

ProDec Installation Guide

Installation

Proper scale installation provides accurate and reliable system operation. It is essential to mount the scale on a flat, level, and solid surface. The load-bearing surface areas should be within $\pm 1/16$ inch of the same level plane. Minor irregularities in the floor may be compensated for with the feet adjustments. The scale should not rock on the load-bearing surface areas and these areas should not give under loads. See Figure 1.

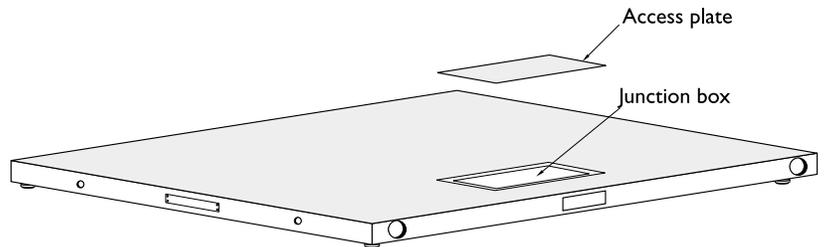
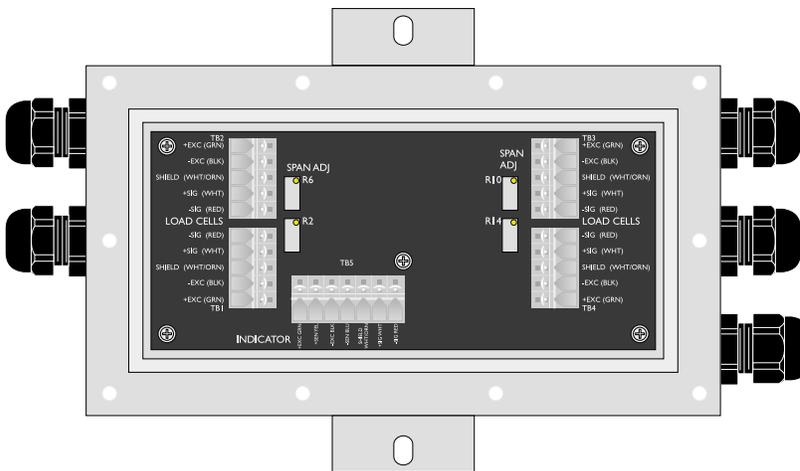


Figure 1
ProDec scale

Interface Connections

*R2 is the corner balance for TB1.
R6 is the corner balance for TB2.
R10 is the corner balance for TB3.
R14 is the corner balance for TB4.*

Remove the access plate and the junction box cover plate. Attach the leads of the indicator interface cable to TB5 in the junction box per Figure 2.



W-T Wire Color	Signal
Green	+Excitation
Yellow	+Sense
White	+Signal
Orange/White	Shield
Red	-Signal
Blue	-Sense
Black	-Excitation

Figure 2
Junction box and wiring table

Corner Balancing the Scale

For the indicator to function properly, the signals reaching the indicator must be identical no matter where a weight is placed on the scale. Getting these signals to match is called corner balancing the scale.

Your goal is to get the readings from the weight sensors to match. You do not have to get the correct weight reading at this point. That is taken care of when you calibrate your indicator.

This scale was corner balanced at the factory, but in a new installation it is required that corner balancing and calibration be checked to ensure installation accuracy.

One potentiometer affects one weight sensor. You balance the weight sensors by adjusting the corresponding potentiometer in the junction box according to the steps listed on the next page.

1. Remove the junction box cover to access the potentiometers.
2. To capture the value of internal zero for your particular indicator, refer to your indicator's Service Manual.
3. Use test weights equal to 20-25% of full capacity and obtain a displayed weight value for the test weight applied to each of the four weight sensors, like this:
 - 3a. Disable AZT on indicator.
 - 3b. Place certified test weight directly above first weight sensor.
 - 3c. Record displayed weight value.
 - 3d. Repeat steps 3b and 3c for each weight sensor.
4. If displayed weight values for all weight sensors equal each other, within +/- 1 division, proceed now to *Final Span Calibration* instructions.
5. If displayed weight value for any weight sensor varies from the others by more than +/- 1 division, adjust the appropriate junction box potentiometer by turning it the number of 360 degree turns indicated by this formula:

$$\frac{\text{Certified Test Weight Value} - \text{Displayed Weight Value}}{\text{Certified Test Weight Value} \times .0028} = \text{Number of Turns}$$

If the **Number Of Turns** is a positive value, turn the potentiometer clockwise. If **Number Of**

Turns is a negative value, turn the potentiometer counterclockwise.

