

DIMENSION® 2000 AND CUSTOM PBX

FAULT CODE DIRECTORY

CONTENTS

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1. GENERAL INFORMATION

- 1.1 This section contains a directory of faults and the associated repair procedure. This section is to be used in conjunction with the 400 series sections of this handbook. The faults are listed in numerical order.
- 1.2 This section is to be utilized only after a fault code has been displayed on the Alarm Panel and/or the MAAP.

2. RECORDS & REQUIREMENTS

- 2.1 There are no records or requirements associated with this section.

3. TEST EQUIPMENT

- 3.1 There are no test sets, cords, or accessories needed for this section.

4. PROCEDURE

4.1 Fault Identification Procedures

- 4.1.1 Whenever the Alarm Panel lamps stop cycling on and off in the sequence (lamps 1-22) as shown in Fig. 1, a fault has occurred. Faults are identified by obtaining the fault code number from the MAAP or from the Alarm Panel. (Note that several fault codes which are indicated by Note 1 in the Fault Code Table are not available to be displayed on the MAAP or on the Alarm Panel but they are reserved for use by the software designers and they can only be read with Software Analysis Tool (SWAT) since the fault code is stored in RM2 register. The indication when this type of fault code has occurred is determined by the MAJOR and FAIL lamps lit with all other X-ray controlled lamps off). When a fault is detected and the BUSY OUT lamp on the MAAP is flashing, it indicates the fault can be read on the MAAP. The fault code is then used to find a repair procedure.

PRIVATE

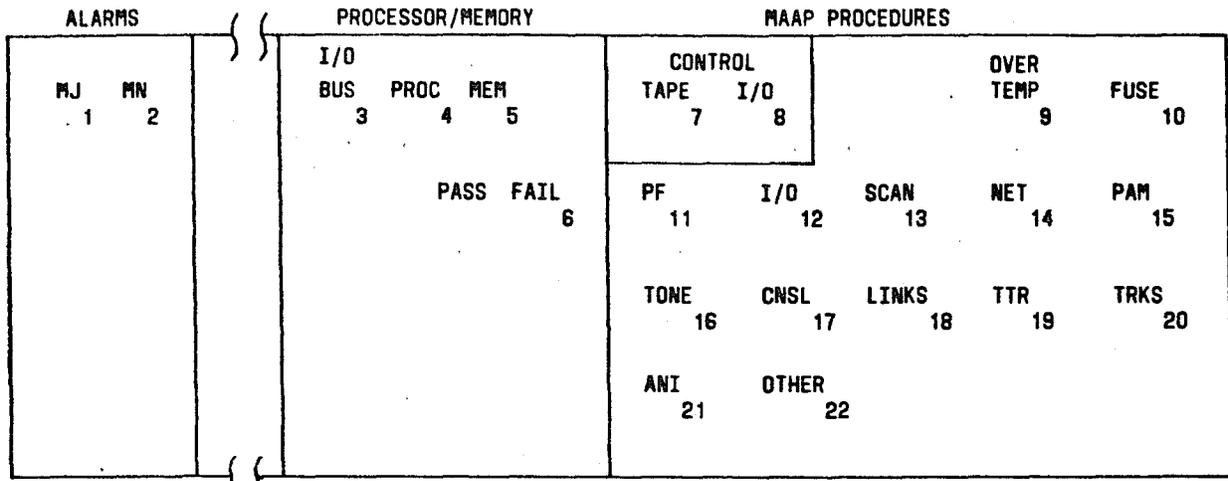
THE INFORMATION CONTAINED HEREIN SHOULD NOT BE DISCLOSED TO UNAUTHORIZED PERSONS. IT IS MEANT SOLELY FOR USE BY AUTHORIZED BELL SYSTEM EMPLOYEES.

- 4.1.2 The Fault Code Table in paragraph 5 provides a list of fault code numbers, display formats (Section 400.81T provides detail explanation of each format), a description of the fault, and a repair procedure (if applicable). The test number column in the Fault Code Table indicates the test(s) that could be run to verify the repair procedure; if test number is not shown, rerun the same test that generated the fault code.
- 4.1.3 Information is displayed in various formats on the MAAP. There are two general types of display: those which display fault information, and those which display system configuration information. Individual sections in the 400 series provide the essential explanation of the displays and MAAP procedures.
- 4.2 Alarm Panel Fault Identification Procedure
- 4.2.1 Alarm Panel lamps contain fault code information. The lamps display the same fault code that is displayed on the MAAP Panel (note that not all fault codes can be displayed on the MAAP). Four groups of four lamps are used to display the fault code on the Alarm Panel. The thousandth digit is displayed by the lamps labeled TH₈, TH₄, TH₂, and TH₁ (Fig. 2). The value of the thousandth digit is determined as shown in the example on Fig. 2. The hundredth, tenth, and unit digits are determined in the same manner.
- 4.2.2 Using the obtained fault code, refer to the Fault Code Table in this section for the corresponding fault description and repair procedure. If the fault code is not displayed on the Alarm Panel, run microdiagnostics 0 through 8 to identify and correct the processor fault. After making the necessary repairs, rerun the appropriate X-ray test to verify the repairs. See paragraph 4.4 for the procedure for replacing circuit packs.
- 4.3 MAAP Fault Identification Procedure
- 4.3.1 When the Alarm Panel lamps stop cycling during an X-ray test and the BUSY OUT lamp on the MAAP is flashing, obtain the fault code from the MAAP display (the first four digits from the left of X-ray test number). If the BUSY OUT lamp is not flashing, use the Alarm Panel Fault Identification Procedure for obtaining the fault code.
- 4.3.2 Using the fault code, refer to the Fault Code Table for the corresponding display format, fault description, and repair procedure. See Section 400.81T for information on display format and refer to the next paragraph (4.4) for the procedure for replacing circuit packs.
- 4.4 Procedure For Replacing Circuit Packs
- 4.4.1 Network Circuit Packs -- All circuit packs, other than the circuit packs in the common control carrier, can be replaced without operating the HALT key and do not require reloading of the X-ray test tape. Rerun the same test by depressing the following keys: CLEAR ENTER, RESET, and EXECUTE.
- 4.4.2 Processor Circuit Packs -- In general, in the replacement of any circuit pack in the common control carrier(s), it is recommended to stop the processor

4.4.2 (cont'd)

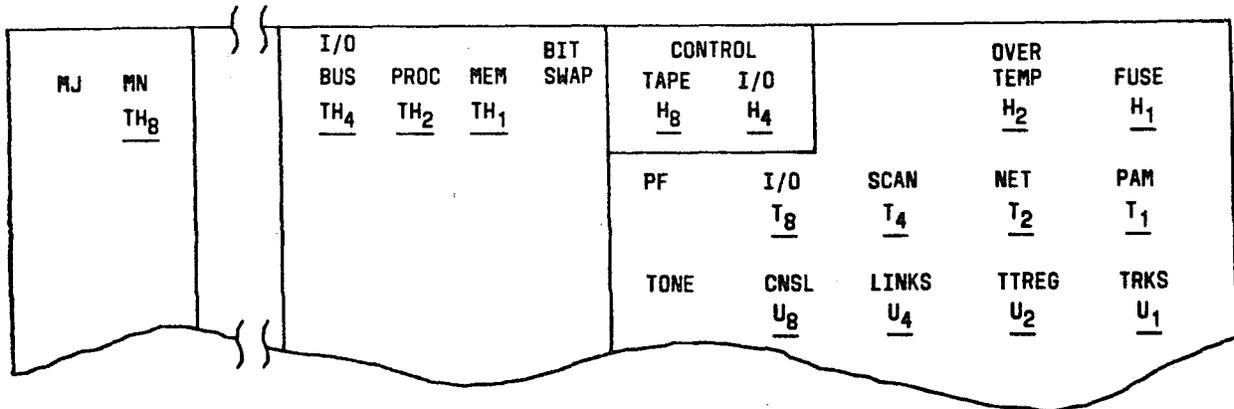
first by operating the HALT Key, then replacing circuit pack(s), and reloading X-ray test tape. However, replacement of LC34B, LC130, and LC131 circuit packs in the processor may not require reloading of the X-ray test tape again, but do halt the processor first before replacing those circuit packs. Rerun the appropriate X-ray test to verify the repairs.

LAMP CYCLING SEQUENCE (LAMPS 1-22)



FLASH RATE = 40 MS

Fig. 1 - ALARM PANEL LAMP SEQUENCE



TH = THOUSANDS
H = HUNDREDS
T = TENS
U = UNITS

EXAMPLE:

LAMPS ON
(TH₁) MEM = 1000
(H₈) TAPE = 800
(T₂) NET = 20
(U₄) LINKS = 4
FAULT CODE: 1824

8	4	2	1	DIGIT
0	0	0	0	0
0	0	0	1	1
0	0	1	0	2
0	0	1	1	3
0	1	0	0	4
0	1	0	1	5
0	1	1	0	6
0	1	1	1	7
1	0	0	0	8
1	0	0	1	9

1 = LAMP ON

Fig. 2 - FAULT CODE DISPLAY

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
0		--	(not used)	
1		NOTE 1	Branch Long (BL) instruction fault	Replace in sequence LC143, LC142, LC134
2	31	NOTE 2	Improper jump to location 0	Reload tape, and if fault reoccurs, replace in sequence LC143, LC142, LC134
3		NOTE 1	Forward Branch (B) instruction fails to branch	<div style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; padding: 10px;"> -----Replace in sequence LC143, LC142, LC134 </div>
4		NOTE 1	1) ZCF instruction fails to reset condition flop, or 2) BC instruction always branches regardless of condition flop value	
5		NOTE 1	SCF instruction does not set condition flop	
6		NOTE 1	1) SCF instruction fails to set condition flop, or 2) BC instruction fails to branch if condition flop equals one	
7		NOTE 1	1) CI instruction fails to set the condition flop in comparing register RM3 with zero, or 2) Register RM3 cannot be zeroed, or 3) LI instruction fails to zero RM3	
8		NOTE 1	Register RM3 has bit stuck at zero	

NOTE 1: These fault codes are not available on the MAAP or the alarm panel (reserved for use by the software designers).

NOTE 2: Indicated when the alarm panel lamps stop cycling and only the TTREG lamp remains on.

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
9		NOTE 1	CI instruction fails to reset condition flop to zero in comparing a nonzero value in RM3 with zero	<div style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; padding: 10px;"> <p data-bbox="1262 821 1759 849">-----Replace in sequence LC143, LC142</p> </div>
10		NOTE 1	Load register (LR) instruction failure	
11		NOTE 1	Load register (LR) instruction failure	
12		--	(not used)	
13		--	(not used)	
14		--	(not used)	
15		NOTE 1	1) RLN instruction fails, or 2) register RM2 contains stuck bit	
16		NOTE 1	RLN instruction fails while rotating register RM2 by one bit position	
17		NOTE 1	LN instruction fails	
18		--	(not used)	
19		NOTE 1	At lease one RM register contains a stuck bit	
20		NOTE 1	Data dependent RM register fault	
21		NOTE 1	1) LL instruction fails, or 2) STL instruction fails	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
22		--	(not used)	
23		NOTE 1	STX instruction fails	
24-28		--	(not used)	
29		NOTE 1	BX instruction fails by going to the next sequential instruction even though the specified RM register is nonzero	
30		NOTE 1	BX instruction fails, to decrement specified RM register	
31		NOTE 1	BX instruction always branches	
32		NOTE 1	1) LAL instruction fails, or 2) LHR instruction fails, or 3) LRH instruction fails	-----Replace in sequence LC143, LC142
33		NOTE 1	BSA instruction fails to branch	
34		NOTE 1	BTSA instruction did not restore Hold-Get special register (HGR)	
35		NOTE 1	BSA instruction fails to branch	1. Replace in sequence LC143, LC142 2. Check data link

NOTE 1: These fault codes are not available on the MAAP or the alarm panel (reserved for use by the software designers).

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
36		NOTE 1	BSA instruction fails to save return address	Replace in sequence LC143, LC142
37		F3	No X-Ray subroutine enabled. Unused test number	Check desired test number and restart
38	06	F3	Processor suicide and activation of emergency transfer fails	Replace in sequence LC147, LC133
39	01	F3	No acknowledge on write into write-protect register	Replace in sequence LC133, LC143
40-56		--	(not used)	
57		NONE	None	Run Test 14
58			X-Ray program is unable to control the processor. Processor errors are occurring at such a high rate that they cannot be handled by the program and displayed on the MAAP	-----Replace in sequence LC143, LC142, LC134
59		--	(not used)	
60	01, 02	F3	Ten millisecond program interrupt fails to decrement Hold-Get register (HGR)	
61	01, 02	F3	Ten millisecond program interrupt failed to load proper return address into Hold-Get area	
62		--	(not used)	
63	01, 02	F3	The X-Ray subroutine that is currently running is in an endless loop	Reload tape or restart tape

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
64	01	F3	S10: No acknowledge on write to attendant console	Replace in sequence LC34B, LC133
65-66		--	(not used)	
67		NOTE 1	XR instruction sets condition flop improperly	Replace in sequence LC143, LC142
68	01	F3	TPAR instruction fails to identify incorrect main store parity	Replace LC143
69		--	(not used)	
70-75	01	F5	Bitswap activity or processor duplication error	Replace in sequence LC143, LC142, LC135
76	01	F5	Microparity predict error	Replace in sequence LC143, LC142
77	01	F5	Illegal Op Code	Replace in sequence LC143, LC142, LC134, LC138
78	01	F5	Write-protect error	Replace in sequence LC133, LC137 (or LC37 or LC138), LC143
79	01	F5	Branch Allow error	<ol style="list-style-type: none"> 1. Check jumper position on LC133 2. Replace LC143, LC147 3. Replace specified memory pack.

NOTE 1: This fault code is not available on the MAAP or the alarm panel (reserved for use by the software designers).

