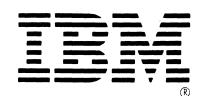
VOLUME AD3 MACHINE 4381- -0011647 MODEL MO2 SYSTEM OCOOLYP MODE SCHED SHIP 00/00/00

LOGIC TYPE -O- SYSTEMS DIAGRAMS DOC COUNTER

PAGE	NUM	SH	TITLE		PART NUM	EC NUM	FEAT	JRE B/M OR B/I	MS
CA005			COVER		0000445875	A02220	. W .	0004473536	
CA010			PU PWR REPAIR	₹	0000445876	A02220	. M .	0004473536	
CA015			PWR INTER X/E	EXIT	0000445877	A02219	. H .	0004473536	
CA020			VOLTAGE ADJUS	ST .	0000445878	A02220	. W .	0004473536	
CAU25			VOLTAGE ADJUS		0000445879	A02220	· M ·	0004473536	
CA030			REF CODE 11 1		0000445880	A02219	. W.	0004473536	
CA035			RC 11 1024/10		0000445881	A02214	. × .	0004473536	
CA040			RC 11 1035/10		0000445882	A02219	. W .	0004473536	
CA045			RC 11 1035/10		0000445883	A02214	- M -	0004473536	
CA050			RC 11 1114/11		0000445884	A02219	. W.	0004473536	
CA055			RC 11 1114/11		0000445885	A02219	. W .	0004473536	
CA060			RC 11 1124/11		0000445886	A02219	. W .	0004473536	
CA065			RC 11 1124/11		0000445887	A02214	- W -	0004473536	
CA070			RC 11 1134/11		0000445888	A02214	.W.	0004473536	
CA075			RC 11 1134/11		0000445889	A02219	- W -	0004473536	
CA085			RC 11 1144/11		0000445891	A02214	• W •	0004473536	
CA090			RC 11 1155 OE		0000445892	A02214	-W -	0004473536	
CA095			RC 11 1155 OE		0000445893	A02214	- W -	0004473536	
CA100			RC 11 1204/12		0000445894	A02214	-W-	0004473536	
CA105			RC 11 1214/12		0000445895	A02214	• W •	0004473536 0004473536	
CA110			RC 11 1234/12 RC 11 1254/12		0000445896	A02214	•W•	0004473536	
CA115			RC 11 1254/12		0000445898	A02214 A02214	.W.	0004473536	
CA120 CA125			RC 11 12/4/12		0000445899	A02217	. W .	0004473536	
CA125			RC 11 1304/13		0000445900	A02217	. N .	0004473536	
CA135			RC 11 1354/13		0000445901	A02219	.W.	0004473536	
CA140			RC 11 1354/13		0000445902	A02219	-W.	0004473536	
CA145			RC 11 1354/13		0000445903	A02219	. W .	0004473536	
CA150			RC 11 1404 OE		0000445904	A02220	.W.	0004473536	
CA155			RC 11 1404 DE		0000445905	A02214	-W-	0004473536	
CA160			RC 11 1604/14		0000445906	A02220	• W •	0004473536	
CA165			RC 11 1604/14		0000445907	A02215	. W.	0004473536	
CA170			RC 11 1704 DE		0000445908	A02220	. W .	0004473536	
CA175			RC 11 1714 DE		0000445909	A02220	. W .	0004473536	
CA180			RC 11 1724 OF		0000445910		. W .	0004473536	
CA185			RC 11 1325/35	5/45	0000445911		. W .	0004473536	
CA190			RC 11 1FF4/FF		0000445912	A02220	. W .	0004473536	
CA195			RC 11 3054 GE		0000445913	A02214	. X .	0002676390	
CA200			RC 11 3064 0E		0000445914	A02214	. N .	0002676390	
CA205			RC 11 3064 OE		0000445915	A02214	. W .	0002676390	
CA210			RC 11 3084 0E		0000445916	A02214	. H .	0002676390	
CA215			RC 11 3114 0E		0000445917	A02220	. N .	0004473536	
CA220			RC 11 3114 0E		0000445918	A02214	. W .	0004473536	
CA225			RC 11 3134 0E		0000445919	A02214	.W.	0002676390	
CA230			RC 11 3134 OF		0000445920	A02214	- M -	0002676390	
CA231			RC 11 3144 DE		0000447366	A02214	. W .	0002676390	
CA232			RC 11 3144 OF		0000447367	A02214	- W -	0002676390	
CA235			RC 11 3164 CE		0000445921	A02214	.W.	0002676390	
CA240			RC 11 3184 DE		0000445922	A02214	. W .	0002676390	
CA245			RC 11 3194 OE		0000445923	A02214	- N -	0002676390	
CA 250			RC 11 3194 06		0000445924	A02214	- W -	0002676390	
CA255			RC 11 3224 OE		0000445925	A02214	• W •	0002676390	
CA260			RC 11 3254 OE		0000445926	A02219	- W -	0002676390	
CA265			RC 11 3254 GE		0000445927	A02214	-W -	0002676390	
CA270			RC 11 3264 0E		0000445928	A02219	• M •	0002676390	
CA275			RC 11 3264 GE RC 11 3284 GE		0000445929	A02214 A02219	- W -	0002676390 0002676390	
CA280 CA285			RC 11 3294 DE		0000445783	A02219	.W.	0002676390	
CA265			RC 11 3294 0E		0000445784	A02214	. W .	0004473536	
CA295			RC 11 3314 0E		0000445785	A02219	.W.	0002676390	
CA 300			RC 11 3344 DE		0000445786	A02214	. n .	0002676390	
- WA 200			NO IL JUST UE	•		PVLLIT	* # #	UUU 20 103 70	
			10 mg						



Maintenance Information

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S/N	S/N	S/N	S/N	S/N	S/N	i j S/N	S/N
MI	MI	MI	MI	MI	MI	MI	MI
MAINTENANCE INFORMATION	MAINTENANCE INFORMATION	MAINTENANCE INFORMATION	MAINTENANCE INFORMATION	MAINTENANCE INFORMATION	MAINTENANCE INFORMATION	MAINTENANCE INFORMATION	MAINTENANCE INFORMATION
SAFETY INDEX TERMS/ ABBREVIATIONS INTRODUCTION START PU REPAIR CHNL REPAIR MSS REPAIR END OF REPAIR	PWR REPAIR (HWS AND MBC)	PWR REPAIR (PROC) PR 1001 THRU PR 13 XX	PWR REPAIR (PROC) PR 1401 THRU PR 18 XX	PWR REPAIR (PROC) PR 1901 THRU PR 5001	SERVICE AIDS	LOCATIONS TOOLS REMOVAL/ REPLACEMENT PREVENTIVE MAINTENANCE DIAGNOSTICS LOGS SYSTEM TEST INSTALLATION SAFETY INSP	CONSOLE FUNCTIONS MESSAGES
VOL A01	VOL A02	VOL A03	VOL A04	VOL A05	VOL A06	VOL A07	VOL A08

4791 Processor

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Processor

Maintenance Information

Sea CA005	PN 0445875
1	De 1 of 2
	Pg 1 of 2

- 1	 EC A02220 06 JUN 84		

Processing Unit Power Repair Procedure

You are here because of a Ref Code in the format UU RRRR IS with the UU field equal to 1x (x not significant).

DO NOT REPAIR DEFECTIVE FRUS

Step	Conditions	Instructions
1	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Ensure CE Mode switch is set to Normal. Ensure I/O Power Hold switch is set to Normal. Ensure FUNC1 diskette is in diskette drive 1. Press OCP Power On. Allow time for the I/O units to complete their Power-On sequence.
2	Do you have a voltage warning message or is the Ref Code (1X RRRR IS) with S field equal to C?	A voltage is out of tolerance. Go to page PR 1021.
3	Do you have a temperature warning message or is Ref Code (1X RRRR IS) with RRRR field equal to A38X?	Use RC 11 A38X XX. Go to step 14.
4	Is the Partial Power Up/Down (QWW) screen displayed?	Go to step 10.
5	Is power complete?	Go to step 13.
6	Is Ref Code with UU equal to F6 displayed?	Go to page MSS 001.
7	Is Ref Code (1X RRRR IS) with S field equal to 8 or is any other intermittent 1X Ref Code displayed?	A power failure retry was successful. Go to step 13.

Seq CA010	PN 0445876
	Pg 1 of 3

1					r
	EC A02214	EC A02215	EC A02216	EC A02219	
	EC AUZZ14	EC AUZZIO	EC AUZZIO	EC AUZZIS	EC A02220
	15 SEP 83	01 NOV 83	12 DEC 83	29 FEB 84	06 JUN 84
	10 011 00	01 140 4 00	IL DEC CO	23 1 23 04	

Step	Conditions	Instructions
8	Is Ref Code with UU equal to 1X displayed?	Go to step 14.
9	Is there any other Ref Code or failure indication?	Go to page START 001.
10	Go to Instructions column.	Set CE Mode switch to CE Mode. Select the Power Controller Diagnostics (QWP) screen and run the diagnostics.
11	Is Ref Code with UU equal to F6 displayed?	Go to page MSS 001.
12	Go to Instructions column.	Go to page PR 441 (CE or Normal Mode switch).
13	Go to Instructions column.	 Select the CE Log (QEVT) screen, and check for CE entries with the same RCs or failure descriptions or FRU replacements. Use your Ref Code and the Ref Code list at the end of this procedure to determine your PR XXXX (record only) entry page. Go to page PR 1011.
14	Go to Instructions column.	Match the 1X Ref Code with the Ref Code list, and go to the PR entry page.