6. Repeat steps 3b and 3c followed by step 4 or step 5.

Final Span Calibration

1. Make sure deck is empty and indicator is zeroed.
2. Load deck with as much evenly distributed test weight as available (not to exceed scale capacity).
3. Unload deck and check for zero shift.
4. Rezero indicator if necessary and reload deck.
5. If necessary, trim the FINE SPAN control in the indicator for an indication precisely equal to the calibrated test weights applied to the deck. See your indicator's Service Manual for details on this procedure.
6. Enable AZT on indicator.

Your scale is now corner balanced and the system is calibrated.

Weigh Bar® Replacement

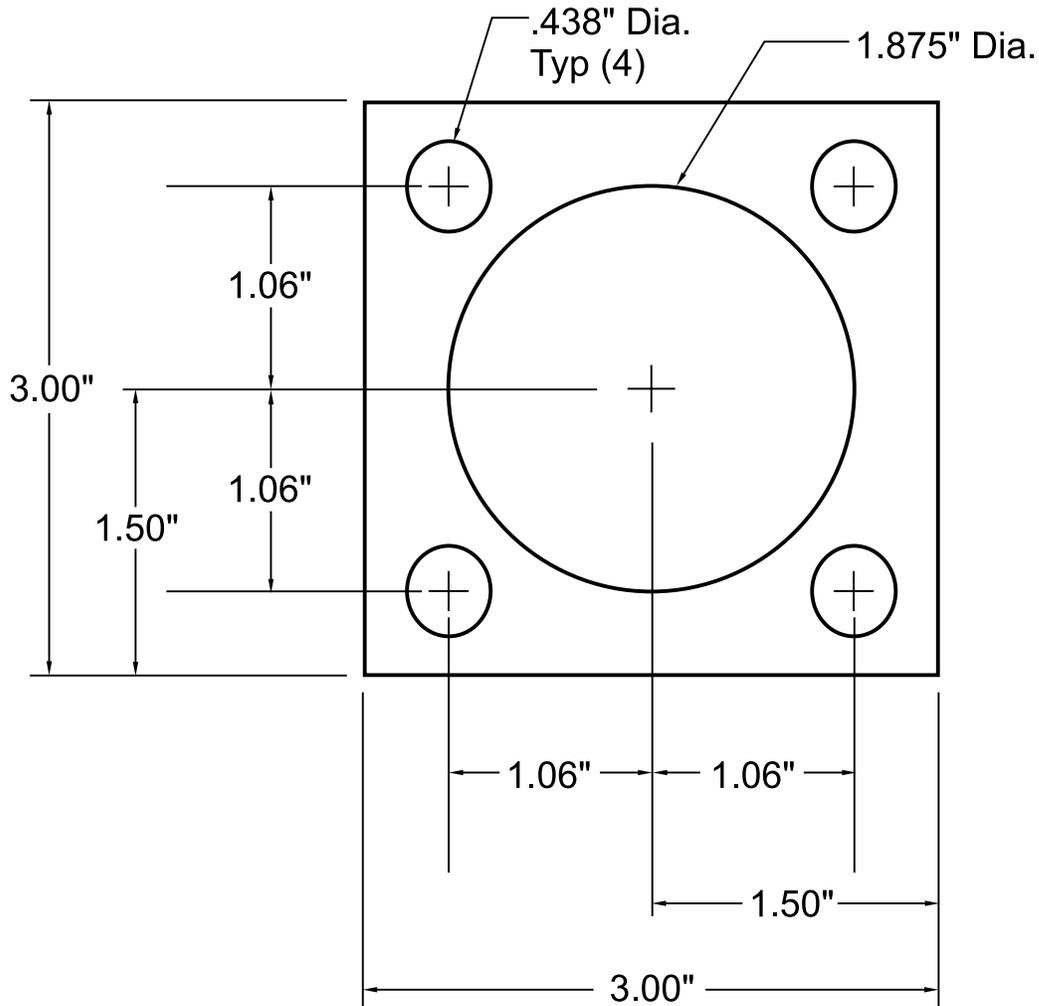
To replace one or more weigh bars follow this procedure:

