

Cal + Test Procedure; Vibration Transmitter VBT144

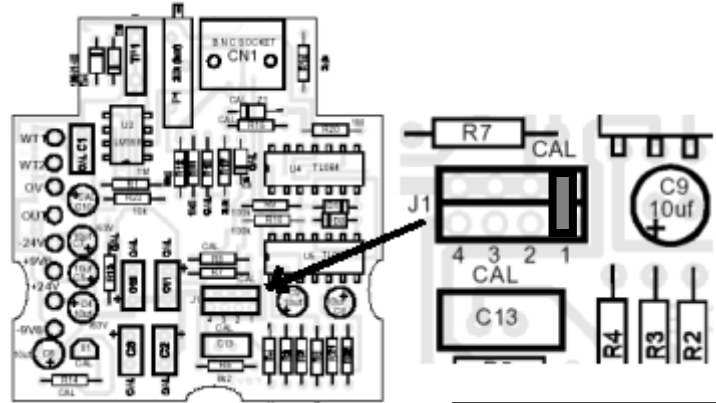
Set Links On Header J1. (C142 PCB)

Header J1 must be set to the required span range. The unit must first be disconnected, opened to set links on J1.

If using a "PR608A11 Industrial Accelerometer" details of this sensor can be obtained on data sheet "AD608A11". This sensor provides 100mV/g or for example the vibration level was $\pm 25g$, then the signal from the sensor would be $\pm 2.5V$.

mVpeak	J1 setting**			
	1	2	3	4
200	x	x	x	x
400	-	-	-	x
500	x	x	x	-
1000	x	x	-	-
2000	x	-	-	-
5000	-	-	-	-

Note. ** "-" = link open, "x" = link closed.



Shown with link in setting 1

Calibration Procedure - Accelerometers.

Using the example: Input = 0 to 5000mV peak, output = 4 to 20mA

Using A Signal Generator

The input signal level is set up using an ac voltmeter.

It must be scaled according to the relationship: $V_{generator} = V_{peak} \times 0.707$.

For example if the input level is 5000mV peak set the function generator to 3535mV RMS.

Using Sensor Signal.

The raw sensor signal can be measured with a voltmeter or CRO via the lid mounted BNC connector. By knowing the signal level from the sensor at a vibration level the unit can be scaled using the front panel trimpot P2(see section 2 below). The transmitter is factory calibrated so that card output of 0-2.000Vdc appearing on terminal 8 corresponds to zero to fullscale out of the unit.

1. With no input applied adjust the offs trim pot for zero output. Eg 4.00mA
2. For full scale input adjust trimpot P2(unmarked on lid) for 2.000Vdc out. Measured between terminal 8(+) and 6(-) on the VBT144.

If you are using the sensor signal method adjust P2 so the card output corresponds to the proportion of fullscale (2.000Vdc).

Note. For the card output to be calibrated properly it requires the links on the internal header J1 to be set correctly. If you cannot get 2.000V for fullscale input by adjusting P2 then the input signal(sine wave) is not corresponding to the J1 setting.

The unit must then be disconnected, opened up and links on jumper J1 reset according to the above table before continuing.

3. Adjust span trimpot for fullscale. Eg 20.00 mA out.
4. Check mid scale for linearity.