Disk; 9500 for 21ED Disk.
	Drive A	10					
	A-A1D2/ A-A2D2	10					
	A-A1E2/ A-A2E2	10					
E226	A-A1M2 A-A1N2	90 10				CM-1XX CN-1XX	CSP diagnostics X or LA1, 1 byte.
E227	A-A1M2 A-A1N2	90 10				CM-1XX CN-1XX	CSP diagnostics and comp- NCR LA1, 1 byte.
E228	A-A1M2 A-A1N2	90 10				CM-1XX CN-1XX	CSP diagnostics or comp- OCR LA1, 1 byte.
E229	A-A1M2 A-A1N2	90 10				CM-1XX CN-1XX	CSP diagnostics add reg - AR LA1, 1 byte.
E230	A-A1M2 A-A1N2	90 10				CM-1XX CN-1XX	CSP diagnostics sub reg - SR LA1, 1 byte.
E231	A-A1M2 A-A1N2	90 10				CM-1XX CN-1XX	CSP diagnostics add reg with carry - ACYR LA1, 1 byte.
E232	A-A1M2 A-A1N2	90 10				CM-1XX CN-1XX	CSP diagnostics sub reg with borrow - SCYR LA1, 1 byte.
E236	A-A1M2 A-A1N2	90 10				CM-1XX CN-1XX	CSP diagnostics XR LA2, 2 byte.
E237	A-A1M2 A-A1N2	90 10				CM-1XX CN-1XX	CSP diagnostics or LA2, 2 byte.
E238	A-A1M2 A-A1N2	90 10				CM-1XX CN-1XX	CSP diagnostics and reg LA2, 2 byte.
E239	A-A1M2	90				CM-1XX	CSP diagnostics NCR LA2,

	A-A1N2	10				CM-1XX	2 byte.
E240	A-A1M2	90				CM-1XX	CSP diagnostics OCR LA2,
	A-A1N2	10				CN-1XX	2 byte.
E241	A-A1M2	90				CM-1XX	CSP diagnostics SLLD LA2,
	A-A1N2	10				CN-1XX	2 byte.
E242	A-A1M2	90				CM-1XX	CSP diagnostics sub reg -
	A-A1N2	10				CN-1XX	SR LA2, 2 byte.
E243	A-A1M2	90				CM-1XX	CSP diagnostics SCYR LA2,
	A-A1N2	10				CN-1XX	2 byte.
E244	A-A1M2	90				CM-1XX	CSP diagnostics ACYR LA2,
	A-A1N2	10				CN-1XX	2 byte.
E245	A-A1M2	90				CM-1XX	CSP diagnostics hex move.
	A-A1N2	10				CN-1XX	
E246	A-A1N2	50	0121A			CN-1XX	CSP diagnostics hex branch
	A-A1M2	50				CM-1XX	using numeric & zone field
							or register.
E247	A-A1M2	90				CM-1XX	CSP diagnostics SRL/SRLD.
	A-A1N2	10				CN-1XX	
E248	A-A1M2	50	0121A			CM-1XX	Control storage. Direct
	A-A1N2	50				CN-1XX	storage test.
E249	A-A1M2	90				CM-1XX	CSP diagnostics move reg.
	A-A1N2	10				CN-1XX	
E250	A-A1M2	90				CM-1XX	CSP diagnostics ZAR LA1,
	A-A1N2	10				CN-1XX	1 byte.
E251	A-A1M2	90				CM-1XX	CSP diagnostics MPLF G0,
	A-A1N2	10				CN-1XX	Y0 ser reg.
E253	A-A1M2	90				CM-1XX	CSP diagnostics MPLF flag
	A-A1N2	10				CN-1XX	sense PCB, PEB.
E255	A-A1L2	40	0121A		10-305	CL-1XX	I/O clocks test. Before
	A-A1M2	40				CM-1XX	replacing any of these

	A-A1N2	20				CN-1XX	cards, ensure the UDT entry for control store type matches the storage type and the storage type jumper on the A1M2 card is correct.
E256	A-A1M2	90				CM-1XX	CSP diagnostics bank sel
	A-A1N2	10				CN-1XX	reg test.
E257	A-A1L2	45	0121A		10-305	CL-1XX	Not valid control storage
	A-A1M2	45				CM-1XX	address check. Before
	A-A1B4	10					replacing any of these cards, ensure the UDT entry for control store type matches the storage type and the storage type jumper on the A1M2 card is correct.
E259	A-A1M2	60	0121A			CM-1XX	Force SAR P check, X reg P
	A-A1L2	40				CL-1XX	check, CS SAR check.
E260	A-A1M2	50	0121A			CM-1XX	Force X reg P check, SDR
	A-A1N2	50				CN-1XX	P check, MOR reg P check
E261	A-A1N2	50	0121A			CL-1XX	Force not valid device
	A-A1M2	50				CM-1XX	address check and sys bus parity check.
E263	A-A1M2	90				CM-1XX	CSP diagnostics CS block
	A-A1N2	10				CN-1XX	test.
E264	A-A1M2	90			10-305	CM-1XX	CSP diagnostics CS test.
	A-A1N2	10				CN-1XX	
E281	A-A1N2	50	0121A			CN-1XX	CSP diagnostics LCH and
	A-A1M2	50				CM-1XX	STCH.
E282	A-A1M2	99				CM-1XX	CSP diagnostics CS test LA1/LA2.
E283	A-A1M2	99				CM-1XX	CSP diagnostics br extended - BX.

E284	A-A1M2	99				CM-1XX	CSP diagnostics BALX.
E285	A-A1M2	99				CM-1XX	CSP diagnostics Compare reg LA1/LA2.
E286	A-A1M2	99				CM-1XX	CSP diagnostics DEC reg LA1/LA2.
E287	A-A1M2	50				CM-1XX	CSP diagnostics fast I
	A-A1N2	50				CN-1XX	fetch ECC mem only.
E288	A-A1M2	90				CM-1XX	CSP diagnostics base
	A-A1N2	10				CN-1XX	disp.
E289	A-A1M2	50				CM-1XX	CSP diagnostics error
	A-A1N2	50				CN-1XX	correction ECC mem only.
E290	A-A1L2	30	0105G			CL-1XX	A failure occurred while
	A-A1H2	30				CH-1XX	loading the CSIPL load 3
	A-A1M2	20				CL-1XX	tests.
	A-A1N2	9				CN-1XX	MAP 0121 will isolate
	A-A2K2	1				CK-1XX	the failing FRU. Go to
	A-A2J2	1					MAP 0105, Entry Point G.
	A-A1E2/	1					
	A-A2E2						The channel terminator
	A-A1C2/	1					card may be in on of 4 .
	A-A2C2						different locations,
	A-A1D2/	1					depending on the system
	A-A2D2						configuration:
	A-A2S2	1					A-A1B3,
	A-A2T2	1					A-A2U3,
	A-A2N2	1					A-A3U3 or A-A3U4.
	A-A3S2	1					
	A-A3P2	1					
	A-A1J2	1					
	A-A1K2	1					
	Term	1					
E291	A-A1C2/	90	9500A				This code is generated
	A-A2C2		or				when a severe file/adapter
	Drive A	10	9700A				error occurs while
							attempting a CSIPL Load 3
							from disk.

							9700 for 10SR Disk; 9500 for 21ED Disk.
E292	A-A1E2/ A-A2E2 Drive A	80 10	9500A or 9700A				This code is generated when a DSA error occurs when attempting a CS IPL Load 3 from disk. 9700 for 10SR Disk; 9500 for 21ED Disk.
E293	A-A1C2/ A-A2C2 Drive A	90 10	9500A or 9700A				This code is generated when an Interrupt Timeout occurs when attempting a CS IPL Load 3 from disk. 9700 for 10SR Disk; 9500 for 21ED Disk.
E2A1	A-A1L2 A-A1F2 A-A1Q2 A-A2J2 A-A2K2	80 5 5 5 2				CL-1XX TJ-200 TK-200	CSP diagnostic - This is tested under interrupt level 5 but could occur under any interrupt level.
E2A2	A-A1L2 A-A1M2	90 10					CSP diagnostic - fixed interval timer and interrupt level 2.
E2FF			0101C				This code is displayed if the configuration bit is off in the UDT and the input option permits running configuration sensitive routines. (see MIM 01-290) Go to MAP 0101, Entry Point C.
E300	A-A1N2 A-A1Q2 A-A1P2 A-A1M2	86 2 5 5	0121A			CN-100 CQ-1XX CP-1XX	A failure occurred before load routine 09.
E309	A-A1N2	99				CN-100	CSP diagnostics test LA1-DEC by 1.

E310	A-A1N2	99				CN-100	CSP diagnostics test LA1-INC by 1.
E311	A-A1N2	99				CN-100	CSP diagnostics test LA2-DEC by 1.
E312	A-A1N2	99				CN-100	CSP diagnostics add reg LA2 2 bytes + 1 byte.
E313	A-A1N2	99				CN-100	CSP diagnostics add reg LA2 2 bytes.
E314	A-A1N2	99				CN-100	CSP diagnostics subtract regs - LA2 2 bytes.
E315	A-A1N2	99				CN-100	CSP diagnostics storage direct - read L.
E316	A-A1N2	99				Cn-100	CSP diagnostics storage direct - write ST.
E317	A-A1N2	99	0121A			CN-100	CSP diagnostics - load register from control store.
E318	A-A1N2	99				CN-100	CSP diagnostics reg to control store STC.
E319	A-A1N2	99	0121A			CN-100	CSP diagnostics. Sense and load channel register, sense CEB.
E320	A-A1N2	99	0121A			CN-100	CSP diagnostics. Reset, load, sense PCR.
E321	A-A1N2	99				CN-100	CSP diagnostics subtract lmm SI.
E322	A-A1N2	99				CN-100	CSP diagnostics inc reg by 1 LA2, 2 bytes.
E323	A-A1N2	99				CN-100	CSP diagnostics or regs LA1, 1 byte.

E324	A-A1N2	99				CN-100	CSP diagnostics and regs LA1, 1 byte.
E325	A-A1N2	99				CM-100	CSP diagnostics shift left logical LA1, 1 byte.
E390	A-A1N2	59	0105G			CL-1XX	A failure occurred while loading the CSIPL load 2 tests. If first two FRUs do not fix problem, go to Map 190, Entry Point A Channel Error Isolation.
	A-A1H2	30				CH-1XX	
	A-A2K2	1				CK-1XX	
	A-A1E2/	1					
	A-A2E2						
	A-A1C2/	1					
	A-A2C2						
	A-A1D2/	1					
	A-A2D2						
	A-A2S2/	1					
	A-A2T2	1					
	A-A2N2	1					
	A-A3S2	1					
	A-A2J2	1					
	A-A1K2	1					
	A-A3P2	1					
E391	A-A1C2/	90	9500A				This code is generated when a severe file/adapter error occurs while attempting a CSIPL Load 2 from disk. 9700 for 10SR Disk; 9500 for 21ED Disk.
	A-A2C2		or				
	Drive A	10	9700A				
E392	A-A1E2/	80	9500A				This code is generated when a DSA error occurs when attempting a CSIPL Load 2 from disk. 9700 for 10SR Disk; 9500 for 21ED Disk.
	A-A2E2		or				
	Drive A	10	9700A				
E393	A-A1C2/	90	9500A				This code is generated when an Interrupt Timeout occurs when attempting a CSIPL Load 2 from disk. 9700 for 10SR Disk; 9500 for 21ED Disk.
	A-A2C2		or				
	Drive A	10	9700A				

E426	A-A1N2	99				CN-100	CSP diagnostics X or LA1, 1 byte.
E427	A-A1N2	99				CN-100	CSP diagnostics and comp- NCR LA1, 1 byte.
E428	A-A1N2	99				CN-100	CSP diagnostics or comp- OCR LA1, 1 byte.
E429	A-A1N2	99				CN-100	CSP diagnostics add reg - AR LA1, 1 byte.
E430	A-A1N2	99				CN-100	CSP diagnostics sub reg - SR LA1, 1 byte.
E431	A-A1N2	99				CN-100	CSP diagnostics add reg with carry - ACYR LA1, 1 byte.
E432	A-A1N2	99				CN-100	CSP diagnostics sub reg with borrow - SCYR LA1, 1 byte.
E436	A-A1N2	99				CN-100	CSP diagnostics XR LA2, 2 byte.
E437	A-A1N2	99				CN-100	CSP diagnostics or LA2, 2 byte.
E438	A-A1N2	99				CN-100	CSP diagnostics and reg LA2, 2 byte.
E439	A-A1N2	99				CN-100	CSP diagnostics NCR LA2, 2 byte.
E440	A-A1N2	99				CN-100	CSP diagnostics OCR LA2, 2 byte.
E441	A-A1N2	99				CN-100	CSP diagnostics SLLD LA2, 2 byte.
E442	A-A1N2	99				CN-100	CSP diagnostics sub reg - SR LA2, 2 byte.

