

16

Flexmount®/Centerlign® Weigh Modules

Model 0957 and 0958

Service Manual No. *15175600A

* May have letter prefix

Model Number Configuration Table					
XXXX	X	X	X	XX	-X
Model	Weigh Module Type	Cell Type	Cell Number	Cell Capacity	Junction Box
0958	0 = Flexmount + 1 = Centerlign +	1 = M.S. H44 745 Hermetic 2 = S.S. H44 745 Hermetic 3 = M.S. H44 744 Potted 4 = S.S. H44 744 Potted 5 = M.S. OIML 744 Potted 6 = S.S. OIML 744 Potted 7 = M.S. OIML 745 Hermetic 8 = S.S. OIML 745 Hermetic	3 or 4 *(1 or 2)	X2 = 250 lb X5 = 500 lb/220 kg 01 = 1250 lb/550 kg 02 = 2500 lb/1100 kg 05 = 5000 lb/2200 kg 10 = 10000 lb/4400 kg	1 = Standard Analog 2 = No Junction Box**
0957	0 = Flexmount 1 = Centerlign	Material 1 = Mild .Steel 2 = Stainless .Steel	3 or 4 *(1 or 2)	20 = 20,000 lb 45 = 45,000 lb 75 = 75,000 lb 1X = 100,000 lb 2X = 200,000 lb	1 = Standard Analog 2 = No Junction Box**

* Indicates number of "active" load cells. In low accuracy weighing applications: one or two load cells used with two dead blocks. In applications where loading is distributed equally over each of the three or four supports. An example would be weighing of liquids or gases.

**For optional junction boxes, order a base model having a (-2) suffix. Order optional junction boxes as a line item: DigiTOL junction box, IDNet junction box, and enlarged Analog junction box with conduit fittings.

Accuracy

Model 744 and 745 Flexmount/Centerlign Load Cells meet or exceed the Institute of Standards and Technology (NIST) Handbook 44 requirements for Class III 3000 divisions/multiple cell (minimum). Model 743 Load Cells meet or exceed NIST Handbook 44 requirements for Class III 2500 divisions.

Certificates of conformance (COC #92-108,91-089, & 88-008), were issued under the National Type Evaluation Program (NTEP) of the National Conference of Weights and Measures for these cells.

Model 745 Flexmount/ Centerlign metric capacity Load Cells meet or exceed OIML requirements for R60 C3 3000 divisions (TC2154). Model 743 metric capacity Load Cells meet or exceed OIML requirements for R60 C2 2000 divisions (TC 2977).

The accuracy of a scale is dependent on the following items. These items must be addressed before an accuracy can be determined for a scale.

- The design of the support steel for the weigh module, and of the weight receiving structure (tank, hopper, conveyor, ..etc.) mounted to the weigh modules.
 - The design and number of the dead to live connections attached to the scale.
 - The total load cell capacity.
 - Environmental factors: Wind, Vibration, Temperature variations,...etc..
-

Load Cells

Stainless steel cantilever beam load cells are provided in all model 0958 and 45K weigh module model 0957 Flexmount/Centerlign Module. The load cells are complete with integral 4-conductor, shielded, color coded cable.

Model 743—20K/ 45K/ 75K/ 9,072 kg/ 20,412 kg

NTEP certificate of conformance number: 88-008

EC test certificate: TC2977

- Maximum excitation voltage: 20 VDC or VAC rms
- Recommended excitation voltage: 15 VDC
- Full scale output: 2 mV/V
- Input terminal resistance: 20K cells—350 Ohms minimum
45K cells—2,200 $\pm$ 100 Ohms
75K cells—385 Ohms minimum
- Output terminal resistance: 20K cells—350 $\pm$ 2 Ohms
45K cells—2,000 $\pm$ 20 Ohms
75K cells—350 $\pm$ 1.5 Ohms

- Temperature range compensation: -10°C to $+40^{\circ}\text{C}$ ($+14^{\circ}\text{F}$ to $+104^{\circ}\text{F}$)
- Safe side load: 100% of full load cell rating
- Safe overload: 150% of full load cell rating

Model 744—250 lb

- Maximum excitation voltage: 15 VDC or VAC rms
- Recommended excitation voltage: 15 VDC
- Full scale output: 2 mV/V
- Input terminal resistance: 350 Ohm minimum
- Output terminal resistance: 350 ± 2 Ohms
- Temperature range compensation: -10°C to $+40^{\circ}\text{C}$ ($+14^{\circ}\text{F}$ to $+104^{\circ}\text{F}$)
- Safe side load: 100% of full load cell rating
- Safe overload: 150% of full load cell rating

Model 745—500 to 10K lb/ 2200 TO 4,400 kg

NTEP certificate of conformance number: 92-108

EC test certificate: T2154/ 2

EC Type Approval: T2206

- Maximum excitation voltage: 15 VDC or VAC rms
- Recommended excitation voltage: 15 VDC
- Full scale output: 2 mV/V
- Input terminal resistance: 350 Ohm minimum
- Output terminal resistance: 350 ± 2 Ohms
- Temperature range compensation: -10°C to $+40^{\circ}\text{C}$ ($+14^{\circ}\text{F}$ to $+104^{\circ}\text{F}$)
- Safe side load: 100% of full load cell rating
- Safe overload: 150% of full load cell rating

Model ML85XX Load Cells, 100K/ 200K lb

- Maximum excitation voltage: 20 VDC or VAC rms
- Recommended excitation voltage: 15 VDC
- Full scale output: 2 mV/V
- Input terminal resistance: 1,100 Ohms minimum
- Output terminal resistance: $1,000 \pm 2$ Ohms
- Temperature range compensation: -10°C to $+40^{\circ}\text{C}$ ($+14^{\circ}\text{F}$ to $+104^{\circ}\text{F}$)
- Safe side load: 100% of full load cell rating
- Safe overload: 150% of full load cell rating

Flexmount

Flexmount weigh modules give tanks, hoppers, vessels, blenders, bins, and mixers scale-like qualities. Flexmount weigh modules provide horizontal checking, versatility in mounting, and an anti-tip feature while still allowing for thermal expansion. The Flexmount design consists of three different weigh modules... (1) one Fixed Pin Module, (1) one Semi-Floating Pin Module, and (1) one or more Full-Floating Pin Module depending on the application.

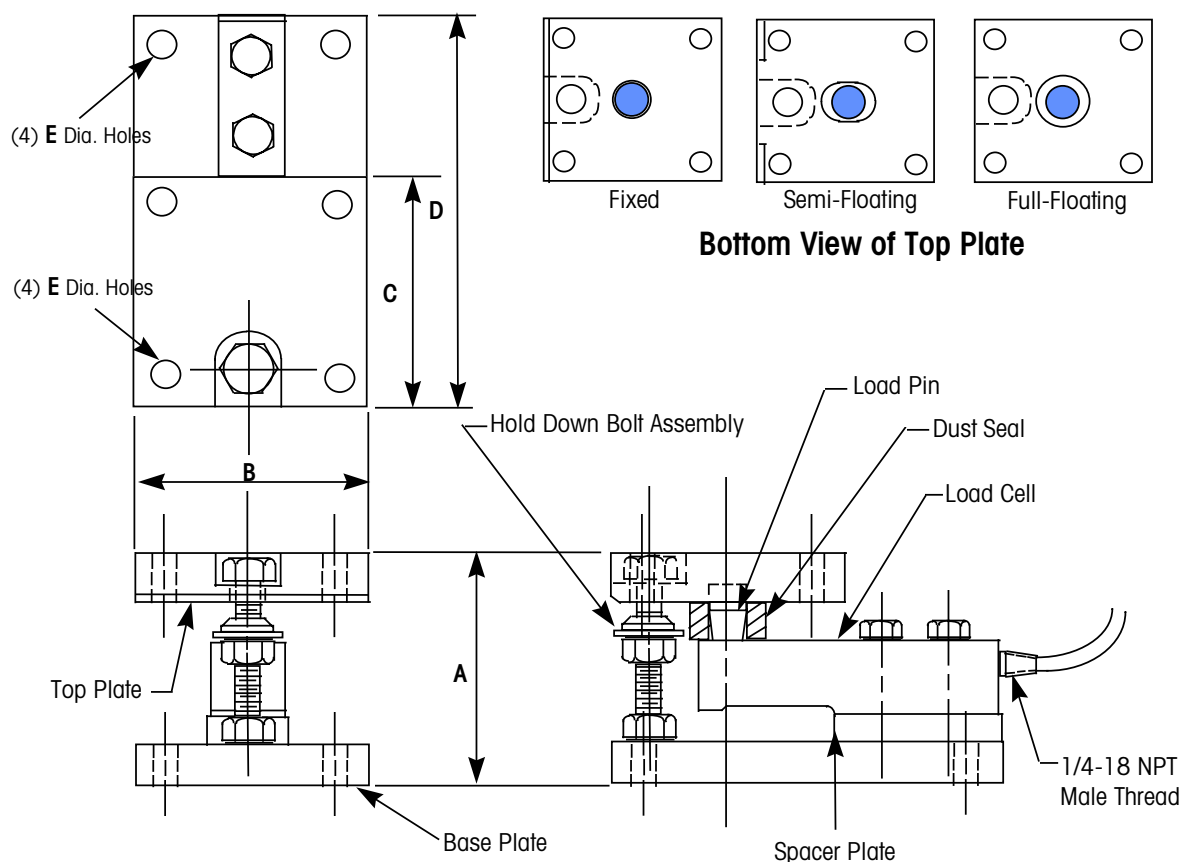


Figure 16-a: Model 0958 Flexmount+

Cell Capacity	A	B	C	D	E Dia.
250 - 5K lb	4.12 in	4.50 in	4.5 in	7.00 in	.44 in
10K lb	5.38 in	6.00 in	6.00 in	9.25 in	.69 in
220 - 2200 kg	104.8 mm	114.3 mm	114.3 mm	177.8 mm	11.1 mm
4400 kg	136.5 mm	152.4 mm	152.4 mm	235.0 mm	17.5 mm

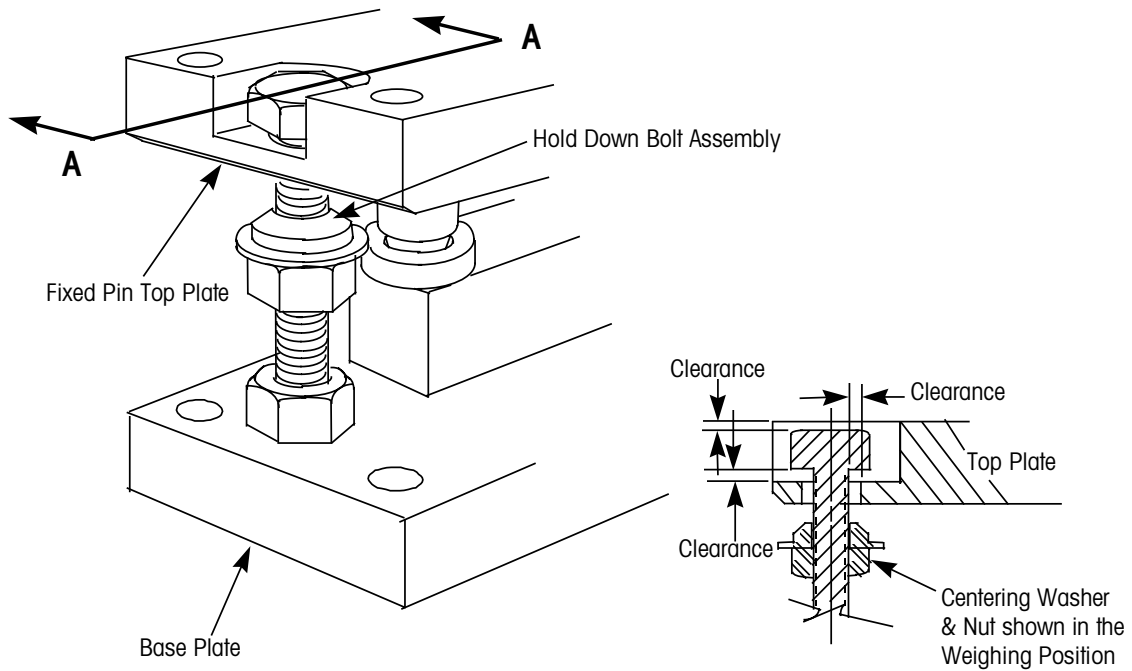


Figure 16-b: Model 0958 Flexmount+ Hold Down Assembly

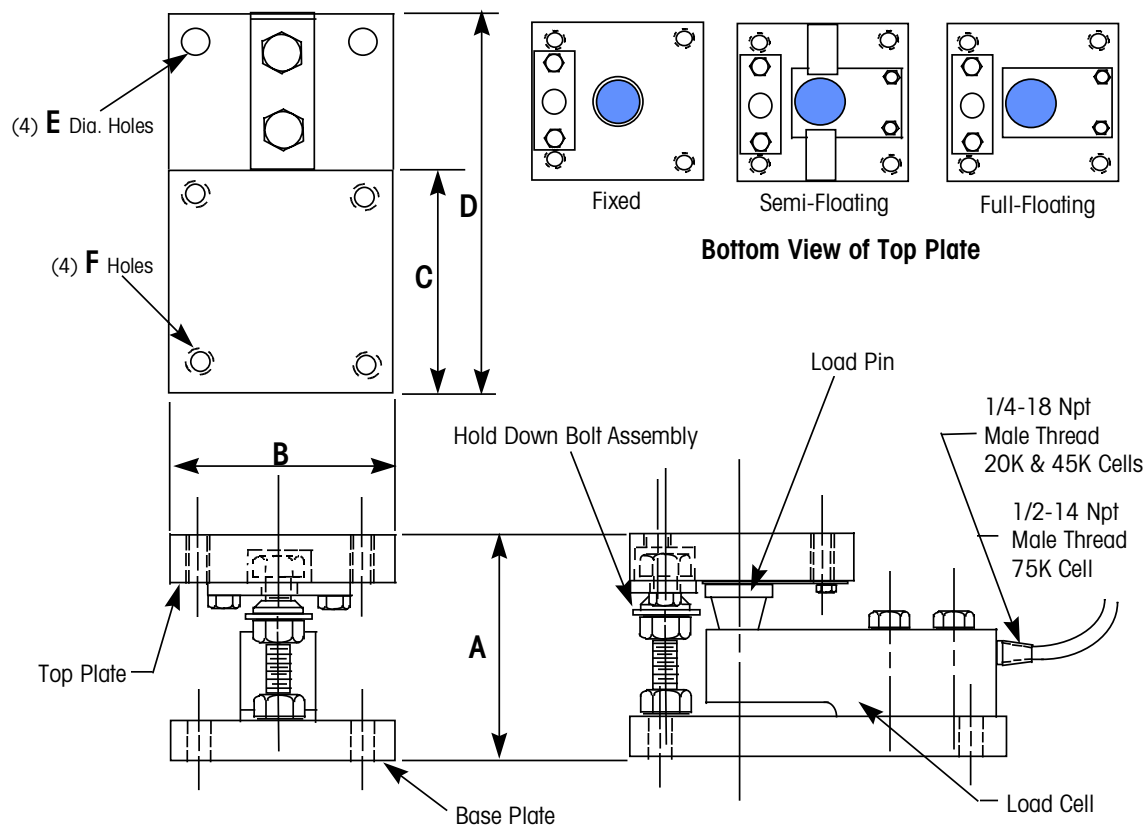


Figure 16-c: 0957 Flexmount

Cell Capacity	A	B	C	D	E Dia.	F Thread
20K lb	6.75 in	* 6.00 in	7.00 in	14.00 in	.81 in	3/4-10
45K lb	8.22 in	8.00 in	8.50 in	15.50 in	1.12 in	1-8
75K lb	9.56 in	**8.00 in	8.50 in	17.75 in	1.06 in	1-8

