



GUIDE TO CORNER CALIBRATION USING PT100SB SUMMING BOX

The PT100SB is designed to sum the outputs of 2 to 8 load cells. Models are available for 4, 6 and 8 load cells, 6 and 8 with section trimming. A section is a pair of load cells, usually opposite each other, in a weigh bridge or system. The pair can be matched and then each section can be matched as the weight is moved from section to section.

Note: The load cells should be of the same capacity, and sensitivity (mV/V).



SUGGESTED METHOD FOR CORNER TRIMMING WITHOUT SECTION TRIMMING (EP100SB0004XXX)

- Turn all trim pot screws fully clockwise (CW). Max. 25 turns. This sets maximum signal conditions.
- Turn SPAN trim pot 12.5 turns counter-clockwise (CCW), the middle of trim pots adjustment range.
- Place a known weight (approx. 33% of scale capacity) in the centre of the weigh platform and calibrate the indicator to that weight.
- Adjust each load cell in turn by:
 - Placing the weight in turn over each corner and noting the readings on the indicator.
 - Then starting with the corner with the lowest reading, place the weight in that corner and adjust the corresponding CELL trim pot by turning CCW 8 turns. The display reading should decrease. Note the new reading.
 - Move the weight to the other corners in turn and adjust their CELL trim pots until the displayed reading is close to that of the first corner adjusted.
 - Then return the weight to the corner with the lowest reading and increase (turn trim pot CW) the reading to match the other corners.

Note: This process may need repeating several times dependent on the accuracy required between corner readings.

- Return the known weight to the centre of the weigh platform and adjust the SPAN trim pot until the indicator returns to the calibrated reading.

Specifications:

Size	155 x 120 x 60 mm high (6.125 x 4.75 x 2.36 in.) This includes glands, allow extra for cable bends)
Weight	0.3 kg (0.7 lb)
Sealing	IP66
Enclosure	Polycarbonate.
Cable size	3.5 ~ 8 mm (9/64 ~ 5/16 in.)
Adjustment	Each cell 5% with 4 x 350 ohm load cells, span 5%.
Trimming	Signal trim, 100k ohm 25 turn pots., 2k7 ohm isolation and limiting resistors.



SUGGESTED METHOD FOR CORNER TRIMMING WITH SECTION TRIMMING (EP100SB0006XXX & EP100SB0008XXX)

- Turn all trim pot screws fully clockwise (CW). Max. 25 turns. This sets maximum signal conditions.
- Turn SPAN and SECTION (SXN) trim pots 12.5 turns counter-clockwise (CCW), the middle of trim pots adjustment range.
- Place a known weight (approx. 33% of scale capacity) in the centre of the weigh platform and calibrate the indicator to that weight. Weigh bridge trimming is achieved firstly by trimming individual load cells in each section as a pair, moving along the pairs until all are completed. Secondly by trimming each section one after the other until they all match and finally adjusting the span to achieve the calibrated reading.
- Adjust each pair of load cells in each section by:
 - Placing the weight in turn as near as possible over each load cell and noting the readings on the indicator.
 - Then starting with the load cell with the lowest reading of the pair, place the weight as near as possible on that load cell and adjust the corresponding CELL trim pot by turning CCW 8 turns. The display reading should decrease. Note the new reading.
 - Move the weight to the other load cell and adjust those CELL trim pots until the displayed reading is close to that of the first load cell adjusted.
 - Then return the weight to the load cell with the lowest reading and increase (turn trim pot CW) the reading to match the other load cells.

Note: This process may need repeating several times dependent on the accuracy required between load cell readings.

- Adjust each section in turn by:
 - Placing the weight in turn between each load cell pair in a section and noting the readings on the indicator.
 - Then starting with the section with the lowest reading, place the weight on that section and adjust the corresponding SXN trim pot to obtain a reading close to the calibrated reading.
 - Move the weight to the other sections and adjust their trim pots until the displayed reading is close to that of the first section adjusted.
 - Then return the weight to the section with the lowest reading and increase (turn trim pot CW) the reading to match the other section.

Note: This process may need repeating several times dependent on the accuracy required between section readings.

- Return the known weight to the centre of the weigh platform and adjust the SPAN trim pot until the indicator returns to the calibrated reading.

Specifications:

Size	230 x 120 x 60 mm high (5.1 x 4.75 x 2.36 in.) This includes glands, allow extra for cable bends)
Weight	6 WAY, 0.40 kg (0.9 lb); 8 WAY, 0.45 kg (1 lb)
Sealing	IP66
Enclosure	Polycarbonate.
Cable size	3.5 ~ 8 mm (9/64 ~ 5/16 in.)
Adjustment	Each cell 5% with 6 (or 8) x 350 ohm load cells, each section 5%, span 5%.
Trimming	Signal trim, 100k ohm 25 turn pots., 2k7 ohm isolation and limiting resistors.