



1) Turn "EXCITATION" switch in the "off" position.

2) Turn "AMP BAL" Potentiometer until the output voltage of the bridge equals zero (see NOTE A).

3) Turn "EXCITATION" switch in the "on" position. NOTE: use low excitation voltages for small gage resistance (example: 120 ohm).

4) Turn "AUTO BAL" switch in the "on" position. Then switch to "RESET" momentarily. This will balance the bridge and the bridge output voltage should equal zero. Use the "TRIM" dial to fine tune the bridge output voltage to zero.

5) Turn "CAL B" switch to the positive position. Then set gain to calculated strain output (see equation below). Turn "CAL B" switch to negative position. The strain output should have the same value but negative. If not go back to step 1 and repeat. Turn "CAL B" switch to center position. Turn "CAL A" switch to positive position. Then set the gain to calculated strain output. Turn "CAL A" switch to negative position. The strain output should have the same value but negative. If not go back to step 1 and repeat.

Use the following equation for calculated strain output:

$$\text{MicroStrain} = (2 / \text{"Actual Gage Factor"}) \times \text{Strain}$$

Strain in equation would be:

"CAL B" = +-1000uStrains

"CAL A" = +-200uStrains

NOTE:

The conditioned strain signal from the back of the Vishay 2310B can be sent to the MTS controller software. In the calibration window set the gain to one and the MIN/MAX to until EXCITATION X GAIN = about 2000

NOTE A:
Output voltage of the bridge can be monitored at the "MONITOR +/-10V" terminals



Connect to MTS analog input channel.

Setup for The 2300 Signal Conditioning Amplifier

White wire connected to "Pin 8" for 120 ohm strain gage.

White wire connected to "Pin 7" for 350 ohm strain gage

Red wire connected to "Pin 5"

Black wire connected to "Pin 4"

Black & White wire connection

Red wire connection