* 6.50 in for Semi-Floating Module

** 12.00 in for Semi-Floating Module

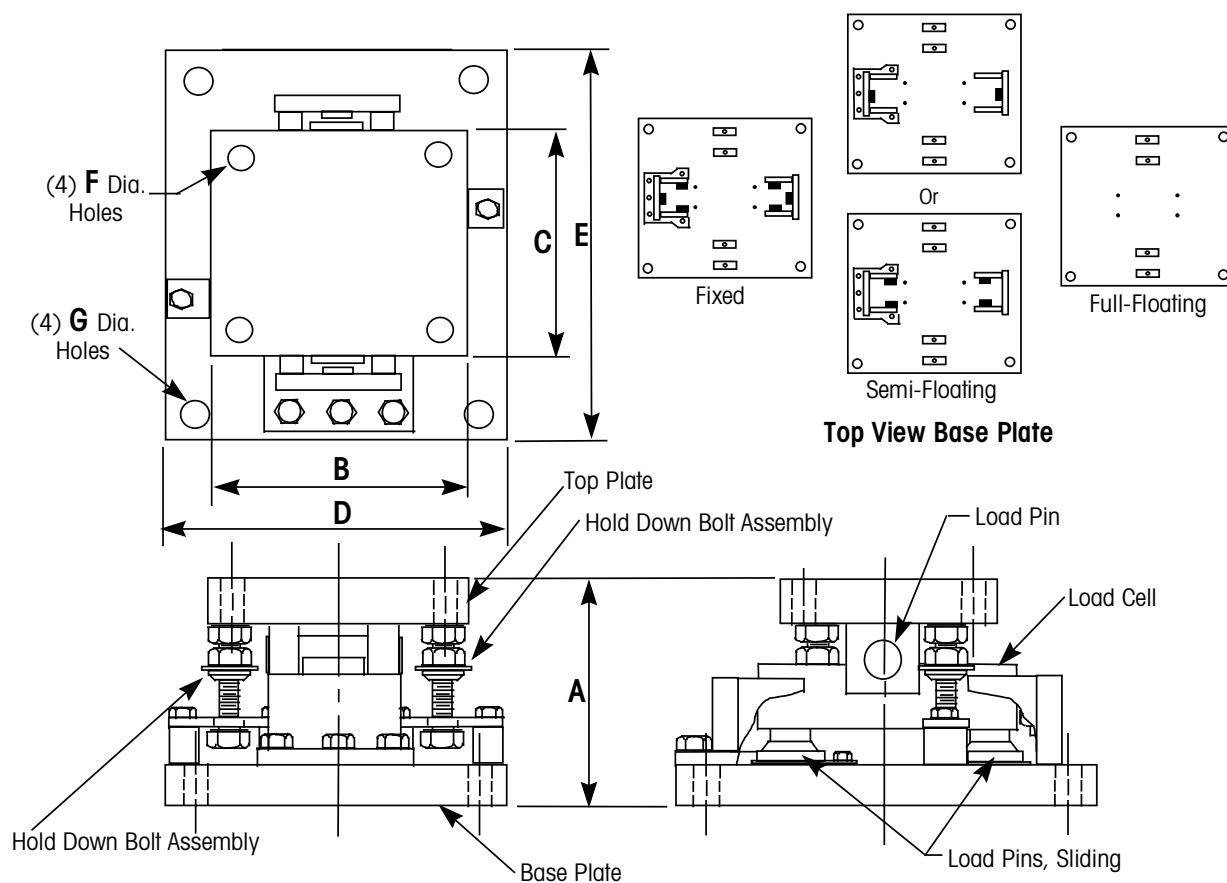


Figure 16-d: Model 0957 100k & 200k Flexmount

Cell Capacity	A	B	C	D	E	F Dia.	G Dia.
100K lb	10.00 in	12.00 in	12.00 in	15.00 in	23.00 in	1.12 in	1.38 in
200K lb	11.25 in	13.00 in	12.00 in	16.00 in	23.00 in	1.12 in	1.38 in

Centerlign

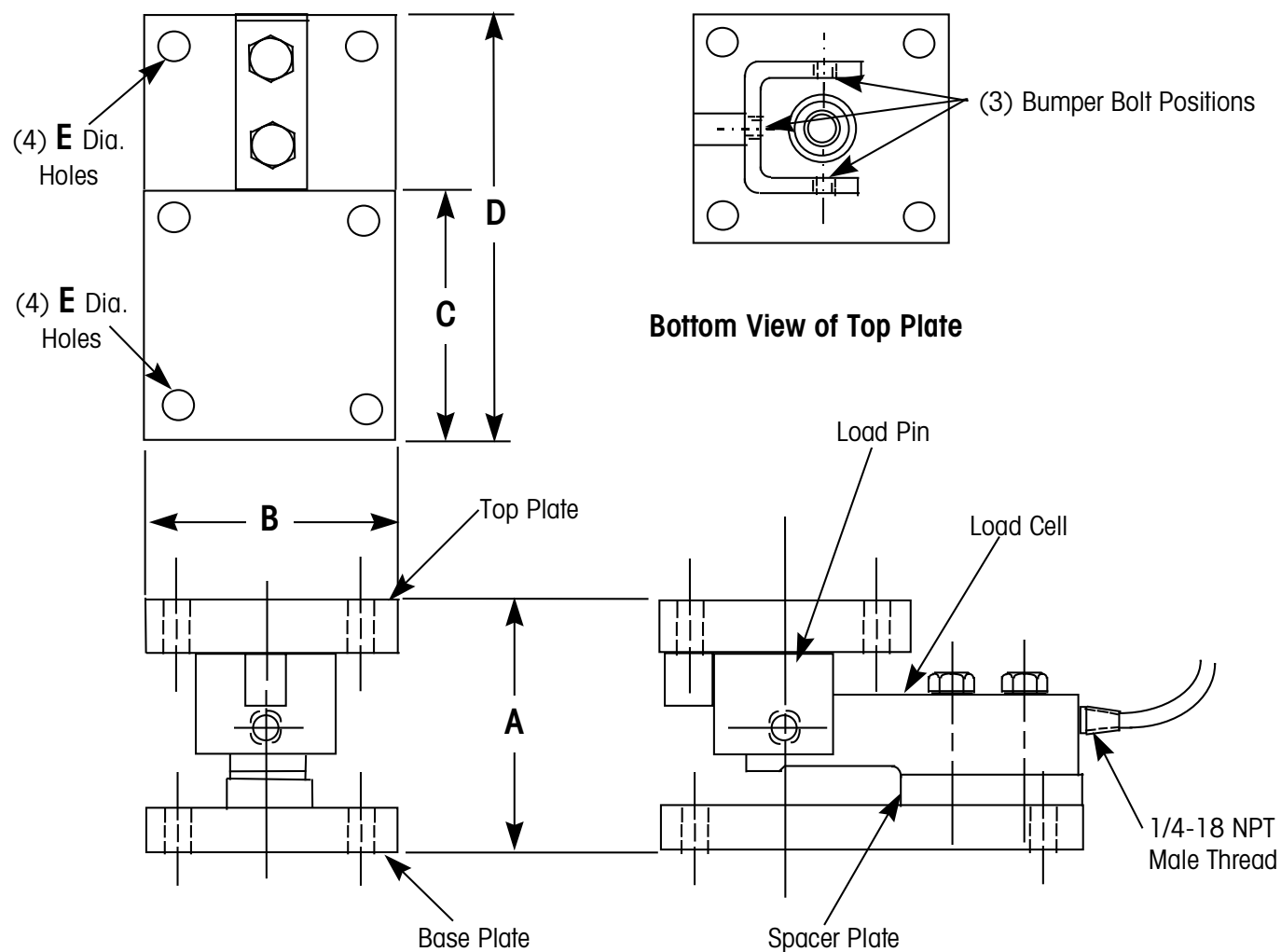


Figure 16-e: Model 0958 Centerlign+

Cell Capacity	A	B	C	D	E Dia.
250 - 5K lb	4.12 in	4.50 in	4.5 in	7.00 in	.44 in
10K lb	5.38 in	6.00 in	6.00 in	9.25 in	.69 in
220 - 2200 kg	104.8 mm	114.3 mm	114.3 mm	177.8 mm	11.1 mm
4400 kg	136.5 mm	152.4 mm	152.4 mm	235.0 mm	17.5 mm

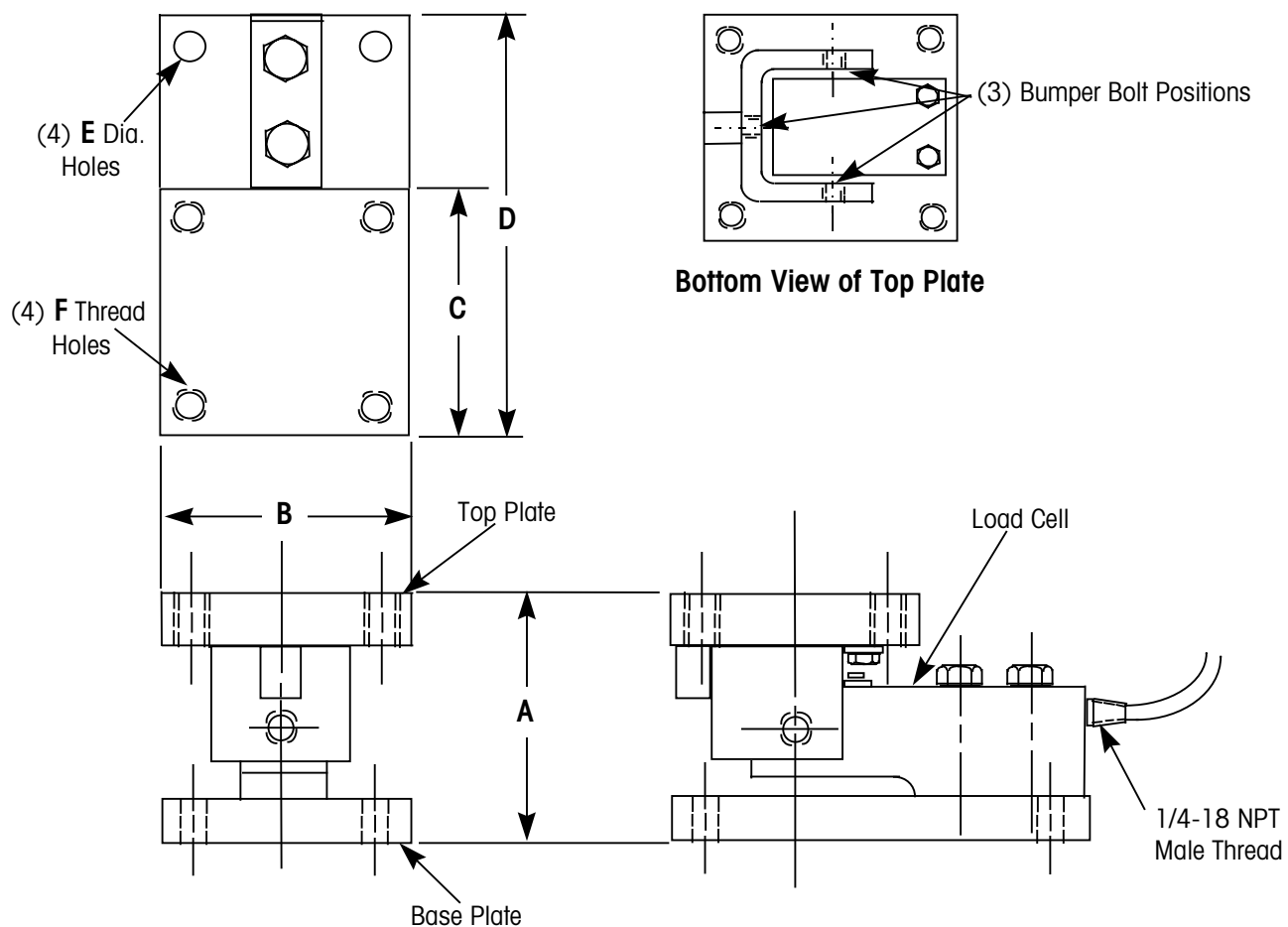


Figure 16-f: Model 0957 Centerlign

Cell Capacity	A	B	C	D	E Dia.	F Thread
20K lb	8.00 in	6.00 in	7.00 in	14.00 in	.81 in	3/4-10
45K lb	9.78 in	8.00 in	8.50 in	15.50 in	1.06 in	1-8
75K lb	11.25 in	8.00 in	8.50 in	17.75 in	1.06 in	1-8

Installation (Flexmount)

Note: Model 0958 top plates are marked for easy identification once installed. The 'fixed' top plate has a chamfer along the entire front-bottom edge. The semi-floating top plate has 1" long chamfer on each side of the front bottom edge. The full-floating unit has no chamfer.

