

# Technical Information Sheet

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TIS#: 366; Issue 2  
Date: 08/08/2006  
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## Subject

### HOW TO SETUP THE 2408i FOR A STRAIN GAUGE INPUT AND USE THE DIGITAL INPUTS TO REMOTE TARE AND REMOTE CALIBRATE THE INPUT

#### WHAT THIS PROCEDURE OUTLINES...

- Setting up the input to accept mV/V and calibrating the input with an external shunt.
- An automatic external shunt calibration routine activated by digital input 1 contact closure to adjust the zero/span.
- An automatic tare to zero routine will be activated by digital input 2 contact closure to tare out the zero offset.

#### FOR TWO PV INPUTS...

The 2408I has the capability to accept a strain gauge input on either PV input 1, PV input 2 or both input 1 and 2. Strain gauge inputs can be energized from an internal 5 or 10Vdc supply, which is fitted in module 1 or 2. If two strain gauge inputs are used, then by default, the transducer supply for input 1 will be installed in module position 2 and the transducer supply for input 2 in module position 1.

Repeat the following procedure for a second PV input with the following exceptions:

Module 1A will be configured as a power supply (set up the same way as 2A) and module 3A will be configured as a second input. Use CAL 2, TARE 2 and PEL 2 for 2<sup>nd</sup> remote tare or calibration.

#### To configure:

Set up the CONF, 0 level (pw = 2) for the following:

1P

1nPt = mV  
1mP = Auto  
1nPL = mV input low  
1nPH = mV input high  
UALL = display value low  
UALH = display value high  
TYPE = Shnt (shunt)

1A

Func = UCAL (voltage cal)

1b

Func = TARE.1 (tare)

2A

Func = 1P1 (input 1)  
brG.U = 5 or 10 (bridge voltage)  
SHnt = E, t (external)

Page to EX, t and select YES.

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Enter the **FULL** level access

Page to **CAL 1**

**CALP** = **3** (pw)

Digital inputs LA to LC & LB to LC must be shorted while enabling these parameters & calibrating the strain gauge

**CAL** = **USER**

**INPL** = input low

**SCLL** = scale low

**INPH** = input high

**SC LH** = scale high

**To manually enable the Calibration of the Strain Gauge Bridge with the external shunt:**

**PntL** (in **CAL 1**) = **on**.

The unit will now display **buSY** and will momentarily display **donE** when the measurement is complete.

**To Remote Tare the input to zero:**

Adjust input value you want to use for the zero reference.

In the **CAL 1** menu, select **tAr.1** = **on**.

The unit will now display **buSY** and will momentarily display **donE** when the measurement is complete.

Remote tare will occur when LB is re-shortened to LC. Remote tare will be enabled to use even if the power is cycled.

**To Remote Calibrate with the external shunt:**

Re-enter the **Conf, G** level, and change **LA, Func** to = **PtL.1**

Exit the **Conf, G** level

Enter the **FULL** level access

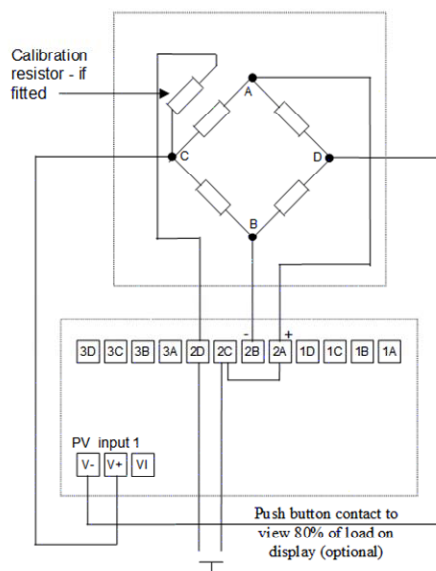
Page to **CAL 1**

**CALP** = **3** password must be entered to cal shunt when indicator power cycles. Remote cal only requires password once.

Remove and re-short Digital Input 1 (LA to LC)

The unit will now display **buSY** and will momentarily display **donE** when the measurement is complete.

Wire per the diagram below (external pushbutton to display 80% of load is optional)



Contacts 2C and 2D on the PSU module can be manually shorted as in above drawing or they are automatically shorted by **PntL** or **PtL.1** = **on**.

Note: while the manual says **PntL** can be started using the digital inputs, there is no way to do this; so use **PtL.1** instead.