E443	A-A1N2	99				CN-100	CSP diagnostics SCYR LA2, 2 byte.
E444	A-A1N2	99				CN-100	CSP diagnostics ACYR LA2, 2 byte.
E445	A-A1N2	99				CN-100	CSP diagnostics hex move.
E446	A-A1N2	99	0121A			CN-100	CSP diagnostics hex branch using numeric & zone field or register.
E447	A-A1N2	99				CN-100	CSP diagnostics SRL/SRLD.
E448	A-A1N2	99	0121A			CN-100	Control storage. Direct storage test.
E449	A-A1N2	99				CN-100	CSP diagnostics move reg.
E450	A-A1N2	99				CN-100	CSP diagnostics ZAR LA1, 1 byte.
E451	A-A1N2	99				CN-100	CSP diagnostics MPLF G0, Y0 ser reg.
E453	A-A1N2	99				CN-100	CSP diagnostics MPLF flag sense PCB, PEB.
E455	A-A1N2	99	0121A		10-305	CN-100	I/O clocks test.
E456	A-A1N2	99				CN-100	CSP diagnostics bank sel reg test.
E457	A-A1N2	90	0121A		10-305	CN-100	
E459	A-A1N2	99	0121A			CN-100	Force SAR P check, X reg P check, CS SAR check.
E460	A-A1N2	99	0121A			CN-100	Force X reg P check, SDR P check, MOR reg P check

E461	A-A1N2	99	0121A			CN-100	Force not valid device address check and sys bus parity check.
E463	A-A1N2	99				CN-100	CSP diagnostics CS block test.
E464	A-A1N2	99			10-305	CN-100	CSP diagnostics CS test.
E481	A-A1N2	99	0121A			CN-100	CSP diagnostics LCH and STCH.
E482	A-A1N2	99				CN-100	CSP diagnostics CS test LA1/LA2.
E483	A-A1N2	99				CN-100	CSP diagnostics br extended - BX.
E484	A-A1N2	99				CN-100	CSP diagnostics BALX.
E485	A-A1N2	99				CN-100	CSP diagnostics Compare reg LA1/LA2.
E486	A-A1N2	99				CN-100	CSP diagnostics DEC reg LA1/LA2.
E487	A-A1N2	99				CN-100	CSP diagnostics fast fetch ECC mem only.
E488	A-A1N2	99				CN-100	CSP diagnostics base disp.
E489	A-A1N2	99				CN-100	CSP diagnostics error correction ECC mem only.
E490	A-A1N2 A-A1H2 A-A2K2 A-A1E2/ A-A2E2 A-A1C2/ A-A2C2 A-A1D2/ A-A2D2	59 30 1 1	0105G			CN-100 CH-1XX CL-1XX CN-1XX CK-1XX	A failure occurred while loading the CS PL load 3 tests. MAP 0121 will isolate the failing FRU. Go to MAP 0105, Entry Point G.

	A-A1K2	1					
	A-A2S2	1					
	A-A2T2	1					
	A-A2N2	1					
	A-A3S2	1					
	A-A3P2	1					
E491	A-A1C2/ A-A2C2 Drive A	90 10	9500A or 9700A				This code is generated when a severe file/adapter error occurs while attempting a CSIPL Load 3 from disk. 9700 for 10SR Disk; 9500 for 21ED Disk.
E492	A-A1E2/ A-A2E2 Drive A	80 10	9500A or 9700A				This code is generated when a DSA error occurs when attempting a CSIPL Load 3 from disk. 9700 for 10SR Disk; 9500 for 21ED Disk.
E493	A-A1C2/ A-A2C2 Drive A	90 10	9500A or 9700A				This code is generated when an Interrupt Timeout occurs when attempting a CSIPL Load 3 from disk. 9700 for 10SR Disk; 9500 for 21ED Disk.
E4A1	A-A1N2 A-A1F2 A-A1Q2	90 5 5				CN-100	CSP diagnostic - This is tested under interrupt level 5 but could occur under any interrupt level.
E4A2	A-A1N2	99					CSP diagnostic - fixed interval timer and interrupt level 2.
E4FF			0101C				This code is displayed if the configuration bit is off in the UDT and the input option permits running configuration sensitive routines.

						(see MIM 01-290) Go to MAP 0101, Entry Point C.
**********			CSP Diagnostics Exxx			**********
E800	A-A1M2	99				Code problem on panel processor card.
E802	A-A1M2	50	0121A			Bad parity from CSP/C.
	A-A1N2	50				
E804	A-A1N2	50	0121A			CSP/C won't stop.
	A-A1P2	30				
	A-A1M2	20				
E811	A-A1M2	70	0121A			PCB bit (s) or PCB strobe grounded.
	A-A1N2	30				
E812	A-A1M2	50	0121A			CSP/C bus bit(s) or parity bit(s) grounded.
	A-A1N2	50				
E813	A-A1M2	50	0121A			CSP/C bus bit(s), PCB bit(s) or parity bit(s) floating.
	A-A1N2	50				
E814	A-A1N2	80	0121A			Storage error at location '0000'.
	A-A1M2	20				
E815	A-A1N2	30	0121A			CSP is stopped or proc chk is active or not on main pgm level.
	A-A1M2	10				
	A-A1H2	10				
	A-A1E2/	10				
	A-A2E2					
	A-A3S2	10				
	A-A3P2	10				
	A-A1L2	10				
	A-A2J2	10				
E816	A-A1N2	80	0121A			CSP is active or proc chk is active or MAR is not '0000'.
	A-A1M2	20				
E817	A-A1N2	80	0121A			CSP is active or proc chk is active or not on main pgm level.
	A-A1M2	20				

E818	A-A1M2	50	0121A				Check/Run is floating.
	A-A1N2	50					
E819	A-A1M2	40	0121A				IMPL cycle or IMPL disk/
	A-A1E2/	40					diskette is grounded.
	A-A2E2						
	X-Over	20					
E820	A-A1N2	80	0121A				Unable to load MCMAB.
	A-A1M2	20					
E880	A-A1N2	99	0121A				Unconditional branch
							failed.
							Module 1.
E881	A-A1N2	99	0121A				Conditional branch failed.
							Module 2.
E882	A-A1N2	99	0121A				Branch and link failed.
							Module 3.
E883	A-A1N2	99	0121A				TM instruction failed.
							Module 4.
E884	A-A1N2	99	0121A				HI/LO work register
							selection failed.
							Module 5.
E885	A-A1N2	99	0121A				CI instruction failed.
							Module 6.
E886	A-A1N2	99	0121A				SI instruction failed.
							Module 7.
E887	A-A1N2	90	0121A				One byte logical
	A-A1M2	9					instruction failed.
							Module 8.
E888	A-A1N2	99	0121A				One byte arithmetic
							instruction failed.
							Module 9.
E889	A-A1N2	99	0121A				Two byte logical

						instruction failed. Module 10.
E88A	A-A1N2	99	0121A			Two byte arithmetic instruction failed. Module 11.
E88C	A-A1N2	99	0121A			Hex branch failed. Module 12.
E88E	A-A1N2	99	0121A			Hex move failed. Module 13.
E88F	A-A1N2	99	0121A			Initialization of low 32Kb of memory failed. Module 14.
E890	A-A1N2	99	0121A			Memory test of high 32Kb of memory failed. Module 15.
E891	A-A1N2	99	0121A			Write of low 32Kb of memory to high 32Kb of memory failed. Module 15.
E892	A-A1N2 A-A1M2	90 10	0121A			Memory test of low 32Kb of memory failed. Module 15.
E893	A-A1N2	99	0121A			Write of high 32Kb of memory to low 32Kb of memory failed. Module 15.
E894	A-A1N2	99	0121A			Base plus displacement instruction failed or bar bit wrong. Module 16.
E895	A-A1N2	99	0121A			Read or write of word to or from storage failed. Module 17.

E896	A-A1N2	99	0121A				Read or write of byte to or from storage or bar bit wrong. Module 17.
E897	A-A1N2	99	0121A				Load from control store direct area failed. Module 17.
E898	A-A1N2	99	0121A				Load or sense of channel register failed. Module 18.
E899	A-A1N2	10	0190A				Channel DBO/DBI bits wrong. Go to MAP 0190, Entry Point A to isolate FRU. Module 18.
	A-A1H2	10					
	A-A1E2/ A-A2E2	10					
	A-A2S2	10					
	A-A2T2	10					
	A-A1K2	10					
	A-A3S2	10					
	A-A3P2	10					
	A-A1L2	10					
	X-Over	4					
	Term	4					
	A-A2N2	1					
	A-A1M2	1					
E89C	A-A1N2	99	0121A				Software set mach chk interrupt failed. Module 18.
E89E	A-A1N2	99	0121A				Disable checks failed. Module 18.
E89F	A-A1N2	20	0121A				Force MC interrupt through device addr which is not valid failed or enable checks failed. Module 18.
	A-A1M2	10					
	A-A1E2/ A-A2E2	10					
	A-A2S2	10					
	A-A2T2	10					
	A-A1K2	10					The channel terminator card may be in one of 4 different locations
	A-A3S2	10					
	A-A3P2	10					

	A-A1L2	10					depending on system
	A-A2N2	1					configuration. A-A1B3,
	A-A1H2	1					A-A2U3, A-A3U3 or A-a3U4.
	X-Over	6					
	Term	6					
E8A0	A-A1N2	99	0121A				Force MC interrupt through system bus parity check failed. Module 18.
E8A1	A-A1N2	99	0121A				System bus parity check logging failed. Module 18.
E8A2	A-A1N2	99	0121A				Force MC interrupt through internal dataflow parity check failed. Module 18.
E8A5	A-A1N2	99	0121A				Internal parity check logging failed. Module 18.
E8A6	A-A1N2	99	0121A				Force MC interrupt through channel check failed. Module 18.
E8A7	A-A1N2	99	0121A				Channel check logging failede. Module 18.
E8A8	A-A1N2	99	0121A				Force MC interrupt through internal dataflow parity check failed. Module 18.
E8A9	A-A1N2	99	0121A				Internal parity check logging failed. Module 18.
E8AA	A-A1N2	10	0190A				Force MC interrupt
	A-A1H2	10					through sense ARS/TBI
	A-A1E2/	10					bits failed. Module 18.
	A-A2E2						
	A-A1K2	10					Go to map 0190, Entry
	A-A3S2	10					point A to isolate FRU.
	A-A3P2	10					
	A-A1L2	10					
	A-A2J2	10					
	X-Over	10					

	A-A1M2	1					
E8AD	A-A1N2	99	0121A				Sense Storage Error Byte failed. Module 18.
E8AE	A-A1N2	99	0121A				Extraneous interrupt pending. Module 19.
E8AF	A-A1N2	99	0121A				Error in IL5 structure. Module 19.
E8b0	A-A1N2	99	0121A				Disable interrupts failed. Module 20.
E8b1	A-A1N2	99	0121A				One of interrupt 1 through 4 failed. Module 20.
E8b2	A-A1N2	99	0121A				Load/sense of run control byte failed. Module 21.
E8b3	A-A1N2	10	0190A				Self test complete in CSP but failure to continue IPL.
	A-A1H2	10					
	A-A1E2/	10					
	A-A2E2						
	A-A1K2	10					Go to map 0190, Entry
	A-A3S2	10					Point A to isolate FRU.
	A-A3P2	10					
	A-A1L2	10					
	A-A2J2	10					
	X-Over	10					
	A-A1M2	1					
E900	A-A1N2	86					A failure occurred before load routine 09.
	A-A1P2	7					
	A-A1M2	5					
E909	A-A1N2	99				CN-100	CSP diagnostics test LA1-DEC by 1.
E910	A-A1N2	99				CN-100	CSP diagnostics test LA1-INC by 1.

E911	A-A1N2	99				CN-100	CSP diagnostics test LA2-DEC by 1.
E912	A-A1N2	99				CN-100	CSP diagnostics add reg LA2 2 bytes + 1 byte.
E913	A-A1N2	99				CN-100	CSP diagnostics add reg LA2 2 bytes.
E914	A-A1N2	99				CN-100	CSP diagnostics subtract regs - LA2 2 bytes.
E915	A-A1N2	99				CN-100	CSP diagnostics storage direct - read L.
E916	A-A1N2	99				Cn-100	CSP diagnostics storage direct - write ST.
E917	A-A1N2	99	0121A			CN-100	CSP diagnostics - load register from control store.
E918	A-A1N2	99				CN-100	CSP diagnostics reg to control store STC.
E919	A-A1N2	99	0121A			CN-100	CSP diagnostics. Sense and load channel register, sense CEB.
E920	A-A1N2	99	0121A			CN-100	CSP diagnostics. Reset, load, sense PCR.
E921	A-A1N2	99				CN-100	CSP diagnostics subtract Imm SI.
E922	A-A1N2	99				CN-100	CSP diagnostics inc reg by 1 LA2, 2 bytes.
E923	A-A1N2	99				CN-100	CSP diagnostics or regs LA1, 1 byte.
E924	A-A1N2	99				CN-100	CSP diagnostics and regs LA1, 1 byte.

E925	A-A1N2	99				CM-100	CSP diagnostics shift left logical LA1, 1 byte.
E990	A-A1N2	59	0105G			CL-1XX CH-1XX CK-1XX	A failure occurred while loading the CSIPL load 2 tests. The channel terminator card can cause this SRC. It may be in one of 4 different locations, depending on the system configuration. A-A1B3, A-A2U3, A-A3U3 or A-A3U4.
	A-A1H2	30					
	A-A2K2	1					
	A-A1E2/	1					
	A-A2E2						
	A-A1C2/	1					
	A-A2C2						
	A-A1D2/	1					
	A-A2D2						
	A-A2S2/	1					
	A-A2T2	1					
	A-A2N2	1					
	A-A3S2	1					
	A-A2J2	1					
	A-A1K2	1					
	A-A3P2	1					
	Term	1					
EA26	A-A1N2	99				CN-100	CSP diagnostics X or LA1, 1 byte.
EA27	A-A1N2	99				CN-100	CSP diagnostics and comp- NCR LA1, 1 byte.
EA28	A-A1N2	99				CN-100	CSP diagnostics or comp- OCR LA1, 1 byte.
EA29	A-A1N2	99				CN-100	CSP diagnostics add reg - AR LA1, 1 byte.
EA30	A-A1N2	99				CN-100	CSP diagnostics sub reg - SR LA1, 1 byte.
EA31	A-A1N2	99				CN-100	CSP diagnostics add reg with carry - ACYR LA1, 1 byte.
EA32	A-A1N2	99				CN-100	CSP diagnostics sub reg with borrow - SCYR LA1, 1 byte.