Flexmount weigh modules give tanks, hoppers, ...etc. scale-like qualities. Flexmount consist of three different types: 1.) one Fixed, 2.) one Semi-Floating, and 3.) one or more Full-Floating, depending on the application.

Model 0958 Flexmount+ Assemblies (250 through 10,000 lb load cells) have top plates that can be turned 90° to handle tangential or radial mounting arrangements. See below for recommended mounting arrangements.

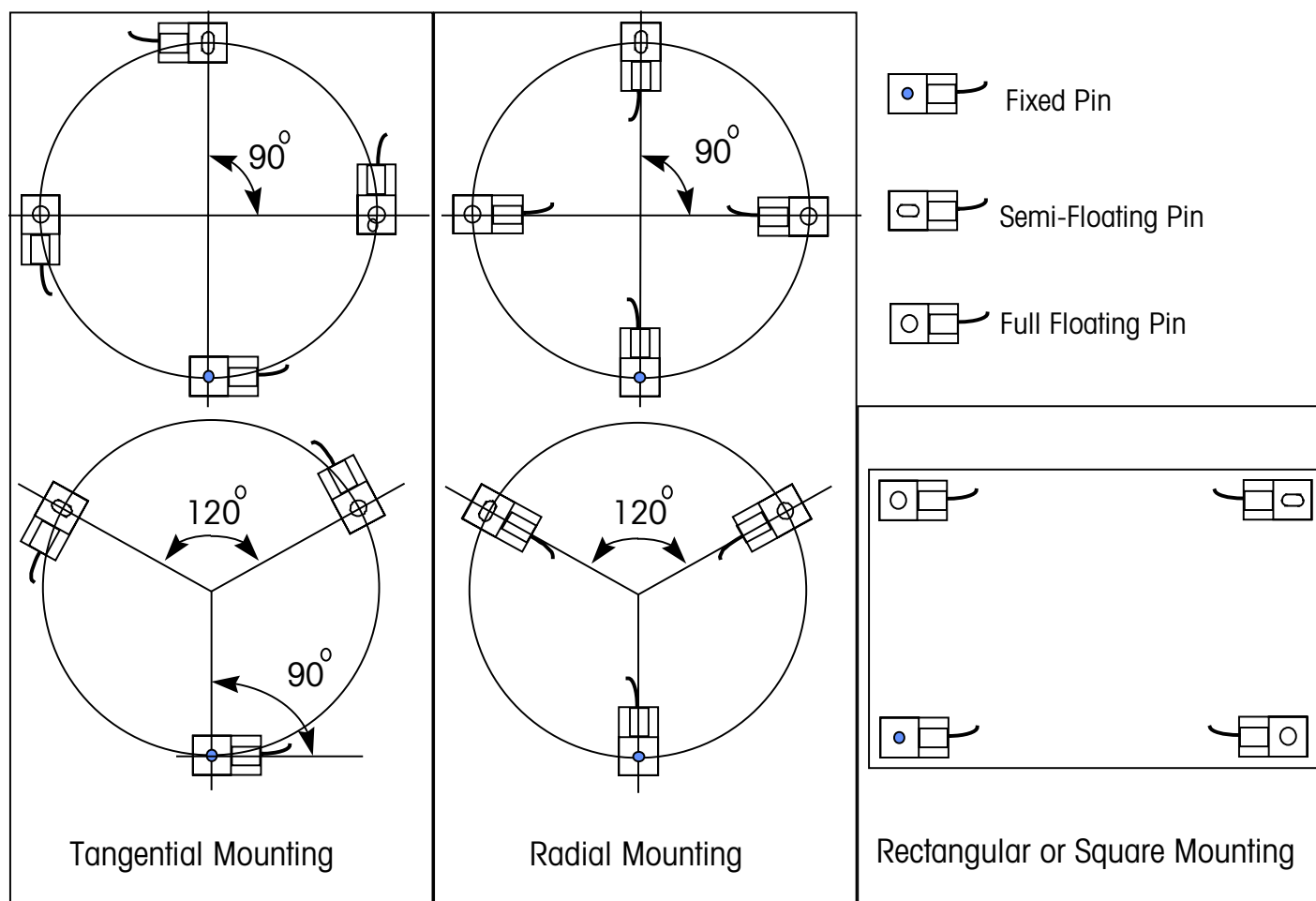
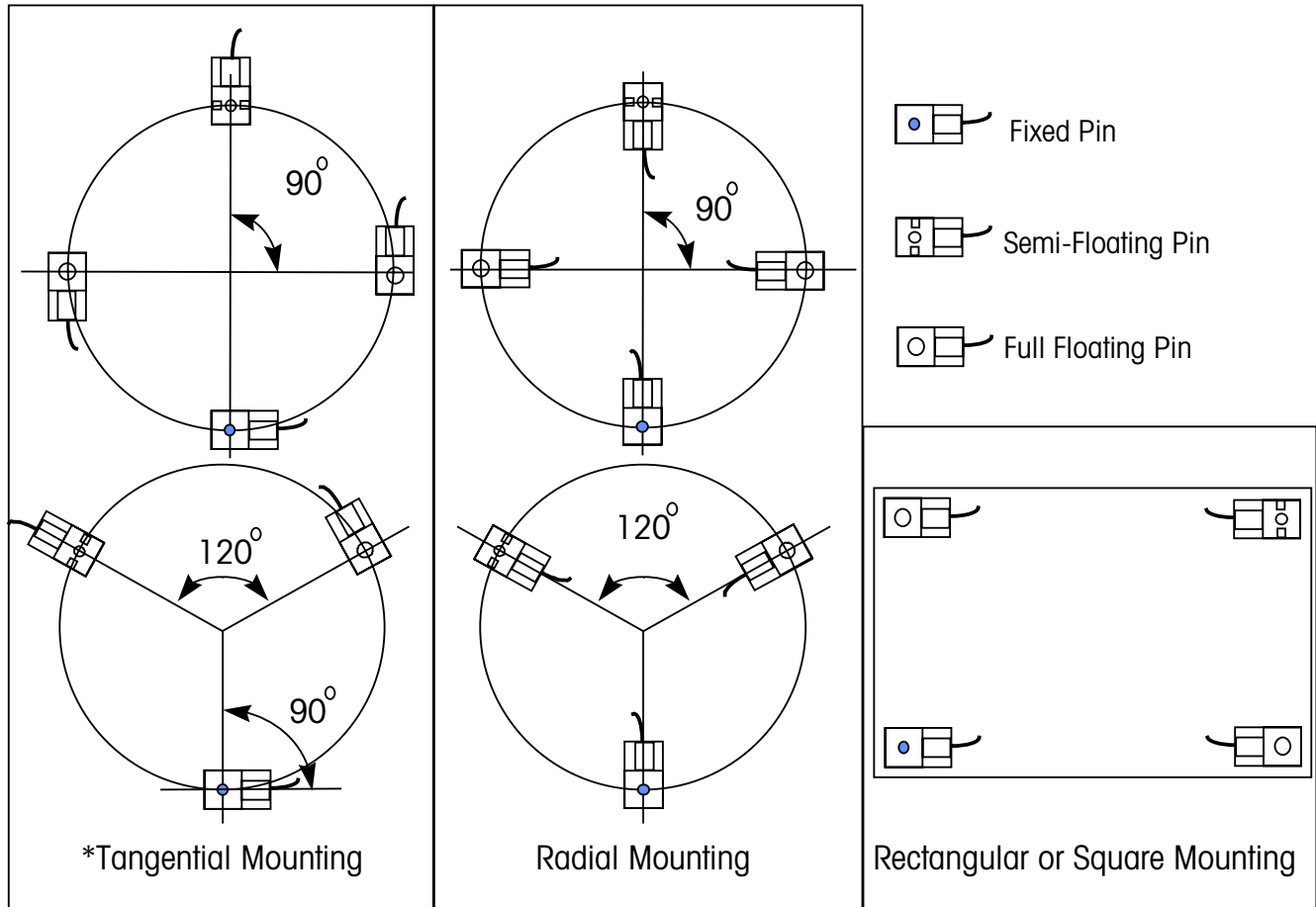


Figure 16-g: Plan View of Mounting Arrangements for Model 0958

Model 0957 Flexmount 20K through 75K weigh modules differ slightly from the model 0958 modules. The semi-floating top plate bumps checks against the sides of the load cell. Unlike the model 0958 module, no provision exists to turn the top mounting plates 90 degrees. Therefore, the Model 0957 module's semi-floating top plate can only be oriented radially. See below for recommended mounting arrangements.



* Semi-Floating Module can not be mounted Tangentially

Figure 16-h: Plan View of Mounting Arrangements for Model 0957

Model 0957 Flexmount 100K and 200K weigh modules incorporate Mettler Toledo's dual shear beam load cells. All the features and benefits are maintained including the fixed, float, and semi-floating pin principals. See below for recommended mounting arrangements.

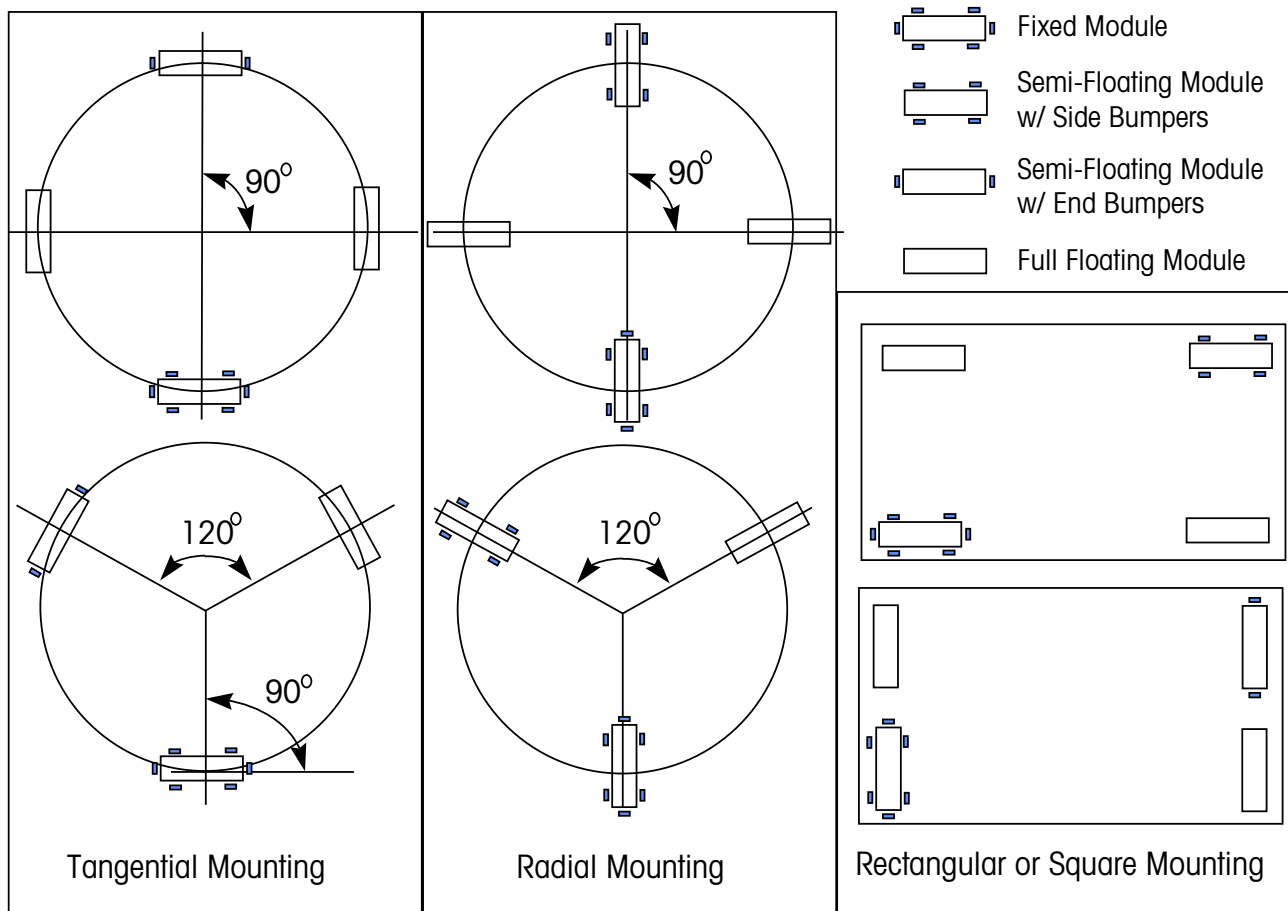
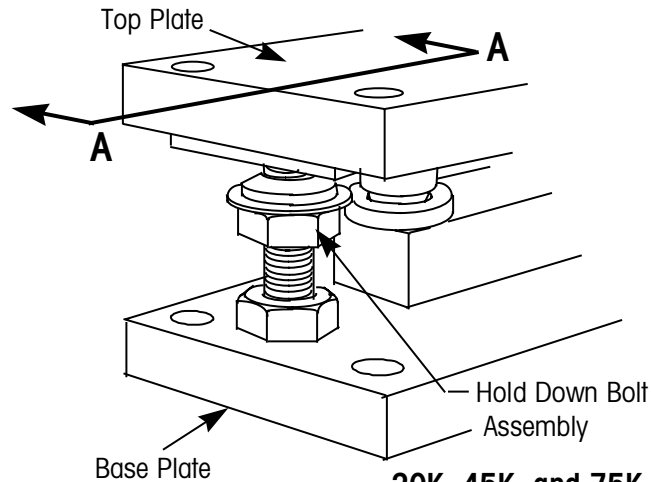
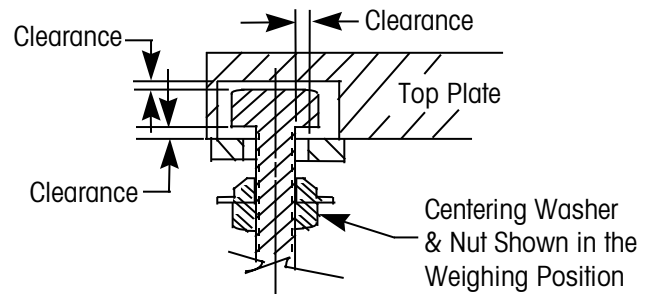


