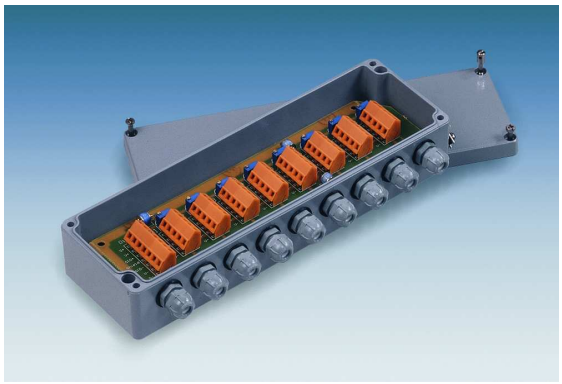
JUNCTION BOX AND CORNER ADJUSTMENT



The Junction Boxes are used to connect a group of load cells of the same scale to an electronic indicator, in order to obtain the summing signal of each load cell. The inner precision potentiometer allows a fine tuning for equalizing the weight reading obtained from each supporting point (corner adjustment), when same load is applied on each corner.

Connection:

The connection of the load cells is carried out by the terminals marked as LOAD CELL, numbered for each cell, while the connection to the indicator is marked as TO DISPLAY.

		UTILCELL Cell
+V	Positive Excitation Voltage	Green
-V	Negative Excitation Voltage	Black
+SIG	Positive Output Signal/Weight	Red
-SIG	Negative Output Signal/Weight	White
SHIELD	Shield/Screen	-
+S	Positive Sense or Positive Excitation Reference	Blue
-S	Negative Sense or Negative Excitation Reference	Yellow

It is highly recommended to use 6 wires shielded cable from the summing box up to the electronic indicator, providing this indicator has a 6 wire connection or senses.

Connect all ground terminals to a single earth point: The ground terminal of the junction box (if available), the ground terminal of the indicator and the metallic structure of the scales should be connected to a single earth terminal point, for equalizing different earth potentials of the different components. To do so, it is recommended to stretch a ground wire from the scales to the indicator in order to balance the potentials.

Note: Before beginning, set all potentiometers to zero ohms. To do so, measure the resistance by means of a multi-meter between the Terminal +V from the side of the DISPLAY INDICATOR and the Terminal +V of each load cell. The excitation voltage can also be measured in Volts in the terminals of each load cell individually, the potentiometer will be set to zero when the excitation voltage of the terminals of the load cell is the same than the excitation voltage delivered from the indicator to the Junction Box.

Corner adjustment:

The aim of fine tuning of the corner weight is to obtain the same weight indication when a same test weight is placed on the various supporting points of the scales. (Note therefore, the aim is not to equal the different output signal levels of each unloaded empty load cell).

1) Calibrate the electronic indicator with a recognised mass value, test weight. At this point, a very accurate adjustment is not necessary, as it should be done at the end.

2) Place alternatively the same test weight on each supporting point and note the read value. The heavier is the weight used, the better the differences will be seen and the adjustment will be more reliable.

3) Increase the resistance of the potentiometer of the corner showing the highest reading. Or which is the same, the excitation voltage of that individual load cell will be proportionally reduced according the value of over reading weight.

4) Repeat steps 2 and 3 to balance the differences on each corner readings.

5) Finally, recalibrate the zero and the span of the scale following the instructions of the electronic indicator.