UU RRRR 15

```
11 D074 XX
                                Go to PR 1911
11 D075 XX
11 D085 XX
                                Go to PR 1911
Go to PR 1481
11 D094 XX
11 D095 XX
                                Go to PR 1921
Go to PR 1921
                                Go to PR 1931
Go to PR 1941
 11 D113 XX
11 D114 XX
 11 D115 XX
                                Go to PR 1941
                                Go to PR 1941
Go to PR 1771
11 D116 XX
 11 D123 XX
11 D135 XX
11 D145 XX
11 D154 XX
11 D155 XX
                                Go to PR 1951
Go to PR 1961
                                Go to PR 1971
Go to PR 1971
11 D165 XX
11 D165 XX
11 D184 XX
11 D185 XX
11 D194 XX
11 D195 XX
11 D204 XX
11 D205 XX
                                Go to PR 1531
Go to PR 1981
                                Go to PR 1981
Go to PR 1991
                                Go to PR 1991
                                Go to PR 2001
                                Go to PR 2001
11 D205 XX
11 D225 XX
11 D254 XX
11 D255 XX
11 D264 XX
11 D265 XX
11 D274 XX
11 D275 XX
11 D285 XX
                                Go to PR 1571
                                Go to PR 2011
                                Go to PR 2011
                                Go to PR 2021
                                Go to PR 2021
Go to PR 2031
                                Go to PR 2031
Go to PR 1031
11 D294 XX
                                Go to PR 2041
11 D294 XX
11 D295 XX
11 D314 XX
11 D315 XX
11 D324 XX
11 D325 XX
11 D344 XX
                                Go to PR 2041
                                Go to PR 2051
                                Go to PR 2051
Go to PR 2061
                                Go to PR 2061
Go to PR 2071
                                Go to PR 2071
Go to PR 2081
 11 D345 XX
11 D345 XX
11 D354 XX
11 D355 XX
11 D364 XX
11 D365 XX
11 D375 XX
11 D574 XX
11 D575 XX
11 D584 XX
11 D584 XX
                                Go to PR 2081
                                Go to PR 2091
Go to PR 2091
                                Go to PR 1041
Go to PR 2101
                                Go to PR 2101
Go to PR 2111
                                Go to PR 2111
11 D594 XX
11 D595 XX
11 D644 XX
                                Go to PR 2121
                                Go to PR 2121
                                Go to PR 2131
 11 D645 XX
                                Go to PR 2131
11 FFF4 XX
11 FFF5 XX
14 A154 XX
14 A155 XX
14 A155 XC
14 A164 XX
                                Go to PR 1231
Go to PR 1231
                                Go to PR 2231
                                Go to PR 2231
Go to PR 1021
                                Go to PR 2241
 14 A165 XX
                                Go to PR 2241
14 A165 XX
14 A165 XC
14 A174 XX
14 A175 XX
14 A175 XC
14 A484 XX
14 A485 XX
17 A433 XX
                                Go to PR 1021
                                Go to PR 2251
                                Go to PR 2251
                                Go to PR 1021
                                Go to PR 2261
                               Go to PR 2261
Go to PR 1831
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**			
1D 1733 1D 0013 1D 0023 1D 0043 1D 0043 1D 0103 1D 0173 1D 0183 1D 0203 1D 0213 1D 0223 1D 0233 1D 0243 1D 0243 1D 0243 1D 0403 1D 0413 1D 0443 1D 0463 1D 0463 1D 0463 1D 0563 1D 0563 1D 0563 1D 0603	XX	GO G	PR 2211 PR 2211 PR 2211 PR 2211 PR 2211 PR 2211 PR 2161 PR 2181 PR 2181 PR 2221 PR 2221 PR 2221 PR 2221 PR 2221

End of list.

Seq CA010	PN 0445876
	Pg 3 of 3

 	 	EC A02220 06 JUN 84

Power Intermittent Exchange and Exit Procedure

You are here because of an intermittent power failure or a Ref Code (1X RRRR IS) with the S field equal to an 8.

Possible causes:

- Voltage Levels—any voltage out of tolerance, excessive ripple
- Cables—not seated or pushed in pins
- Cards—not seated
- Top Card Connectors—not seated
- Board—bent pins either side
- Loose Wires—on TBs, contactors, CBs, and bus bars
- Filters—dirty
- Air Flow Sensors—not aligned for proper air flow
- Defective FRUS.

Step	Conditions	Instructions
1	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set the CE Mode switch to CE Mode. Press service panel Power On. Select the Analog/Temperature Display (QWA) screen. Compare the voltage profile chart to the displayed voltage levels, or if the profile is missing, check for any sensor that is greater than three + or - characters.
2	is any voltage level greater than one + or - division from the profile chart or is any sensor greater than three + or - characters?	Go to page PR 1021.

Seq CA015	PN 0445877
	Pg 1 of 3

EC A02214	EC A02216	EC A02217	EC A02219	
15 SEP 83	12 DEC 83	10 JAN 84	29 FEB 84	

PR 1011

Step	Conditions	Instructions
3	Go to Instructions column.	Using the Ref Code and PR XXXX entry page from PR 1001, perform the following:
		 Use the repair action procedure as if you had a solid failure. Attempt to recreate the failure by gently moving or vibrating cables, cards, contactors, CBs, and power supplies. If you are unsuccessful in recreating or isolating the failure, see "Intermittent FRU List" on page PR 1012. Go to your PR XXXX entry page.
4	Go to Instructions column.	Go to page PR 5001.

11 528X XX		A-A2E2	PS105	A-A2 bd	Cables			
11 529X XX	A-A2E2	PS103	A-A2 bd	Cables				
11 531X XX	A-A2E2	PS103	A-A2 bd	Cables				
11 532X XX		PS103	A-A2 bd	Cables				
11 534X XX		A-A2D2	PS106	A-A2 bd	Cables			
					Cables			
11 535X XX		A-A2D2	PS106	A-A2 bd	Cables			
11 536X XX		A-A2D2	PS106	A-A2 bd	Cables			
11 537X XX	A-A2C2	A-A2D2	PS106	A-A2 bd	Cables			
11 538x xx	A-A2C4	A-A2E2	PS108	A-A4 bd	A-A2 bd	Cables		
11 539X XX		A-A2E2	PS109	A-A4 bd	A-A2 bd	Cables		
						Capies		
11 A01X XX		PS103	TR103	Cables	A-A2 bd			
11 A02X XX		PS103	TR103	Cables	A-A2 bd			
11 A07X XX	A-A2E2	PS102	Cables	A-A3 bd	A-A2 bd			
11 A07X XX	A-A2E2	PS102	Cables	A-A3 bd	A-A2 bd			
11 A08X XX		PS108	Cables	A-A4 bd	A-A2 bd			
11 A09X XX		PS109	Cables		A-A2 bd			
				A-A4 bd				
11 A10X XX		PS103	Cables	A-A3 bd	A-A2 bd			
11 A12X XX		PS107	Cables	A-A3 bd	A-A2 bd			
11 A14X XX	A-A2E2	PS108	Cables	A-A4 bd	A-A2 bd			
11 A18X XX		PS103	Cables	A-A4 bd	A-A2 bd			
11 A26X XX		PS105	Cables	A-B2 bd	A-A2 bd			
11 A26X XX		A-A1V2	Cables	A-A1 bd	A-A2 bd			
11 A29X XX		PS105	Cables	A-A2 bd				
11 A30X XX	A-A2E2	PS1052	Cables	A-A4 bd	A-A2 bd			
11 A31X XX	A-A2E2	PS105	Cables	A-A3 bd	A-A2 bd			
11 A38X XX		A-A2D2	AIS	A-A2 bd				
11 A42X XX		PS104 to		Cables	A-A3 bd			
11 A43X XX			A-A2D2	Cables	A-A2 bd	A-A1 bd		
11 A44X XX		A-A1U2	A-A1V2	Cables	PS101	PCC K03	A-A2 bd	A-A1 bd
11 A45X XX	A-A2D2	A-A1U2	PCC K04	PS101	A-A2 bd	A-A1 bd	Cables	
11 350V VV	N-N2D2	DC106	Cables	7-P2 bd	7-72 bd			
11 A58X XX		PS106	Cables	A-B2 bd	A-A2 bd			
11 A61X XX	A-A2D2	PS106	Cables	A-A2 bd				
	A-A2D2 A-A2D2	PS106 PS106	Cables Cables	A-A2 bd A-A3 bd	A-A2 bd			
11 A61X XX	A-A2D2 A-A2D2	PS106 PS106	Cables	A-A2 bd A-A3 bd	A-A2 bd			
11 A61X XX 11 A62X XX 11 A64X XX	A-A2D2 A-A2D2 A-A2D2	PS106 PS106 PS106	Cables Cables Cables	A-A2 bd A-A3 bd A-A4 bd	A-A2 bd A-A2 bd	Cables		
11 A61X XX 11 A62X XX 11 A64X XX 11 D05X XX	A-A2D2 A-A2D2 A-A2D2 A-A2C2	PS106 PS106 PS106 A-A2E2	Cables Cables Cables PS109	A-A2 bd A-A3 bd A-A4 bd A-A4 bd	A-A2 bd A-A2 bd A-A2 bd	Cables		
11 A61X XX 11 A62X XX 11 A64X XX 11 D05X XX 11 D06X XX	A-A2D2 A-A2D2 A-A2D2 A-A2C2 A-A2C2	PS106 PS106 PS106 A-A2E2 A-A2E2	Cables Cables Cables PS109 PS109	A-A2 bd A-A3 bd A-A4 bd A-A4 bd A-A2 bd	A-A2 bd A-A2 bd A-A2 bd Cables			****
11 A61X XX 11 A62X XX 11 A64X XX 11 D05X XX 11 D06X XX 11 D07X XX	A-A2D2 A-A2D2 A-A2D2 A-A2C2 A-A2C2 A-A2C2	PS106 PS106 PS106 A-A2E2 A-A2E2 A-A2E2	Cables Cables Cables PS109 PS109 PS109	A-A2 bd A-A3 bd A-A4 bd A-A4 bd A-A2 bd A-A2 bd	A-A2 bd A-A2 bd A-A2 bd Cables Cables			
11 A61X XX 11 A62X XX 11 A64X XX 11 D05X XX 11 D06X XX 11 D07X XX 11 D08X XX	A-A2D2 A-A2D2 A-A2D2 A-A2C2 A-A2C2 A-A2C2 A-A2C2	PS106 PS106 PS106 A-A2E2 A-A2E2 A-A2E2 A-A2E2	Cables Cables Cables PS109 PS109 PS109 PS109	A-A2 bd A-A3 bd A-A4 bd A-A4 bd A-A2 bd A-A2 bd A-A2 bd	A-A2 bd A-A2 bd A-A2 bd Cables Cables PS103			and the second
11 A61X XX 11 A62X XX 11 A64X XX 11 D05X XX 11 D06X XX 11 D07X XX 11 D08X XX 11 D09X XX	A-A2D2 A-A2D2 A-A2D2 A-A2C2 A-A2C2 A-A2C2 A-A2C2 A-A2E2	PS106 PS106 PS106 A-A2E2 A-A2E2 A-A2E2 A-A2E2 A-A1U2	Cables Cables Cables PS109 PS109 PS109 PS109 Intlk sw	A-A2 bd A-A3 bd A-A4 bd A-A2 bd A-A2 bd A-A2 bd A-A2 bd A-A2 bd	A-A2 bd A-A2 bd A-A2 bd Cables Cables	Cables		
11 A61X XX 11 A62X XX 11 A64X XX 11 D05X XX 11 D06X XX 11 D07X XX 11 D08X XX	A-A2D2 A-A2D2 A-A2D2 A-A2C2 A-A2C2 A-A2C2 A-A2C2 A-A2E2	PS106 PS106 PS106 A-A2E2 A-A2E2 A-A2E2 A-A2E2	Cables Cables Cables PS109 PS109 PS109 PS109	A-A2 bd A-A3 bd A-A4 bd A-A4 bd A-A2 bd A-A2 bd A-A2 bd	A-A2 bd A-A2 bd A-A2 bd Cables Cables PS103		A-A2 bd	A-A1 bd
11 A61X XX 11 A62X XX 11 A64X XX 11 D05X XX 11 D06X XX 11 D07X XX 11 D08X XX 11 D09X XX	A-A2D2 A-A2D2 A-A2D2 A-A2C2 A-A2C2 A-A2C2 A-A2C2 A-A2E2 A-A2E2	PS106 PS106 PS106 A-A2E2 A-A2E2 A-A2E2 A-A2E2 A-A1U2 A-A2C2	Cables Cables Cables PS109 PS109 PS109 PS109 Intlk sw A-A2D2	A-A2 bd A-A3 bd A-A4 bd A-A2 bd A-A2 bd A-A2 bd A-A2 bd PS104	A-A2 bd A-A2 bd A-A2 bd Cables Cables PS103 A-A1 bd PS101	Cables	A-A2 bd	A-A1 bd
11 A61X XX 11 A62X XX 11 A64X XX 11 D05X XX 11 D07X XX 11 D07X XX 11 D08X XX 11 D09X XX 11 D11X XX 11 D12X XX	A-A2D2 A-A2D2 A-A2D2 A-A2C2 A-A2C2 A-A2C2 A-A2C2 A-A2E2 A-A2E2 A-A2E2	PS106 PS106 PS106 A-A2E2 A-A2E2 A-A2E2 A-A2E2 A-A1U2 A-A2C2 A-A1V2	Cables Cables Cables PS109 PS109 PS109 PS109 Intlk sw A-A2D2 Cables	A-A2 bd A-A3 bd A-A4 bd A-A2 bd A-A2 bd A-A2 bd A-A2 bd PS104 A-A1 bd	A-A2 bd A-A2 bd A-A2 bd Cables Cables PS103 A-A1 bd PS101 A-A2 bd	Cables	A-A2 bd	A-A1 bd
11 A61X XX 11 A62X XX 11 A64X XX 11 D05X XX 11 D06X XX 11 D07X XX 11 D09X XX 11 D09X XX 11 D11X XX 11 D12X XX 11 D12X XX	A-A2D2 A-A2D2 A-A2D2 A-A2C2 A-A2C2 A-A2C2 A-A2C2 A-A2E2 A-A2E2 A-A2E2 A-A2C2	PS106 PS106 PS106 A-A2E2 A-A2E2 A-A2E2 A-A1U2 A-A2C2 A-A1V2 A-A2E2	Cables Cables Cables PS109 PS109 PS109 PS109 Intlk sw A-A2D2 Cables PS107	A-A2 bd A-A3 bd A-A4 bd A-A2 bd A-A2 bd A-A2 bd A-A2 bd PS104 A-A1 bd A-A2 bd	A-A2 bd A-A2 bd A-A2 bd Cables PS103 A-A1 bd PS101 A-A2 bd Cables	Cables	A-A2 bd	A-A1 bd
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11 A61X XX 11 A62X XX 11 A64X XX 11 D05X XX 11 D06X XX 11 D07X XX 11 D09X XX 11 D19X XX 11 D11X XX 11 D12X XX 11 D15X XX 11 D15X XX 11 D16X XX 11 D16X XX 11 D19X XX 11 D19X XX 11 D20X XX 11 D20X XX 11 D25X XX 11 D27X XX 11 D29X XX 11 D29X XX 11 D31X XX 11 D31X XX 11 D31X XX	A-A2D2 A-A2D2 A-A2D2 A-A2C2 A-A2C2 A-A2C2 A-A2C2 A-A2E2 A-A2E2 A-A2C2 A-A2C2 A-A2C2 A-A2C2 A-A2C2 A-A2C4 A-A2C4 A-A2C4 A-A2C4 A-A2C2 A-A2E2 A-A2E2	PS106 PS106 PS106 A-A2E2 A-A2E2 A-A2E2 A-A2E2 A-A1U2 A-A2C2 A-A1V2 A-A2E3 A-A2E3 A-A3E3 A-B3 A-B3 A-B3 A-B3 A-B3 A-B3 A-B3 A-B	Cables Cables Cables PS109 PS109 PS109 PS109 Intlk sw A-A2D2 Cables PS107 PS107 PS106 PS107 PS108 PS108 PS108 PS108 PS108 PS105 PS105 PS105 Cables Cables Cables	A-A2 bd A-A4 bd A-A4 bd A-A2 bd	A-A2 bd A-A2 bd A-A2 bd Cables Cables PS103 A-A1 bd PS101 A-A2 bd Cables	Cables Cables	A-A2 bd	A-A1 bd
11 A61X XX 11 A62X XX 11 A64X XX 11 D05X XX 11 D06X XX 11 D07X XX 11 D09X XX 11 D19X XX 11 D11X XX 11 D12X XX 11 D14X XX 11 D15X XX 11 D15X XX 11 D19X XX 11 D19X XX 11 D19X XX 11 D20X XX 11 D20X XX 11 D25X XX 11 D25X XX 11 D26X XX 11 D26X XX 11 D27X XX 11 D27X XX 11 D29X XX 11 D29X XX 11 D29X XX 11 D29X XX 11 D31X XX 11 D31X XX 11 D31X XX 11 D32X XX 11 D34X XX	A-A2D2 A-A2D2 A-A2D2 A-A2C2 A-A2C2 A-A2C2 A-A2C2 A-A2E2 A-A2E2 A-A2C2 A-A2C2 A-A2C2 A-A2C2 A-A2C2 A-A2C4 A-A2C4 A-A2C4 A-A2C4 A-A2C2 A-A2E2	PS106 PS106 PS106 A-A2E2 A-A2E2 A-A2E2 A-A1U2 A-A2C2 A-A1V2 A-A2E2	Cables Cables Cables PS109 PS109 PS109 PS109 Intlk sw A-A2D2 Cables PS107 PS107 PS106 PS107 PS108 PS108 PS108 PS108 PS108 PS105 PS105 PS105 PS105 Cables Cables A-A2 bd PS106	A-A2 bd A-A4 bd A-A4 bd A-A2 bd	A-A2 bd A-A2 bd A-A2 bd Cables Cables PS103 A-A1 bd PS101 A-A2 bd Cables	Cables Cables	A-A2 bd	A-A1 bd
11 A61X XX 11 A62X XX 11 A64X XX 11 D05X XX 11 D06X XX 11 D07X XX 11 D09X XX 11 D19X XX 11 D11X XX 11 D12X XX 11 D15X XX 11 D15X XX 11 D16X XX 11 D16X XX 11 D19X XX 11 D19X XX 11 D20X XX 11 D20X XX 11 D25X XX 11 D27X XX 11 D29X XX 11 D29X XX 11 D31X XX 11 D31X XX 11 D31X XX	A-A2D2 A-A2D2 A-A2D2 A-A2C2 A-A2C2 A-A2C2 A-A2C2 A-A2E2 A-A2E2 A-A2C2 A-A2C2 A-A2C2 A-A2C2 A-A2C2 A-A2C4 A-A2C4 A-A2C4 A-A2C4 A-A2C2 A-A2E2 A-A2E2	PS106 PS106 PS106 A-A2E2 A-A2E2 A-A2E2 A-A2E2 A-A1U2 A-A2C2 A-A1V2 A-A2E3 A-A2E3 A-A3E3 A-B3 A-B3 A-B3 A-B3 A-B3 A-B3 A-B3 A-B	Cables Cables Cables PS109 PS109 PS109 PS109 Intlk sw A-A2D2 Cables PS107 PS107 PS106 PS107 PS108 PS108 PS108 PS108 PS108 PS105 PS105 PS105 Cables Cables Cables	A-A2 bd A-A4 bd A-A4 bd A-A2 bd	A-A2 bd A-A2 bd A-A2 bd Cables Cables PS103 A-A1 bd PS101 A-A2 bd Cables	Cables Cables	A-A2 bd	A-A1 bd
11 A61X XX 11 A62X XX 11 A64X XX 11 D05X XX 11 D06X XX 11 D07X XX 11 D09X XX 11 D19X XX 11 D11X XX 11 D12X XX 11 D14X XX 11 D15X XX 11 D15X XX 11 D19X XX 11 D19X XX 11 D19X XX 11 D20X XX 11 D20X XX 11 D25X XX 11 D25X XX 11 D26X XX 11 D26X XX 11 D27X XX 11 D27X XX 11 D29X XX 11 D29X XX 11 D29X XX 11 D29X XX 11 D31X XX 11 D31X XX 11 D31X XX 11 D32X XX 11 D34X XX	A-A2D2 A-A2D2 A-A2D2 A-A2C2 A-A2C2 A-A2C2 A-A2C2 A-A2E2 A-A2E2 A-A2C2 A-A2C2 A-A2C2 A-A2C2 A-A2C2 A-A2C4 A-A2C4 A-A2C4 A-A2C4 A-A2C2	PS106 PS106 PS106 A-A2E2 A-A2E2 A-A2E2 A-A2E2 A-A1U2 A-A2C2 A-A1V2 A-A2E	Cables Cables Cables PS109 PS109 PS109 PS109 Intlk sw A-A2D2 Cables PS107 PS107 PS106 PS107 PS108 PS108 PS108 PS108 PS108 PS105 PS105 PS105 PS105 Cables Cables A-A2 bd PS106	A-A2 bd A-A4 bd A-A4 bd A-A2 bd	A-A2 bd A-A2 bd A-A2 bd Cables Cables PS103 A-A1 bd PS101 A-A2 bd Cables	Cables Cables	A-A2 bd	A-A1 bd