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
80	01	F5	Main memory parity error.	1. If a noise bit is suspected, reload tape. 2. If a faulty memory is suspected, the memory board in which the parity error occurred can be determined by using the address of the parity error (displayed in the MAIN STORE ADDRESS WHERE FAULT OCCURRED area of Format F5). The address indicates the slot and carrier number of the memory board (refer to fault codes 100 through 147) then replace in sequence LC128 (or LC28), LC137 (or LC37 or LC138).
81	01	F5	I/O Sanity Timeout	Replace in sequence LC133, LC143
82	01	F5	Processor Sanity Timeout	1. Replace in sequence LC143, LC142 2. Check cable between BC05 and GC08. 3. If HALT/GO was pushed, retry the test.
83	01	F5	Micro-parity error	Replace in sequence LC143, LC142
84	01	F5	Short-term power failure	Replace LC143
85	01	F5	Program was interrupted but error is invalid	Replace in sequence LC143, LC133, LC137 (or LC37 or LC138)
86	01	F3	Reply parity correct but echo incorrect while updating MAAP digits	If error repeats, replace MAAP
87	01	F3	Data echo is correct but parity is incorrect on message sent to update MAAP display	If error repeats, replace MAAP
88	01	F3	No response on MAAP display update	If error repeats, replace in sequence: LC172 (or LC34B) in control carrier 0 slot 30, or the MAAP

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FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE																																																																				
89	01	F3	Bad echo on MAAP display update message	If error repeats, replace in sequence: LC172 (or LC34B) in control carrier 0 slot 30, or the MAAP																																																																				
90	01	F3	Echo parity error on MAAP button interrogate	If error repeats, replace MAAP																																																																				
91	01	F3	No response on MAAP button interrogate	If error repeats, replace MAAP																																																																				
92-99		--	(not used)																																																																					
100 - 147	14	F5	Main store memory board is defective. A. For 8K (LC28) or 16K (LC128) memory boards on the basic control carrier:	1. Replace in sequence LC28 (or LC128), LC37 (or LC137 or LC138), LC133, LC35, LC36 (or LC135, LC136) 2. Check power																																																																				
			<table border="1"> <thead> <tr> <th>Fault Code</th> <th>LC28 Slot</th> <th>LC128 Slot</th> <th>Address Bounds (octal)</th> </tr> </thead> <tbody> <tr><td>100</td><td>01</td><td>01</td><td>0-17777</td></tr> <tr><td>101</td><td>02</td><td>01</td><td>20000-37777</td></tr> <tr><td>102</td><td>03</td><td>02</td><td>40000-57777</td></tr> <tr><td>103</td><td>04</td><td>02</td><td>60000-77777</td></tr> <tr><td>104</td><td>05</td><td>03</td><td>100000-117777</td></tr> <tr><td>105</td><td>06</td><td>03</td><td>120000-137777</td></tr> <tr><td>106</td><td>07</td><td>04</td><td>140000-157777</td></tr> <tr><td>107</td><td>08</td><td>04</td><td>160000-177777</td></tr> <tr><td>108</td><td>09</td><td>05</td><td>200000-217777</td></tr> <tr><td>109</td><td>10</td><td>05</td><td>220000-237777</td></tr> <tr><td>110</td><td>11</td><td>06</td><td>240000-257777</td></tr> <tr><td>111</td><td>12</td><td>06</td><td>260000-277777</td></tr> <tr><td>112</td><td>13</td><td>07</td><td>300000-317777</td></tr> <tr><td>113</td><td>14</td><td>07</td><td>320000-337777</td></tr> <tr><td>114</td><td>15</td><td>08</td><td>340000-357777</td></tr> <tr><td>115</td><td>16</td><td>08</td><td>360000-377777</td></tr> </tbody> </table>	Fault Code	LC28 Slot	LC128 Slot	Address Bounds (octal)	100	01	01	0-17777	101	02	01	20000-37777	102	03	02	40000-57777	103	04	02	60000-77777	104	05	03	100000-117777	105	06	03	120000-137777	106	07	04	140000-157777	107	08	04	160000-177777	108	09	05	200000-217777	109	10	05	220000-237777	110	11	06	240000-257777	111	12	06	260000-277777	112	13	07	300000-317777	113	14	07	320000-337777	114	15	08	340000-357777	115	16	08	360000-377777	
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100 - 147 (Cont'd)	14	F5	B. For 8K memory boards (LC28) on the first growth control carrier or 16K memory (LC128) on second half of basic control carrier: <table border="1" data-bbox="443 431 995 1036"> <thead> <tr> <th data-bbox="443 431 520 493">Fault Code</th> <th data-bbox="541 431 619 493">LC28 Slot</th> <th data-bbox="646 431 724 493">LC128 Slot</th> <th data-bbox="772 431 995 493">Address Bounds (octal)</th> </tr> </thead> <tbody> <tr><td>116</td><td>01</td><td>09</td><td>400000-417777</td></tr> <tr><td>117</td><td>02</td><td>09</td><td>420000-437777</td></tr> <tr><td>118</td><td>03</td><td>10</td><td>440000-457777</td></tr> <tr><td>119</td><td>04</td><td>10</td><td>460000-477777</td></tr> <tr><td>120</td><td>05</td><td>11</td><td>500000-517777</td></tr> <tr><td>121</td><td>06</td><td>11</td><td>520000-537777</td></tr> <tr><td>122</td><td>07</td><td>12</td><td>540000-557777</td></tr> <tr><td>123</td><td>08</td><td>12</td><td>560000-577777</td></tr> <tr><td>124</td><td>09</td><td>13</td><td>600000-617777</td></tr> <tr><td>125</td><td>10</td><td>13</td><td>620000-637777</td></tr> <tr><td>126</td><td>11</td><td>14</td><td>640000-657777</td></tr> <tr><td>127</td><td>12</td><td>14</td><td>660000-677777</td></tr> <tr><td>128</td><td>13</td><td>15</td><td>700000-717777</td></tr> <tr><td>129</td><td>14</td><td>15</td><td>720000-737777</td></tr> <tr><td>130</td><td>15</td><td>16</td><td>740000-757777</td></tr> <tr><td>131</td><td>16</td><td>16</td><td>760000-777777</td></tr> </tbody> </table>	Fault Code	LC28 Slot	LC128 Slot	Address Bounds (octal)	116	01	09	400000-417777	117	02	09	420000-437777	118	03	10	440000-457777	119	04	10	460000-477777	120	05	11	500000-517777	121	06	11	520000-537777	122	07	12	540000-557777	123	08	12	560000-577777	124	09	13	600000-617777	125	10	13	620000-637777	126	11	14	640000-657777	127	12	14	660000-677777	128	13	15	700000-717777	129	14	15	720000-737777	130	15	16	740000-757777	131	16	16	760000-777777	
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100 - 147 (Cont'd)	14	F5	<p>C. For 8K (LC28) memory packs on second growth control carrier and for 16K (LC128) memory packs on first growth control carrier:</p> <table border="1" data-bbox="420 584 1008 1201"> <thead> <tr> <th data-bbox="424 592 514 657">Fault Code</th> <th data-bbox="518 592 609 657">LC28 Slot</th> <th data-bbox="613 592 703 657">LC128 Slot</th> <th data-bbox="707 592 997 657">Address Bounds (octal)</th> </tr> </thead> <tbody> <tr><td>132</td><td>01</td><td>01</td><td>1000000-1017777</td></tr> <tr><td>133</td><td>02</td><td>01</td><td>1020000-1037777</td></tr> <tr><td>134</td><td>03</td><td>02</td><td>1040000-1057777</td></tr> <tr><td>135</td><td>04</td><td>02</td><td>1060000-1077777</td></tr> <tr><td>136</td><td>05</td><td>03</td><td>1100000-1117777</td></tr> <tr><td>137</td><td>06</td><td>03</td><td>1120000-1137777</td></tr> <tr><td>138</td><td>07</td><td>04</td><td>1140000-1157777</td></tr> <tr><td>139</td><td>08</td><td>04</td><td>1160000-1177777</td></tr> <tr><td>140</td><td>09</td><td>05</td><td>1200000-1217777</td></tr> <tr><td>141</td><td>10</td><td>05</td><td>1220000-1237777</td></tr> <tr><td>142</td><td>11</td><td>06</td><td>1240000-1257777</td></tr> <tr><td>143</td><td>12</td><td>06</td><td>1260000-1277777</td></tr> <tr><td>144</td><td>13</td><td>07</td><td>1300000-1317777</td></tr> <tr><td>145</td><td>14</td><td>07</td><td>1320000-1337777</td></tr> <tr><td>146</td><td>15</td><td>08</td><td>1340000-1357777</td></tr> <tr><td>147</td><td>16</td><td>08</td><td>1360000-1377777</td></tr> </tbody> </table>	Fault Code	LC28 Slot	LC128 Slot	Address Bounds (octal)	132	01	01	1000000-1017777	133	02	01	1020000-1037777	134	03	02	1040000-1057777	135	04	02	1060000-1077777	136	05	03	1100000-1117777	137	06	03	1120000-1137777	138	07	04	1140000-1157777	139	08	04	1160000-1177777	140	09	05	1200000-1217777	141	10	05	1220000-1237777	142	11	06	1240000-1257777	143	12	06	1260000-1277777	144	13	07	1300000-1317777	145	14	07	1320000-1337777	146	15	08	1340000-1357777	147	16	08	1360000-1377777	
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FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
148	14	F5	1) Main store memory board select fault, or 2) Jumper plug on LC133 set to incorrect memory board size. The memory board that experienced the board select fault can be determined by using the address displayed on the MAAP. The slot and carrier number of this board is obtained from the fault description table for fault codes 100-147 by finding which board contains the fault address.	If processor has just been brought up or if the LC133 has just been changed, check the LC133 jumper position. Else replace in sequence LC137 (or LC37 or LC138) on faulty carrier, LC128 (or LC28) at faulty address, first LC128 (or LC28) on faulty carrier.
149	14	F5	Memory carrier select fault. The affected carrier can be located using the address displayed on the MAAP and the fault description table for fault codes 100-147.	1. Check LC133 jumper position. 2. Replace sequence LC133, LC137 (or LC37 or LC138) on faulty carrier, LC128 (or LC28) at faulty address.
150	14	F3	Memory was loaded in bit swap state	1. Reload tape in normal state or find faulty memory using microdiagnostic 8. 2. Check jumper position on LC133.
151	14	F3	T10: No acknowledge on bit swap register read.	1. Replace LC136 (or LC36). 2. Check jumper position on LC133.
152	01	F3	TPAR fails to increment register RM13	Replace LC143.
153	01	F3	Bad parity found while testing TPAR instruction on board 0	Replace in sequence LC28 (or LC128) in SLOT 01 of basic control carrier, LC143.
154	31	F3	Stuck bit encountered while testing TLOC instruction	Replace in sequence LC28 (or LC128) in slot 01 of basic control carrier, LC143.

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
155	31	F3	TLOC instruction modifies tested location	Replace in sequence LC143, LC142
156	31	F3	Good parity encountered incorrectly while testing TSWAP instruction	Replace in sequence LC35 (or LC135), LC36 (or LC136).
157	31	F3	TSWAP instruction changes the word it checks	Replace LC143
158	31	F3	Bad parity encountered while testing TSWAP instruction. TPAR passes on same memory locations	Replace in sequence LC35 (or LC135), LC36 (or LC136).
159	01	F3	TSWAP: Bit 3 swap faulty	Replace in sequence LC35 (or LC135), LC36 (or LC136).
160	31	F3	TSWAP: Parity incorrect after TSWAP instruction	Replace in sequence LC35 (or LC135), LC36 (or LC136).
161	01	F3	TSWAP: Bit 1 swap faulty	Replace in sequence LC35 (or LC135), LC36 (or LC136).
162	14	F3	Excess number of memory carriers found	1. Check LC133 jumper position 2. Replace in sequence LC133, each LC37 (or LC137 or LC138).
163 - 199		--	(not used)	
200	31	F3	SCF or BC instruction fails	Replace LC143
201	31	F3	SCF instruction fails	Replace LC143

