

STEREO IMPACT

PROBLEM REPORT

PR-3017
Reichenthal
7/27/05

PR Numbers: 1xxx=UCB, 2xxx=Caltech/JPL, 3xxx=UMd, 4xxx=GSFC/SEP, 5xxx=GSFC/Mag,
6xxx=CESR, 7xxx=Keil, 8xxx=ESTEC, 9xxx=MPAe

Assembly : SIT Instrument	SubAssembly : HVPS
Component/Part Number:	Serial Number: FM1/FM2
Originator: Reichenthal	Organization: UMd
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Failure Occurred During (Check one)

- Functional test Qualification test S/C Integration Launch operations

Environment when failure occurred:

- Ambient Vibration Shock Acoustic
 Thermal Vacuum Thermal-Vacuum EMI/EMC

Problem Description

The 9 pin MDM connector on the SIT HVPS is not seated fully. There is approximately a 0.050 gap from a full connector engagement. This is due to the fact that the length of the jack post head protrudes past the connector shell. This problem is seen on both flight units. The jack post cannot easily be replaced because the hardware is terminated with nuts inside of the HVPS box. It would be a major effort to disassemble the SIT unit to disassemble the HVPS box.

Analyses Performed to Determine Cause

Calculations of the worst case pin engagement due to the 0.062 gap is (0.012) worst case and (0.065) best case. In addition, without full connector engagement, the connector becomes more susceptible to humidity. This is not acceptable for flight.

Corrective Action/ Resolution

- Rework Repair Use As Is Scrap

The flange of the MDM connector of the mating harness was modified to allow for the jack post head to not protrude past the connector shell. Removed the clip (0.015") and milled the flange (0.025"). (Prior to milling the flange was 0.090"). The mounting hardware along with the area that was modified on the connector was covered with Uralane 5753. See attached pictures. The connectors on both flight units are now fully engaged.

Date Action Taken: 7/29/2005 **Retest Results:** n/a

Corrective Action Required/Performed on other Units Serial Number(s): the corrective action was performed on both FM1 and FM2.

Closure Approvals

Subsystem Lead: _____ Date: _____
IMPACT Project Manager: _____ Date: _____
IMPACT QA: _____ Date: _____
NASA IMPACT Instrument Manager: _____ Date: _____

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