

Turning On the ECU Hardware

GRAVITY PROBE B PROCEDURE

P Doc Number: P0335

Operation Number: _____

TURNING ON THE ENGINEERING UNIT ECU DURING GTU-2 TESTING

1/24/10

Approvals:

Program Responsibility	Signature	Date
Dave Meriwether Satellite Operations and Testing		
M. Taber GTU Test Director		
J. Kasdin GP-B System Engineering		
B. Taller GP-B Quality Assurance		
J. Turneure GP-B Hardware Manager		

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Revision Record:

Rev	Rev Date	ECO #	Summary Description

Hardware/Software Required

Commercial test equipment

Manufacturer	Model	Serial Number	Calibr. Exp. Date

Special test equipment

Description	Part No.	Rev. no.	Serial No.

Currency:

- **Originator, date created:** John Thatcher, 9/2/97
- **Review interval:** 1 year
- **Reviewed by, date reviewed:**
- **Revised by, date time revised:** 1/24/10 1:22 PM

Description:

This procedure documents the initial turn on the ECU and flight software during GTU-2.

Level of QA required during performance of this procedure:

___QA Rep.

Procedures Referenced:

ECU Hardware Open Loop, DC 0.1 mW Tickle tests

Notes:

A second person should be observing the performance of this procedure to independently verify the cable connection

Authority:

- Only Bob Ajitomi, John Thatcher and Dave Meriwether have full authority to run

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Settings\kstahl.PLID98\Desktop\Bob_Kahn\DOC_FILES\LATEST_VERSION_ONLY\P0335.doc

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these procedures. Uncertified personnel do not have the authority to run this procedure.

- Authority to red-line this document (make minor changes during execution of this procedure): *J. Thatcher, D. Meriwether*
- Mike Tabor or Dave Murray are authorized to act as QA Rep.

Warnings:

- Failure to properly carry out a procedure may result in Flight Hardware damage.
- The ECU connectors are similar in shape and color. Care must be taken when connecting the cables to ensure that they are attached at their proper location.

Electrical mating and demating of flight hardware connectors

- A.1.1 *Connection and disconnection shall be performed only when the equipment involved is in a powered-down state.*
- A.1.2 *Connector savers are to be used unless otherwise specified.*
- A.1.3 *Connectors shall be inspected for contamination and for bent, damaged, or recessed pins prior to mating.*
- A.1.4 *Grounded wrist straps are to be worn prior to removal of connector caps or covers and during mating/demating operations.*
- A.1.5 *ESD-protective caps or covers are to be immediately installed after demating of connectors.*
- A.1.6 *Aluminum foil can be used for ESD Caps*

Step #	Steps to be performed:
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Pre-tests;

On 8/13/97 the ECU passed functional testing of GRT and SDT readout using Probe and Dewar test simulators. Open-loop heaters and QBS heater-B were tested at the box level.

Flight software, version 1.7 was functionally tested with the brassboard ECU on 8/26/97.

The procedure:

1. Turn ON the ECU +28V power supply, 10Hz oscillator, and flight software.
2. Manually operate the ECU reset switch.
3. Verify 28V @ 1 amp +/- 0.1 amp from the ECU power supply.
4. Run software version MSS 1.7 Lab Control Oasis procedures for ECU Open Loop DC 0.1 mW tickle tests.

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Test completed.

Completed by: _____

Witnessed by: _____

Date: _____

Time: _____