EA36	A-A1N2	99				CN-100	CSP diagnostics XR LA2, 2 byte.
EA37	A-A1N2	99				CN-100	CSP diagnostics or LA2, 2 byte.
EA38	A-A1N2	99				CN-100	CSP diagnostics and reg LA2, 2 byte.
EA39	A-A1N2	99				CN-100	CSP diagnostics NCR LA2, 2 byte.
EA40	A-A1N2	99				CN-100	CSP diagnostics OCR LA2, 2 byte.
EA41	A-A1N2	99				CN-100	CSP diagnostics SLLD LA2, 2 byte.
EA42	A-A1N2	99				CN-100	CSP diagnostics sub reg - SR LA2, 2 byte.
EA43	A-A1N2	99				CN-100	CSP diagnostics SCYR LA2, 2 byte.
EA44	A-A1N2	99				CN-100	CSP diagnostics ACYR LA2, 2 byte.
EA45	A-A1N2	99				CN-100	CSP diagnostics hex move.
EA46	A-A1N2	99	0121A			CN-100	CSP diagnostics hex branch using numeric & zone field or register.
EA47	A-A1N2	99				CN-100	CSP diagnostics SRL/SRLD.
EA48	A-A1N2	99	0121A			CN-100	Control storage. Direct storage test.
EA49	A-A1N2	99				CN-100	CSP diagnostics move reg.
EA50	A-A1N2	99				CN-100	CSP diagnostics ZAR LA1, 1 byte.

EA51	A-A1N2	99				CN-100	CSP diagnostics MPLF G0, Y0 ser reg.
EA53	A-A1N2	99				CN-100	CSP diagnostics MPLF flag sense PCB, PEB.
EA55	A-A1N2	99	0121A		10-305	CN-100	I/O clocks test.
EA56	A-A1N2	99				CN-100	CSP diagnostics bank sel reg test.
EA57	A-A1N2	90	0121A		10-305	CN-100	
EA59	A-A1N2	99	0121A			CN-100	Force SAR P check, X reg P check, CS SAR check.
EA60	A-A1N2	99	0121A			CN-100	Force X reg P check, SDR P check, MOR reg P check
EA61	A-A1N2	99	0121A			CN-100	Force not valid device address check and sys bus parity check.
EA63	A-A1N2	99				CN-100	CSP diagnostics CS block test.
EA64	A-A1N2	99			10-305	CN-100	CSP diagnostics CS test.
EA81	A-A1N2	99	0121A			CN-100	CSP diagnostics LCH and STCH.
EA82	A-A1N2	99				CN-100	CSP diagnostics CS test LA1/LA2.
EA83	A-A1N2	99				CN-100	CSP diagnostics br extended - BX.
EA84	A-A1N2	99				CN-100	CSP diagnostics BALX.
EA85	A-A1N2	99				CN-100	CSP diagnostics Compare reg LA1/LA2.
EA86	A-A1N2	99				CN-100	CSP diagnostics DEC reg

							LA1/LA2.
EA87	A-A1N2	99				CN-100	CSP diagnostics fast l fetch ECC mem only.
EA88	A-A1N2	99				CN-100	CSP diagnostics base disp.
EA89	A-A1N2	99				CN-100	CSP diagnostics error correction ECC mem only.
EA90	A-A1N2	59	0105G			CN-100	A failure occurred while loading the CSIPL load 3 tests. MAP 0121 will isolate the failing FRU. Go to MAP 0105, Entry Point G.
	A-A1H2	30				CH-1XX	
	A-A2K2	1				CL-1XX	
	A-A1E2/	1				CN-1XX	
	A-A2E2					CK-1XX	
	A-A1C2/	1					
	A-A2C2						
	A-A1D2/	1					
	A-A2D2						
	A-A1K2	1					
	A-A2S2	1					
	A-A2T2	1					
	A-A2N2	1					
	A-A3S2	1					
	A-A3P2	1					
********** General CSIPL Diagnostic Reference Codes **********							
F000							The diskette inserted is not a CSIPL diskette.
F090	A-A1E2/	49	0105A				This code indicates that an error occurred while running the diskette bootstrap loader.
	A-A2E2						
	A-A1F2/	49					
	A-A2F2						
	A-A3S2	1					
	Diskete	1					
FFFF			0105A				The first byte of the load was not transfered. Go to hard copy MAP 0105, Entry Point A. This code is generated by hardware when the Load key is pressed.

						It is reset when the MSP Stop latch has been set and reset.

ENTRY POINTS

FROM	ENTER THIS MAP		
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
0101	A	1	001

EXIT POINTS

EXIT THIS MAP		TO	
PAGE NUMBER	STEP NUMBER	MAP NUMBER	ENTRY POINT
3	003	0500	A
4	006	0500	A

001
(Entry Point A)
- Set CB1 to the On position (05-215)
- Press and hold the Power Status key.

MAP DESCRIPTION:
This MAP is a quick fix MAP. You have the option of replacing the FRUs in order of probability specified by the power reference codes or in proceeding with the MAP reference provided to decrease the number of probable FRUs.
- Be sure to read the ref code comment section for additional information about the problem and for further directions on how to do it.
- If the MAP specified does not decrease the FRUs called or if there is no MAP reference then replace the FRUs in order of probability.

If the FRUs are all replaced in the reference code group and machine is still failing the control supply may be bad.

START CONDITIONS:
- Perform a lamp test (see note 1) to verify that that all of the power LEDs are good for correct detection.
- If the lamp test fails, go to MAP 0584, Entry Point A. This MAP contains the temperature check and power reference codes 91 - FF.
- If the machine is dead or if you have a power ref code not listed in this MAP, go to MAP 0500, Entry Point A.

Note 1: A valid lamp test is defined by the following steps:
The Power Check, Temp Check,CS, UV, OC, UV/CU, 8, 4, 2 and 1 LEDS are all off before the lamp test occurs (except for a valid failure code).

(Step 001 continues)

(Step 001 continues)

(Step 001 continued)

(Step 001 continued)
When the lamp test switch is pressed, the Power Check, Temp Check, CS, UV, OC, 8, 4, 2 and LEDS come on and remain on as long as the lamp test key is pressed.

When the lamp test is released, all the control panel LEDs go off and remain off (except for a valid power failure). All three of the above must be correct in order for the lamp test to be valid.

Note 2: If the CS light is on when the Power Status key is pressed, the control supply appears to be good.

Is the CS light on (see note 2)?
Y N

002
- Press and hold the Power Status key.
- Read the power reference code (see note 3).
- Use the quick-fix FRU tables given below to determine the failing FRU.

```
**************************************************************
*DANGER/CAUTION Before any FRU is replaced, perform action in *
*               the BE SAFE note associated with that FRU.   *
*                                                            *
*                 ___________________________________________*
*                 ___________________________________________*
*                 ___________________________________________*
*                 Note 1: Disconnect the Line Cord.          *
*                 Note 2: Set CB1 to the Off position.       *
*                 Note 3: Set the Unit Emergency switch to the *
*                         Power Off position.                *
*                 Note 4: Select Mode 6. Press the Power key *
*                         (power-off).                       *
**************************************************************
```

00	CoPrAsm	15	0505A	05-210	YA-110	Dead
	ConXfmr	15		05-210	YA-110	machine
	Fuse F1	15		05-210	YA-100	No lights
	Fuse F8	15		05-210	YA-100	on the

(Step 002 continues)

(Step 002 continued)

Protect	10		05-320	YA-140	control
ContCbl	10		05-210	YA-110	panel.
ContCap	5		05-210	YA-110	
U M/bk	5		05-320	YA-140	Check
L M/bk	5		05-320	YA-140	CB1 and
JA1 cbl	2		05-220	YA-900	customer
JC3 cbl	2		05-220	YA-960	power
F8 Hodr	1		05-210	YA-100	first.

Did the quick-fix FRU table fix the problem?
Y N

003
Go To Map 0500, Entry Point A.

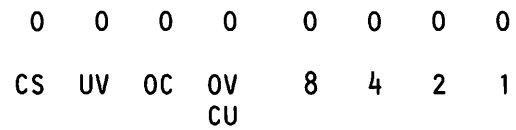
004
Stop, you have fixed the problem.

005
- Press and hold the Power Status key.
- Read the power reference code (see note 3).

(Step 005 continues)

Note 3: Reference codes are generated by the 8 LEDs on the power status part of the control panel.

- Press the Power Status key.



- Translate the 8 Power Status LEDs to hexidecimal as shown in the examples below:
  1 = LED On
  0 = LED Off

Examples:

1 0 1 0 1 1 1 1 = AF

1 0 0 1 1 1 0 1 = 9D

(Step 005 continues)

(Step 005 continued)

(Step 005 continued)

For alphabetical FRU listing, part number, or FRU description, go to Page 15, Step 008, Entry Point B.

Does the power reference code fall between 91 and FF?

Y N

006
Go To Map 0500, Entry Point A.

007

- Use the quick-fix FRU tables given below to determine the failing FRU.

```
**************************************************************************
*DANGER/CAUTION Before any FRU is replaced, perform action in            *
*               the BE SAFE note associated with that FRU.               *
*                 ____________________________________________           *
*                 ____________________________________________           *
*                 ____________________________________________           *
*                 Note 1: Disconnect the Line Cord.                      *
*                 Note 2: Set CB1 to the Off position.                   *
*                 Note 3: Set the Unit Emergency switch to the           *
*                         Power Off position.                            *
*                 Note 4: Select Mode 6. Press the Power key             *
*                         (power-off).                                   *
**************************************************************************
```

Temperature Check: (obvious conditions)
- Fans not turning
- Thermal switches
- Obstruction to air flow (dirt)
- For power check and temperature check together, see power ref code FF.

91	Protect	50	0505A	*NOTE2	05-320	YA-140	Cable unseated, base
	B PrAsm	30		*NOTE2	05-340	YA-170	power supply.
	A3 1.7R	9		*NOTE2	05-335	YA-160	
	JA1cbl	2		*NOTE2	05-220	YA-900	
	JC3cbl	2		*NOTE2	05-220	YA-960	
	JA3cbl	2		*NOTE2	05-220	YA-920	

(Step 007 continues)

(Step 007 continued)

	J32 Jmp	2		*NOTE2	05-240	YA-170	
	B-A1 Bd	1		*NOTE2	10-325	CA-100	
	B-A2 Bd	1		*NOTE2	10-325	CA-120	
	U M/Bk	1		*NOTE2	05-320	YA-140	
92	Protect	79	0501A	*NOTE2	05-320	YA-140	The protect card or the
	B-A1 Bd	10		*NOTE2	10-325	CA-100	control panel is bad.
	B-A2 Bd	10		*NOTE2	10-325	CA-120	
	JA1cbl	1		*NOTE2	05-220	YA-900	
93	Protect	79	0501A	*NOTE2	05-320	YA-140	The protect card or the
	B-A1 Bd	10		*NOTE2	10-325	CA-100	control panel is bad.
	B-A2 Bd	10		*NOTE2	10-325	CA-120	
	JA1cbl	1		*NOTE2	05-220	YA-900	
94	Protect	79	0501A	*NOTE2	05-320	YA-140	The protect card or the
	B-A1 Bd	10		*NOTE2	10-325	CA-100	control panel is bad.
	B-A2 Bd	10		*NOTE2	10-325	CA-120	
	JA1cbl	1		*NOTE2	05-220	YA-900	
95	Protect	40	0551A	*NOTE2	05-320	YA-140	Overvoltage, -5V base
	B5V Asm	30		*NOTE2	05-330	YA-150	power supply.
	B PrAsm	20		*NOTE2	05-340	YA-170	
	JA3cbl	5		*NOTE2	05-220	YA-920	
	B Xmfr	3		*NOTE2	05-325	YA-150	
	U M/Bk	2		*NOTE2	05-320	YA-140	
96	Protect	50	0552A	*NOTE2	05-320	YA-140	Overvoltage, +8.5V/-12V
	B PrAsm	45		*NOTE2	05-340	YA-170	base power supply.
	JA3cbl	3		*NOTE2	05-220	YA-920	
	U M/Bk	2		*NOTE2	05-320	YA-140	
97	Protect	50	0553A	*NOTE2	05-320	YA-140	Overvoltage, base +1.7V
	A3 1.7R	40		*NOTE2	05-335	YA-160	regulator.
	JC3cbl	5		*NOTE2	05-220	YA-960	
	A1DCcbl	3		*NOTE2		YA-905	
	L M/Bk	2		*NOTE2	05-320	YA-140	

(Step 007 continues)

(Step 007 continued)

98	Protect	40	0506A	*NOTE2	05-320	YA-140	Cable unseated, A2 power
	A2PrAsm	30		*NOTE2	05-365	YB-100	supply.
	A2 1.7R	20		*NOTE2	05-370	YB-200	
	JA2cbl	3		*NOTE2	05-220	YA-910	
	JA2crd	2		*NOTE2	05-220	YA-910	
	J59 Jmp	1		*NOTE3	05-250	YB-100	
	U M/Bk	1		*NOTE2	05-320	YA-140	
99	Protect	50	0555A	*NOTE2	05-320	YA-140	Overvoltage, A2 power
	A2PrAsm	40		*NOTE2	05-365	YB-100	supply.
	JA2cbl	5		*NOTE2	05-220	YA-910	
	A2 Xmfr	2		*NOTE2	05-365	YB-100	
	A2 Cap	1		*NOTE2	05-365	YB-100	
	U M/Bk	1		*NOTE2	05-320	YA-140	
	E12wire	1		*NOTE2	05-365	YB-100	
9A	Protect	79	0501A	*NOTE2	05-320	YA-140	The protect card or the
	B-A1 Bd	10		*NOTE2	10-325	CA-100	control panel is bad.
	B-A2 Bd	10		*NOTE2	10-325	CA-120	
	JA1cbl	1		*NOTE2	05-220	YA-900	
9B	Protect	50	0556A	*NOTE2	05-320	YA-140	Overvoltage, A2 +1.7V
	A2 1.7R	45		*NOTE2	05-370	YB-200	regulator.
	JA2cbl	2		*NOTE2	05-220	YA-910	
	A2DCcbl	2		*NOTE2		YB-905	
	U M/Bk	1		*NOTE2	05-320	YA-140	
9C	A3PrAsm	86	0507A	*NOTE2	05-375	YC-100	Cable unseated, A3 power
	Protect	7		*NOTE2	05-320	YA-140	supply.
	JA4cbl/	1		*NOTE2	05-220	YA-930	
	JA4crd			*NOTE2	05-220	YA-930	
	J71 Jmp	1		*NOTE2	05-260	YC-100	
	J76 Jmp	1		*NOTE2	05-260	YC-100	
	U M/Bk	1		*NOTE2	05-320	YA-140	
	A3 1.7R	1					
	1.7Vcbl	1					
9D	A3PrAsm	60	0532A	*NOTE2	05-375	YC-100	Overvoltage, A3 power
	A3 1.7R	33					supply.

