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Testing a SEI Rack with the ISI Seismic Emulator

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This document is intended to describe the testing of the electronics and cabling of an Internal Seismic Isolation rack, using an ISI Seismic Emulator Chassis D1102340. With this chassis, you should have the ability to test all of the signal functionality of a seismic rack including the signal drive from the DACs, and the ADC readbacks of those, and other signals. Before beginning, it would probably be edifying to familiarize oneself with the schematics of the tester box, D1102340, and the system schematics of the particular rack that will be tested. All of these schematics can be found in the DocDb system:

BSC ISI System Schematics – D0901301

HAMs 1&6 System Schematics – D1101584

HAMs 2&3 System Schematics – D1101576

HAMs 4&5 System Schematics – D1000298

1. **Overview**

The general idea of the testing is that signals can be driven into the 6 Coil Driver outputs and STS-2 V and W coils, and read back at a variety of places according to Table 1 below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Output | STS-2 Readback | Geophone Readback | Trillium Readback | Cap Pos Sensor Readback |
| Coil 1 |  |  | T240 X | Channel 1 |
| Coil 2 |  |  | T240 Y | Channel 2 |
| Coil 3 |  |  | (+) UPos (-) VPos | Channel 3 |
| Coil 4 | STS-2 X |  | (+) WPos | Channel 4 |
| Coil 5 |  | Geophone 1 |  |  |
| Coil 6 |  | Geophone 2 |  |  |
| STS-2 V Coil  | STS-2 Y |  |  |  |
| STS-2 W Coil | STS-2 Z |  |  |  |
| T240 Coil Cal |  |  | T240 Z |  |

Table 1.

Some DC signal levels are generated on the board, and are used to test pressure sensor and STS-2 position readbacks. Their mapping is shown in Table 2:

|  |  |  |  |
| --- | --- | --- | --- |
| Voltage | STS-2 Readback | Geophone Readback | Trillium Readback |
| Pressure 1 (5.6V) | W Pos | Geo 1 Pressure |  |
| Pressure 2 (3.75V) | V Pos | Geo 2 Pressure |  |
| Pressure 3 (1.8V) | U Pos |  | T240 Pressure |

Table 2.

1. **Procedure**

In order to use the Emulator Chassis, the cables that should be connected to the various flanges, the Capacitive Position Sensor Interface Chassis, or the STS-2 Seismometer should be unplugged from their respective destinations, and plugged into available connectors on the chassis. For a full test of a rack, sometimes various cables of one type will have to be plugged in one at a time. This means that some cable swapping will be necessary to complete a rack test. The details of the full procedure will be outlined in this section, by rack type.

* 1. **HAMs 1&6 Rack**

The system schematics drawing for the HAMs 1&6 rack can be found in the DCC under number D1101584. Looking at this drawing, we can see that there are 6 GS-13 geophones, 6 Capacitive Position Sensors, 8 Pier Interfaces, and 6 Coil actuators, and 16 Valve Drive channels.

**Coming soon…**

* 1. **HAMs 2&3 Rack**

The system schematics drawing for the HAMs 2&3 rack can be found in the DCC under number D1101576. Looking at this drawing, we can see that there are 6 GS-13 geophones, 6 Capacitive Position Sensors, 8 Pier Interfaces, 6 Coil actuators, and 16 Valve Drive channels.

**Coming soon…**

* 1. **HAMs 4&5 Rack**

The system schematics drawing for the HAMs 4&5 rack can be found in the DCC under number D1100298. Looking at this drawing, we can see that there are 6 GS-13 geophones, 6 L4C geophones,6 Capacitive Position Sensors, 8 Pier Interfaces, 6 Coil actuators, and 16 Valve Drive channels. On the Seismic Emulator, there are 6 Coil Driver inputs so an entire HAM chamber’s worth of outputs can be tested at a time. There are neither Trillium nor STS-2 signals associated with HAM chambers, so those connectors don’t get used in these tests. In order to test the total of 6 geophones per chamber, their cables will need to be plugged into the Emulator one at a time. In order to test the Capacitive Position Sensor (CPS) signals, there will, likewise be some cable swaps necessary.

