

High Capacity Pancake Load Cell Installation Guide



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Installation Instructions

Step 1:

Attach the Weld Plate adapter to the bottom of the bin legs

- Raise the bin and carefully center the grey weld plate adapter onto the proper position. (Bin legs are typically a beam, I-beam or right-angle style configuration. Reference Figures 7-8 for dimensional drawings)
- 2. There are three versions of the pancake assemblies available:
 - Standard Assembly (No weld plate adapter or anchor plate)
 - Assembly with Weld Plate adapter (No anchor plate)
 - Assembly with Weld Plate adapter and Anchor plate (shown on pages 5-6)
- Weld the plate adapter onto the bottom leg plate, tube leg in some cases).
 WARNING: DO NOT WELD TO ADAPTER PLATE WITH THE ENTIRE LOAD
 CELL ASSEMBLY, AS IT IS POSSIBLE TO DAMAGE THE LOAD CELL.



Step 2:

Position/Attach the Main Pancake Loadcell assembly underneath each bin leg

- 1. If using the optional black anchor base plate, make sure it has been installed and hand tightened to the lower pancake plate using 4 pcs of the 5/8 in. x 2 in. bolts with 5/8 washer and lock washers. (See figure 2 below). The black anchor plate is optional but recommended as it makes removal of the entire load cell bracket assembly in the future very convenient if needing to be replaced.
- 2. Slowly raise the entire bin a minimum of 5.5 inches to allow positioning the pancake assemblies underneath each bin leg. Then after the bin is in position slide the load cell assembly underneath the legs. Carefully align the weld plate and bolt upwards from the pancake cell upper plate to the bottom side of the bin legs weld plate. Assemble using 4 pcs of the 5/8 in x 2in. bolts, along with the 5/8 washer and lock washers (See Figure 2 below). The hardware can be hand tightened initially until the bin is lowered and in final position.
- 3. Once the loadcell assembly is attached to the leg, carefully lower the bin and place into the final location.

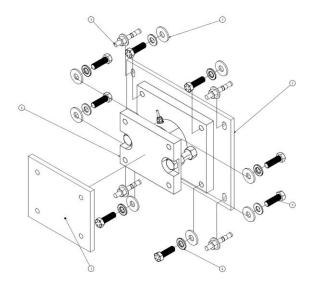




Figure 2

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Step 3:

Install Anchor bolts and attach bin to concrete

- 1. Drill four anchor bolt holes 2 ½" deep in the concrete pad through the outside oval slots in the corners of the black anchor plate. Hammer the anchor bolts into concrete until they are firmly in place. Tighten the nuts of the anchor bolts using a socket or hammer drill to anchor the bracket assembly. Torque to 55 ft-lb.
- Now the bin is in the proper position, tighten the four bolts attached to the weld plate
 adapter. Finally loosen the two top nuts on the two side bolts going from the top to
 the bottom plate. WARNING: THE TWO NUTS MUST BE LOOSENED OR THE WEIGHING
 SYSTEM WILL NOT WEIGH PROPERLY. RECOMMEND LOWERING THE NUTS A ½ INCH
 TO REASSURE IT IS NO LONGER SUPPORTING THE TOP PLATE. (SEE FIGURE 3).
- 3. Then secure and firmly tighten all the anchor base plate nuts and the four bolts attached to the weld plate adapter for each of the legs.



Figure 3

Step 4:

Wiring the Summing Box

- 1. Mount the Smart Summing Box (SSB) on the crossbar under the bin near the front using self-tapping screws where it is easily accessible for maintenance.
- 2. Remove the plated connector cover on the side of the pancake assembly, and screw in the interface cable tightly. Avoid getting moisture in the connector on the pancake cell or the end of the cable while installing the load cells. Once connected to the pancake load cell run the cable from each load cell over to the summing box.
- 3. Before plugging the cables in, remove the black plastic lock nut from each cable strain relief. Remove the red plug from each predrilled hole. Pass the cable through the box and then the nut.
- 4. Plug in the load cells starting in the upper left until all load cells are plugged in.
- 5. Pass the communication cable through the gray liquid tight strain relief on the right side of the enclosure.
- 6. Using an appropriate size wire nut, connect the wires as shown (Figure 4).
- 7. Attach the GREEN ground wire to the bin using a self-tapping screw.
- 8. Run the communication wire to the next SSB or to the BinTrac® Indicator.