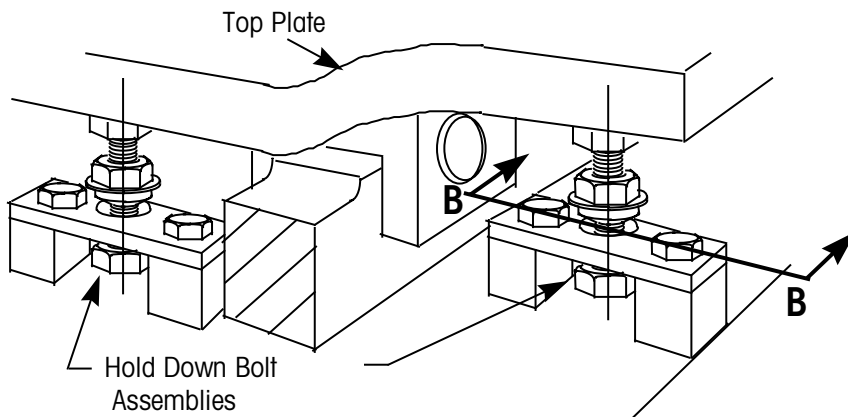
Figure 16-i: Plan View of Mounting Arrangements for Model 0957



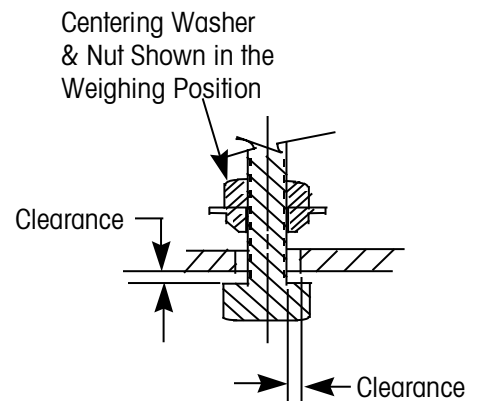
20K, 45K, and 75K Weigh Modules



Section A-A



100K, and 200K Weigh Modules



Section B-B

Model 0957

Figure 16-j: Flexmount Hold Down Assembly

ATTENTION!

Rules For Installation:

1. Always use one (1) fixed, one (1) semi-floating, and all others full floating weigh modules
2. Always install the semi-floating weigh module to limit the movement of the scale about the fixed weigh module and as far as possible from the fixed weigh module.
3. Tank legs or structural support lugs must be rigid enough to maintain the relationship of its' support points through the entire weighing capacity.

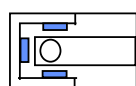
Installation (Centerlign)

The Centerlign Weigh Modules are arranged to handle the major horizontal forces by bumping on the end of the load cells and capture the structure by opposing the end bumping. As shown in below.

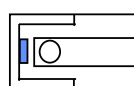
ATTENTION!

Rules For Installation:

1. Centerlign Weigh Modules Do Not provide overturn protection. If any uplifting forces are generated, anti-uplift/overturn protection must be added separately.
2. Structures such tanks or conveyors must be properly design to maintain the relationship of the support points through the entire weighing range. Centerlign weigh modules Do Not provide this type of restrain.



Three Bumper Module



Single Bumper Module

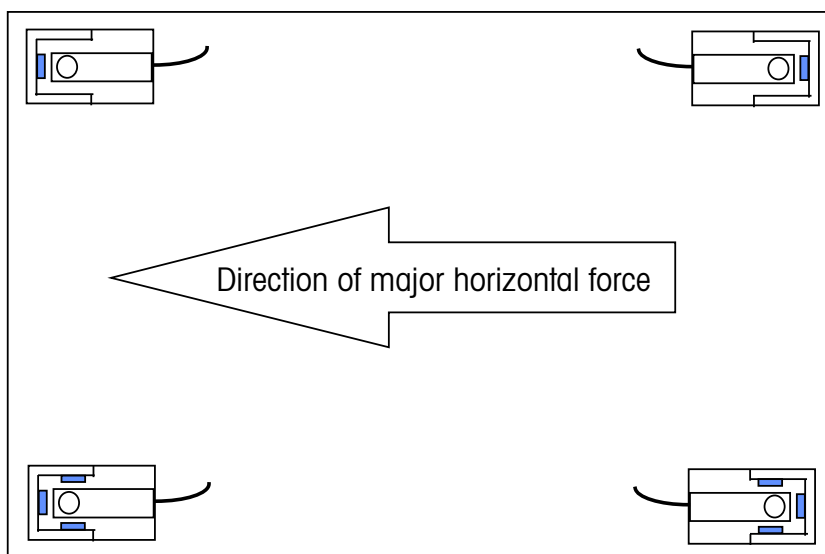


Figure 16-k: Plan View of Mounting Arrangements for Model 0957/0958 Centerlign

Install an alignment tool in each of the Centerlign weigh module. As shown below.

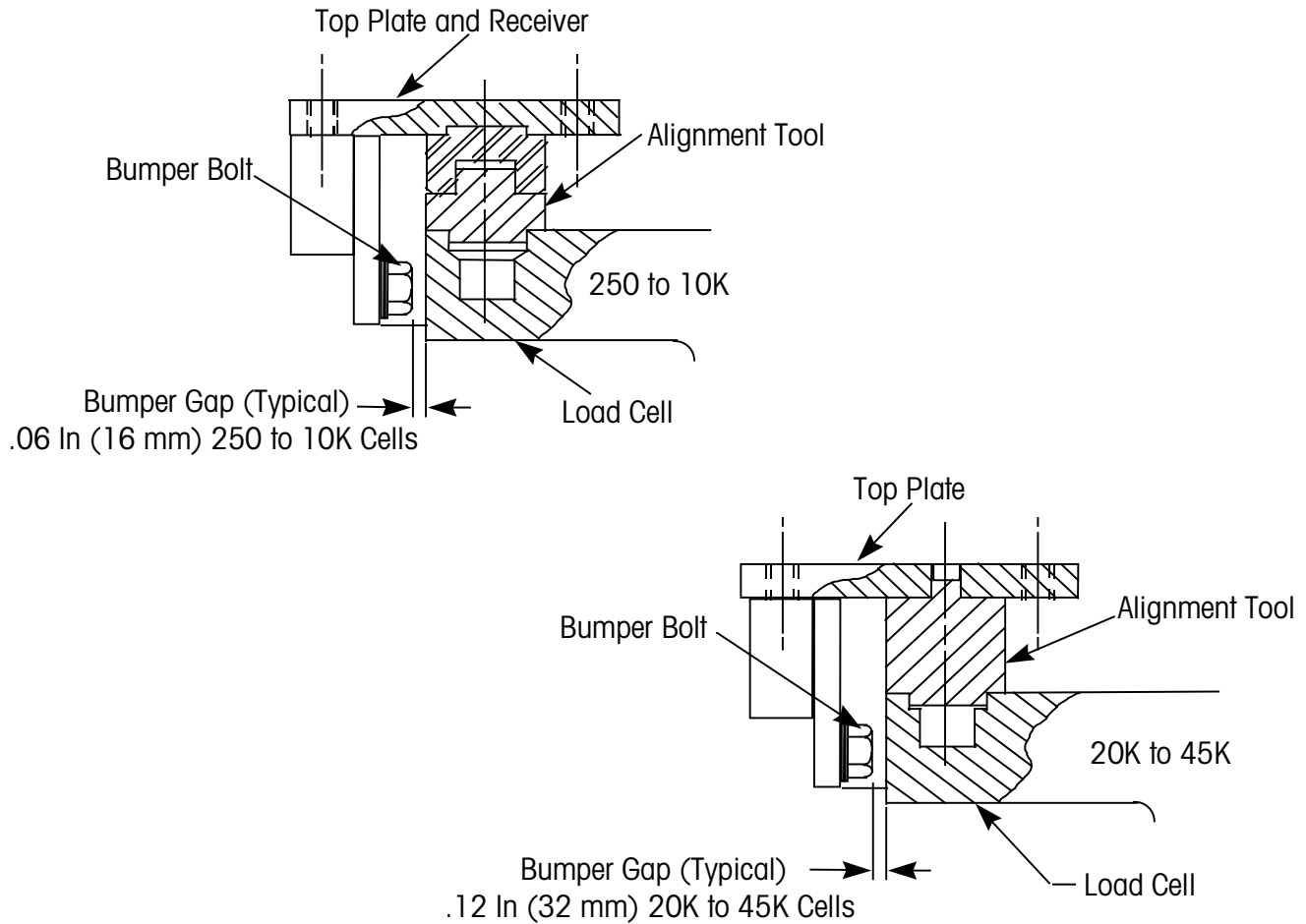


Figure 16-I: Centerlign Top Plate Alignment

Install a Rocker Pin in each of the Centerlign weigh module. As shown below.

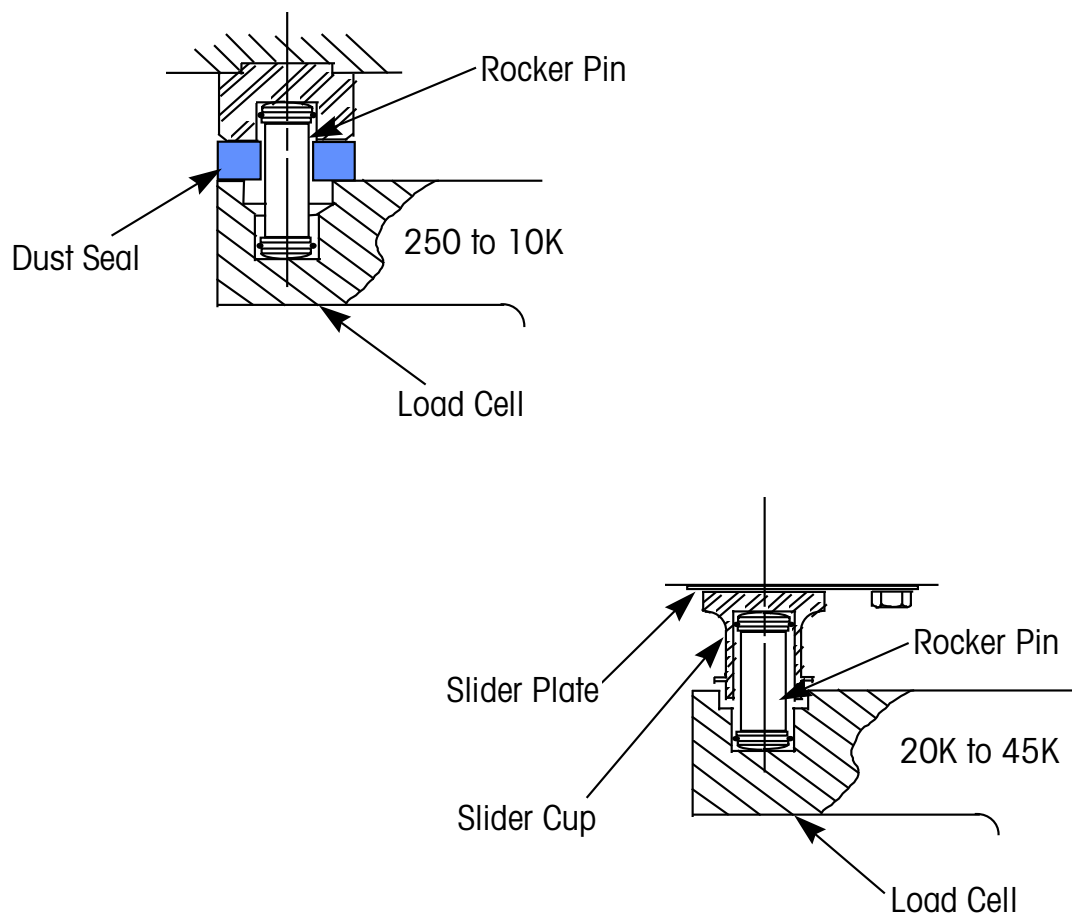


Figure 16-m: Centerlign Rocker Pin Arrangement

ATTENTION!

Rules For Installation:

1. Always handle the major horizontal forces by bumping on the end of the load cells.
2. Structures such as long legged tanks or conveyors must be rigid enough to maintain the relationship of the support points through the entire weighing capacity. Centerlign weigh modules do not provide this type of restrain.
3. When only two weigh modules are used for bumping, both weigh modules should be on the same side of the scale.

Modes of Operation

Analog Module

Note: Turn all pots fully clockwise prior to calibration.

The Flexmount /Centerlign can be used with an analog junction box for summing the load cell outputs. Only analog compatible indicators will work with the Analog Junction Box. The correct cable connection can be seen below.