* + 1. **Power Checks**

Plug the appropriate cable into the box, rotate the Power Selector switch to the appropriate stop, and verify by printing “Y” in the LEDs Lit collumn that the correct LEDs light up, thus indicating that the appropriate power is present. For ease, the information can be entered in the following two tables, as each of the cables are plugged in.

|  |  |  |
| --- | --- | --- |
| Cable Plugged in  | Power selector setting | LEDs Lit? Y/N |
| X1:SEI\_HAM4\_CPS-1 | CPS | CPS Power |
| X1:SEI\_HAM4\_CPS-2 | CPS | CPS Power |
| X1:SEI\_HAM4\_GS-13-1 | GS-13 | Geophone Power |
| X1:SEI\_HAM4\_GS-13-2 | GS-13 | Geophone Power |
| X1:SEI\_HAM4\_GS-13-3 | GS-13 | Geophone Power |
| X1:SEI\_HAM4\_L4C-1 | GS-13 | Geophone Power |
| X1:SEI\_HAM4\_L4C-2 | GS-13 | Geophone Power |
| X1:SEI\_HAM4\_L4C-3 | GS-13 | Geophone Power |

Table 3.

* + 1. **Signal Tests**

In the following table, put negative one volt (-1V, or -3277cts) into the appropriate Coil Driver output, and read back the appropriate voltage on the input. Nominal values are in parentheses.

|  |  |  |  |
| --- | --- | --- | --- |
| Input Channel | Cable Plugged in | Output Channel | Value (cts) |
| Coil 1 | X1:SEI\_HAM4\_CPS-1 | Horizontal 1 | (3277) |
| Coil 2 | X1:SEI\_HAM4\_CPS-1 | Vertical 1 | (3277) |
| Coil 3 | X1:SEI\_HAM4\_CPS-1 | Horizontal 2 | (3277) |
| Coil 4 | X1:SEI\_HAM4\_CPS-1 | Vertical 2 | (3277) |
| Coil 5 | X1:SEI\_HAM4\_CPS-1 | No Signal | XXXXXXXXX |
| Coil 6 | X1:SEI\_HAM4\_CPS-1 | No Signal | XXXXXXXXX |

Table 4.

|  |  |  |  |
| --- | --- | --- | --- |
| Input Channel | Cable Plugged in | Output Channel | Value (cts) |
| Coil 1 | X1:SEI\_HAM4\_CPS-2 | Horizontal 3 | (3277) |
| Coil 2 | X1:SEI\_HAM4\_CPS-2 | Vertical 3 | (3277) |
| Coil 3 | X1:SEI\_HAM4\_CPS-2 | No Signal | XXXXXXXXX |
| Coil 4 | X1:SEI\_HAM4\_CPS-2 | No Signal | XXXXXXXXX |
| Coil 5 | X1:SEI\_HAM4\_CPS-2 | No Signal | XXXXXXXXX |
| Coil 6 | X1:SEI\_HAM4\_CPS-2 | No Signal | XXXXXXXXX |

Table 5.

|  |  |  |  |
| --- | --- | --- | --- |
| Input Channel | Cable Plugged in | Output Channel | Value (cts) |
| Coil 1 | X1:SEI\_HAM4\_GS-13-1 | No Signal | XXXXXXXXX |
| Coil 2 | X1:SEI\_HAM4\_GS-13-1 | No Signal | XXXXXXXXX |
| Coil 3 | X1:SEI\_HAM4\_GS-13-1 | No Signal | XXXXXXXXX |
| Coil 4 | X1:SEI\_HAM4\_GS-13-1 | No Signal | XXXXXXXXX |
| Coil 5 | X1:SEI\_HAM4\_GS-13-1 | GS-13 1 Vert. | (3277) |
| Coil 6 | X1:SEI\_HAM4\_GS-13-1 | GS-13 1 Horiz. | (3277) |

