

Special Test Request Form

STR Number 40

Part 1 – Test Definition Section

Test Requestor: Rich Bielawski

Test Purpose and Justification:

Functional test of the SIU, Heater Control Box and cabling as a system before the X-LAT plate is installed.

We have not tested the SIU, HCB's and interconnecting cables together as a system. Since the interconnect is partially inside the EMI skirt, issues can be addressed more easily if this test is run before the X-LAT plate is installed. Note that the VCHP load box will be used since the radiators are not installed.

Test Description:

Run test procedure LAT-TD-08110 para 7.3.8 Test Heater On/Off Control.

GSE Configuration:

Standard setup using the VCHP load box and test cable interconnect between the loadbox and the HCB's.

LAT Configuration:

Test #1

SIU prime, VCHP prime

SIU prime, VCHP red

Test #2

SIU red, VCHP prime

SIU red, VCHP red

The GASU and PDU also need to be powered but we don't care which unit is on for either test.

Since the VCHP feeds are selected by a switch on the BPU, any LAT configuration that powers the primary SIU is OK. Similarly, any LAT configuration that powers the redundant SIU is OK for that part of the test. This amounts to a total of two LAT configurations.

Expected Results/Acceptance Criteria:

SIU control of the correct VCHP loadbox LED.

Expected Duration:

4 hrs

Expected Analysis Duration:

No analysis required.

Test Procedure:

- 1. Verify LAT is off.
- 2. Perform safe-to-mate of load box per attached blackline of LAT-PS-07575, para 5.26.1, 5.27.1, 5.28.1 and 5.29.1 only.
- 3. Mate the VCHP load boxes to the HCB's.
- 4. Power on LAT with any configuration that powers the primary SIU.
- 5. On the BPU front panel, enable VCHP primary.
- 6. Perform the step in LAT-TD-08110, 7.3.8.



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- 7. On the BPU front panel, disable VCHP primary.
- 8. On the BPU front panel, enable VCHP redundant.
- 9. Perform the step in LAT-TD-08110, 7.3.8 Test Heater On/Off Control.
- 10. On the BPU front panel, disable VCHP redundant.
- 11. Reconfigure LAT in any configuration that powers the redundant SIU.
- 12. Repeat steps 5-10.

Test Script:

Per LAT-TD-08110, 7.3.8 Test Heater On/Off Control



Part 2 – Impact Assessment Section			
Procedure development: NONE			
Script development and checkout:			
V&V: 1hr			
Impact to schedule:			
4 Hours			
Risk Assessment:			
Required Resources:			
Other Affected Parties:			
ELX support during test and for data review.			
Part 3: Signature Approval:			
Required Authorizations	Printed Name	Signature	Date
Quality	Joe Cullinan	(Signature on file)	4/21/06
I&T	Ken Fouts	(Signature on file)	4/21/06
Program Office	Dick Horn	(Signature on file)	4/20/06
Systems Engineering	Pat Hascall	(Signature on file)	4/21/06
Affected S/S managers	Gunther Haller	(Signature on file)	4/20/06
Instrument Scientist	Steve Ritz	(Signature on file)	4/20/06
IFCT	Larry Wai	(Signature on file)	4/20/06
Comish	Eric Grove	(Signature on file)	4/21/06
ELX	Jana Thayer	(Signature on file)	4/20/06
Other			