

# INSTALLATION PROCEDURE

## FOR THE BGI100

### POWERED BAR GRAPH

### INDICATOR



## **BGI100 POWERED PROCESS BAR GRAPH INDICATOR CALIBRATION PROCEDURE**

### **Step 1 Installation in the panel.**

Thank you for purchasing an Innovec instrument. This instrument the BGI100 has a front face of 56mm wide x 153mm high and a depth of 18mm in front of the panel. The body of the instrument is 44mm wide x 135mm high. It is normally mounted through a panel cut out of **135mm high x 44mm wide** and held in place by screw clamps that are fixed to the side of the instrument and tensioned to the rear of the panel by tightening of the screw.

To mount in the panel the instrument should be pushed through the panel cut out from the front. Then the screw clamps are fixed to the side of the instrument by tightening of the adjustment screw from the rear of the panel.

### **Step 2 Electrical Connections.**

**Important note:** Before connecting electrical power **please read the label** which is fixed to the top of the instrument case **to determine whether the instrument requires an AC or DC power supply.** If DC power is specified the instrument incorporates a DC to DC converter with 500 volts isolation from input to output.

**If AC is required connect power to:**

- (a) Terminal 12 is 240VAC supply
- (b) Terminal 13 is neutral supply
- (c) Terminal 14 is ground supply

**If DC is required connect power to:**

- (a) Terminal 12 is 24VDC supply
- (b) Terminal 13 is 0VDC supply
- (c) Terminal 14 is ground supply

### **Step 3 mA Input Connection**

If the input signal to be measured is a 4-20mA milliamp signal then connect the positive to terminal two (2) and the negative to terminal one

### **Step 4 mV, volts or resistance Input Connection**

If the input signal to be measured is millivolts or volts signal then connect the positive to terminal three (3) and the negative to terminal one

### **Step 5 using the 24VDC loop supply for a 2 wire transmitter**

(a) If it is intended to use the **optional 24VDC 2 wire transmitter power supply**, and then connect the positive of the 2 wire transmitter to terminal 4 and the negative of the 2 wire transmitter to terminal 2. **Note: in this case terminal one (1) is not used**

## Step 6 Display Calibration

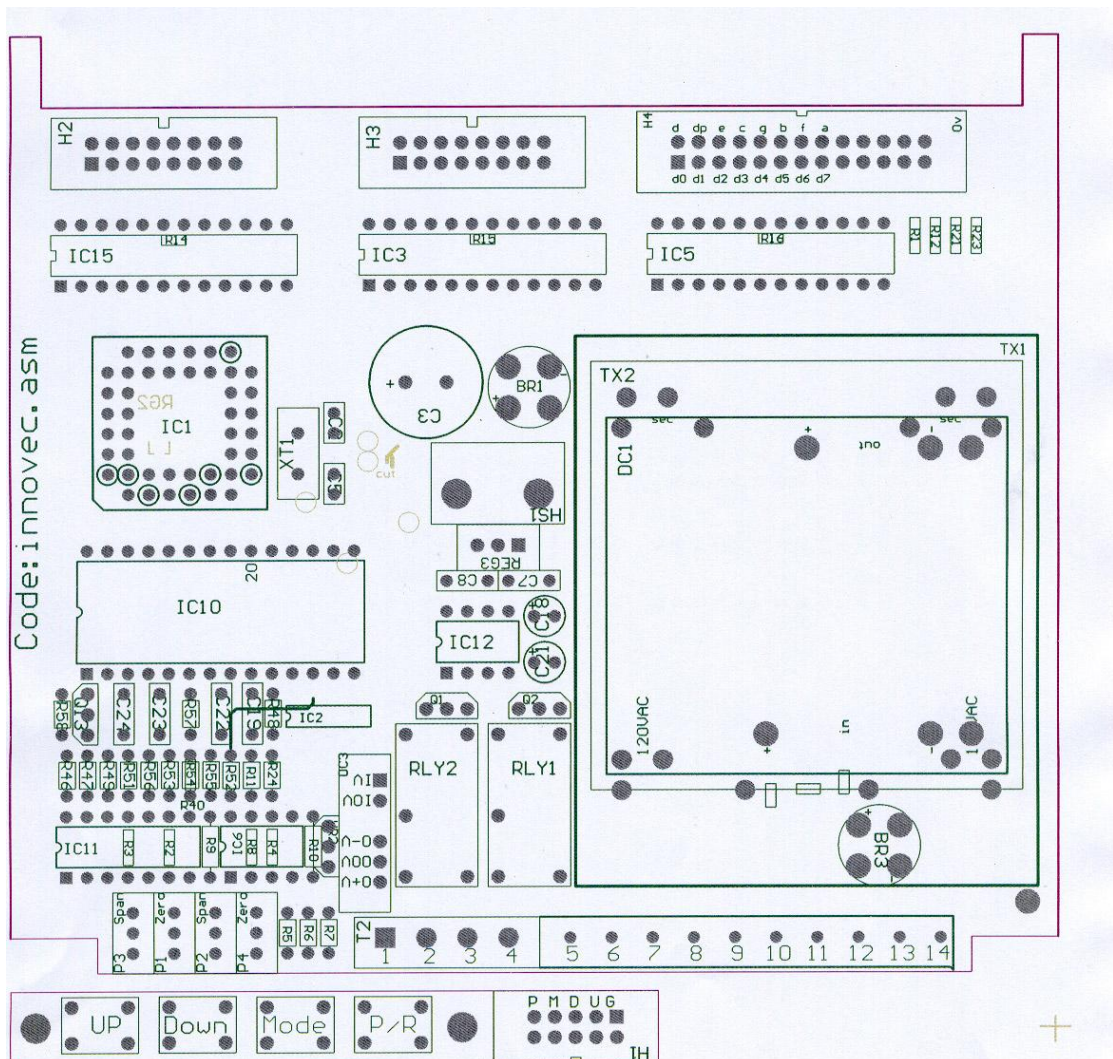
The display calibration has been factory set for a 4-20mA input = 0-100 bar elements and -50 to 400 units on the digital display. If no change is required to the display calibration, it is not necessary to continue with this procedure.