Table 6.

|  |  |  |  |
| --- | --- | --- | --- |
| Input Channel | Cable Plugged in | Output Channel | Value (cts) |
| Coil 1 | X1:SEI\_HAM4\_GS-13-2 | No Signal | XXXXXXXXX |
| Coil 2 | X1:SEI\_HAM4\_GS-13-2 | No Signal | XXXXXXXXX |
| Coil 3 | X1:SEI\_HAM4\_GS-13-2 | No Signal | XXXXXXXXX |
| Coil 4 | X1:SEI\_HAM4\_GS-13-2 | No Signal | XXXXXXXXX |
| Coil 5 | X1:SEI\_HAM4\_GS-13-2 | GS-13 2 Vert. | (3277) |
| Coil 6 | X1:SEI\_HAM4\_GS-13-2 | GS-13 2 Horiz. | (3277) |

Table 7.

|  |  |  |  |
| --- | --- | --- | --- |
| Input Channel | Cable Plugged in | Output Channel | Value (cts) |
| Coil 1 | X1:SEI\_HAM4\_GS-13-3 | No Signal | XXXXXXXXX |
| Coil 2 | X1:SEI\_HAM4\_GS-13-3 | No Signal | XXXXXXXXX |
| Coil 3 | X1:SEI\_HAM4\_GS-13-3 | No Signal | XXXXXXXXX |
| Coil 4 | X1:SEI\_HAM4\_GS-13-3 | No Signal | XXXXXXXXX |
| Coil 5 | X1:SEI\_HAM4\_GS-13-3 | GS-13 3 Vert. | (3277) |
| Coil 6 | X1:SEI\_HAM4\_GS-13-3 | GS-13 3 Horiz. | (3277) |

Table 8.

|  |  |  |  |
| --- | --- | --- | --- |
| Input Channel | Cable Plugged in | Output Channel | Value (cts) |
| Coil 1 | X1:SEI\_HAM4\_L4C-1 | No Signal | XXXXXXXXX |
| Coil 2 | X1:SEI\_HAM4\_L4C-1 | No Signal | XXXXXXXXX |
| Coil 3 | X1:SEI\_HAM4\_L4C-1 | No Signal | XXXXXXXXX |
| Coil 4 | X1:SEI\_HAM4\_L4C-1 | No Signal | XXXXXXXXX |
| Coil 5 | X1:SEI\_HAM4\_L4C-1 | L4C 1 Vert. | (3277) |
| Coil 6 | X1:SEI\_HAM4\_L4C-1 | L4C 1 Horiz. | (3277) |

Table 9.

|  |  |  |  |
| --- | --- | --- | --- |
| Input Channel | Cable Plugged in | Output Channel | Value (cts) |
| Coil 1 | X1:SEI\_HAM4\_L4C-2 | No Signal | XXXXXXXXX |
| Coil 2 | X1:SEI\_HAM4\_L4C-2 | No Signal | XXXXXXXXX |
| Coil 3 | X1:SEI\_HAM4\_L4C-2 | No Signal | XXXXXXXXX |
| Coil 4 | X1:SEI\_HAM4\_L4C-2 | No Signal | XXXXXXXXX |
| Coil 5 | X1:SEI\_HAM4\_L4C-2 | L4C 2 Vert. | (3277) |
| Coil 6 | X1:SEI\_HAM4\_L4C-2 | L4C 2 Horiz. | (3277) |

Table 10.

|  |  |  |  |
| --- | --- | --- | --- |
| Input Channel | Cable Plugged in | Output Channel | Value (cts) |
| Coil 1 | X1:SEI\_HAM4\_L4C-3 | No Signal | XXXXXXXXX |
| Coil 2 | X1:SEI\_HAM4\_L4C-3 | No Signal | XXXXXXXXX |
| Coil 3 | X1:SEI\_HAM4\_L4C-3 | No Signal | XXXXXXXXX |
| Coil 4 | X1:SEI\_HAM4\_L4C-3 | No Signal | XXXXXXXXX |
| Coil 5 | X1:SEI\_HAM4\_L4C-3 | L4C 3 Vert. | (3277) |
| Coil 6 | X1:SEI\_HAM4\_L4C-3 | L4C 3 Horiz. | (3277) |

Table 11.

