

Quench Protection Assembly Interface Chassis

(QPAIC) Test Procedure

Required Equipment

- 1) QPAIC Test Fixture. See figure 1.
- 2) Test chip set: U22 checksum = 5688, U28 and U43 checksum = 6F4F, U46 checksum = 2D04, U51 checksum = 37D5
- 3) Test connector set for J11, J12 and J1 through J8 connectors.

Test

- 1) Install test chips at U22, 28, 43, 46 and 51.
- 2) Plug in test fixture and QPAIC. Test fixture **RST** led should be flashing. On the QPAIC, both sets of **+12VDC** and **+5VDC** led's should be on.
- 3) Connect **J1** from the test fixture to **J10A** on the QPAIC. The led's on the QPAIC from **A-DIG OUT 1** through **A-DIG OUT 7** should all be flashing together.
- 4) Move the cable from **J10A** to **J10B**. The **B-DIG OUT 1** through **B-DIG OUT 7** led's should all be flashing together.
- 5) Connect the **J3** cable from the test fixture to **J9** on the QPAIC. The **RST** led on the QPAIC should start flashing.
- 6) Connect the **J28** and **J29** cables from the test fixture to the QPAIC. The **J28** and **J29** led's on the test fixture should off.
- 7) Connect the **J27** cable from the test fixture to the QPAIC. The **BQL IN** and **BQL OUT** led's on the QPAIC and the **J28** led on the test fixture should start flashing.
- 8) Connect the **J30** cable from the test fixture to the QPAIC. The **YQL IN** and **YQL OUT** led's on the QPAIC and the **J29** led on the test fixture should start flashing.
- 9) Set the **A0, A1, A2** switches on the test fixture to the 0 (down) position. These address switches are arranged in binary fashion with **A0** being the LSB. Connectors **J1A** and **J1B** on the QPAIC correspond to address 000. Connectors **J2A** and **J2B** correspond to address 001 and so on up to connector set **J8A** and **J8B**.
- 10) Set the **A0, A1, A2** switches to the 1 position each in turn and verify that the corresponding led's on the QPAIC light up. When complete, return the switches to the 0 position.
- 11) Connect cable **J2** from the test fixture to **J1A** on the QPAIC. The **RST IN** led on the test fixture should start flashing the inverse of the **RST** led. The **QL OUT** led on the fixture should have also started flashing at a different rate than the **RST** and **RST IN** led's.
- 12) The following led's on the test fixture and QPAIC should now be flashing serially: **A-ON, A-THERM, A-CROW, A-FUSE, A-OVC, A-FAN**.
- 13) Move the **J2** cable from **J1A** to **J1B**. All of the corresponding fault led's on the **B** side should now be flashing serially in a similar manner on both the test fixture and the QPAIC. The **QL OUT** and **RST IN** led's on the fixture should be flashing as before.
- 14) Change the address switches to address 001 (**A2=0, A1=0, A0=1**) and move the **J2** cable to connector **J2A** on the QPAIC. Repeat the test above for the **A** side fault led's and the **QL OUT** and **RST IN** led's on the fixture.
- 15) Move the cable to the **J2B** connector and test all the **B** side fault led's and the **QL OUT** and **RST IN** led's on the fixture.
- 16) Repeat this process for connector sets **J3A, J3B** and **J4A, J4B** changing the address for each set of connectors.
- 17) Move the **J1** cable from the test fixture from **J10B** to **J10A** and repeat the fault led tests above for connector sets **J5A, J5B** through **J8A, J8B** changing the address switches appropriately. Be sure to check the **RST IN** and **QL OUT** led's on the test fixture as above.
- 18) Connect the **J31** cable from the test fixture to the QPAIC. The **B/Y (J31)** led on the fixture should be off.
- 19) Connect the **J23, J24, J25, J26** cables from the test fixture to the QPAIC. All the corresponding led's on the test fixture should be off.

- 20) Connect the **J21** cable from the test fixture to the QPAIC. The **BPSPL OUT-PLI** and **BPSPL IN-PLI** led's on the QPAIC and the **J25** led on the test fixture should start flashing.
- 21) Connect the **J22** cable from the test fixture to the QPAIC. The **YPSPL OUT-PLI**, **YPSPL IN-PLI** and **YBPSAUG OUT** led's on the QPAIC should be flashing. On the test fixture, the **J26** and **B/Y (J31)** led's should also be flashing.
- 22) Connect the **J20** cable from the test fixture to the QPAIC. The **YQL OUT-QLI** and **YQL IN-QLI** led's on the QPAIC and the **J24** led on the fixture should start flashing.
- 23) Connect the **J19** cable from the test fixture to the QPAIC. The **BQL OUT-QLI** and **BQL IN-QLI** led's on the QPAIC and the **J23** led on the fixture should start flashing.
- 24) Using the test connector set, an ohmmeter and Table 1, check the continuity of the flat cables connected to **J11** and **J12**.
- 25) Remove the test chips and replace with the production versions programmed for the particular application of this QPAIC.