1. Remove access plate to junction box and the junction box cover.
2. Disconnect weigh bar cable from junction box terminal bar.
3. Set scale on blocks so feet are clear of the ground.
4. Unscrew foot from weigh bar(s) to be replaced.
5. Place proper size punch through the small hole in the side of the scale and drive the roll pin out of the weigh bar support.
6. Pull weigh bar out through the hole in the end of the scale.
7. Place new weigh bar through hole.
8. Align roll pin holes and drive in roll pin.
9. Replace foot.
10. Re-route weigh bar cable to junction box and connect.
11. Lower scale to floor and level.
12. Check corner balancing and calibration of the scale. Adjust if necessary.
13. Replace access plate.

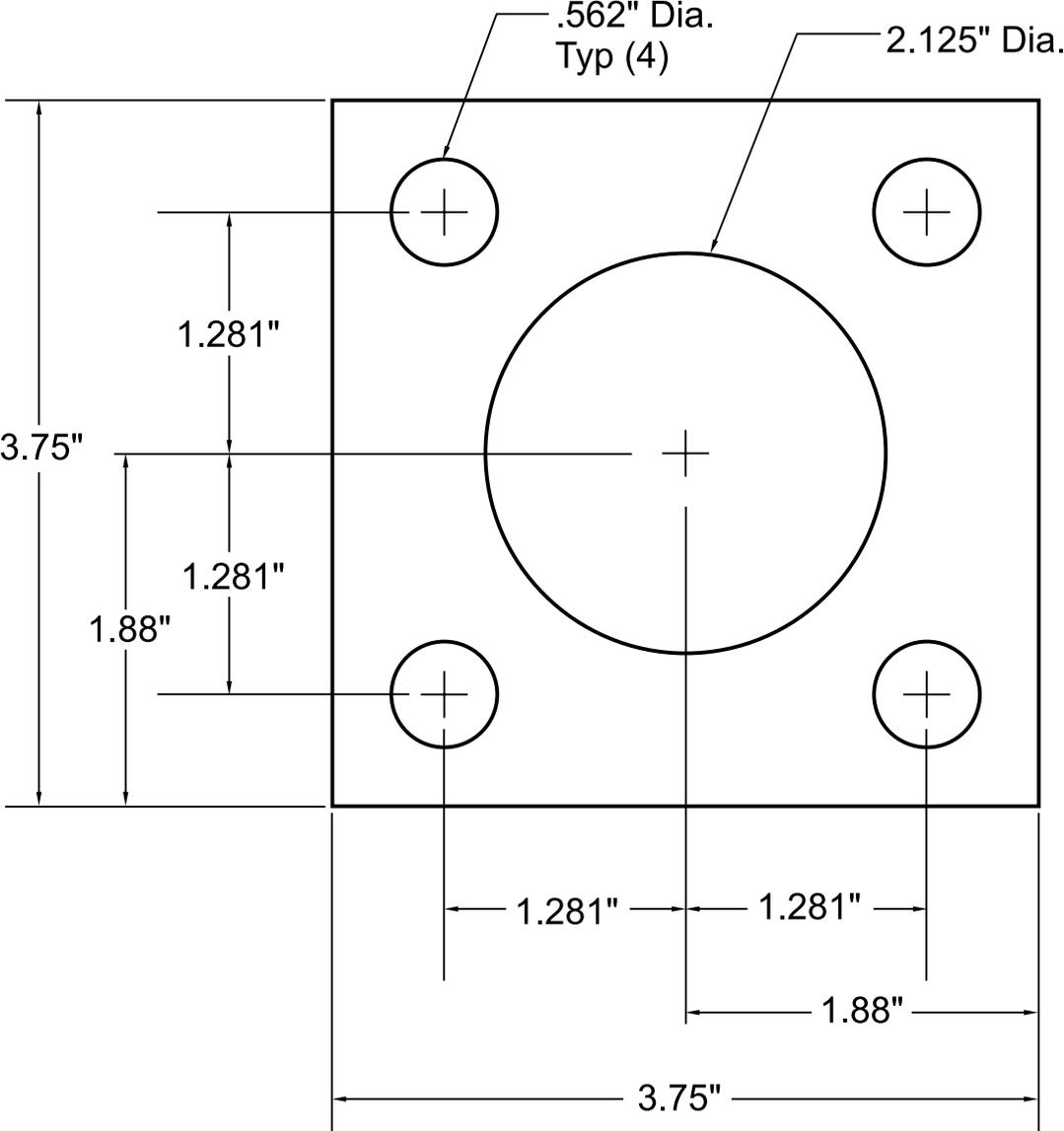
Floor Plates

Following are the illustrations of the floor plates for 2 and 5K capacity, 10K, and 20K capacity ProDec scales. You can use shim stock under these floor plates to obtain a level mounting surface. Drill the four corner holes through the shim stock but leave the center intact. These drawings are to scale. You can photocopy them and use them as templates.