11 D36X XX 11 D36X XX 11 D37X XX 11 D57X XX 11 D57X XX 11 D58X XX 11 D59X XX 11 D64X XX 14 A15X XX 14 A16X XX 14 A17X XX 14 A48X XX 17 A43X XX 1D D01X XX	A-A2C2 A-A2E2 A-A2C2 AMD101 AMD102 AMD105 A-A2D2 A-A2E2 A-A2E2 A-A2E2 A-A2E2 PCI Panel	A-A2C2 A-A2D2 PS106 A-A2D2 AFS101 AFS102 AFS105 A-A1U2 PS102 PS107 PS105 PS105 PS101 A-A2E2	PS103 PS106 A-A2D2 A-A2D2 A-A2D2 Intlk sw A-A1 bd A-A1 bd A-A1 bd A-A1 bd A-A1 bd A-A2D2	Cable A-A2 bd Cables A-A2 bd A-A2F4 A-A2F4 Cables A-A2 bd A-A2 bd A-A2 bd Cables	A-A2 bd Cables A-A2 bd Cables PCC K03 PCC K03 PCC K03 A-A1 bd Cables Cables Cables Cables A-A3 bd A-A2 bd	Cables Cables Cables A-A2 bd Cables A-A1 bd	A-A2 bd A-A2 bd A-A2 bd
1D D10X XX	A-A2U2 A-A2U2 A-A2D2 A-A2D2	A-A2E2 A-A2E2 A-A2F2 A-A2E2	A-A1U2	A-A2E2	A-A2 bd	A-A1 bd	
1D D19X XX	A-A2D2 A-A2E2 A-A2E2 A-A2E2	A-A2E2 A-A2C4 A-A2C4 A-A2C4	A-A1U2 PS108 PS108 PS108	PS103 PS103 PS103	A-A2 bd A-A2 bd A-A2 bd		
1D D21X XX 1D D22X XX 1D D23X XX 1D D24X XX 1D D30X XX	A-A2E2 A-A2E2 A-A2E2	A-A2E2 A-A2C4 A-A2C4 A-A2C4	PS108 A-A1W2 A-A1W2	PS103 A-A2 bd A-A2 bd	A-A2 bd A-A1 bd A-A1 bd		
1D D33X XX 1D D38X XX 1D D39X XX 1D D40X XX	A-A2D2 A-A2D2 A-A2D2 A-A2D2 A-A2D2 A-A2D2	A-A2E2 A-A2E2 A-A2F4 A-A2F4 A-A2F4	A-A2 bd A-A2 bd A-A2 bd A-A2 bd A-A1W2 A-A1W2				
1D D42X XX 1D D43X XX 1D D44X XX	A-A2D2 A-A2D2 A-A2D2 A-A2D2	A-A2F4 A-A2E2 A-A2C4 A-A2C4	A-A1W2 A-A1W2	A-A1 bd A-A1 bd	A-A2 bd A-A2 bd	Cables Cables	
1D D46X XX 1D D47X XX 1D D48X XX 1D D49X XX	A-A2D2 A-A2D2 A-A2D2	A-A2C4 A-A2C4 A-A2C4 A-A2C4 A-A2E2 A-A2C4 A-A2C4				•	
1D D52X XX	A-A2D2 A-A2D2 A-A2D2 A-A2D2 A-A2D2	A-A2C4 A-A2E2 A-A2F2 A-A2F4 A-A2F4	A-A1U2 A-A2 bd A-A2 bd A-A2 bd	A-A2E2	A-A2 bd	A-A1 bd	
1D D61X XX	A-A2D2 A-A2E2 Unknown	Δ-Δ 2E2	A-A2 bd A-A2 bd PS108	PS103	A-A2 bd		

EC A02214	EC A02216	EC A02217	EC A02219	
EC AUZZ14	EC AUZZIO	EC AUZZII	EC AUZZIS	
15 SEP 83	12 DEC 83	10 JAN 84	29 FEB 84	
13 SEF 63	12 DEC 63	IU JAN 04	25 FEB 04	1

Voltage Adjust

This procedure checks and adjusts voltage levels.

ALL POWER SUPPLY ADJUSTMENTS MUST BE DONE WITH A METER.

Step	Conditions	Instructions
1	Are you installing one of the following? PS105 (part 4494199) PS106 (part 4494190)	 Before installing PS105 and/or PS106, verify that the power supply current jumper is installed correctly and that the load resistor for PS105 is removed. Go to page PR 1024.5.
2	Are you here because the S field of the Ref Code (RC=UURRRRIS) is equal to C or are you checking power supply voltages?	 Set CE Mode switch to CE Mode. Select the Analog Voltage/Temperature Display (QWA) screen. Any sensor greater than three + or - characters should be adjusted or checked for the proper voltage level. Use table and your sensor number or 1X RRRR number to determine the power supply and step number.
3	Are you here to adjust or did you just replace PS101?	PS101 voltages are not adjustable. If any voltage level is out of range, exchange the power supply. 1. Measure for +5 Vdc at the following points: - lead at 01A-A1V2J08 + lead at 01A-A1V2J03. 2. Exchange PS101 if voltage is not between +4.5 and +5.5 Vdc. 3. Measure for +24 Vdc at the following points: - lead at 01A-A1V2J08 + lead at 01A-A1V2B11. 4. Exchange PS101 if voltage is not between +22 and +26 Vdc. 5. If all voltage checks or adjustments are done, go to page PR 5001.

Seq CA020	PN 0445878
	Pg 1 of 2

		EC A02220 06 JUN 84

A

RRRR	Power Supply	Voltage	Go to
1643	PS103	+5 Vdc	Step 5
A01X	PS103	+24 Vdc	Step 5
A02X	PS103	+5 Vdc	Step 5
A07X	PS102	+5 Vdc	Step 4
A09X	PS109	+5 Vdc	Step 11
A10X	PS103	+5 Vdc	Step 5
A12X	PS107	+6 Vdc	Step 9
A14X	PS108	+8.5 Vdc	Step 10
A15X	PS102	+5 Vdc	Step 4
A16X	PS107	+6 Vdc	Step 9
A17X	PS105	-1.5 Vdc	Step 7
A18X	PS103	-2.2 Vdc	Step 5
A21X	PS102	-5 Vdc	Step 4
A26X	PS105	-1.5 Vdc	Step 7
A29X	PS105	-1.5 Vdc	Step 7
A30X	PS105	-1.5 Vdc	Step 7
A31X	PS105	-1.5 Vdc	Step 7
A54X	PS102	-5 Vdc	Step 4
A58X	PS106	-4.3 Vdc	Step 8
A61X	PS106	-4.3 Vdc	Step 8
A62X	PS106	-4.3 Vdc	Step 8
A64X	PS106	-4.3 Vdc	Step 8

В

RRRR	Ref Code	PR Page
1643	11-164X-0E	PR 1701
A01X	11-A01X-0E	PR 1691
A02X	11-A02X-0E	PR 1701
A07X	11-A07X-0E	PR 1711
A09X	11-A09X-0E	PR 1731
A10X	11-A10X-0E	PR 1741
A12X	11-A12X-0E	PR 1751
A14X	11-A14X-0E	PR 2271
A15X	14-A15X-0E	PR 2231
A16X	14-A16X-0E	PR 2241
A17X	14-A17X-0E	PR 2251
A18X	11-A18X-0E	PR 2281
A21X	N/A	N/A
A26X	11-A26X-0E	PR 1761
A29X	11-A29X-0E	PR 1781
A30X	11-A30X-0E	PR 1791
A31X	11-A31X-0E	PR 1801
A54X	N/A	N/A
A58X	11-A58X-0E	PR 1861
A61X	11-A61X-0E	PR 1871
A62X	11-A62X-0E	PR 1881
A64X	11-A64X-0E	PR 2291

Step	Conditions	Instructions
7	Are you here to adjust or did you just replace PS105?	PS105 is adjustable. Exchange the power supply if the voltage level is out of range and does not adjust.
	Warning: If you are installing part 4494199, go to PR 1024.5 before continuing.	 Set CE Mode switch to CE Mode. Select Diagnostic Power Up (QWD) screen. Select option D (stop after -1.5/-4.3V start). Measure for -1.5 Vdc between the following points:
		- lead at 01A-A2G1B06 + lead at 01A-A2G1A06.
		5. Adjust PS105 to -1.50V if voltage is not between -1.47 and -1.53 Vdc.
		Note: Adjustment pot is located on power supply.
		Exchange PS105 if voltage fails to adjust.
		 7. If the voltage level is correct and you still have a 1X Ref Code with the S field equal to C, go to step 12. 8. If voltage checks or adjustments are done, go to page PR 5001.
8	Are you here to adjust or did you just replace PS106?	PS106 is adjustable. Exchange the power supply if the voltage level is out of range and does not adjust.
*	Warning: If you are installing part 4494190, go to PR 1024.5 before continuing.	 Set CE Mode switch to CE Mode. Select Diagnostic Power Up (QWD) screen. Select option D (stop after -1.5/-4.3V start). Measure for -4.3 Vdc between the following points:
		- lead at 01A-A2G1D06 - 5 + lead at 01A-A2G1C06.
		5. Adjust PS106 to -4.33V if voltage is not between -4.24 and -4.42 Vdc.
		Note: Adjustment pot is located on power supply.
		 Exchange PS106 if voltage fails to adjust. If voltages are correct and you still have a 1X Ref Code with the S field equal to C, go to step 12. If voltage checks or adjustments are done, go to page PR 5001.

 	PN 0445879
	IPa 1 of 3

 	 	EC A02220 06 JUN 84

Step	Conditions	Instructions
9	Are you here to adjust or did you just replace PS107?	PS107 is adjustable. Exchange the power supply if the voltage level is out of range and does not adjust.
		Set CE Mode switch to CE Mode. Select Diagnostic Power Up (QWD) screen. Select option H
		(stop after +6V start). 4. Measure for +6 Vdc between the following points:
	* .	- lead at 01A-A3K2J08 + lead at 01A-A3K2G11.
		5. Adjust PS107 to +6.0V if voltage is not between +5.82 and +6.18 Vdc.
·		Note: Adjustment pot is located on power supply.
	e e	Exchange PS107 if voltage fails to adjust.
		 7. If the voltage level is correct and you still have a 1X Ref Code with the S field equal to C, go to step 12. 8. If voltage checks or adjustments are done, go to page PR 5001.
10	Are you here to adjust or did you just replace PS108?	PS108 is adjustable. Exchange the power supply if the voltage level is out of range and does not adjust.
•	Note: If PS108 is a +5V power supply, use PR 1025.	 Set CE Mode switch to CE Mode. Select Diagnostic Power Up (QWD) screen. Select option G (stop after +8.5V start). Measure for +8.5 Vdc between the following points:
3		- lead at 01A-A4K2J08 + lead at 01A-A4K2J12.
		5. Adjust PS108 to +8.50V if voltage is not between +8.25 and +8.75 Vdc.
		Note: Adjustment pot is located on power supply.
		 6. Exchange PS108 if voltage fails to adjust. 7. If the voltage level is correct and you still have a 1X Ref Code with the S field equal to C, go to step 12. 8. If all voltage checks or adjustments are done, go to page PR 5001.

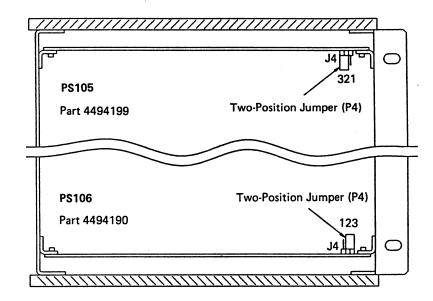
Current Setting

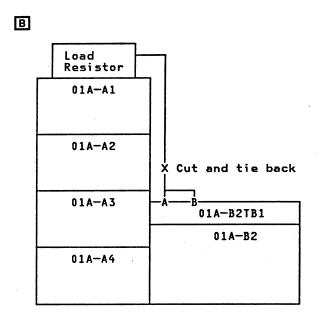
This procedure ensures that PS105 and PS106 power supply current jumpers are installed correctly and that PS105 load resistor is disconnected.

Step	Conditions	Instructions
1	Are you installing PS105 (part 4494199)?	Go to step 4.
2	Are you installing PS106 (part 4494190)?	Go to step 7.
3	Go to Instructions column.	Go to page PR 1021.
4	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Use table A, and ensure that PS105 current jumper is set to the correct current setting. Install PS105.
5	Is a load resistor installed on the back of the cover plate above board 01A-A1? (See reference B.)	Ensure the red and black wire from the load resistor to 01A-B2TB1 A and B bus is cut at the bus bars and tied back.
6	Go to Instructions column.	 Set PCC CB1 and CB2 on. Set CE Mode switch to CE Mode. Press service panel Power On. Go to page PR 1021.
7	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Use table A, and ensure that PS106 current jumper is set to the correct current setting. Install PS106. Set PCC CB1 and CB2 on. Set CE Mode switch to CE Mode. Press service panel Power On. Go to page PR 1021.

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Power Supply	Model Group 1	Model Group 2	Load Resistor
PS105	2-3	2-3	Remove
PS106	2-3	2-3	N/A





Seq CA025	PN 0445879
	Pg 3 of 3

				EC A02220
01 NOV 83	12 DEC 83	10 JAN 84	29 FEB 84	06 JUN 84

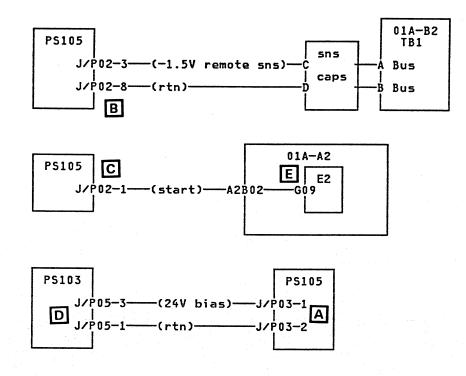
Ref Codes 1110150E, 1110240E, 1110250E, 11D2850E

These Ref Codes indicate PS105 failed to turn on because of a failure in the start line, remote sense return line, or +24V bias to PS105.

- PS105 start line grounded
- 01A-A2E2 sense card
- 01A-A2 board
- PS105
- PS105 remote sense return line open.

Step	Conditions	Instructions
1	Go to Instructions column.	Set service panel Power Off switch to Power Off and then back to Normal. Set CE Mode switch to CE Mode. Press service panel Power On. Select Diagnostic Power Up (QWD) screen.
		 5. Select option A (stop after K03 picked). 6. Measure for +24 Vdc at the following points:
		- lead at PS105 J/P03-2 + lead at PS105 J/P03-1.
2	Is voltage less than +22 Vdc?	Go to step 10.
3	Go to Instructions column.	Measure for +5 Vdc at the following points: - lead at frame ground + lead at PS105 J/P02-8.

			EC A02219 29 FEB 84			
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Step	Conditions	Instructions
8	Is voltage less than +2.5 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange PS105. Note: Check cable connectors for pushed in pins and seating before exchanging power supply. Set PCC CB1 and CB2 on. Go to step 20.
9	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2E2 card. Note: Check TCCs for proper seating before exchanging card. Set PCC CB1 and CB2 on. Go to step 20.
10	Go to Instructions column.	Measure for +24 Vdc at the following points: - lead at PS103 J/P05-1 + lead at PS103 J/P05-3.
11	Is voltage greater than +22 Vdc?	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. 3. Exchange cable from PS103 J/P05 to PS105 J/P03. Note: Check cable connectors for pushed in pins and seating before exchanging cable. 4. Set PCC CB1 and CB2 on. 5. Go to step 20.

•	PN 0445881 Pg 1 of 2
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	EC A02214		
	15 SEP 83		

Step	Conditions	Instructions		
12	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. 3. Exchange PS103. Note: Check cable connectors for pushed in pins and seating before exchanging power supply. 4. Set PCC CB1 and CB2 on. 5. Go to step 20.		
13	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Disconnect PS105 J/P02. 3. Press service panel Power On. 4. Measure for +5 Vdc at the following points: - lead at 01A-A2E2D08 + lead at 01A-A2E2G09.		
14	Is voltage greater than +2.5 Vdc?	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. 3. Exchange PS105. Note: Check cable connectors for pushed in pins and seating before exchanging power supply. 4. Set PCC CB1 and CB2 on. 5. Go to step 20.		
15	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. 3. Reconnect PS105 J/P02. 4. Swap 01A-A2E2 and 01A-A2D2 cards. Note: Ensure TCCs are reinstalled. 5. Set PCC CB1 and CB2 on. 6. Press service panel Power On. 7. Measure for +5 Vdc at the following points: - lead at 01A-A2E2D08 + lead at 01A-A2E2G09.		

Ref Codes 1110350E, 1110440E, 1110450E, 11D3750E

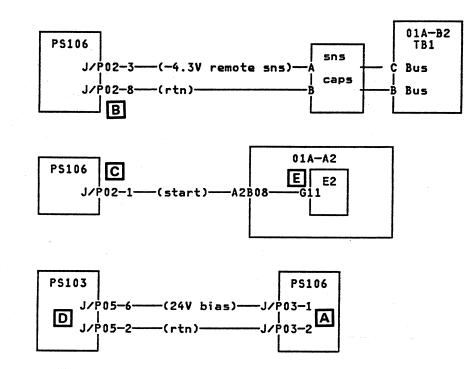
These Ref Codes indicate PS106 failed to turn on because of a failure in the start line, remote sense return line, or +24V bias to PS106.

- PS106 start line grounded
- 01A-A2E2 sense card
- 01A-A2 board
- PS106
- PS103
- PS106 remote sense return line open.

Step	Conditions	Instructions	
1	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set CE Mode switch to CE Mode. Press service panel Power On. Select Diagnostic Power Up (QWD) screen. Select option A (stop after K03 picked). Measure for +24 Vdc at the following points: lead at PS106 J/P03-2 lead at PS106 J/P03-1. 	
2	Is voltage less than +22 Vdc?	Go to step 10.	
3	Go to Instructions column.	Measure for +5 Vdc at the following points: - lead at frame ground + lead at PS106 J/P02-8.	

Seq CA040	PN 0445882
	Pg 1 of 2

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EC A02214	EC A02219			
15 SEP 83	29 FEB 84			



Step	Conditions	Instructions		
8	Is voltage less than +2.5 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange PS106. Note: Check cable connectors for pushed in pins and seating before exchanging power supply. Set PCC CB1 and CB2 on. Go to step 20. 		
9	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2E2 card. Note: Check TCCs for proper seating before exchanging card. Set PCC CB1 and CB2 on. Go to step 20. 		
10	Go to Instructions column.	Measure for +24 Vdc at the following points: - lead at PS103 J/P05-2 + lead at PS103 J/P05-6.		
11	Is voltage greater than +22 Vdc?	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Exchange cable from PS103 J/P05 to PS106 J/P03. Note: Check board for bent pins and cable connector for pushed in pins and seating before exchanging cable. 3. Set PCC CB1 and CB2 on. 4. Go to step 20.		

Seq CA045	PN 0445883
	Pg 1 of 2

