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12-006A

25 APR 2012

VERIFYING 200EU / T200U THERMOCOUPLE TYPES

I. PURPOSE:

The purpose of this service note is to assist the customer in verifying and adjusting the thermocouple settings in their NO_y instrument. A few instruments have been found to have the thermocouple setting adjusted incorrectly. This verification and adjustment only affects 200EU units with serial number 184 – 209, and T200U units with serial 53 – 87.

II. TOOLS:

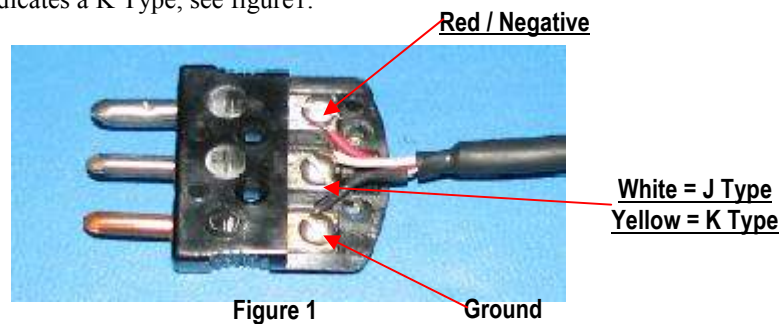
- 1 Phillips head screw driver
- 1 Flat head screw driver
- 1 DC Volt Meter or Multi meter capable of reading mVDC

III. PARTS:

N/A

IV. PROCEDURE:

1. Locate the thermocouple connector inside of the NO_y pump pack. Unscrew the two screws at base of the connector, to reveal the wire connections. A red/white/ground wire configuration indicates a J Type and red/yellow/ground wire configuration indicates a K Type, see figure1.



2. Power up the NO_y analyzer, and allow thirty minutes for the converter to reach temperature. Use a volt meter, and measure the mVDC across the thermocouple. Place the negative black lead on the thermocouple post with the red wire and place the positive red lead on the thermocouple post with the yellow/white wire. Your volt meter should read 11.8 -12.2mVDC for a K type thermocouple, or 15.9 -16.2mVDC for a J type thermocouple.

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3. Refasten the two screws at the base of the connector.
4. Verify which type of temp controller you have:

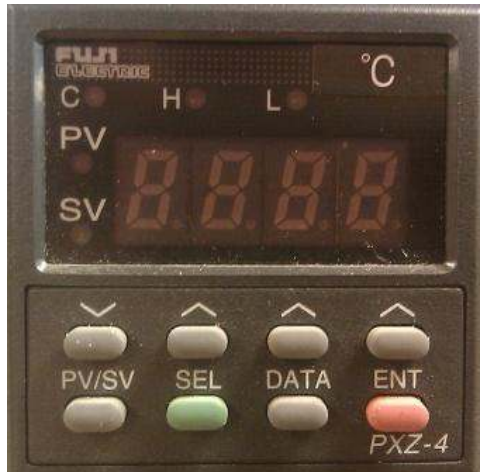




OLD

Figure 2




NEW

Figure 3

For the old style temp controllers, see Figure 2

- a) Press and hold **SEL** until display reads **P-n1**.
- b) Press the  or  until display reads **P-n2**.
- c) Press **DATA** and the current setting will be displayed.
- d) Use the  and  buttons to enter **2** for a J Type, or **3** for a K Type,
- e) Press **ENT**.
- f) Press **PV/SV** until **PV** indicator is lit on the display.

For the new style temp controllers, see Figure 3

- a) Press and hold the **SEL** key for three seconds. **P** will be displayed on the PV display.
- b) Press the  key until the controller displays **P-n2**
- c) Press the **SEL** key once. The current setting will flash on the SV display. Use the  or  buttons to enter **2** for a J Type, or **3** for a K Type.
- d) Press the **SEL** key once. The number 2 will stop flashing and will save the new point for **P-n2**
- e) Press and hold the **SEL** for two seconds to go back to the normal temperature display.

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