* 1. **BSC Rack**

The system schematics drawing for BSC racks can be found in the DCC under number D0901301. Looking at this drawing, we can see that there are 6 GS-13 geophones, 6 L4C geophones, 12 Capacitive Position Sensors, 4 Pier Interfaces, 12 Coil actuators, and 8 Valve Drive channels. On the Seismic Emulator, there are 6 Coil Driver inputs so half of a BSC chamber’s worth of outputs can be tested at a time. In order to test the total of 12 geophones per chamber, their cables will need to be plugged into the Emulator one at a time. In order to test the Capacitive Position Sensor (CPS) signals and the Trillium signals, there will, likewise, be some cable swaps necessary.

* + 1. **Power Checks**

Plug the appropriate cable into the box, rotate the Power Selector switch to the appropriate stop, and verify by printing “Y” in the LEDs Lit collumn that the correct LEDs light up, thus indicating that the appropriate power is present. For ease, the information can be entered in the following two tables, as each of the cables are plugged in.

|  |  |  |  |
| --- | --- | --- | --- |
| Cable Plugged in  | Power selector setting | LEDs Lit?  | Y/N |
| X1:SEI\_BSCY\_CPS-1 | CPS | CPS Power |  |
| X1:SEI\_BSCY\_CPS-2 | CPS | CPS Power |  |
| X1:SEI\_BSCY\_CPS-3 | CPS | CPS Power |  |
| X1:SEI\_BSCY\_GS-13-1 | GS-13 | Geophone Power |  |
| X1:SEI\_BSCY\_GS-13-2 | GS-13 | Geophone Power |  |
| X1:SEI\_BSCY\_GS-13-3 | GS-13 | Geophone Power |  |
| X1:SEI\_BSCY\_L4C-1 | GS-13 | Geophone Power |  |
| X1:SEI\_BSCY\_L4C-2 | GS-13 | Geophone Power |  |
| X1:SEI\_BSCY\_L4C-3 | GS-13 | Geophone Power |  |
| X1:SEI\_BSCY\_T240-1 | T240 | T240 Power |  |
| X1:SEI\_BSCY\_T240-2 | T240 | T240 Power |  |
| X1:SEI\_BSCY\_T240-3 | T240 | T240 Power |  |
| X1:SEI\_BSCY\_STS2-1 | STS-2 | STS-2 Power |  |

Table 12.

* + 1. **Signal Tests**

In the following table, put negative one volt (-1V, or -3277cts) into the appropriate Coil Driver output, and read back the appropriate voltage on the input. Nominal values are in parentheses.

|  |  |  |  |
| --- | --- | --- | --- |
| Input Channel | Cable Plugged in | Output Channel | Value (cts) |
| Coil 1 | X1:SEI\_BSCY\_CPS-1 | Horizontal 1 | (3277) |
| Coil 2 | X1:SEI\_BSCY\_CPS-1 | Vertical 1 | (3277) |
| Coil 3 | X1:SEI\_BSCY\_CPS-1 | Horizontal 2 | (3277) |
| Coil 4 | X1:SEI\_BSCY\_CPS-1 | Vertical 2 | (3277) |
| Coil 5 | X1:SEI\_BSCY\_CPS-1 | No Signal | XXXXXXXXX |
| Coil 6 | X1:SEI\_BSCY\_CPS-1 | No Signal | XXXXXXXXX |

Table 13.

