7562

(Revision C)
TRUCKMATE®
Steel Deck
Weighbridge

Installation and Service Manual

B16811400A
(1/07).01

METTLER TOLEDO

Publication Revision History

An overview of this manual's revision history is compiled below.

Publication Name: **METTLER TOLEDO 7562C TRUCKMATE Installation and Service Manual**

Publication Part Number: **16811400A** **Publication Date:** **3/03**

Part Number	Date	Revisions
A16811400A	6/04	Added information about multi-platform scale installations and debris seal.
B16811400A	10/06	Added new maintenance procedures. Added information about hazardous area installation. Added information about new side cover design.
B16811400A.01	1/07	Added load concentration information.

INTRODUCTION

This publication is provided solely as a guide for individuals who have received Technical Training in servicing the METTLER TOLEDO product.

Information about METTLER TOLEDO Technical Training can be obtained by writing, calling, or faxing:

METTLER TOLEDO
1900 Polaris Parkway
Columbus, Ohio USA 43240
Phone: (614) 438-4511
Fax: (614) 438-4958
www.mt.com

FCC Notice

This device complies with Part 15 of the FCC Rules and the Radio Interference Requirements of the Canadian Department of Communications. Operation is subject to the following conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

METTLER TOLEDO RESERVES THE RIGHT TO MAKE REFINEMENTS OR CHANGES WITHOUT NOTICE.

Precautions

READ this manual BEFORE operating or servicing this equipment.

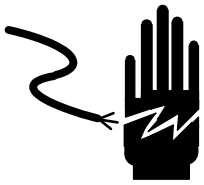
FOLLOW these instructions carefully.

SAVE this manual for future reference.

DO NOT allow untrained personnel to operate, clean, inspect, maintain, service, or tamper with this equipment.

ALWAYS DISCONNECT this equipment from the power source before cleaning or performing maintenance.

CALL METTLER TOLEDO for parts, information, and service.

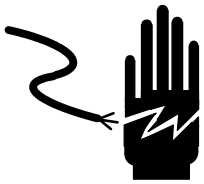


⚠ WARNING

PERMIT ONLY QUALIFIED PERSONNEL TO SERVICE THIS EQUIPMENT. EXERCISE CARE WHEN MAKING CHECKS, TESTS, AND ADJUSTMENTS THAT MUST BE MADE WITH POWER ON. FAILING TO OBSERVE THESE PRECAUTIONS CAN RESULT IN BODILY HARM.

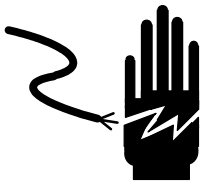
⚠ CAUTION

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES.



⚠ WARNING

DISCONNECT ALL POWER TO THIS UNIT BEFORE INSTALLING, SERVICING, CLEANING, OR REMOVING THE FUSE. FAILURE TO DO SO COULD RESULT IN BODILY HARM AND/OR PROPERTY DAMAGE.



⚠ WARNING

FOR CONTINUED PROTECTION AGAINST SHOCK HAZARD, CONNECT TO PROPERLY GROUNDED OUTLET ONLY. DO NOT REMOVE THE GROUND PRONG.

⚠ CAUTION

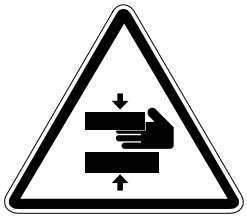
BEFORE CONNECTING OR DISCONNECTING ANY INTERNAL ELECTRONIC COMPONENTS OR INTERCONNECTING WIRING BETWEEN ELECTRONIC EQUIPMENT, ALWAYS REMOVE POWER AND WAIT AT LEAST THIRTY (30) SECONDS. FAILURE TO OBSERVE THESE PRECAUTIONS COULD RESULT IN BODILY HARM OR DAMAGE TO OR DESTRUCTION OF THE EQUIPMENT.

⚠ CAUTION

THE TOP REBAR MUST BE PLACED TO CLEAR THE ANCHOR BOLTS. REFER TO THE FOUNDATION DRAWINGS FOR ANCHOR BOLT LOCATIONS.

⚠ WARNING

WEIGHBRIDGE MODULES SHOULD ALWAYS BE MOVED SLOWLY AND CAREFULLY TO AVOID MECHANICAL SHOCK. MAKE SURE THAT THE LIFTING DEVICE USED TO MOVE THEM HAS A SUFFICIENT CAPACITY TO HANDLE THE MODULES SAFELY AND SECURELY.



⚠ WARNING

WHEN A MODULE IS BEING MOVED, DO NOT PLACE YOUR HANDS OR OTHER ITEMS BETWEEN THE MODULE AND ANY OTHER SURFACE. IF IT IS NECESSARY TO PLACE YOUR HANDS UNDER A MODULE DURING INSTALLATION, MAKE SURE THAT THE MODULE IS PROPERLY BLOCKED SO THAT IT CANNOT MOVE. FAILURE TO FOLLOW THIS WARNING COULD RESULT IN BODILY HARM OR PROPERTY DAMAGE.

Disposal of Electrical and Electronic Equipment

In conformance with the European Directive 2002/96 EC on Waste Electrical and Electronic Equipment (WEEE) this device may not be disposed of in domestic waste. This also applies to countries outside the EU, per their specific requirements.

Please dispose of this product in accordance with local regulations at the collecting point specified for electrical and electronic equipment.

If you have any questions, please contact the responsible authority or the distributor from which you purchased this device.

Should this device be passed on to other parties (for private or professional use), the content of this regulation must also be related.

Thank you for your contribution to environmental protection.

CONTENTS

1 Introduction

The Model 7562 TRUCKMATE® truck scale has a steel deck and can be installed above ground or in a pit. It is designed for weighing highway vehicles, not for weighing concentrated-load vehicles such as heavy-capacity forklifts.

A weighbridge consists of individual modules (11 feet wide standard) that can be connected to form a single scale 10 feet long or longer. Each weighbridge is a nominal 11.5 inches high with 3 inches of clearance between the bottom of the weighbridge and the foundation, making the overall height approximately 14.5 inches.

The concentrated load capacity (CLC) for a Model 7562 weighbridge is 80,000 lb. The nominal capacity varies with the number of modules (number of load cells) used in the scale (see Table 7-1).

Due to the unique construction of these scales and the number of weighbridge support points (a four-module scale uses ten load cells), the force exerted on the foundation is only slightly more than the force that a truck would exert on the highway.

Maximum Loading

Model 7562 weighbridges have a gross scale capacity of up to 200,000 lb. A scale's gross capacity, however, is not the best indication of whether a truck is too heavy to be weighed on the scale. This is because trucks with different numbers and arrangements of axles apply their loads to a scale differently. To measure the actual strength of a weighbridge, we use its concentrated load capacity (CLC). A weighbridge's CLC represents the maximum axle load for a group of two axles spaced 4 feet apart (with an axle width of 8 feet). Table 1-1 shows the CLC rating for a Model 7562 weighbridge.

Scale	Maximum Capacity	CLC
7562	200,000 lb	80,000 lb

Table 1-1: Weighbridge CLC Rating

Use Table 1-2 to determine the maximum load that a group of axles can apply to a weighbridge. Find the ratio that corresponds to (1) the number of axles in a group and (2) the distance between the front and rear axles in the group. Multiply that ratio by the CLC of the scale to determine the maximum combined axle load for the scale.

Distance between the front and rear axles in a group of axles	Two Axles	Three Axles	Four Axles	Five Axles	Six Axles
4 feet	1.000				
5 feet	1.000				
6 feet	1.000				
7 feet	1.000				
8 feet and less	1.000	1.000			
More than 8 feet	1.118	1.235			
9 feet	1.147	1.257			
10 feet	1.176	1.279			
11 feet		1.301			
12 feet		1.324	1.471	1.632	
13 feet		1.346	1.490	1.651	
14 feet		1.368	1.510	1.669	
15 feet		1.390	1.529	1.688	1.853
16 feet		1.412	1.549	1.706	1.871
17 feet		1.434	1.569	1.724	1.888
18 feet		1.456	1.588	1.743	1.906
19 feet		1.478	1.608	1.761	1.924
20 feet		1.500	1.627	1.779	1.941

Table 1-2: Ratio of CLC to Maximum Load on a Group of Two or More Consecutive Axles

Example:

What is the maximum combined axle load for the group of three axles at the rear of the truck shown in Figure 1-1? The truck will be weighed on a 7562 scale, which has a CLC rating of 80,000 lb. According to Table 1-2, the ratio for a group of three axles with a spacing of 12 feet is 1.324. Multiply 1.324 by the CLC rating to determine the maximum combined axle load: 1.324 × 80,000 = 105,920 lb.

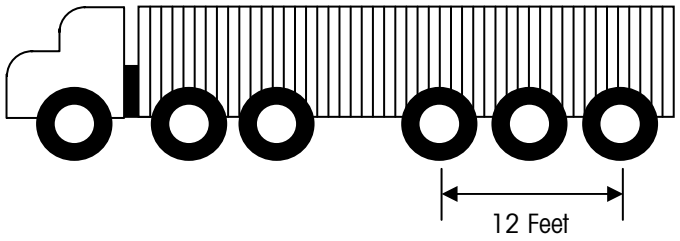


Figure 1-1: Sample Truck

Load Concentration

Caution Regarding Weight Carts and Test Equipment

Unusually heavy load concentrations can damage a scale deck. National Conference on Weights and Measures Publication 14 provides the following caution about load concentrations on weight carts and test equipment:

> Concentrating large loads on scale platforms by using weight carts or test equipment using hydraulic jacks may exceed the maximum pound per square inch load specification for the deck. This condition may arise because the small tire area of the weight cart in contact with the deck surface could result in a very large load concentration over an unusually small area. This could cause damage to the scale deck.
>
> This situation may occur with a weight cart having a very narrow or short wheelbase and small solid rubber tires. This causes a problem on steel plate decks and could also result in damage to manhole covers. If the load capacities of weight carts increase beyond 25 000 lb, while maintaining solid tread wheels, it is possible that some concrete decks could be damaged.

Load Cell Specifications

Model: MTX, National Type Evaluation Program (NTEP) Certificate of Conformance Number 88-091A4 for Class IIIL, 10,000 divisions.

Capacity: 45,000 kg / 99,208 lb

Material: Stainless Steel

Environmental Protection: Hermetically Sealed

Output: METTLER TOLEDO DigiTOL Protocol

Scale Certification

National Type Evaluation Program (NTEP) Certificate of Conformance Number 93-108A3 for Class IIIL, 10,000 divisions.

Entity Approval

Entity approval permits the application of individually approved components (even from various manufacturers) to be used together to build a solution that is approved. When installing equipment in hazardous areas, it is necessary to compare the entity values of the load cells, junction boxes, connecting cables, and other components. Those entity values include voltage, current, power, capacitance, and inductance.

The components must compare as follows in order for the wiring to be considered intrinsically safe:

V_{max} or U_i (Maximum voltage permitted) $\geq$ V_t or U_o (Total voltage output)

I_{max} or I_i (Maximum current permitted) $\geq$ I_t or I_o (Total current output)

P_{max} or P_i (Maximum power permitted) $\geq$ P_t or P_o (Total power output)

C_i (Unprotected capacitance) + C_{cable} (Cable capacitance) $\leq$ C_a or C_o (Allowable capacitance)

L_i (Unprotected inductance) + L_{cable} (Cable inductance) $\leq$ L_a or L_o (Allowable inductance)

If the above conditions are not true, then the circuit will not be intrinsically safe and must not be installed in a hazardous area. If the parameters compare favorably as shown above, then the circuit is intrinsically safe and can be installed in a hazardous area. Always refer to the electrical regulations for the country of installation for specific wiring requirements.