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
202	31	F3	ZCF or BC instruction fails	<div style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <p>-----Replace LC143</p> </div>
203	31	F3	CI or LI instruction fails	
204	31	F3	1) CI instruction fails, or 2) register RM3 has bit stuck at 0	
205	31	F3	CI instruction fails	
206	31	F3	LR instruction fails	
207	31	F3	XR instruction fails	
208	31	F3	XR instruction fails to reset condition flop to 0 on mismatch	
209	31	F3	XR instruction fails to set condition flop to 1 on match	
210	31	F3	XR fails to zero first register of operand field but does set CF correctly	
211	31	F3	BNC instruction fails	
212	31	F3	BNC instruction fails	
213	31	F3	LN instruction fails	
214	31	F3	ICF instruction fails: inserting 1	
215	31	F3	ICF instruction fails: inserting 0	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
216	31	F3	BNCL instruction fails	<div style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; padding: 10px;"> <p>-----Replace LC143</p> </div>
217	31	F3	BCL instruction fails	
218	31	F3	BCL instruction fails	
219	31	F3	BNCL instruction fails	
220	31	F3	LL	
221	31	F3	STL	
222	31	F3	ST	
223	31	F3	L	
224	31	F3	ST	
225	31	F3	STX	
226	31	F3	LX	
227	31	F3	STA	
228	31	F3	LA	
229	01	F3	STA, LA: RA0 not updated	
230	01	F3	STA, LA: RA1 not updated	
231	01	F3	STAL	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
232	31	F3	LAL instruction fails	-----Replace LC143
233	01	F3	STAL, LAL: RA0 not updated	
234	01	F3	STAL, LAL: RA1 not updated	
235	01	F3	STAX	
236	01	F3	LAX	
237	01	F3	STAX, LAX: RA0 updated incorrectly	
238	01	F3	STAX, LAX: RA1 updated incorrectly	
239	01	F3	LRM	
240	01	F3	IRM	
241	01	F3	STM	
242	31	F3	RO incorrect after STM instruction	-----Replace LC143
243	31	F3	RO incorrect after STVM instruction	
244	01	F3	STVM	
245	31	F3	ZR instruction fails	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
246	31	F3	EXR	-----Replace LC143
247	31	F3	NI	
248	31	F3	NR	
249	31	F3	OI	
250	31	F3	OR	
251	31	F3	XI: CF not set = 1	
252	31	F3	XI	
253	31	F3	XI: CF not reset = 0	
254	31	F3	COM: CF not set = 1	
255	31	F3	COM	
256	31	F3	COM: CF not reset = 0	
257	31	F3	CR: CF not reset = 0	
258	31	F3	CR: register changed	
259	31	F3	CR: CF not set	
260	31	F3	CRM: CF not reset	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
261	31	F3	CRM: register changed	<div style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; padding: 10px;"> <p style="text-align: center;">-----Replace LC143</p> </div>
262	31	F3	CRM: CF not set = 1	
263	31	F3	AI: CF not zero	
264	31	F3	AI: CF not one	
265	31	F3	AI	
266	31	F3	AN: CF not zero	
267	31	F3	AN: CF not one	
268	31	F3	An	
269	31	F3	AR: CF not zero	
270	31	F3	AR: CF not one	
271	31	F3	AR instruction fails	
272	31	F3	AIS: CF not zero	
273	31	F3	AIS	
274	31	F3	AIS: CF not one	
275	31	F3	SR: CF not one	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
276	31	F3	SR	-----Replace LC143
277	31	F3	SR: CF not zero	
278	31	F3	SI: CF not zero	
279	31	F3	SI: CF not one	
280	31	F3	SI	
281	31	F3	SN: CF not zero	
282	31	F3	SN: CF not one	
283	31	F3	SN	
284	31	F3	LUR affects low 16 bits of RAO	
285	31	F3	LR fails to zero high bits of RAO	
286	31	F3	LUR, LRU fails on RA1	
287	31	F3	LUR changes low bits of RAO	
288	31	F3	High bit stuck in RAO	
289	31	F3	High bit stuck in RA1	
290	31	F3	LRAI on RAO: Low bits	
291	31	F3	LRAI on RAO: High bits	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
292	31	F3	LRAI on RAI: Low bits	-----Replace LC143
293	31	F3	LRAI on RAI: High bits	
294	31	F3	SBN	
295	31	F3	ZBN	
296	31	F3	TBN	
297	31	F3	ZBR instruction fails	
298	31	F3	TBR	
299	31	F3	SBR	
300	31	F3	ZBS	
301	31	F3	TBS	
302	31	F3	SBS	
303	31	F3	RRN	
304	31	F3	RLN	
305	31	F3	RR	
306	31	F3	RL	
307	31	F3	TZ: CF not set = 1	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
308	31	F3	TZ: CF not reset = 0	
309	31	F3	CIRM: CF not 1, requested rotation was nonzero	
310	31	F3	CIRM: CF not reset to zero	
311	31	F3	CIRM: CF not set = 1, requested rotation was nonzero	
312	31	F3	CIRM: CF not set = 1, partial mask was defined	
313	31	F3	FLZ: CF not set = 1	
314	31	F3	FLZ: Wrong low zero count	
315	31	F3	FLZ: Low zero was not changed to one	
316	31	F3	FLZ: CF was not set = 0	-----Replace LC143
317	31	F3	FLZ: Second register was modified	
318	31	F3	Hold-Get special register contains incorrect address	
319	31	F3	Return address from the instruction set test is incorrect	
320	31	F3	HA instruction fails	
321	31	F3	GA	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
322	31	F3	HN	-----Replace LC143
323	31	F3	GN	
324	31	F3	BX does not branch	
325	31	F3	BX always branches	
326	31	F3	BX does not decrement register	
327	31	F3	BPAX does not branch	
328	31	F3	BR	
329	31	F3	BRX	
330	31	F3	BSA does not branch	
331	31	F3	CF not set = 1 by BTSA instruction	
332	31	F3	BSA: Incorrect return address in hold-get area	
333	31	F3	BTSA does not zero the CF	
334	31	F3	BSAI does not branch	
335	31	F3	BSAI: Return address incorrect	
336	31	F3	BTSAN: CF set incorrectly	
337	31	F3	BTSAN: Return code incorrect	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
338	31	F3	BTSAG: Registers not restored	<div style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; padding: 10px;"> <p>-----Replace LC143</p> </div>
339	31	F3	BTSAG: CF set incorrectly	
340	31	F3	BTSAGN: CF returned incorrectly	
341	31	F3	BTSAGN: Registers not restored	
342	31	F3	BTSAGN: Return code incorrect	
343	01	F3	Real Time Clock value never equal to 5	
344	01	F3	Program interrupt mask register fails	
345	01	F3	IVT register bits (15 - 0) fail	
346	01	F3	TVT register bits (15 - 0) fail	
347	01	F3	TVT register bits (19 - 16) fail	
348	01	F3	IVT register bits (19 - 16) fail	
349	01	F3	HGR (15 - 0) fails	
350	01	F3	HGR (19 - 16) fails	
351	01	F3	Ten millisecond program interrupt rate wrong	
352	01	F3	IOF does not disable program interrupts	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
353	31	F3	1) SISC instruction fails, or 2) TISC instruction fails	-----Replace LC143
354	31	F3	ZISC	
355	31	F3	RTC cannot be zeroed	
356	01	F3	Real Time Clock does not increment correctly	
357	01	F3	Real Time Clock transition from 9 to 0 faulty	
358	31	F3	RD instruction fails	
359	31	F3	RD: Width = 0	
360	31	F3	RDP	
361	31	F3	WR	
362	31	F3	WRP	
363	31	F3	WRO	
364	31	F3	WROP	
365	31	F3	WR1	
366	31	F3	WR1P	
367	31	F3	TST: CF not set = 0	
368	31	F3	TST: CF not set = 1	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
369	31	F3	TSTP	
370	31	F3	TSTP	
371	31	F3	TSTO	
372	31	F3	TSTO	
373	31	F3	TSTOP	
374	31	F3	TSTOP	
375	31	F3	TST1	
376	31	F3	TST1P	
377	31	F3	TST1P	
378	31	F3	TST1P	
379	31	F3	Unused program interrupt generated	-----Replace LC143
380	31	F3	SIO: Acknowledge returned on unequipped port	Replace in sequence LC133, LC143
381	01	F3	SIO: No acknowledge on tape buffer	Replace LC29B
382	01	F3	TIO: No acknowledge on tape buffer	Replace LC29B
383	01	F3	TIO: Tape buffer read incorrectly	Replace LC29B
384	01	F3	TPIO: Bad parity not recognized	Replace in sequence LC29B, LC134, LC143

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
385	01	F3	TPIO: Good parity not recognized	Replace in sequence LC29B, LC134, LC143
386	01	F3	TPIO: Tape buffer read incorrectly	Replace in sequence LC29B, LC134
387-399		--	(not used)	
400	01	F3	Illegal Op Code is not detected for an op code of zero	Replace LC143
401	01	F3	No acknowledge on write-protect register write	Replace LC133
402	01	F3	No acknowledge on write-protect register read	Replace LC133
403	01	F3	WP register: value read differs from written value	Replace LC133
404	01	F3	Write-protect boundary incorrect: insufficient memory protected	Replace LC133
405	01	F3	1) Write-protect boundary intermittent, or 2) random write-protect errors	Replace in sequence LC133, LC137 (or LC37, LC138)
406	01	F3	Branch allow error is not detected	Replace LC143
407	01	F3	Processor sanity timeout occurs in less than 80 milliseconds	Replace LC133
408	01	F3	Processor sanity timeout does not occur	Replace LC133
409	01	F3	I/O sanity timeout does not occur	Replace LC133

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
410	01	F3	I/O sanity timeout occurs in less than 440 milliseconds	Replace LC133
411	01	F3	Register RM15 contains incorrect program address for illegal op code	 -----Replace in sequence LC143, LC142
412 - 419		--	(not used)	
420	14	F13	Unexpected error while testing processor error handling	
421	14	F13	Unexpected error while testing illegal op code error detection	
422	14	F13	Unexpected error while testing write-protect error detection	
423	14	F13	Unexpected error while testing branch disallow error detection	Replace in sequence LC143, LC142, LC133
424	14	F13	Unexpected error while testing program sanity error detection	Replace in sequence LC143, LC142
425	14	F13	Unexpected error while testing Input/Output channel sanity detection	Replace LC143
426-428		--	(not used)	
429	14	F13	Processor detected error but no error flag set	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
430	14	F13	Unexpected error encountered. More than one processor error flag is set	Replace in sequence LC143, LC35 (or LC135) and check data cables at BC06 and BC07
431	01	F3	Processor fault detected by microdiagnostic program	Replace in sequence LC143, LC142
432-434		--	(not used)	
435	01	F3	On-line processor appears off-line to RONS instruction	Replace LC146
436	01, 02	F3	1) Off-line processor stopped or encountered error 2) Unable to read over duplication channel	1. Repair off-line fault or restart on-line processor to continue testing as an unduplicated system 2. Replace in sequence LC146 on-line, LC146 off-line
437	01, 02	F3	Incorrect data read from off-line processor	Replace in sequence LC146 on-line, LC146 off-line
438	01, 02	F3	1) Off-line processor stopped or encountered error 2) Unable to write over duplication channel	1. Same as 436 2. Same as 436
439	01, 02	F3	Data read over duplication channel is incorrect	Replace in sequence LC146 on-line, LC146 off-line

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
440	01, 02	F3	Unable to switch other processor on-line	Replace in sequence LC146 off-line, LC146 on-line
441	02, 51		Off-line processor not running Test 01	Run Test 01 on off-line processor for processor switch
442	01, 02	F3	Data block transfer to off-line failed	Replace in sequence LC146 on-line, LC146 off-line
443	02, 51		Processor switch did not occur within 30-micro second	Replace LC146 in CC0
444-449		—	(not used)	
450	02		System counts do not agree on proc switch	Check configuration in processor carriers
451-499		—	(not used)	
500	12, 27	F3	Unexpected tape interrupt	Replace LC30B
501	12, 27	F3	No acknowledge on I/O to tape buffer register HEX (6104)	Replace LC29B
502	12, 27	F3	1) Tape buffer register has stuck bit, or 2) tape interface channel HEX (6104) is faulty	Replace LC29B
503	12, 27	F3	No acknowledge on I/O to tape controller address HEX (6105)	Replace CL30B
504	27	F6	No load point indication within 3 seconds of beginning of tape	Replace Tape Drive

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
505	27	F6	Tape status incorrect after TRSET command	Replace in sequence LC30B, tape drive
506	27	F6	Tape activity begins even though key word not in buffer	Replace LC30B
507	27	F3	No tape motion indication	Replace tape drive

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
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FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
508	27	F6	Unexpected status change while attempting to move tape from BOT to load point. Status change expected was tape in motion	Check tape, replace tape drive
509	27	F6	Unexpected status change while attempting to move tape from BOT to load point. Expected to see load point	Check tape, replace drive
510	27	F6	No tape off reel indication	Replace tape drive
511	27	F3	Cyclic redundant check (CRC) character computed incorrectly by tape controller on read	Replace in sequence tape, LC29B, LC30B
512	27	F6	Status incorrect after tape read attempt	Replace in sequence tape, LC30B, tape drive
513	27	F6	Incorrect status while testing tape buffer overflow indication	Replace LC30B
514	27	F6	Incorrect status while testing tape data lost indication	Replace tape drive
515	27	F3	Tape record read incorrectly on track 0	Replace in sequence tape, drive
516	27	F6	Incorrect status after writing a record on track 0	Replace LC30B
517	27	F6	Incorrect status after reading record just written	Replace in sequence tape, drive
518	27	F6	Tape controller writes CRC character incorrectly	Replace in sequence LC30B, LC29B
519	27	F6	Tape controller writes record incorrectly	Replace in sequence LC29B, drive, LC30B

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
520	27	F3	Tape record read incorrectly from track 1	Replace in sequence tape, drive
521	27	F3	Tape track 1 read fails	Replace in sequence tape, drive, LC29B
522	27	F6	Bad tape status while reading a program block (track 1)	Replace in sequence tape, drive, LC29B, LC30B
523	27	F3	Incorrect tape or bad X-ray tape	Change tape
524	27	F6	Incorrect status while waiting for end of tape	Replace in sequence tape, drive
525	27	F6	Incorrect status while waiting for beginning of tape	Replace in sequence tape, drive
526	27	F6	Beginning of tape was not detected within 0.54 seconds of load point	Replace in sequence tape, drive, LC30B
527	27	F6	No beginning of tape after one minute of rewinding	Check tape, replace drive
528	27	F6	Incorrect status change while rewinding to beginning of tape	Replace in sequence tape, drive
529	27	F6	No tape stopped indication 90 milliseconds after BOT	Replace in sequence drive, LC30B
530-533		--	(not used)	
534	27	F6	Status indicates tape still in motion 100 milliseconds after jump command	Replace LC30B
535	27	F6	No tape motion within 20 milliseconds of go command	Replace in sequence drive, LC30B

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
536		--	(not used)	
537	27	F3	Tape record hex (A80F) not found while positioning	Replace tape
538	27	F3	Tape write failure using microcode tape interrupt handler	Replace in sequence LC29B, tape, drive
539	27	F3	Read after write failure using microcode tape interrupt handler	Replace in sequence LC29B, tape, drive
540	27	F3	Fourth tape record read failed (on track 3, record B002)	Replace in sequence LC29B, tape, drive
541	27	F3	Third tape record read failed (on track 4, record BF02)	Replace in sequence LC29B, tape, drive
542	27	F3	Second tape record read failed (on track 1, record A001)	Replace in sequence LC29B, tape, drive
543	27	F3	First tape record read failed (on track 2, record AF01)	Replace in sequence LC29B, tape, drive
544	27	F3	CRCC computed wrong on read	Replace in sequence LC29B, tape
545- 547		--	(not used)	
548	27	F3	Bad status while using microcode tape interrupt handler to write a record from a split data block	Replace in sequence tape, LC29B, LC143
549	27	F3	Unable to find block B80F	Replace tape

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
550	27	F3	Unable to find blocks B010 and B011	Replace tape
551	27	F3	Incorrect block number encountered while reading burn-in data	Replace tape
552	27	F3	Unable to find blocks B010 and B011	Replace tape

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
			This page reserved for future use.	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
553	02	F3	Total number of unidentified and trunk boards currently found in the system disagrees with burn-in record on tape	Replace defective trunk boards
554	02	F3	Total board count disagrees with burn-in record on tape	Replace defective boards
555	02	F3	Tape write status incorrect while writing burn-in record	Replace in sequence tape drive, LC29B, LC30B
556	02	F3	Tape faulty	Replace tape
557	02	F3	No burn-in information on this tape	Burn-in may be initialized, if so desired
558-559	--	--	(not used)	
560	02	F3	Memory board count	THE FAULT CODES FROM 560 TO 595 INDICATE A DIFFERENCE BETWEEN THE CURRENT MACHINE CONFIGURATION AND THE BURN-IN RECORD ON TAPE
561	02	F3	LC130 count	
562	02	F3	Network cabinet count	
563	02	F3	Network carrier count	
564	02	F3	Network board count	
565	02	F3	LC34B count	
566	02	F3	Attendant console count	
567	02	F3	ETC count	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
568	02	F3	LC171, 172 count	(The tests which detect these faults are checks currently skipped)
569	02	F3	ANI equipped	
570	02	F3	SMDR (check currently skipped)	
571	02	F3	800 kHz LC34B channel count	
572	02	F3	Count of 0.2, 0.8, 4.0 mHz channels with loopback features (check currently skipped)	
573	02	F3	Count of looped back line fixtures	
574	02	F3	Count of looped back link fixtures	
575	02	F3	Count of looped back trunk fixtures	
576	02	F3	RMAT loopback fixture	
577		--	(not used)	
578	02	F3	Fault codes reserved for new board types	
579		--	(not used)	
580	02	F3	Unidentified board count (see 591)	
581	02	F3	LC105 count	
582	02	F3	LC4, 5 count	
583	02	F3	LC45 count	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
584	02	F3	LC6 count	
585	02	F3	LC16 count	
586	02	F3	LC13 count (see 591)	
587	02	F3	LC11 count (see 591)	
588	02	F3	LC10, 54 count	
589	02	F3	LC100 count	
590	02	F3	LC9 count (see 591)	
591	02	F3	LC8 count (individual checks for fault codes 580, 586, 587, 590, and 591 are currently skipped but the sum of these 5 board types is checked as in fault code 553)	
592	02	F3	LC2 count	
593	02	F3	Count of electrical link carriers containing link cabling to other modules	
594	02	F3	Link carrier count	
595	02	F3	Count of link circuits with equipped cabling to other modules	
596-599		--	(not used)	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
600	01	F4	Data link echo incorrect in internal loop-back mode	Replace LC34B
601-602		--	(not used)	
603	01	F4	LC34B channel stuck inactive	Replace LC34B
604-605		--	(not used)	
606	01	F4	Externally identified peripheral not found	Check peripheral device. Replace LC34B
607	01	F4	No acknowledge on network SIO	Replace in sequence LC130, LC132 (or LC134)
608		--	(not used)	
609	01	F4	Data link echo incorrect from network frame	Replace in sequence LC123, LC124, LC131, check cable
610	01	F4	LC130 echo incorrect in internal loop-back mode	Replace LC130
611	01	F4	SIO: no acknowledge from equipped port	Replace board indicated by the Data Channel Address Field of Format F4.
612	01	F4	TIO: no acknowledge	Replace board indicated by the Data Channel Address Field of Format F4.
613	01	F4	Echo incorrect from peripheral device	Check peripheral, replace LC34B
614	01	F4	Data link echo incorrect in internal loopback mode	Same as fault code 611
615	01	F4	Network channel echo incorrect in internal loop-back mode	Replace in sequence LC130, LC131 and check power on cabinet

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
616	01	F4	No data link response in internal loopback mode	Same as fault code 611
617	01	F4	Incorrect data link echo in internal loopback mode	Same as fault code 611
618	01	F4	No acknowledge on LC34B read I/O	Replace LC34B
619		--	(not used)	
620		F4	Successful completion or manual stop	None
621	01	F15	No acknowledge on SIO during internal loopback testing	Replace in sequence LC132, LC34B
622	01	F4	No acknowledge on TIO to equipped channel during loopback test 1	Replace LC34B
623	01	F4	No acknowledge on TIO to equipped channel during loopback test 2	
624	01	F4	No acknowledge on TIO to equipped channel during loopback test 3	
625	01	F4	No acknowledge on TIO to equipped channel during loopback test 4	
626	01	F4	Incorrect echo on TIO to equipped channel during loopback test 1	
627	01	F4	Incorrect echo on TIO to equipped channel during loopback test 2	<ol style="list-style-type: none"> 1. Replace in sequence indicated board, LC133, LC34B, LC130, LC131, LC124, LC123 2. Check peripheral equipment, power on cabinet and cabling

HB 281

43.