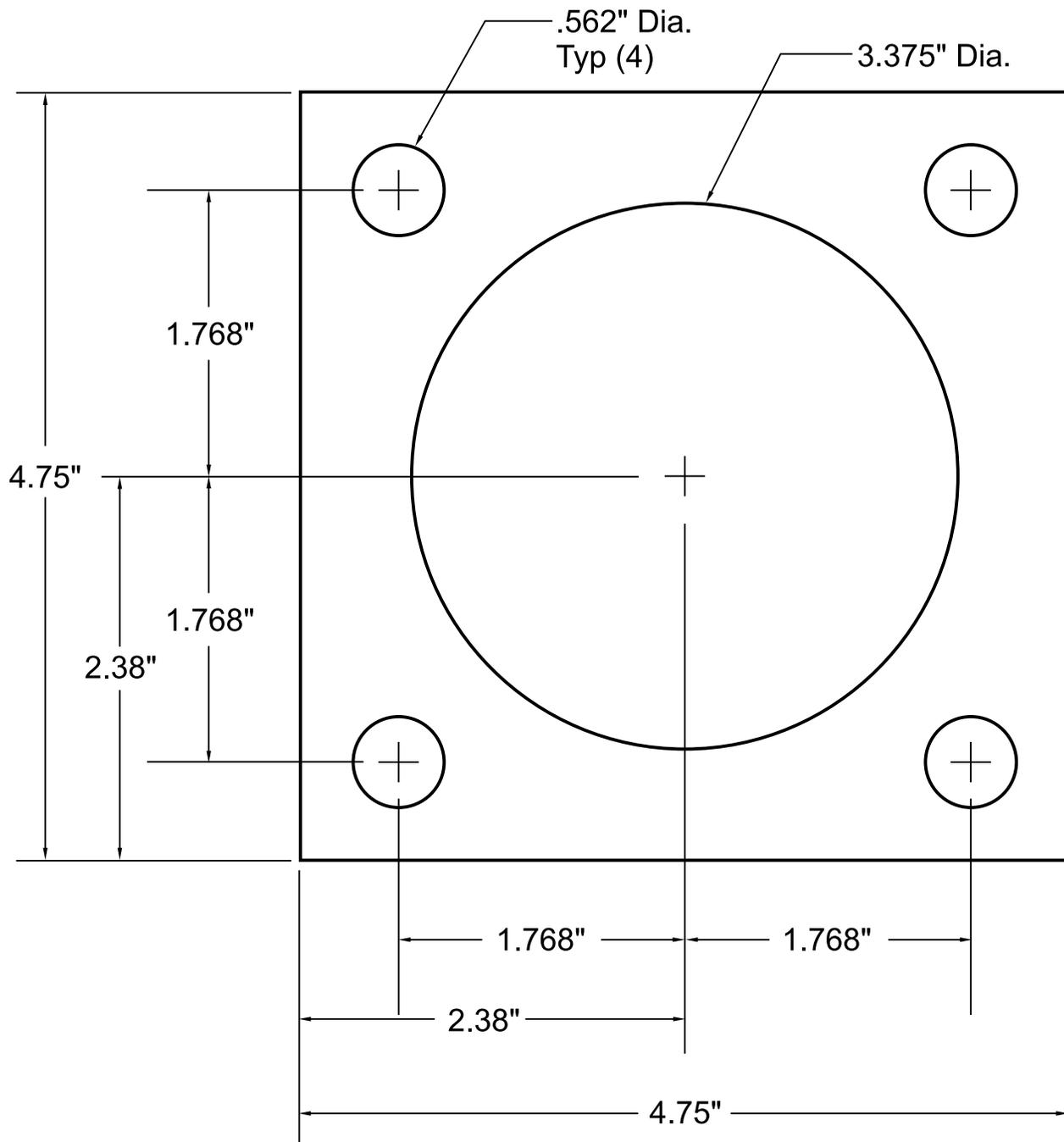
2 and 5K scales



10K Scales



20K Scales



ProDec Replaceable Parts List - DSL Models*

	1250 lb cap. weigh bar							2500 lb cap. weigh bar				5000 lb cap. weigh bar		Feet				
	41035-0102	41035-0011	41035-0029	41035-0045	41035-0052	41036-0010	41036-0028	41036-0044	41036-0051	41037-0027	41037-0050	45991-0022	45991-0063	45991-0071	50063-0017	14450-1061	14450-1236	14450-1244
	2.5' cable	3.67' cable	4.75' cable	7.17' cable	9.5' cable	3.67' cable	4.75' cable	7.17' cable	9.5' cable	4.75' cable	9.5' cable	.5" - 13 UNC	.62" - 11 UNC	.75" - 10 UNC	JUNCTION BOX	2" ROLL PIN	2.5" ROLL PIN	2.75" ROLL PIN
DSL3030-02	4									4			1	4				
DSL3636-02	2	2								4			1	4				
DSL4848-02	2		2							4			1	4				
DSL6048-02		2		2						4			1	4				
DSL7248-02		2		2						4			1	4				
DSL6060-02		2		2						4			1	4				
DSL7260-02		2		2						4			1	4				
DSL3030-05	4									4			1	4				
DSL3636-05	2	2								4			1	4				
DSL4848-05	2		2							4			1	4				
DSL6048-05		2		2						4			1	4				
DSL6060-05		2		2						4			1	4				
DSL7248-05		2		2						4			1	4				
DSL7260-05		2		2						4			1	4				
DSL8460-05			2		2					4			1	4				
DSL8472-05			2		2					4			1	4				
DSL9672-05			2		2					4			1	4				
DSL4848-10						2	2				4		1		4			