|  |  |  |  |
| --- | --- | --- | --- |
| Input Channel | Cable Plugged in | Output Channel | Value (cts) |
| Coil 1 | X1:SEI\_BSCY\_CPS-2 | Horizontal 1 | (3277) |
| Coil 2 | X1:SEI\_BSCY\_CPS-2 | Vertical 1 | (3277) |
| Coil 3 | X1:SEI\_BSCY\_CPS-2 | Horizontal 2 | (3277) |
| Coil 4 | X1:SEI\_BSCY\_CPS-2 | Vertical 2 | (3277) |
| Coil 5 | X1:SEI\_BSCY\_CPS-2 | No Signal | XXXXXXXXX |
| Coil 6 | X1:SEI\_BSCY\_CPS-2 | No Signal | XXXXXXXXX |

Table 14.

|  |  |  |  |
| --- | --- | --- | --- |
| Input Channel | Cable Plugged in | Output Channel | Value (cts) |
| Coil 1 | X1:SEI\_BSCY\_CPS-3 | Horizontal 1 | (3277) |
| Coil 2 | X1:SEI\_BSCY\_CPS-3 | Vertical 1 | (3277) |
| Coil 3 | X1:SEI\_BSCY\_CPS-3 | Horizontal 2 | (3277) |
| Coil 4 | X1:SEI\_BSCY\_CPS-2 | Vertical 2 | (3277) |
| Coil 5 | X1:SEI\_BSCY\_CPS-3 | No Signal | XXXXXXXXX |
| Coil 6 | X1:SEI\_BSCY\_CPS-3 | No Signal | XXXXXXXXX |

Table 15.

|  |  |  |  |
| --- | --- | --- | --- |
| Input Channel | Cable Plugged in | Output Channel | Value (cts) |
| Coil 1 | X1:SEI\_BSCY\_GS-13-1 | No Signal | XXXXXXXXX |
| Coil 2 | X1:SEI\_BSCY\_GS-13-1 | No Signal | XXXXXXXXX |
| Coil 3 | X1:SEI\_BSCY\_GS-13-1 | No Signal | XXXXXXXXX |
| Coil 4 | X1:SEI\_BSCY\_GS-13-1 | No Signal | XXXXXXXXX |
| Coil 5 | X1:SEI\_BSCY\_GS-13-1 | GS-13 1 Vert. | (3277) |
| Coil 6 | X1:SEI\_BSCY\_GS-13-1 | GS-13 1 Horiz. | (3277) |

Table 16.

|  |  |  |  |
| --- | --- | --- | --- |
| Input Channel | Cable Plugged in | Output Channel | Value (cts) |
| Coil 1 | X1:SEI\_BSCY\_GS-13-2 | No Signal | XXXXXXXXX |
| Coil 2 | X1:SEI\_BSCY\_GS-13-2 | No Signal | XXXXXXXXX |
| Coil 3 | X1:SEI\_BSCY\_GS-13-2 | No Signal | XXXXXXXXX |
| Coil 4 | X1:SEI\_BSCY\_GS-13-2 | No Signal | XXXXXXXXX |
| Coil 5 | X1:SEI\_BSCY\_GS-13-2 | GS-13 2 Vert. | (3277) |
| Coil 6 | X1:SEI\_BSCY\_GS-13-2 | GS-13 2 Horiz. | (3277) |

Table 17.

|  |  |  |  |
| --- | --- | --- | --- |
| Input Channel | Cable Plugged in | Output Channel | Value (cts) |
| Coil 1 | X1:SEI\_BSCY\_GS-13-3 | No Signal | XXXXXXXXX |
| Coil 2 | X1:SEI\_BSCY\_GS-13-3 | No Signal | XXXXXXXXX |
| Coil 3 | X1:SEI\_BSCY\_GS-13-3 | No Signal | XXXXXXXXX |
| Coil 4 | X1:SEI\_BSCY\_GS-13-3 | No Signal | XXXXXXXXX |
| Coil 5 | X1:SEI\_BSCY\_GS-13-3 | GS-13 3 Vert. | (3277) |
| Coil 6 | X1:SEI\_BSCY\_GS-13-3 | GS-13 3 Horiz. | (3277) |