Service Parts

P/N TB100393 - Analog Junction Box 4-Hole

TB100395 - Analog Junction Box 5-Hole

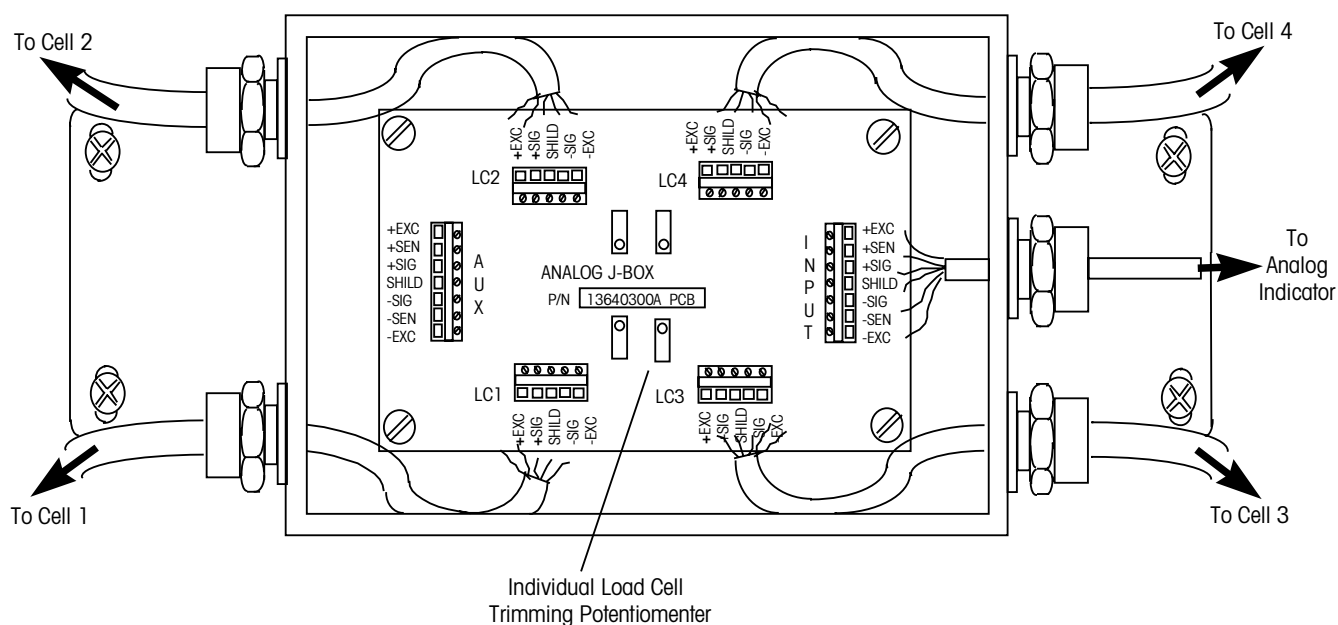


Figure 16-n: Analog Junction Box Details and Wiring Codes

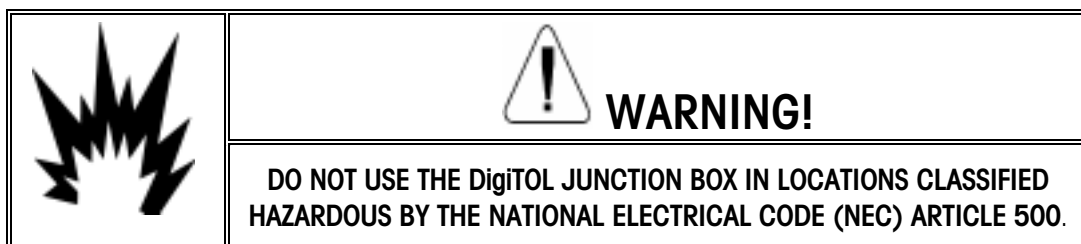
Load Cell Wiring		Instrument Cable Wiring	
Function	Color	Function	Color
+ Excitation	Green	+Excitation	White
+ Sense	Not Used	+ Sense	Yellow
+ Signal	White	+ Signal	Green
Shield	Yellow	Shield	Orange
–Signal	Red	–Signal	Black
–Sense	Not Used	–Sense	Red
–Excitation	Black	–Excitation	Blue
(Based on Mettler Toledo Cable Number 510624370)			

DigiTOL DLC Mode

Note: The DigiTOL Junction Box is not compatible with the model 8510 panel mount indicator or models 8572 or 8582 counting scales.

Note: Jumpers W1, W2, W3 and W4 must be "IN" shorting pins (for 2 mV/V Load Cells).

The Flexmount and Centerlign can be used with a DigiTOL Junction Box for summing the load cell outputs. Only DigiTOL indicators will work with the DigiTOL Junction Box. In the DLC mode the indicator serves as the host for the DigiTOL junction box allowing the scale parameters to be adjusted via the indicator keypad. Cable connections can be seen in below.



Service Parts

P/N TB100515-X DigiTOL Junction Box
(X = number of connectors required on J-Box 3, 4, or 5)

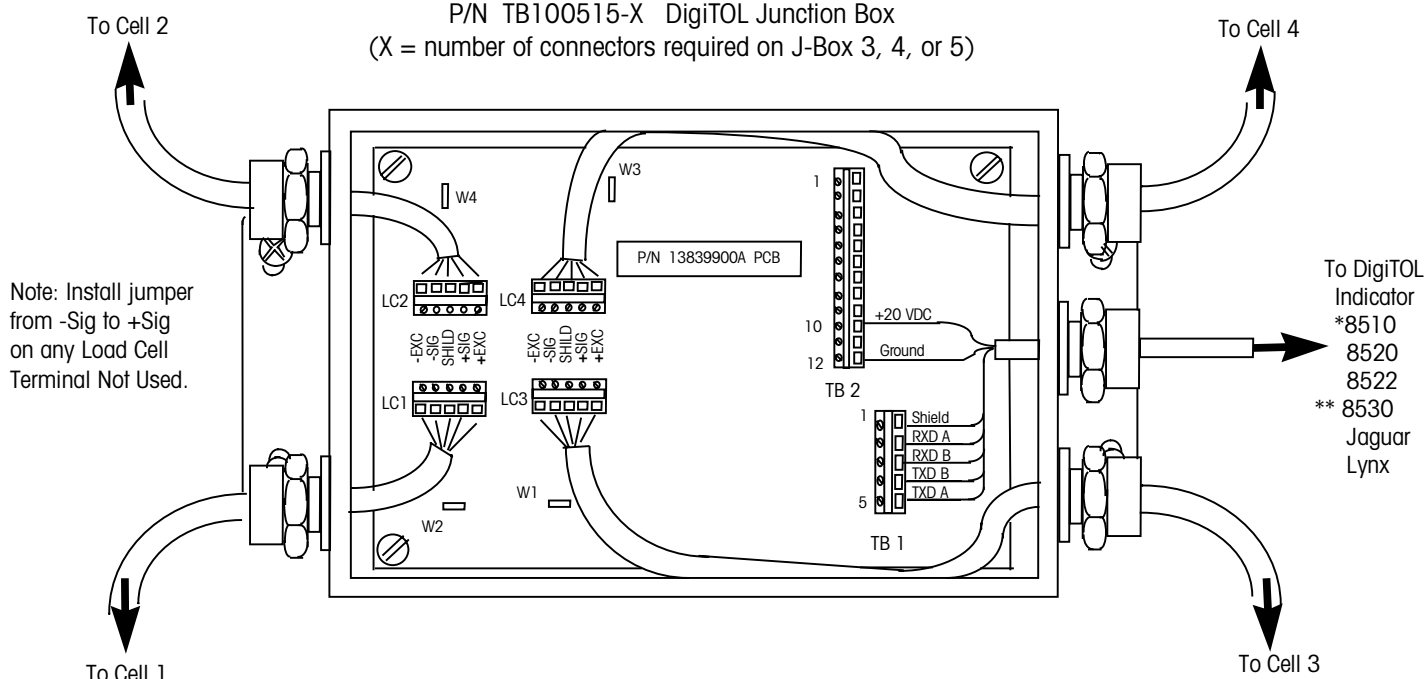


Figure 16-o: DigiTOL Junction Box Wiring DLC Mode

Terminal No.	Position	Function	Wire Color
TB2	10	+20 VDC	Green
TB2	12	Ground	Blue
TB1	1	Shield	Orange
TB1	2	RXD A	Red
TB1	3	RXD B	White
TB1	4	TXD B	Yellow
TB1	5	TXD A	Black

* Not compatible with Model 8510 Panel Mount DigiTOL Indicator or Models 8572 and 8582 Counting Scales.

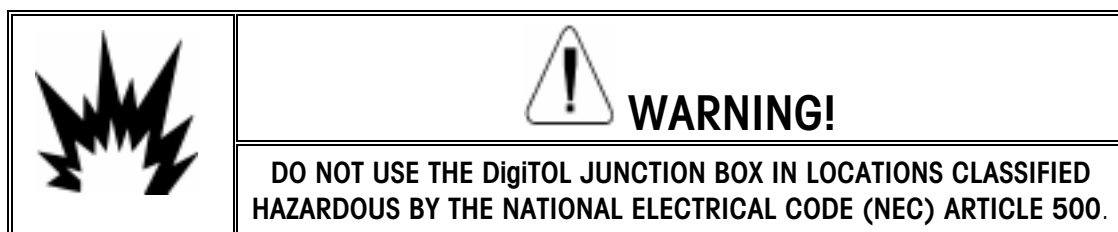
** Not compatible with Model 8530VS.

DigiTOL Smart Mode

Note: Jumpers W1, W2, W3, and W4 must be "IN" shorting pins (for 2 mV/V Load Cells).

When used with the 8505 weight display, the DigiTOL Junction Box serves as the "brains" for operation and become the host for the indicator. Cable connections can be seen in next page.

* For detailed information regarding indicator capabilities and operating instructions consult the appropriate Mettler Toledo technical manual.



Service Parts

P/N TB100515-X DigiTOL Junction Box

(X = number of connectors required on J-Box 3, 4, or 5)

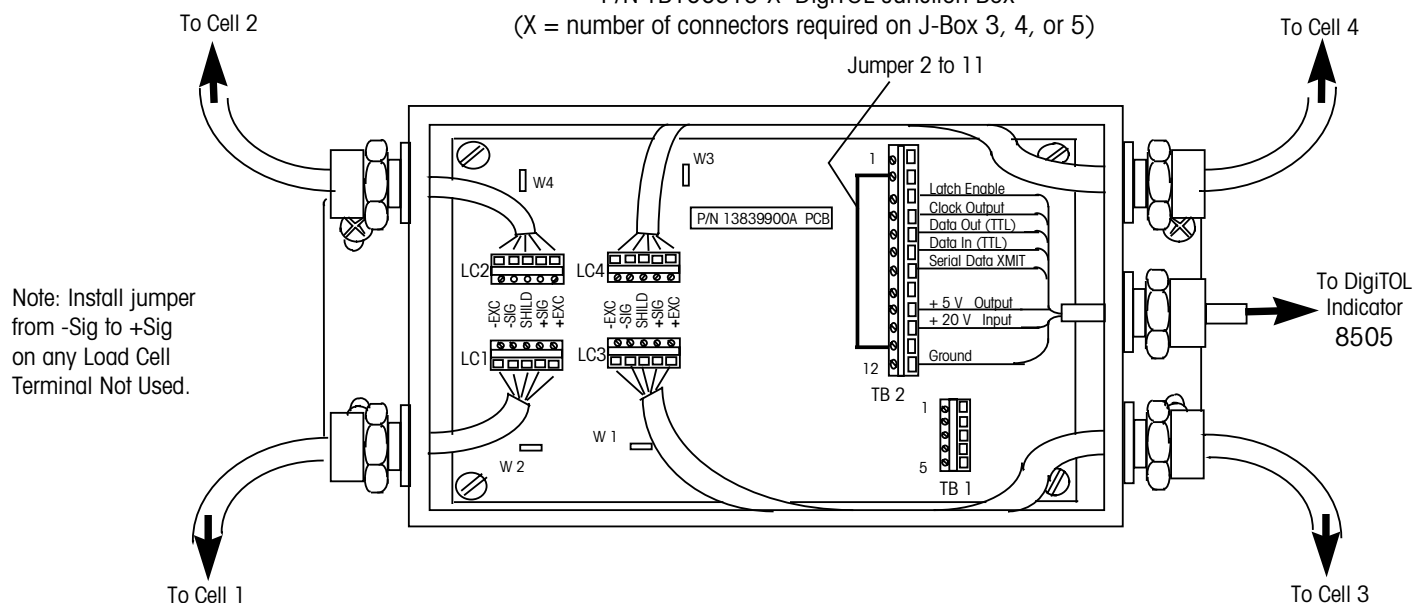


Figure 16-p: DigiTOL Junction Box Wiring for Smart Mode with Model 8505 DigiTOL Indicator

Smart Mode (TB 2)		
Position	Function	Wire Color
1	Not Used	
2	Jumper to 11	
3	Latch Enable	Orange
4	Clock Output	Blue
5	Data Out (TTL)	Brown
6	Data In (TTL)	Violet
7	Serial Data Transmit	Red
8	Not Used	
9	+5 VDC Output	Yellow
10	+20 VDC Input	Black
11	Jumper to 2	
12	Ground	Green

Model 0958

Flexmount+ 250 to 10k Cells

Torque Load Cell Bolts to:

1. Mild Steel Assembly
75 ft-lb/102 Nm (250 to 5K cells) &
200 ft-lb/271 Nm (10K cells)
2. Stainless Steel Assembly
100 ft-lb/136 Nm (250 to 5K cells) &
250 ft-lb/339 Nm (10K cells)

