REVISIONS

LTR	ECN	DESCRIPTION	DR	APP	DATE
-	3263	INITIAL RELEASE			5/30/02

REV																					
SHEET	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
REV STATUS OF SHEETS	REV					-	-	-	-													
	SHEET					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

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CHECKED BY	DATE			
MFG. APPROVAL	DATE	TITLE: **PROCEDURE, FIELD CALIBRATION, SUMMING BOX**		
ENGR. APPROVAL	DATE			
Q.A. APPROVAL	DATE	SIZE **A**	CAGE CODE 09AL6	DWG NO. **A012382**

			SHEET 1 OF 4

1.0 PURPOSE

1.1 To provide proper instructions in the setup and calibration of Omegadyne SBJ series 2 and 4 channel summing boxes when used with load cells in weighing applications.

2.0 SCOPE/APPLICABILITY

2.1 This procedure describes a general calibration process applicable to signal summing boxes that have adjustments for altering the excitation voltage to each individual load cell connected to it.

2.2 The principle focus of this procedure covers the setup of platform types scale applications as shown in figures 1A. (Ref. page 3).
However, the same basic steps outlined here apply to other types of multiple load cell applications. The objective is that each cell produces the same output with the same load applied. (Ref. fig 1B, page 4)

3.0 RESPONSIBILITY

3.1 Customer must have mounted the summing box in an accessible location such that the top cover can be removed to access the span adjustment potentiometers.

3.2 Customer to have properly installed the load cells.

4.0 DEFINITIONS

4.1 Power supply – capable of supplying +10Vdc with sufficient current capacity to supply all load cells in the system.

4.2 Voltmeter – capable of measuring load cell output in millivolts with minimum of 2 decimal place precision.

5.0 PROCEDURE

5.1 Wire the red wire (+EXCT) and black wire (-EXCT) of each load cell(s) to the respective terminals in the summing box.

5.1.1 Leave the green/white wires (signal) loose.

5.2 Wire the input power supply to the appropriate terminal in the summing box and apply power.

5.3 Place a known weight (less than or equal to the capacity of the individual load cell) on the platform above load cell #1.

5.4 Using a voltmeter, measure across the green and white wires and record the output (value in millivolts) from load cell #1.

5.5 Repeat steps 5.3 and 5.4 with each load cell in the system.

5.6 Choosing the load cell with the highest output signal, reconnect the voltmeter to the green and white wires. Adjust the SPAN ADJ potentiometer for that load cell until the value on the voltmeter equals the “lowest” value recorded for all load cells.

5.7 Repeat step 5.6 for every load cell with an output measured to be higher than the lowest recorded output.

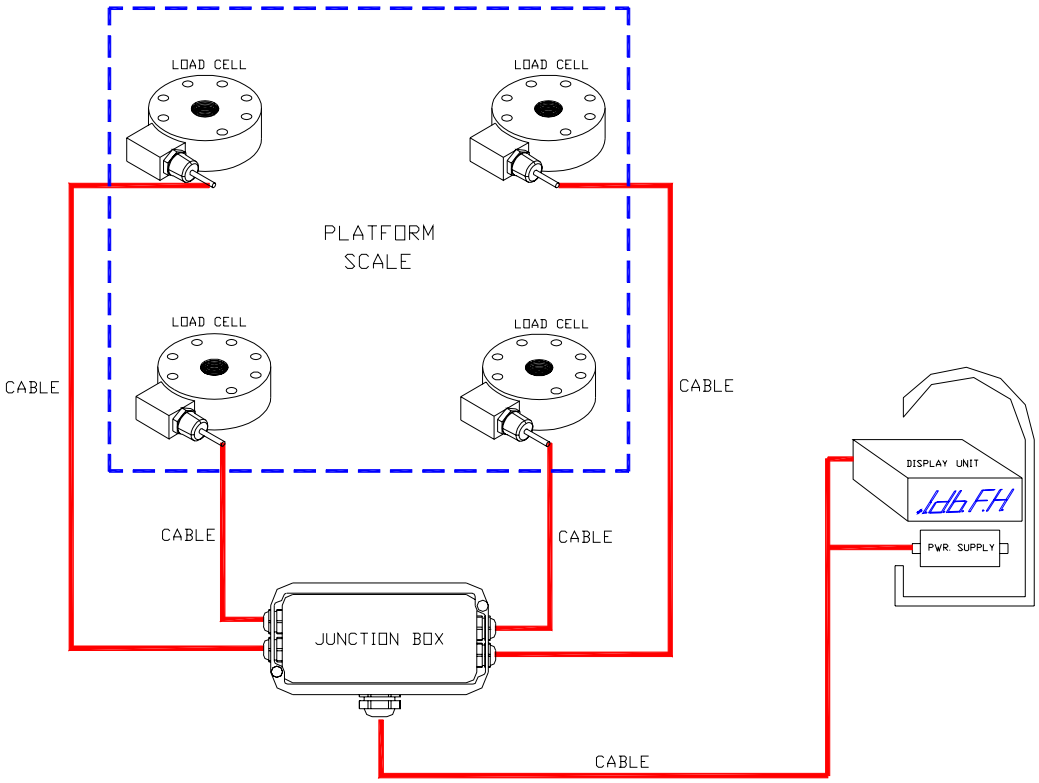
5.8 With the completion of all adjustments, each load cell will now have equal output at the same load. The system is ready to be completely connected.

5.9 Remove input power. Wire each load cell’s green/white leads to their respective terminals. Green to (+SIG) and white to (-SIG). Connect the summing box signal output to the system display device. Reapply input power.

5.10 The output value of the summing box will now represent the total of all load cells combined

(tare weight or weight of the platform). In the case of a scale, placing the weight to be measured at any location on the platform will result in the same output from the summing box.

Figure 1A:



CABLE DIAGRAM

Figure 1B:

CABLE DIAGRAM