(Step 007 continues)

(Step 007 continued)

	Protect	2		*NOTE2	05-320	YA-140	
	JA4cbl/	1		*NOTE2	05-220	YA-930	
	JA4crd			*NOTE2	05-220	YA-930	
	A3DCcbl	1		*NOTE2		YC-905	Any of these FRUs
	E14wire	1		*NOTE2	05-375	YC-100	can blow fuse 4.
	U M/Bk	1		*NOTE2	05-320	YA-140	
	1.7Vcbl	1					
9E	Protect	50	0508A	*NOTE2	05-320	YA-140	Cable unseated, Expansion
	ExPrAsm	40		*NOTE2	05-378	YD-100	power supply.
	JC2crd	7		*NOTE2	05-220	YA-950	
	JC2cbl	1		*NOTE2	05-220	YA-950	
	J90 Jmp	1		*NOTE2	05-290	YD-100	
	L M/Bk	1		*NOTE2	05-320	YA-140	
9F	Protect	44	0592A	*NOTE2	05-320	YA-140	Overvoltage, Expansion
	ExPrAsm	38		*NOTE2	05-378	YD-100	power supply.
	JC2cbl	5		*NOTE2	05-220	YA-950	
	JC2crd	4		*NOTE2	05-220	YA-950	
	J90 Jmp	4		*NOTE2	05-290	YD-100	
	Ex Xmfr	3		*NOTE2	05-377	YD-100	
	Ex Cap	1		*NOTE2	05-205	YD-100	
	L M/Bk	1		*NOTE2	05-320	YA-140	
A1	Protect	79	0501A	*NOTE2	05-320	YA-140	The protect card or the
	B-A1 Bd	10		*NOTE2	10-325	CA-100	control panel is bad.
	B-A2 Bd	10		*NOTE2	10-325	CA-120	
	JA1cbl	1		*NOTE2	05-220	YA-900	
A2	Protect	20	0535A	*NOTE2	05-320	YA-140	Overcurrent, +5V base
	A1 crds	20		*NOTE4		AB-100	power supply.
	21 DDC	8		*NOTE4	95-335	GC-601	
	21 cbl	8		*NOTE2		YA-170	The load is probably the
	B-A1 Bd	8		*NOTE2	10-325	CA-100	problem.
	B-A2 Bd	8		*NOTE2	10-325	CA-120	
	51 DCC/	8		*NOTE4	91-230	EA-750	
	72 DCC			*NOTE4	93-225	EA-700	
	B PrAsm	5		*NOTE2	05-340	YA-170	
	B5V Asm	5		*NOTE2	05-330	YA-150	
	51 cbl/	4		*NOTE4		YA-170	

(Step 007 continues)

(Step 007 continued)

	72 cbl			*NOTE4		YA-170	
	A-A1 Bd	2		*NOTE4		AE-100	
	A1DCcbl	2		*NOTE2		YA-905	
	JA3cbl	2		*NOTE2	05-220	YA-920	
	J32 Jmp	2		*NOTE3	05-240	YA-170	
	B Xmfr	1		*NOTE2	05-325	YA-150	
A3	Protect	30	0536A	*NOTE2	05-320	YA-140	Overcurrent, +12V base
	A1 crds	25		*NOTE4		AB-100	power supply.
	B PrAsm	16		*NOTE2	05-340	YA-170	
	A1DCcbl	15		*NOTE2		YA-905	The load is probably
	A-A1 Bd	5		*NOTE4		AE-100	the problem.
	JA3cbl	5		*NOTE2	05-220	YA-920	
	J32 Jmp	2		*NOTE2	05-240	YA-170	
	B Xmfr	1		*NOTE2	05-325	YA-150	
	U M/Bk	1		*NOTE2	05-320	YA-140	
A4	Protect	23	0537A	*NOTE2	05-320	YA-140	Overcurrent, +24V base
	51 DCC/	20		*NOTE4	91-230	EA-750	power supply.
	72 DCC			*NOTE4	93-225	EA-700	
	21 DDC	20		*NOTE4	95-335	GC-601	
	51 cbl/	10		*NOTE4		YA-170	The load is probably
	72 cbl			*NOTE4		YA-170	the problem.
	21 cbl	10		*NOTE2		YA-170	
	B PrAsm	10		*NOTE2	05-340	YA-170	
	U M/Bk	3		*NOTE2	05-320	YA-140	
	JA3cbl	2		*NOTE2	05-220	YA-920	
	B Xmfr	1		*NOTE2	05-325	YA-150	
	J32 Jmp	1		*NOTE2	05-240	YA-170	
A5	Protect	21	0538A	*NOTE2	05-320	YA-140	Overcurrent, -5V base
	A1 crds	20		*NOTE4		AB-100	power supply.
	51 DCC/	19		*NOTE4	91-230	EA-750	
	72 DCC			*NOTE4	93-225	EA-700	The load is probably
	B PrAsm	19		*NOTE2	05-340	YA-170	the problem.
	A1DCcbl	10		*NOTE2		YA-905	
	51 cbl/	05		*NOTE4		YA-170	
	72 cbl			*NOTE4		YA-170	
	A-A1 Bd	2		*NOTE4		AE-100	
	JA3cbl	2		*NOTE2	05-220	YA-920	
	B Xmfr	1		*NOTE2	05-325	YA-150	

(Step 007 continues)

(Step 007 continued)

	U M/Bk	1		*NOTE2	05-320	YA-140	
A6	Protect	35	0539A	*NOTE2	05-320	YA-140	Overcurrent, +8.5V/-12V
	A1 crds	30		*NOTE4		AB-100	base power supply.
	B PrAsm	18		*NOTE2	05-340	YA-170	
	A1DCcbl	10		*NOTE2		YA-905	The load is probably
	A-A1 Bd	3		*NOTE4		AE-100	the problem.
	JA3cbl	3		*NOTE2	05-220	YA-920	
	U M/Bk	1		*NOTE2	05-320	YA-140	
A7	Protect	33	0540A	*NOTE2	05-320	YA-140	Overcurrent, base +1.7V
	A1 crds	30		*NOTE4		AB-100	regulator.
	A3 1.7R	17		*NOTE2	05-335	YA-160	
	A1DCcbl	15		*NOTE2		YA-905	The load is probably
	A-A1 Bd	2		*NOTE4		AE-100	the problem.
	JC3cbl	2		*NOTE2	05-220	YA-960	
	L M/Bk	1		*NOTE2	05-320	YA-140	
A8	Protect	79	0501A	*NOTE2	05-320	YA-140	The protect card or the
	B-A1 Bd	10		*NOTE2	10-325	CA-100	control panel is bad.
	B-A2 Bd	10		*NOTE2	10-325	CA-120	
	JA1cbl	1		*NOTE2	05-220	YA-900	
A9	Protect	30	0527A	*NOTE2	05-320	YA-140	Overcurrent, A2 power
	21 DDC/	30		*NOTE4	95-335	GC-601	power supply.
	10 A1			*NOTE4	97-225	AE-400	
	21 cbl/	15		*NOTE2		YA-170	The load is probably
	10 cbl			*NOTE2		YB-100	the problem.
	A2PrAsm	15		*NOTE2	05-365	YB-100	
	JA2cbl/	6		*NOTE2	05-220	YA-910	
	JA2crd			*NOTE2	05-220	YB-910	
	A2 Xmfr	2		*NOTE2	05-365	YB-100	
	A2 Cap	1		*NOTE2	05-365	YB-100	
	U M/Bk	1		*NOTE2	05-320	YA-140	
AA	Protect	35	0528A	*NOTE2	05-320	YA-140	Overcurrent, any +5V A2
	A1 crds	30		*NOTE4		AB-200	power supply.
	A2PrAsm	14		*NOTE2	05-365	YB-100	
	A2 1.7R	14		*NOTE2	05-370	YB-200	The load is probably

(Step 007 continues)

(Step 007 continued)

	A1DCcbl	2		*NOTE2		YB-905	the problem.
	A-A2 Bd	1		*NOTE4		AB-200	
	JA2cbl	1		*NOTE2	05-220	YA-910	
	J59 Jmp	1		*NOTE3	05-250	YB-100	
	A2 Xmfr	1		*NOTE2	05-365	YB-100	
	U M/Bk	1		*NOTE2	05-320	YA-140	
AB	Protect	31	0529A	*NOTE2	05-320	YA-140	Overcurrent, A2 +1.7V
	A2 crds	30		*NOTE4		AB-200	regulator.
	A2 1.7R	28		*NOTE2	05-370	YB-200	
	JA2cbl	5		*NOTE2	05-220	YA-910	The load is probably
	JA2crd	2		*NOTE2	05-220	YA-910	the problem.
	A-A2 Bd	2		*NOTE4		AB-200	
	A2DCcbl	1		*NOTE2		YB-905	
	U M/Bk	1		*NOTE2	05-320	YA-140	
AC	Protect	79	0501A	*NOTE2	05-320	YA-140	The protect card or the
	B-A1 Bd	10		*NOTE2	10-325	CA-100	control panel is bad.
	B-A2 Bd	10		*NOTE2	10-325	CA-120	
	JA1cbl	1		*NOTE2	05-220	YA-900	
AD	A3PrAsm	50	0533A	*NOTE2	05-375	YC-100	Overcurrent, A3 power
	A3 1.7R	20					supply.
	A3 crds	10		*NOTE4		AB-310	
	A3DCcbl	5		*NOTE2		YC-905	
	A3 Xmfr	5		*NOTE2	05-375	YC-100	The load is probably
	Protect	5		*NOTE2	05-320	YA-140	the problem.
	JA4cbl/	3		*NOTE2	05-220	YA-930	
	JA4crd			*NOTE2	05-220	YA-930	
	A-A3 Bd	1		*NOTE4		AB-310	
	J76 Jmp	1		*NOTE2	05-260	YC-100	
	U M/Bk	1		*NOTE2	05-320	YA-140	
	1.7Vcbl	1					
	J71 jmp	1					
AE	Protect	79	0501A	*NOTE2	05-320	YA-140	The protect card or the
	B-A1 Bd	10		*NOTE2	10-325	CA-100	control panel is bad.
	B-A2 Bd	10		*NOTE2	10-325	CA-120	
	JA1cbl	1		*NOTE2	05-220	YA-900	

(Step 007 continues)

(Step 007 continued)

AF	Protect	35	0593A	*NOTE2	05-320	YA-140	Overcurrent, Expansion
	21 DDC/	30		*NOTE4	95-335	GC-601	power supply.
	10 bd			*NOTE4	97-225	AE-400	
	ExPrAsm	15		*NOTE2	05-378	YD-100	The load is probably
	21 cbl/	10		*NOTE2		AA-101	the problem.
	10 cbl						
	JC2cbl/	5		*NOTE2	05-220	YA-950	
	JC2crd			*NOTE2	05-220	YA-950	
	Ex Xmfr	2		*NOTE2	05-377	YD-100	
	Ex Cap	2		*NOTE2	05-205	YD-100	
	L M/Bk	1		*NOTE2	05-320	YA-140	
CO	Protect	90	0501A	*NOTE2	05-320	YA-140	The protect card or the
	JA1cbl	5		*NOTE2	05-220	YA-900	JA1 cable is bad.
	U M/Bk	5		*NOTE2	05-320	YA-140	
*****	Note: If the Unit Emergency switch is Off and a power-on is attempted, C1 error condition will set. (This is not a power problem. To clear the error, set CB1 to the Off position, then to the On position).						
C1	Fuse 2/	33	0512A	*NOTE2	05-315	YA-100	Undervoltage, (all) base
	Fuse 6			*NOTE2	05-315	YA-100	power supply.
	Protect	30		*NOTE2	05-320	YA-140	
	RelayK1	10		*NOTE1	05-315	YA-100	Any of these FRUs
	AC cbl	5		*NOTE1	05-315	YA-100	can blow fuse 2 or 6.
	A1DCcbl	5		*NOTE2		YA-905	
	JC3 cbl	4		*NOTE2	05-220	YA-920	
	Contcbl	3		*NOTE1	05-315	YA-100	
	B Xmfr	2		*NOTE2	05-325	YA-150	
	J59 Jmp	2		*NOTE3	05-250	YB-100	
	B ACcap	2		*NOTE2		YA-150	
	L M/Bk	2		*NOTE2	05-320	YA-140	
	F2 Hodr	1		*NOTE1	05-315	YA-100	
	K1diode	1		*NOTE1	05-315	YA-100	
*****	Note: If the Unit Emergency switch is used to power-off the system, C2 error condition will probably occur. (This is not a power problem. To clear the error, set CB1 to the Off position, than to the On position).						
C2	Protect	40	0542A	*NOTE2	05-320	YA-140	Undervoltage, +5V base
	B5V Asm	30		*NOTE2	05-330	YA-150	power supply.