Table 18.

|  |  |  |  |
| --- | --- | --- | --- |
| Input Channel | Cable Plugged in | Output Channel | Value (cts) |
| Coil 1 | X1:SEI\_BSCY\_L4C-1 | No Signal | XXXXXXXXX |
| Coil 2 | X1:SEI\_BSCY\_L4C-1 | No Signal | XXXXXXXXX |
| Coil 3 | X1:SEI\_BSCY\_L4C-1 | No Signal | XXXXXXXXX |
| Coil 4 | X1:SEI\_BSCY\_L4C-1 | No Signal | XXXXXXXXX |
| Coil 5 | X1:SEI\_BSCY\_L4C-1 | L4C 1 Vert. | (3277) |
| Coil 6 | X1:SEI\_BSCY\_L4C-1 | L4C 1 Horiz. | (3277) |

Table 19.

|  |  |  |  |
| --- | --- | --- | --- |
| Input Channel | Cable Plugged in | Output Channel | Value (cts) |
| Coil 1 | X1:SEI\_BSCY\_L4C-2 | No Signal | XXXXXXXXX |
| Coil 2 | X1:SEI\_BSCY\_L4C-2 | No Signal | XXXXXXXXX |
| Coil 3 | X1:SEI\_BSCY\_L4C-2 | No Signal | XXXXXXXXX |
| Coil 4 | X1:SEI\_BSCY\_L4C-2 | No Signal | XXXXXXXXX |
| Coil 5 | X1:SEI\_BSCY\_L4C-2 | L4C 2 Vert. | (3277) |
| Coil 6 | X1:SEI\_BSCY\_L4C-2 | L4C 2 Horiz. | (3277) |

Table 20.

|  |  |  |  |
| --- | --- | --- | --- |
| Input Channel | Cable Plugged in | Output Channel | Value (cts) |
| Coil 1 | X1:SEI\_BSCY\_L4C-3 | No Signal | XXXXXXXXX |
| Coil 2 | X1:SEI\_BSCY\_L4C-3 | No Signal | XXXXXXXXX |
| Coil 3 | X1:SEI\_BSCY\_L4C-3 | No Signal | XXXXXXXXX |
| Coil 4 | X1:SEI\_BSCY\_L4C-3 | No Signal | XXXXXXXXX |
| Coil 5 | X1:SEI\_BSCY\_L4C-3 | L4C 3 Vert. | (3277) |
| Coil 6 | X1:SEI\_BSCY\_L4C-3 | L4C 3 Horiz. | (3277) |

Table 21.

|  |  |  |  |
| --- | --- | --- | --- |
| Input Channel | Cable Plugged in | Output Channel | Value (cts) |
| Coil 1 | X1:SEI\_BSCY\_T240-1 | T240X | (3277) |
| Coil 2 | X1:SEI\_BSCY\_T240-1 | T240Y | (3277) |
| Coil Cal Front Panel BNC | X1:SEI\_BSCY\_T240-1 | T240Z | (3277) |
| Coil 3+ | X1:SEI\_BSCY\_T240-1 | UPos | (3277) |
| Coil3- | X1:SEI\_BSCY\_T240-1 | VPos | (3277) |
| Coil 4+ | X1:SEI\_BSCY\_T240-1 | WPos | (3277) |
| 1.875V on Board  | X1:SEI\_BSCY\_T240-1 | T240 Pod Pressure | (3277) |
| UCal Enable | X1:SEI\_BSCY\_T240-1 | UCal Light Lit? |  |
| VCal Enable | X1:SEI\_BSCY\_T240-1 | VCal Light Lit? |  |
| WCal Enable | X1:SEI\_BSCY\_T240-1 | WCal Light Lit? |  |

Table 22.