United States Approval

The Factory Mutual safety approvals for the MTX load cells are based on a "system" approval. Reports on the load cells were submitted to Factory Mutual for compliance with FM Approval Standards Class No. 3600, 3610, and 3810. They were approved as intrinsically safe devices and issued the following certificate:

MTX: FM Original Approval Job Identification #3004084
IS/I,II,III/1/CDEFG/T4 Ta = 60°C – TC100442/K

When used in hazardous areas, the load cells must be installed with an 0917-0198 intrinsic safety barrier according to control drawing TC100442 (see Figure 1-2).

European Approval

The European safety approvals are based on entity values. The MTX load cells were submitted to KEMA for compliance with EN50014, EN50020, EN50021, and EN50281-1-1. They were approved as intrinsically safe devices and issued the following certificates:

KEMA 03ATEX1166
II 2 GD EEx ia IIB T4 T135°C

KEMA 03ATEX1250
II 3 GD EEx nL IIB T4 T135°C

The MTX load cells have been certified to IP6x ingress protection.

The following chart lists the entity values for the load cells.

U_o (Total voltage output)	20 V
I_o (Total current output)	760 mA
P_o (Total power output)	1.89 W
C_o (Allowable capacitance)	1.3 µF
L_o (Allowable inductance)	60 µH

When used in hazardous areas, the load cells must be installed according to installation instructions document 16892900A (see Figure 1-3).

Junction Boxes

TB100777 and TB100778 junction boxes were submitted to KEMA for compliance with EN50014, EN50020, EN50021, and EN50281-1-1. They were approved as intrinsically safe devices and issued the following certificates:

KEMA 03ATEX1396 X
II 2 GD EEx ia IIC T4 T 90 °C Ta = -20°C to +60°C

KEMA 03ATEX1397 X
II 3 GD EEx nL IIC T4 90°C or
II 3 GD EEx nA II T4 T 90 °C Ta = -20°C to +60°C

TB100777 and TB100778 junction boxes have been certified to IP64 (IP6x) ingress protection.

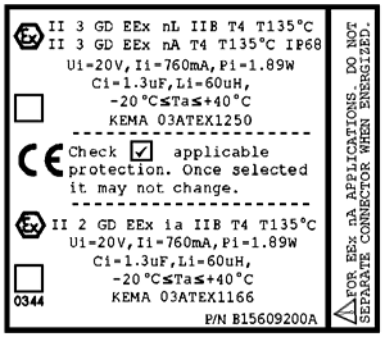
The following chart lists the entity values for the junction boxes.

U_o (Total voltage output)	30 V
I_o (Total current output)	1 A
P_o (Total power output)	2 W

When used in hazardous areas, the junction boxes must be installed according to installation instructions document A16953600A (see Figure 1-4).

Product Markings

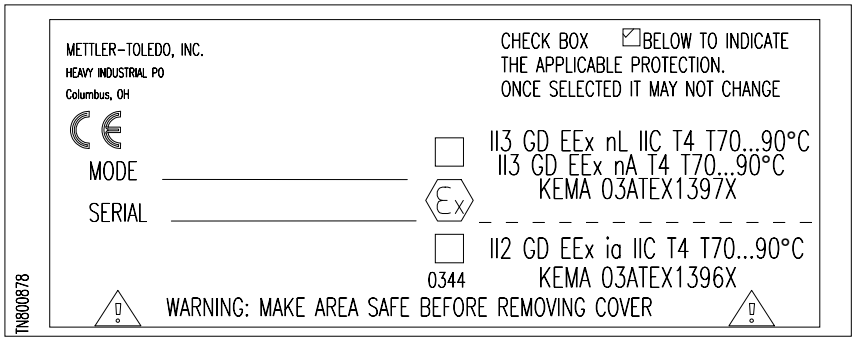
METTLER TOLEDO is not responsible for classifying hazardous areas. Each MTX load cell should have the following label attached to it:



If you install a load cell in a hazardous area, use a permanent marker to place a mark in the check box on the label that indicates the applicable protection (KEMA 03ATEX1250 or KEMA 03ATEX1166). Once the label has been marked, it may not be changed.

Junction Boxes

TB100777 and TB100778 junction boxes should have the following label attached:



If you install a junction box in a hazardous area, use a permanent marker to place a mark in the check box on the label that indicates the applicable protection (KEMA 03ATEX1396 X or KEMA 03ATEX1397 X). Once the label has been marked, it may not be changed.

Grounding

Make sure that all hazardous area installations are properly grounded. All grounding and equal potential bonding connections must be made according to local regulations based upon the country of installation. Refer to local codes and the control drawing provided in this manual for information about grounding.

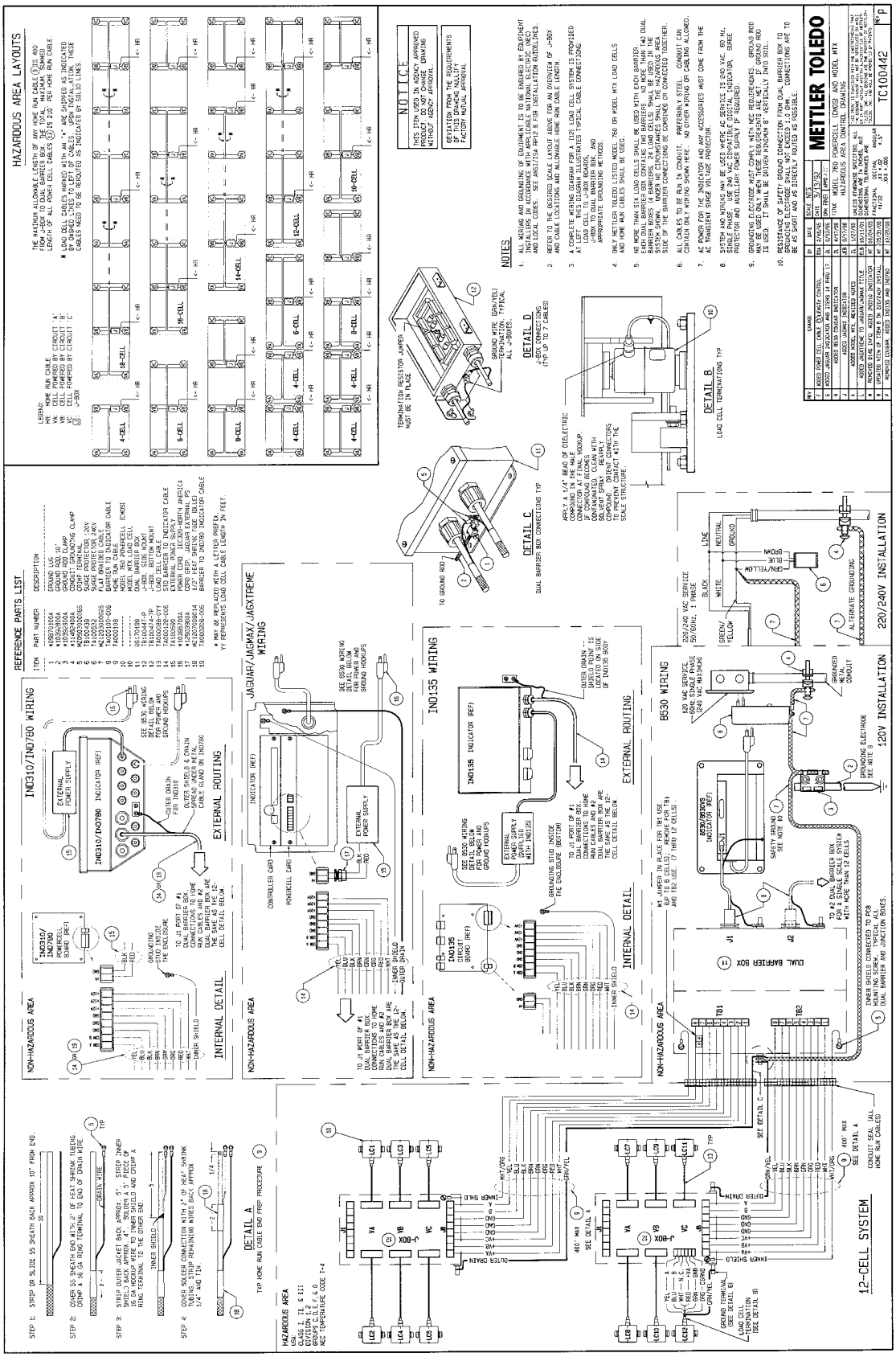


Figure 1-2: Control Drawing for MTX Load Cells

Mettler-Toledo, Inc.
150 Accurate Way,
Inman, SC 29349
USA

Installationsanleitung
Installation Instruction

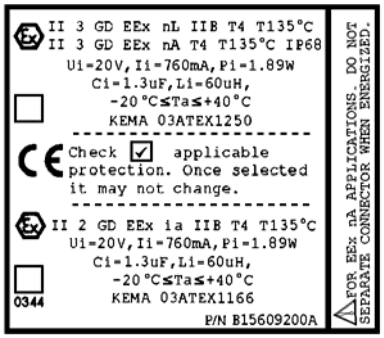
Lastzellen Typen: MTX
Load cell model number: MTX

Anschlußplan bzw. tabelle:
Wire according to the following table:

Deutsch		English	
Kontaktstift Nr.	Zustand	Pin No.	Function
A	Kommunikation A	A	Communication B
B	Kommunikation B	B	Communication A
C	Erde	C	Ground
D	Elektrizitatsversorgung	D	Supply Voltage
E	Ungebraucht	E	Not used
F	Ungebraucht	F	Not used

Installation
Installation
Installation wie in den Konformitätsbescheinigungen KEMA 03ATEX1166 oder KEMA 03ATEX1250 beschrieben.
Install according to Certificate Number KEMA 03ATEX1166 or KEMA 03ATEX1250.

Markieren Sie mit einem wasserfesten Stift den Einsatzbereich (KEMA 03ATEX1166 or KEMA 03ATEX1250) der Messzelle auf dem dafür vorgesehenen Feldern des Hinweisschildes. Wurde bereits eine Zuordnung vorgenommen, darf diese nicht mehr verändert werden.
With a permanent marker place a mark (✓) in the box on the load cell label to indicate the applicable protection (KEMA 03ATEX1166 or KEMA 03ATEX1250). Once selected it may not be changed.



Jahr der Herstellung
Year of Manufacture:
Das Herstellungsjahr wird mit der letzten Stelle der Seriennummer (S/N) wie folgt gekennzeichnet:
The year of manufacture is indicated by the last character of the load cell Serial Number (S/N) as follows:

Letzter Buchstabe Last Character	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T
Jahr Year	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16

Mettler-Toledo PN 16892900A

Figure 1-3: Installation Instructions for MTX Load Cells

Mettler-Toledo, Inc.
Columbus, Ohio
USA

Installationsanleitung
Installation Instructions

Typennummer des Anschlusskastens: TB100771-X, TB100772-X, TB100777-X, TB100778-X
X ist die Nummer der Abschlusskastenlöcher
Junction Box Model Numbers: TB100771-X, TB100772-X, TB100777-X, TB100778-X
where: -X designates the number of holes in the junction box

Schließen Sie die Kabel laut Farbcodetabelle bzw Anschlussplan an:
Wire according to the following color codes:

	Farbcode der Wägezelle Load Cell Color Code		Farbcode des Kabels zum Terminal Home Run Cable Color Code
ANALOG ANALOG			
Beschreibung/Description	Farbe/Color	Farbe/Color	Farbe/Color
+ Excitation	rosa/Pink	grün/Green	weiss/White
- Excitation	grau/Grey	schwarz/Black	blau/Blue
+ Signal	braun/Brown	weiss/White	grün/Green
- Signal	weiss/White	rot/Red	schwarz/Black
Shield	durchsichtig/Clear	gelb/Yellow	orange/weiss/Orange/White
+ Sense	nicht verwendet/Not Used		gelb/Yellow
- Sense	nicht verwendet/Not Used		Not/Red
POWERCELL und MTX POWERCELL and MTX			
Beschreibung/Description	Farbe/Color		Farbe/Color
A	gelb/Yellow		
B	blau/Blue		
N.C.	weiss/White		
+V	rot/Red		
GND	grün/Green		
CGND	orange/Orange		
A			gelb/Yellow
B			blau/Blue
GND			schwarz/Black
GND			braun/Brown
GND			grün/Green
+VC			orange/Orange
+VB			rot/Red
+VA			weiss/White

Installation/Installation

Installation wie im EG-Baumusterprüfbescheinigung KEMA03ATEX1396X oder Baumusterprüfbescheinigung KEMA 03ATEX1397X.