 Tighten every strain-relief ("dome nuts") on the box. First tighten the nuts to attach the strain reliefs to the box. Then tighten the dome nut until the cable cannot be pulled out of the box.
- Set the appropriate bin (A,B,C,D) using the dip switches inside the summing Box (Figure 5)

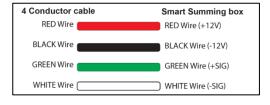
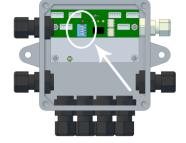


Figure 4



BIN	S 1	S2	S 3	S4	
Α	OFF	OFF	OFF	OFF	1 2 3 4
В	ON	OFF	OFF	OFF	1 2 3 4
С	OFF	ON	OFF	OFF	1 2 3 4
D	ON	ON	OFF	OFF	1 2 3 4

Figure 5

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Step 5:

Wiring the BinTrac Power Supply

- 1. The PS17 Power Supply is intended for INDOOR USE ONLY and should be mounted in an office, building or hallway close to power outlet.
- 2. Mount the Power Supply appropriately in a location that allows the cable to be tied to the feed line, or other structure preventing entanglement by a person walking between the bin and the building.
- 3. Once the cable is routed from the Power Supply to the BinTrac® Indicator and has been tied up out of the way, cut off any excess cable and connect to the BinTrac® Indicator.

Step 6:

Wiring the BinTrac BT260 Indicator

- 1. Locate the terminal block in the BinTrac® Indicator labeled 'BINS'.
- Insert the wires into the terminal block where RED is +12V OUT, GREEN is +COM IN, WHITE is -COM IN and BLACK is -12V OUT. (Figure 6)
- 3. Connect the wires from the BinTrac® power supply to the terminal block labeled '12V IN' where WHITE is +12V and BLACK is -12V.

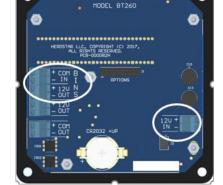


Figure 6

Step 7:

Setting up the BinTrac Indicator

1. Press and hold the BIN key until SETUP appears, release and "bin" appears.

EXAMPLE: A 6 legged bin with 25k pancake load cells equals 150,000.

- 2. Press BIN key to go to 'A'. Press DOWN arrow to enable (solid light) or disable (flashing light) the bins. Use the same procedure to enable/disable bins B, C or D depending upon your configuration.
- 3. Once the bins are configured, use the DOWN arrow to go to 'L.C. CAP'. The amount is the load cell capacity x # of bin legs. Press bin key to modify the first enabled bin. Use the UP or DOWN arrows to change the weight until set properly. Use the same procedure for the remaining active bins.
- 4. Next, use the DOWN arrow to go to 'FULL'.
- 5. Press bin key to modify the first enabled bin. The 'FULL' number is the bin capacity. Use the UP or DOWN arrows to change the weight until set properly. Use the same procedure for the remaining active bins.
 - **EXAMPLE:** a 50 ton bin will have a 'FULL' number of 100,000.
- 6. If the bin is empty, exit the setup menu and press and hold the DOWN arrow and the UP arrow until the bin reads '0'.

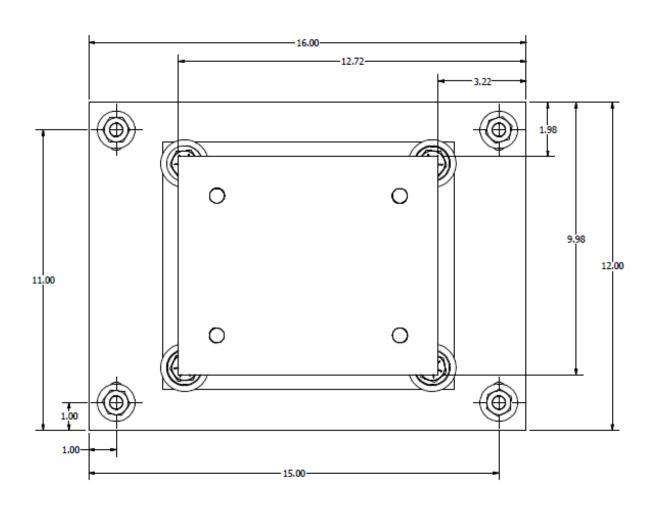
Note: The settings above are in lb, but can be changed to kg by entering the metric value. EXAMPLE: 60,000 lbs. = 27,216 kg.

