3070-74-S

S E R V I C E N O T E

Supersedes:
[NONE]

Agilent 3070 Series 3 Board Test Systems

Serial Numbers: SG01040331, SG01040346 - SG1040383, SG01040385, SG01040386, SG01040388, SG01040390 - SG1040425, SG43210102, SG43230100 - SG43230121, SG43240100, SG43240101, SG43240103 - SG43240112, SG43250101 - SG43250129, SG43300100, SG43310100, SG43330100 - SG43330102, SG43360100 - SG43360105, SG43440100 - SG43440115 , SG43440118 - SG43440129, SG43450100 - SG43450122, SG43450124 - SG43450130, SG43460100 - SG43460117, SG43460122, SG43470100 - SG4340116, SG43480100 - SG43480109

POSSIBLE ELECTRICAL SHOCK HAZARD

WARNING

The Current 3070 Power Outlet's line, neutral, and ground wires were only connected by solder, without any type of mechanical connection causing a potential electrical safety hazard.

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION: **PRIORITY SAFETY**			
ACTION CATEGORY:	IMMEDIATELY	STANDARDS: LABOR: 4.0 Hours	
LOCATION CATEGORY:	ON-SITE	SERVICE INVENTORY: SEE TEXT	USED PARTS: SEE TEXT
AVAILABILITY:	ALWAYS	AGILENT RESPONSIBLE UNTIL: ALWAYS	
AUTHOR: Richard Devore	PRODUCT LINE: 80		
ADDITIONAL INFORMATION: E9900-68175 and E9900-68176 are orderable through SPD (Service Parts Delivery) at 1-800-816-8650.			
Reference the service note number in the activity description field of the SR.			

Agilent Technologies

January 21, 2005

To Be Performed By: Agilent-Qualified Personnel Only

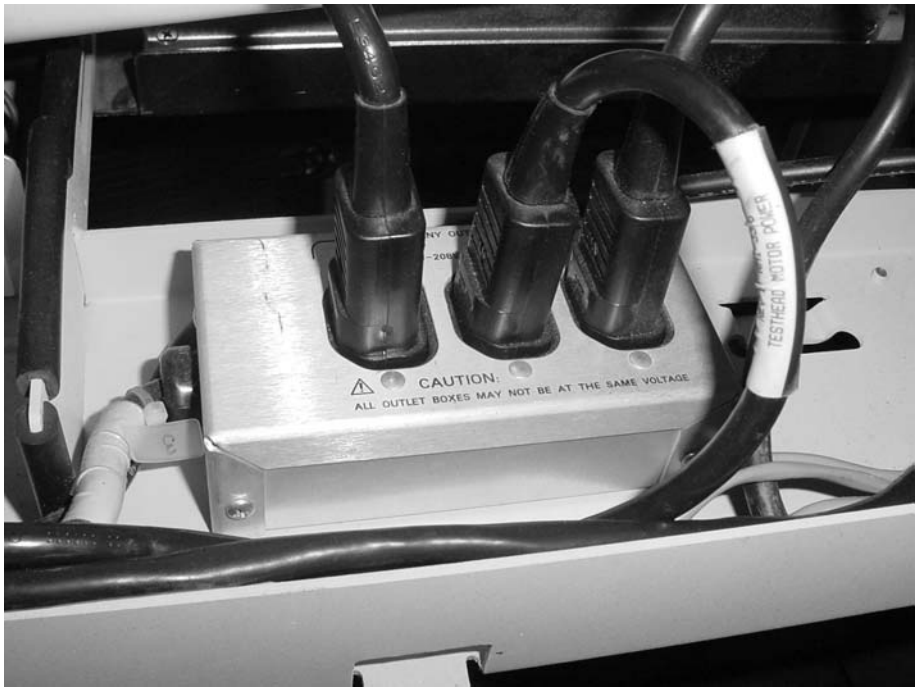
Parts Required:

P/N	Description	Qty.
E9900-68175	Upgrade Kit for 327x	1 per system
includes:		
E9900-61625	Outlet Assembly Kit for 327X	1 per kit
1400-0482	Tie wraps	15 per kit
0515-1922	Torx Screws	6 per kit
1400-1513	Flag Cable tie label	6 per kit
0890-1937	460 mm braided cable sleeve	1 per kit
N7200-84366	Service Note Label	1 per kit
E9900-68176	Upgrade Kit for 307x and 317x	1 per system
includes:		
E9900-81600	Outlet Assembly Kit for 307X and 317X	1 per kit
1400-0482	Tie wraps	20 per kit
0515-1922	Torx Screws	8 per kit
1400-1513	Cable tie label	8 per kit
0890-1937	460 mm braided cable sleeve	1 per kit
N7200-84366	Service Note Label	1 per kit

Situation:
Agilent has identified a potential electrical safety hazard for a limited number of Agilent 3070 test systems related to the power outlet boxes used in the systems. In some 3070 Power outlet boxes, part numbers 03066-61641 and E4000-81603, the line, neutral, and ground wires are only connected by solder, without any type of mechanical connection causing a potential electrical safety hazard. Only outlet boxes with Agilent part numbers 03066-61641 and E4000-81603 manufactured by Carmel from Dec, 2002 to Aug 2004 have this problem. All outlet boxes manufactured by Logan with Agilent part numbers 03066-61635, 03066-61641, E4000-81601, E4000-81603, E4000-81623, and E4000-81610 are assembled to Agilent's specifications and are not affected by this safety alert. The outlet boxes with four sockets, Agilent Part Number E4000-61623, used in the support bay on some Series II and all Series 3 systems were all manufactured by Logan and are not affected by this safety alert.

Note: As of September 1, 2004, no outlet box failures have been reported due to this defect.

The picture below shows one outlet box with three power cords installed. There is one outlet box for each module in a 3070. One power connector is for the 3070 module power unit. A second power connector is for the module blower. The third power connector is for the test head rotating motor, one per system.



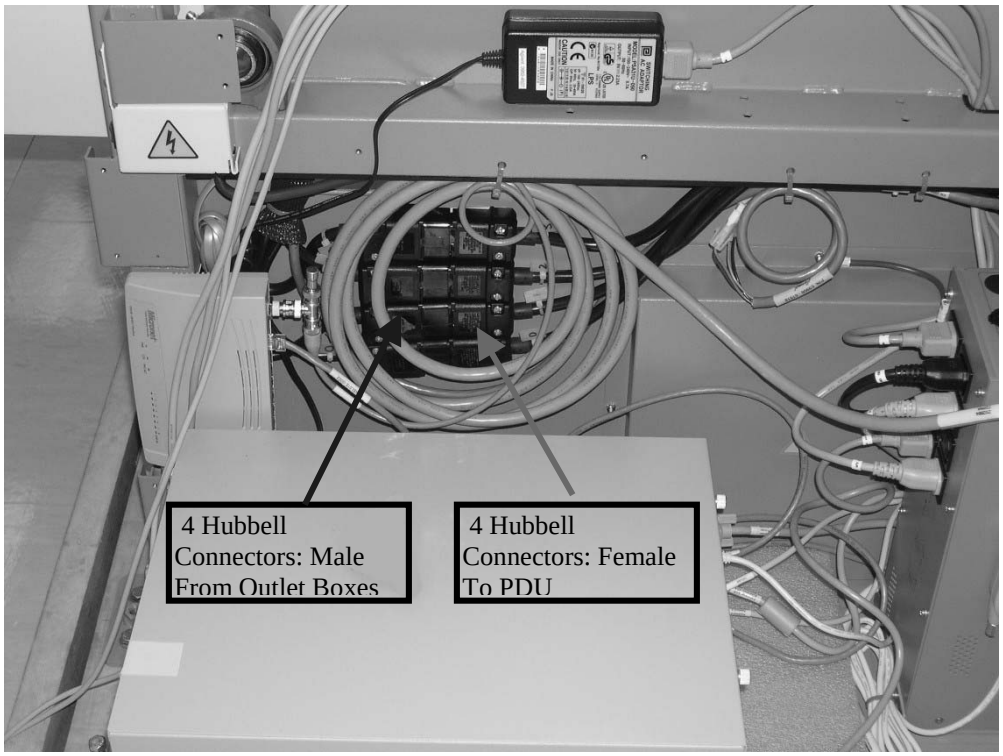
Solution/Action:

1. Shutdown the 3070 using the standard operating procedures.
2. Lock Out / Tag Out the 3070 by locking the mains disconnect device in the "off" position" before proceeding with this procedure.
3. Remove appropriate panels to gain access to the outlet boxes

WARNING: Before proceeding with any service, make sure the PDU has been shut off and the 3070 main power disconnected.