Install according to EC-Type Examination Certificate KEMA03ATEX1396X or Type Examination Certificate KEMA 03ATEX1397X.

Markieren Sie mit einem wasserfesten Stift den Einsatzbereich (KEMA03ATEX1396X oder KEMA 03ATEX1397X) des Anschlusskastens auf dem dafür vorgesehenen Feldern des Hinweisschildes. Wurde bereits eine Zuordnung vorgenommen, darf diese nicht mehr verändert werden.

With a permanent marker, a mark (√) must be placed in the location on the junction box label which indicates the applicable protection (KEMA03ATEX1396X or KEMA 03ATEX1397X). Once selected it may not be changed.

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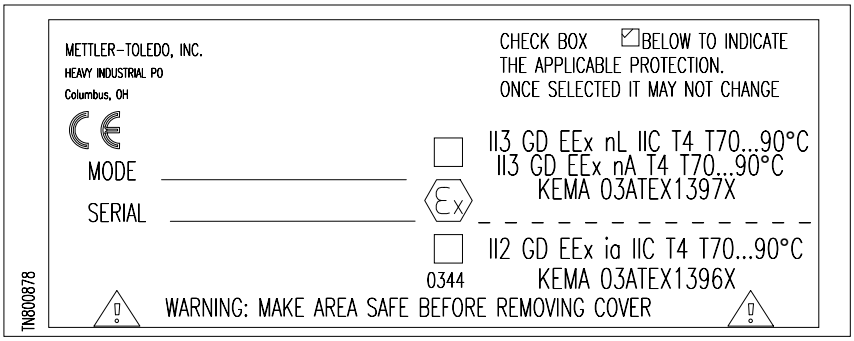
Figure 1-4: Installation Instructions for TB100777/TB100778 Junction Box



Jahr der Herstellung:
Year of manufacture:
Das Herstellungsjahr wird mit der letzten Stelle der Seriennummer (S/N) des Anschlusskastens wie folgt gekennzeichnet:
The year of manufacture is indicated by the last character on the junction box serial number (S/N) as follows:

Jahr/Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Buchstabe/Character	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T

A16953600A

Figure 1-4: Installation Instructions for TB100777/TB100778 Junction Box

2 Site Selection and Preparation

Site Requirements

The site selected for the scale must meet state and local requirements. The following is taken directly from NIST Handbook 44 (H-44), 2006 edition issued by the National Institute of Standards and Technology:

> "UR.2.6. Approaches.
>
> UR.2.6.1. Vehicle Scales - On the entrance and exit ends of a vehicle scale installed in any one location for a period of 6 months or more, there shall be a straight approach as follows:
>
> (a) the width at least the width of the platform,
>
> (b) the length at least one-half the length of the platform but not required to be more than 12 m (40 ft), and
>
> (c) not less than 3 m (10 ft) of any approach adjacent to the platform shall be constructed of concrete or similar durable material to ensure that this portion remains smooth and level and in the same plane as the platform. However, grating of sufficient strength to withstand all loads equal to the concentrated load capacity of the scale may be installed in this portion. Any slope in the remaining portion of the approach shall ensure (1) ease of vehicle access, (2) ease for testing purposes, and (3) drainage away from the scale."

NOTE: The scale drawings provided meet part (a) of this requirement. The site must be located to meet parts (b) and (c).

Other requirements or considerations:

- The site should have good drainage. Surrounding areas should not drain through the site. The ideal scale site is on ground that is higher than the surrounding area.
- Make sure there are no buried pipes, sewer lines, wires, or foundations that would interfere with footing construction.
- The scale should be located away from high-power electrical transmission lines or substations.
- The site should have enough room to align trucks with the scale platform before pulling them onto the platform. This is especially important if trucks must turn before pulling onto the scale. There should also be enough room for trucks to pull off the scale.
- Trucks should not be left on the scale for longer than is necessary to take a vehicle weight reading.
- Some jurisdictions require that the scale platform be visible from the location of the scale terminal. Others allow the use of a closed-circuit TV or a voice intercom. Obtain official approval before starting construction.
- Provide clearance on at least one side of the scale for the full length of the platform to allow for testing and calibration.

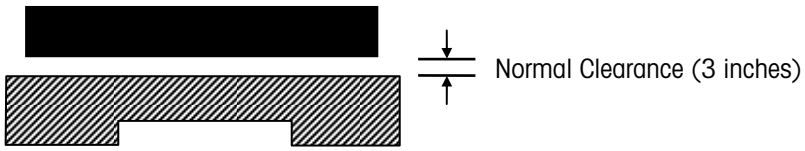
- **Caution Markings:** Scales that are installed above ground should be marked to alert truck drivers and others to the possibility of falling when stepping off the edge of the scale. Appropriate markings are a yellow line (or the word "CAUTION") permanently applied along the edges of the top of the scale platform. Ramps should be marked in the same manner as the scale.

Foundation Designs

The truck scale should be installed on one of the following types of foundations:

1. Beam Slab
2. Variable Footer
3. Pit (2-foot or 4-foot clearance options)

Select the type of foundation that meets a site's installation requirements. The foundations are designed to support a 7562 truck scale rated 100 tons, assuming the ground has a bearing surface of at least 1,500 lb per square foot for a beam slab, 2,000 lb per square foot for a pit, and 2,500 lb per square foot for a variable footer design.



Beam Slab

A beam slab is designed to "float" and does not require a deep footer.

Variable Footer

A variable footer design uses separate footers with depths of 2 feet to 6 feet. Connecting "washout" slab is mandatory in some areas.

Pit

A pit design provides 2 feet or 4 feet of clearance under the scale. It generally requires manholes for access. A deep pit is mandatory in some states.

Install the Foundation

Install the foundation according to the correct drawing (see Chapter 12). Make sure the end walls are parallel and measure the same distance diagonally within 1/2 inch. The instrument cable conduit should be in place before the slab is poured. Cast-in-place concrete recommendations are provided in Chapter 9.

Base Plates

At the locations of the base plates, the concrete should be level and in the same plane (within ± 1/8 inch). The rest of the foundation should be graded slightly for drainage.

⚠ CAUTION

THE TOP REBAR MUST BE PLACED TO CLEAR THE ANCHOR BOLTS. REFER TO THE FOUNDATION DRAWINGS FOR ANCHOR BOLT LOCATIONS.

Curing

Let the concrete foundation cure for 7 to 10 days before installing the scale. Expanding anchor bolts should be installed after the foundation has cured, so that the anchors will seat correctly. Do not allow traffic or loading on scale until concrete reaches full strength, normally in 28 days.

3 Receiving and Inspection

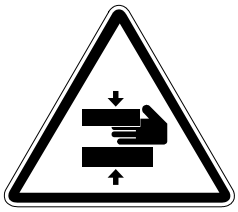
Inspection

Check all items received against the shipping bill of lading. If any items are missing, notify the carrier immediately.

Inspect all items received. If there is any physical damage, notify the carrier immediately in order to collect damages.

⚠ WARNING

WEIGHBRIDGE MODULES SHOULD ALWAYS BE MOVED SLOWLY AND CAREFULLY TO AVOID MECHANICAL SHOCK. MAKE SURE THAT THE LIFTING DEVICE USED TO MOVE THEM HAS A SUFFICIENT CAPACITY TO HANDLE THE MODULES SAFELY AND SECURELY.



⚠ WARNING

WHEN A MODULE IS BEING MOVED, DO NOT PLACE YOUR HANDS OR OTHER ITEMS BETWEEN THE MODULE AND ANY OTHER SURFACE. IF IT IS NECESSARY TO PLACE YOUR HANDS UNDER A MODULE DURING INSTALLATION, MAKE SURE THAT THE MODULE IS PROPERLY BLOCKED SO THAT IT CANNOT MOVE. FAILURE TO FOLLOW THIS WARNING COULD RESULT IN BODILY HARM OR PROPERTY DAMAGE.

Unloading Procedure

If a METTLER TOLEDO truck is delivering the 7562 truck scale, the METTLER TOLEDO driver will handle and supervise unloading. Otherwise, unload the modules by lifting them as shown in Figure 3-1. Remove the gap and load cell covers before lifting, so that the covers are not damaged. Lift the modules with a quadlift chain attached to the gap cover supports. Approximate 7562 module weights are listed in Table 3-1.

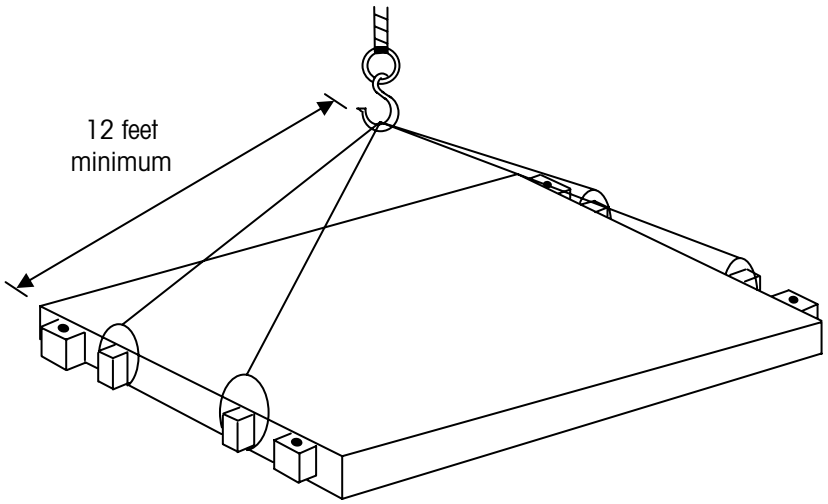


Figure 3-1: Module Lifting Procedure

NOTE: Unloading a 7562 portable scale will require a separate crane. To lift a 35-foot portable module, attach chains at the four lifting points on the sides of the module (see layout drawing). The chain length should be 17 feet minimum.

15' Module	17.5' Module	20' Module	23' 4" Module
5,500 lb	6,300 lb	7,100 lb	8,500 lb

Module Type	35' Scale	70' Scale*
7562 Portable (Deck and Frame)	17,000 lb	33,500 lb

* For 70-foot scales, lift each 35-foot section separately.

Table 3-1: Approximate 7562 Module Weights

Storing Platforms

The scale will be installed by placing the First Module on the foundation first, followed by the Middle Module(s), and then the Terminal Module. If you are going to store the platforms, stack them one on top of the other in the following order:

Bottom = Terminal Module
Center = Middle Module(s)
Top = First Module

Figure 3-2 shows the three types of modules. Make sure that the bottom module is stored off the ground. We recommend placing lengths of 4" x 4" lumber under the module to support it. Place additional lengths of 4" x 4" lumber between each pair of modules. Store all other mechanical accessories, electrical instrumentation, and load cells in a clean, dry area. If the modules will be stored for more than one month, the cable connectors should be filled with dielectric compound (TN203056).