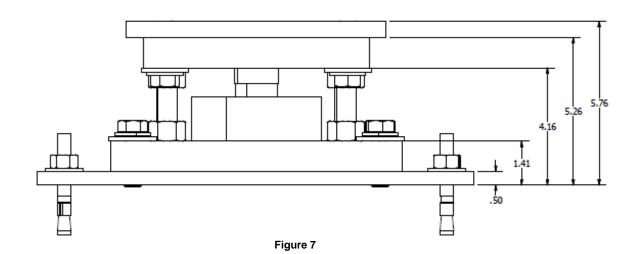
TROUBLESHOOTING

- 1. **no.bin** The Smart Summing Box for the selected bin is not communicating. Verify wiring is correct and there is power to the unit. Inspect Smart Summing Box internal diagnostic light; 1) flashing regular: normal working condition, 2) off: no power indication, 3) flashing irregular: unable to communicate.
- 2. **no.con** This error message indicates the BinTrac Indicator has been programmed as a Remote Display. Consult the BinTrac Operation Manual on procedure to change or configure.
- 3. **oLOAd** -The weight in the bin has exceeded the programmed system capacity by 150% and the system is in an over-load state. Verify capacity settings.
- 4. *Error* The BinTrac Indicator is unable to display the current weight value or the value is outside the displayable range. Verify programmed settings are correct including zero or check for faulty load cell.



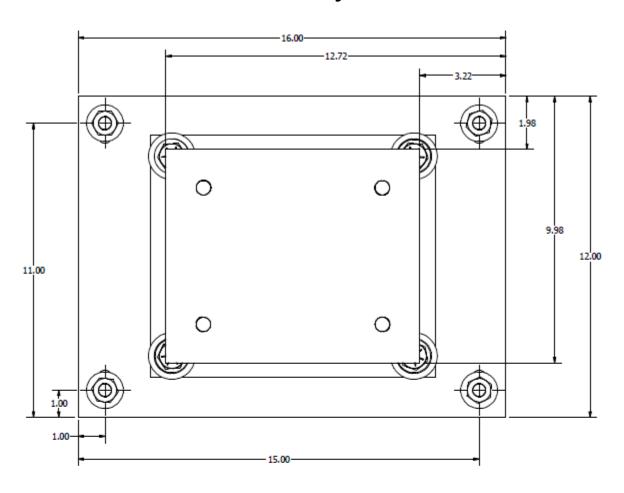
25 K Pancake Assembly Outline Dimensions







55 K Pancake Assembly Outline Dimensions



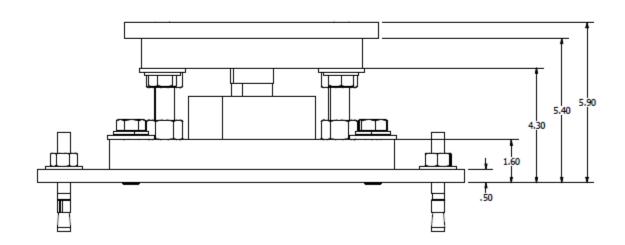


Figure 8



Herdstar BinTrac® Product Warranty

Herdstar LLC. ("Herdstar") warrants to original purchaser ("Buyer") that goods manufactured solely by Herdstar LLC. ("Products") will be free from defects in material or workmanship under normal and intended use and service for a period of one year from delivery date of the Products. Used and/or refurbished parts sold shall carry a 90 day warranty on material and workmanship. All warranty claims must be submitted within ten (10) days of discovery of defects within the warranty period, or shall be deemed waived. Furthermore, Herdstar LLC warrants the load cell ("Load cell" is defined as the s-shaped component and any cabling and connectors) against lightning damage for 12 months or the term of any extended warranty.

In the event of a defect in any Products constituting a breach of the warranty provided herein, Herdstar LLC. will at its option either (i) repair or replace such Product free of charge, or (ii) in lieu of repair or replacement, refund to Buyer the original purchase price less the reasonable value of Buyer's use of the Products. Herdstar LLC. shall furnish to Buyer instructions for the disposition of the defective goods. Herdstar LLC shall have the option of requiring the return of the defective goods, transportation prepaid, and proof that the goods were not used, installed or altered or subject to misuse or abuse to establish the claim. No goods shall be returned to Herdstar LLC. without its prior consent. The acceptance of any goods returned to Herdstar LLC shall not be deemed an admission that the goods are defective or in breach of any warranty, and if Herdstar LLC determines that the goods are not defective they may be returned to Buyer at Buyer's expense. This warranty sets forth Buyer's sole and exclusive remedies for any defect in the goods. The rights and obligation under this warranty may not be assigned or delegated to a third party by Buyer without the prior written permission of Herdstar LLC. Neither Buyer nor any other person may modify or expand the warranty provided herein, waive any of the limitations, or make any different or additional warranties with respect to the Products. Any statements to the contrary are hereby rendered null and void unless expressly agreed to in writing by an authorized officer of Herdstar LLC.

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