400.80T

FAULT CODE TABLE

HB 281 - 400.80T

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
628	01	F4	Incorrect echo on TIO to equipped channel during loopback test 3	1. Replace in sequence indicated board, LC133, LC34B, LC130, LC131, LC124, LC123 2. Check peripheral equipment, power on cabinet and cabling
629	01	F4	Incorrect echo on TIO to equipped channel during loopback test 4	
630-633	--	(unused)		
634	01	F15	No acknowledge on SIO during external loopback testing	Replace in sequence indicated board, LC133
635	01	F4	Good parity returned on TPIO during external loopback test. Bad parity was expected.	Replace in sequence indicated board, LC132 (or LC134), LC133
636	01	F4	Bad echo during external loopback testing	Replace in sequence indicated board, LC132 (or LC134), cabling
637	01	F15	No acknowledge on SIO during LC131-LC123 test	Replace in sequence LC130, LC133
638	01	F4	Bad parity on TPIO during LC131-LC123 test	1. Replace in sequence LC123, LC131 2. Verify that off-line processor is running.
639	01	F4	Bad echo on network channel during LC131 - LC123 test	Replace LC123, check cable
640	01	F15	No acknowledge on SIO during LC34B external loopback test	Replace in sequence LC34B, LC133
641	01	F4	Good parity returned on TPIO on LC34B external loopback test. Bad parity is expected	Replace in sequence LC34B, LC133

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
642	01	F4	Incorrect echo during LC34B external loopback test	Replace LC34B
643	01	F4	Incorrect network channel echo during initial search for equipped network frames	Replace in sequence LC123, LC131, check cable
644	02	F2	New network board found that was not found on first pass. The port equipment number displayed is within one slot of the new board	Replace in sequence indicated board, then board at specified electrical address minus one, then board at specified address plus one
645	02	F2	Board type differs from that identified on first pass. The port equipment number displayed is within one slot of the board having a new identification	Same as fault code 644
646		F3	No network frame found	Verify processor is on-line. Replace in sequence LC131, LC130, check cables
647	23	F3	LC31C not plugged in	Replace LC31C
648	23	F15	Wrong status after writing into ANI register. Expect No Error, Busy, No Shift	Replace LC31C
649	23	F3	ANI output register is intermittent	Replace in sequence LC31C, LC32B
650	23	F3	No acknowledge on TPIO to LC31C	Replace LC31C
651	23	F15	Bad status after clearing ANI trunks. Expect No Bid, No Select	Replace LC32B
652	23	F15	Bad ANI trunk status while selecting channel 8	Replace LC32B

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
653	23	F15	Bad ANI trunk status while selecting channel 9	Replace LC32B
654	23	F3	No LC32B packs found	Replace LC32B (or remove LC31C) or return test.
655	01	F4	TPIO timeout while identifying PIC's	Replace LC34B, PIC, and check cabling.
656-658		--	(not used)	
659	15	F4	Echo wrong to SMDR	For mfg: Use WECPOTS Tape Issue 6.0 (or higher) and IMI 941973, Section 14 to test SMDR; LC34B
660	15	F4	No acknowledge on serial I/O channel	Replace LC34B, check peripheral device
661	15	F4	Data link parity error	Replace LC34B, check SMDR interface board
662	15	F4	Data link echo error	Replace in sequence LC34B, SMDR interface
663	15	F4	No response from high speed serial data channel	Check peripheral device on indicated channel
664	46	F15	No I/O channel acknowledge	Replace LC34B
665		F15	TORS echo incorrect.	Check TORS recorder
666-679		--	(not used)	
680	35	F15	Incorrect response for no loop-around on LC171B	Replace in sequence LC171B, 172
681	35	F15	Incorrect loopback response from LC171B on 8-bit message, or failure to remove test point ground in time on manual test	Replace in sequence LC171B, 172
682	35	F15	Incorrect loopback response from LC171B on 7-bit message, or overrun error	Replace in sequence LC171B, 172

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
683	35	F15	Bad major alarm response	Replace LC171B
684	35	F15	Bad minor alarm response	Replace LC171B
685	35	F15	Bad LC172 on-line indication	Replace LC172
686	35	F15	Bad LC172 off-line indication	Replace LC172
687	35	F15	Both LC172 packs indicate same processor number	1. Check jumper plug on each LC172 for proper setting 2. Replace LC172
688	35	F15	No LC172 found	Replace LC172
689	35	F15	No LC171B found	Replace LC171B
690-699		--	(not used)	
700	03	F16	Scanner fault. First test failed = 23 (MDO(i)* stuck inactive)	Replace LC46
701	03	F16	Scanner fault. First test failed = 22 (MDO(i)* stuck active)	Replace LC46
702	03	F16	Scanner fault. First test failed = 21 (SADIO s-a-1)	Test LC46 terminal 10: 1. If it is 0 (ground potential), replace LC46 2. If it is 1 (5 volts), remove LC46 and all LC49B (or LC41B) 3. If terminal 10 is still 1, clear the wiring fault on LC46 terminal 10 or LC49B (or LC41B) terminal 44. It may be necessary to replace LC46 as well.

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
703	03	F16	<p>Scanner fault. First test failed = 20</p> <p>A) Faulty scan data = 10 and Number of tests failed = 1 (SADIO s-a-0)</p> <p>B) Faulty scan data = 1 and Number of tests failed = 2 (SCEN8* s-a-0)</p> <p>C) Faulty scan data = 2 and Number of tests failed = 2 (SDA1* s-a-0), or Faulty scan data = 4 and Number of tests failed = 2 (SDA2* s-a-0), or Faulty scan data = 3, 5, or 7 and Number of tests failed = 2 (combination of leads s-a-0).</p>	<p>4. If terminal 10 is now 0, return each LC49B (or LC41B) and test terminal 10 until it is 1. Replace each LC49B (or LC41B) that causes terminal 10=1. It may then be necessary to replace LC46 as well.</p> <p>1. Replace LC46</p> <p>2. Remove LC49B (or LC41B) on one carrier at a time and restart the test until the fault clears. Replace the LC49B (or LC41B) which cleared the fault.</p> <p>3. Clear the wiring fault on LC46 terminal 10, or LC49B (or LC41B) terminal 44.</p> <p>1. Replace LC46</p> <p>2. Clear wiring fault on LC46 terminal 77</p> <p>1. Replace LC46</p> <p>2. Return LC46. Remove LC49B (or LC41B) on one carrier at a time and restart the test until the fault clears. Replace the LC49B (or LC41B) which cleared the fault.</p> <p>3. Clear the wiring fault on LC46 terminals 20 and 21 or LC49B (or LC41B) terminals 92 and 42.</p>

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
704	03	F16	<p>Scanner fault. First test failed = 19</p> <p>A) Faulty scan data = 1 and Number of tests failed = 1 (SCEN4* s-a-0)</p> <p>B) Faulty scan data = 2 and Number of tests failed = 1 (SCEN5* s-a-0)</p> <p>C) Faulty scan data = 4 and Number of tests failed = 1 (SCEN6* s-a-0)</p> <p>D) Faulty scan data = 10 and Number of tests failed = 1 (SCEN7* s-a-0)</p> <p>E) Any other combination (Multiple faults)</p>	<ol style="list-style-type: none"> 1. Remove the LC49B (or LC41B) in carrier 4. If fault clears, replace LC49B (or LC41B) 2. Replace LC46 3. Clear the wiring fault on LC46 terminal 25 or LC49B (or LC41B) terminal 36 on carrier 4. <ol style="list-style-type: none"> 1. Remove the LC49B (or LC41B) in carrier 5. (second half of link carrier). If fault clears, replace the LC49B (or LC41B). 2. Replace LC46 3. Clear the wiring fault on LC46 terminal 62 or LC49B (or LC41B) terminal 36 on carrier 5 <ol style="list-style-type: none"> 1. Remove the LC49B (or LC41B) in carrier 6. (second half of link carrier). If fault clears, replace LC49B (or LC41B). 2. Replace LC46 3. Clear the wiring fault on LC46 terminal 63 or on LC49B (or LC41B) terminal 36 on carrier 6. <ol style="list-style-type: none"> 1. Replace LC46 2. Clear the wiring fault on LC46 terminal 64 <ol style="list-style-type: none"> 1. Remove each LC49B (or LC41B) on carriers 4 to 6 until fault signature changes. Replace the LC49B (or LC41B) that changed the fault signature and continue step 1 until fault clears. 2. Replace LC46 3. Apply wiring fault repair procedures for fault descriptions A through D above.

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
705	03	F16	<p>Scanner Fault. First test failed = 18</p> <p>A) Faulty scan data = 1 and Number of tests failed = 1 (SCENO* s-a-0)</p> <p>B) Faulty scan data = 2 and Number of tests failed = 1 (SCEN1* s-a-0)</p> <p>C) Faulty scan data = 4 and Number of tests failed = 1 (SCEN2* s-a-0)</p> <p>D) Faulty scan data = 10 and Number of tests failed = 1 (SCEN3* s-a-0)</p> <p>E) Any other combination (Multiple faults)</p>	<ol style="list-style-type: none"> 1. Remove LC49B (or LC41B) on carrier 0. If fault clears, replace LC49B (or LC41B). 2. Replace LC46 3. Clear the wiring fault on LC46 terminal 24 or LC49B (or LC41B) terminal 36 on carrier 0. <ol style="list-style-type: none"> 1. Remove LC49B (or LC41B) on carrier 1. If fault clears, replace LC49B (or LC41B) 2. Replace LC46 3. Clear the wiring fault on LC46 terminal 22 or LC49B (or LC41B) terminal 36 on carrier 1. <ol style="list-style-type: none"> 1. Remove LC49B (or LC41B) on carrier 2. If fault clears, replace LC49B (or LC41B). 2. Replace LC46 3. Clear the wiring fault on LC46 terminal 23 or LC49B (or LC41B) terminal 36 on carrier 2. <ol style="list-style-type: none"> 1. Remove LC49B (or LC41B) on carrier 3. If fault clears, replace LC49B (or LC41B). 2. Replace LC46 3. Clear the wiring fault on LC46 terminal 61 or LC49B (or LC41B) terminal 36 on carrier 3. <ol style="list-style-type: none"> 1. Remove LC49B (or LC41B) on one carrier at a time on carriers 0 through 3 until fault signature changes. Replace the LC49B (or LC41B) that changed the fault signature and repeat step 1 until fault clears. 2. Replace LC46 3. Apply wiring fault repair procedures for fault descriptions A through D above.

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
706	03	F16	Scanner fault. First test failed = 17 (SAD05* s-a-1)	<ol style="list-style-type: none"> 1. Test LC46 terminal 17 <ol style="list-style-type: none"> a. If it is 0 (ground potential), replace LC46 b. If it is 1 (5 volts), remove LC46 and all LC49B (or LC41B) c. If terminal 17 is still 1, clear the wiring fault on LC46 terminal 17 or LC49B (or LC41B) terminal 95. It may be necessary to replace LC46 as well. d. If terminal 17 is now 0, return each LC49B (or LC41B) and test terminal 17 until it is <ol style="list-style-type: none"> 1. Replace each LC49B (or LC41B) that causes terminal 17 = 1. It may then be necessary to replace LC46 as well.
707	03	F16	Scanner fault. First test failed = 16 (SAD04* s-a-1)	<ol style="list-style-type: none"> 1. Test LC46 terminal 16. <ol style="list-style-type: none"> a. If it is 0 (ground potential), replace LC46 b. If it is 1 (5 volts), remove LC46 and all LC49B (or LC41B) c. If terminal 16 is still 1, clear the wiring fault on LC46 terminal 16 or LC49B (or LC41B) terminal 45. It may be necessary to replace LC46 as well. d. If terminal 16 is now 0, return each LC49B (or LC41B) and test terminal 16 until it is <ol style="list-style-type: none"> 1. Replace each LC49B (or LC41B) that causes terminal 16 = 1. It may then be necessary to replace LC46 as well.