The instrument when viewed from the rear has 4 potentiometers, a 14 way terminal strip and 4 touch buttons. The four potentiometers are (starting from the left when viewed from the rear) are:

Bar graph span (P3), Bar graph zero (P1), Digital display span (P2), Digital display zero (P4)

### Bar graph adjustment

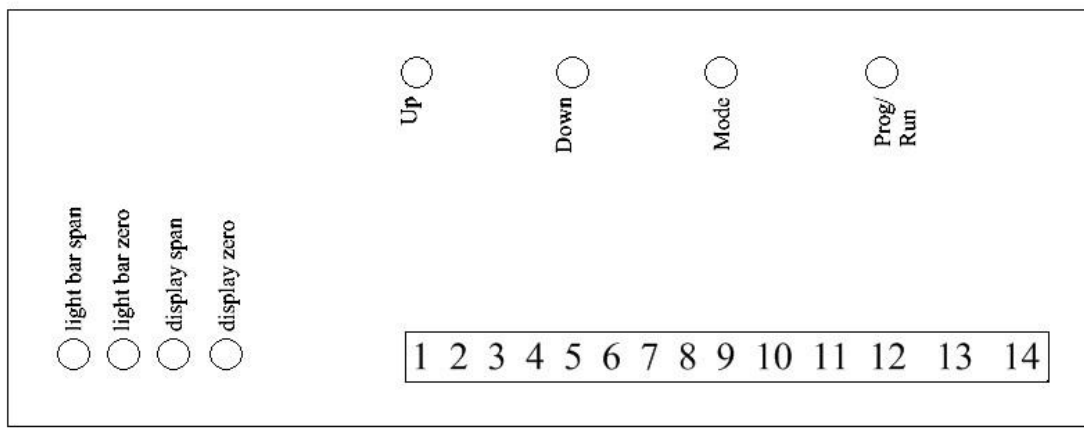
- Insert minimum input signal (for the range selected) and adjust zero potentiometer for the minimum display value (first bar is illuminated).
- Insert maximum input signal (for the range selected) and adjust span potentiometer for the maximum display value (all bars are illuminated).
- Repeat steps (a) and (b) until the unit displays the correct value.



BGI Layout

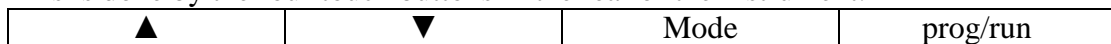
### Digital display adjustment

- (a) Insert minimum input signal (for the range selected) and adjust zero potentiometer for the minimum display value (-400).  
 (b) Insert maximum input signal (for the range selected) and adjust span potentiometer for the maximum display value (+400).  
 (c) Repeat steps (a) and (b) until the unit displays the correct value.

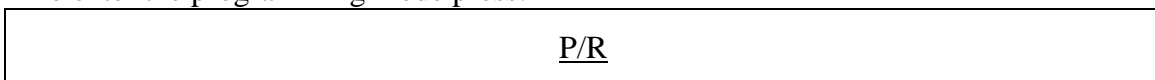


### Step 7 Digital display brightness and decimal point adjustment

The decimal point and the brightness of the 4 character digital display can be changed. This is done by the four touch buttons in the rear of the instrument.



To enter the programming mode press:



The display shows:



It is necessary to push in sequence (this is a simple access code):

UP BUTTON then DOWN BUTTON then UP BUTTON again.



You are now in the programming mode. The instrument displays:

DP

This is the **decimal point position**. The decimal point can be adjusted for NO decimal (0000) point or a decimal point (000.0), (00.00) or (0.000). Pushing the up button will cause the dp to shift left. If the up button is being pushed the DP increments. If no changes are required or when you have selected the required display decimal point position, please press:

Mode

To show:

DISP#

This is the **display brightness** and a number. The intensity of the LED digits can be adjusted. The number goes 0,1,2,3,4,5,6,7,8,9,-,L,H,d,p,blank. Pushing the up button will cause the number to increment or pushing the down button will cause the number to decrement. When the up or down button is being pushed, the number increments or decrements and the display brightness increases or decreases accordingly. If no changes are required or when you have selected the required display brightness, press:

Mode

And the display shows:

DP

The instrument has returned to the first variable.

If you have finished configuring the instrument then press:

Prog/Run

The instrument returns to run mode and all variables are written to non volatile memory.

Terminal 1	Input common
Terminal 2	mA input positive +
Terminal 3	Volts input +
Terminal 4	24VDC loop supply(not used)
Terminal 5	Not used
Terminal 6	Not used
Terminal 7	Not used
Terminal 8	Not used
Terminal 9	Not used
Terminal 10	Not used
Terminal 11	Not used
Terminal 12	24VDC Active supply
Terminal 13	0VDC supply
Terminal 14	Ground supply