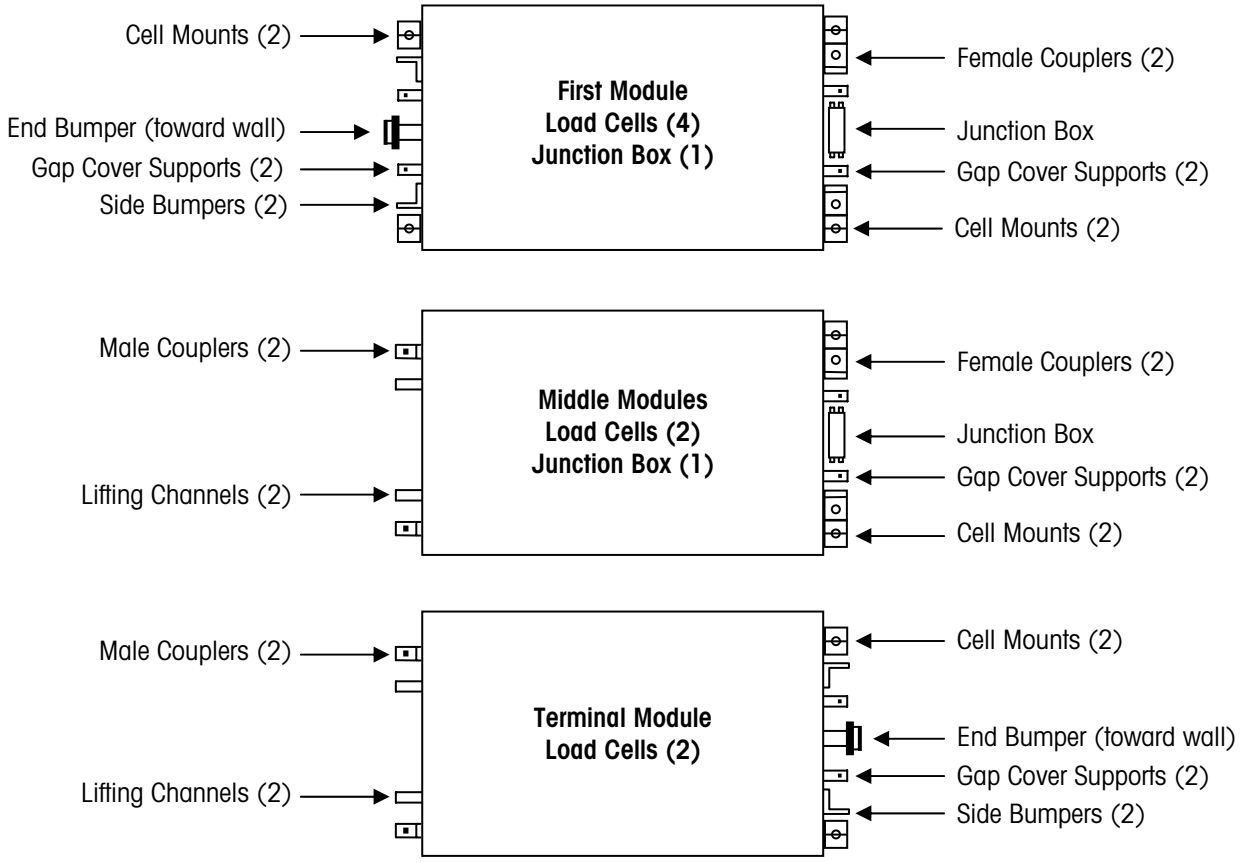


Figure 3-2: Types of Modules

4 Installation Supplies Checklist

The following material and tools are needed to install a 7562 truck scale. They are not supplied by METTLER TOLEDO.

Material

- A small supply of Never-Seez bearing compound or a quality grease.
- Non-shrink, high-quality grout and mixing tools (not normally used, but might be required).

Tools

- Transit, tripod, rod
- 6-inch spirit level
- 100-foot measuring tape
- 100-foot chalk line
- 100-foot extension cords, 3/#14 wire
- Hammer drill, 1-inch or greater capacity
- 3/4-inch carbide drill bit at least 18 inches long for anchor bolts
- 6-foot crowbar to align modules
- Beckman or Fluke digital multimeter, 100+ meg ohm for insulation, wiring, and ground check
- Socket set, with sockets for the following bolt sizes:
  - 1/2 inch - Access plate bolts and coupler pin retainer bolts
  - 5/8 inch - End bumper bolts
  - 5/8 inch - Open end wrench - side bumper bolt
- Air compressor or air pressure tank (cleaning nozzle to blow out anchor bolt holes)
- Normal installation tools
- Locating tools, one for each load cell (supplied if scale is delivered by METTLER TOLEDO delivery system; otherwise, they must be purchased—Part No. TA200831)
- Welding apparatus (not normally used, but might be required)

Weighbridge Installation Checklist

This list summarizes the basic steps required for installing a 7562 truck scale on a dimensionally correct foundation.

	Check (✓) When Completed
1. Snap chalk lines and position base plates	_____
2. Install roll pins	_____
3. Install receivers and check heights with transit	_____
4. Insert locating tools in receivers	_____
5. Set modules on locating tools	_____
6. Make sure scale is centered on foundation and level	_____
7. Check base plate alignment (Verify that locating tools are vertical)	_____
8. Drill anchor holes and insert anchors (Five holes in corner plate / three holes in center plate)	_____
9. Set bumper gaps	_____
10. Replace locating tools with load cells	_____
11. Connect cables according to the wiring diagram	_____
12. Install gap covers	_____
13. Calibrate scale after foundation has cured	_____

5 Installation

Installing Modules

After installing the concrete foundation (according to Chapter 2 and the foundation drawing for the scale), allow it to cure. Stub off the instrument cable conduit where it extends from the foundation, and complete conduit installation, if necessary.

1. Snap a chalk line on the foundation to mark the location of each side of the scale from approach coping to approach coping. These chalk lines will be used to align the modules as they are set in place. Check the distance between the approach copings and check the diagonal measurements.
2. Roughly position the base plates on the foundation. Figure 5-1 shows the base plate positions for 20x11 modules in single and multiple configurations. For the actual dimensions for your scale, refer to the foundation drawing.
3. Install a roll pin in each base plate.
4. Grease (with Never-Seez) the lower receivers and insert one in each of the base plates, aligning the notch with the roll pin. Then use a transit to check the elevation of the receiver at each base plate location. Make sure that all receivers are at the same height and that there is the same distance between each receiver and the top of the approach coping. To check this accurately, rest the measuring rod on the top surface of the receiver at each base plate location. The nominal height of the scale from the top (flat) surface of the receiver to the top of the weighbridge is as follows:

   Height Without Shims = 13 inches

   The total, nominal height of the scale is 14.5 inches when shimmed 1/8 inch at the top and 1/8 inch at the bottom. The scale should be shimmed to fit the installation, with a maximum of 3/8 inch of shims on top and 3/8 inch of shims on bottom for a total of 3/4 inch. Never exceed either of those numbers. If more than 3/4 inch of shimming is required, shim or grout under the entire base plate after accurately locating the scale and securing the anchor bolts. If 1 inch or more shimming is used, you will need anchor bolts that are long enough to extend to a depth of at least 4 inches into the foundation slab (longer anchor bolts are not supplied by METTLER TOLEDO).
5. Insert a locating tool in each lower receiver, aligning the notch with the roll pin.
6. Prepare modules for installation.
   - Remove all gap covers.
   - Grease (with Never-Seez) the upper receivers with O-Ring and insert a receiver into each load cell receiver block on the undersides of the modules.
   - Loosen the bumper bolts on the side brackets so that adjustments can be made after the modules are in position.

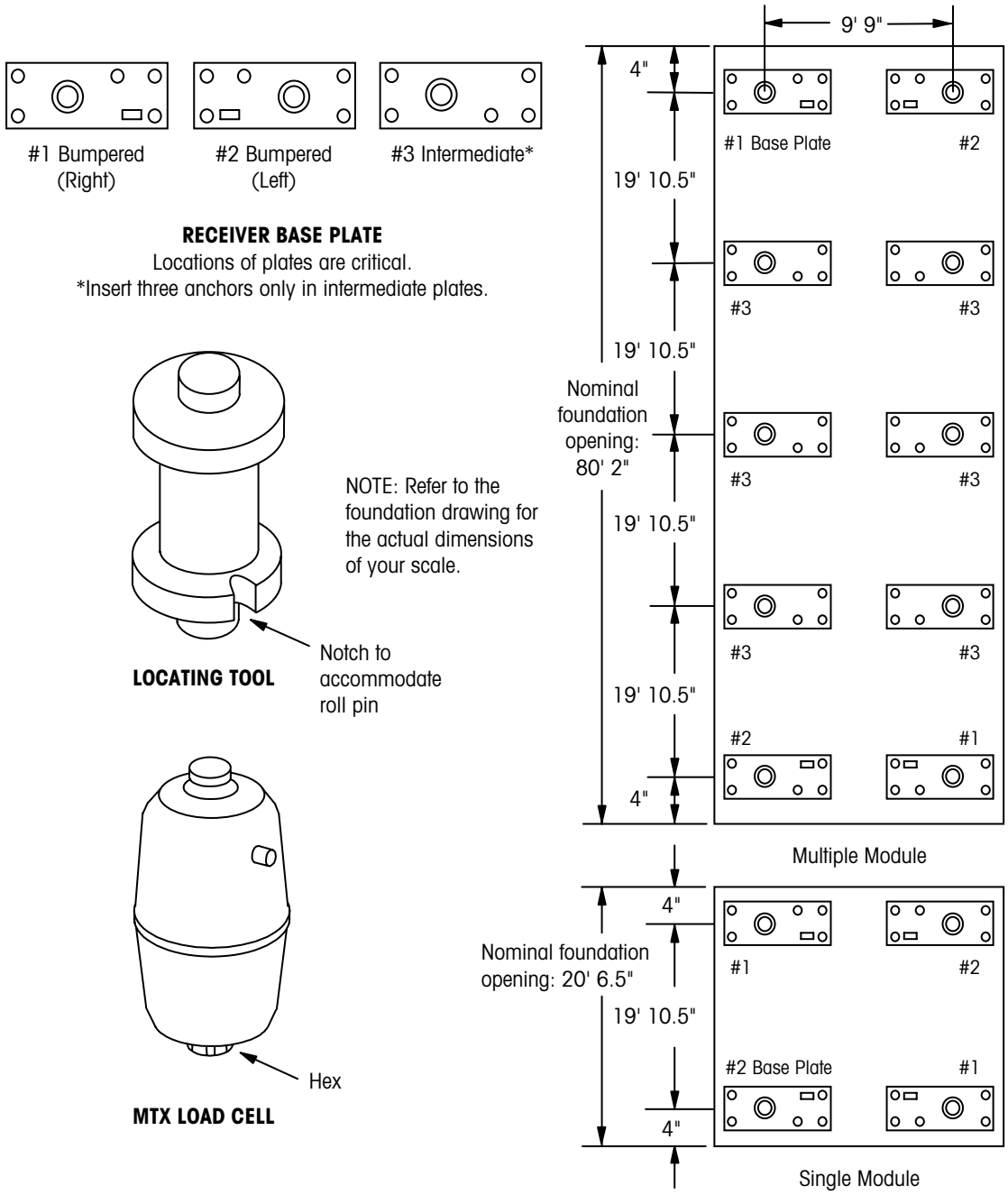


Figure 5-1: Base Plate Location

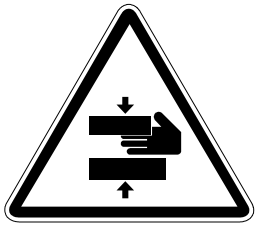
IMPORTANT! Place blocks under the modules any time the checking is not engaged (all modules are not set, or multiple-platform scales have not been coupled). This is especially true if the truck crane is driving on a previous module to set the next one.