EC A02214		
15 SEP 83		

Step	Conditions	Instructions
12	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. 3. Exchange PS103. Note: Check cable connectors for pushed in pins and seating before exchanging power supply. 4. Set PCC CB1 and CB2 on. 5. Go to step 20.
13	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Disconnect PS106 J/P02. 3. Press service panel Power On. 4. Measure for +5 Vdc at the following points: - lead at 01A-A2E2D08 + lead at 01A-A2E2G11.
14	Is voltage greater than +2.5 Vdc?	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. 3. Exchange PS106. Note: Check cable connectors for pushed in pins and seating before exchanging power supply. 4. Set PCC CB1 and CB2 on. 5. Go to step 20.

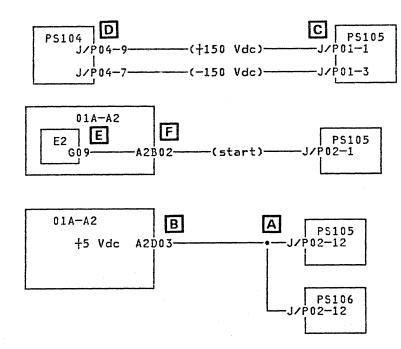
These Ref Codes indicate that PS105 failed to turn on after the start line was set on.

- PS105
- 01A-A2E2 sense card
- PS105 start line
- +5 Vdc from MSS
- +300 Vdc from PS104.

Step	Conditions	Instructions	
1	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set CE Mode switch to CE Mode. 3. Disconnect PS105 P01. 4. Press service panel Power On. 5. Select Diagnostic Power Up (QWD) screen. 6. Select option B (stop after K04 picked). 7. Measure for +5.0 Vdc at the following points: - lead at frame ground + lead at PS105 J/P02-12.	
2	Is voltage +4.5 to +5.5 Vdc?	Go to step 6.	
3	Go to Instructions column.	Measure for +5.0 Vdc on the following point: - lead to 01A-A2A2D08 + lead to 01A-A2A2D03.	
4	Is voltage +4.5 to +5.5 Vdc?	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. 3. Exchange cable from PS105 J/P02 to 01A-A2A2. Note: Check board for bent pins and cable connector for pushed in pins and seating before exchanging cable. 4. Set PCC CB1 and CB2 on. 5. Go to page PR 5001.	

Seq CA050	PN 0445884
	Pg 1 of 2

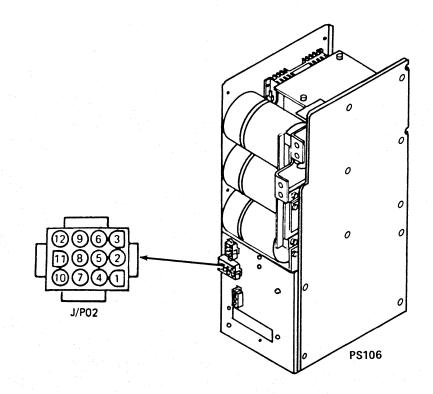
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	EC A02219			
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Step	Conditions	Instructions
10	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 to off. Exchange PS104.
		Note: Check cable connectors for pushed in pins and seating before exchanging power supply.
		4. Set PCC CB1 and CB2 to on.5. Go to page PR 5001.
11	Go to Instructions column.	 Press ENTER to end Diagnostic Stop. Reconnect PS105 J / P01. Measure for +5.0 Vdc at the following points: lead at 01A-A2E2D08
-		+ lead at 01A-AZEZDOS + lead at 01A-AZEZDOS E 4. Select Diagnostic Power Up (QWD) screen. 5. Select option D
		(stop after -1.5/-4.3V start). Note: Voltage is present for about four seconds.
12	Is voltage greater than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 to off. Exchange 01A-A2E2 card. Set PCC CB1 and CB2 to on. Go to page PR 5001.
13	Go to Instructions column.	Measure for +5.0 Vdc at the following points:
		- lead at 01A-A2E2D08 + lead at 01A-A2A2B02.
		 Select Diagnostic Power Up (QWD) screen. Select option D (stop after -1.5/-4.3V start). Note: Voltage is present for about four
		screen. 3. Select option D (stop after -1.5/-4.3V start).

Seq CA055	PN 0445885
	Pg 1 of 2

1	EC A02219 29 FEB 84		



Ref Codes 1111240E, 1111250E

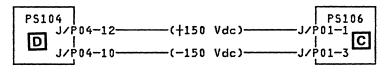
These Ref Codes indicate that PS106 failed to turn on after the start line was set on.

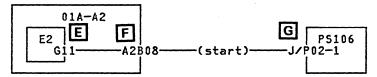
- PS106
- 01A-A2E2 sense card
- PS106 start line
- +5 Vdc from MSS
- +300 Vdc from PS104.

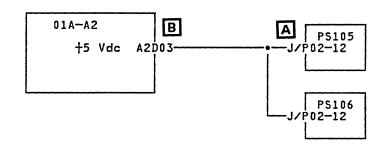
Step	Conditions	Instructions						
1	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set CE Mode switch to CE Mode. 3. Disconnect PS106 P01. 4. Press service panel Power On. 5. Select Diagnostic Power Up (QWD) screen. 6. Select option B (stop after K04 picked). 7. Measure for +5 Vdc at the following points: - lead at frame ground + lead at PS106 J/P02-12.						
2	Is voltage +4.5 to +5.5 Vdc?	Go to step 6.						
3	Go to Instructions column.	Measure for +5 Vdc on the following point: - lead to 01A-A2A2D08 + lead to 01A-A2A2D03.						
4	Is voltage +4.5 to +5.5 Vdc?	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. 3. Exchange cable from PS106 J/P02 to 01A-A2A2. Note: Check board for bent pins and cable connector for pushed in pins and seating before exchanging cable. 4. Set PCC CB1 and CB2 on. 5. Go to page PR 5001.						

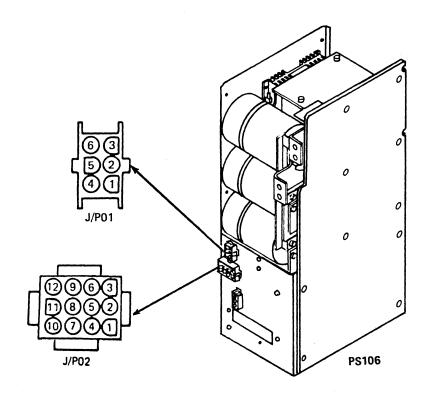
Seq CA060	PN 0445886
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EC A02214	EC A02219			
15 SEP 83	29 FEB 84			







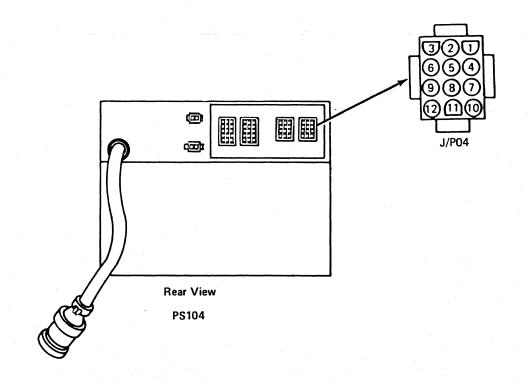


PR 1061

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Step	Conditions	Instructions
10	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 to off. Exchange PS104. Note: Check cable connectors for pushed in pins and seating before exchanging power supply. Set PCC CB1 and CB2 to on. Go to page PR 5001.
11	Go to Instructions column.	 Press ENTER to end Diagnostic Stop. Reconnect PS106 J/P01. Measure for +5 Vdc at the following points: lead at 01A-A2E2D08 + lead at 01A-A2E2G11. Select Diagnostic Power Up (QWD) screen. Select option D (stop after -1.5/-4.3V start). Note: Voltage is present for about four seconds.
12	Is voltage greater than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 to off. Exchange 01A-A2E2 card. Set PCC CB1 and CB2 to on. Go to page PR 5001.
13	Go to Instructions column.	1. Measure for +5 Vdc at the following points: - lead at 01A-A2E2D08 + lead at 01A-A2A2B08. 2. Select Diagnostic Power Up (QWD) screen. 3. Select option D (stop after -1.5/-4.3V start). Note: Voltage is present for about four seconds.

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Seq CA	\065	PN 0445887 Pg 1 of 2	EC A022 15 SEP	!14 83											



Ref Codes 1111340E, 1111350E, 1112950E

These Ref Codes indicate that PS109 failed to turn on after the start line was set on.

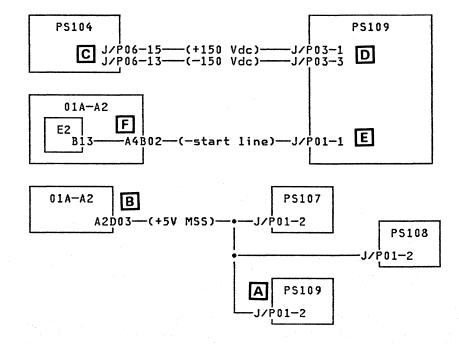
Possible causes:

- 01A-A2E2 card
- PS109 start line
- PS104 F5, F5
- PS107 to PS109
- +5V from MSS
- +300V from PS104.

Step	Conditions	Instructions					
1	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. DANGER 300 Vdc. 3. Check for open PS104 F5 or F6.					
2	Is F5 and F6 good?	 Set PCC CB1 and CB2 on. Set CE Mode switch to CE Mode. Press service panel Power On. Go to step 7. 					
3	Is F5 or F6 open?	 Exchange F5 or F6. Set PCC CB1 and CB2 on. Set CE Mode switch to CE Mode. Press service panel Power On. Select the Partial Power Up/Down (QWW) screen. Select UP (power-up processor only). 					
4	Does processor status equal power is on?	Go to step 58.					
5	Do you have the same 1X Ref Code?	Go to step 12.					

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Step	Conditions	Instructions		
13	Is an open indicated at both points?	Go to step 17.		
14	Go to Instructions column.	1. Disconnect PS109 P03. 2. Measure resistance at the following points: - lead at frame ground + lead at PS104 P06-13 + lead at PS104 P06-15.		
15	Is an open indicated at both points?	Exchange PS109. Note: Check cable connectors for pushed in pins and seating before exchanging power supply. Go to step 57.		
16	Go to Instructions column.	Set PCC CB1 and CB2 off. Exchange cable from PS104 P06 to PS107 P03, PS108 P03 and PS109 P03. Note: Check cable connectors for pushed in pins and seating before exchanging cable. Go to step 57.		
17	Go to Instructions column.	Measure resistance at the following points: - lead at frame ground + lead at PS104 P06-10 + lead at PS104 P06-12.		
18	Is an open indicated at both points?	Go to step 22.		
19	Go to Instructions column.	Disconnect PS108 P03. Measure resistance at the following points: lead at frame ground lead at PS104 P06-10 lead at PS104 P06-12.		

Seq CA075	PN 0445889
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Step	Conditions	Instructions		
30	Go to Instructions column.	1. Select the Partial Power Up/Down (QWW) screen. 2. Select DP (power-down processor only). 3. Reconnect PS104 P06. 4. Select the Partial Power Up/Down (QWW) screen. 5. Select UP (power-up processor only).		
31	Go to Instructions column.	1. Select the Partial Power Up/Down (QWW) screen. 2. Select DP (power-down processor only). DANGER 300 Vdc. 3. Check for open PS104 F5 or F6.		
32	Is F5 or F6 open?	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. 3. Exchange cable from PS104 P06 to PS107 P03, PS108 P03, and PS109 P03. Note: Check cable connectors for pushed in pins and seating before exchanging cable. 4. Go to step 57.		
33	Go to Instructions column.	 Select the Partial Power Up/Down (QWW) screen. Select DP (power-down processor only). Reconnect PS109 P03. Select the Partial Power Up/Down (QWW) screen. Select UP (power-up processor only). 		

Seq CA075	PN 0445889
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	EC A02219		
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Step	Conditions	Instructions		
34	Go to Instructions column.	1. Select the Partial Power Up/Down (QWW) screen. 2. Select DP (power-down processor only). DANGER 300 Vdc. 3. Check for open PS104 F5 or F6.		
35	Is F5 or F6 open?	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. 3. Exchange PS109. Note: Check cable connectors for pushed in pins and seating before exchanging power supply. 4. Go to step 57.		
36	Go to Instructions column.	1. Select the Partial Power Up/Down (QWW) screen. 2. Select DP (power-down processor only). 3. Disconnect PS109 P03. 4. Reconnect PS108 P03. 5. Select the Partial Power Up/Down (QWW) screen. 6. Select UP (power-up processor only).		
37	Go to Instructions column.	 Select the Partial Power Up/Down (QWW) screen. Select DP (power-down processor only). DANGER 300 Vdc. Check for open PS104 F5 or F6. 		

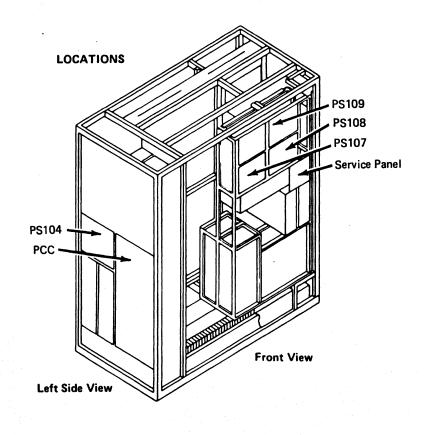
Step	Conditions	Instructions
45	Go to Instructions column.	1. Select the Partial Power Up/Down (QWW) screen. 2. Select DP (power-down processor only). DANGER 300 Vdc. 3. Disconnect PS109 P03. 4. Select the Diagnostic Power Up (QWD) screen. 5. Select option B (stop after K04 picked). 6. Measure for +300 Vdc at the following points: - lead at PS109 P01-3 + lead at PS109 P01-1. (cable end).
46	Is voltage greater than 225 Vdc?	Go to step 50.
47	Go to Instructions column.	 Press ENTER to end Diagnostic Stop. DANGER 300 Vdc. Reconnect PS109 P03. Disconnect PS104 P06. Select the Diagnostic Power Up (QWD) screen. Select option B (stop after K04 picked). Measure for +300 Vdc at the following points: lead at PS104 J06-13 lead at PS104 J06-15. (on power supply).

Sea CA075	PN 0445889
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EC A02219 29 FEB 84		

Step	Conditions	Instructions
48	Is voltage greater than 225 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. DANGER 300 Vdc.
	·	3. Exchange cable from PS104 P06 to PS109 P03. Note: Check cable connectors for pushed in pins and seating before exchanging cable. 4. Go to step 57.
49	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. DANGER 300 Vdc.
		3. Exchange PS104.
		Note: Check cable connectors for pushed in pins and seating before exchanging power supply.
		4. Go to step 57.
50	Go to Instructions column.	Press ENTER to end Diagnostic Stop. DANGER 300 Vdc.
		 Reconnect PS109 P03. Select the Diagnostic Power Up (QWD) screen. Select option F (stop after +5V start). Measure for +5 Vdc at the following points:
		- lead at frame ground + lead at PS109 J/P01-1.

Step	Conditions	Instructions
10	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2 board. Set PCC CB1 and CB2 on. Go to step 18.
11	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Exchange 01A-A2E2 card. Set PCC CB1 and CB2 on. Go to step 18.
12	Go to Instructions column.	Measure for +5 Vdc at the following points: - lead at 01A-A2A4D08 + lead at 01A-A2A4D03.
13	Is voltage greater than +4.5 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange cable from 01A-A2A4 to PS108 J/P01.
		Note: Check board for bent pins and cable connector for pushed in pins and seating before exchanging cable. 4. Set PCC CB1 and CB2 on. 5. Go to step 18.
14	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2 board. Set PCC CB1 and CB2 on. Go to step 18.



Step	Conditions	Instructions
15	Go to Instructions	
	column.	DANGER
		300 VDC.
		1. Press ENTER to end Diagnostic Stop.
		2. Disconnect PS104 J/P06.
		3. Select Diagnostic Power Up (QWD)
		screen.
		4. Select option B
		(stop after K04 picked).
	·	5. Measure for +300 Vdc at the
		following points:
		land at BS104 JOS 12
		- lead at PS104 J06-12 + lead at PS104 J06-10
		(on power supply).
16	la voltago grantar than	
10	Is voltage greater than 225 Vdc?	1. Set service panel Power Off switch to
	220 4001	Power Off and then back to Normal.
	•	2. Set PCC CB1 and CB2 off.
	·	3. Exchange cable from PS104 J/P06 to
		PS108 J/P03.
		Note: Check cable connectors for
		pushed in pins and seating before
		exchanging cable.
		4. Set PCC CB1 and CB2 on.
		5. Go to step 18.
17	Go to Instructions	
17	column.	1. Set service panel Power Off switch to
	GOIGHHI.	Power Off and then back to Normal.
		2. Set PCC CB1 and CB2 off.
		3. Exchange PS104.
		C. Exchange Co.
		Note: Check cable connectors for
		pushed in pins and seating before
		exchanging power supply.
		4. Set PCC CB1 and CB2 on.
		5. Go to step 18.
18	Go to Instructions	
.0	column.	1. Set service panel Power Off switch to
a - 2"		Power Off and then back to Normal.
		2. Set PCC CB1 and CB2 off.
		3. Check all cables and cards for proper
		seating in the following areas:
		PS108
		PS104
		01A-A2 board.
		Set PCC CB1 and CB2 on.
		4. Go to page PR 5001.

Seq CA085	PN 0445891 Pg 1 of 1	EC A02214 15 SEP 83	

Ref Codes 1111540E, 1111550E

These Ref Codes indicate PS107 failed to turn on after the start line was set on.

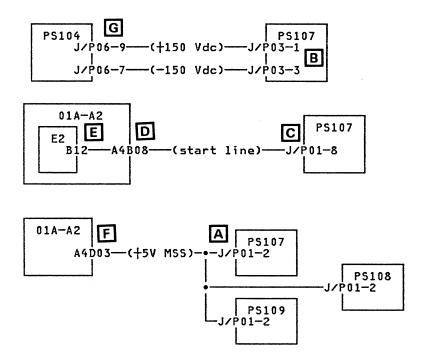
Possible causes:

- 01A-A2E2 card
- PS107 missing +5 Vdc from MSS
- PS107 missing +300 Vdc from PS104
- PS107.

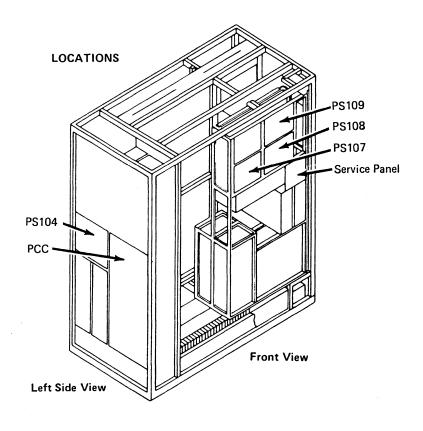