|  |  |  |  |
| --- | --- | --- | --- |
| Input Channel | Cable Plugged in | Output Channel | Value (cts) |
| Coil 1 | X1:SEI\_BSCY\_T240-2 | T240X | (3277) |
| Coil 2 | X1:SEI\_BSCY\_T240-2 | T240Y | (3277) |
| Coil Cal Front Panel BNC | X1:SEI\_BSCY\_T240-2 | T240Z | (3277) |
| Coil 3+ | X1:SEI\_BSCY\_T240-2 | UPos | (3277) |
| Coil3- | X1:SEI\_BSCY\_T240-2 | VPos | (3277) |
| Coil 4+ | X1:SEI\_BSCY\_T240-2 | WPos | (3277) |
| 1.875V on Board | X1:SEI\_BSCY\_T240-2 | T240 Pod Pressure | (3277) |
| UCal Enable | X1:SEI\_BSCY\_T240-2 | UCal Light Lit? |  |
| VCal Enable | X1:SEI\_BSCY\_T240-2 | VCal Light Lit? |  |
| WCal Enable | X1:SEI\_BSCY\_T240-2 | WCal Light Lit? |  |

Table 23.

|  |  |  |  |
| --- | --- | --- | --- |
| Input Channel | Cable Plugged in | Output Channel | Value (cts) |
| Coil 1 | X1:SEI\_BSCY\_T240-3 | T240X | (3277) |
| Coil 2 | X1:SEI\_BSCY\_T240-3 | T240Y | (3277) |
| Coil Cal Front Panel BNC | X1:SEI\_BSCY\_T240-3 | T240Z | (3277) |
| Coil 3+ | X1:SEI\_BSCY\_T240-3 | UPos | (3277) |
| Coil3- | X1:SEI\_BSCY\_T240-3 | VPos | (3277) |
| Coil 4+ | X1:SEI\_BSCY\_T240-3 | WPos | (3277) |
| 1.875V on Board | X1:SEI\_BSCY\_T240-3 | T240 Pod Pressure | (3277) |
| UCal Enable | X1:SEI\_BSCY\_T240-3 | UCal Light Lit? |  |
| VCal Enable | X1:SEI\_BSCY\_T240-3 | VCal Light Lit? |  |
| WCal Enable | X1:SEI\_BSCY\_T240-3 | WCal Light Lit? |  |

Table 24.

For the STS-2 tests, -15V must be applied to the UCoil Front panel BNC, and a temporary 50-pin adapter must be used at the cable end.

|  |  |  |  |
| --- | --- | --- | --- |
| Input Channel | Cable Plugged in | Output Channel | Value (cts) |
| Coil 1 | X1:SEI\_BSCY\_STS2-1 | None | (3277) |
| Coil 2 | X1:SEI\_BSCY\_STS2-1 | None | (3277) |
| Coil 3 | X1:SEI\_BSCY\_STS2-1 | None | (3277) |
| Coil 4 | X1:SEI\_BSCY\_STS2-1 | STS-2 X | (3277) |
| VCoil front panel BNC | X1:SEI\_BSCY\_STS2-1 | STS-2 Y | (3277) |
| WCoil Front Panel BNC | X1:SEI\_BSCY\_STS2-1 | STS2 Z | (3277) |
| 1.875V on Board | X1:SEI\_BSCY\_STS2-1 | STS-2 U |  |
| 3.75V on Board | X1:SEI\_BSCY\_STS2-1 | STS-2 V |  |
| 5.625V on Board | X1:SEI\_BSCY\_STS2-1 | STS-2 W |  |
| Cal Enable | X1:SEI\_BSCY\_STS2-1 | Cal Light Lit? |  |
| Auto Zero button | X1:SEI\_BSCY\_STS2-1 | AZ Light Lit? |  |
| Per Select switch | X1:SEI\_BSCY\_STS2-1 | Per Light Lit? |  |
| Sig Select switch | X1:SEI\_BSCY\_STS2-1 | Sig Light Lit? |  |

Table 25.