

**LASER INTERFEROMETER GRAVITATIONAL WAVE
OBSERVATORY**

-LIGO-

**CALIFORNIA INSTITUTE OF TECHNOLOGY
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Trillium In-Pod Cable Test Procedure		
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This is an internal working note of the LIGO Laboratory

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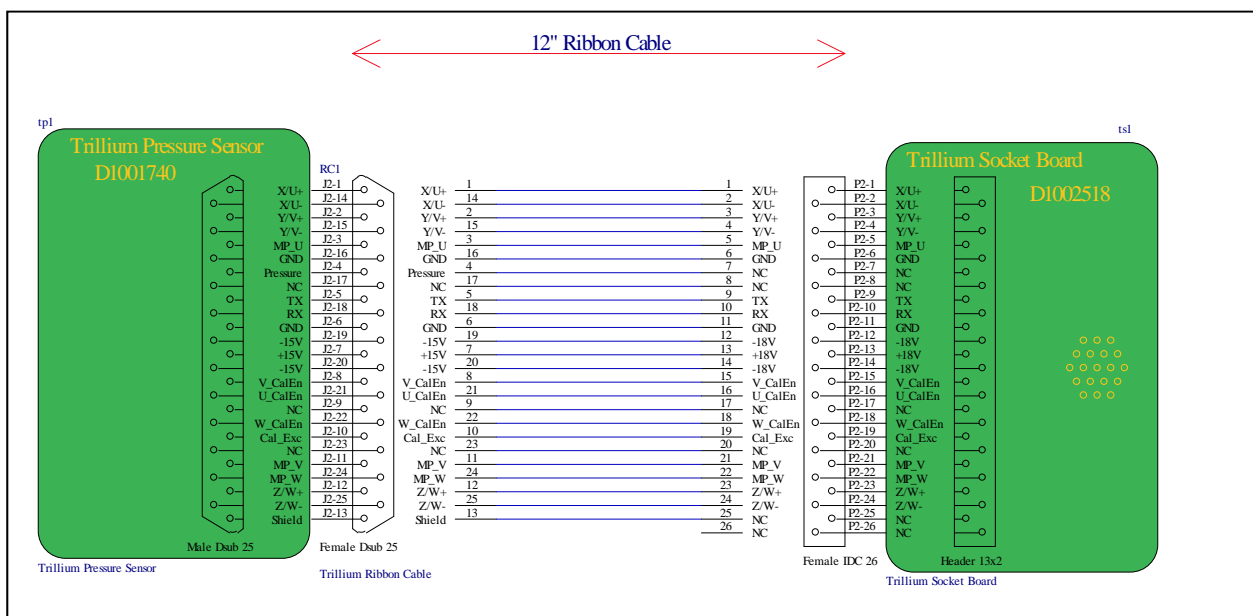
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Performed by: _____
 Date: _____
 Cable Serial Number: _____

1. Overview

The Trillium-240 Seismometer Interface Cable connects the Trillium seismometer to the vacuum pod feedthrough. It also provides pressure readings of the in-pod pressure to the outside world. It is made up of a Trillium Socket Board D1002518-v4, a Trillium Pressure Board D1001740-v1, and a connecting ribbon cable. See drawing 1. below.



Drawing 1

2. Test Equipment

- 2.1 Power Supply capable of +/- 18 volts
- 2.2 Trillium Interface Chassis D1002694
- 2.3 DMM

3. Preliminaries

- 3.1 Perform visual inspection on boards and cable to check for missing components or solder deficiencies
- 3.2 Before connecting the power to the Trillium chassis, set power supplies to +/- 18 Volts, and then turn them off. Connect the power supplies to the chassis at the back panel 3-pin power connector.

4. Continuity Tests

Using the table below, make sure that the pin on the MIL connector pins (P1) is connected to the pins on the DB25 (J1) on the Pressure Board. A DMM Set to Diode Check is sufficient for these readings. For pins G-19&20, the black lead should be in the DB25 connector, and a short beep should be heard. For pins H-7, the red lead should be in the DB25 connector, and another short beep should be heard. For all the rest of the pins, polarization does not matter, and a long, continuous beep should be heard.

MIL (P1)	DB25 (J1)
A	15
B	14
C	18
D	5
E	3
F	11
G	19
G	20
H	7
J	8
K	21
L	12
M	25
N	2
P	1
R	6
S	24
T	10
U	22
V	16
Connections All Good? (Y/N)	

5. Connect the cable to the front of the Trillium Interface Chassis (D1002694). Turn on the power supplies to the chassis, and read the pressure voltage between pins 7(+) and 15(-) on the "To AA Chassis connector, J1. The nominal pressure voltage is 14.6V +/- 0.5V, depending on atmospheric pressure.

Pressure Voltage_____

Pass? (Y/N)_____