Step	Conditions	Instructions
1	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set CE Mode switch to CE Mode. Disconnect PS107 J/P03. Press service panel Power On. Select Diagnostic Power Up (QWD) screen. Select option B (stop after K04 picked). Measure for +5 Vdc at the following points: lead at frame ground + lead at PS107 J/P01-2.
2	Is voltage less than +4.5 Vdc?	Go to step 12.
3	Go to Instructions column.	DANGER 300 Vdc. Measure for +300 Vdc at the following point: - lead at PS107 J/P03-3 + lead at PS107 J/P03-1 (cable end).
4	Is voltage less than 225 Vdc?	Go to step 15.

Seq CA090	PN 0445892
	Pg 1 of 2

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Step	Conditions	Instructions	
10	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2 board. Set PCC CB1 and CB2 on. Go to step 21. 	
11	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Exchange 01A-A2E2 card. Set PCC CB1 and CB2 on. Go to step 21. 	
12	Go to Instructions column.	Measure for +5 Vdc at the following points: - lead at 01A-A2A4D08 + lead at 01A-A2A4D03.	
13	Is voltage is greater than +4.5 Vdc?	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. 3. Exchange cable from 01A-A2A4 to PS107 J/P01. Note: Check board for bent pins and cable connector for pushed in pins and seating before exchanging cable. 4. Set PCC CB1 and CB2 on. 5. Go to step 21.	
14	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2 board. Set PCC CB1 and CB2 on. Go to step 21. 	



Seq CA095	PN 0445893
	Pg 1 of 1

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	EC A02214			
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Step	Conditions	Instructions
15	Go to Instructions column.	 Press ENTER to end Diagnostic Stop. DANGER 300 Vdc. Disconnect PS104 J/P06. Select Diagnostic Power Up (QWD) screen. Select option B (stop after K04 picked). Measure for +300 Vdc at the following points: lead at PS104 J/P06-7 lead at PS104 J/P06-9 (on power supply).
16	Is voltage greater than 225 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange cable from PS104 J/P06 to PS107 J/P03. Note: Check cable connectors for pushed in pins and seating before exchanging cable. Set PCC CB1 and CB2 on. Go to step 21.
17	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange PS104. Note: Check cable connectors for pushed in pins and seating before exchanging power supply. Set PCC CB1 and CB2 on. Go to step 21.
18	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Check all cables and cards for proper seating in the following areas: PS107 PS104 01A-A2 board. Set PCC CB1 and CB2 on. Go to page PR 5001.

Ref Codes 1112040E, 1112050E

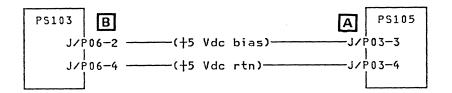
These Ref Codes indicate that PS105 is missing +5 Vdc bias voltage.

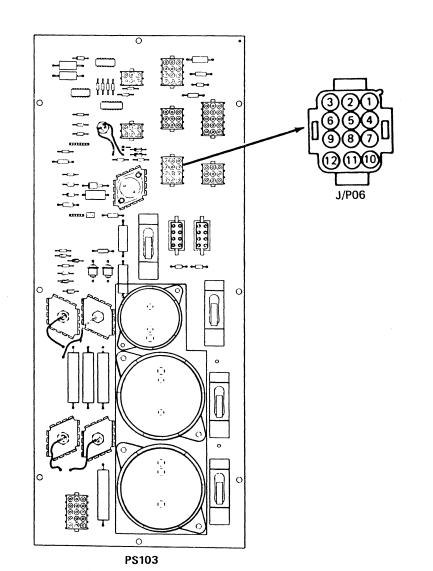
- PS105
- PS103.

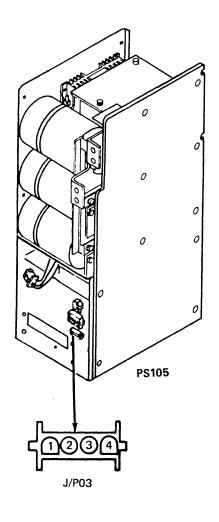
Stop	Conditions	Instructions		
Step		Instructions		
1	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set CE Mode switch to CE Mode. Press service panel Power On. Select Diagnostic Power Up (QWD) screen. Select option A (stop after K03 picked). Measure for +5 Vdc at the following points: lead at PS105 J/P03-4 + lead at PS105 J/P03-3. 		
2	Is voltage greater than +4.5 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange PS105. Note: Check cable connectors for pushed in pins and seating before exchanging power supply. Set PCC CB1 and CB2 on. Go to page PR 5001. 		
3	Go to Instructions column.	Measure for +5 Vdc at the following points: - lead at PS103 J/P06-4 + lead at PS103 J/P06-2.		

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15 SEP 83		







PR 1101

Ref Codes 1112140E, 1112150E

These Ref Codes indicate that PS106 is missing +5 Vdc bias voltage.

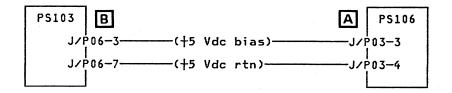
Possible causes:

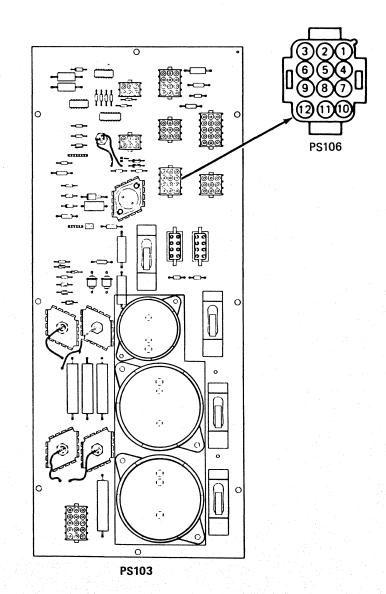
- PS106
- PS103.

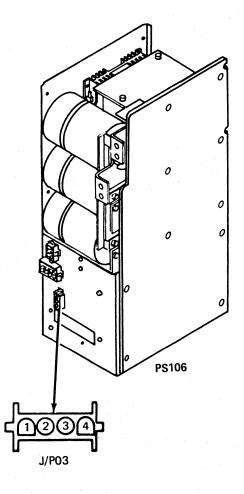
Sten	Conditions	Instructions		
Step 1	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set CE Mode switch to CE Mode. 3. Press service panel Power On. 4. Select Diagnostic Power Up (QWD) screen.		
	. ·	5. Select option A (stop after K03 picked).		
		Measure for +24 Vdc at the following points:		
		- lead at PS106 J/P03-4 + lead at PS106 J/P03-3.		
2	Is voltage greater than +4.5 Vdc?	Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange PS106.		
		Note: Check cable connectors for pushed in pins and seating before exchanging power supply.		
		4. Set PCC CB1 and CB2 on.5. Go to page PR 5001.		
3	Go to Instructions column.	Measure for +24 Vdc at the following points:		
		- lead at PS103 J/P06-7 + lead at PS103 J/P06-3.		

Seq CA105	PN 0445895
	Pg 1 of 2

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PR 1111

Ref Codes 1112340E, 1112350E

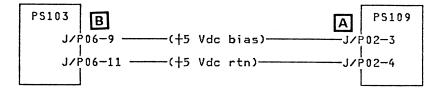
These Ref Codes indicate that PS109 is missing +5 Vdc bias voltage.

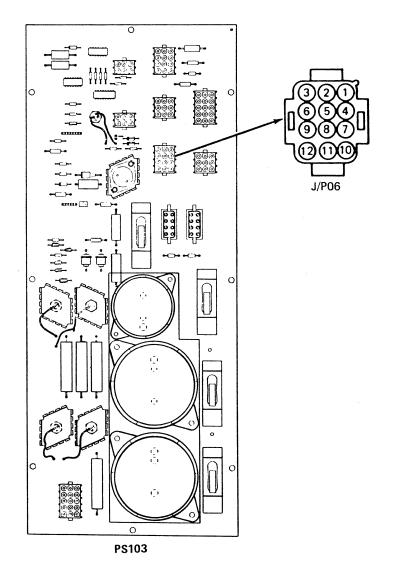
- PS109
- PS103.

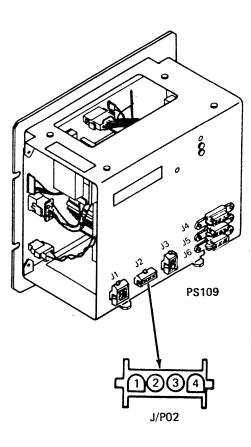
Step	Conditions	Instructions
1	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set CE mode switch to CE Mode. Press service panel Power On. Select Diagnostic Power Up (QWD) screen. Select option A (stop after K03 picked). Measure for +5 Vdc at the following points: lead at PS109 J/P02-4 + lead at PS109 J/P02-3.
2	Is voltage greater than +4.5 Vdc?	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. 3. Exchange PS109. Note: Check cable connectors for pushed in pins and seating before exchanging power supply. 4. Set PCC CB1 and CB2 on. 5. Go to page PR 5001.
3	Go to Instructions column.	Measure for +5 Vdc at the following points: - lead at PS103 J/P06-11 + lead at PS103 J/P06-9.

	Seq CA110	PN 0445896
1		Pg 1 of 2

EC A02214		i	
15 SEP 83			
10 SEP 83			







Ref Codes 1112540E, 1112550E

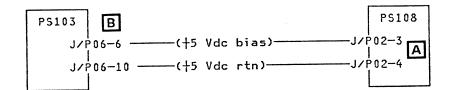
These Ref Codes indicate PS108 is missing +5 Vdc bias voltage.

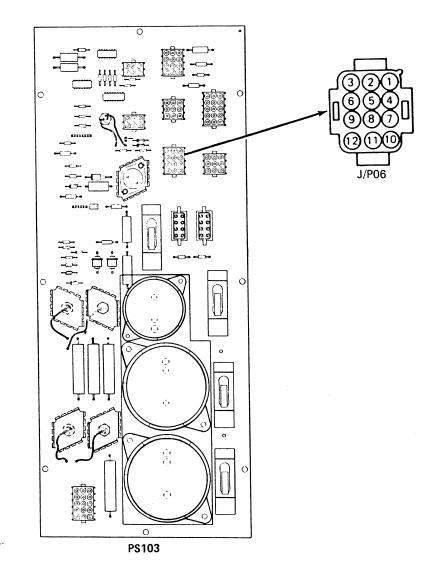
- PS108
- PS103.

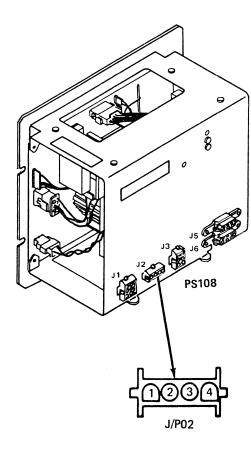
Step	Conditions	Instructions
1	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set CE Mode switch to CE Mode. 3. Press service panel Power On. 4. Select Diagnostic Power Up (QWD) screen. 5. Select option A (stop after K03 picked). Measure for +5 Vdc at the following points: - lead at PS108 J/P02-4 + lead at PS108 J/P02-3.
2	Is voltage greater than +4.5 Vdc?	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. 3. Exchange PS108. Note: Check cable connectors for pushed in pins and seating before exchanging power supply. 4. Set PCC CB1 and CB2 on. 5. Go to page PR 5001.
3	Go to Instructions column.	Measure for +5 Vdc at the following points: - lead at PS103 J/P06-10 + lead at PS103 J/P06-6.

Seq CA115	PN 0445897
	Pg 1 of 2

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EC A02214					
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Ref Codes 1112740E, 1112750E

These Ref Codes indicate PS107 is missing +5 Vdc bias voltage.

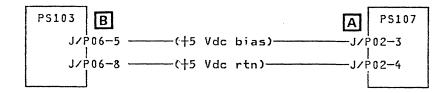
Possible causes:

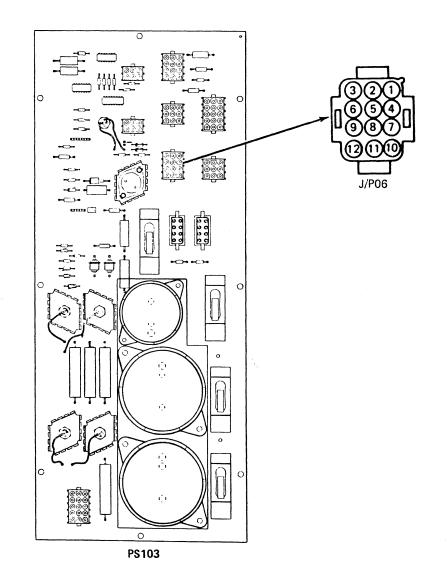
- PS107
- PS103.

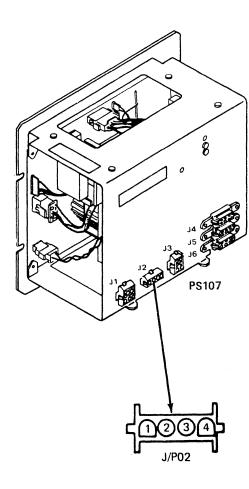
Step	Conditions	Instructions
1	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set CE Mode switch to CE Mode. Press service panel Power On. Select Diagnostic Power Up (QWD) screen. Select option A (stop after K03 picked). Measure for +5 Vdc between the following points: lead at PS107 J/P02-4 lead at PS107 J/P02-3.
2	Is voltage greater than +4.5 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange PS107. Note: Check cable connectors for pushed in pins and seating before exchanging power supply. Set PCC CB1 and CB2 on. Go to page PR 5001.
3	Go to Instructions column.	Measure for +5 Vdc between the following points: - lead at PS103 J/P06-8 + lead at PS103 J/P06-5.

Seg CA120	PN 0445898
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	Pg 1 of 2

1		 	
	EC A02214		
	15 SEP 83		







PR 1141

Ref Codes 1113040E, 1113050E

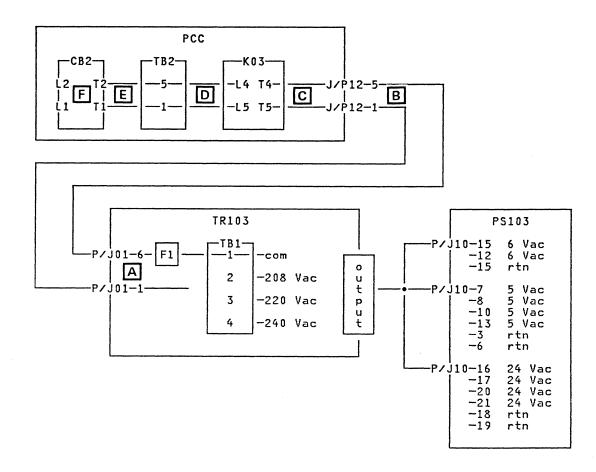
These Ref Codes indicate line voltage is missing to PS103.

- TR103 F1
- PCC K03
- PCC CB2.

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Step	Conditions	Instructions	
1	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Check for tripped PCC CB2. Check for open TR103 F1. If CB2 tripped, reset CB and press power on. If F1 is open, exchange F1 and press power on. If CB2 trips or same Ref Code, go to step 2. If power is complete, go to page END 001. 	
2	Is PCC CB2 tripped?	Go to page PR 011.	
3	Is F1 good?	Go to step 7.	
4	Go to Instructions column.	 Exchange F1. Set CE Mode switch to CE Mode. Select the Partial Power Up/Down (QWW) screen. Select UP (power-up processor only). 	
5	Is processor powered on?	Go to step 28.	
6	Is a different Ref Code displayed?	Go to page START 001.	

Seq CA125	PN 0445899
	Pg 1 of 2

 EC A02217 10 JAN 84	-	



Step	Conditions	Instructions
12	Is line voltage present?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange cable from PCC J/P12 to PCC K03. Note: Check cable connectors for pushed in pins and seating before exchanging cable. Go to step 28.
13	Go to Instructions column.	Measure for line voltage at the following points: - lead at PCC K03-L4 + lead at PCC K03-L5. Note: For line voltage value, see label on PCC box.
14	Is line voltage present?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange PCC K03. Go to step 28.
15	Go to Instructions column.	Measure for line voltage at the following points: - lead at PCC TB2-5 + lead at PCC TB2-1. Note: For line voltage value, see label on PCC box.
16	Is line voltage present?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange cable from PCC TB2 to PCC K03. Note: Check cable connectors for pushed in pins and seating before exchanging cable. Go to step 28.

 PN 0445900
Pg 1 of 2

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	EC A02214	EC A02217	EC A02219		
1	15 SEP 83	10 JAN 84	29 FEB 84	2.55	

Step	Conditions	Instructions	
17	Go to Instructions column.	Measure for line voltage at the following points: - lead at PCC TB2-2 + lead at PCC TB2-1. Note: For line voltage value, see label on PCC box.	
18	Is line voltage present?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Check jumper from PCC TB2-2 to PCC TB2-5. Go to step 28. 	
19	Go to Instructions column.	Measure for line voltage at the following points: - lead at PCC CB2-T2 + lead at PCC CB2-T1. Note: For line voltage value, see label on PCC box.	
20	Is line voltage present?	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. 3. Exchange cable from PCC TB2 to PCC CB2. Note: Check cable connectors for pushed in pins and seating before exchanging cable. 4. Go to step 28.	
21	Go to Instructions column.	Measure for line voltage at the following points: - lead at PCC CB2-L2 + lead at PCC CB2-L1. Note: For line voltage value, see label on PCC box.	

Ref Codes 1112850E, 1113540E, 1113550E

These Ref Codes indicate the 300 Vdc or +5 Vdc is missing to PS105, PS106.

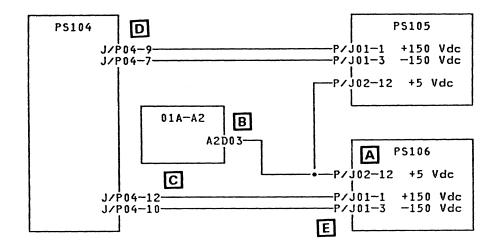
Possible causes:

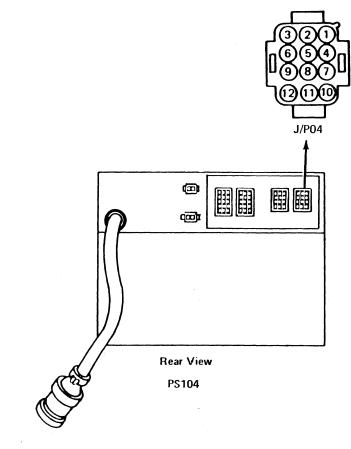
- PS104
- PS104 F1
- PS104 F2
- PS105
- PS106.

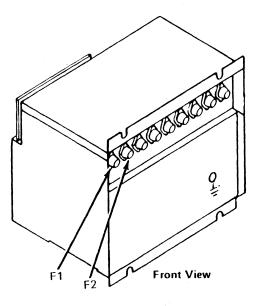
Step	Conditions	Instructions	
1	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. DANGER 300 Vdc. 2. Check for open PS104 F1 or F2.	
2	Are F1 and F2 good?	Set CE Mode switch to CE Mode. Press service panel Power On. Go to step 7.	
3	Is F1 or F2 open?	 Exchange F1 or F2. Set CE Mode switch to CE Mode. Press service panel Power On. Select the Partial Power Up/Down (QWW) screen. Select UP (power-up processor only). 	
4	Does processor status equal power is on?	Go to step 42.	
5	Do you have the same 1X Ref Code?	Go to step 12.	
6	Do you have a different Ref Code?	Go to page PR 1001.	

Seq CA135	PN 0445901
	Pg 1 of 2

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	 	EC A02219 29 FEB 84		







PR 1161

Conditions	Instructions	
Go to Instructions column.	 Disconnect PS106 J/P01. Measure resistance at the following points: lead at frame ground lead at PS104 P04-10 lead at PS104 P04-12. (cable end). 	
Is an open indicated at both points?	Exchange PS106. Note: Check cable connectors for pushed in pins and seating before exchanging power supply. Go to step 42.	
Go to Instructions column.	Set PCC CB1 and CB2 off. Exchange cable from PS104 J/P04 to PS105 J/P01 and PS106 J/P01. Note: Check cable connectors for pushed in pins and seating before exchanging cable. 3. Go to step 42.	
Go to Instructions column.	Measure resistance at the following points: - lead at frame ground + lead at PS104 P04-7 + lead at PS104 P04-9. (cable end).	
Is an open indicated at both points?	Go to step 22.	
Go to Instructions column.	 Disconnect PS105 J/P01. Measure resistance at the following points: lead at frame ground lead at PS104 P04-7 lead at PS104 P04-9. 	
	Go to Instructions column. Is an open indicated at both points? Go to Instructions column. Go to Instructions column.	

PN 0445902 Pg 1 of 2

EC A02214	EC A02219		
1			
15 SEP 83	29 FEB 84		

Step	Conditions	Instructions	
20	Is an open indicated at both points?	1. Exchange PS105.	
		Note: Check cable connectors for pushed in pins and seating before exchanging power supply.	
		2. Go to step 42.	
21	Go to Instructions column.	1. Set PCC CB1 and CB2 off. 2. Exchange cable from PS104 J/P04 to PS105 J/P01 and PS106 J/P01.	
		Note: Check cable connectors for pushed in pins and seating before exchanging cable.	
		3. Go to step 42.	
22	Go to Instructions column.	Ensure PS104 F1 and F2 are good. Disconnect the following:	
		PS104 J/P04 PS105 J/P01 PS106 J/P01.	
		 Set PCC CB1 and CB2 on. Press service panel Power On. Select the Partial Power Up/Down (QWW) screen. Select UP (power-up processor only). 	
23	Go to Instructions column.	Select the Partial Power Up/Down (QWW) screen. Select DP (power-down processor only). DANGER	