(Step 007 continues)

(Step 007 continued)

	B PrAsm	20		*NOTE2	05-340	YA-170	
	JA3cbl	5		*NOTE2	05-220	YA-920	
	B Xmfr	3		*NOTE2	05-325	YA-150	
	U M/Bk	2		*NOTE2	05-320	YA-140	
C3	Protect	45	0543A	*NOTE2	05-320	YA-140	Undervoltage, +12V base
	B PrAsm	45		*NOTE2	05-340	YA-170	power supply.
	JA3cbl	5		*NOTE2	05-220	YA-920	
	B Xmfr	3		*NOTE2	05-325	YA-150	
	U M/Bk	2		*NOTE2	05-320	YA-140	
C4	Protect	45	0544A	*NOTE2	05-320	YA-140	Undervoltage, +24V base
	B PrAsm	45		*NOTE2	05-340	YA-170	power supply.
	JA3cbl	5		*NOTE2	05-220	YA-920	
	B Xmfr	3		*NOTE2	05-325	YA-150	
	U M/Bk	2		*NOTE2	05-320	YA-140	
C5	Protect	45	0545A	*NOTE2	05-320	YA-140	Undervoltage, -5V base
	B PrAsm	45		*NOTE2	05-340	YA-170	power supply.
	JA3cbl	5		*NOTE2	05-220	YA-920	
	B Xmfr	3		*NOTE2	05-325	YA-150	
	U M/Bk	2		*NOTE2	05-320	YA-140	
C6	Protect	45	0546A	*NOTE2	05-320	YA-140	Undervoltage, +8.5V/-12V
	B PrAsm	45		*NOTE2	05-340	YA-170	base power supply.
	JA3cbl	5		*NOTE2	05-220	YA-920	
	B Xmfr	3		*NOTE2	05-325	YA-150	
	U M/Bk	2		*NOTE2	05-320	YA-140	
C7	Protect	30	0548A	*NOTE2	05-320	YA-140	Undervoltage, base +1.7V
	A3 1.7R	29		*NOTE2	05-335	YA-160	regulator.
	B5V Asm	26		*NOTE2	05-330	YA-150	
	JC3cbl	9		*NOTE2	05-220	YA-920	
	B Xmfr	2		*NOTE2	05-325	YA-150	
	L M/Bk	2		*NOTE2	05-220	YA-140	
	J59 Jmp	1		*NOTE3	05-250	YB-100	
	E11wire	1		*NOTE2	05-335	YA-160	

(Step 007 continues)

(Step 007 continued)

C8	Fuse 3	30	0515A	*NOTE2	05-315	YA-100	Undervoltage, (all) A2
	Protect	28		*NOTE2	05-320	YA-140	power supply.
	A2PrAsm	25		*NOTE2	05-365	YB-100	
	JA2cbl	7		*NOTE2	05-220	YA-910	Any of these FRUs
	JA2crd	2		*NOTE2	05-220	YA-910	can blow fuse 3.
	AC cbl	2		*NOTE1	05-210	YA-100	
	A2 Xmfr	2		*NOTE2	05-365	YB-100	
	A2 Cap	1		*NOTE2	05-365	YB-100	
	F3 Hodr	1		*NOTE1	05-315	YA-100	
	U M/Bk	1		*NOTE2	05-320	YA-140	
	E12wire	1		*NOTE2	05-365	YB-100	
C9	Protect	47	0516A	*NOTE2	05-320	YA-140	Undervoltage, A2 power
	A2PrAsm	40		*NOTE2	05-365	YB-100	supply.
	JA2cbl	7		*NOTE2	05-220	YA-910	
	JA2crd	2		*NOTE2	05-220	YA-910	
	A2 Xmfr	2		*NOTE2	05-365	YB-100	
	A2 Cap	1		*NOTE2	05-365	YB-100	
	U M/Bk	1		*NOTE2	05-320	YA-140	
CA	Protect	79	0501A	*NOTE2	05-320	YA-140	The protect card or the
	B-A1 Bd	10		*NOTE2	10-325	CA-100	control panel is bad.
	B-A2 Bd	10		*NOTE2	10-325	CA-120	
	JA1cbl	1		*NOTE2	05-220	YA-900	
CB	Protect	48	0518A	*NOTE2	05-320	YA-140	Undervoltage, A2 +1.7V
	A2 1.7R	45		*NOTE2	05-370	YB-200	regulator.
	JA2cbl	2		*NOTE2	05-220	YA-910	
	JA2crd	2		*NOTE2	05-220	YA-910	
	A2DCcbl	2		*NOTE2		YB-905	
	U M/Bk	1		*NOTE2	05-320	YA-140	
CC	A3 Xmfr	70	0530A	*NOTE2	05-375	YC-100	Undervoltage, (all) A3
	A3 Cap	20		*NOTE2	05-375	YC-100	power supply.
	AC cbl	5		*NOTE1	05-210	YA-100	
	A3PrAsm	3		*NOTE2	05-375	YC-100	Any of these FRUs
	Fuse 4	1		*NOTE2	05-315	YA-100	can blow fuse 4.
	F4 Hodr	1		*NOTE1	05-315	YA-100	

(Step 007 continues)

(Step 007 continued)

CD	A3PrAsm	70	0531A	*NOTE2	05-375	YC-100	Undervoltage, A3 power
	A3.7V R	10					supply.
	A3 Xmfr	5		*NOTE2	05-375	YC-100	
	Protect	7		*NOTE2	05-320	YA-140	Any of these FRUs
	JA4cbl	2		*NOTE2	05-220	YA-930	can blow fuse 4.
	JA4crd	2		*NOTE2	05-220	YA-930	
	1.7Vcbl	2					
	A3DCcbl	1					
	AC cbl	1		*NOTE1	05-210	YA-100	
	F4 Hodr	1		*NOTE1	05-315	YA-100	
	U M/Bk	1		*NOTE2	05-320	YA-140	
CE	Fuse 5	31	0590A	*NOTE2	05-315	YA-100	Undervoltage, all levels
	Protect	29		*NOTE2	05-320	YA-140	Expansion power supply.
	ExPrAsm	27		*NOTE2	05-378	YD-100	
	JC2cbl	3		*NOTE2	05-220	YA-950	
	JC2crd	2		*NOTE2	05-220	YA-950	
	Ex Xmfr	2		*NOTE2	05-377	YD-100	Any of these FRUs
	Ex Cap	2		*NOTE2	05-205	YD-100	could blow fuse 5.
	AC cbl	2		*NOTE1	05-210	YA-100	
	F5 Hodr	1		*NOTE1	05-315	YA-100	
	L M/Bk	1		*NOTE2	05-320	YA-140	
CF	Protect	48	0591A	*NOTE2	05-320	YA-140	Undervoltage, Expansion
	ExPrAsm	40		*NOTE2	05-378	YD-100	power supply.
	JC2cbl	6		*NOTE2	05-220	YA-950	
	JC2crd	2		*NOTE2	05-220	YA-950	
	Ex Xmfr	2		*NOTE2	05-377	YD-100	
	Ex Cap	1		*NOTE2	05-205	YD-100	
	L M/Bk	1		*NOTE2	05-320	YA-140	
FF	Thermal	30	0582A	*NOTE2	05-205	YA-130	Perform the lamp test as
	Protect	25		*NOTE2	05-320	YA-140	given in the start
	AC cbl	15		*NOTE1	05-210	YA-100	conditions.
	FanGate	15		*NOTE2	05-205	YA-115	A temperature check
	Fan Pwr	10		*NOTE2	05-205	YA-105	has occurred with the
	JC3cbl	3		*NOTE2	05-220	YA-960	power check.
	L M/Bk	2		*NOTE2	05-320	YA-140	(Also see temperature
	---or--						check section for obvious
	Noise	60					causes of the check).
	Protect	40		*NOTE2	05-320	YA-140	--- or ---

(Step 007 continues)

(Step 007 continued)

						A power check has occurred without a temperature check. The error may be caused by noise or by a normal power-off. To clear the error, set CB1 to the Off position then to the On position.

****

*DANGER/CAUTION Before any FRU is replaced, perform action in the BE SAFE note associated with that FRU.

Note 1: Disconnect the Line Cord.
Note 2: Set CB1 to the Off position.
Note 3: Set the Unit Emergency switch to the Power Off position.
Note 4: Select Mode 6. Press the Power key (power-off).

****

Did the quick-fix FRU tables fix the problem?

Y N

008

Go to the MAP reference given in the quick-fix FRU table (column number four) listed above.

009
Stop, you have fixed the machine.

008

(Entry Point B)

FRU	Part Number	FRU Description
A1 crds	xxxxxxx	Any Card on the A-A1 board
A1DCcbl	2595275	DC Distribution Cable (A-A1 board)
A2 1.7R	2777308	A2 1.7V Regulator Assembly
A2 crds	xxxxxxx	Any Card on the A-A2 board
A2 Cap	5252843	A2 AC Capacitor (60HZ)
A2 Cap	8279052	A2 AC Capacitor (50HZ)
A2DCcbl	8636634	DC Distribution Cable (A-A2 board)
A2PrAsm	2777307	A2 Power Assembly
A2 Xmfr	2777343	A2 Transformer (60HZ)
A2 Xmfr	2777344	A2 Transformer (50HZ)
A3 crds	xxxxxxx	Any Card on the A-A3 board
A3 Cap	6814312	A3 AC Capacitor (60-50HZ)
A3DCcbl	2597892	DC Distribution Cable (A-A3 board)
A3PrAsm	5565080	A3 Power Assembly (60Hz)
A3PrAsm	5564935	A3 Power Assembly (50Hz)
A3FrAsm	5564641	A3 Filter Assembly
A3 Xmfr	5565055	A3 Transformer (60HZ)
A3 Xmfr	5565054	A3 Transformer (50HZ)
A3 1.7V	5565076	A3 1.7-Volt Regulator/Preload Assembly
A-A1 Bd	xxxxxxx	A-A1 Logic Board
A-A2 Bd	xxxxxxx	A-A2 Logic Board
A-A3 Bd	xxxxxxx	A-A3 Logic Board
AC cbl	8636633	AC Distribution Cable
B1.7V R	2777306	Base 1.7V Regulator
B5V Asm	2777327	Base 5V Assembly
B-A1 Bd	xxxxxxx	Control Panel (B-A1 driver board)
B-A2 Bd	xxxxxxx	Control Panel (B-A2 display board)
B ACcap	5252843	Base AC Capacitor (60HZ)
B ACcap	8279052	Base AC Capacitor (50HZ)
B PrAsm	2777380	Base Power Assembly
B Xmfr	2777341	Base Transformer (60HZ)
B Xmfr	2777342	Base Transformer (50HZ)
Contcbl	8636627	Control Supply Cable Assembly (AC box)
DCGnBd	2777428	DC Ground Board

(Step 009 continues)

(Step 009 continued)

Ex Cap 8279052 Expansion AC Capacitor (60/50HZ)

FRU	Part Number	FRU Description
ExPrAsm	2777304	Expansion Power Assembly
Ex Xmfr	2777347	Expansion Transformer (60HZ)
Ex Xmfr	2777348	Expansion Transformer (50HZ)
E11wire	2777398	E11 Ground Wire Assembly (base 1.7 volt regulator)
E12wire	5758625	E12 Ground Wire Assembly (A2 power)
E13wire	2777409	E13 Ground Wire Assembly (A2 1.7 volt regulator)
E14wire	2777297	E14 Ground Wire Assembly (A3 power)
E16wire	xxxxxxx	E16 Ground Wire Assembly (Expansion)
FanGate	2777396	Gate Fan (60HZ) in fan box assembly
FanGate	2777465	Gate Fan (50HZ) in fan box assembly
Fan Pwr	2777396	Base Power Fan (60HZ)
Fan Pwr	2777465	Base Power Fan (50HZ)
Fuse 2	2495463	Fuse 2 (AC voltage to base supply 7 ampere)
Fuse 3	107666	Fuse 3 (AC voltage to A2 supply 5 5 ampere)
Fuse 4	2495470	Fuse 4 (AC voltage to A3 supply 3.5 ampere)
Fuse 5	2495471	Fuse 5 (AC Voltage to Expansion 4.5 ampere)
Fuse 6	855253	Fuse 6 (+24V control supply 1 ampere)
F2 Hodr	92752	Fuse 2 Fuse holder
F3 Hodr	92752	Fuse 3 Fuse holder
F4 Hodr	92752	Fuse 4 Fuse holder
F5 Hodr	92752	Fuse 5 Fuse holder
JA1cbl	4233963	JA1 Cable Assembly
JA2cbl	8636649	JA2 Cable Assembly
JA2crd	2777318	JA2 Jumper Card Assembly
JA3cbl	4233964	JA3 Cable Assembly
JA4cbl	8636654	JA4 Cable Assembly
JA4crd	2777318	JA4 Jumper Card Assembly
JC2cbl	xxxxxxx	JC2 Cable Assembly
JC2crd	2777318	JC2 Jumper Card Assembly
JC3cbl	8636651	JC3 Cable Assembly
J32 Jmp	2777418	J32 Jumper Assembly
J59 Jmp	2777372	J59 Jumper Assembly
J76 Jmp	2777372	J76 Jumper Assembly
J90 Jmp	2777418	J90 Jumper Assembly
K1diode	5565215	K1 Diode Assembly (AC box)

(Step 009 continues)

(Step 009 continued)

L M/Bk	2777420	Lower Maple Block
Protect	2777424	Protect Card
RelayK1	2775241	Relay K1 (AC box)

FRU	Part Number	FRU Description
Thermal	5428337	Power Thermal Switch
Thermal	5468294	Gate Thermal Switch
U M/Bk	2777475	Upper Maple Block
1.7V cbl	2777425	1.7-volt Regulator/Preload Sense/Control Cable (from J30 to J74)
10 A1	xxxxxxx	10SR Disk Drive Board Assembly
10 cbl	xxxxxxx	10SR Disk Drive DC Distribution Cable
21 cbl	8636643	21ED Disk Drive DC Cable Assembly
21 DDC	xxxxxxx	21ED Disk Drive Driver Card
51 cbl	8636635	51TD Diskette Drive DC Distribution Cable Assembly
51 DCC	xxxxxxx	51TD Diskette Drive Control Card.
72 cbl	8636648	72MD Diskette Drive DC Distribution Cable Assembly
72 DCC	xxxxxxx	72MD Diskette Drive Control Card.

- Use parts catalog or FLD's for part numbers not listed above.

ENTRY POINTS

FROM	ENTER THIS MAP		
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
0101	A	1	001
0105	A	1	001

EXIT POINTS

EXIT THIS MAP		TO	
PAGE NUMBER	STEP NUMBER	MAP NUMBER	ENTRY POINT
8	044	0190	A
9	047	0190	A
10	049	0190	A
11	053	0190	A
2	006	0511	A
2	002	0599	A
13	062	0599	B
12	059	0599	C
11	055	1104	A
12	057	1701	A

001

(Entry Point A)

The MAP verifies that the proper voltages are being supplied to the boards first.

