

PFR-080 Title: F2 Fails to Deploy in Cold Vacuum Test

Assembly : THM-FGM-MEC-000	SubAssembly :	
Component : Full Boom Assembly	Units Affected:	Units fixed:
Originator: Alec Plauche	<input type="checkbox"/> - <input checked="" type="checkbox"/> X <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/>	<input type="checkbox"/> - <input checked="" type="checkbox"/> X <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/>
Organization: SSL	Date: 6/22/05	
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Failure Occurred During (Check one √)

☐ Functional test ☒ Qualification test ☐ S/C Integration ☐ Launch operations ☐ Other (Flight Assy)

Environment when failure occurred:

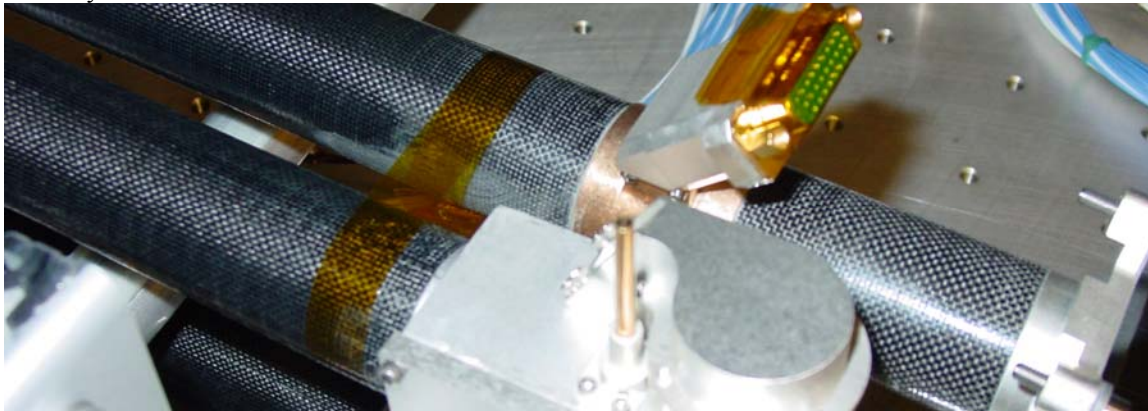
☐ Ambient ☐ Vibration ☐ Shock ☐ Acoustic
☐ Thermal ☐ Vacuum ☒ Thermal-Vacuum ☐ EMI/EMC

Problem Description

During the cold deployment of the F1 and F2 Mag. Booms, the F2 FGB did not deploy with in the 8minute time limit as shown by the video camera. The actuator was allowed to cool, then a second attempt to fire with 28V for another 4min also failed to deploy the booms.

Analyses Performed to Determine Cause

Upon opening the chamber, F2 FGB was tapped shut with kapton tape. The Frangibolt had snapped. To test functionality the tape was cut and the boom deployed normally.



Corrective Action/ Resolution

Procedure updated to check for tape and other obstructions. Another Cold Deploy to follow. Retest was successful: F2 Booms passed Cold Deploy.

Acceptance:

MAM: Ron Jackson _____ ; MSE: Ellen Taylor _____

PM: Peter Harvey _____ ; Cognizant Engineer _____

Date of Closure _____