		300 Vdc. 3. Check for open PS104 F1 or F2.	

Step	Conditions	Instructions
32	Go to Instructions column.	1. Select the Partial Power Up/Down (QWW) screen. 2. Select DP (power-down processor only). DANGER 300 Vdc. 3. Check for open PS104 F1 or F2.
33	Is F1 or F2 open?	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. 3. Exchange PS106. Note: Check cable connectors for pushed in pins and seating before exchanging power supply. 4. Go to step 42.
34	Go to Instructions column.	1. Select the Partial Power Up/Down (QWW) screen. 2. Select DP (power-down processor only). 3. Reconnect PS105 P01. 4. Select the Partial Power Up/Down (QWW) screen. 5. Select UP (power-up processor only).
35	Go to Instructions column.	1. Select the Partial Power Up/Down (QWW) screen. 2. Select DP (power-down processor only). DANGER 300 Vdc. 3. Check for open PS104 F1 or F2.

Seq CA145	PN 0445903 Pg 1 of 2
	Pg I of Z

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 EC A02219 29 FEB 84		1

Step	Conditions	Instructions	
36	Is F1 or F2 open?	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. 3. Exchange PS104. Note: Check cable connectors for pushed in pins and seating before exchanging power supply. 4. Go to step 42.	
37	Go to Instructions column.	 Select the Partial Power Up/Down (QWW) screen. Select DP (power-down processor only). DANGER 300 Vdc. Disconnect PS106 J/P01. Select the Diagnostic Power Up (QWD) screen. Select option B (stop after K04 picked). Measure for +300 Vdc at the following points: lead at PS106 P01-3 + lead at PS106 P01-1. (cable end). 	
38	Is voltage greater than 225 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. DANGER 300 Vdc. Exchange PS106. Note: Check cable connectors for pushed in pins and seating before exchanging power supply. Go to step 42. 	

Ref Code 1114040E

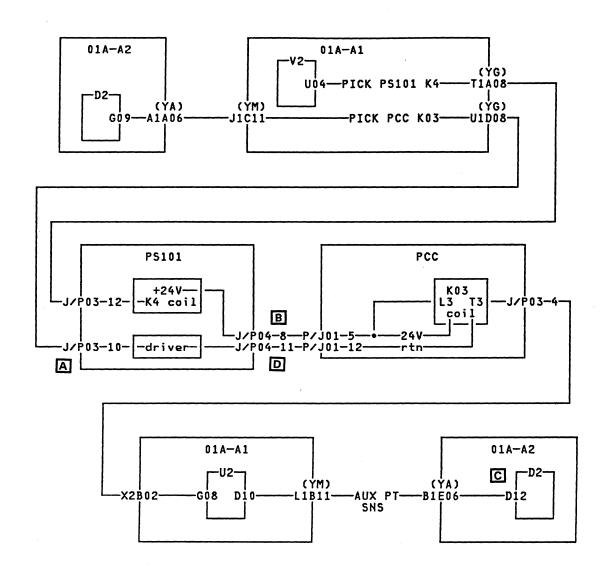
This Ref Code indicates the outputs of PS103 are active before the start line was turned on or the auxiliary point sense line is failing.

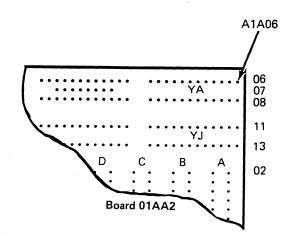
- 01A-A2D2 sense card
- PS101
- PCC K03 contactor.

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Step	Conditions	Instructions	
	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set CE Mode switch to CE Mode. Press service panel Power On. Measure for +5 Vdc at the following points: lead at frame ground lead at PS101 P03-10. 	
2	Is the voltage less than +0.8 Vdc?	Go to step 6.	
3	Go to Instructions column.	Measure for +24 Vdc at the following points: - lead at PS101 P04-11 + lead at PS101 P04-8.	
4	Is the voltage less than +0.8 Vdc?	Go to step 19.	
5	Go to Instructions column.	Go to step 24.	
6	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Remove 01A-A2D2 card and TCCs. Set PCC CB1 and CB2 on. Measure for +5 Vdc at the following points: lead at frame ground lead at PS101 P03-10. 	

Seq CA150	PN 0445904
	Pg 1 of 2

EC A02214 EC 115 SEP 83 10 J	A02217 EC A022 JAN 84 06 JUN	





Step	Conditions	Instructions		
11	Is voltage less than +0.8 Vdc?	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. 3. Exchange cable from PS101 P03 to 01A-A1YG (card side). Note: Check board for bent pins and cable connector for pushed in pins and seating before exchanging cable. 4. Go to step 29.		
12	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Reconnect cable at 01A-A1YG. Disconnect cable at 01A-A1YM (card side). Set PCC CB1 and CB2 on. Measure for +5 Vdc at the following points: lead at frame ground lead at PS101 P03-10. 		
13	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A1 board. Go to step 29. 		
14	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Reconnect cable at 01A-A1YM. Disconnect cable at 01A-A2YA (card side). Set PCC CB1 and CB2 on. Measure for +5 Vdc at the following points: lead at frame ground lead at PS101 P03-10. 		

Seq CA155	PN 0445905
	Pg 1 of 2

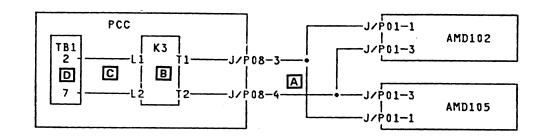
EC A02214		l I
15 SEP 83		

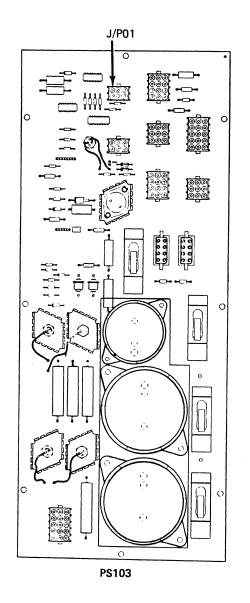
Step	Conditions	Instructions
15	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange cable from 01A-A2YA to 01A-A1YG (card side). Note: Check board for bent pins and cable connector for pushed in pins and seating before exchanging cable .
		4. Go to step 29.
16	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Reconnect cable at 01A-A2YA. Set PCC CB1 and CB2 on. Measure for +5 Vdc at the following points:
		- lead at frame ground + lead at PS101 P03-10.
17	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2 board. Go to step 29.
18	Is voltage greater than +4.5 Vdc?	Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Reinstall 01A-A2D2 card and TCCs. Go to step 29.
19	Go to Instructions column.	Measure for +24 Vdc at the following points: - lead at frame ground + lead at PCC P03-4.
20	Is voltage greater than +22 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange PCC K03. Go to step 29.

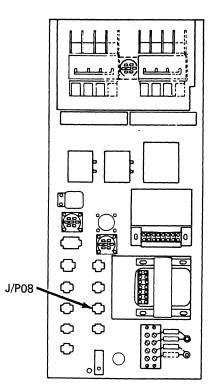
Ref Codes 1116040E, 1116050E, 1116140E, 1116240E, 1116340E, 1116840E

These Ref Codes indicate that a specific connector or paddle card is disconnected.

Step	Conditions	Instructions
1	Go to Instructions column.	Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off.
2	Is the displayed Ref Code 1116140E?	This Ref Code indicates that PS103 J/P01 is disconnected. 1. Check PS103 J/P01 for poor seating and pushed in pins. 2. Ensure PS103 J/P01 is connected. 3. Set PCC CB1 and CB2 on. 4. Go to page PR 5001.
3	Is the displayed Ref Code 1116240E?	This Ref Code indicates that PS103 J/P05 is disconnected. 1. Check PS103 J/P05 for poor seating and pushed in pins. 2. Ensure PS103 J/P05 is connected. 3. Set PCC CB1 and CB2 on. 4. Go to page PR 5001.
4	Is the displayed Ref Code 1116340E?	This Ref Code indicates that PS103 J/P06 is disconnected. 1. Check PS103 J/P06 for poor seating and pushed in pins. 2. Ensure PS103 J/P06 is connected. 3. Set PCC CB1 and CB2 on. 4. Go to page PR 5001.
5	Is the displayed Ref Code 1116840E?	This Ref Code indicates that 01A-A2B2 paddle card is disconnected. 1. Check 01A-A2B2 paddle card for poor seating and bent in pins. 2. Ensure 01A-A2B2 paddle card is seated. 3. Set PCC CB1 and CB2 on. 4. Go to page PR 5001.







Primary Control Compartment (PCC)

Seq CA160	PN 0445906
	Pg 1 of 2

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EC A02214	EC A02215	EC A02217	EC A02220	
15 SEP 83	01 NOV 83	10 JAN 84	06 JUN 84	

Step	Conditions	Instructions		
13	Is line voltage present?	Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange the cable from PCC K3 to PCC TB1.		
		Note: Check cable connectors for pushed in pins and seating before exchanging cable.		
	·	4. Set PCC CB1 and CB2 on.5. Go to step 15.		
14	Go to Instructions column.	If line voltage is missing on TB1, use the YA pages to verify the voltage jumpers are installed on TB1.		
15	Go to Instructions column.	Set PCC CB1 and CB2 off. Check all cables and cards for proper seating in the following areas: PCC box AMD102 AMD105.		
		 Set PCC CB1 and CB2 on. Set CE Mode switch to Normal. Press service panel Power On. Go to page PR 5001. 		

LOCATIONS	
PCC AMD 102 Left Side View	Service Panel AMD 105 PS103
Left Side View	

Ref Codes 1117040E, 1117050E

These Ref Codes indicate ~1.5 Vdc was missing from all PS105 analog sensors.

Possible causes:

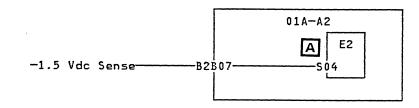
- PS105
- 01A-B2 TB1 bus bar
- 01A-A2E2 card.

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Step	Conditions	Instructions
1	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set CE Mode switch to CE Mode. 3. Check the 01A-B2 TB1 distribution bus and PS105 for loose bolts, screws, and cables. 4. Press service panel Power On. 5. Select Power Up/Down (QWW) screen. 6. Select UP (power-up processor only).
2	Does the processor power up?	Go to page PR 1021 and verify PS105 voltage adjustment.
3	Go to Instructions column.	1. Measure for -1.5 Vdc at the following points: - lead to 01A-A2E2D08 + lead to 01A-A2E2S04. 2. Select Power Up/Down (QWW) screen. 3. Select UP (power-up processor only).
4	Is voltage -1.44 to -1.56 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2E2 card. Set PCC CB1 and CB2 on. Go to page PR 5001.

Seq CA170	PN 0445908
	Pg 1 of 1

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1	 EC A02220 06 JUN 84	* .	

Step	Conditions	Instructions		
5	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange PS105. Note: Check cable connectors for pushed in pins and seating or power supply adjustment before exchanging power supply. 		
		4. Set PCC CB1 and CB2 on.5. Go to page PR 5001.		



Ref Codes 1117140E, 1117150E

These Ref Codes indicate -4.3 Vdc was missing from all PS106 analog sensors.

Possible causes:

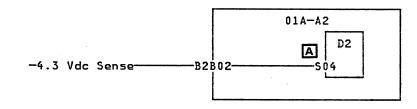
- PS106
- 01A-B2 TB1 bus bar
- 01A-A2D2 card.

Step	Conditions	Instructions
1	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set CE Mode switch to CE Mode. 3. Check the 01A-B2 TB1 distribution bus and PS106 for loose bolts, screws, and cables. 4. Press service panel Power On. 5. Select Power Up/Down (QWW) screen. 6. Select UP (power-up processor only).
2	Does the processor power up?	Go to page PR 1021 and verify PS106 voltage adjustment.
3	Go to Instructions column.	1. Measure for -1.5 Vdc at the following points. - lead to 01A-A2D2D08 + lead to 01A-A2D2S04. 2. Select Power Up/Down (QWW) screen. 3. Select UP (power-up processor only).
4	Is voltage -1.44 to -1.56 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2D2 card. Set PCC CB1 and CB2 on. Go to page PR 5001.

Seq CA175	PN 0445909
	Pg 1 of 1

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EC A02214 15 SEP 83	EC A02220 06 JUN 84	·		,
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Step	Conditions	Instructions
5	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange PS106. Note: Check cable connectors for pushed in pins and seating or power supply adjustment before exchanging power supply.
		4. Set PCC CB1 and CB2 on.5. Go to page PR 5001.



Ref Codes 1117240E, 1117250E

These Ref Codes indicate the +5V from PS109 is missing at the 01A-A4 board.

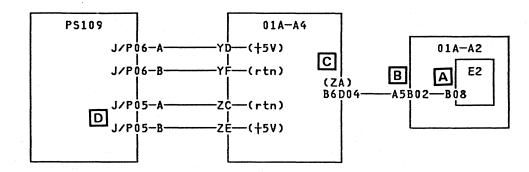
Possible causes:

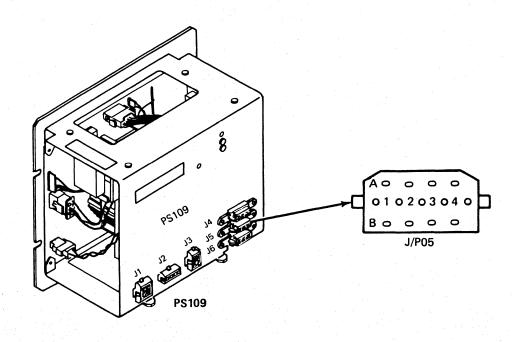
- PS109
- 01A-A2E2 sense card.

Step	Conditions	Instructions
1	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set CE Mode switch to CE Mode 3. Press service panel Power On. 4. Select Diagnostic Power Up (QWD) screen. 5. Select option F (stop after +5V start). 6. Measure for +1.5 Vdc at the following points: - lead at 01A-A2E2D08 + lead at 01A-A2E2B08.
2	Is voltage greater than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2E2 card. Set PCC CB1 and CB2 on. Go to step 12.
3	Go to Instructions column.	Measure for +1.5 Vdc at the following points: - lead at 01A-A2E2D08 + lead at 01A-A2A5B02.
4	Is voltage greater than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2 board. Set PCC CB1 and CB2 on. Go to step 12.
5	Go to Instructions column.	Measure for +5 Vdc at the following points: - lead at 01A-A4C5D08 + lead at 01A-A4B6D04.

4	Seq CA180	PN 0445910
		Pg 1 of 2

			100		 	100	
EC 40224	T			1000			
EC A02214							





Ref Codes 1113250E, 1113350E, 1113450E, 1124240E

These Ref Codes indicate a tripped CP in PS103.

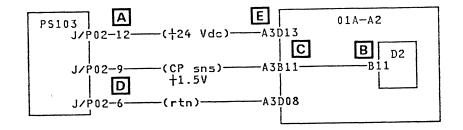
Possible causes:

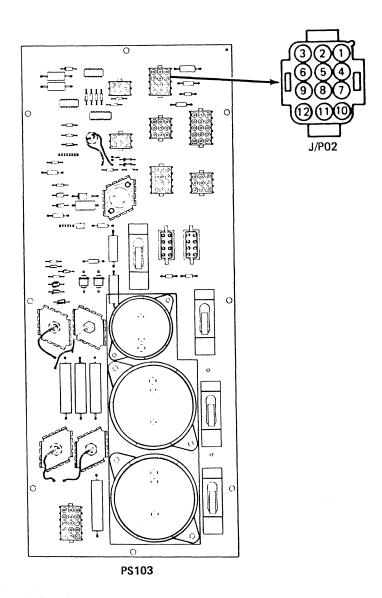
- 01A-A2D2 sense card
- PS103
- 01A-A2 board.

Step	Conditions	Instructions	
1	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Reset any tripped PS103 CP. Press service panel Power On. If power is complete, go to page END 001. Set CE Mode switch to CE Mode. 	
2	Is PS103 CP1 tripped?	Use Ref Code 11D2940E and the Ref Code list on page PR 1001 to determine the PR entry page.	
3	Is PS103 CP2 tripped?	Use Ref Code 11A4240E and the Ref Code list on PR 1001 to determine the PR entry page.	
4	Is PS103 CP3 tripped?	Use Ref Code 11A4240E and the Ref Code list on PR 1001 to determine the PR entry page.	
5	Is PS103 CP4 tripped?	Use Ref Code 11A4240E and the Ref Code list on PR 1001 to determine the PR entry page.	
6	Go to Instructions column.	Measure for +24 Vdc at the following points: - lead at PS103 P02-6 + lead at PS103 P02-12.	
7	Is voltage less than +22 Vdc?	Go to step 15.	
8	Go to Instructions column.	Measure for +1.5 Vdc at the following points: - lead at 01A-A2D2D08 + lead at 01A-A2D2B11.	

Seq CA185	PN 0445911
	Pg 1 of 2

EC A02214		
15 SEP 83		





PR 1221

Ref Codes 11FFF40E, 11FFF50E, 111FF40E, 111FF50E, 1FFFF40E, 1FFFF50E

These Ref Codes indicate that the cause of the failure is unknown.

Step	Conditions	Instructions
1	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Check PS101, PS102, PS103, and PS104 plugs for pushed in pins and proper seating. Check PCC K03, K04 for loose wires. Check cables in 01A-A1 and 01A-A2 boards for seating. Check 01A-A1U2, 01A-A1V2, and 01A-A1W2 cards and top card connectors for seating. Check 01A-A2C2, 01A-A2C4, 01A-A2D2, 01A-A2E2, and 01A-A2F2 cards and top card connectors for proper seating. Set PCC CB1 and CB2 on. Press service panel Power On.
2	Is power complete?	Go to page PR 5001.
3	Go to Instructions column.	The diskette may have the wrong power group defined. To check the power group, perform the following: 1. Select System Configuration-Service (QFS) screen. 2. Ensure diskette is configured for the proper power group. 3. Go to page PR 5001.

Sea	CA190	PN 0445912
Seq		PN 0445512

 EC A02220 06 JUN 84		

Ref Code 1130540E

This Ref Code indicates the PS109 OC sense line was above +0.8 Vdc before bias voltages were applied to PS109.

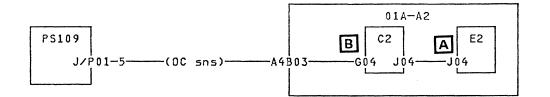
Possible causes:

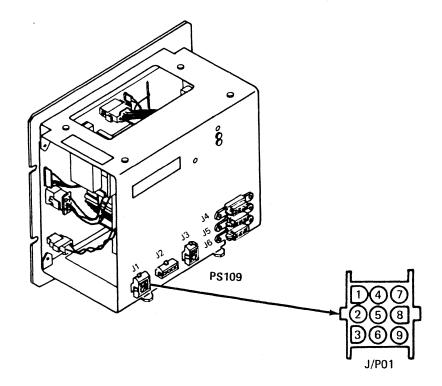
- PS109
- 01A-A2 board
- 01A-A2E2 sense card
- 01A-A2C2 optoisolator card.

Step	Conditions	Instructions