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
708	03	F16	<p>Scanner fault. First test failed = 15</p> <p>A) Faulty scan data = 1 and Number of tests failed = 2 (SAD04* s-a-0)</p> <p>B) Faulty scan data = 2 and Number of tests failed = 2 (SAD05* s-a-0)</p> <p>C) Faulty scan data = 4 and Number of tests failed = 3 (SPTEN* s-a-0)</p> <p>D) Faulty scan data = 10 and Number of tests failed = 3 (SCLK* s-a-0)</p> <p>E) Any other combination (multiple faults)</p>	<p>1. Replace LC46</p> <p>2. Remove LC49B (or LC41B) on each carrier until fault clears. Replace the LC49B (or LC41B) that cleared the fault.</p> <p>3. Clear the wiring fault on LC46 terminal 16 or LC49B (or LC41B) terminal 45.</p> <p>1. Replace LC46</p> <p>2. Same as step 2 above</p> <p>3. Clear the wiring fault on LC46 terminal 17, or LC49B (or LC41B) terminal 95.</p> <p>1. Replace LC46</p> <p>2. Same as step 2 above</p> <p>3. Clear the wiring fault on LC46 terminal 18, or LC49B (or LC41B) terminal 41.</p> <p>1. Replace LC46</p> <p>2. Same as step 2 above</p> <p>3. Clear the wiring fault on LC46 terminal 43 or LC49B (or LC41B) terminal 74.</p> <p>1. Replace LC46</p> <p>2. Same as step 2 above</p> <p>3. Apply repair step 3 of each of the fault signatures A through D above.</p>

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
709	03	F16	Scanner faults. First test failed = 14 (SAD03* s-a-1)	<ol style="list-style-type: none"> 1. Test LC46 terminal 12. <ol style="list-style-type: none"> a. If it is 0 (ground potential), replace LC46 b. If it is 1 (5 volts), remove LC46 and all LC49B (or LC41B) c. If terminal 12 is still 1, clear the wiring fault on LC46 terminal 12 or LC49B (or LC41B) terminal 96. It may be necessary to replace LC46 as well. d. If terminal 12 is now zero, return each LC49B (or LC41B) and test terminal 12 until it is 1. Replace each LC49B that causes terminal 12 = 1. It may then be necessary to replace LC46 as well. 2. Replace LC124
710	03	F16	Scanner fault. First test failed = 13 (SA02* s-a-1)	<ol style="list-style-type: none"> 1. Test LC46 terminal 14. <ol style="list-style-type: none"> a. If it is 0 (ground potential), replace LC46 b. If it is 1 (5 volts), remove LC46 and all LC49B (or LC41B) c. If terminal 14 is still 1, clear the wiring fault on LC46 terminal 14 or LC49B (or LC41B) terminal 46. It may be necessary to replace LC46 as well. d. If terminal 14 is now 0, return each LC49B (or LC41B) and test terminal 14 until it is 1. Replace each LC49B (or LC41B) that causes terminal = 1. It may then be necessary to replace LC46 as well.

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
711	03	F16	Scanner fault. First test failed = 12. (SA01* s-a-1)	<ol style="list-style-type: none"> 1. Test LC46 terminal 15. <ol style="list-style-type: none"> a. If it is 0 (ground potential), replace LC46 b. If it is 1 (5 volts), remove LC46 and all LC49B (or LC41B) c. If terminal 15 is still 1, clear the wiring fault on LC46 terminal 15 or LC49B (or LC41B) terminal 43. It may be necessary to replace LC46. d. If terminal 15 is now 0, return each LC49B (or LC41B) and test terminal 15 until it is 1. Replace each LC49B (or LC41B) that causes terminal 15 = 1. It may then be necessary to replace LC46.
712	03	F16	Scanner fault. First test failed = 11. (SAD00* s-a-1)	<ol style="list-style-type: none"> 1. Test LC46 terminal 13. <ol style="list-style-type: none"> a. If it is 0 (ground potential), replace LC46 b. If it is 1 (5 volts), remove LC46 and all LC49B (or LC41B) c. If terminal 13 is still 1, clear the wiring fault on LC46 terminal 13 or LC49B (or LC41B) terminal 93. It may be necessary to replace LC46. d. If terminal 13 is now 0, return each LC49B (or LC41B) and test terminal 13 until it is 1. Replace each LC49B (or LC41B) that causes terminal 13 = 1. It may then be necessary to replace LC46.

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
713	03	F16	<p>Scanner fault. First test failed = 10</p> <p>A) Faulty scan data = 1 and Number of tests failed = 4 (SAD00* s-a-0)</p> <p>B) Faulty scan data = 2 and Number of tests failed = 4 (SAD02* s-a-0)</p> <p>C) Faulty scan data = 4 and Number of tests failed = 4 (SAD01* s-a-0)</p> <p>D) Faulty scan data = 10 and Number of tests failed = 4 (SAD03* s-a-0)</p> <p>E) Any other combination (multiple faults)</p>	<p>1. Replace LC46</p> <p>2. Remove LC49B (or LC41B) on each carrier until fault clears. Replace the LC49B (or LC41B) that cleared the fault.</p> <p>3. Clear the wiring fault on LC46 terminal 13 or LC49B.(or LC41B) terminal 93.</p> <p>1. Replace LC46</p> <p>2. Same as step 2 above</p> <p>3. Clear the wiring fault on LC46 terminal 14 or LC49B (or LC41B) terminal 46.</p> <p>1. Replace LC46</p> <p>2. Same as step 2 above</p> <p>3. Clear the wiring fault on LC46 terminal 15 or LC49B (or LC41B) terminal 43</p> <p>1. Replace LC46</p> <p>2. Same as step 2 above</p> <p>3. Clear the wiring fault on LC46 terminal 12 or LC49B (or LC41B) terminal 96.</p> <p>1. Replace LC46</p> <p>2. Same as step 2 above</p> <p>3. Apply repair step 3 for each of the appropriate fault signatures A through D above to correct multiple wiring faults.</p>

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
714	03	F16	Scanner fault. First test failed = 9	Replace LC46
715	03	F16	Scanner fault. First test failed = 8	Replace LC46
716	03	F16	Scanner fault. First test failed = 7	Replace LC46
717	03	F16	Scanner fault. First test failed = 6	Replace LC46
718	03	F16	Scanner fault. First test failed = 5	Single line or trunk off-hook or stuck off-hook could cause a status lead to appear stuck active. Carrier number equals first test failed minus one. If fault clears when LC49B is pulled, find stuck lead on carrier.
719	03	F16	Scanner fault. First test failed = 4	
720	03	F16	Scanner fault. First test failed = 3	
721	03	F16	Scanner fault. First test failed = 2	
722	03	F16	Scanner fault. First test failed = 1	
723	03	F16	Scanner fault	Replace in sequence LC124, LC46
724	03	F16	Scanner fault	Replace in sequence LC124, LC46
725-800		--	(not used)	
801	04	F2	Could not clear low address port	Replace in sequence LC49B (or LC41B), LC04 LC05B, and check cabling
802	04	F2	Could not clear high address port	Replace in sequence LC123, LC124, LC122, LC100
803	04	F2	Could not verify connection on first port of carrier	Replace in sequence indicated board LC101, LC122

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
804	04	F2	First valid port was not port zero	Replace indicated board or LC04
805	04	F2	Shift register stuck or network control always on T.S. = 0	Replace in sequence board, LC101
806	04	F2	Command to remove time slot failed	Replace in sequence board, LC122
807	04	F2	Network control time slot addressing error on adding A T.S.	Replace in sequence board, LC122, LC124, LC101, LC49B (or LC41B)
808	04	F2	Network control time slot addressing error on clearing A T.S.	Replace in sequence board, LC122, LC124, LC101, LC49B (or LC41B)
809	04	F2	Port select is stuck	Replace in sequence board, LC49 (or LC41B)
810	04	F2	Board select is stuck	Replace in sequence board, LC49 (or LC41B)
811	04	F2	Bad port found could not verify time slot	Replace in sequence board, LC100, LC122, LC05B
812	04	F2	Network control always reads or writes to same T.S.	Replace in sequence board, LC122, LC100, LC05B
813	04	F2	Remove T.S. command removes more than one T.S.	Replace in sequence board, LC122, LC49B (or LC41B)
814	04	F2	Remove T.S. command intermittend	Replace indicated board
815	04	F2	Could not assign time slot to bus one	Replace in sequence LC101, LC122, LC123
816	04	F2	Bus shift register intermittent	Replace LC101

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
817	04	F2	Time slot bus assignment alters other time slot bus assignments	Replace in sequence LC101, LC122
818	04	F2	Could not change bus assignment of a time slot	Replace LC101
819	04	F2	Shift register intermittent	Replace indicated board
820	04	F2	Encountered intermittent time slot assignment while searching for LC6 boards	Replace in sequence: board indicated on MAAP, LC122
821	04	F2	Encountered intermittent clear shift register while searching for LC6 board	Replace in sequence: board indicated on MAAP, LC122
822-824	--	--	(not used)	
825	04	F2	First port on LC6 board not port zero	Replace indicated board
826	04	F2	Not all ports on LC6 board are addressable	Replace indicated board
827	04	F2	Did not find expected LC6 port	Replace indicated board
828-829	--	--	(not used)	
830	04	F2	No equipment found on this cabinet	1. Replace in sequence LC46, LC122, LC49B (or LC41B) 2. Check -5V power
831	--	--	(not used)	
832	04	F2	Attendant interface board fault	Replace in sequence indicated board, LC123, LC05B

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
833-836		--	(not used)	
837	04	F2	Network trunk circuit port faulty	Replace indicated board
838-839		--	(not used)	
840	04	F2	Network line circuit port faulty CAUTION: On Issue 1, this fault could appear if there are any LC06 Conference circuit packs in the system. Unplug LC06 and restart.	Replace indicated board
841-849		--	(not used)	
850	04	F2	No LC105 on carrier 0 or HILO bit stuck high	Replace in sequence LC105, LC49B (or LC41B)
851	04	F2	Could not clear LC105 shift register	Replace LC105
852	04	F2	LC105 clear shift register intermittent	Replace LC105
853	04	F15	Network clock faulty	Replace LC121
854	04	F2	On first pass through network, neither clock has scan data indicating it is on line	Replace LC121, check wiring
855	04	F2	Clock 0 was found off line when it should be on line	Replace LC121
856	04	F2	Could not switch clock 1 on line	Replace LC121
857	04	F2	Clock 1 was found off line when it should be on line	Replace LC121

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
858	04	F2	Could not switch clock 0 on line	Replace LC121
859	--	--	(not used)	
860	01	F4	No acknowledge SIO of TODC (Time of Day Clock synchronizer)	Replace LC144
861	01	F4	No acknowledge TIO of TODC	
862	01	F4	Power Fail Flip-Flop not set	
863	01	F4	Power Fail Flip-Flop not reset	
864	01	F4	TODC accuracy is in question - deviation from processor clock over last pass exceeds threshold	Replace in sequence LC144, LC143
865	01	F4	Command field of clock echo not correct	
866	01	F4	Same as 865	Replace LC144
867	01	F4	Same as 866	
868	01	F4	On setting the TODC, the TIO echo does not compare with expected response	
869	01	F4	On setting and reading the TODC, the Read Echo does not compare with expected response	
870	01	F4	There has been a power failure on the TODC during the last X-Ray pass	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
871	01	F4	TIO Echo on setting TODC does not compare with transmitted message	Replace LC144
872	01	F4	TODC clock roll-over did not start within the required time	
873	01	F4	TODC clock roll-over occurred with errors	
874	01	F4	TIO Echo on resetting TODC did not agree with transmitted message	
900	45	F17	PAM amplifier output incorrect on time divisions bus 0 of this carrier. This is the first amplifier for this group type tested in this module. (GOS = bus 0, CIS = bus 0). This is a line carrier.	Replace LC101. If the error persists, replace or check one at a time the following: 1. LC102 Bus = 0 2. LC103 Bus = 0 3. Check the coaxial wiring
901	45	F17	PAM amplifier output incorrect on time division bus 1 of this carrier. This is the first amplifier for this group type tested on bus 1 in this module. This LC101 passed the corresponding test on bus 0. (GOS = bus 1, CIS = bus 1). This is a line carrier	Replace LC101. If the error persists, replace or check one at a time the following: 1. LC102 Bus = 1 2. LC103 Bus = 1 3. Check the coaxial wiring
902-909	--	--	(not used)	
910	45	F17	See description for fault code 900. This is a trunk carrier	See procedure for fault code 900
911	45	F17	See description for fault code 901. This is a trunk carrier	See procedure for fault code 901

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
912-919		---	(not used)	
920	45	F17	PAM amplifier output incorrect on time division bus 0 of this carrier. This is the first amplifier for this group type tested in this module. (GOS = Bus 0, CIS = Bus 0). This is a link carrier.	Replace LC101. If the error persists, replace or check one at a time the following: <ol style="list-style-type: none"> 1. LC102 Bus 0 2. LC104 Bus 0
921	45	F17	PAM amplifier output incorrect on time division bus 1 of this carrier. This is the first amplifier for this group type tested in this module. This LC101 passed the corresponding test on bus 0. (GOS = bus 1, CIS = bus 1) This is a link carrier.	Replace LC101. If the error persists, replace or check one at a time the following: <ol style="list-style-type: none"> 1. LC102 Bus 1 2. LC104 Bus 1 3. Check the coaxial wiring
922	45	F17	PAM amplifier output incorrect on time division bus 0 of this carrier. The test is using the receiving half of the link carrier LC101. (GOS = bus 0, CIS = bus 0).	Replace LC101. If error persists, replace or check one at a time the following: <ol style="list-style-type: none"> 1. LC102 Bus 0 2. LC103 Bus 0 3. Check the coaxial wiring
923	45	F17	PAM amplifier output incorrect on time division bus 1 of this carrier. The test is using the receiving half of the link carrier LC101. (GOS = bus 1, CIS = bus 1).	Replace LC101. If error persists, replace or check one at a time the following: <ol style="list-style-type: none"> 1. LC102 Bus 1 2. LC103 Bus 1 3. Check coaxial wiring
924	45	F17	PAM amplifier output incorrect on stuck switch test. (GOS = bus 0, CIS = bus 0). Source on Link Carrier.	Replace LC102 bus 0 for carrier indicated. If error persists, replace LC101 in first equipped carrier of the frame.
925	45	F17	PAM amplifier output incorrect on stuck switch test. (GOS = bus 1, CIS = bus 0). Source on Link Carrier.	Replace LC102 bus 1 for carrier indicated. If error persists, replace LC101 in first equipped carrier of the frame.

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
926-929		---	(not used)	
930	45	F17	PAM amplifier output incorrect on time division bus 0 of this carrier. At least one other amplifier has passed this test in this module. (GOS = bus 0, CIS = bus 0).	Replace LC101. If the error persists, replace LC102 bus 0. Check the coaxial wiring.
931	45	F17	PAM amplifier output incorrect on time division bus 1 of this carrier. At least one other amplifier has passed this test in this module. (GOS = bus 1, CIS = bus 1).	Replace LC101. If the error persists, replace LC102 bus 1. Check the coaxial wiring.
932	45	F17	PAM amplifier output incorrect on stuck switch test. (GOS = bus 0, CIS = bus 1). If indicated carrier is a Link, the source is connected to the first equipped carrier in the frame.	Replace LC101 for carrier indicated. If fault persists: <ol style="list-style-type: none"> 1. Other than Link carriers, replace LC102 Bus 0 for the carrier 2. For Link carriers, replace LC102 Bus 0 for the first equipped carriers in the frame 3. If fault continues to persist, check the coaxial wiring.
933	45	F17	PAM amplifier output incorrect on stuck switch test. (GOS = bus 1, CIS = bus 0). If indicated carrier is a link, the source is connected to the first equipped carrier in the frame.	Replace LC101 for carrier indicated. If fault persists: <ol style="list-style-type: none"> 1. Other than Link carriers, replace LC102 Bus 1 for the carrier 2. For Link carriers, replace LC102 Bus 1 for the first equipped carrier in the frame 3. If fault continues to persist, check the coaxial wiring.

