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Gravity Probe B Relativity Mission

## **PROGRAMMING PROCEDURE FOR THE GSS ARBITER CARD (8A01885) PROM DEVICE**

### **GP-B Procedure P0697 Rev – May 24, 2001**

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Prepared by: William J. Bencze  
Arbiter card RE.

Date

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Approved by: William J. Bencze  
RE, Gyroscope Suspension System (GSS) Group

Date

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Approved by: Dorrene Ross  
GP-B Quality Assurance

Date

**1.0 Revision History**

Rev Level	Comments/notes	Date	Revised By
-	First release of this procedure	16 May 2001	WJB

**2.0 General Description**

This procedure describes how to program the flight PALs for the GSS Arbiter Card (PWA 8A01885)

**3.0 Applicable Documents**

<u>Document number</u>	<u>Rev</u>	<u>Title</u>
26222	-	GSS Arbiter PROM Drawing

**4.0 Quality Assurance Notification:**

- 4.1. Gravity Probe B QA (Dorrene Ross) and Government Representative (Ed Ingraham) must be notified at least 24 hours prior to the start of this programming operation. This may take the form of direct contact, e-mail or voice-mail.

GP-B QA NOTIFICATION:

INITIALED: \_\_\_\_\_

DATE: \_\_\_\_\_

TIME: \_\_\_\_\_

ONR NOTIFICATION:

INITIALED: \_\_\_\_\_

DATE: \_\_\_\_\_

TIME: \_\_\_\_\_

**5.0 Parts Acquisition:**

- 5.1. Check out parts from GP-B stores.

QTY	PART NUMBER	PART NAME	P.O. NUMBER	LOT DATE CODE	LOG OUT
5 EA					

## 6.0 Programming:

### ***Program parts at a certified anti-static workstation.***

The programming file is named ARB72.HEX. Use the file on the CD-ROM released with the drawing for this device. Copy file onto a blank floppy disk for use in the programmer below.

**Record revision level of file: 26222-501 Rev:** \_\_\_\_\_

GP-B QA INSPECTION: \_\_\_\_\_

DATE: \_\_\_\_\_

- 6.1. Connect the Data I/O Model 3900 programmer to a Windows-based PC, and ensure that DataI/O's TaskLink application is installed according to the instructions in the 3900 User Guide.

Programmer SN: \_\_\_\_\_ Calibration Due: \_\_\_\_\_

- 6.2. Launch the TaskLink application on the Windows PC. Enter the HiTerm interface by using TaskLink's Utilities [Alt-U] Programming Interface [I].
- 6.3. Select device [S] type as **HITACHI 58C256**
- 6.4. Using More Commands | Transfer data | Format Select menu, set format to "**Intel Intellec 8/MDS**" (Format 83)
- 6.5. Using More Commands | Transfer data | Input from Disk, load file **ARB72.HEX** from floppy disk drive.
- 6.6. When the data is loaded into the programmer's memory, the it will report:  
**Data Sum: 00372F80 (8 Bit)**  
 If the checksum does not match, stop the procedure, and alert responsible individuals.
- 6.7. Set options for programming the device via the Program device [P] window. (The Program device command is located on the main programmer window. Press the F2 key until the main programmer window is visible.)

**Source (RAM) R**

- 6.8. Open the ZIF latch handle. Insert the flight part into the ZIF socket with pins 14 and 15 in the receptacles furthest from the ZIF latch handle. Close the ZIF latch handle to secure physical and electrical connection.
- 6.9. Program the device [Enter]. Verify programmed device checksum in programmer dialog window = 00372F80. If the checksum is not correct, or if the programmer reports any other fault, reject the device, and retry this step with a new part. If that part also fails, stop the procedure, and alert responsible individuals.
- 6.10. Open the ZIF latch handle. Remove the device.
- 6.11. Label and package the device per Dwg 26222, note 4
- 6.12. Repeat steps 6.8 through 6.11 with the second through fifth devices.
- 6.13. Close the ZIF latch handle. Turn off the programmer. Exit TaskLink. Shut down the computer.
- 6.14. Return parts to flight stores.

GSS RE INSPECTION: \_\_\_\_\_

DATE: \_\_\_\_\_

GP-B QA INSPECTION: \_\_\_\_\_

DATE: \_\_\_\_\_

**7.0 Parts Storage:**

- 7.1. Return the programmed devices to GP-B flight stores.

**8.0 Closure of Procedure:**

- 8.1. GP-B QA to verify procedure is complete.

GP-B QA: \_\_\_\_\_

DATE: \_\_\_\_\_