1	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set CE Mode switch to CE Mode. Press service panel Power On. Measure for +5 Vdc at the following points: lead at 01A-A2E2D08 lead at 01A-A2E2J04.
2	Is voltage less than +2.5 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2E2 card. Set PCC CB1 and CB2 on. Go to page PR 5001.
3	Go to Instructions column.	Measure for +5 Vdc at the following points: - lead at 01A-A2C2D08 + lead at 01A-A2C2G04.
4	Is voltage less than +0.8 Vdc?	Go to step 12.
5	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Disconnect PS109 P01. 3. Press service panel Power On. 4. Measure for +5 Vdc at the following points: - lead at 01A-A2C2D08 + lead at 01A-A2C2G04.

Seq CA195	PN 0445913
1 .	Pg 1 of 3

EC A02214 15 SEP 83		

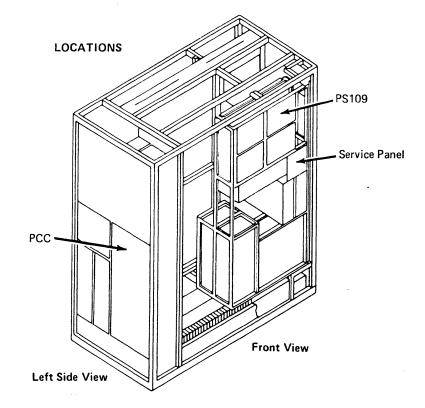




Step	Conditions	Instructions
15	Is voltage less than +2.5 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange card just swapped into the 01A-A2D2 position. Set PCC CB1 and CB2 on. Go to page PR 5001.
16	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2 board. Set PCC CB1 and CB2 on. Go to page PR 5001.

	 		
EC A02214			
15 SEP 83			

PR 1243



Ref Code 1130640E

This Ref Code indicates the PS109 OV sense line was above +0.8 Vdc before bias voltages were applied to PS109.

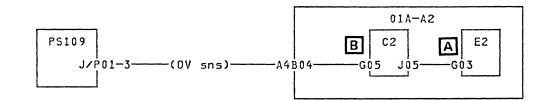
Possible causes:

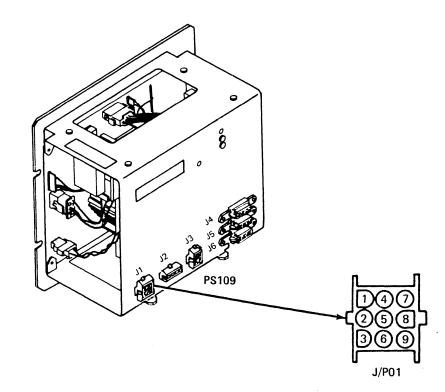
- PS109
- 01A-A2E2 sense card
- 01A-A2C2 optoisolator card.

Cham	Conditions	Landamadiana
Step 1	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set CE Mode switch to CE Mode. 3. Press service panel Power On. 4. Measure for +5 Vdc at the following points: - lead at 01A-A2E2D08 + lead at 01A-A2E2G03.
28	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2E2 card. Set PCC CB1 and CB2 on. Go to page PR 5001.
3	Go to Instructions column.	Measure for +5 Vdc at the following points: - lead at 01A-A2C2D08 + lead at 01A-A2C2G05.
4	Is voltage less than +0.8 Vdc?	Go to step 12.
5	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Disconnect PS109 P01. 3. Press service panel Power On. 4. Measure for +5 Vdc at the following points: - lead at 01A-A2C2D08 + lead at 01A-A2C2G05.

S CA200	DN 0445044
Seq CA200	PN 0445914
	Pg 1 of 2

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	3 SEP 03		i	1 1





LOCATIONS	
PCC	PS109 Service Panel Front View
Left Side View	

r	T
Seq CA205	PN 0445915
i -	Pa 1 of 1

Conditions

Vdc?

column.

Is voltage less than +0.8

Go to Instructions

Instructions

1. Set service panel Power Off switch to Power Off and then back to Normal.

2. Set PCC CB1 and CB2 off.
3. Exchange card just swapped into the 01A-A2D2 position.

 Set service panel Power Off switch to Power Off and then back to Normal.
 Set PCC CB1 and CB2 off.
 Exchange 01A-A2 board.
 Set PCC CB1 and CB2 on.
 Go to page PR 5001.

4. Set PCC CB1 and CB2 on.5. Go to page PR 5001.

Step

EC A02214	·		
15 SEP 83			

Ref Code 1130840E

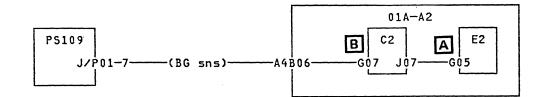
This Ref Code indicates the PS109 BG sense line was above +0.8 Vdc before bias voltages were applied to PS109.

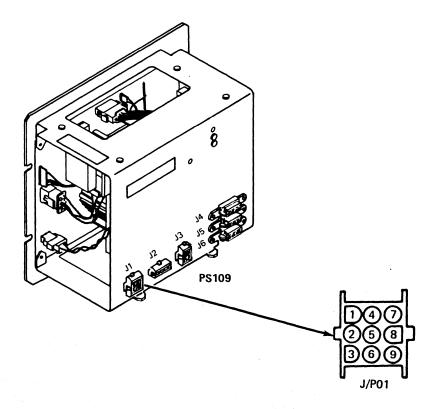
Possible causes:

- PS109
- 01A-A2E2 sense card
- 01A-A2C2 optoisolator card.

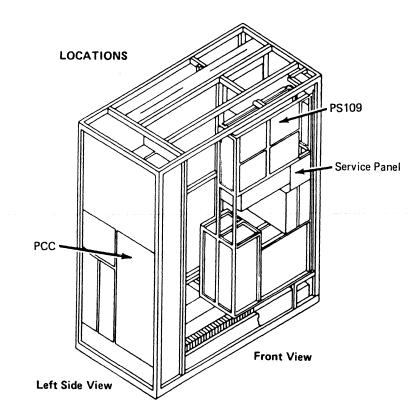
Step	Conditions	Instructions
1	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set CE Mode switch to CE Mode. 3. Press service panel Power On. 4. Measure for +5 Vdc at the following points: - lead at 01A-A2E2D08 + lead at 01A-A2E2G05.
2	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2E2 card. Set PCC CB1 and CB2 on. Go to page PR 5001.
3	Go to Instructions column.	Measure for +5 Vdc at the following points: - lead at 01A-A2C2D08 + lead at 01A-A2C2G07.
4	Is voltage less than +0.8 Vdc?	Go to step 12.
5	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Disconnect PS109 P01. 3. Press service panel Power On. 4. Measure for +5 Vdc at the following points: - lead at 01A-A2C2D08 + lead at 01A-A2C2G07.

1 '	PN 0445916 Pg 1 of 3	EC A02214 15 SEP 83		





Step	Conditions	Instructions
15	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange card swapped into the 01A-A2D2 position. Set PCC CB1 and CB2 on. Go to page PR 5001.
16	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2 board. Set PCC CB1 and CB2 on. Go to page PR 5001.



Seq CA210 PN 0445916 Pg 3 of 3 EC A02214 15 SEP 83

Ref Code 1131140E

This Ref Code indicates the outputs of PS104 are active before the start line was turned on or the auxiliary point sense line is failing.

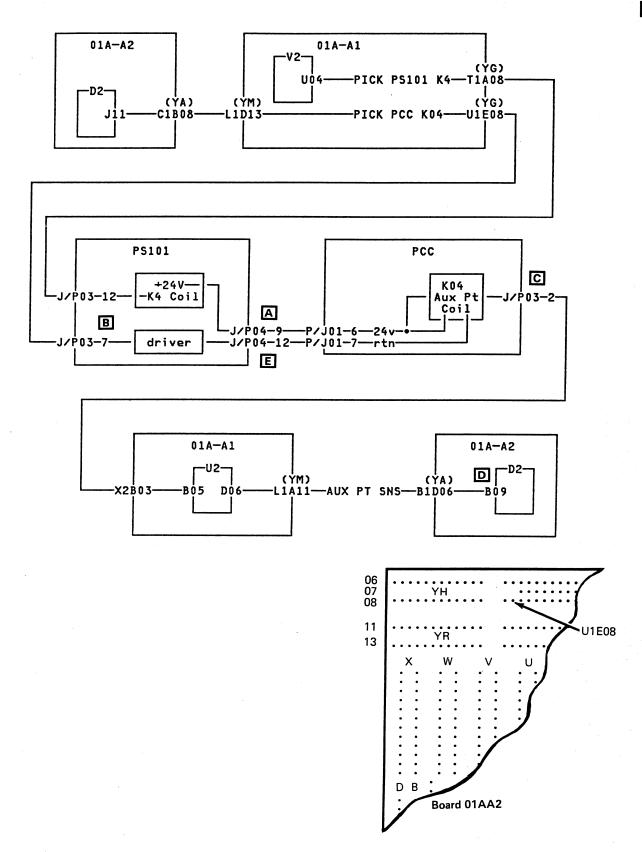
Possible causes:

- 01A-A2D2 sense card
- PS101
- PCC K04 contactor.

Step	Conditions	Instructions	
1	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set CE Mode switch to CE Mode. Press service panel Power On. Measure for +24 Vdc at the following points: lead at PS101 J/P04-12 + lead at PS101 J/P04-9. 	
2	Is the voltage less than +0.8 Vdc?	Go to step 18.	
3	Go to Instructions column.	Measure for +5 Vdc at the following points: - lead at frame ground + lead at PS101 J/P03-7.	
4	Is the voltage greater than +4.5 Vdc?	Go to step 23.	
5	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Remove 01A-A2D2 card. Set PCC CB1 and CB2 on. Measure for +5 Vdc at the following points: lead at frame ground lead at PS101 J/P03-7. 	

Seq CA215	PN 0445917
	Pg 1 of 2

	 EC A02220 06 JUN 84	 -



PR 1271

Step	Conditions	Instructions
10	Is voltage less than +0.8 Vdc?	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. 3. Exchange cable from PS101 P03 to 01A-A1YG (card side). Note: Check board for bent pins and cable connector for pushed in pins and seating before exchanging cable. 4. Go to step 28.
11	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Reconnect cable at 01A-A1YG. Disconnect cable at 01A-A1YM (card side). Set PCC CB1 and CB2 on. Measure for +5 Vdc at the following points (on power supply): lead at 01A-A2D2D08 lead at PS101 J03-7.
12	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A1 board. Go to step 28.
13	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Reconnect cable at 01A-A1YM. Disconnect cable at 01A-A2YA (card side). Set PCC CB1 and CB2 on. Measure for +5 Vdc at the following points (on power supply): lead at 01A-A2D2D08
		+ lead at PS101 J03-7.

Seg CA220	PN 0445918
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	Pg 1 of 2

EC A02214			
15 SEP 83	** ** * * * ***	eri e e e e e e e e e e e e e e e e e e	

PR 1273

Step	Conditions	Instructions	
14	Is voltage less than +0.8 Vdc?	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. 3. Exchange cable from 01A-A2YA to 01A-A1YG (card side). Note: Check board for bent pins and cable connector for pushed in pins and seating before exchanging cable. 4. Go to step 28.	
15	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Reconnect cable at 01A-A2YA. Set PCC CB1 and CB2 on. Measure for +5 Vdc at the following points (on power supply): lead at 01A-A2D2D08 lead at PS101 J03-7. 	
16	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2 board. Go to step 28. 	
17	Is voltage greater than +4.5 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Reinstall 01A-A2D2 card. Go to step 28. 	
18	Go to Instructions column.	Measure for +24 Vdc at the following points: - lead at 01A-A2D2D08 + lead at PCC P03-2.	
19	Is voltage greater than +22 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange PCC K04. Go to step 28. 	

Ref Code 1131340E

This Ref Code indicates the PS107 OC sense line was above +0.8 Vdc before bias voltages were applied to PS107.

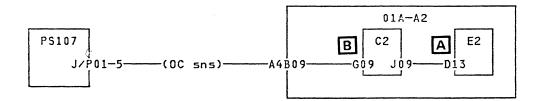
Possible causes:

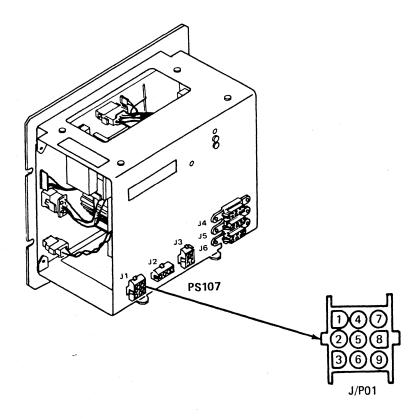
- PS107
- 01A-A2E2 sense card
- 01A-A2C2 optoisolator card.

Step	Conditions	Instructions
1	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set CE Mode switch to CE Mode. Press service panel Power On. Measure for +5 Vdc at the following points: lead at 01A-A2E2D08 lead at 01A-A2E2D13.
2	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2E2 card. Set PCC CB1 and CB2 on. Go to page PR 5001.
3	Go to Instructions column.	Measure for +5 Vdc at the following points: - lead at 01A-A2C2D08 + lead at 01A-A2C2G09.
4	Is voltage less than +0.8 Vdc?	Go to step 12.
5	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Disconnect PS107 P01. 3. Press service panel Power On. 4. Measure for +5 Vdc at the following points: - lead at 01A-A2C2D08 + lead at 01A-A2C2G09.

Seq CA225	PN 0445919	
	Pg 1 of 2	

		 	
E	C A02214		
1	5 SEP 83		





LOCATIONS	
PCC	PS107 Service Panel Front View
Left Side View	

			<u> </u>		
-	Sea	CA230		PN 044	15920
		41.5		Pg 1 o	f 1

Conditions

Is voltage less than +0.8 Vdc?

Go to Instructions

column.

15

16

Instructions

 Set service panel Power Off switch to Power Off and then back to Normal.

 Set service panel Power Off switch to Power Off and then back to Normal.
 Set PCC CB1 and CB2 off.
 Exchange 01A-A2 board.
 Set PCC CB1 and CB2 on.
 Go to page PR 5001.

2. Set PCC CB1 and CB2 off.

3. Exchange card swapped into the 01A-A2D2 position.
4. Set PCC CB1 and CB2 on.
5. Go to page PR 5001.

EC A02214 15 SEP 83				
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Ref Code 1131440E

This Ref Code indicates the PS107 OV sense line was above +0.8 Vdc before bias voltages were applied to PS107.

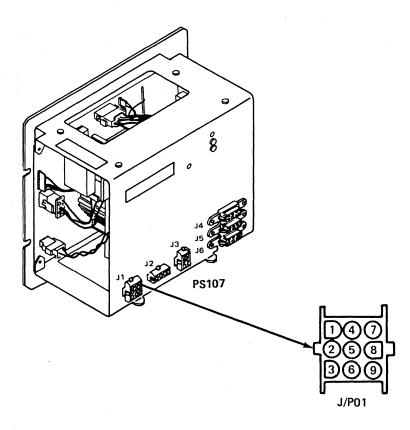
Possible causes:

- PS107
- 01A-A2E2 sense card
- 01A-A2C2 optoisolator card.

Step	Conditions	Instructions
1	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set CE Mode switch to CE Mode. 3. Press service panel Power On. 4. Measure for +5 Vdc at the following points: - lead at 01A-A2E2D08 + lead at 01A-A2E2G07.
2	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2E2 card. Set PCC CB1 and CB2 on. Go to page PR 5001.
3	Go to Instructions column.	Measure for +5 Vdc at the following points: - lead at 01A-A2C2D08 + lead at 01A-A2C2G10.
4	Is voltage less than +0.8 Vdc?	Go to step 12.
5	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Disconnect PS107 P01. Press service panel Power On. Measure for +5 Vdc at the following points: lead at 01A-A2C2D08 lead at 01A-A2C2G10.

Seq CA231	PN 0447366	EC A02214	
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J/P01-3(OV sns)A4E	B C2 A E2 310—610 J10—607



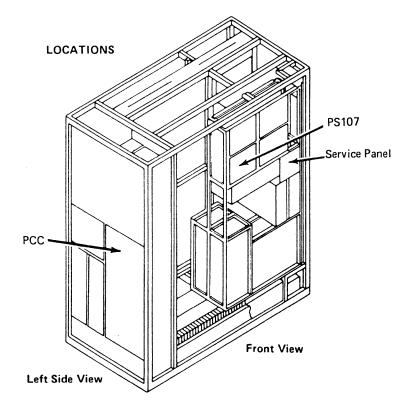
01A-A2

Step	Conditions	Instructions
14	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Swap 01A-A2D2 and 01A-A2E2 cards. 3. Press service panel Power On. 4. Measure for +5 Vdc at the following points: - lead at 01A-A2E2D08 + lead at 01A-A2E2G07.
15	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange card just swapped into the 01A-A2D2 position. Set PCC CB1 and CB2 on. Go to page PR 5001.
16	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2 board. Set PCC CB1 and CB2 on. Go to page PR 5001.

Seq CA232	PN 0447367
	Pg 1 of 1

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EC A02214				
15 SEP 83				

PR 1293



Ref Code 1131640E

This Ref Code indicates the PS107 BG sense line was above +0.8 Vdc before bias voltages were applied to PS107.

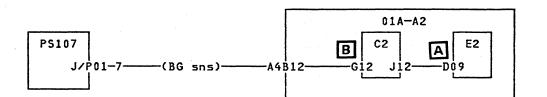
Possible causes:

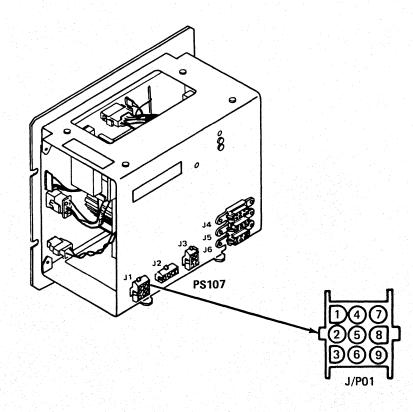
- PS107
- 01A-A2 board
- 01A-A2E2 sense card
- 01A-A2C2 optoisolator card.

Step	Conditions	Instructions
1	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set CE Mode switch to CE Mode. Press service panel power on. Measure for +5 Vdc at the following points:
		- lead at 01A-A2E2D08 + lead at 01A-A2E2D09.
2	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2E2 card. Set PCC CB1 and CB2 on. Go to PR 5001.
3	Go to Instructions column.	Measure for +5 Vdc at the following points: - lead at 01A-A2C2D08 + lead at 01A-A2C2G12.
4	Is voltage less than +0.8 Vdc?	Go to step 12.
5	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Disconnect PS107 P01. 3. Press service panel Power On. 4. Measure for +5 Vdc at the following points: - lead at 01A-A2C2D08 + lead at 01A-A2C2G12.

Seq CA235	PN 0445921
	Pg 1 of 3

EC A02214 15 SEP 83		





LOCATIONS		
PCC Left Side View	Front View	PS107 —Service Panel

		100	
	4.5		

Seq	CA235	PN 0445921
		Pg 3 of 3

Step

Conditions

Is voltage less than +0.8 Vdc?

Go to Instructions

column.

Instructions

 Set service panel Power Off switch to Power Off and then back to Normal.

3. Exchange card just swapped into the

1. Set service panel Power Off switch to

Power Off and then back to Normal.

2. Set PCC CB1 and CB2 off.

01A-A2D2 position.
4. Set PCC CB1 and CB2 on.

Set PCC CB1 and CB2 off.
 Exchange 01A-A2 board.
 Set PCC CB1 and CB2 on.

5. Go to PR 5001.

5. Go to PR 5001.

EC A02214		
15 SEP 83		

Ref Code 1131840E

This Ref Code indicates the PS108 OC sense line was above +0.8 Vdc before bias voltages were applied to PS108.

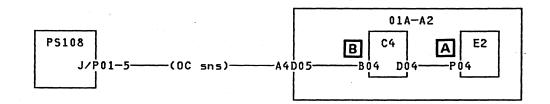
Possible causes:

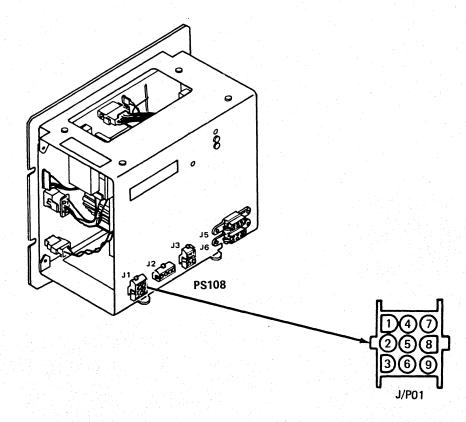
- PS108
- 01A-A2 board
- 01A-A2E2 sense card
- 01A-A2C4 optoisolator card.

Step	Conditions	Instructions
1	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set CE Mode switch to CE Mode. Press service panel Power On. Measure for +5 Vdc at the following points: lead at 01A-A2E2D08 lead at 01A-A2E2P04.
2	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2E2 card. Set PCC CB1 and CB2 on. Go to page PR 5001.
3	Go to Instructions column.	Measure for +5 Vdc at the following points: - lead at 01A-A2C4D08 + lead at 01A-A2C4B04.
4	Is voltage less than +0.8 Vdc?	Go to step 12.
5	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Disconnect PS108 P01. Press service panel Power On. Measure for +5 Vdc at the following points: lead at 01A-A2C4D08 lead at 01A-A2C4B04.

Seq CA240	PN 0445922
	Pg 1 of 3

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EC A02214 15 SEP 83			





PR 1311

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LOCATIONS	
PCC Left Side View	PS108 Service Panel Front View

Seq CA240 PN 0445922 Pg 3 of 3

Conditions