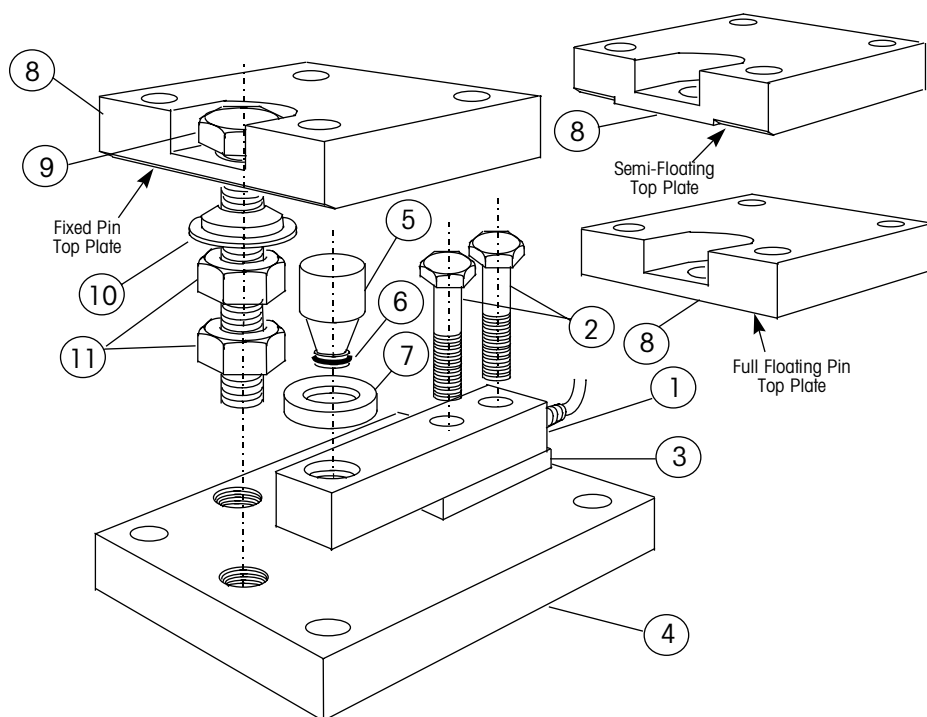


Figure 16-q: 250 to 2,500 lb Flexmount+ Assembly

Ref. No.	Part Number	Description	Qty
1	TB600488-1	250 lb Load Cell 350 Ohm (15 ft. cable)	1
	TB600529-3	500 lb Load Cell S.S. 350 Ohm Model 745 (15 ft. cable)	
	TB600451	220 kg Load Cell 350 Ohm Model 744 (15 ft. cable)	
	TB600454	550 kg C3 R60 OIML Load Cell S.S. 350 Ohm (15 ft. cable)	
	TB600363	1,500 lb Load Cell S.S. 350 Ohm (15 ft. cable)	
	TB600342	2,500 lb Load Cell S.S. 350 Ohm (15 ft. cable)	
	TB600455	1100 kg C3 R60 OIML Load Cell S.S. 350 Ohm (15 ft. cable)	
2	MZ0901010433	1/2-13 Hex. Hd. Bolt x 2.25" Lg. (Mild Steel Assb.)	2
	MZ0901010122	1/2-13 Hex. Hd. Bolt x 2.25" Lg. (Stainless Steel Assb.)	
3	TN600366	Spacer Plate	1
4	TA600316-11	Base Plate, (Mild Steel Assembly)	1
	TA600316-2	Base Plate, (Stainless Steel Assembly)	
5	TN600321	Load Pin	1
6	MZ0909000005	"O" Ring, Load Pin	1

Ref. No.	Part Number	Description	Qty
7	TN600322-1	Dust Seal, Load Pin	1
8	TA600320-11 TA600320-2 TA600319-11 TA600319-2 TA600318-11 TA600318-2	Top Plate Full Floating Pin (Mild Steel Assb.) Top Plate Full Floating Pin (Stainless Steel Assb.) Top Plate Semi-Floating Pin (Mild Steel Assb.) Top Plate Semi-Floating Pin (Stainless Steel Assb.) Top Plate, Fixed Pin (Mild Steel Assb.) Top Plate, Fixed Pin (Stainless Steel Assb.)	1
9	MZ0901010462 MZ0901010423	5/8-11 Hold Down Bolt x 3.5" Lg. (Mild Steel Assb.) 5/8-11 Hold Down Bolt x 3.5" Lg. (Stainless Steel Assb.)	1
10	TN600507	Centering Washer, S.S.	1
11	MZ0901020025	5/8-11 Hex. Nut, S.S.	2

* May have a letter prefix

5000 lb Flexmount+ Assembly

Ref. No.	Part Number	Description	Qty
1	TB600343 TB600456	5,000 lb Load Cell S.S. 350 Ohm (15 ft. cable) 2,200 kg C3 R60 OIML Load Cell S.S. 350 Ohm (30 ft cable)	1
2	MZ0901010434 MZ0901010227	1/2-13 Hex. Hd. Bolt x 2.50" Lg. (Mild Steel Assb.) 1/2-13 Hex. Hd. Bolt x 2.50" Lg. (Stainless Steel Assb.)	2
3	TN600366	Spacer Plate	1
4	TA600316-11 TA600316-2	Base Plate, (Mild Steel Assembly) Base Plate, (Stainless Steel Assembly)	1
5	TN600321	Load Pin	1
6	MZ0909000005	"O" Ring, Load Pin	1
7	TN600322-2	Dust Seal, Load Pin	1
8	TA600320-11 TA600320-2 TA600319-11 TA600319-2 TA600318-11 TA600318-2	Top Plate Full Floating Pin (Mild Steel Assb.) Top Plate Full Floating Pin (Stainless Steel Assb.) Top Plate Semi-Floating Pin (Mild Steel Assb.) Top Plate Semi-Floating Pin (Stainless Steel Assb.) Top Plate, Fixed Pin (Mild Steel Assb.) Top Plate, Fixed Pin (Stainless Steel Assb.)	1
9	MZ0901010462 MZ0901010423	5/8-11 Hold Down Bolt x 3.5" Lg. (Mild Steel Assb.) 5/8-11 Hold Down Bolt x 3.5" Lg. (Stainless Steel Assb.)	1
10	TN600507	Centering Washer, S.S.	1
11	MZ0901020025	5/8-11 Hex. Nut, S.S.	2

* May have a letter prefix

10,000 lb FLEXMOUNT+ Assembly

Ref. No.	Part Number	Description	Qty
1	TB600364 TB600457-1	10,000 lb Load Cell S.S. 350 Ohm (30 ft. cable) 4400 kg C3 R60 OIML Load Cell S.S. 350 Ohm (30 ft cable)	1
2	MZ0901010420 MZ0901010421	3/4-10 Hex. Hd. Bolt x 3.25" Lg. (Mild Steel Assb.) 3/4-10 Hex. Hd. Bolt x 3.25" Lg. (Stainless Steel Assb.)	2
3	TN600367	Spacer Plate	1
4	TA600333-11 TA600333-2	Base Plate, (Mild Steel Assembly) Base Plate, (Stainless Steel Assembly)	1
5	TN600337	Load Pin	1
6	MZ090900050	"O" Ring, Load Pin	1
7	TN600322-3	Dust Seal, Load Pin	1
8	TA600336-11 TA600336-2 TA600335-11 TA600335-2 TA600334-11 TA600334-2	Top Plate Full Floating Pin (Mild Steel Assb.) Top Plate Full Floating Pin (Stainless Steel Assb.) Top Plate Semi-Floating Pin (Mild Steel Assb.) Top Plate Semi-Floating Pin (Stainless Steel Assb.) Top Plate, Fixed Pin (Mild Steel Assb.) Top Plate, Fixed Pin (Stainless Steel Assb.)	1
9	MZ0901010461 MZ0901010425	3/4-10 Hold Down Bolt x 4.5" Lg. (Mild Steel Assb.) 3/4-10 Hold Down Bolt x 4.5" Lg. (Stainless Steel Assb.)	1
10	TN600511	Centering Washer, S.S.	1
11	MZ0901020046	3/4-10 Hex. Nut, S.S.	2

* May have a letter prefix

Model 0957 Flexmount 20k Cell

Torque Load Cell Bolts to:

1. Mild Steel Assembly
475 ft-lb/644 Nm
2. Stainless Steel Assembly
280 ft-lb/380 Nm

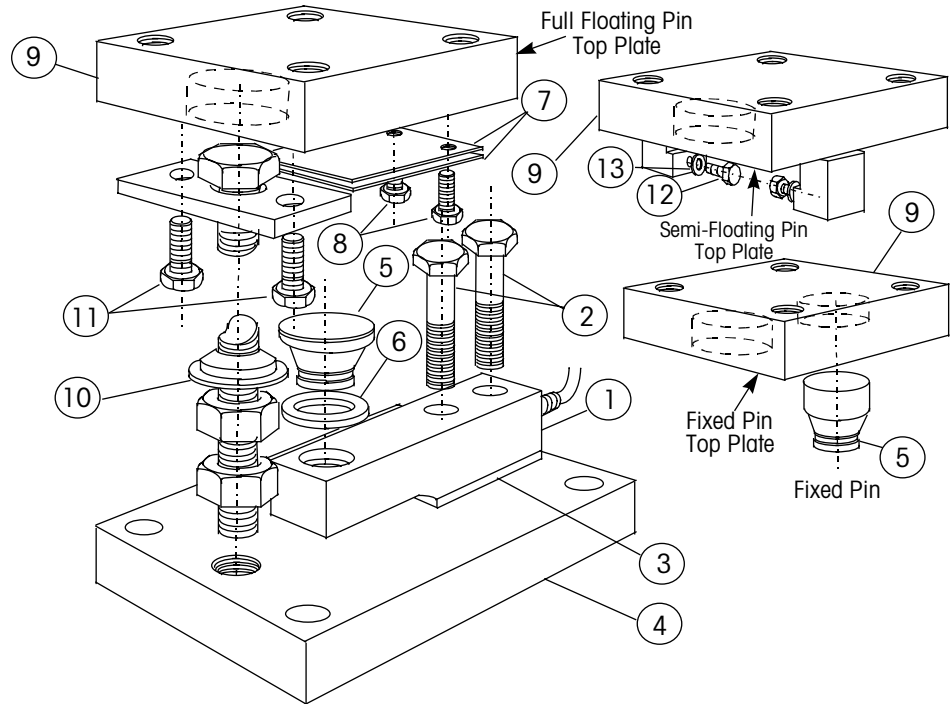


Figure 16-r: 20,000 lb Flexmount Assembly

Ref. No.	Part Number	Description	Qty
1	A13077500B *15237800A	20,000 lb Load Cell S.S. 350 Ohm (30 ft. cable) 9,072 KG C2 R60 OIML Load Cell S.S. 350 Ohm (30-ft cable)	1
2	MZ0901010072 MZ0901010316	1-8 Hex. Hd. Bolt x 4.00" Lg. (Mild Steel Assb.) 1-8 Hex. Hd. Bolt x 4.00" Lg. (Stainless Steel Assb.)	2
3	TN300578	Spacer Plate	1
4	MA61226-10 TA600037	Base Plate, Mild Steel Base Plate, Stainless Steel	1
5	MN61186 MA61005-3	Load Pin, floating Load Pin, fixed	1
6	MN61016-11	Dust Seal, Load Pin	1
7	MN61222-2	Shim, Stainless Steel .075" x 2.75" x 4.12" (used with the Semi and Full Floating Assemblies)	2
8	MZ0901010064	3/8-16 Hex. Hd. Screw x .50" Lg. (used with the Semi and Full Floating Assemblies)	4

METTLER TOLEDO Heavy Capacity Reference Guide

Ref. No.	Part Number	Description	Qty
9	MA61229-10	Top Plate Full Floating Pin (Mild Steel Assb.)	1
	TA600040	Top Plate Full Floating Pin (Stainless Steel Assb.)	
	MA61227-10	Top Plate Semi-Floating Pin (Mild Steel Assb.)	
	TA600038	Top Plate Semi-Floating Pin (Stainless Steel Assb.)	
	MA61228-10	Top Plate, Fixed Pin (Mild Steel Assb.)	
	TA600039	Top Plate, Fixed Pin (Stainless Steel Assb.)	
10	TN600497	Hold Down Bolt Assembly (Mild Steel Assb.)	1
	TN600041	Hold Down Bolt Assembly (Stainless Steel Assb.)	
11	MZ0901010459	5/8-11 Hex. Hd. Bolt x 1.25" Lg. (Mild Steel Assb.)	2
	MZ0901010083	5/8-11 Hex. Hd. Bolt x 1.25" Lg. (Stainless Steel Assb.)	
12	MZ0901010228	1/2-13 Hex. Hd. Screw S.S. x 1.00" Lg.	2
13	MZ0901030016	1/2 Plain Washer S.S.	4

* May have a letter prefix

Model 957 Flexmount 45k Cell

Torque Load Cell Bolts to:

1. Mild Steel Assembly
1000 ft-lb/1356 Nm
2. Stainless Steel Assembly
520 ft-lb/705 Nm

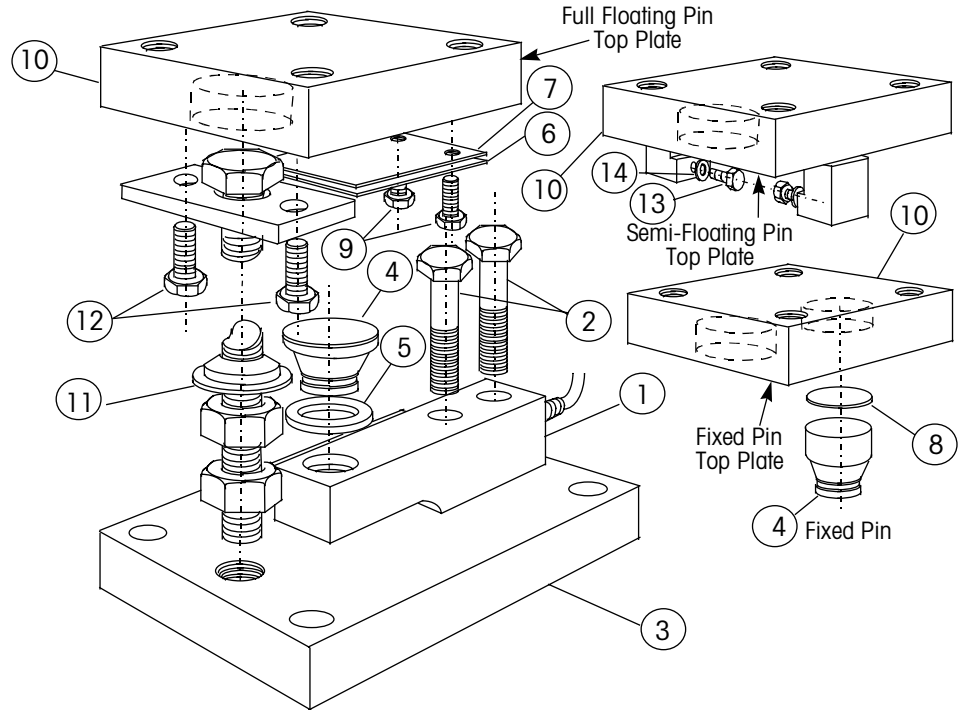


Figure 16-s: 45,000 lb Flexmount Assembly

Ref. No.	Part Number	Description	Qty
1	*13929400A *15238200A	45,000 lb Load Cell S.S. 2,000 Ohm (30 ft. cable) 20,412 kg Load Cell S.S. C2 R60 OIML 2K Ohm (30-ft cable)	1
2	MZ0901010201 MZ0901010216	1 1/4 -7 Hex. Hd. Bolt x 5.00" Lg. (Mild Steel Assb..) 1 1/4 -7 Hex. Hd. Bolt x 5.00" Lg. (Stainless Steel Assb..)	2
3	MA61198-11 MA611198-2	Base Plate , Mild Steel Base Plate , Stainless Steel	1
4	MN61187 MA61005-4	Load Pin, floating Load Pin, fixed	1
5	MN61016-5	Dust Seal, Load Pin	1
6	MN61002-4 MN61002-6	Thick Shim, Stainless Steel .125" x 4.00" x 5.75" (used with the Full Floating Assembly) Thick Shim, Stainless Steel .125" x 3.00" x 5.75" (used with the Semi-Floating Assembly)	1
7	MN61004-4 MN61004-6	Thin Shim, Stainless Steel .075" x 4.00" x 5.75" (used with the Full Floating Assembly) Thin Shim, Stainless Steel .075" x 3.00" x 5.75 (used with the Semi-Floating Assembly)	1

METTLER TOLEDO Heavy Capacity Reference Guide

Ref. No.	Part Number	Description	Qty
8	MN61003-15	Shim, Fixed Pin	
9	MZ0901010064	3/8-16 Hex. Hd. Screw x .50" Lg. (used with the Semi and Full Floating Assemblies)	4
10	MA61012-14 MA61175-4 TB600058-2 TB600440 MA61013-14 MA61174-4	Top Plate Full Floating Pin (Mild Steel Assb.) Top Plate Full Floating Pin (Stainless Steel Assb.) Top Plate Semi-Floating Pin (Mild Steel Assb.) Top Plate Semi-Floating Pin (Stainless Steel Assb.) Top Plate, Fixed Pin (Mild Steel Assb.) Top Plate, Fixed Pin (Stainless Steel Assb.)	1
11	TN600494 TN600509	Hold Down Bolt Assembly (Mild Steel Assb.) Hold Down Bolt Assembly (Stainless Steel Assb.)	1
12	MZ0901010459 MZ0901010083	5/8-11 Hex. Hd. Bolt x 1.25" Lg. (Mild Steel Assb.) 5/8-11 Hex. Hd. Bolt x 1.25" Lg. (Stainless Steel Assb.)	2
13	MZ0901010223	3/4-10 Hex. Hd. Screw x 1.25" Lg.	2
14	MN32367	3/4 Plain Washer S.S.	4

* May have a letter prefix

Model 957 Flexmount 75k Cell

Torque Load Cell Bolts to:

1. Mild Steel Assembly
200 ft-lb/ 271 Nm

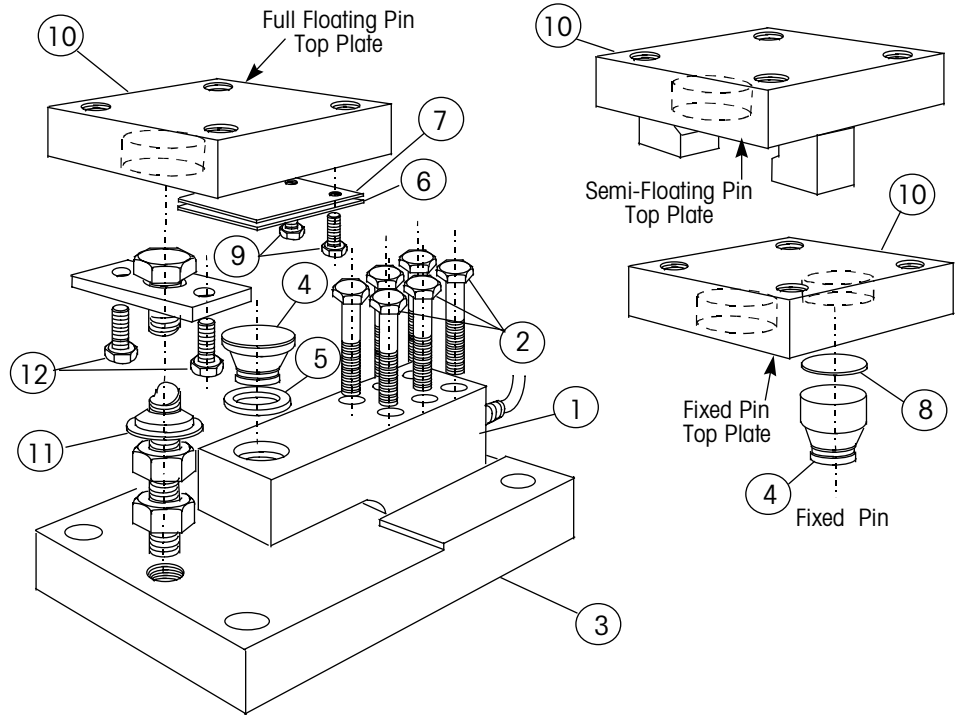


Figure 16-t: 75,000 lb Flexmount Assembly

Ref. No.	Part Number	Description	Qty
1	TB600510	75,000 lb Load Cell 350 Ohm (35 ft. cable)	1
2	MZ0901010039	3/4 -10 Hex. Hd. Bolt x 6.50" Lg.	6
3	MA61010-12	Base Plate, Mild Steel	1
4	MN61291 MA61289	Load Pin, floating Load Pin, fixed	1
5	MN61016-4	Dust Seal, Load Pin	1
6	MN61002-4	Thick Shim, Stainless Steel .075" x 4.00" x 5.75" (used with Full & Semi-Floating Assemblies)	1
7	MN61004-4	Thin Shim, Stainless Steel .075" x 4.00" x 5.75" (used with Full & Semi-Floating Assemblies)	1
8	MN61003-15	Shim, Fixed Pin	
9	MZ0901010064	3/8-16 Hex. Hd. Screw x .50" Lg. (used with the Semi and Full Floating Assemblies)	4
10	MA61012-4 MB61011-4 MA61013-4	Top Plate, Full Floating Pin (Mild Steel Assb.) Top Plate, Semi-Floating Pin (Mild Steel Assb.) Top Plate, Fixed Pin (Mild Steel Assb.)	1
11	TN600498	Hold Down Bolt Assembly	1
12	MZ0901010459	5/8-11 Hex. Hd. Bolt x 1.50" Lg.	2

* May have a letter prefix

Model 0957 Flexmount 100k & 200k Cell

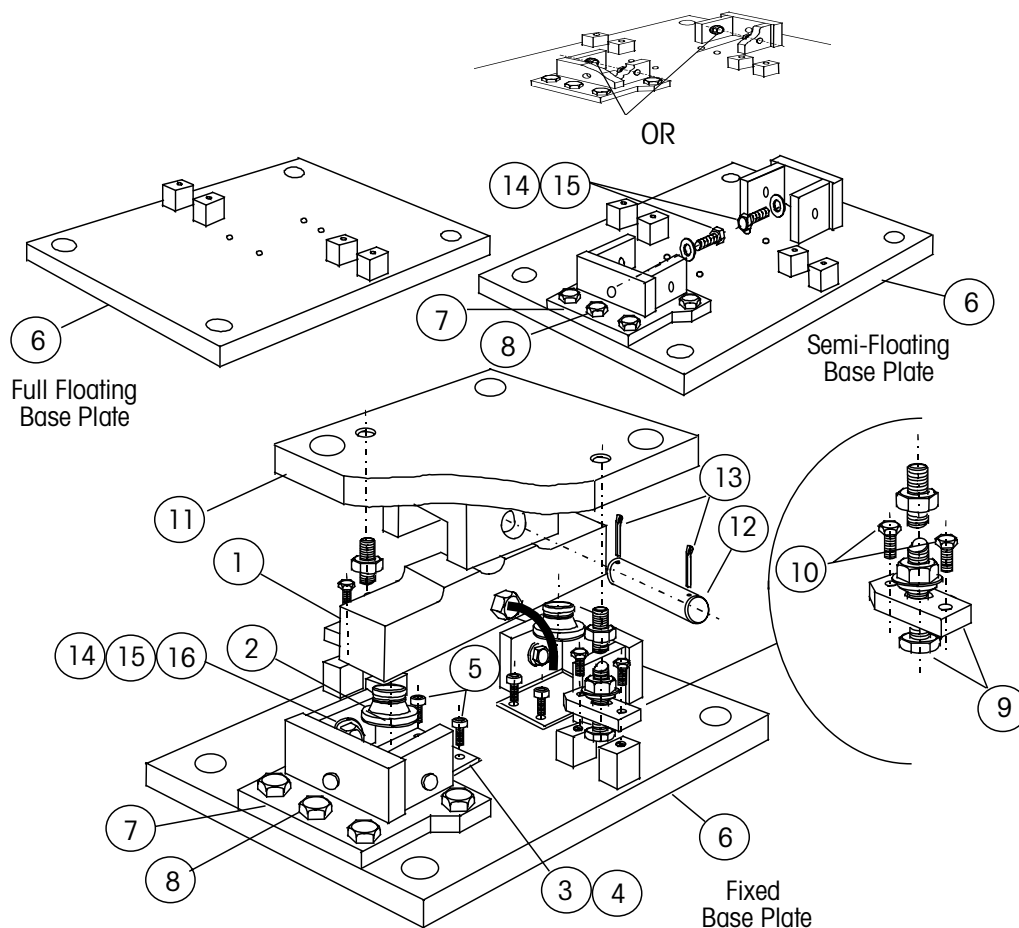


Figure 16-u: 100,000 and 200,00 lb Flexmount Assemblies

Ref. No.	Part Number	Description	Qty
1	ML8511 ML8521	100,000 lb Load Cell 1,000 Ohm (35 ft. cable) 200,000 lb Load Cell 1,000 Ohm (35 ft. cable)	1
2	MN61206-1 MN61206-2	Load Pin, Sliding (100k cell) Load Pin, Sliding (200k cell)	2
3	MN61205-1 MN61204-1	Slider Plate, Thick, 11 Ga. (100k cell) Slider Plate, Thick, 11 Ga. (200k cell)	2
4	MN61205-2 MN61204-2	Slider Plate, Thin, 14 Ga. (100k cell) Slider Plate, Thin, 14 Ga. (200k cell)	2

Ref. No.	Part Number	Description	Qty
5	MZ0901010207	5/16 -18 Soc. Hd. Screw x .75" Lg.	4
6	MB61210-10	Base Plate, Fixed and Semi-Floating (100K cell)	1

Chapter 16: Flexmount®/Centerlign® Weigh Modules
Model 0957 Flexmount 100k & 200k Cell

	MB61208-10 MB61202-10 MB61200-10	Base Plate, Full Floating (100K cell) Base Plate, Fixed and Semi-Floating (200K cell) Base Plate, Full Floating (200K cell)	
7	MB61211-10 MB61203-10	Bumper Bracket (Fixed and Semi-Floating assemblies) 100K Bumper Bracket (Fixed and Semi-Floating assemblies) 200K	1
8	MZ0901010354	3/4-10 Hex. Hd. Bolt x 2.25" Lg. (Fixed and Semi-Floating assemblies) 100K	5
9	MA61212-1 MA61212-2 MA61212-4	Hold Down Bolt Assembly (100K cell) Hold Down Bolt Assembly (30K up lift assembly) (200K cell) Hold Down Bolt Assembly (90K up lift assembly) (200K cell)	2
10	MZ0901010208 MZ0901010208 MZ0901010429	3/4-10 Hex. Hd. Screw x 3.75" Lg. (100K cell) 3/4-10 Hex. Hd. Bolt x 3.75" Lg. Gr. 5 (30K up lift Assb.) (200K cell) 3/4-10 Hex. Hd. Bolt x 3.75" Lg. Gr. 8 (90K up lift Assb.) (200K cell)	4
11	MA61209-10 MA61201-10	Top Plate (100K cell) Top Plate	1
12	MN31681 MN32258	Load Pin (100K cell) Load Pin (200K cell)	1
13	MZ0904000010	Cotter Pin, .25 in.	2
14	MZ0901010210	3/4-10 Hex. Hd. Screw x 1.50" Lg. (Semi-Floating, End Bumping) (Semi-Floating, Side Bumping) (Fixed)	2 4 6
15	MZ0901030052	3/4 Plain Washer (Semi-Floating, End Bumping) (Semi-Floating, Side Bumping) (Fixed)	8 16 24
16	MN32367	3/4 Plain Washer, .06" Thick (Semi-Floating) (Fixed)	24 24