7. Set the scale modules in place using the following sequence:

a. The First Module to be set in place is the module that requires four load cells (see Figure 3-2). Lift the module as shown in Figure 3-1. Before setting this module in place, make sure that the end bumper assembly and side bumper bolts have been installed. Position the module so that the end with the end bumper and side bumpers faces the approach wall. The first module should be

reasonably square with the end wall and spaced away from the end wall as shown in the assembly drawing.

Slowly lower the module onto the locating tools, lowering the approach end first. Check the module's alignment with the chalk line snapped on the foundation.



⚠ WARNING

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b. Set the first Middle Module in place by slowly lowering it and fitting the male coupler brackets into the female couplers on the First Module. Verify correct seating by noting engagement of coupler pins and male gusset level below female gusset level. Module will seat best if it is lowered almost level. Lower the other end onto the locating tools.

c. Set the next Middle Module in place. It is important to make sure that the scale is aligned with the chalk lines as you install the modules. If the scale starts to drift too much, check to make sure the base plates are in line. If the base plates are not in line, use the following procedure to correct misalignment.

- Note whether drift is to the right or left while facing the approach end of the first module.
- Remove the last module that you installed and set it aside.
- Remove the retaining bolt from the octagonal coupler pin of the adjoining module and lift the pin from the socket (see Figure 5-2). Turn the pin one position counterclockwise for left drift or clockwise for right drift, and then place it back into socket. Replace the retaining bolt.
- Reset the module and check alignment.
- If the module is still not aligned satisfactorily, turn the pin once more in the same direction. Any remaining misalignment can be corrected by adjusting the next module(s) that you set in place.
- After adjusting a coupler pin, apply Loctite #242 to the retaining bolt's threads and torque the bolt 1/3 turn beyond the point at which it is snug (seated).

d. Set the Terminal Module in place. The gap between this module and the end approach wall should be approximately the same as the gap at the other end of the scale (the gap should not be larger than 1 inch). If the foundation diagonals are not square, then the clearance will vary across the approach wall. This clearance should not be less than 3/8 inch at any point.

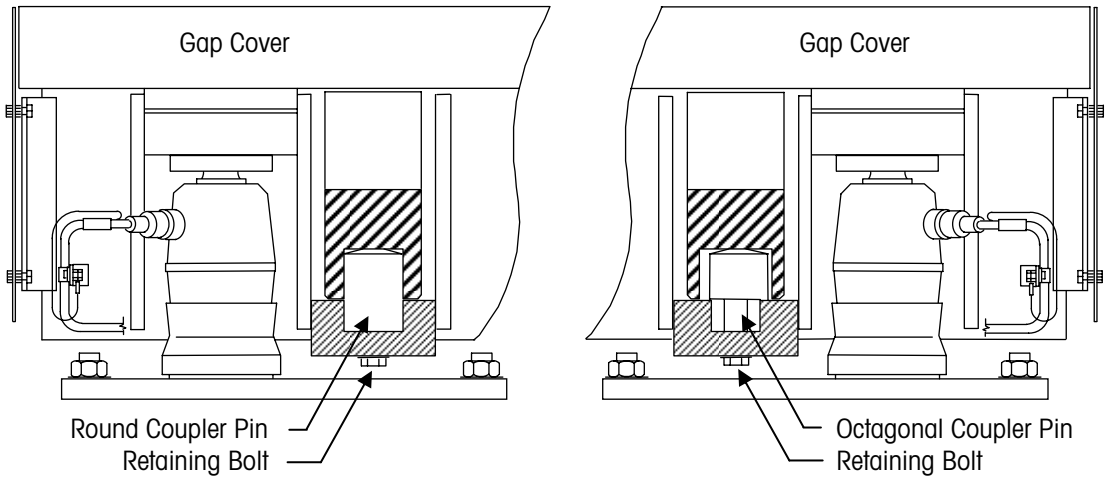


Figure 5-2: Module Alignment

8. Square the base plates (in order to move the base plates, it may be necessary to use a pry bar to lift the module slightly while another person taps the base plate with a hammer). Check all the locating tools carefully. There should be no clearance between the shoulders on the locating tools and the upper or lower receivers.
9. Using a hammer drill, drill through the holes in the base plates into the foundation. Each end section requires five bolts, and each middle section requires three bolts. Insert 3/4-10 anchor bolts and secure them.
10. Set the side bumper gaps and end bumper gaps as shown in Figure 5-3. Add shims as needed to adjust the bumper gaps.

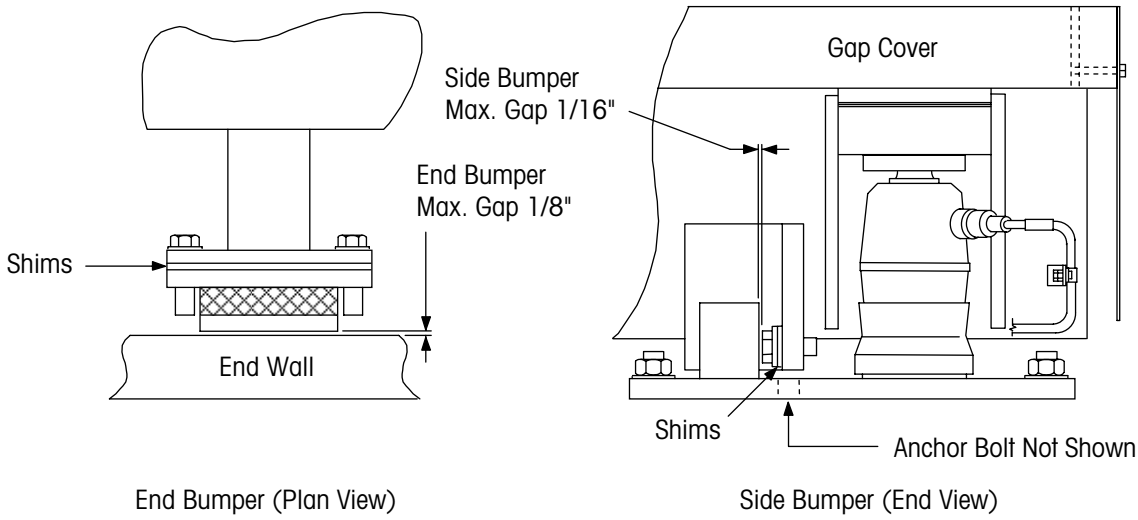


Figure 5-3: Bumper Gaps

Installing Load Cells

Use a transit to check the height of the scale deck near each load cell to determine if shimming is required.

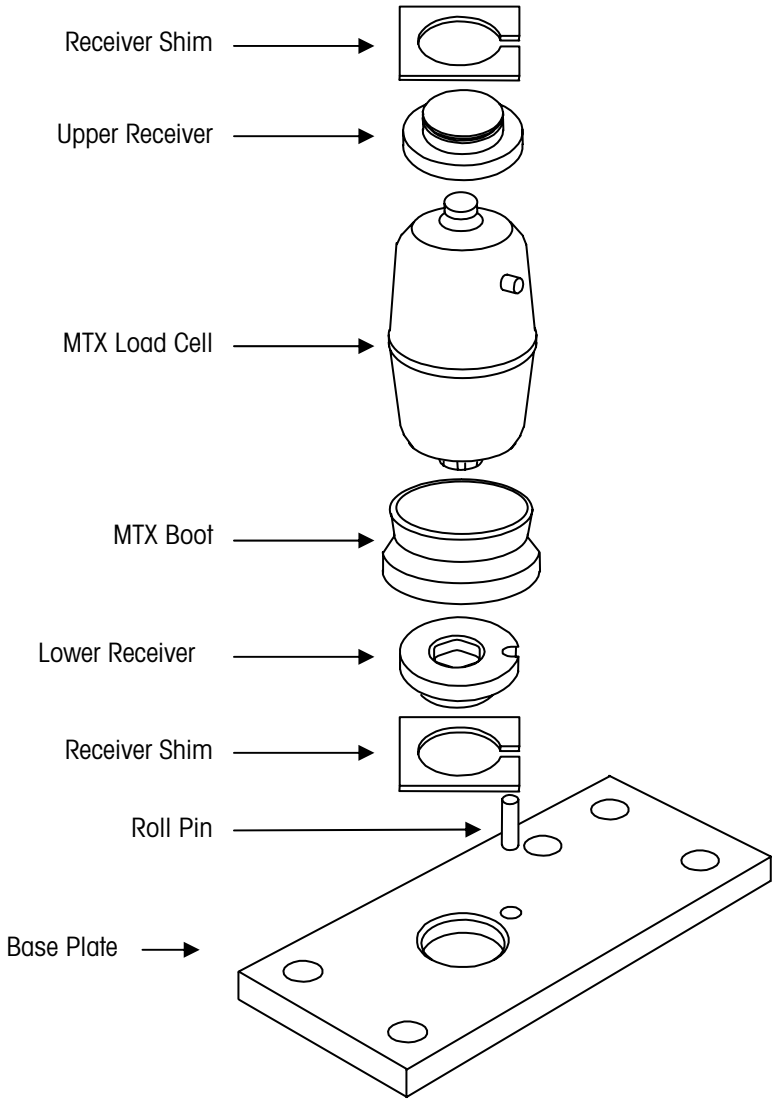


Figure 5-4: Load Cell Installation

Install each load cell as shown in Figure 5-4, using the following procedure:

1. Jack up the module about 1.5 inches and remove the locating tool.
2. Apply load cell lubricant to the load surface of the cell buttons at the top and bottom of the load cell.
3. Fill the lower receiver with multi-purpose grease.
4. If you need to adjust the height of the deck, add shims under the lower receiver and above the upper receiver. The maximum shimming to be used for a load cell is 3/4 inch. DO NOT PLACE more than 3/8 inch of shims at the upper or lower receiver, or the receiver could become dislodged.

NOTE: Final shimming should be determined by the raw-count reading of the load cells (see Table 7-2). Final shimming should be done after addressing the load cells and before calibrating the scale (the shimming sequence is described in Chapter 10).

5. Install an MTX load cell (see Figure 5-5):

- Place a rubber boot on the lower part of the load cell. If necessary, apply a small amount of lubricant to the boot to ease it onto the load cell.
- Roll up the lower part of the boot, and place the hex end of the load cell into the lower receiver.
- Once the load cell is in position, roll down the lower part of the boot so that it fits around the receiver. Make sure that the cable connector points toward the outside of the scale and is oriented 30° out and away for the best cable routing. Then lower the module onto the load cell.

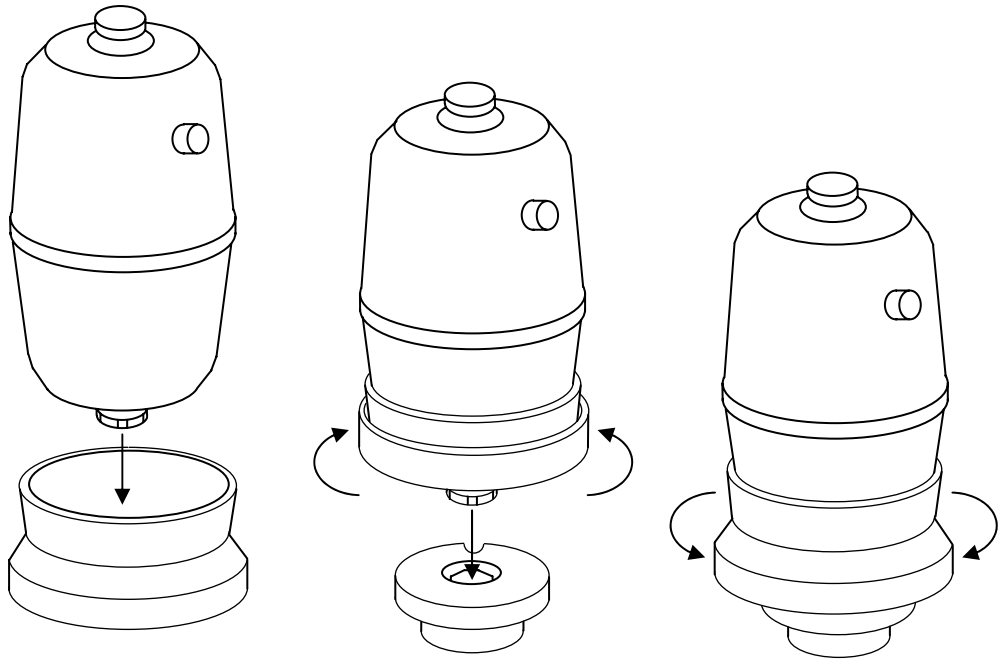


Figure 5-5: MTX Load Cell Installation

Load Cell Cables

At this point, connect the load cell and interconnect cables to the junction boxes. See the wiring diagram for routing and terminating load cell cables.