- Measure the voltages on the A-A1 board as shown in chart A1.

Chart A1

Nominal DC Voltage	Minimum DC Voltage	Probe Point
+5.0Vdc	+4.55Vdc	A-A1R2D03
-5.0Vdc	-4.55Vdc	A-A1J2B06
-12.0Vdc	-10.8Vdc	A-A1G2D07*
-12.0Vdc	-10.8Vdc	A-A1K2M11@
gnd	gnd	A-A1R2D08
+8.5Vdc	+7.68Vdc	A-A1H2M11
+1.7Vdc	+1.67Vdc	A-A1P2B09

* Probe this pin only when a card is in the A-A1G2 slot.

@ Probe this pin only when a

(Step 001 continues)

MAP DESCRIPTION:

This MAP checks basic CSP functions to determine if voltage or the CSP is causing CSIPL start failures.

START CONDITIONS:

CSIPL failed from both disk and diskette leaving FFFF in the control panel display.

FRUs PARTIALLY TESTED:

None

(Step 001 continued)
card is in the A-A1K2 slot
AND no card in A-A1G2.

Do all the voltages on the A-A1 board measure more than the mimimum as shown in chart A1?

Y N

002
Go To Map 0599, Entry Point A.

003
When 21ED disks are installed in the system, +24 Vdc is used by both the disk and diskette units.
If this voltage is bad the symptom will be: you are unable to IPL from disk and from diskette.

Does the system have 1 or more 21ED disks installed?

Y N

004
Go to Step 007, Entry Point F.

005
- With power on, measure +24 Vdc on pin 3 of the J23 connector on the base power supply.
- Do not disconnect the diskette DC distribution cable from J23 to make the measurement.

Does it measure at least +21.6 Vdc?

Y N

006
- Suspect a bad base power assembly.

Go To Map 0511, Entry Point A.

007
(Entry Point F)
Does the system have an A-A2 board?

Y N

008
(Entry Point B)
Does the system have an A-A3 board?

Y N

1 1
2 2
A B C

C

009
(Entry Point C)
Either the MSP Stop or the MSP Run light may be on but not both or they both can be off.

Are the MSP Stop and the MSP Run lights both on?

Y N

010
Are there four (4) Top Card Connectors used on the A-A1M2 card?

Y N

011
- Press the System Reset key.
- Select mode 0.
- Probe the following:

Up Light: On
Down Light: Off

A-A1M2B12 (-IMPL cycle).

Are the lights correct?

Y N

012
One of the cards/cables in net (FLD CM100BB63) is bad.
- To determine failing card/cable:
- Power down.
- Unseat first card in list - see list below.
- Power up.
- Probe the following:
  A-A1M2B12.
- If Up light is on and Down light if off, then card/cable last unseated is bad.
- If Up light is off and Down light is on, power down, reseat card and unseat next card/cable on list, power up and probe again.
- If all cards/cables on list have been unseated and Down light is still on, replace A-A1M2.

List:

(Step 012 continues)

1
2 4 3
D E F

(Step 012 continued)
A-A2E2
A-A2K2
A-A2Y4
A-A1E2
A-A1Z1

013
- Probe the following:

```
Up    Light: On
Down  Light: Off
```

If no 6157 adapter card installed, probe A-A1E2P07 (- IPL Disk A)
---or---
If 6157 adapter card installed, probe A-A2E2P07 (only one of these cards will be in the system)
Are the lights correct?
Y N

014
Bad card:
A-A1E2
---or---
A-A2E2
(only one of these cards will be in the system).

015
Is there a card in A-A1Q2?
Y N

016
- Probe the following:

```
Up    Light: On
Down  Light: Off
```

A-A1N2P04 (- Base Cycle Steal Request)
Are the lights correct?
Y N

G H J

G H J

017
One of the cards/cables in base cycle steal net (CN020AC30) is bad. To determine failing card/cable:
- Power down.
- Unseat first card in list - see list below.
- Power up.
- Probe the following:
  A-A1N2P04 - if Up light is on and Down light if off, then card/cable last unseated is bad.
- If Up light is off and Down light is on, power down, reseat card and unseat next card/cable on list, power up and probe again.
- If all cards/cables on list have been unseated and Down light is still on, replace A-A1N2.

List:
A-A3S2
A-A2Z4
A-A2E2
A-A2J2
A-A1Z1
A-A1H2
A-A1E2
A-A2T2
A-A2S2
A-A2N2
A-A3P2

018
Go to Page 8, Step 043, Entry Point H.

019
- Probe the following:

```
Up    Light: On
Down  Light: Off
```

A-A1N2S02 (- Base cycle steal request new).
Are the lights correct?
Y N

4 4
K L

020

One of the cards/cables in base cycle steal net (K020AC30) is bad. To determine failing card/cable:

- Power down.
- Unseat first card in list - see list below.
- Power up.
- Probe the following:
  A-A1N2S02 - if Up light is on and Down light if off, then card/cable last unseated is bad.
- If Up light is off and Down light is on, power down, reseat card and unseat next card/cable on list, power up and probe again.
- If all cards/cables on list have been unseated and Down light is still on, replace A-A1N2.
  List:
  A-A3S2
  A-A2Z4
  A-A2E2
  A-A2J2
  A-A1Z1
  A-A1H2
  A-A1E2
  A-A2T2
  A-A2S2
  A-A2N2
  A-A3P2

021

Go to Page 8, Step 043, Entry Point H.

022

The following is a test of the CSP function.

- Select mode 3.
- Press the System Reset key.
- Enter AA55.
- Press the CSP Start key.

These steps enter AA55 and then 55AA into the MAR and reads it back to see if MAR is working.

Is AA55 displayed in the display lights?

Y N

5 5
M N

023
The CSP failed.
Go to Page 11, Step 051, Entry Point E.

024
- Enter 55AA.
- Press the CSP Start key.

IS 55AA displayed in the display lights?
Y N

025
The CSP failed.
Go to Page 11, Step 051, Entry Point E.

026
- Press the System Reset key.
- Select mode 4.
- Enter AA55.
- Press the CSP Start key.
- Enter 55AA.
- Press the CSP Start key.
- Press the System Reset key.
- Select mode 2.
- Press the CSP Start key.

These steps enter AA55 into control store location 0000 and 55AA into location 0001 and then reads them out.

Is AA55 displayed in the display lights?
Y N

027
(Entry Point G)
- Press the System Reset key.
- Select mode 0.
- Probe the following:

```
Up   Light: On
Down Light: Off
```

A-A1M2G10 (- IMPL cycle).

Are the lights correct?
Y N

028

One of the cards/cables in net (FLD CM105AA58) is bad. To determine failing card/cable:

- Power down.
- Unseat first card in list - see list below.
- Power up.
- Probe the following:
  A-A1M2G10.
- If up light is on and down light is off, the card/cable last unseated is bad.
- If up light is off and down light is on, power down, reseat card and unseat next card/cable on list, power up and probe again.
- If all cards/cables on list have been unseated and down light is still on, replace A-A1M2.

List:
A-A2E2
A-A2K2
A-A2Y4
A-A1E2
A-A1Z1

029

- Probe the following:

```
Up   Light: On
Down Light: Off
```

A-A1E2P07 (- IPL Disk A)
---or---
A-A2E2P07
(only one of these cards will be in the system).

Are the lights correct?

Y N

030

Bad card:
A-A1E2
---or---
A-A2E2 (only one of these cards will be in the system).

S

S

031

- Probe the following:

```
Up   Light: On
Down Light: Off
```

A-A1L2P09 (- base cycle steal request new).

Are the lights correct?

Y N

032

One of the cards/cables in base cycle steal net (CK020AC30) is bad. To determine failing card/cable:

- Power down.
- Unseat first card in list - see list below.
- Power up.

- Probe the following:
  A-A1L2P09.

If up light is on and down light is off, the card/cable last unseated is bad.

- If up light is off and down light is on, power down, reseat card and unseat next card/cable on list, power up and probe again.
- If all cards/cables have been unseated and down light is still on, replace A-A1L2.

List:
A-A3S2
A-A2Z4
A-A2E2
A-A2J2
A-A1Z1
A-A1H2
A-A1E2
A-A2S2
A-A2T2
A-A2N2
A-A3P2

033

The CSP failed.

Go to Page 11, Step 051, Entry Point E.

034

- Press the CSP Start key.

Is 55AA displayed in the display lights?

Y N

035

The CSP failed.

Go to Page 11, Step 051, Entry Point E.

036

- Press the System Reset key.
- Select mode 4.
- Enter 0001.
- Press the CSP Start key.
- Enter A112.
- Press the CSP Start key.
- Enter A934.
- Press the CSP Start key.
- Enter 0000.
- Press the CSP Start key.
- Press the System Reset key.
- Select mode 0.
- Press the CSP Start key.

These steps enter a 4 step program and then cause the system to loop on it.

Does the program run without getting a processor check light?

Y N

037

The CSP failed.

Go to Page 11, Step 051, Entry Point E.

038

The following routine checks out the address bits:

This program does a functional test on all CSP memory address lines.

- Select mode 4.
- Press the System Reset key.
- Enter 0001
- Press the CSP Start key.
- Enter A800
- Press the CSP Start key.
- Enter A007
- Press the CSP Start key.
- Enter A9FF
- Press the CSP Start key.

(Step 038 continues)

(Step 038 continued)
- Enter A1FF
- Press the CSP Start key.
- Enter 41E8
- Press the CSP Start key.
- Enter 0005
- Press the CSP Start key.

Is the system Processor Check light on?
Y N

039
- Select mode 2.
- Press the System Reset key.
- Press the CSP Start key.

Is 0001 displayed?
Y N

040
Go to Page 11, Step 051, Entry Point E.

041
- Select mode 0.
- Press the CSP Start key.
- Processor Check light may or may not come on.
- Select mode 2.
- Press the System Reset key.
- Press the CSP Start key.

Is 0001 displayed?
Y N

042
Go to Page 11, Step 051, Entry Point E.

1 1
T U

U

MAP 0121-8

043
(Entry Point H)
The basic CSP functions are correct.
- Select mode 1.
- Press the System Reset key.
- Select mode E.
- Insert diskette DIAG21/41.
- Enter FF00.
- Press the Load key.
- Wait approximately 2 to 3 minutes for CSIPL sequence to complete.
- Display the CSP checks.
- Select mode 9. (CSP chks)

Are there four (4) Top Card Connectors used on the A-A1M2 card?
Y N

044
Go To Map 0190, Entry Point A.

045
Is C0XX displayed in the control panel hex lights (X = don't care)?
Y N

1 1 9
V W

046

Table 1

	Mode 9 CSP
A	00XX
B	01XX
C	10XX
D	90XX
E	CCXX
F	dCXX
G	ddXX

Does the control panel hex display match any CSP check entries in table 1 (ignore X characters)?

Y N

047

Go To Map 0190, Entry Point A.

048

- Note the letter to the left of the matching CSP check entry in table 1.
- Use this letter and go to table 2 to find all the channel check hex values with the same letter to the left of the entry (for example: the letter B produces 3 hex values from table 2 - 0008, 00FF & 0208).
- Record the matching hex value or values from table 2.
- Display channel checks.
- Select mode 8.

Table 2

	Mode 8 Channel
A	0008
B	0008
B	00FF
B	0208
C	0008
D	0000
E	0008
F	0008
F	4408
G	0008

Does the control panel hex display match any of the recorded hex values?

Y N

049
Go To Map 0190, Entry Point A.

050
Go to Page 11, Step 051, Entry Point E.

051
(Entry Point E)
- Perform the following checks to see if the MSP is causing the CSP to fail.
- Select mode 6.
- Press the Power key (power off).
- Unseat A1P2, A1Q2.
- Press the Power key (power on).
- Select mode F.
- Enter FA02.
- Press the Load key.

Is FA02 displayed in the display lights?
Y N

052
- Select mode 6.
- Press the Power key (power off).
- Reseat A1P2, A1Q2 cards.
- Reinstall TCCs.

Are there four (4) Top Card Connectors used on the A-A1M2 card?
Y N

053
Go To Map 0190, Entry Point A.

054
- Replace the following cards:

A-A1L2
A-A1M2
A-A1N2.

Either the CSP memory card or A-A1M2 or A-A1L2 or TCC is bad.

055
- Select mode 6.
- Press the Power key (power off).
- Reseat A1P2, A1Q2 cards.

Go To Map 1104, Entry Point A.

056
Go to Step 051, Entry Point E.

057

Go To Map 1701, Entry Point A.

058

- Measure the voltages on the A-A3 board as shown in chart A3.

Chart A3

Nominal DC Voltage	Minimum DC Voltage	Probe Point: Communications 1-4 line feature 4500	Probe Point: Communications 1-8 line feature 4550
+1.7Vdc	+1.67Vdc	A-A3S2M05	A-A3P2B05
+5.0Vdc	+4.55Vdc	A-A3S2D03	A-A3F2D03
-5.0Vdc	-4.55Vdc	A-A3M2B06	A-A3F2S06
+8.5Vdc	+7.68Vdc	A-A3M2B11	A-A3F2D07
-12.0Vdc	-10.8Vdc	A-A3M2D07	A-A3F2M11
gnd	gnd	A-A3M2D08	A-A3F2D08

Do all the voltages on the A-A3 board measure more than the minimum as shown in chart A3?

Y N

059

Go To Map 0599, Entry Point C.

060

Go to Page 2, Step 009, Entry Point C.

061

- Measure the voltages on the A-A2 board as shown in chart A2.

Chart A2

Nominal DC Voltage	Minimum DC Voltage	Probe Point	
+1.7Vdc	+1.67Vdc	A-A2J2B05	*
+5.0Vdc	+4.55Vdc	A-A2J2D03	
-5.0Vdc	-4.55Vdc	A-A2J2S06	
+8.5Vdc	+7.68Vdc	A-A2J2M11	
gnd	gnd	A-A2J2D08	

*Only present when A2 supply is installed.