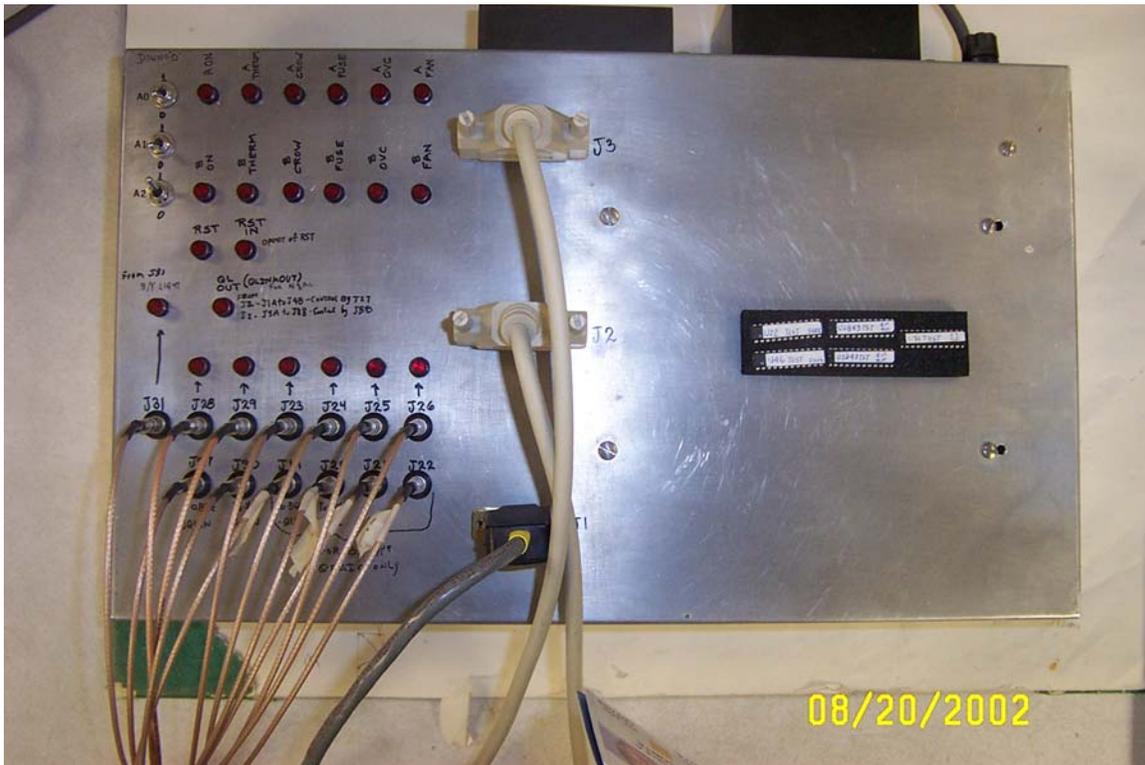


Figure 1

From Connector	To Connector		From Connector	To Connector
J1A-13	J11-1		J5A-13	J12-1
J2A-13	J11-3		J6A-13	J12-3
J3A-13	J11-5		J7A-13	J12-5
J4A-13	J11-7		J8A-13	J12-7
J1A-25	J11-9		J5A-25	J12-14
J2A-25	J11-10		J6A-25	J12-15
J3A-25	J11-11		J7A-25	J12-16
J4A-25	J11-12		J8A-25	J12-17
J1B-13	J11-2		J5B-13	J12-2
J2B-13	J11-4		J6B-13	J12-4
J3B-13	J11-6		J7B-13	J12-6
J4B-13	J11-8		J8B-13	J12-8
J1B-25	J11-13		J5B-25	J12-18
J2B-25	J11-14		J6B-25	J12-19
J3B-25	J11-15		J7B-25	J12-20
			J8B-25	J12-21
			J27 HI	J12-9
			J27 LO	J12-22
			J30 HI	J12-10
			J30 LO	J12-23
			J19 HI	J12-11
			J19 LO	J12-24
			J20 HI	J12-12
			J20 LO	J12-25

Table 1