STANFORD UNIVERSITY
W.W. HANSEN EXPERIMENTAL PHYSICS LABORATORY
GRAVITY PROBE B, RELATIVITY GYROSCOPE EXPERIMENT
STANFORD, CALIFORNIA 94305-4085

ASSEMBLY OF CONNECTORS AND BRACKETS TO GMA FLIGHT SOLENOID VALVES

GP-B SCIENCE MISSION PROCEDURE

14 September 1999

PREPARED _____ _____
D. Welsh, Test Engineer Date

APPROVED _____ _____
D. Bardas, Integration Manager Date

APPROVED _____ _____
D. Ross, Quality Assurance Date

APPROVED _____ _____
S. Buchman, Hardware Manager Date

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1 SCOPE

This document upgrades the GMA pallet solenoid valves to add a connector and bracket to the valve assembly.

1.1 Acronyms

The following acronyms may be used in this document

- QA Quality Assurance

2. REFERENCES

2.1 Plans and Procedures

N/A

2.2 Drawings

See section 4.1

2.3 Specification

LAC 3200

3 GENERAL REQUIREMENTS

ONR representative and QA to be notified prior to beginning this procedure

3.1 Environmental Requirements

3.1.1 Cleanliness

All assembly shall take place on a class 1000 clean bench

3.1.2 Magnetic Contamination

N/A

3.1.3 Electrostatic Discharge Control

N/A

3.2 Personnel

3.2.1 Technician

The technician shall be Dan Welsh or an alternate that he shall designate. The technician has overall responsibility for the implementation of this procedure and shall sign off the completed procedure and relevant sections within it.

3.3 Safety

N/A

3.4 Quality Assurance

This assembly will be conducted on a formal basis to approved and released procedures. The QA program office shall be notified of the start of this procedure. A Quality Assurance Representative, designated by D. Ross shall be present during the procedure and shall review any discrepancies noted and approve their disposition. Upon completion of this procedure, the QA Program Engineer, D. Ross or her designate, will certify her concurrence that the effort was performed and accomplished in accordance with the prescribed instructions by signing and dating in the designated place(s) in this document. Discrepancies will be recorded in a D-log or as a DR per Quality Plan P0108.

3.5 Red-line Authority

Authority to red-line (make minor changes during execution) this procedure is given solely to the technician or his designate and shall be approved by the QA Representative.

4 REQUIRED EQUIPMENT

4.1 Tools and Materials

The following tools and Materials will be available:

Qty	Tools and Materials Required:	Part/Drawing #	Rev.
1	Drawing	26211	N/C
34	9 pin connector 311P049-1P-B12	207252-2	
220	contact pin	205089-1	
34	connector bracket (NFI)	26203-101	N/C
34	solenoid valve actuator	3269702-1	
68	Jack post	D110551	

5 ASSEMBLY OF CONNECTOR AND BRACKET TO SOLENOID VALVE

5.1 Cut Harness

Cut wire harness to 7 inches from valve body and remove shielding 3 inches from the end. Terminate shield using heat shrinkable sleeving of typeAMS3593 or equivalent.

5.2 Crimp Pins

Crimp pins to wires per LAC 3200

5.3 Inspect Crimps

Inspection to inspect crimps per Lac 3200 (see table below)

5.4 QA Verification

QA to verify (see table below)

5.5 Final Assembly

Assemble by removing fasteners and installing temporary bracket 26203-102. Mark bracket as NFI prior to assembly. RE-install fasteners. Install connector into bracket and fasten into place using jack posts. Tighten bolts to a snug fit.

5.6 QA Final Inspection

Q.A. INSPECT ASSEMBLY COMPLETE (see table below)

Solenoid Assembly Inspection Record

S/N	Crimp Inspection	QA Crimp Inspection verify	QA Inspection of Complete Assembly

6 PROCEDURE COMPLETION

The results obtained in the performance of this procedure are acceptable:

Technician _____ Date _____

Discrepancies if any:

The information obtained under this assembly and test procedure is as represented and the documentation is complete and correct:

ITD _____ Date _____

Test procedure is as represented and the documentation is complete and correct:

QA Representative _____ Date _____

QA Program Engineer_____ Date _____

Copy discrepancies to D-Log and open Discrepancy Reports when required.

Hardware Manager _____ Date _____

7 DATA BASE ENTRY

The following data shall be entered into the GP-B Data Base:

a) Name, number and revision of this procedure

b) An electronic copy of this document

c) A copy of the “as-built” procedure with data and pictures, when completed.