(Step 061 continues)

(Step 061 continues)

(Step 061 continued)

Do all the voltages on the A-A2 board measure more than the minimum as shown in chart A2?

Y N

062
Go To Map 0599, Entry Point B.

063
Go to Page 2, Step 008, Entry Point B.

(Step 061 continued)

Note: If there are 14 voltage connectors installed on the pin side of the A2 board, the A2 supply is installed. If there are only 4 connectors, the A2 supply is not installed.

ENTRY POINTS

FROM	ENTER THIS MAP		
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
0105	A	1	001
0115	C	2	012
0116	A	1	001

EXIT POINTS

EXIT THIS MAP		TO	
PAGE NUMBER	STEP NUMBER	MAP NUMBER	ENTRY POINT
3	013	0105	A

001
(Entry Point A)
The following is a list of obvious problems that cause the diskette to fail intermittently:
Foreign material in diskette or diskette drive.
The Cover is not closed.
The diskette is not inserted correctly.
The belt is off of the pulley or damaged.
AC motor capacitor housing has a crack or is distorted.
The pulley is not turning or is slipping.
The AC motor is not turning.
The cables for attachment or power are not seated.
Drive band is broken or damaged.

MAP DESCRIPTION:
This MAP instructs the CE/CSR to run the drive test diskette and MDI tests for the diskette.

START CONDITIONS:
The diskette attachment has been determined to be the failing device. You can IPL from the disk.

FRUs PARTIALLY TESTED:
No FRUs

Radio Frequency Interference (RFI) can cause the diskette units to malfunction when operated outside the system box. Should RFI be suspected, the diskette unit should be placed inside the system for operational checkout. All covers must be in place and closed.

Did you find the problem in the list?
Y N

002
Go to Page 2, Step 004, Entry Point B.

003
- Fix the obvious problem.

Was this the only diskette problem?
Y N

3 2
A B

004
(Entry Point B)
Did you get a system reference code of 1d0F or 1d0A?
Y N

005
Go to Step 012, Entry Point C.

006
We will first test the drive with the drive test diskette as follows:
- If you have already tested with drive test diskette or if you are sure that failure is hardware related, you may skip to step 012, Entry Point C.

- Select mode 1.
- Press the System Reset key.
- Select mode 0.
- Enter FF00.
- Press the Load key.

Does SSP sign on screen appear?
Y N

007
Go to Step 012, Entry Point C.

008
- Sign on the system.

When the option menu appears on the console:
- Enter the command 'I1DIAG DRIVE' from the system console.
- Follow instructions as they are displayed on the console.

When the diskette drive test completes, one of the following messages and/or SRCs will appear on the console display:
1. The diskette drive is functioning within acceptable limits.
2. The diskette drive is functioning within acceptable limits after cleaning.
3. The diskette drive is not functioning within acceptable limits.

(Step 008 continues)

(Step 008 continued)
Item 3 will list one of the SRCs: (reference MAP 0115)
1DA1 - cannot read cylinder 0 head 0
1DA2 - worn-head test fails on head 0, head 1 is good
1DA3 - worn-head test fails on head 1, head 0 is good
1DA4 - worn-head test fails on both head 0 and 1

Is the diskette drive functioning within acceptable limits?
Y N

009
Suspect hardware problem or dirty head.
Go to Step 012, Entry Point C.

010
The diskette drive operates within acceptable limits.
Suspect media problem.
Do you want to run the MDIs?
Y N

011
- Verify the system is fixed and return it to the operator.
- Refer the operator to the problem determination guide, diskette section.

012
(Entry Point C)
- Run diskette MDIs.
- To cause a CSIPL from the disk and load the diagnostic control program (DCP), perform the following:

- Select mode 1.
- Press the System Reset key.
- Select mode F.
- Enter F800.
- Press the Load key.

Note: It may take about 1 to 3 minutes for the CSIPL sequence to complete, depending on the system configuration.

When the CSIPL sequence completes, the System Available light should be on and the console displays
(Step 012 continues)

(Step 012 continued)
the DCP main menu.

Is the Main Menu displayed on the console?
Y N

013
The CSIPL completed correctly from the disk before this attempt. MAP 0105, A reviews the indicators.
Go To Map 0105, Entry Point A.

014
- Select MDI MAPs and press Enter.
- Select diskette and press Enter.
- Follow instructions of diskette MDIs.
- Wait for the MDI MAPs to either find the failing FRU, instruct you to follow the MDI MAPs, or complete.

Did the diskette MDI tests find the problem?
Y N

015
- CSIPL completed correctly from disk.
- Replace the FRU(s) in the order recommended by the system reference code.
- Verify that the system is repaired and return it to the system operator.

016
- Verify that the system is repaired and return it to the system operator.

017
- Return the system to the operator.

ENTRY POINTS

FROM	ENTER THIS MAP		
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
0121	A	1	001

EXIT POINTS

EXIT THIS MAP		TO	
PAGE NUMBER	STEP NUMBER	MAP NUMBER	ENTRY POINT
10	061	0199	A

001
(Entry Point A)
- Select mode 6.
- Press the Power key (power off).
- Remove and mark the location on each item in the following list:

A-A1C2 disk adapter card
A-A1D2 disk adapter card or
6157 tape adapter card
(See Note in other column)
A-A2C2 disk adapter card
A-A2D2 disk adapter card
A-A2C4 disk adapter card
A-A2D4 disk adapter card
A-A2T2 printer adapter
A-A2S2 printer state
A-A2K2 tape DSA
(card chart continues on next page)
A-A2N2 MCR adapter
A-A1K2 SLCA
A-A1L2 LAN adapter card for
STAGE 2 or 3 SYSTEM
A-A2Z4 crossover cable
A-A2Z5 crossover cable
A-A2Z6 crossover cable

If there is an A3 board and no A2 board - Remove:
A-A1Z1 crossover cable
A-A1Z2 crossover cable
A-A1Z3 crossover cable

(Step 001 continues)

MAP DESCRIPTION:
This MAP will remove all I/O adapters that interface to the channel bus that are not required for IPL.

START CONDITIONS:
The system will not IPL from disk or diskette.

FRUs PARTIALLY TESTED:
A-A1C2, A-A2C2, A-A3S2
A-A1D2, A-A2D2, A-A3P2
A-A1E2, A-A2C4
A-A1F2, A-A2D4
A-A1H2, A-A2J2
A-A1K2, A-A2K2
A-A1L2, A-A2N2
A-A2S2
A-A2T2
top card connectors
channel crossover cables

Note: A-A1D2/A-A1E2 slots contain:
Disk adapter card and disk/diskette DSA if A-A1F2 and A-A1C2 cards are present.
6157 tape adapter and 6157 tape DSA (if installed) if A-A1F2 and A-A1C2 cards are not present. (Disk adapter card and disk/diskette DSA are located in A-A2D2 and A-A2E2 slots).

(Step 001 continued)
After the cards are removed as indicated in the card chart, the only cards remaining on the system channel bus are: the channel card at A-A1L2 or A-A1N2 (CHANNEL CARD in A-A1N2 indicates a STAGE 2 or 3 SYSTEM) controller card at A-A1H2 and the disk/diskette DSA card at A-A1E2 or A-A2E2 and a passthrough card or controller card at A-A2J2.

CAUTION

To prevent damage to the 21ED disk drives, if installed, disconnect cables from J25 and J26 (05-240) before removing A-A1C2 and A-A1D2 (if present) or A-A2C2 and A-A2D2 (if present).

Note: Some locations will not have cards/cables in them.

After the cards/cables are removed and marked, then:

Note: The Channel Terminator card can be in one of five locations. Mark the location and make sure it gets returned to that location before leaving this MAP.

```
A-A1B3 - Pre-Stage 2
A-A1B5 - Stage 2
A-A2U3
A-A3U3 - MLCA feature
A-A3U4 - ELCA feature
```

- If the channel terminator card is on the A3 board - A-A3U3 or A-A3U4 - remove it and move it to the A-A2U3 position. If there is no A2 board leave it out. If it is on the A1 board (A1B3 or A1B5), remove it.

- If there is a wire connecting A-A1E2J13 to ground, remove A-A1E2 and mark the location on the card.
- Replace top card connector (TCC) on A1E2 and A1F2 in the 'X' position (or A2E2 and A2F2).

- Press the Power key (power on).
- Select mode E.
- Enter FFF0.

(Step 001 continues)

(Step 001 continued)
- Insert DIAG21/41 magazine M1.
- Press the Load key.

Did the DCP screen appear?

Y N

002
- Select mode 6.
- Press the Power key (power off).
- Reinstall the card removed from A-A1C2 (and A-A1D2 if present) or A2C2 (and A-A2D2, A-A2C4, A-A2D4 if present) (disk adapter card) and remove the card at A-A1F2 or A-A2F2 (diskette adapter card).
- Reinstall the top card connector(s). (See FLD AB100 and AB200 for proper positions.

If 21ED, reconnect cables at J25 and J26 (05-240).
- Press the Power key (power on).
- Select mode F.
- Enter F8F0.
- Press the Load key.
- Wait up to 15 minutes (depending on main storage size) for Load to complete.

Did the DCP screen appear on the system console?

Y N

The disk adapter card and diskette adapter do not interface directly to the system channel bus but either one being bad can prevent a successful CSIPL from either disk or diskette.

003
- Select mode 6.
- Press the Power key (power off).
- Reinstall diskette adapter card at A-A1F2 or A-A2F2.
- Reinstall TCC.
- Remove card at A-A1H2.
- Press the Power key (power on).
- Select mode E.
- Enter FFF0.
- Insert DIAG21/41 or magazine M1.
- Press the Load key.
- Wait up to 15 minutes (depending on main storage size) for Load to complete.

Is A000 displayed on control panel display?

Y N

A-A1H2 card is the work station controller. With this card out of the system, A000 should be displayed in the control panel display if CSIPL runs correctly.

8 8 8 4
A B C D

004

(Entry Point C)

- Select mode 6.
- Press the Power key (power off).
- Reinstall A-A1H2 card.

Does this system have the disk and diskette cards (A-A2C2, A-A2D2, A-A2E2, A-A2G4) on the A2 board?

Y N

005

- Remove A1Z1, A1Z2, A1Z3 (if present).
- Press the Power key (power on).
- Select mode E.
- Enter FFF0.
- Press the Load key.

Did the DCP screen appear?

Y N

006

Are there four (4) Top Card Connectors used on the A-A1M2 card?

Y N

007

Bad card:
A-A1E2
---or---
A-A1N2.

- Select mode 6.
- Press the Power key (power off).
- Reinstall cards/cables and TCCs removed in step 001.
- Return terminator card to its original position. See step 001.

008

Bad card:
A-A1E2
---or---
A-A1L2
---or---
A-A1M2.

- Select mode 6.
- Press the Power key (power off).
- Reinstall cards/cables and TCCs removed in step 001.
- Return terminator card to its original position. See step 001.

009

- Select mode 6.
- Press the Power key (power off).
- Move card from A2U3 to A1B5 (or A1B3 on a pre-STAGE 2 system).
- Press the Power key (power on).
- Select mode E.
- Enter FFF0.
- Press the Load key.

Did DCP screen appear?

Y N

010

Bad terminator card (now in location A1B5 or A1B3).

- Select mode 6.
- Press the Power key (power off).
- Install good terminator card in the original position.
- Reinstall cards/cables and TCCs removed in step 001.

011

Bad A1 crossover cables.

- Select mode 6.
- Press the Power key (power off).
- Reinstall cards/cables and TCCs removed in step 001.
- Return terminator card to its original position. See step 001.

012

Is there a card in A-A2L2 (8809 Tape installed)?

Y N

013

At this point the following FRUs are suspect; A1L2, A1M2, A2E2, A2J2, A1-A2 crossover cables. The following procedure will isolate the failing FRU:

- Select mode 6.
- Press the Power key (power off).
- Remove A2J2 card.
- Remove A1H2 card and install it in the A2J2 position.
- Press the Power key (power on).
- Select mode E.
- Enter FFF0.
- Insert Diag 21/41 or M1.
- Press the Load key.
- Wait up to 15 minutes (depending on main storage size) for Load to complete.

Is A000 displayed on the control panel?

Y N

014

(Entry Point J)

- Select mode 6.
- Press the Power key (power off).
- Remove the card in A2J2 and reinstall this card in the A1H2 position.
- Install original card in the A2J2 position.
- Remove the channel crossover cable A1Z1, A1Z2 and A1Z3.
- Remove TCCs from A2E2 card.
- Remove A2G4 and install it in the A1G4 position.
- Remove A2F2 and install it in the A1F2 position.

Is 6157 tape installed on this system? (Jumper installed)

Y N

7 7 6
H J K L

015

- Remove A2E2 and install it in the A1E2 position.
- Install TCC in the X position on the A1E2 & A1F2 cards.
- Remove the cable from the A2V5 position and install it in the A1V5 position.
- Press the Power key (power on).
- Select mode E.
- Enter FFF0.
- Press the Load key.

Did the DCP screen appear on the system console?

Y N

016

(Entry Point M)

Are there four (4) Top Card Connectors used on the A-A1M2 card?

Y N

017

Bad card:

A1N2

A1M2

---or---

A2E2.

- Select mode 6.
- Press the Power key (power off).
- Reinstall the A1E2, A1F2, A1G4 cards in the A2E2, A2F2, A2G4 positions respectively.
- Reinstall the A1V5 cable in the A2V5 position.
- Reinstall A1Z1, A1Z2, A1Z3 crossover cables.
- Reinstall cards/cables and TCCs removed in step 001.
- Return terminator card to its original position. See step 001.