* May have a letter prefix

Model 0958 Centerlign+ 250 to 10k Cells

Torque Load Cell Bolts to:

1. Mild Steel Assembly
75 ft-lb/102 Nm (250 to 5K cells) &
200 ft-lb/271 Nm (10K cells)
2. Stainless Steel Assembly
100 ft/136 Nm (250 to 5K cells) &
250 ft-lb/339 Nm (10K cells)

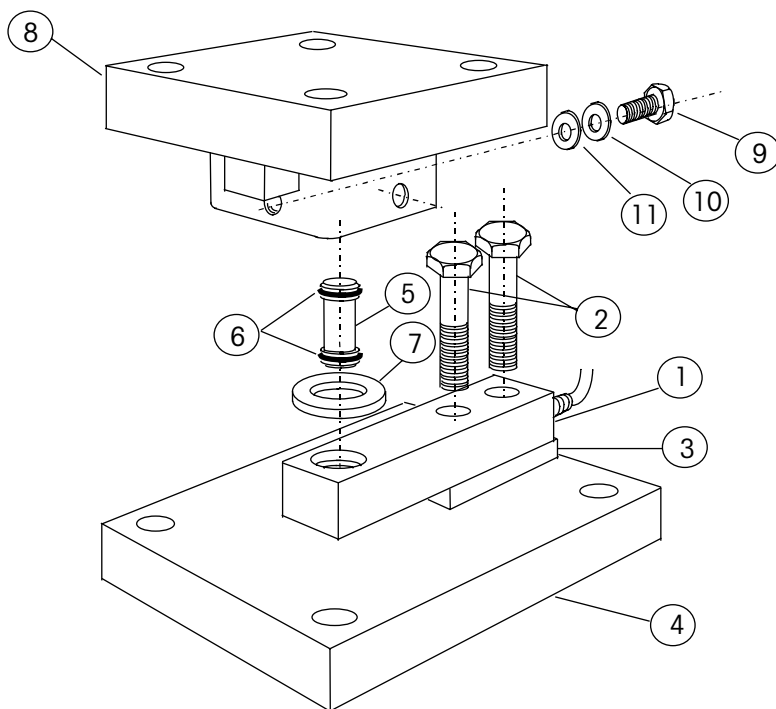


Figure 16-v: 250 to 2,500 lb Centerlign+ Assembly

Ref. No.	Part Number	Description	Qty
1	TB600488-1 TB600529-3 TB600451 TB600454 TB600363 TB600342 TB600455	250 lb Load Cell 350 Ohm (15 ft. cable) 500 lb Load Cell S.S. 350 Ohm Model 745 (15 ft. cable) 220 kg Load Cell 350 Ohm Model 744 (15 ft. cable) 550 kg C3 R60 OIML Load Cell S.S. 350 Ohm (15 ft.) 1,500 lb Load Cell S.S. 350 Ohm (15 ft. cable) 2,500 lb Load Cell S.S. 350 Ohm (15 ft. cable) 1100 kg C3 R60 OIML Load Cell S.S. 350 Ohm (15 ft.)	1
2	MZ0901010433 MZ0901010122	1/2-13 Hex. Hd. Bolt x 2.25" Lg. (Mild Steel Assb.) 1/2-13 Hex. Hd. Bolt x 2.25" Lg. (Stainless Steel Assb.)	2
3	TN600366	Spacer Plate	1
4	TA600346-11 TA600346-2	Base Plate, (Mild Steel Assembly) Base Plate, (Stainless Steel Assembly)	1
5	MN21018	Load Pin	1
6	MZ0909000005	"O" Ring, Load Pin	1
7	TN600322-4	Dust Seal, Load Pin	2
8	TA600362-11 TA600348	Top Plate (Mild Steel Assb.) Top Plate (Stainless Steel Assb.)	1

Ref. No.	Part Number	Description	Qty
9	MZ0901010064	3/8-16 Hex. Hd. Screw S.S. x .50" Lg.	Varies
10	MZ0901030019	3/8 Plain Washer, S.S.	Varies
11	TN201034	3/8 Plain Washer, S.S. x .03" Thick	Varies
Ref.	TN600387	Alignment Tool	

* May have a letter prefix

5000 lb Centerlign+ Assembly

Ref. No.	Part Number	Description	Qty
1	TB600343 TB600456-1	5,000 lb Load Cell S.S. 350 Ohm (15 ft. cable) 2200 kg C3 R60 OIML Load Cell S.S. 350 Ohm (15 ft cable)	1
2	MZ0901010434 MZ0901010227	1/2-13 Hex. Hd. Bolt x 2.50" Lg. (Mild Steel Assb.) 1/2-13 Hex. Hd. Bolt x 2.50" Lg. (Stainless Steel Assb.)	2
3	TN600366	Spacer Plate	1
4	TA600346-11 TA600346-2	Base Plate, (Mild Steel Assembly) Base Plate, (Stainless Steel Assembly)	1
5	MN21018	Load Pin	1
6	MZ0909000005	"O" Ring, Load Pin	1
7	TN600322-4	Dust Seal, Load Pin	1
8	TA600362-11 TA600348	Top Plate (Mild Steel Assb.) Top Plate (Stainless Steel Assb.)	1
9	MZ0901010064	3/8-16 Hex. Hd. Screw S.S. x .50" Lg.	Varies
10	MZ0901030019	3/8 Plain Washer, S.S.	Varies
11	TN201034	3/8 Plain Washer, S.S. x .03" Thick	Varies
Ref.	TN600360	Alignment Tool	

* May have a letter prefix

10,000 lb Centerlign+ Assembly

Ref. No.	Part Number	Description	Qty
1	TB600364 TB600457-1	10,000 lb Load Cell S.S. 350 Ohm (30 ft. cable) 4400 kg C3 R60 OIML Load Cell S.S. 350 Ohm (30 ft)	1
2	MZ0901010420 MZ0901010421	3/4-10 Hex. Hd. Bolt x 3.25" Lg. (Mild Steel Assb.) 3/4-10 Hex. Hd. Bolt x 3.25" Lg. (Stainless Steel Assb.)	2
3	TN600367	Spacer Plate	1
4	TA600357-11 TA600357-2	Base Plate, (Mild Steel Assembly) Base Plate, (Stainless Steel Assembly)	1
5	TN201975	Load Pin	1
6	MZ0909000050	"O" Ring, Load Pin	1
7	TN600322-5	Dust Seal, Load Pin	1
8	TA600368-11 TA600359	Top Plate (Mild Steel Assb.) Top Plate (Stainless Steel Assb.)	1
9	MZ0901010064	3/8-16 Hex. Hd. Screw S.S. x .50" Lg.	Varies
10	MZ0901030019	3/8 Plain Washer, S.S.	Varies
11	TN201034	3/8 Plain Washer, S.S. x .03" Thick	Varies
Ref.	TN600361	Alignment Tool	

* May have a letter prefix

Model 0957 Centerlign 20k Cell

Torque Load Cell Bolts to:

1. Mild Steel Assembly
475 ft-lb/ 644 Nm
2. Stainless Steel Assembly
280 ft-lb/ 380 Nm

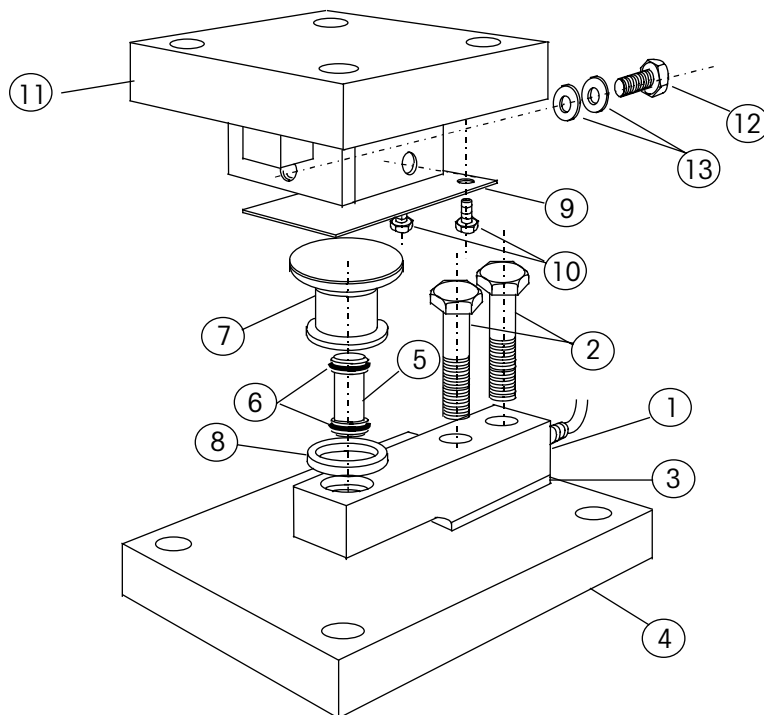


Figure 16-w: 20,000 lb Centerlign Assembly

Ref. No.	Part Number	Description	Qty
1	*13077500B *15237800A	20,000 lb Load Cell S.S. 350 Ohm (30 ft. cable) 5,072 kg Load Cell S.S. 350 Ohm (30 ft cable)	1
2	MZ0901010072 MZ0901010316	1-8 Hex. Hd. Bolt x 4.00" Lg. (Mild Steel Assb.) 1-8 Hex. Hd. Bolt x 4.00" Lg. (Stainless Steel Assb.)	2
3	TN300578	Spacer Plate	1
4	MA61226-10 TA600037	Base Plate , Mild Steel Base Plate , Stainless Steel	1
5	MN21036	Rocker Pin	1
6	MZ0909000013	"O" Ring	
7	MN21035	Slider Cup	1
8	MN61016-11	Dust Seal	1
9	MN61222-2	Shim, Stainless Steel .075" x 2.75" x 4.12"	2
10	MZ0901010064	3/8-16 Hex. Hd. Screw x .50" Lg.	2
11	MA61283-10 TA600443	Top Plate (Mild Steel Assb.) Top Plate (Stainless Steel Assb.)	1
12	MZ0901010228	1/2-13 Hex. Hd. Screw x 1.00" Lg.	Varies
13	MZ0901030033	1/2 Plain Washer	Varies
Ref.	MN61284	Alignment Tool	

* May have a letter prefix

Model 0957 Centerlign 45k Cell

Torque Load Cell Bolts to:

1. Mild Steel Assembly
1000 ft-lb/1,356 Nm
2. Stainless Steel Assembly
520 ft-lb/705 Nm

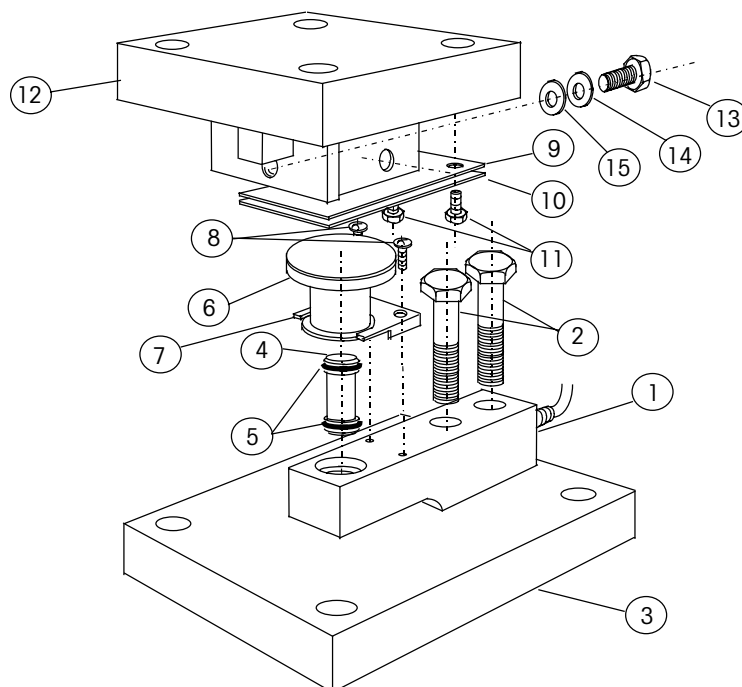


Figure 16-x: 45,000 lb Centerlign Assembly

Ref. No.	Part Number	Description	Qty
1	*13929400A *15238200A	45,000 lb Load Cell S.S. 2,000 Ohm (30 ft. cable) 20,412 kg Load Cell S.S. 2,000 Ohm (30 ft. cable)	1
2	MZ0901010201 MZ0901010216	1 1/4-7 Hex. Hd. Bolt x 5.00" Lg. (Mild Steel Assembly) 1 1/4-7 Hex. Hd. Bolt x 5.00" Lg. (Stainless Steel Assembly)	2
3	TA600111-10 TA600111-20	Base Plate (Mild Steel Assembly) Base Plate (Stainless Steel Assembly)	1
4	MN31797	Rocker Pin	1
5	MZ0909000004	"O" Ring	2
6	MN32058	Slider Cup	1
7	MN31790	Retainer	1
8	MZ0901010165	10-32 Thread Cutting Screw	2
9	TN203171- 1	Thin Shim, 14 gauge	1
10	TN203171- 2	Thick Shim, 10 gauge	1
11	MZ0901010064	3/8-16 Hex. Hd. Screw x .50" Lg.	2
12	TA600109-10 TB306096-10	Top Plate (Mild Steel Assb.) Top Plate (Stainless Steel Assb.)	1
13	MN31650 MZ0901010083	5/8-11 Hex. Hd. Screw x .62" Lg. (Mild Steel Assembly) 5/8-11 Hex. Hd. Screw x 1.25" Lg. (Stainless Steel Assembly)	Varies
14	MZ0901030023	5/8 Plain Washer	Varies
Ref.	MN31801-1	Alignment Tool	

* May have a letter prefix