DSL6048-10						2		2			4		1		4			
DSL6060-10						2		2			4		1		4			
DSL7248-10						2		2			4		1		4			
DSL7260-10						2		2			4		1		4			
DSL8460-10							2		2		4		1		4			
DSL8472-10							2		2		4		1		4			
DSL9672-10							2		2		4		1		4			
DSL6060-20									2	2			4	1				4
DSL7260-20									2	2			4	1				4
DSL7272-20									2	2			4	1				4
DSL8460-20									2	2			4	1				4
DSL8472-20									2	2			4	1				4
DSL9672-20									2	2			4	1				4

*All Weigh Bars for carbon steel decks are painted with USDA approved, gray epoxy.

ProDec Replaceable Parts List - DSLS (Stainless) Models

		1250 lb cap. weigh bar				2500 lb cap. weigh bar			Feet				
		46776-0021	46776-0039	46776-0054	46779-0036	46779-0044	46779-0069	46779-0077	45991-0022	50063-0063	50063-0066	16179-1322	16179-1553
		3.67' cable	4.75' cable	7.17' cable	3.67' cable	4.75' cable	7.17' cable	9.5' cable	5' - 13 UNC	62" - 11 UNC	JUNCTION BOX	2" ROLL PIN	2.5" ROLL PIN
DSLS 3636-02	4						4	1	4				
DSLS 3636-05	4						4	1	4				
DSLS 4848-05	2	2					4	1	4				
DSLS 6048-05	2		2				4	1	4				
DSLS 7248-05		2	2				4	1	4				
DSLS 7260-05		2	2				4	1	4				
DSLS 6060-05	2		2				4	1	4				
DSLS 6060-10				2	2		4	1				4	
DSLS 8460-10					2	2	4	1				4	

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