6 6
M N

018

Bad card:
A1L2
A1M2
---or---
A2E2.
- Select mode 6.
- Press the Power key (power off).
- Reinstall the A1E2, A1F2, A1G4 cards in the A2E2, A2F2, A2G4 positions respectively.
- Reinstall the A1V5 cable in the A2V5 position.
- Reinstall A1Z1, A1Z2, A1Z3 crossover cables.
- Reinstall cards/cables and TCCs removed in step 001.
- Return terminator card to its original position. See step 001.

019

(Entry Point K)
- Select mode 6.
- Press the Power key (power off).
- Move chan terminator card from A2U3 to A1B5 (or A1B3 on a pre-STAGE 2 sytem).
- Press the Power key (power on).
- Select mode E.
- Enter FFF0.
- Press the Load key.

Did DCP screen appear?

Y N

020

Bad chan terminator card (A1B5 or A1B3). Install good card in original terminator card position. See step 001.
- Select mode 6.
- Press the Power key (power off).
- Reinstall the A1E2, A1F2, A1G4 cards in the A2E2, A2F2, A2G4 positions respectively.
- Reinstall the TCC.
- Reinstall the A1V5 cable in the A2V5 position.
- Reinstall cards/cables removed in step 001.

021

Bad A1 crossover cables.
- Select mode 6.
- Press the Power key (power off).
- Reinstall the A1E2, A1F2, A1G4 cards in the A2E2, A2F2, A2G4 positions respectively.
- Reinstall the A1V5 cable in the A2V5 position.
- Reinstall cards/cables and TCC(s) removed in step 001.
- Return terminator card to its original position. See step 001.

022

- Remove jumper from A-A1E2J13 D08.
- Reinstall the A1E2 card.
- Install TCC in the X position on the A1E2 & A1F2 cards.
- Remove the cable from the A2V5 position and install it in the A1V5 position.
- Press the Power key (power on).
- Select mode E.
- Enter FFF0.
- Press the Load key.

Did the DCP screen appear on the system console?

Y N

023

- Select mode 6.
- Press the Power key (power off).
- Remove the A1E2 card.
- Remove the A2E2 card and install this card in the A1E2 position.
- Press the Power key (power on).
- Select mode E.
- Enter FFF0.
- Press the Load key.

Did the DCP screen appear on the system console?

Y N

024

Go to Page 5, Step 016, Entry Point M.

025
Bad card:
A1E2

026
- Select mode 6.
- Press the Power key (power off).
- Remove the A1E2 card.
- Remove the A2E2 and install it in the A1E2 position.
- Install TCC in the X position on the A1E2 & A1F2 cards.
- Press the Power key (power on).
- Select mode E.
- Enter FFF0.
- Press the Load key.

Did the DCP screen appear on the system console?
Y N

027
Go to Page 5, Step 016, Entry Point M.

028
Go to Page 6, Step 019, Entry Point K.

029
The original A2J2 card is bad.
- Select mode 6.
- Press the Power key (power off).
- Remove the card in A2J2 and reinstall it in the A1H2 position.
- Reinstall cards/cables and TCC(s) removed in step 001.
- Return terminator card to its original position. See step 001.

030
Tape is installed.
- Remove card at A-A2E2.
- Install the card removed from A-A2K2 (in step 001) into the A-A2E2 position.
- Reinstall TCC(s).
- Press the Power key (power on).
- Select mode E.
- Enter FFF0.
- Press the Load key.

Did the DCP menu appear?
Y N

031
- Select mode 6.
- Press the Power key (power off).
- Reinstall the A-A2E2 and A-A2K2 into their originalpositions along with their TCC.
- Remove card at A-A1H2 andA-A2J2.
- Install the card just removed from A-A1H2 into the A-A2J2 position (leave A-A1H2 slot empty).
- Press the Power key (power on).
- Select mode F.
- Enter F8F0.
- Press the Load key.
- Wait up to 15 minutes (depending on main storage size) for Load to complete.

Is A000 displayed in control panel display?
Y N

032
Go to Page 5, Step 014, Entry Point J.

033
The original card removed from A-A2J2 is bad.
- Select mode 6.
- Press the Power key (power off).
- Remove the card in A2J2 and reinstall it in the A1H2 position.
- Reinstall cards/cables removed in step 001 and return the channel terminator card to its original position. See step 001.

034
The card removed from A-A2E2 is bad.
- Select mode 6.
- Press the Power key (power off).
- Reinstall the remaining cards/cables removed in step 001. Return terminator card to its original location. See step 001.

035
Have you previously replaced the A-A1H2 card?
Y N

036
The card removed from A-A1H2 is bad.
- Select mode 6.
- Press the Power key (power off).
- Reinstall the remaining cards/cables removed in step 001. Return terminator card to its original location. See step 001.

037
Go to Page 4, Step 004, Entry Point C.

038
The card removed from A-A1F2 or A-A2F2 is bad.
- Select mode 6.
- Press the Power key (power off).
- Reinstall the remaining cards/cables removed in step 001. Return terminator card to its original location. See step 001.

039
- Select mode 6.
- Press the Power key (power off).
- Reinstall the card removed from A-A1C2 (and A-A1D2 if present) or A-A2C2 (and A-A2D2, A-A2C4, A-A2D4 present (disk adapter card).
- If 21ED, reconnect cables at J25 and J26 (05-240).
- Reinstall the top card connector.
- Press the Power key (power on).
- Select mode F.
- Enter F8F0.
- Press the Load key.

(Step 039 continues)

(Step 039 continued)
Did the DCP screen appear on the system console?
Y N

040
Is there a card in A-A1C2?
Y N

041
Is there a card in A-A2D2?
Y N

042
Bad card:
A-A2C2.
- Select mode 6.
- Press the Power key (power off).
- Reinstall the remaining cards/cables removed in step 001. Reinstall A-A1F2 or A2F2. Return terminator card to its original location. See step 001.

043
Is there a card in A-A2C4?
Y N

044
Bad card:
A-A2C2
---or---
A-A2D2.
- Select mode 6.
- Press the Power key (power off).
- Reinstall the remaining cards/cables removed in step 001. Reinstall A-A1F2 or A2F2. Return terminator card to its original location. See step 001.

045

- Select mode 6.
- Press the Power key (power off).
- Remove cards from A-A2D2, A-A2C4, and A-A2D4 if present.
- Press the Power key (power on).
- Select mode F.
- Enter F8F0.
- Press the Load key.

Did the DCP screen appear on the system console?

Y N

046

Bad card:
A-A2C2.

- Select mode 6.
- Press the Power key (power off).
- Reinstall the remaining cards/cables removed in step 001. Reinstall A-A1F2 or A2F2. Return terminator card to its original location. See step 001.

047

- One or more of the cards just removed is bad.
- Select mode 6.
- Press the Power key (power off).
- Reinstall one of the cards (A-A2D2, A-A2C4, or A-A2D4).
- Press the Power key (power on).
- Select mode F.
- Enter F8F0.
- Press the Load key.

If the DCP screen fails to come up, the last card reinstalled is bad.

If the DCP screen comes up, repeat this step until all the cards (A-A2D2, A-A2C4, A-A2D4) have been reinstalled.

When the bad card is found, then:

- Select mode 6.
- Press the Power key (power off).
- Reinstall the remaining cards/cables removed in step 001. Reinstall A-A1F2 or A2F2. Return terminator

(Step 047 continues)

(Step 047 continued)

card to its original location. See step 001.

048

Is there a card in A-A1D2?

Y N

049

Bad card:
A-A1C2.

- Select mode 6.
- Press the Power key (power off).
- Reinstall the remaining cards/cables removed in step 001. Reinstall A-A1F2 or A2F2. Return terminator card to its original location. See step 001.

050

Bad card:
A-A1C2
---or---
A-A1D2.

- Select mode 6.
- Press the Power key (power off).
- Reinstall the remaining cards/cables removed in step 001. Reinstall A-A1F2 or A2F2. Return terminator card to its original location. See step 001.

051

(Entry Point B)

- Select mode 6.
- Press the Power key (power off).
- Reinstall one of the cards removed in step 001.

Note: Install the cards/cables in the following sequence and reinstall TCCs as you replace cards that use them:

1. A1 cards.
2. A2 cards.
3. A2 to A3 crossover cables or A1 to A3 crossover cables and move channel terminator card to A-A3U4 or A-A3U3.
4. A3 cards.

- Press the Power key (power on).

(Step 051 continues)

(Step 051 continued)
- Select mode F.
- Enter F8F0.
- Press the Load key.

Did the DCP screen appear?

Y N

052

Are the A3 board crossover cables installed?

Y N

053

The last card you installed is bad.
- Select mode 6.
- Press the Power key (power off).
- Reinstall the remaining cards/cables removed in step 001. Reinstall A-A1F2 or A2F2. Return terminator card to its original location. See step 001.

054

Is this the first time through after connecting the A3 crossover cables?

Y N

055

Are there any cards, other than the channel terminator card, installed on board A3?

Y N

056

Board A3 or crossover cables are bad.
- Select mode 6.
- Press the Power key (power off).
- Reinstall the remaining cards/cables removed in step 001. Return terminator card to its original location. See step 001.

057

The last card installed is bad.
- Select mode 6.
- Press the Power key (power off).
- Reinstall the remaining cards/cables removed in step 001. Return terminator card to its original location. See step 001.

W X

W X MAP 0190-10

058

The CHANNEL crossover cables or a card in the A3 board is bad

Remove all the cards from board A3 and mark their location. Leave the terminator card in A-A3U4.

Go to Page 9, Step 051, Entry Point B.

059

- Repeat this sequence until all cards/cables and TCCs have been reinstalled or bad card/cable is found.

Have you reinstalled all the cards/cables removed in step 001?

Y N

060

Go to Page 9, Step 051, Entry Point B.

061

A suspected bad card is now the work station controller card in the A-A3S2 position (a bad card in this position will allow the DCP menu to appear). To check this card, swap it with the card in the A-A1H2 position. If you cannot bring up the DCP menu, the card now in the A-A1H2 position is bad.

Indications are that one of the cards was not seated properly.
- If you have not already done so, power down the system and reinstall the A1F2 or A2F2 card. Return the channel terminator card to its original location. See step 001.
- Press the Power key (power on).
- Run SYSTEST to verify that the system is functioning correctly.

Go To Map 0199, Entry Point A.

ENTRY POINTS

FROM	ENTER THIS MAP		
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
0105	A	2	001
0159	A	2	001
0190	A	2	001
0900	A	2	001
1000	A	2	001
1292	A	2	001
9500	A	2	001
9700	A	2	001

EXIT POINTS

EXIT THIS MAP		TO	
PAGE NUMBER	STEP NUMBER	MAP NUMBER	ENTRY POINT
3	003	0105	A
4	014	0113	A
4	011	0300	A
3	006	9500	A
3	005	9700	A

001

(Entry Point A)

This MAP has a table which references MAPs that supply instructions to run the MDI MAPs for each unit.

- If it is not obvious which MDI MAPs should be used, run all the MDI MAPs.

To cause a CSIPL from the disk and load the SSP, perform the following:

- Select mode 1.
- Press the System Reset key.
- Select mode 0.
- Enter 0000.
- Press the Load key.
- Wait about 4 minutes for the CSIPL sequence to complete.

(Step 001 continues)

MAP DESCRIPTION:

This MAP supplies a MAP index to run all the MDI MAPs in the system. It also has a list of other diagnostic tests that can be run to aid in isolating system problems.

START CONDITIONS:

To get to this MAP, CSIPL has worked from the diskette and has been run to determine which unit might have failed and which MDI MAPs should be run.

- If it is not obvious which MDI MAPs should be used, run all the MDI MAPs.

FRUs PARTIALLY TESTED:

No FRUs

Note 1: When the CSIPL completes, the system available light would be on and the console displays the SSP sign on screen.

Table A - MDI MAP reference

Unit	MAP number
21ED	9500,A
10SR	9700,A
Diskette (51TD)	0179,A
Diskette (72MD)	0179,A
3262 printer	5001,A
Work stations	7002,AA
Data communications	3003,A
Tape drive	9900,A
1255 MCR	1255 MIM

(Step 001 continues)

(Step 001 continued)

Did the CSIPL complete (see Note 1 on previous page)?
Y N

002
CSIPL completed from diskette before this attempt, so we will try it again.
- Select mode 1.
- Press the System Reset key.
- Select mode E.
- Enter 0000.
- Press the Load key.

Did the DCP menu appear?
Y N

003
CSIPL fails from disk and diskette. MAP 0105 will try to sort out the cause.
Go To Map 0105, Entry Point A.

004
CSIPL fails from disk and works correctly from diskette. The disk MAPs will determine the cause.
Does the system have 21ED disk drive(s)?
Y N

005
Go To Map 9700, Entry Point A.

006
Go To Map 9500, Entry Point A.

(Step 001 continued)

007

- Sign on the system.
- Enter ERAP (system console).
- Follow prompts as they appear on the screen.

General MIM section 01-360 provides procedures for ERAP and how to interpret the results.

- Review all device logs for high retry counts and frequent errors.
- Check time and date of entries against time and date of customer failures or problems.
- Record the reference codes that are logged for the entries that have high retry counts or frequent occurrences or match time and date of customer problem.

Did the error logs supply enough information to indicate the failing device?

Y N

008

- Return to the SSP main menu and enter SYSTEST (system console).

General MIM section 01-720 provides procedures for running SYSTEST.

- Select all devices to be exercised.
- Permit SYSTEST to run until the failing device is indicated or for a minimum of 15 minutes.

Did any device fail?

Y N

009

This is the good machine path exit.

The intermittent MAPs supply some suggestions for other tests and procedures for those type problems that may not be quickly isolated.

Do you want to go to the intermittent MAPs?

Y N

010

- Return the system to the operator.

011

Go To Map 0300, Entry Point A.

B C

012

Did the failing device present a reference code?

Y N

013

- Refer to table A. Go to the MAP indicated for the failing device to run MDIs.

014

- Refer to the reference code list.

Go To Map 0113, Entry Point A.

015

- Use the reference code(s) recorded for the failing device.
- Refer to the reference code list to determine FRU to be replaced or MAP entry.

Go to reference code MAPs 0113, 0114, 0115 and 0116.