

AJB-015 Analog Load Cell Junction Box User Manual

! In order to ensure personal safety and equipment safety, please disconnect all electrical power before making connections. Also this device should be installed by a professional.

OVERVIEW

For the scale to function properly, the signals reaching the indicator must be identical no matter where a weight is placed on the weighing platform. The signals may vary due to differences in the rated outputs of the load cells used on the weighing platform. Getting these signals to match is called corner balancing. Each potentiometer affects one load cell. You balance the load cells by adjusting the corresponding potentiometer (trimmer) in the junction box according to the steps listed on the next page. The AJB-015 can be used with up to four load cells. The operating range is -10° to 40°C in humidity less than 95% (non-condensing).

TECHNICAL SPECIFICATIONS

The use of high accuracy temperature compensated resistors and sealed low temperature drift multiturn trimmers ensure accuracy and stability. Screw terminals are used for all connections. Each terminal is marked for convenience of installation.

INSTALLATION AND ADJUSTMENT

Installation

Mount the junction box in an appropriate area of the weighing platform. Remove the top cover and set aside. Insert each load cell cable and the homerun cable thru the corresponding gland. Per the wiring diagram, connect all wires. When finished, make sure all of the screw terminals are tightened and connect the shields to the grounding post. The names of the wires and the colors can be found in the following table:

Wire name	Excitation (+)	Excitation (-)	Sense (+)	Sense (-)	Signal (+)	Signal (-)	Shield
Marking	+EXC	-EXC	+SEN	-SEN	+SIG	-SIG	SHLD
Wire color	Red	Black	Blue	Brown	Green	White	Yellow

Corner Adjustment (Balancing)

Place your digital weight indicator into 10x mode or internal ADC count mode. Place a test weight (no greater than 25% of the rated capacity of the weighing platform) directly above the first load cell. Record this reading. Repeat for each additional corner. Now go back and adjust each corner to within +/-0.5 divisions of each other using the appropriate trimmer. Turn the trimmer clockwise to increase the reading, counter clockwise to decrease the reading. Be careful not to overturn the trimmer. When finished, replace the lid (top cover). Make sure to tighten all fasteners evenly - otherwise the sealing performance of the enclosure will be compromised.

Now perform a full system calibration on your scale using the instructions provided with your digital weight indicator.

Wiring Diagram