Do not connect the load cell cables to the load cells at this time. They should be connected as the load cells are being addressed.

It is important that all electrical parts are kept absolutely dry on the inside and as dry as possible on the outside. Continuous exposure can cause corrosion, which will eventually break down the seal and allow moisture to reach sensitive parts. Penetration of moisture can cause drifting, zero change, and reduce the accuracy of the scale.

Guidelines for installing cables:

- Dress the load cell cables to form a drip loop at a point before the cable connects to the load cell or to the junction box. Water will drip onto the cable and follow the cable to its lowest point before dripping off. If a drip loop is provided, the water will run off before reaching moisture-sensitive components such as connectors or seals.
- Cables are not integrally attached to the load cells. When you connect the cable connector to the load cells, the connector must be correctly and completely seated so the gasket will seal out all moisture and so the pins are not bent. Do not use wrenches or pliers on this fitting. If the fit is correct and free of foreign material, you should be able to assemble it by hand. IMPORTANT! Do not use tools to tighten the connector. Make sure the connection is free of any foreign material before applying dielectric compound to the connection. Use the dielectric compound that is supplied with the scale.
- See the wiring diagram for maximum home run cable length.

Gap and Side Covers

After the wiring has been completed, install a gap cover at each end of the scale and between each coupled module. Secure the gap covers with bolts, washers, and sleeves (see Figure 5-6).

Install side shields after the load cells are connected and working properly and after all shimming has been completed. Insert a clamp plate in the slots at the end of each gap cover and bolt a side shield to the clamp plate (see Figure 5-6).

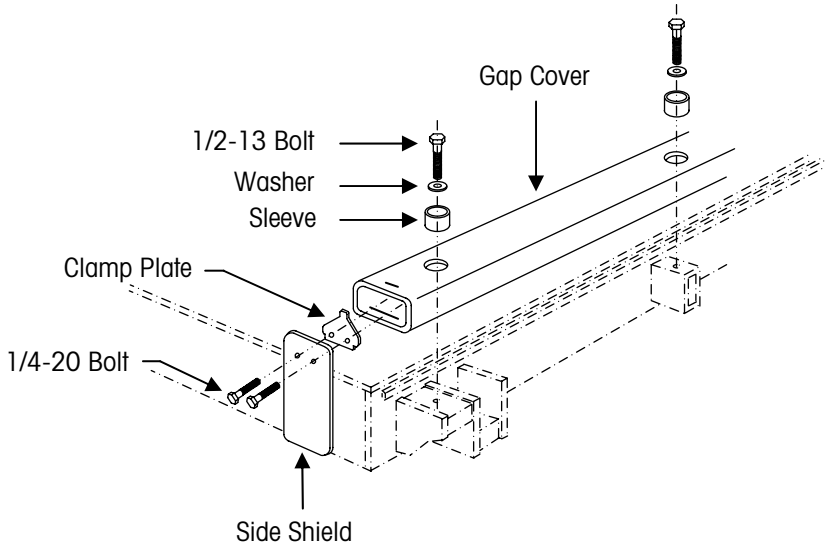


Figure 5-6: Gap Cover and Side Shield Installation

Junction Box

Place the desiccant pack in the junction box and carefully seal the junction box against moisture. Make sure the desiccant is in an active (dry) condition. Tighten the junction box cover securely. Be careful that the bolts are not over-tightened, as this could warp the cover or force the gasket out of place. The optimum screw torque is 20 in-lb.

Scale Finishing

Scale modules are often scratched and bumped in transit or during installation. To prevent rust, paint is provided in the installation kit to touch up any scratched or damaged areas. If a scratched area has started to rust, clean it with mineral spirits or lacquer thinner before applying the paint. Do not paint the scale platform when the temperature is below 60°F (15°C).

6 Multiple-Platform Scale Installations

Truck stops commonly use several independent scales installed end-to-end in order to obtain axle weight as well as gross weight. These multiple-platform scales are installed the same as single-platform scales, except that the platforms are joined with dual-cell base plates and coupling hardware.

Dual-Cell Base Plates

Large dual-cell base plates (see Figure 6-1) are used between independent scales. This type of plate is designed to maintain the proper distance between the scales. Figure 6-2 shows a layout for a typical 15 foot x 15 foot x 45 foot scale system. When installing these base plates, make sure that they are in position and oriented correctly.

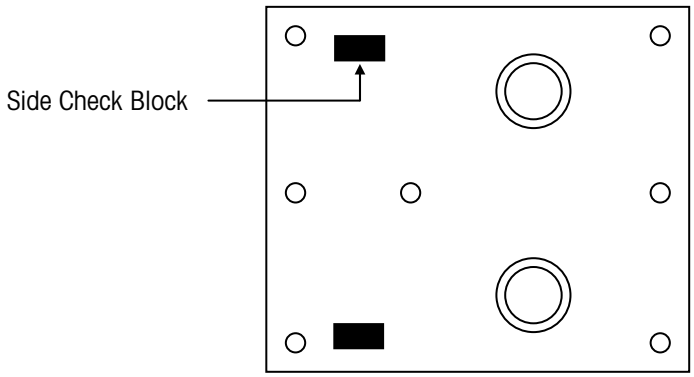


Figure 6-1: Dual-Cell Base Plate

Scale Couplers

Two scale couplers are used to join each pair of scales (see Figures 6-2 and 6-3). They are designed to allow the scales to operate independently so that weight on one scale is not read on the adjacent scale. Each coupler consists of two rod end bearings and clevis pins to secure each rod end bearing to a clevis. The couplers hold the scales together so that the end wall checking system checks all scales.

Installation

1. Position the base plates, check their height, install locating tools, and set the modules in place.
2. Install coupling hardware (use Never-Seez bearing compound or equal on all threaded surfaces and inside diameters of rod end bearings). Assemble the rod ends and jam nut, adjusting the assembly so that the length is about 7 inches center to center. Secure the female rod end to a clevis with a clevis pin and hair-pin cotter. Adjust the assembly so that the hole in the male rod end lines up with the hole in the other clevis. Tighten the jam nut and secure the male rod end to the clevis with a clevis pin and hair-pin cotter.
3. Disconnect the coupled sections by removing clevis pins from one module before raising the modules.
4. Raise the modules and insert load cells.
5. Set modules on the load cells and replace the clevis pins.

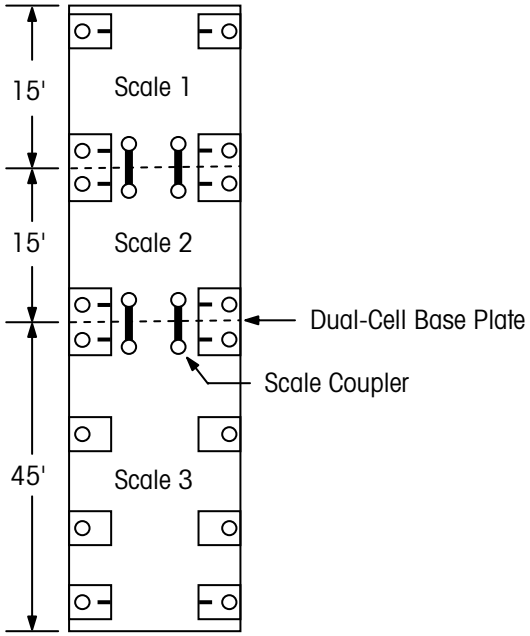


Figure 6-2: Multiple-Platform Scale Layout

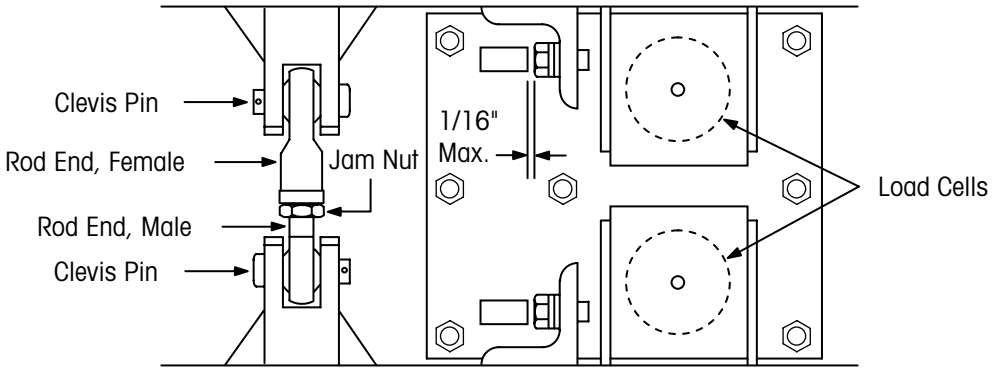


Figure 6-3: Scale Coupler

7 Calibration and Shift Adjustment

Instructions for programming and calibrating the scale terminal can be found in the terminal's manual. The following setup information will be needed.

Scale	Total Capacity*	Scale Length	No. of Load Cells	Programmed Capacity	Increment Size
7562	60 Tons	23' 4" or less	4	120,000 lb	20 lb
	100 Tons	Greater than 23' 4"	6 or more	200,000 lb	20 lb

*Check serial plate on scale for total capacity.

Table 7-1: Scale Capacity and Increment Size

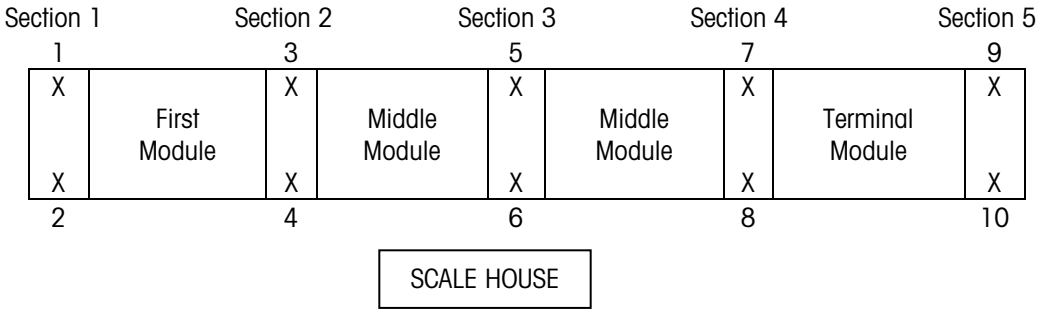


Figure 7-1: Recommended Load Cell Addressing

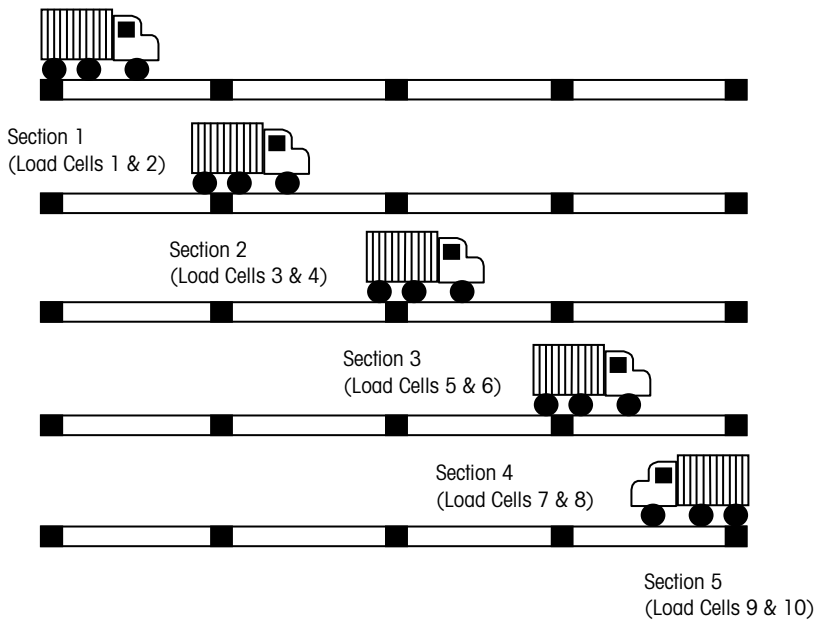


Figure 7-2: Test Truck Positions for Shift Compensation

End Cell Raw Count Range	
Module Size	**Raw Count**
15'	1,200 - 1,450
17' 6"	1,450 – 1,800
20'	1,800 - 2,250
23' 4"	2,150 - 2,600