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
934-999		---	(not used)	
1000	05	F2	More than 2 tone plants have been found in one module	Check system configuration
1001	05	F2	LC05B not plugged in	Replace LC05B and check LC11 in Slot 6 of module control
1002	05	F2	LC04 no longer plugged in	Replace LC04
1003	05	F2	Could not clear tone port	Replace board
1004	05	F2	Could not verify tone port time slot assignment	Replace board
1005-1009		--	(not used)	
1010	05	F8	One tone plant failed in one module. All other tone plants passed	Replace in sequence LC04, LC05B, LC49B (or LC41B)
1011	05	F8	One tone plant has failed in more than one module	1. Replace in sequence LC04, LC05B and restart to get next tone plant failure 2. Verify that power is on on all modules
1012	05	F8	Both tone plants failed in one module. Other modules OK	Replace in sequence LC04, LC05B and restart to get next tone plant failure
1013	05	F8	Both tone plants have failed in more than one module	Replace in sequence LC04, LC05B and restart to get next tone plant failure
1014	05	F8	Tone test data processing error. Data set clobbered	Reload tape

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FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1015	05	F3I	Tone plant failure in LC17B	LC17B, LC04, LC05 (in same carrier)
1016-1099		--	(not used)	
1100	17	F2	All lines not properly off-hook	} Replace indicated board
1101	17	F2	Two lines did not go on hook	
1102	17, 42	F2	Tone transmission failed	} Replace indicated board and check power for each bus and cabling
1103	17, 42	F2	Tone improperly present	
1104	17	F2	All lines not properly on-hook	Replace LC03, appliance control unit
1105	17	F2	A ringing relay failed to operate	} Replace indicated board
1106	17	F2	No ports off hook	
1107	17	F2	No ports off hook	
1108	17, 42	F2	No port available on tone board carrier to activate TS 0	
1109	52	F2	Faulty LC41B idle status	Replace in sequence LC41B, LC03
1110	52	F3	Faulty LC41B active status	Replace in sequence LC41B, LC03, neon lamp
1111	17, 42	F2	Working tone board not found in a module	board Replace board and check LC11 in first slot
1112	52	F2	Wrong response from 1 or more appliance control unit on LC03	Replace LC03, appliance control unit

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FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1113	17, 42	F2	No module control carrier found in module	Replace indicated board
1114	17, 42	F2	Low port dist analog switch stuck active	
1115	17, 42	F2	High port sum analog switch stuck active	
1116	17, 42	F2	High port dist analog switch stuck active	
1117	17, 42	F2	Low port sum analog switch stuck active	
1118		F2	LC17 ground start relay or busy/idle detector stuck active.	Replace indicated LC17.
1119		F2	LC17 ground start relay or busy/idle detector failed to operate.	Replace indicated LC17.
1120- 1122	--		(not used)	
1123	52	F5	Battery backed up memory word failed to hold contents over power down interval	*Run memory test to verify the indicated condition of the memory board. If memory board is good, check battery backup hardware.
1124	52	F31	Write cycle completed for memory battery back-up test	1. For field, see HB 281, Sec. 400.52 for test instruction 2. For mfg: reload via AC power switch
1125	52	F31	Memory battery backup read check successfully completed	End of test; no action necessary

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1126	17, 02	F2	Port 2 overlap failed on LC433	Replace LC433
1127	17, 02	F2	Port 0 senses 2-way transmission on LC433	Replace LC433
1128	17, 02	F2	Port 3 overlap failed on LC433	Replace LC433
1129	17, 02	F2	Port 1 senses 2-way transmission on LC433	Replace LC433
1130- 1149		---	(not used)	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
			This page is reserved for future use.	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1150	42	F2	OG1 not operated or AO not sense loop	Replace indicated LC280
1151	42	F2	RVO not operated or REV1 not senses	
1152	42	F2	RVO not released or REV1 still sensed	
1153	42	F2	DON1 not operated	
1154	42	F2	RLS1 not operated	
1155	42	F2	REV1 sensed reversal	
1156	42	F2	RLS1 not released	
1157	42	F2	DISC1 timer too early	
1158	42	F2	RLS1 not operated	
1159	42	F2	DON1 timer too early	
1160	42	F2	DON1 timer too late	
1161	42	F2	DON1 not operated	
1162	42	F2	RLS1 not operated	
1163	42	F2	REV1 not sensed or RVO not released	
1164	42	F2	REV1 not sensed or RLS1 not released	

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FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1165	42	F2	Scan memory wrong - CKT 1	Replace indicated LC280
1166	42	F2	DON1 or RLS1 timers too late	
1167	42	F2	DON1 or RVO not operated	
1168	42	F2	DISC1 Timer too late	
1169	42	F2	RVO not released or board not idle	
1170	42	F2	OG0 not operated or A1 not sense loop	
1171	42	F2	RV1 not operated or REV0 not sensed	
1172	42	F2	RV1 not released or REV0 still sensed	
1173	42	F2	DON0 not operated	
1174	42	F2	RLS0 not operated	
1175	42	F2	REV0 sensed reversal	
1176	42	F2	RLS0 not released	
1177	42	F2	DISC0 timer too early	
1178	42	F2	RLS0 not operated	
1179	42	F2	DON0 timer too early	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1853	13	F4	No response from attendant console on TP10	1. Replace LC34B 2. Check data channel cabling, console
1854- 1859	--	--	(not used)	
1860		F37	First word of received PMS message did not compare with expected image	Replace PIC
1861		F15	PMS EIA data did not start in Read Store within required no. of read attempts	
1862		F15	Valid EIA data from PMS PIC expected but not received	
1863		F37	PMS data received does not compare with the expected image	
1864		F37	PMS EIA data received does not compare with expected image	
1865		F38	Event Interval Time did not exceed lower limit	
1866		F38	Event Interval Time exceeded upper limit	
1867		F4	PMS PIC would not reinitialize within required no. of retries	
1868- 1869	--	--	(not used)	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1870		F15	No acknowledge on TIO while scanning MRDU for button pushing	LC34, LC133, MRDU
1871		F15	No Response from MRDU while scanning for Button Pushing	MRDU, LC34, LC133
1872		F4	Echo failure on Issuing HMDU command	HMDU, LC34, LC133
1873		F4	No response from HMDU on TIO	LC34, LC133, HMDU
1874		F4	Echo failure on issuing MRDU command	MRDU, LC34, LC133
1877		F4	No response from MRDU on TIO	LC34, LC133, MRDU
			HMDU = Hotel Motel Display Unit (MRDU or CNDU) MRDU = Force Administration Data System (FADS) Display Unit CNDU = Calling Number Display Unit	
1878-1899		--	(not used)	
1900	42, 02	F2	60 ms timer late - Ckt 0	Replace indicated LC361
1901	42, 02	F2	60 ms timer late - Ckt 1	
1902	42, 02	F2	60 ms timer early - Ckt 0	
1903	42, 02	F2	60 ms timer early - Ckt 1	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1180	42	F2	DON0 timer too late	Replace indicated LC280
1181	42	F2	DON0 not operated	
1182	42	F2	RLS0 not operated	
1183	42	F2	REV0 not sensed or RV0 not released	
1184	42	F2	REV1 not sensed or RLS1 not released	
1185	42	F2	Scan memory wrong - ckt 0	
1186	42	F2	DON0 or RLS0 timers too late	
1187	42	F2	DON0 or RV0 not operated	
1188	42	F2	DISC0 timer too late	
1189	42	F2	RV1 not release or board not idle	
1190	42, 02	F2	No loop equipment	Replace indicated LC361
1191	42, 02	F2	Failed ring trip during silent interval	
1192	42, 02	F2	Wrong loop status and control on Ckt 1	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1193	42, 02	F2	Wrong loop status and control on Ckt 0	Replace indicated LC361
1194	42, 02	F2	450 ms timer too early - Ckt 0	
1195	42, 02	F2	450 ms timer too early - Ckt 1	
1196	42, 02	F2	450 ms timer too late - Ckt 0	
1197	42, 02	F2	450 ms timer too late - Ckt 1	
1198	42, 02	F2	Failed ring trip during ring interval	
1199	17, 42, 02	F2	Unequipped frame found during FP9, LC12, LC15, LC17 tests	Replace indicated board
1200	42	F2	LC14 not installed in first module control carrier slot 19	Add LC14 as required
1201	42	F2	Unidentified trunk or defective LC7 dial ckt	Replace indicated board
1202	42	F2	Unidentified trunk or defective LC7 dial ckt	Replace indicated board, LC49B (or LC41B)

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1203	42	F2	Tip-ring resistance improperly low on any LC8 or LC13	<ol style="list-style-type: none"> 1. Replace indicated board, LC32 2. Check "8" loop box 3. Check each circuit pack separately.
1204	42	F2	Faulty idle state of TT receiver/register	Replace indicated board
1205	42	F2	Incorrect trunk idle status	Replace indicated board, LC105, LC190
1206	42	F2	Improperly active ground detector	Replace indicated board
1207	42	F2	Improperly active loop detector	Replace indicated board
1208	42	F2	Ground detector failed to detect a ground	<ol style="list-style-type: none"> 1. Replace indicated board 2. For mfg: check cable GR 412001.
1209	42	F2	Loop detector failed to detect a closed loop	Replace indicated board; LC13, LC08
1210	42	F2	Loop current improperly present	Replace indicated board
1211	42	F2	Loop current improperly absent	Replace indicated board
1212	42	F2	Defective DX/E&M signal circuit	Replace indicated board
1213	42	F2	Defective 2DB pad	Replace indicated board

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FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1214	42	F2	Defective end-of-announcement circuit	Replace indicated board
1215	42	F2	An LC08 talk relay failed to operate	
1216	42	F2	LC06 busy flip-flop failed to clear	
1217	17, 42	F2	This board or carrier did not recognize as loop around for burn-in	Connect loop equipment when in burn-in mode
1218	52	F2	LC190 phase failed to switch in 2.5 seconds	Replace LC190
1219	52	F2	LC190 recorded message missing	Replace LC190, LC04
1220	34	F2	A message register circuit (0-3) stuck active	Replace indicated board
1221	34	F2	A message register circuit (4-7) stuck active	
1222	34	F2	Circuit 0 message register stuck inactive	
1223	34	F2	Circuit 1 message register stuck inactive	
1224	34	F2	Circuit 2 message register stuck inactive	
1225	34	F2	Circuit 3 message register stuck inactive or else -48V or LC14 missing	
1226	34	F2	Circuit 4 message register stuck inactive	
1227	34	F2	Circuit 5 message register stuck inactive	
1228	34	F2	Circuit 6 message register stuck inactive	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1229	34	F2	Circuit 7 message register stuck inactive	Replace indicated board
1230	34	F2	Circuit 0 message register stuck active	
1231	34	F2	Circuit 1 message register stuck active	
1232	34	F2	Circuit 2 message register stuck active	
1233	34	F2	Circuit 3 message register stuck active	
1234	34	F2	Circuit 4 message register stuck active	
1235	34	F2	Circuit 5 message register stuck active	
1236	34	F2	Circuit 6 message register stuck active	
1237	34	F2	Circuit 7 message register stuck active	
1238- 1239	--	--	(not used)	
1240	34	F2	LC14, one or more contact drivers stuck inactive, or test plug missing	
1241	34	F2	LC14, one or more contact drivers stuck active	
1242	34	F2	LC14, K1 circuit stuck inactive	
1243	34	F2	LC14, K1 circuit stuck active	
1244	34	F2	LC14, K2 circuit stuck inactive	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1245	34	F2	LC14, K2 circuit stuck active	Replace indicated board
1246	34	F2	LC14, K3 circuit stuck inactive	
1247	34	F2	LC14, K3 circuit stuck active	
1248	34	F2	LC14, K4 circuit stuck inactive	
1249	34	F2	LC14, K4 circuit stuck active	
1250	42	F2	Defective inner loop current detector	Replace LC278
1251	42	F2	Dial * does not inhibit SSO * and or SS1 * output	
1252	42	F2	Excessive circuit 0 inner loop current detector impedance	
1253	42	F2	Same as 1252 except for circuit 1	
1254	42	F2	Defective Outer Loop Current Detector or GND* does not inhibit SSO* or SS1* output	
1255	42	F2	Defective Outer Loop Current Detector	
1256	42	F2	Excessive circuit 0 outer loop current detector impedance.	
1257	42	F2	Same as 1256 except for Circuit 1	
1258	42	F2	Circuit 0 has a defective 170 m sec. time delay	
1259	42	F2	Circuit 1 has a defective 170 m sec. time delay	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1260	42	F2	Ring detector does not detect ring voltage	Replace LC278. If this does not clear fault, replace LC15
1261	42	F2	Ring detector does not retrigger on continuous ring voltage applied	
1262	42	F2	LC278 Ring detector times out too soon	
1263	42	F2	LC278 ring detector times out too late	Replace LC278. If error persists, replace LC15
1264	40, 42	F2	TT sender digit does not match TT register digit sent from LC12	1. For Test 40, replace LC10, LC54B, LC12 2. For Test 42, replace LC12, LC10, LC54B
1265	40, 42	F2 a	TT register responded to a false TT combination from LC12	1. For Test 40, replace LC10, LC54B, LC12 2. For Test 42, replace LC12, LC10, LC54B
1266	42	F2	LC 12 dial tone detector failed to detect 350 HZ signal	Replace LC12, LC04
1267	42	F2	Faulty response of LC12 dial tone detector to 440 HZ	Replace LC12
1268	52	F3	Less than 128K of memory	Add memory circuit packs
1269	42	F2	Detector failed to hold over 40 MSEC interruption	Replace LC12
1270	40, 42	F2	No link between displayed address and module 0	1. Replace LC100 2. Check link cables 3. Run Test 50
1271	52	F2	LC190 not found in selected carrier	Replace LC190