4. The solution involves replacing suspect power outlet boxes with new assemblies. The outlet box assembly consists of an outlet box with 3 receptacles, a 3 conductor power cord and an IEC320 Plug (Hubbell H320P). A service note compliance sticker will be attached to the system upon completion of the replacement and testing of the outlet box. The outlet box is attached to the 3070 frame via two Torx T20 type screws (0515-1922). The two Torx screws (0515-1922) will be reused on the new outlet box assembly. The Hubbell connector mates with a plug (see picture below) connected to the PDU E1135C.

Picture of Hubbell connectors



5. Disconnect the 2 or 3 power cords from the outlet box receptacles.

6. Remove the outlet box, appropriate tie wraps and disconnect the Hubbell connector to completely disengage the assembly. Pay very close attention to the power cord routing and dressing during disassembly to facilitate the replacement installation.

7. Repeat for each module.

8. The removed outlet boxes should be discarded in a manner that prevents potential reuse.

9. Attach a flag cable tie label (1400-1513) to each end of the outlet box cable. The longest cable should be labeled “2” (For Module 2). The shortest cable should be labeled “1” (For Module 1) and the two medium length cables should be labeled “0” and “3” (For Modules 0 and 3). Mark each box indicating correct AC voltage at outlets.

10. Connect the replacement outlet box (03066-61641 or E4000-81603) to the 3070 test head frame utilizing two Torx T20 screws (0515-1922).

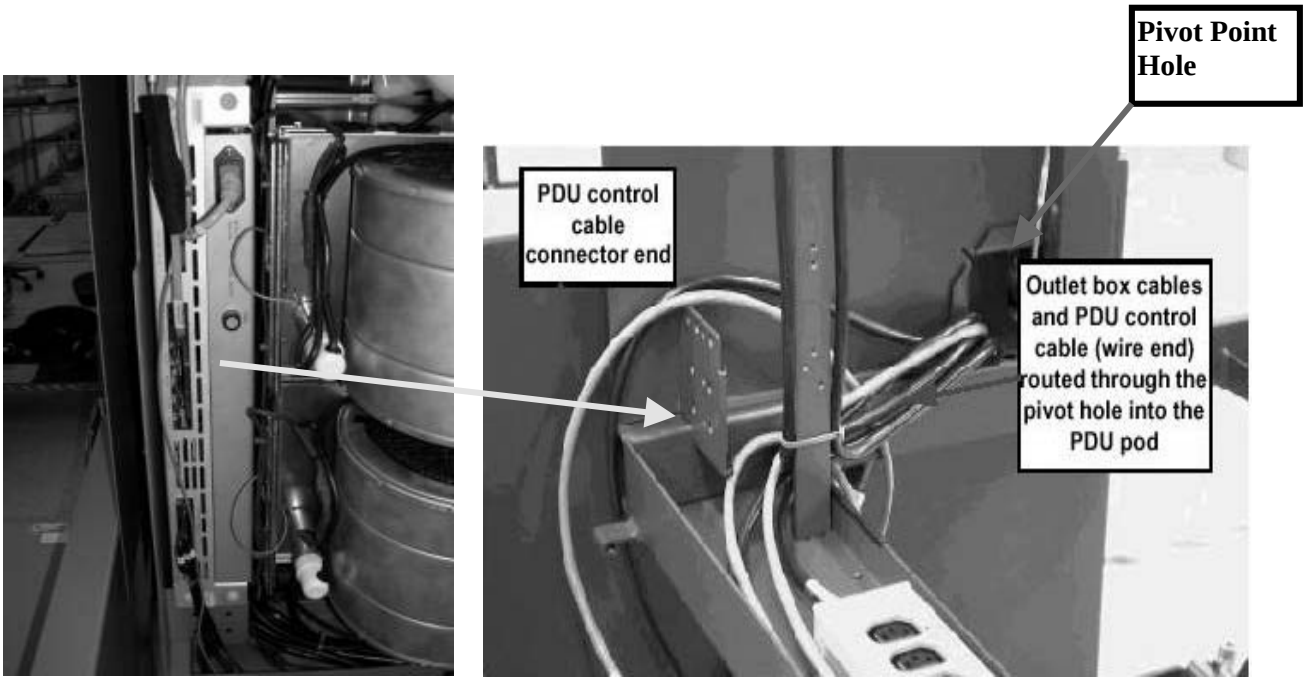
NOTE: The routing of cables requires the removal of the System Card (03066-66581) to gain access to pivot point holes between the testhead and the controller pod.