Middle Cell Raw Count Range	
Module Size	**Raw Count**
15' - 15'	2,400 - 2,900
15' - 17' 6"	2,650 - 3,250
17' 6" - 17' 6"	2,900 - 3,600
15' - 20'	3,000 - 3,700
17' 6" - 20'	3,250 - 4,050
15' - 23' 4"	3,325 - 3,575
17' 6" - 23' 4"	3,575 - 3,925
20' - 20'	3,600 - 4,500
20' - 23' 4"	3,925 - 4,375
23' 4" - 23' 4"	4,050 - 4,450

Table 7-2: Expected Raw Count Readings for Model 7562

IMPORTANT!

If raw counts do not fall into the ranges listed in Table 7-2, re-shim the scale using the shimming procedure described in Chapter 10.

8 Maintenance

Maintenance Procedures

Vehicle scale maintenance is to be performed by factory-trained METTLER TOLEDO service technicians or authorized METTLER TOLEDO distributor service technicians. To ensure proper scale operation and longevity, use the following maintenance procedures.

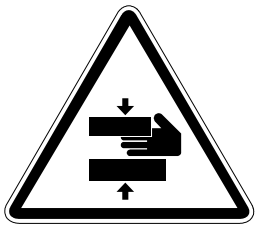
Maintenance to be performed every 6 months (or more frequently for scales that get very heavy use):	
Approach/Foundation	Check the approaches and foundation for cracks or damage. Check the pit to make sure it is clean and dry. Make sure that the drain is not blocked and that the sump pump is working.
Weighbridge	Check the weighbridge for corrosion, cracks, broken bolts, or unusual wear. Check under and around the weighbridge, and remove any debris that can affect weighing accuracy.
Side Rails	Check the side rails for damage.
Gap Covers	Remove the gap covers. Check them for damage, and remove any debris that has collected between the weighbridge modules. After checking the bumpers, load cells, and coupler pins, replace the gap covers. Clean and inspect the bolts, replacing any that have damaged or worn threads. Apply Loctite #242 to the threads and then tighten the bolts.
Bumpers	Check the bumpers to make sure there is a gap at each bumper. Side bumper gaps should be 1/16 inch maximum. End bumper gaps should be 1/8 inch maximum. Adjust the bumpers if needed.
Load Cell Cables	Check the load cell cables to make sure that they are not damaged and that the cables are securely connected to the load cells. The connection should be well-coated with dielectric compound. The rubber boot on the cable connector should be tight against the load cell.
Coupler Pins	Check the coupler pins to make sure they are held in place securely by the retaining bolts. Clean and inspect the retaining bolts, replacing any that have damaged or worn threads. Apply Loctite #242 to the threads and then tighten the bolts. Torque each bolt 1/3 turn beyond the point at which it is snug.
Junction Boxes	Check for moisture or foreign material in the junction boxes. Replace the desiccant bags if needed. Make sure that all load cell and instrument cables are properly connected. Tighten the cord grip caps. After inspecting a junction box, replace the cover and tighten all screws.
Grounding	Check the lightning protection system to make sure the scale is properly grounded according to the wiring diagram. The ground strap connecting the surge protector to the ground rod should be as short and direct as possible. A separate ground strap should connect the scale terminal to the ground rod. If a printer is being used, it should be connected to the same surge protector as the scale terminal.
Scale Terminal	Check the brightness of the display. Make sure that the terminal displays a stable weight and returns to zero. Make sure that no radio or other electronic equipment is located close enough to interfere with the terminal. Refer to the scale terminal's manual for troubleshooting information.
Calibration	Check the scale's calibration.
Paint/Finish	The scale platform might need to be touched up or repainted periodically. Before painting, clean the metal surfaces and remove all rust. Apply epoxy paint with a roller at a temperature of 60°F (15°C) or higher.
For Multi-Platform Scales Only	Check the scale couplers to make sure they are not damaged or loose. Tighten the jam nuts on each coupler's rod ends if needed.

Maintenance to be performed every 12 months (or more frequently for scales that get very heavy use):	
6-Month Maintenance	Perform all the 6-month maintenance procedures (listed in the table above) plus the additional load cell maintenance described below.
Load Cells	Jack up the weighbridge and remove each load cell. Clean and inspect the end surfaces of the load cells and the receivers. Replace any damaged components. Apply load cell lubricant to the end surfaces of the load cells, and fill the lower receivers with multi-purpose grease. Reinstall the load cells and receivers, making sure that all shims, gaskets, or boots are positioned correctly.

Load Cell Replacement

If a load cell needs to be replaced, use the following procedure:

1. Raise the platform approximately 1.5 inches, using a hydraulic jack, test truck boom, or forklift. The scale should be raised only when it is unloaded. The force required to lift a module at either end of the scale is at least one half of the module weight shown in Table 3-1. If you are going to lift a middle module, lift the module that bears on the coupler bracket first and block it up before attempting to lift the adjoining module off the load cell. Refer to the lifting procedures in Chapter 3.



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2. After the scale is raised up and blocked, enter the setup mode on the scale terminal and access the load cell replacement parameter. Follow the terminal manual's instructions for replacing a load cell.
3. Check the calibration of the scale and recalibrate if required.

Spare Parts List

Part Number	Description
15475900A	MTX Load Cell, 45t, H44 10Kd
TN203705	MTX Boot
TA200764	Upper Receiver (with O-Ring)
TA200814	Lower Receiver
TA200712-1	Receiver Shim, 11 gauge
TA200712-2	Receiver Shim, 16 gauge
TA200712-3	Receiver Shim, 7 gauge
TA205313	Round Coupler Pin
TA205314	Octagonal Coupler Pin
TA200856-1	End Bumper Shim, 0.25 inch
TA200856-2	End Bumper Shim, 11 gauge
TA200856-3	End Bumper Shim, 16 gauge
TA200357-1	Side Bumper Shim, 11 gauge
TA200357-2	Side Bumper Shim, 16 gauge
TA200357-3	Side Bumper Shim, 22 gauge
TN202990-1	Coupler Pin Shim, 11 gauge
TN202990-2	Coupler Pin Shim, 16 gauge
13635300A	CMOS Junction Box PCB
TA200831	Locating Tool
TA000088-008	Load Cell Cable, 8 feet
TA000088-010*	Load Cell Cable, 10 feet
TA000088-026	Load Cell Cable, 26 feet
TA000088-030**	Load Cell Cable, 30 feet
TA000088-033***	Load Cell Cable, 33 feet
Multiple-Platform Scales	
MZ0904000079	Hair-Pin Cotter
MZ0904000087	Clevis Pin
MZ0901040022	Rod End Bearing, Male
MZ0901040023	Rod End Bearing, Female
MZ0901020110	Jam Nut

*Used for single-module scales only.

**Used for 17.5' modules and 20' modules.

***Used for 20' modules and 23' 4" modules.

9 Cast-in-Place Concrete Recommendations

General

Work including: Providing all cast-in-place concrete work, including reinforcing, placing, curing, and cleanup.

Submit, on request only, product literature for admixtures and curing compounds proposed for use.

Materials

Cement: Portland Cement, ASTM C150, Type 1
Water: Potable
Aggregates: ASTM C33, size number 67
Admixtures:

- Water-reducing: ASTM C494, Type A or D
- Air-entraining: ASTM C260
- High-range, water-reducing admixture (superplasticizer): ASTM C494, Type F or G
- Nonchloride, noncorrosive accelerator: ASTM C494, Type C or E
- Calcium Chloride is **NOT** permitted.
- Use of mixtures other than those listed will not be permitted.

Reinforcing

Deformed bars: ASTM A615, A996 (formerly A616 and A617). Yield strength to be 60 ksi. Welded wire fabric (if required): ASTM A185. Provide in sheet form.

Mixes

Foundation

Use the following for exterior slabs on grade:

- Compressive strength to be 3,000 psi (or as specified on foundation drawing), 28-day strength.
- Air content shall be 5 to 7 percent.
- Maximum water to cement ratio shall be 0.45.
- Maximum slump as placed shall be 4 inches.

Finish

Finish on flatwork shall be medium broom finish.

Curing and Protection

Curing Compound and Sealer: Federal Specification ASTM C309. The compound shall be a styrene butadiene type, 30% solids content minimum. The following are acceptable:

- Super Floor Coat, by Euclid
- Super Pliocure, by Euclid
- Masterseal 66, by Master Builders

When air temperature during placement is less than 40°F, or will be within 24 hours, temperature of concrete as placed is to be between 50°F and 90°F (55°F and 90°F for sections less than 12 inches thick). Maintain concrete temperature within these limits for the full curing period of 7 days.

Slab areas may be either moist-cured or receive an application of curing compound, except that when concrete above grade is placed in the open, and the air temperature exceeds 75°F, the concrete is to be moist-cured for the first 24 hours.

Whichever curing method is used, it shall begin immediately after the water sheen disappears and continue for at least 7 days. Do not allow curing to be delayed overnight.

10 Shimming Sequence

7562 Truck Scale

1. Complete the initial installation work. Connect the scale to a DigiTOL scale terminal and apply power. Let the load cells warm up for approximately 1/2 hour.
2. Access the setup mode of the terminal and observe the raw counts displayed for each load cell in the scale. Refer to the 10-cell layout in Figure 10-1 for the recommended load cell numbering scheme. Note that load cells 1 and 2 make up Section 1, cells 3 and 4 make up Section 2, and so on. Make sure that you know the proper location of each cell in your scale and that cells 1, 2, 3, and 4 are supporting the first or starting module of the scale.
3. Adjust the deck at Section 1 so that it is level with the approach ramp (assuming that the approach coping at each end of the scale is in the same level plane) to ensure a smooth transition onto the weighbridge. Shim load cells 1 and 2 as required (do not exceed 3/8 inch of shims at the upper or lower load cell receivers, 3/4 inch total shims maximum).
4. Shim under Section 2 cells until Section 1 cells are within raw count tolerance and equal side-to-side within 20% or less.
5. Shim under Section 3 cells to bring Section 2 cells into tolerance. Bring Section 3 cells into tolerance by shimming under Section 4 cells.
6. Make sure that Section 5 is level with the approach ramp. Shim Section 5 cells as necessary. Next, check Section 4 and 5 cell counts to determine if additional shimming is required. If so, shims must be placed at the coupler connections of Section 4. Shim as required to bring Sections 4 and 5 into tolerance.
7. Scale is now ready for shift adjust and calibration.