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1272	42	F2	Faulty LC07 MTC scan	Replace LC07
1273	42	F2	LC07 6 MS MTC reset occurred too soon	
1274	42	F2	LC07 6 MS MTC reset occurred too late	
1275	42	F2	Faulty LC07 GS Relay	
1276	42	F2	Failure to find second trunk board for test LC07	
1277	42	F2	Defective dial relay control	Replace indicated LC285
1278	42	F2	Ring Detection delay too short	
1279	42	F2	PM OUTPUT improperly idle	
1280	42	F2	PM OUTPUT improperly active	Replace indicated board
1281	42, 02	F2	LC279/LC285 5-second ring detector timer failed to reset	
1282	42, 02	F2	Ring back tone gone	
1283	42, 02	F2	Ring control status wrong	
1284	42, 02	F2	Circuit 1 failed ring lockout	Replace indicated LC361
1285	42, 02	F2	Circuit 1 ring control status wrong	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1286	42, 02	F2	Circuit 1 failed ring lockout release	Replace indicated LC361
1287	42 02	F2	Ring control status wrong	
1288	42, 02	F2	Circuit 0 failed ring lockout	
1289	42, 02	F2	Circuit 0 ring control status wrong	
1290	42, 02	F2	Circuit 0 failed ring lockout release	
1291	42, 02	F2	Board did not go idle	
1292	42, 02	F2	Ring back tone improperly present	
1293	42, 02	F2	Ring back tone not found	
1294	42, 02	F2	Ring control off delay failed	
1295	42, 02	F2	Ring on time too short	
1296	42, 02	F2	Ring on time too long	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1297	42, 02	F2	Silent interval too short	
1298	42, 02	F2	Silent interval too long	Replace indicated LC361
1299	42, 02	F2	Ring control failed to turn off ringing	
1300	50	F4	While searching for link amplifiers other than a line board was encountered on a carrier designated as a line carrier	
1301	50	F4	Scan data shows the indicated board has faulty link amplifier loss pads. Could not set pads on all ports	Replace indicated board
1302	50	F4	Could not clear all link amplifier loss pads on the indicated board	Replace indicated board
1303	50	F4	While searching for link amplifiers, could not find any equipped boards on a carrier designated as a line carrier	Restart test
1304	50	F4	Not a link board on a link carrier	Replace indicated board
1305	50	F4	Could not sell all or some of the link amplifier pads on the indicated board	Replace indicated board

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1306	50	F4	Could not clear all of some of the link amplifier pads on the indicated board	Replace indicated board
1307	50	F4	Not a link board on a link carrier	Replace indicatee board
1308- 1309	--	--	(not used)	
1310	50	F19	Receive signal level is low at the link amplifier (without 5 dB pad) during loop-back testing	<ol style="list-style-type: none"> 1. Replace indicated board 2. Replace in sequence, LC100, LC123, LC124 3. Check power 4. Check wire on term 93 of 01/02/11
1311	50	F19	Receive signal level is high at the link amplifier (without 5 dB pad) during loop-back testing	<ol style="list-style-type: none"> 1. Replace indicated board 2. Replace in sequence LC100, LC123, LC124 3. Check power 4. Check wire on term 93 of 01/02/11
1312	50	F19	Receive signal level is low at the link amplifier (with 5 dB pad) during loop-back testing	Replace indicated board
1313	50	F19	Receive signal level is high at the link amplifier (with 5 dB pad) during loop-back testing	Replace indicated board
1314- 1319	--	--	(not used)	
1320	50	F4	Carrier identified as a link carrier is not equipped	Restart test
1321- 1329	--	--	(not used)	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1330	50	F19	Receive level without pad too low during link pair search	Replace LC100. If still fail, read next fault code which should be 1399 and replace LC100
1331	50	F19	Receive level without pad too high during link pair search	Replace LC100. If still fail, read next failure code which should be 1399 and replace LC100
1332-1334	--	--	(not used)	
1335	50	F19	The receive level without 5 dB pad was too low during intermodule test	Replace LC100. If still fail, replace LC100 for next fault code which is 1399
1336	50	F19	The receive level without 5 dB pad was too high during intermodule testing	Replace LC100. If still fail, replace LC100 for 1399 fault code that follows
1337	50	F19	The receive level with 5 dB pad was too high during intermodule testing	Replace LC100. If still fail, replace LC100 for 1399 fault code that follows
1338-1398	--	--	(not used)	
1399	50	F19	Link pair receive level bad	<ol style="list-style-type: none"> 1. Replace LC100 2. Check cabling
1400	--	--	(not used)	
1401	01	F4	No acknowledge on SIO	Replace in sequence LC130, LC133
1402	01	F4	No acknowledge on SIO while issuing a network command. (Note: channel 000 is shown as blank sub-field)	Replace in sequence LC130, LC133, LC131

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1403	01	F4	No acknowledge on SIO while distributing network RDIO	1. Replace in sequence LC130, LC133, LC46 2. Check cabling
1404	01	F4	No acknowledge on SIO while distributing network data	Replace in sequence LC130, LC133
1405	01	F4	No acknowledge on SIO while network scanning	1. Replace in sequence LC130, LC133 2. Check LC12 in slot 17
1406	01	F4	Parity error or timeout on TPIO	Replace in sequene LC123, LC124, LC131 data channel cable
1407	01	F4	Parity error or timeout on TPIO while issuing a network command	1. Replace in sequence LC123, LC124, LC131, LC132, LC130, LC105 2. Check data channel cable and -9V fuse
1408	01	F4	Parity error or timeout on TPIO while issuing a network RDIO	Replace in sequence LC123, LC124, LC131, data channel cable, LC146
1409	01	F4	Parity error or timeout on TPIO while distributing network DATA	
1410	01	F4	Parity error or timeout on TPIO while network scanning	
1411	01	F4	Echo message mismatch on I/O	
1412	01	F4	Echo message mismatch on I/O while issuing a network command	
1413	01	F4	Echo message mismatch on I/O while issuing a network RDIO	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1414	01	F4	Echo message mismatch on I/O while distributing network data	Replace in sequence LC123, LC124, LC131, data channel cable
1415	01	F4	Echo message mismatch on I/O while network scanning	
1416	01	F4	I/O Controller timed out doing an RDIO	1. Replace in sequence LC123, LC124, LC131, data channel cable 2. If frame is power down, restart 02
1417-1499	--	--	(not used)	
1500	07	F23	Status incorrect when wrong type word is in last ETC memory location	Replace in sequence LC59, LC58
1501	07	F23	Status is incorrect when wrong type word is in ETC memory location 0	Replace in sequence LC59, LC58
1502	07	F23	Bad status after restoring correct type word in ETC memory location 4095	Replace LC59
1503	07	F23	Bad status after restoring correct type word in ETC memory location 0	Replace LC59
1504	07	F23	ETC fault registers not clear on first attempt to run with registers enabled	Replace LC59
1505	07	F4, F27	Bad parity detected in ETC memory during memory test	Replace in sequence LC57, LC59

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
			This page is reserved for future use.	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1506	07	F23	Status incorrect after forced scan timer time-out	Replace LC59
1507	07	F23	Bad status after exit from ETC scan timer time-out test	Replace LC59
1508	07	F15	ETC charge register operation incorrect	Replace LC56
1509	07	F23	System not clearable after transmitter stuck test	Replace LC59
1510	07	F15	Wrong type word in ETC memory location 4095 goes undetected	Replace LC59
1511	07	F15	Wrong type word in ETC memory location 0 goes undetected	Replace LC59
1512	07	F15	Type word at wrong ETC location goes undetected	Replace LC59
1513	07	F23	Status is incorrect when a type word is in the wrong ETC memory location	Replace LC59
1514	07	F23	Bad status after exit from test on type word at wrong location in ETC	Replace LC59
1515	07	F15	Stuck station address bus is undetected	Replace in sequence LC56, LC59
1516	07	F23	ETC status is incorrect when stuck station address bus is forced	Replace LC59
1517	07	F23	Bad ETC status after exit from test of stuck station address bus indication	Replace LC59
1518	07	F27	Bad ETC reply parity	Replace in sequence LC60, LC57, LC34B

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1519	07	F27	ETC echo error	Replace in sequence LC60, LC57, LC34B
1520	07	F15	Stuck ETC transmit-receive bus goes undetected	Replace in sequence LC56, LC59
1521	07	F23	ETC status is incorrect when stuck transmit-receive bus fault is forced	Replace LC59
1522	07	F23	Bad ETC status after exit from text of stuck transmit-receive bus indication	Replace LC59
1523	07	F15	Nonreturn of bit from ETC station goes undetected	Replace in sequence LC56, LC59
1524	07	F23	ETC status is incorrect when nonreturn of bit is forced	Replace LC59
1525	07	F23	Bad ETC status after exit from test of nonreturn of bit indication	Replace LC59
1526	07	F15	Stuck ETC steering circuit enable goes undetected	Replace in sequence LC56, LC59
1527	07	F23	ETC status is incorrect when stuck steering circuit enable is forced	Replace LC59
1528	07	F4	Bad parity returned from ETC on indicated data channel	1. Replace in sequence LC34B, LC60 2. Clear intersystem noise pickup
1529	07	F4	Data channel echo incorrect	Same as fault 1528
1530	07	F23	Bad ETC status after exit from test of stuck steering circuit enable indication	Replace LC59
1531	07	F23	ETC fault register incorrect while testing response to all 0s message	Replace LC59

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1532	07	F15	ETC receiver cannot be stopped via fault control register	Replace LC59
1533	07	F23	ETC status incorrect after receiver forced to stop	Replace LC59
1534	07	F23	Bad ETC status after exit from test of receiver stopped	Replace LC57
1535	07	F15	Return of bit stuck in ETC receiver goes undetected	Replace in sequence LC56, LC58, LC59
1536	07	F23	ETC status incorrect when receiver bit stuck is forced	Replace LC59
1537	07	F23	ETC receiver clear check cannot be suppressed via fault control register	Replace LC58
1538	07	F23	Fault detected with test load in ETC memory	Replace in sequence LC56, LC58, LC59, LC57
1539	07	F23	ETC processor fault during station tests	Replace in sequence LC56, LC58, LC57
1540	07	F23	Bad ETC status after exit from test of receiver bit stuck indication	Replace LC59
1541	07	F15	ETC transmitter cannot be disabled by fault control register	Replace in sequence LC59, LC56
1542	07	F23	ETC status incorrect when stuck transmitter is forced	Replace LC59

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1543	07	F23	Bad ETC status after exit from test on stuck transmitter	Replace in sequence LC59, LC56
1544	07	F15	Change enable code fault	Replace LC58
1545	07	F15	Change enable code fault	Replace LC58
1546	07	F15	Change enable code fault	Replace LC58
1547	07	F15	Change enable code fault	Replace LC58
1548	07	F15	ETC test station faulty or test station switch stuck	Replace test station, check switch
1549		--	(not used)	
1550	07	F23	ETC change register not clearable	Replace LC58
1551	07	F23	Station power down occurs less than 2 seconds after 201L-ETC communication stops	Replace LC58
1552	07	F23	Station power down takes longer than 6 seconds after 201L-ETC communication stops	Replace LC58
1553	07	F15	ETC fails to return abort indication on all 0s message	Replace LC59
1554	07	F23	ETC station power-down indication cannot be masked by fault control register	Replace LC59
1555	07	F23	ETC not clearable after FC13 test	Replace LC59

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1556	07	F23	Unexpected fault during message abort test in ETC	Replace LC59
1557	07	F23	Cannot mask ETC message abort	Replace LC59
1558	07	F4	Wrong or nonexistent data link echo on ETC memory read	Replace in sequence LC60, LC57
1559	07	F4	Wrong or nonexistent data link echo on ETC memory write	Replace LC60
1560	07	F15	ETC memory fault	Replace LC57
1561	07	F15, F24*	ETC steering circuit port not found on loop-back test	Replace LC55
1562	07	F15	Bad ETC memory parity goes undetected	Replace in sequence LC57, LC59
1563	07	F23	ETC status incorrect when memory parity error is forced	Replace LC59
1564	07	F23	ETC faults cannot be masked by the control register	Replace LC59
1565	07	F23	Bad ETC status after exit from test of fault control register bit 6	Replace LC59
			*See Fault Code 1505	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1566	07	F26	ETC memory fault while memory filled with hex (3F)	Replace LC57
1567	07	F26	ETC memory fault while each memory location contains a value equal to the high 6 bits of its address	Replace in sequence LC57, LC56
1568	07	F26	ETC memory fault while memory filled with repeating pattern: 0, 1, 2,...,hex (3F)	Replace in sequence LC57, LC56
1569	07	F26	ETC memory fault while memory filled with hex (01)	Replace LC57
1570	07	F26	ETC memory fault while memory filled with hex (00)	Replace LC57
1571	07	F26	ETC memory fault while memory filled with hex (3F)	Replace LC57
1572-1573	--	--	(not used)	
1574	07	F15	Forced SAHT time-out is not detected	Replace LC59
1575	07	F23	ETC status incorrect when SAHT time-out is forced	Replace LC59
1576	07	F23	Bad ETC status after exit from SAHT time-out test	Replace LC59
1577	07	F15	Forced SCT time-out in ETC is not detected	Replace LC59