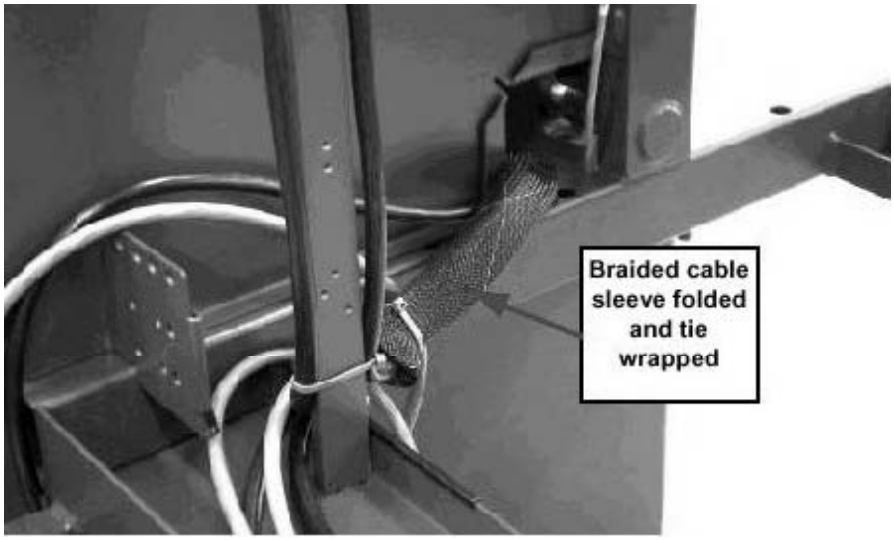
NOTE: For 307X and 317X systems, remove the module mother card and MPU to access to the back of the System Card and the pivot hole.

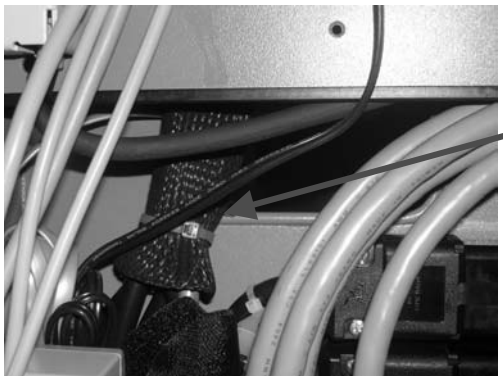
NOTE: Remember to remove the module cables and the ground lugs located at the back of the System Card.

11. Route the 4 outlet box cables (3 cables for a 327X system) and the connector end from the PDU control cable through the testhead pivot point hole into the 3070 side pod.

12. Slide a 460mm braided cable sleeve (Agilent PN 0890-1937) over the five cables from the pod side of the testhead.







13. Pull the tie wraps snuggly around the cable sleeve at both ends.

14. Replace all the tie wraps that were cut previously

15. Verify the ground terminal connection on the outlet box is less than 0.5 ohms when measured to an ESD grounding point.

16. Reinstall system card

17. Reinstall module mother board

Caution: Do not connect the MPU, Fan or Test Head Rotation Motor until verification of AC Voltage at outlet boxes.

18. Reapply power to the PDU. Measure the line to neutral voltage at each receptacle. The measured voltage should be:
    1. **90V to 110V for a 100V system**
    2. **99V to 132V for a 110-120V system**
    3. **180V to 228V for a 200-208V system**
    4. **198V to 264V for a 220-240V system**

19. Remove power from the PDU before reconnecting the MPU, module blower, and testhead rotation power cords.

20. Reapply power to the PDU. Boot the system and run autoadjust and diagnostics. All tests should pass before installation is considered complete.

21. Reinstall the panels removed earlier.

22. Upon completion fill out and install the Service Note label (Part Number N7200-84366) to the 3070 system cradle and send an email with the 3070 Serial number to: **MTBUSERVICENOTES@agilent.com**