Vdc?

Is voltage less than +0.8

Go to Instructions

column.

15

Instructions

1. Set service panel Power Off switch to Power Off and then back to Normal.

Exchange card just swapped into the 01A-A2D2 position.
 Set PCC CB1 and CB2 on.
 Go to page PR 5001.

1. Set service panel Power Off switch to

Power Off and then back to Normal.

2. Set PCC CB1 and CB2 off.

3. Exchange 01A-A2 board.

4. Set PCC CB1 and CB2 on.

5. Go to page PR 5001.

2. Set PCC CB1 and CB2 off.

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15 SEP 83			

Ref Code 1131940E

This Ref Code indicates the PS108 OV sense line was above +0.8 Vdc before bias voltages were applied to PS108.

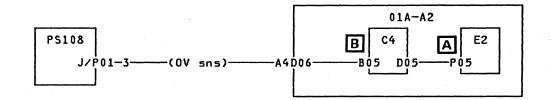
Possible causes:

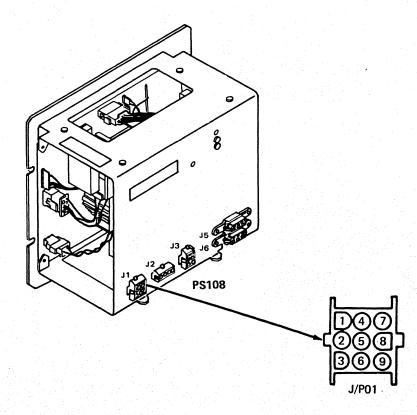
- PS108
- 01A-A2 board
- 01A-A2E2 sense card
- 01A-A2C4 optoisolator card.

Step	Conditions	Instructions
1	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set CE Mode switch to CE Mode. 3. Press service panel Power On. 4. Measure for +5 Vdc at the following points: - lead at 01A-A2E2D08 + lead at 01A-A2E2P05.
2	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2E2 card. Set PCC CB1 and CB2 on. Go to page PR 5001.
3	Go to Instructions column.	Measure for +5 Vdc at the following points: - lead at 01A-A2C4D08 + lead at 01A-A2C4B05.
4	Is voltage less than +0.8	Go to step 12.
5	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Disconnect PS108 P01. Press service panel Power On. Measure for +5 Vdc at the following points: lead at 01A-A2C4D08 lead at 01A-A2C4B05.

Seq CA245	PN 0445923
	Pg 1 of 2

EC A02214 15 SEP 83		

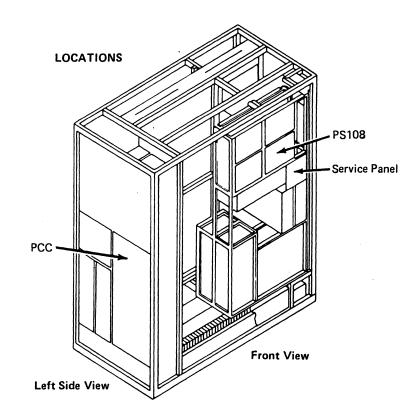




Step	Conditions	Instructions
15	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange card just swapped into the 01A-A2D2 position. Set PCC CB1 and CB2 on. Go to page PR 5001.
16	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2 board. Set PCC CB1 and CB2 on. Go to page PR 5001.

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Seq CA250	PN 0445924
	Pg 1 of 1

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15 SEP 83	1		



Ref Code 1132240E

This Ref Code indicates the PS108 BG sense line was above +0.8 Vdc before bias voltages were applied to PS108.

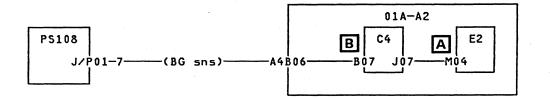
Possible causes:

- PS108
- 01A-A2 board
- 01A-A2E2 sense card
- 01A-A2C4 optoisolator card.

Step	Conditions	Instructions
1	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set CE Mode switch to CE Mode. Press service panel Power On. Measure for +5 Vdc at the following points: lead at 01A-A2E2D08 lead at 01A-A2E2M04.
2	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2E2 card. Set PCC CB1 and CB2 on. Go to page PR 5001.
3	Go to Instructions column.	Measure for +5 Vdc at the following points: - lead at 01A-A2C4D08 + lead at 01A-A2C4B07.
4	Is voltage less than +0.8 Vdc?	Go to step 12.
5	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Disconnect PS108 P01. 3. Press service panel Power On. 4. Measure for +5 Vdc at the following points: - lead at 01A-A2C4D08 + lead at 01A-A2C4B07.

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Seq CA255	PN 0445925
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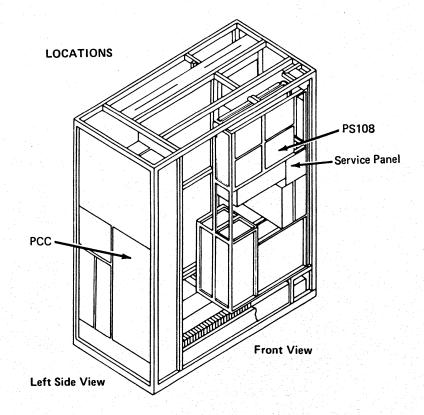
Step	Conditions	Instructions
10	Is voltage less than +0.8 Vdc?	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. 3. Exchange cable from 01A-A2A4 to PS108 P01. Note: Check board for bent pins and cable connector for pushed in pins and seating before exchanging cable. 4. Set PCC CB1 and CB2 on. 5. Go to page PR 5001.
11	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2 board. Set PCC CB1 and CB2 on. Go to page PR 5001.
12	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Swap 01A-A2C2 and 01A-A2C4 cards. Press service panel Power On. Measure for +5 Vdc at the following points: lead at 01A-A2E2D08 lead at 01A-A2E2M04.
13	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange card swapped into the 01A-A2C4 position. Set PCC CB1 and CB2 on. Go to page PR 5001.

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	Seq CA255	PN 0445925
		Pg 3 of 3

EC A02214 15 SEP 83			

PR 1333

Step	Conditions	Instructions
14	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Swap 01A-A2D2 and 01A-A2E2 cards. Press service panel Power On. Measure for +5 Vdc at the following points: lead at 01A-A2E2D08 + lead at 01A-A2E2M04.
15	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange card just swapped into the 01A-A2D2 position. Set PCC CB1 and CB2 on. Go to page PR 5001.
16	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2 board. Set PCC CB1 and CB2 on. Go to page PR 5001.



Ref Code 1132540E

This Ref Code indicates the PS105 OC sense line was above +0.8 Vdc before bias voltages were applied to PS105.

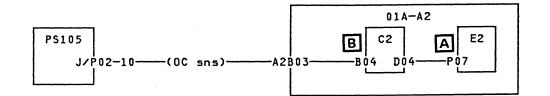
Possible causes:

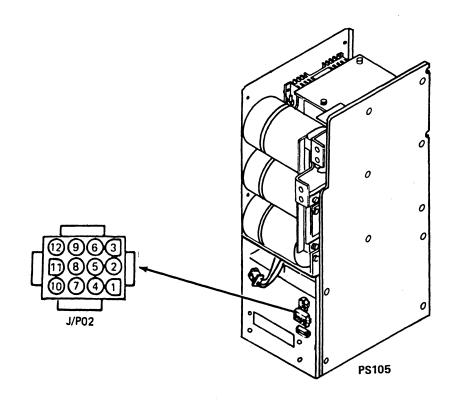
- PS105
- 01A-A2 board
- 01A-A2E2 sense card
- 01A-A2C2 optoisolator card.

Step	Conditions	Instructions
1	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set CE Mode switch to CE Mode. 3. Press service panel Power On. 4. Measure for +5 Vdc at the following points: - lead at 01A-A2E2D08 + lead at 01A-A2E2P07.
2	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set CB1 and CB2 off. Exchange 01A-A2E2 card. Set PCC CB1 and CB2 on. Go to page PR 5001.
3	Go to Instructions column.	Measure for +5 Vdc at the following points: - lead at 01A-A2C2D08 + lead at 01A-A2C2B04.
4	Is voltage less than +0.8 Vdc?	Go to step 12.
5	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Disconnect PS105 P02. 3. Press service panel Power On. 4. Measure for +5 Vdc at the following points: - lead at 01A-A2C2D08 + lead at 01A-A2C2B04.

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Seq CA260	PN 0445926
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15 SEP 83	29 FEB 84		





PR 1341

LOCATIONS	
PCC PS105	Front View
Left Side View	

	Seg CA265	PN 0445927
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Conditions

Vdc?

Is voltage less than +0.8

Go to Instructions

column.

Instructions

1. Set service panel Power Off switch to Power Off and then back to Normal.

1. Set service panel Power Off switch to

Power Off and then back to Normal.

Set PCC CB1 and CB2 off.
 Exchange card swapped into the

01A-A2D2 position.
4. Set PCC CB1 and CB2 on.
5. Go to page PR 5001.

2. Set PCC CB1 and CB2 off.

3. Exchange 01A-A2 board.
4. Set PCC CB1 and CB2 on.
5. Go to page PR 5001.

EC A02214		
15 SEP 83		

Ref Code 1132640E

This Ref Code indicates the PS105 OV sense line was above +0.8 Vdc before bias voltages were applied to PS105.

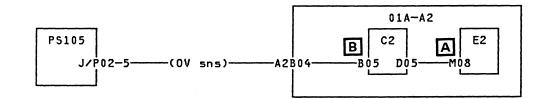
Possible causes:

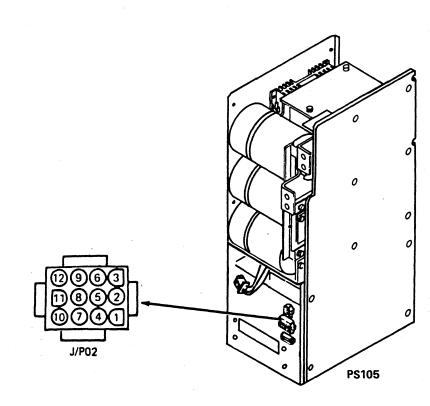
- PS105
- 01A-A2 board
- 01A-A2E2 sense card
- 01A-A2C2 optoisolator card.

Step	Conditions	Instructions
1	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set CE Mode switch to CE Mode. 3. Press service panel Power On. 4. Measure for +5 Vdc at the following points: - lead at 01A-A2E2D08 + lead at 01A-A2E2M08.
2	Is voltage less than +0.8 Vdc?	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. 3. Exchange 01A-A2E2 card. 4. Set PCC CB1 and CB2 on. 5. Go to page PR 5001.
3	Go to Instructions column.	Measure for +5 Vdc at the following points: - lead at 01A-A2C2D08 + lead at 01A-A2C2B05.
4	Is voltage less than +0.8 Vdc?	Go to step 12.
5	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Disconnect PS105 P02. 3. Press service panel Power On. 4. Measure for +5 Vdc at the following points: - lead at 01A-A2C2D08 + lead at 01A-A2C2B05.

Sea CA270	PN 0445928
	Pa 1 of 2

EC A02214	EC A02219	
15 SEP 83	29 FEB 84	





LOCATIONS	
PCC	Service Panel
PS105	Front View
Left Side View	

		Vdc?	1. 2. 3. 4. 5.	Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange card swapped into the 01A-A2D2 position. Set PCC CB1 and CB2 on. Go to page PR 5001.
	16	Go to Instructions column.	1. 2. 3. 4. 5.	Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2 board. Set PCC CB1 and CB2 on. Go to page PR 5001.
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Instructions

Conditions

Is voltage less than +0.8

Seq CA275 PN 0445929 Pg 1 of 1 EC A02214 15 SEP 83

Ref Code 1132840E

This Ref Code indicates the PS105 BG sense line was above +0.8 Vdc before bias voltages were applied to PS105.

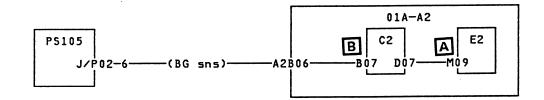
Possible causes:

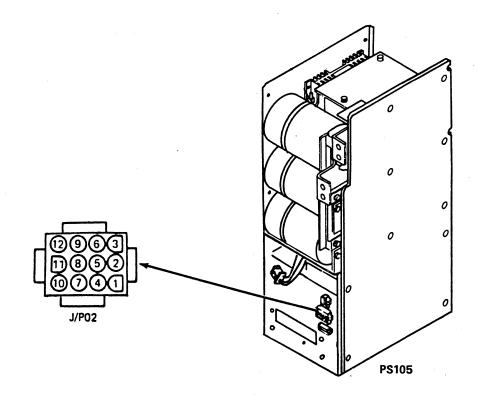
- PS105
- 01A-A2 board
- 01A-A2E2 sense card
- 01A-A2C2 optoisolator card.

Step	Conditions	Instructions
1	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set CE Mode switch to CE Mode. Press service panel Power On. Measure for +5 Vdc at the following points: lead at 01A-A2E2D08 lead at 01A-A2E2M09.
2	Is voltage less than +0.8 Vdc?	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. 3. Exchange 01A-A2E2 card. 4. Set PCC CB1 and CB2 on. 5. Go to page PR 5001.
3	Go to Instructions column.	Measure for +5 Vdc at the following points: - lead at 01A-A2C2D08 + lead at 01A-A2C2B07.
4	Is voltage less than +0.8 Vdc?	Go to step 12.
5	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Disconnect PS105 P02. 3. Press service panel Power On. 4. Measure for +5 Vdc at the following points: - lead at 01A-A2C2D08 + lead at 01A-A2C2B07.

1	PN 0445722 Pg 1 of 3
	Pg Of 3

EC A02214	EC A02219	4.	
15 SEP 83	29 FEB 84		





PR 1361

LOCATIONS	
PCC PS105	Service Panel Front View
Left Side View	

Step	Conditions	Instructions
15	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange card swapped into the 01A-A2D2 position. Set PCC CB1 and CB2 on. Go to page PR 5001.
16	Go to Instructions column:	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2 board. Set PCC CB1 and CB2 on. Go to page PR 5001.

Seq CA280 PN 0445722 Pg 3 of 3 EC A02214 EC A02219 15 SEP 83 29 FEB 84

Ref Code 1132940E

This Ref Code indicates that PS103 -2.2V OC sense line was above +0.8V before ac voltage was applied to PS103.

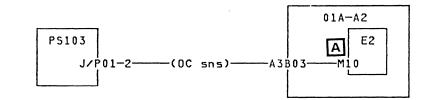
Possible causes:

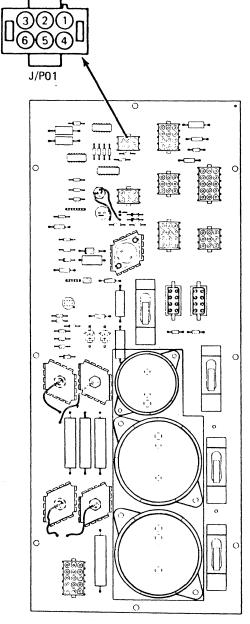
- 01A-A2E2 sense card
- PS103
- 01A-A2 board.

Step	Conditions	Instructions
1	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set CE Mode switch to CE Mode. 3. Press service panel Power On. 4. Measure for +4 Vdc at the following points: - lead at 01A-A2E2D08 + lead at 01A-A2E2M10.
2	Is voltage +0.8 Vdc or less.	 Set service panel Power Off switch to Power Off and then back to Normal. Exchange 01A-A2E2 card. Go to page PR 5001.
3	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set PCC CB1 and CB2 off. 3. Disconnect PS103 J/P01. 4. Set PCC CB1 and CB2 on. 5. Press service panel Power On. 6. Measure for +4 Vdc at the following points: - lead at 01A-A2E2D08 + lead at 01A-A2E2M10.

1 '	PN 0445783
	Pg 1 of 2

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-	EC A02214		
	15 SEP 83		





PS103

PR 1371

Ref Code 1133140E

This Ref Code indicates that PS103 -2.2V OV sense line was above +0.8V before ac voltage was applied to PS103.

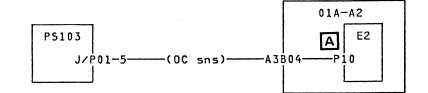
Possible causes:

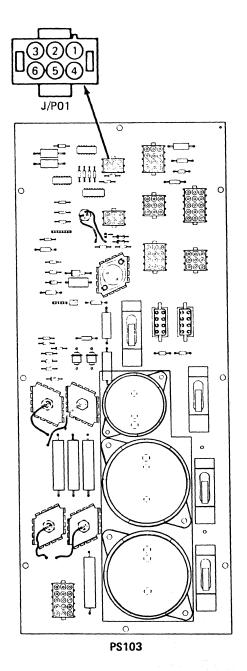
- 01A-A2E2 sense card
- PS103
- 01A-A2 board.

Step	Conditions	Instructions
1	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set CE Mode switch to CE Mode. Press service panel Power On. Measure for +5 Vdc at the following points: lead at 01A-A2E2D08 lead at 01A-A2E2P10.
2	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Exchange 01A-A2E2 card. Go to page PR 5001.
3	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Disconnect PS103 J/P01. Set PCC CB1 and CB2 on. Press service panel Power On. Measure for +5 Vdc at the following points: lead at 01A-A2E2D08 lead at 01A-A2E2P10.

Sea CA290	PN 0445784
	Pg 1 of 2
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	EC A02214			
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PR 1381

Ref Code 1133440E

This Ref Code indicates the PS106 OC sense line was above +0.8 Vdc before bias voltages were applied to PS106.

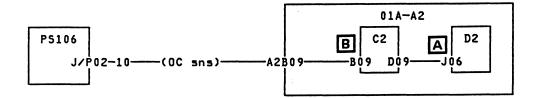
Possible causes:

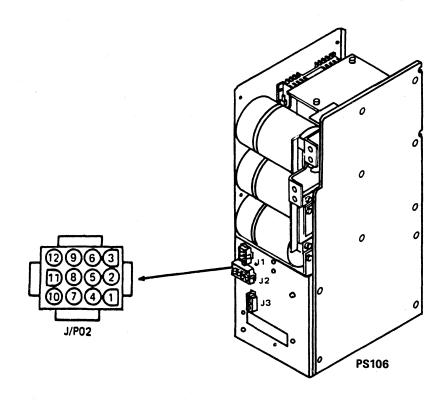
- PS106
- 01A-A2 board
- 01A-A2D2 sense card
- 01A-A2C2 optoisolator card.

Step	Conditions	Instructions
1	Go to Instructions column.	1. Set service panel Power Off switch to Power Off and then back to Normal. 2. Set CE Mode switch to CE Mode. 3. Press service panel Power On. 4. Measure for +5 Vdc at the following points: - lead at 01A-A2D2D08 + lead at 01A-A2D2J06.
2	Is voltage less than +0.8 Vdc?	 Set service panel Power Off switch to Power Off and then back to Normal. Set PCC CB1 and CB2 off. Exchange 01A-A2D2 card. Set PCC CB1 and CB2 on. Go to page PR 5001.
3	Go to Instructions column.	Measure for +5 Vdc at the following points: - lead at 01A-A2C2D08 + lead at 01A-A2C2B09.
4	Is voltage less than +0.8 Vdc?	Go to step 12.
5	Go to Instructions column.	 Set service panel Power Off switch to Power Off and then back to Normal. Disconnect PS106 P02. Press service panel Power On. Measure for +5 Vdc at the following points: lead at 01A-A2C2D08 lead at 01A-A2C2B09.

Seq CA295	PN 0445785
	Pg 1 of 2

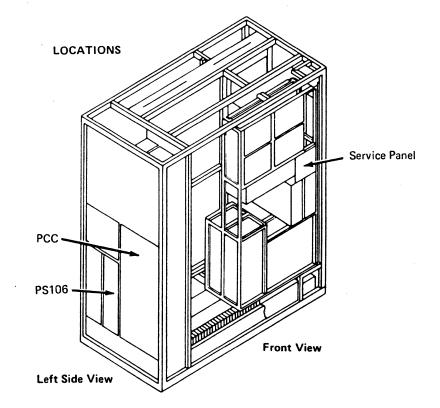
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PR 1391

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Seq CA300	PN 0445786
	Pg 1 of 1

Step

15

Conditions

Vdc?

column.

Is voltage less than +0.8

Go to Instructions

Instructions

1. Set service panel Power Off switch to Power Off and then back to Normal.

1. Set service panel Power Off switch to

Power Off and then back to Normal.

2. Set PCC CB1 and CB2 off.

2. Set PCC CB1 and CB2 off.

Exchange 01A-A2 board.
 Set PCC CB1 and CB2 on.
 Go to page PR 5001.

5. Go to page PR 5001.

3. Exchange card swapped into the 01A-A2E2 position.
4. Set PCC CB1 and CB2 on.

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