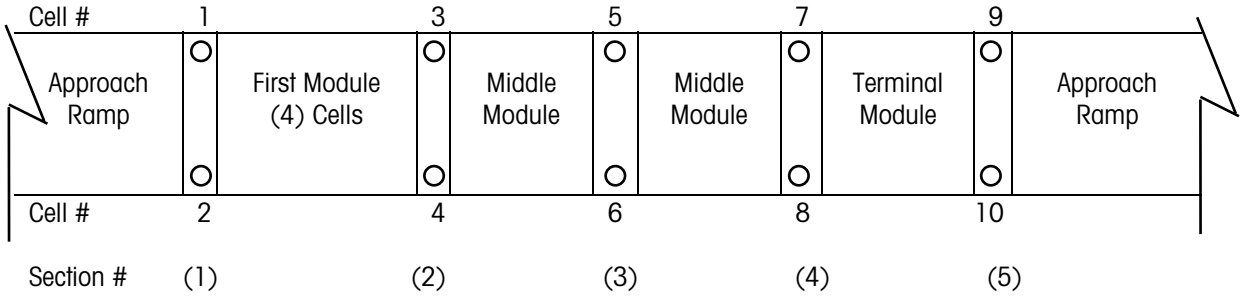

Figure 10-1: Recommended Load Cell Numbering

11 Service Parts

7562 Truck Scale

Refer to the following drawings and tables when ordering parts for 7562 truck scales.

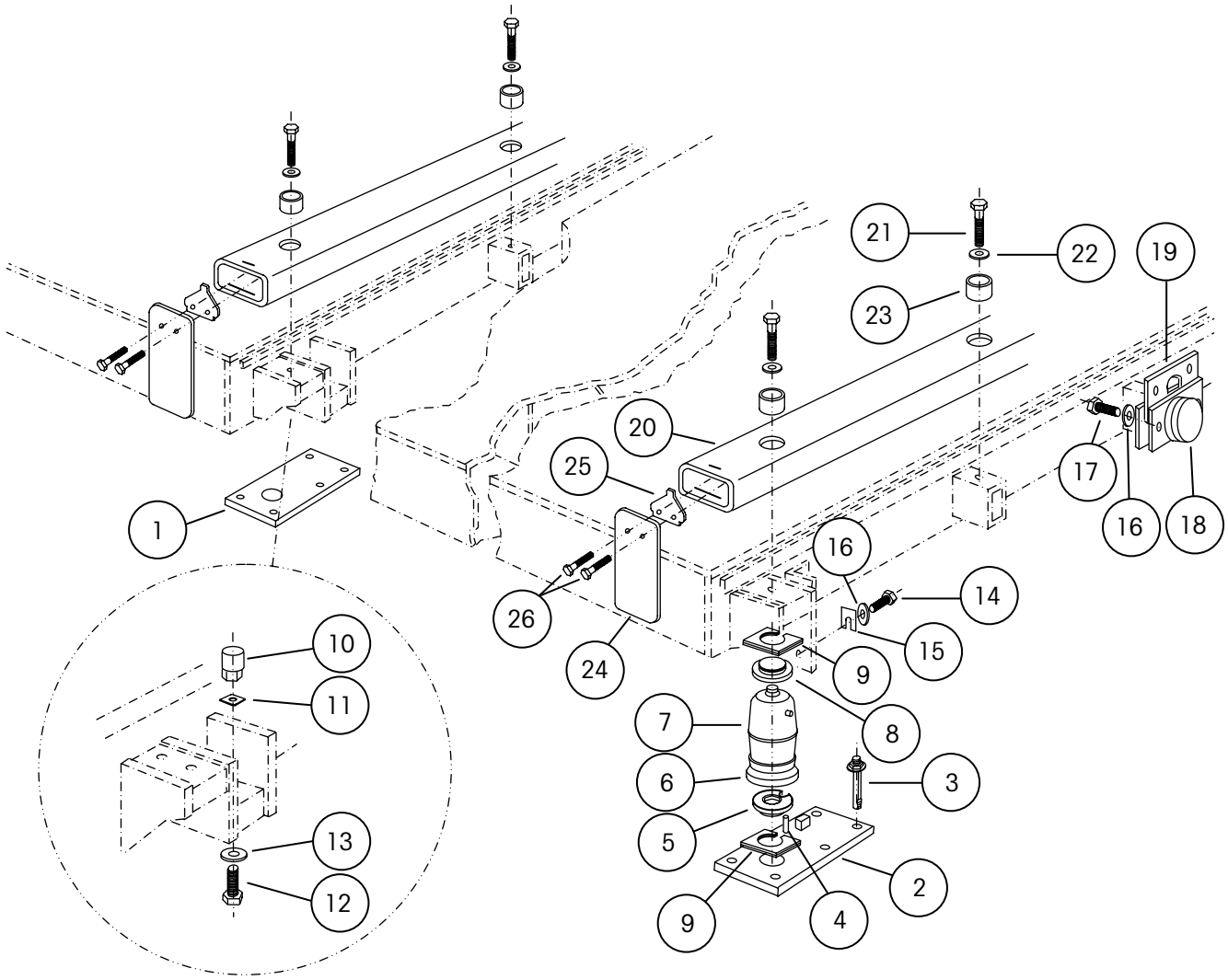

Figure 11-1: 7562 Truck Scale Parts

Ref No.	Part Number	Description	Qty.
1	TB200929-2 T204592-0600	Base Plate, No Bumper Base Plate, No Bumper, with 6-inch High Riser (optional)	Varies
2	TB200929-3 T204593-0600	Base Plate, Left Bumper Base Plate, Left Bumper, with 6-inch High Riser (optional)	2
Not Shown	TB200929-4 T204594-0600	Base Plate, Right Bumper Base Plate, Right Bumper, with 6-inch High Riser (optional)	2
3	TN203216 TN309958	3/4-10 Anchor Bolt x 5.5 inches long 3/4-10 Anchor Bolt x 8 inches long (optional)	Varies
4	MZ0904000063	Roll Pin	Varies
5	TA200814	Lower Receiver	Varies
6	TN203705	MTX Boot	Varies
7	15475900A	45t MTX Load Cell (after 6/99)	Varies

8	TA200764	Upper Receiver (with O-Ring)	Varies
9	TA200712-1 TA200712-2 TA200712-3	Receiver Shim, 11 gauge Receiver Shim, 16 gauge Receiver Shim, 7 gauge	Varies
10	TA205313 TA205314	Round Coupler Pin (per module) Octagonal Coupler Pin (per module)	1 1
11	TN202990-1 TN202990-2	Coupler Shim, 11 gauge Coupler Shim, 16 gauge	Varies
12	MZ0901010637	1/2-13 Hex. Head Screw x 2 inches long (per module)	2
13	MZ0901030098	1/2-inch Washer (per module)	2
14	MZ0901010375	5/8-11 Side Bumper Bolt x 1.25 inches long	4
15	TA200357-1 TA200357-2 TA200357-3	Side Bumper Shim, 11 gauge Side Bumper Shim, 16 gauge Side Bumper Shim, 22 gauge	Varies
16	MZ0901030062	5/8-inch Washer, Plain	Varies
17	TN202012	5/8-11 Hex. Head Bolt x 2.5 inches long	4
18	TA200887	End Bumper Assembly	2
19	TA200856-1 TA200856-2 TA200856-3	End Bumper Shim, 0.25 inch End Bumper Shim, 11 gauge End Bumper Shim, 16 gauge	Varies
20	TA205182	Gap Cover, 11 feet wide	Varies
21	MZ0901010510	1/2-13 Bolt x 3 inches long (per gap cover)	2
22	MZ0901030098	1/2-inch Washer (per gap cover)	2
23	TN205318	Sleeve (per gap cover)	2
24	TA202172	Side Shield	Varies
25	TN202152	Side Shield Clamp Plate	Varies
26	MZ0901010609 MZ0901010065	1/4-20 Bolt x 1.75 inches long (standard) 1/4-20 Bolt x 3/4 inch long (9' 10" wide scales only)	Varies
–	MZ0602000117	Loctite #242 Threadlocker	1
–	TN203056	Dielectric Compound	1
–	TN203217	Load Cell Receiver Lubricant	Varies
–	TA205922	Debris Seal Tubing, 100 feet (optional)	–

Table 11-1: 7562 Truck Scale Parts

Ref No.	Part Number	Description	Qty.
–	MZ0901010065	1/4-20 Hex. Head Cap Screw x 3/4 inch long (per side shield)	2
–	MZ0901020001	1/4-20 Hex. Nut (per side shield)	2
–	MZ0901020102	1/4-20 Nylock Nut (per side shield)	2

Table 11-2: Obsolete Side Shield Hardware

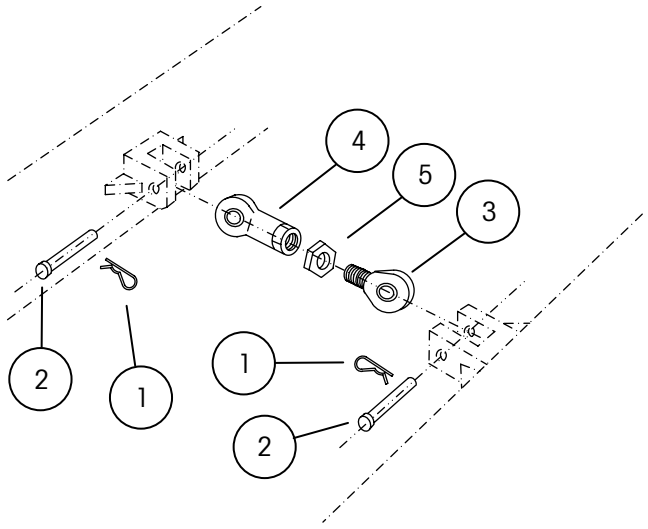

Figure 11-2: Multiple-Platform Connection Assembly

Ref. No.	Part Number	Description	Qty.
1	MZ0904000079	Hair-Pin Cotter	2
2	MZ0904000087	Clevis Pin	2
3	MZ0901040022	Rod End Bearing, Male	1
4	MZ0901040023	Rod End Bearing, Female	1
5	MZ0901020110	Jam Nut	1
–	TB200930-2	Dual-Cell Base Plate	–

Table 11-3: Multiple-Platform Connection Assembly

12 Reference Drawings

7562 Truck Scale

Drawing numbers for standard sizes and configurations are listed below.

Number of Modules	Scale Size	General Layout	Foundation			Wiring Diagram
			Variable Footer	Beam Slab	Pit	
1	15 x 11 feet	TC205381	TC202448	TC202449	TC202450	
	17.5 x 11 feet		TC202451	TC202452	TC202453	
	20 x 11 feet		TC203584	TC203585	TC203586	
2	30 x 11 feet	TC205382	TC202454	TC202455	TC202456	Standard:
	35 x 11 feet		TC202457	TC202458	TC202459	TC100460
	40 x 11 feet		TC203504	TC203505	TC203506	
3	52.5 x 11 feet	TC205383	TC204707	TC305828	TC204708	Hazardous:
	60 x 11 feet		TC203507	TC203508	TC203509	TC100442
	70 x 11 feet		TC205843	TC205844	TC205845	
4	80 x 11 feet	TC205384	TC203510	TC203511	TC203512	
	90 x 11 feet		TC205971	TC205972	TC205973	
5	100 x 11 feet	TC205385	TC203513	TC203514	TC203515	
	110 x 11 feet		TC206011	TC206012	TC206013	
6	120 x 11 feet	TC205386	TC203516	TC203517	TC203518	

Table 12-1: Reference Drawings for Standard 7562 Truck Scales

Scale Size	General Layout
35 feet	TC205379
70 feet	TC205380

Table 12-2: Reference Drawings for 7562 Portable Scales

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Publication Part Number: B16811400A **Publication Date: 1/07**

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