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1578-1579		--	(not used)	
1580	07	F15	ETC change register operation incorrect	Replace LC56
1581	07	F3	No ETCs found	Same as fault 1528
1582	07	F3	More than 8 ETCs found	Reduce number to 8 or less
1583	10	F15, F25*	ETC station or steering circuit fault	Replace in sequence station set, LC55
1584	07	F15	Faulty replies or data link noise during initial ETC communication	Same as fault 1528
1585	46	F15	No acknowledge on data link I/O	Replace in sequence LC34B, LC132, LC133
1586	07	F15, F26*	Faults detected while running ETC memory test	Replace in sequence LC57, LC58
1587	07	F23	ETC station power is indicated as being up even though power down sent	Replace LC59
1588		F3	Although there are fewer than 9 ETCs, more than eight dual-speed channels have been equipped with ETCs at some time since tape load. This is a software problem	Run test 00 once
			*See Fault Code 1505	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1589	07	F23	Fault registers are not clear even though they are inhibited from logging faults in this Electronic Telephone Controller, or SMDR recorder is connected to this channel.	Replace LC57, or power down SMDR
1590-1598	--	--	(not used)	
1599	07	F3	ETC memory dump completed	None
1600	--	--	(not used)	
1601	45	F2	Could not clear T.S. shift register	Replace LC105
1602	45	F17	Could not verify clear power return flip-flop	
1603	45	F17	Could not set power return flip-flop	
1604	45	F2	LC105 not in carrier 0	
1605	45	F17	Could not assign time slot to LC105	
1606	45	F17	Could not QEN LC105 receiver	
1607	45	F17	Low gain high frequency self test failed	
1608	45	F17	Low gain low frequency self test failed	Replace LC105
1609	45	F17	High gain high frequency self test failed	
1610	45	F17	High gain low frequency self test failed	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1611	45	F2	Could not clear shift register while searching for LC105	Replace indicated board
1612	45	F2	Could not verify clear T.S.	Replace LC105
1613	45	F17	Could not clear power return flip-flop	Replace LC105
1614		--	(not used)	
1615	45	F2	Could not clear LC105 time slot shift register	Replace indicated LC105
1616	45	F2	Could not verify add time slot command	Replace indicated LC105, LC5B
1617	45	F2	Shift register stuck or network control always on T.S. = 0	Replace indicated board
1618	45	F2	Command to remove T.S. failed	Replace indicated board
1619- 1620		--	(not used)	
1621	45	F2	Time slot assignment intermediate	Replace indicated board
1622	45	F2	Verify always reads or writes to same T.S.	
1623	45	F2	Remote T.S. command clears more than one T.S.	
1624	45	F2	Remote T.S. command intermittent	
1625- 1629		--	(not used)	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1630	45	F2	No Module control frames: cannot run common amplifier tests	Check system configuration
1631	45	F2	Frame not equipped	
1632-1635		--	(not used)	
1636	45	F4	Time slot shift register intermittent	Replace in sequence LC105, LC123, LC122
1637-1639		--	(not used)	
1640	45	F17	Power return flip-flop indicates a power failure has occurred in the cabinet indicated	1. Check indicated cabinet: voltage, power supply 2. Replace LC105
1641	45	F17	There is a network clock alarm in the cabinet indicated	1. Replace in sequence LC123, LC105, LC46 2. Check power supply, carrier option
1642	45	F17	There is a temperature alarm in the cabinet indicated	1. Replace LC105 2. Check sensors, power supply
1643	45	F17	There is a fuse alarm in the cabinet indicated	1. Check fuses 2. Replace LC105
1644-1649		--	(not used)	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1650		F2	All scan points not idle	Re-insert LC145; replace in sequence LC145, LC49B (LC41B)
1651		F2	Line pack missing for test	Insert LC02 or LC03 line pack
1652		F2	Port not quiet	Replace LC145; run tests 5 and 45
1653- 1659		--	(not used)	
1660		F33	Event did not occur	Replace LC145; run tests 5 and 45
1661		F33	Event occurred too early	
1662		F33	Off-hook did not occur	
1663		F33	Off-hook occurred too early	
1664		F33	On-hook did not occur	
1665		F33	On-hook occurred too early	
1666- 1699		--	(not used)	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE																																																			
1700-1747	14	F5	Main store 16K memory board is defective. The following fault codes appear for 16K circuit packs on the <u>basic</u> control carrier:	Replace in sequence: LC128, LC137, (or LC138), LC133																																																			
			<table border="1"> <thead> <tr> <th data-bbox="426 560 514 625">Fault Code</th> <th data-bbox="598 560 693 625">LC128 Slot</th> <th data-bbox="766 560 987 625">Address Bounds (octal)</th> </tr> </thead> <tbody> <tr><td>1700</td><td>01</td><td>0- 37777</td></tr> <tr><td>1701</td><td>02</td><td>40000- 77777</td></tr> <tr><td>1702</td><td>03</td><td>100000-137777</td></tr> <tr><td>1703</td><td>04</td><td>140000-177777</td></tr> <tr><td>1704</td><td>05</td><td>200000-237777</td></tr> <tr><td>1705</td><td>06</td><td>240000-277777</td></tr> <tr><td>1706</td><td>07</td><td>300000-337777</td></tr> <tr><td>1707</td><td>08</td><td>340000-377777</td></tr> <tr><td>1708</td><td>09</td><td>400000-437777</td></tr> <tr><td>1709</td><td>10</td><td>440000-477777</td></tr> <tr><td>1710</td><td>11</td><td>500000-537777</td></tr> <tr><td>1711</td><td>12</td><td>540000-577777</td></tr> <tr><td>1712</td><td>13</td><td>600000-637777</td></tr> <tr><td>1713</td><td>14</td><td>640000-677777</td></tr> <tr><td>1714</td><td>15</td><td>700000-737777</td></tr> <tr><td>1715</td><td>16</td><td>740000-777777</td></tr> </tbody> </table>	Fault Code	LC128 Slot	Address Bounds (octal)	1700	01	0- 37777	1701	02	40000- 77777	1702	03	100000-137777	1703	04	140000-177777	1704	05	200000-237777	1705	06	240000-277777	1706	07	300000-337777	1707	08	340000-377777	1708	09	400000-437777	1709	10	440000-477777	1710	11	500000-537777	1711	12	540000-577777	1712	13	600000-637777	1713	14	640000-677777	1714	15	700000-737777	1715	16	740000-777777	
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FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE																																																			
1700-1747	14	F5	<p>The following fault codes appear for 16K circuit packs on the <u>first growth</u> control carrier:</p> <table border="1"> <thead> <tr> <th data-bbox="415 435 493 492">Fault Code</th> <th data-bbox="575 435 667 492">LC128 Slot</th> <th data-bbox="751 435 968 492">Address Bounds (octal)</th> </tr> </thead> <tbody> <tr><td>1716</td><td>01</td><td>1000000-1037777</td></tr> <tr><td>1717</td><td>02</td><td>1040000-1077777</td></tr> <tr><td>1718</td><td>03</td><td>1100000-1137777</td></tr> <tr><td>1719</td><td>04</td><td>1140000-1177777</td></tr> <tr><td>1720</td><td>05</td><td>1200000-1237777</td></tr> <tr><td>1721</td><td>06</td><td>1240000-1277777</td></tr> <tr><td>1722</td><td>07</td><td>1300000-1337777</td></tr> <tr><td>1723</td><td>08</td><td>1340000-1377777</td></tr> <tr><td>1724</td><td>09</td><td>1400000-1437777</td></tr> <tr><td>1725</td><td>10</td><td>1440000-1477777</td></tr> <tr><td>1726</td><td>11</td><td>1500000-1537777</td></tr> <tr><td>1727</td><td>12</td><td>1540000-1577777</td></tr> <tr><td>1728</td><td>13</td><td>1600000-1637777</td></tr> <tr><td>1729</td><td>14</td><td>1640000-1677777</td></tr> <tr><td>1730</td><td>15</td><td>1700000-1737777</td></tr> <tr><td>1731</td><td>16</td><td>1740000-1777777</td></tr> </tbody> </table>	Fault Code	LC128 Slot	Address Bounds (octal)	1716	01	1000000-1037777	1717	02	1040000-1077777	1718	03	1100000-1137777	1719	04	1140000-1177777	1720	05	1200000-1237777	1721	06	1240000-1277777	1722	07	1300000-1337777	1723	08	1340000-1377777	1724	09	1400000-1437777	1725	10	1440000-1477777	1726	11	1500000-1537777	1727	12	1540000-1577777	1728	13	1600000-1637777	1729	14	1640000-1677777	1730	15	1700000-1737777	1731	16	1740000-1777777	
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1700-1747	14	F5	<p>The following fault codes appear for 16K circuit packs on the <u>second growth control carrier</u>:</p> <table border="1"> <thead> <tr> <th data-bbox="443 516 527 581"><u>Fault Code</u></th> <th data-bbox="604 516 695 581"><u>LC128 Slot</u></th> <th data-bbox="814 516 1031 581"><u>Address Bounds (octal)</u></th> </tr> </thead> <tbody> <tr><td>1732</td><td>01</td><td>2000000-2037777</td></tr> <tr><td>1733</td><td>02</td><td>2040000-2077777</td></tr> <tr><td>1734</td><td>03</td><td>2100000-2137777</td></tr> <tr><td>1735</td><td>04</td><td>2140000-2177777</td></tr> <tr><td>1736</td><td>05</td><td>2200000-2237777</td></tr> <tr><td>1737</td><td>06</td><td>2240000-2277777</td></tr> <tr><td>1738</td><td>07</td><td>2300000-2337777</td></tr> <tr><td>1739</td><td>08</td><td>2340000-2377777</td></tr> <tr><td>1740</td><td>09</td><td>2400000-2437777</td></tr> <tr><td>1741</td><td>10</td><td>2440000-2477777</td></tr> <tr><td>1742</td><td>11</td><td>2500000-2537777</td></tr> <tr><td>1743</td><td>12</td><td>2540000-2577777</td></tr> <tr><td>1744</td><td>13</td><td>2600000-2637777</td></tr> <tr><td>1745</td><td>14</td><td>2640000-2677777</td></tr> <tr><td>1746</td><td>15</td><td>2700000-2737777</td></tr> <tr><td>1747</td><td>16</td><td>2740000-2777777</td></tr> </tbody> </table>	<u>Fault Code</u>	<u>LC128 Slot</u>	<u>Address Bounds (octal)</u>	1732	01	2000000-2037777	1733	02	2040000-2077777	1734	03	2100000-2137777	1735	04	2140000-2177777	1736	05	2200000-2237777	1737	06	2240000-2277777	1738	07	2300000-2337777	1739	08	2340000-2377777	1740	09	2400000-2437777	1741	10	2440000-2477777	1742	11	2500000-2537777	1743	12	2540000-2577777	1744	13	2600000-2637777	1745	14	2640000-2677777	1746	15	2700000-2737777	1747	16	2740000-2777777	
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FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1748	14	F5	1) Main store memory board select fault (LC128), or 2) Jumper plug on LC133 set to incorrect memory board size The memory board that experienced the board select fault can be determined by using the address displayed on the MAAP. The slot and carrier number of this board is obtained from the fault description table for fault codes 1700-1747 by finding which board contains the fault address.	If processor has just been brought up or if the LC133 has just been changed, check the LC133 jumper position. Else replace in sequence LC137 (or LC138) on faulty carrier, LC128 at faulty address, first LC128 on faulty carrier
1749	14	F5	Memory carrier select fault (LC128). The affected carrier can be located using the address displayed on the MAAP and the fault description table for fault codes 1700-1747.	1. Check LC133 jumper position 2) Replace in sequence LC133, LC137 (or LC138) on faulty carrier, LC128 at faulty address
1750-1799		--	(not used)	
1800	01	F4	PIC USART would not initialize within the required number of re-tries	1. Press "SELF-TEST" button on PIC 2. Replace PIC, LC34B 3. Check data channel cabling
1801		--	(not used)	
1802	01	F4	TPIO time-out while reading PIC RAM	Replace PIC
1803	01	F4	Self test RAM timing results did not fall within standard boundaries for PIC bit rates	
1804	01	F4	No response from PIC on TPIO	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1805	01	F4	Self test used to run in external loop-back mode but PIC self test status word indicates internal loop mode	Replace PIC
1806	01	F4	External loop around self test failed	
1807	01	F4	PIC Error Bit in Echo Status Byte did not indicate PIC error as expected.	
1808	01	F4	PIC Self Test Fail Bit in PIC status word did not indicate self test failure as expected	
1809	01	F4	Internal Loop Mode Bit did not set in Self Test Status Word as expected	
1810	01	F4	Internal loop around self test failed	
1811	01	F4	PIC Error Bit in Echo Status Byte did not set after internal loop-back self test as expected	
1812	01	F4	USART Initialization Bit (INIT_SYS BIT) in PIC status word did not set after internal loop-back self test as expected	
1813	01	F4	INIT_SYS BIT did not clear after USART initialization	
1814	01	F4	External loop-back self test passed without external loop-back fixture	
1815	01	F4	PIC Error Bit in Echo Status Byte did not set after external loop-back self test as expected.	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1816	01	F4	USART Initialization Bit (INIT_SYS BIT) in PIC status word did not set after external loop-back self test as expected	Replace PIC
1817	01	F4	INIT_SYS BIT did not clear after USART initialization	
1818	01	F4	No acknowledge on SIO to an equipped PIC	Replace in sequence LC34B, PIC
1819	01	F4	PIC Echo IO_CMD value incorrect	Replace PIC
1820	01	F4	EIA data lost in loop-back test	
1821	01	F4	EIA data not found within expected number of words during loop-back test	
1822	01	F4	Data sent does not compare with data received during EIA data loop-back test	
1823	01	F4	More data found than was sent during EIA data loop-back test	
1824	01	F4	No_EIA Bit in PIC status word did not set when read store is empty	Replace PIC
1825	01	F4	Write buffer overflowed at less than expected value	
1826	01	F15	Write buffer did not indicate overflow within maximum allowed limit	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1827	01	F4	Wrong buffer indicated in PIC status word during write buffer overflow test	Replace PIC
1828	01	F4	Incorrect PIC status word during PIC write buffer overflow test	
1829	01	F15	Read buffer does not overflow at the same point as write buffer	
1830	01	F4	Wrong buffer indicated in PIC status word during read buffer overflow test	
1831	01	F4	Incorrect PIC status word during PIC read buffer overflow test	
1832	01	F15	EIA data did not find in read store within required number of tries	
1833	01	F4	Data received does not match data sent during buffer overflow test	
1834	01	F15	More data found in read store than was sent	
1835	01	F15	Less data found in read store than was sent	
1836	01	F4	Buffer overflow bit did not clear	
1837	01	F4	Read buffer is empty but NO_EIR data bit is not set	
1838		F4	Write store full not indicated in full buffer word	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1839		F35	Read Store overflowed at less than the lower limit expected	Replace PIC
1840		F35	Read Store did not overflow within the maximum limit	
1841		F4	Buffer Status word does not indicate Read Store is full but the PIC Status word does indicate the Read Store is full	
1842		F4	Buffer Status word does not reset after Read Store is empty	
1843		F36	Data rates of PMS paired PICs are not matched	Reset hardware switches on both PICs to be the same
1844		F15	Did not find a mate to PIC designated to have one	Check for faulty cable if error persists replace PIC
1845		F4	PIC termination indicated but no mate or loop back fixture could be found	Check for faulty cable or loop back fixture if error persists replace PIC
1846-1849			(not used)	
1850	13	F15	No response from attendant console on T10	Replace in sequence LC34B, LC133
1851	13	F15	No acknowledge on T10 to attendant console	Replace in sequence LC34B; LC133
1852	13	F4	Echo failure on issuing attendant console command	<ol style="list-style-type: none"> 1. Replace LC34B 2. Check data channel cabling, console

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1853	13	F4	No response from attendant console on TP10	1. Replace LC34B 2. Check data channel cabling, console Replace PIC
1854- 1859	--	--	(not used)	
1860		F37	First word of received PMS message did not compare with expected image	
1861		F15	PMS EIA data did not start in Read Store within required no. of read attempts	
1862		F15	Valid EIA data from PMS PIC expected but not received	
1863		F37	PMS data received does not compare with the expected image	
1864		F37	PMS EIA data received does not compare with expected image	
1865		F38	Event Interval Time did not exceed lower limit	
1866		F38	Event Interval Time exceeded upper limit	
1867		F4	PMS PIC would not reinitialize within required no. of retries	
1868- 1869	--	--	(not used)	

FAULT CODE TABLE

FAULT CODE	TEST NO.	FORMAT	DESCRIPTION OF FAULT	REPAIR PROCEDURE
1870		F15	No acknowledge on TIO while scanning MRDU for button pushing	LC34, LC133, MRDU
1871		F15	No Response from MRDU while scanning for Button Pushing	MRDU, LC34, LC133
1872		F4	Echo failure on Issuing HMDU command	HMDU, LC34, LC133
1873		F4	No response from HMDU on TIO	LC34, LC133, HMDU
1874		F4	Echo failure on issuing MRDU command	MRDU, LC34, LC133
1877		F4	No response from MRDU on TIO	LC34, LC133, MRDU
			HMDU = Hotel Motel Display Unit (MRDU or CNDU) MRDU = Force Administration Data System (FADS) Display Unit CNDU = Calling Number Display Unit	
1878-1899		--	(not used)	
1900	42 02	F2	60 ms timer late - Ckt 0	Replace indicated LC361
1901	42, 02	F2	60 ms timer late - Ckt 1	
1902	42, 02	F2	60 ms timer early - Ckt 0	
1903	42, 02	F2	60 ms timer early - Ckt 1	

HB 281

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400.80T

Reason for Issue:
New Section

Manager, Denver PBX PECC