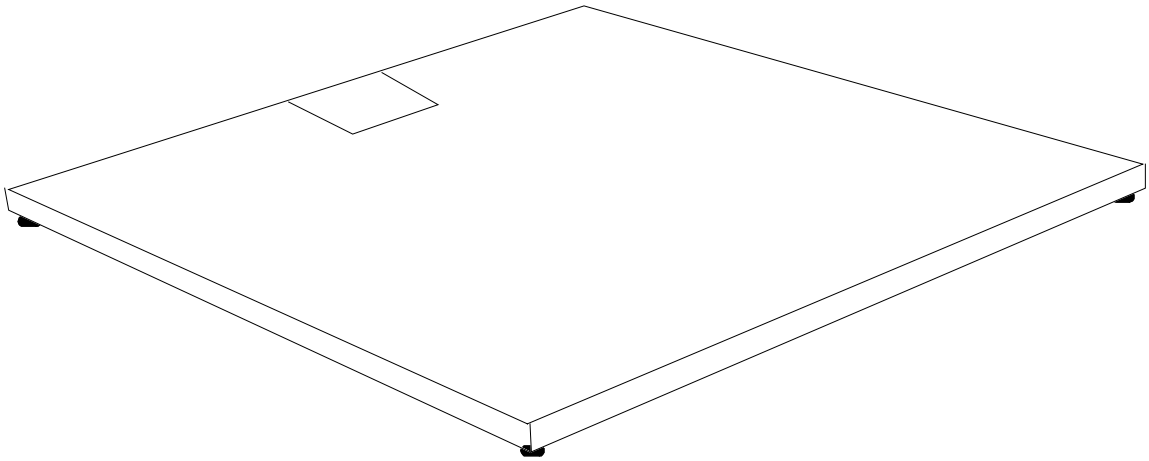
THURMAN SCALE

Installation Manual

Avenger Series
Floor Scale



51118
Rev. 7 10/19

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Amendment Record

Avenger Series Floor Scale

Installation Manual

Document 51118

Manufactured by:
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4025 Lakeview Crossing
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Created	09/2006	
Revision 1	09/2006	Released Manual
Revision 2	01/2008	Parts Update
Revision 3	01/2009	Added Avenger SS Series Parts List and Diagram
Revision 4	02/2009	Updated Load Cell Part Numbers.
Revision 5	01/2012	Corrected Loadcell Part numbers and amended Notes sections.
Revision 6	04/2013	Updated the Pit Frame Installation drawing.
Revision 7	10/2019	Updated Parts; Appendix I - IV

Table of Contents

Section 1: Introduction

1.1. Introduction

The **Avenger Floor Scale** utilizes a **standard junction box** for interfacing to most analog indicators.

NOTE: *It is the owner's responsibility to document, notify, and follow-up regarding shipping damage with the carrier.*

1.2. Description

- The scale platform is shipped in a crate, fully assembled and wired.
- The floor scale sizes range from 3' x 3' to 5' x 7', **mild steel**.
- The floor scale sizes range from 30” x 30” to 6’ x 8’, **stainless steel**.
- The floor scale capacities range from 1K to 10K (lbs).
- The stainless-steel floor scale is equipped with a twenty-five (25) foot interface cable.
- All junction boxes are constructed of stainless steel and all models have threaded holes in the decks for attaching eyebolts to facilitate installation and cleaning.

Section 2: Scale Installation

2.1. Pre-Installation

2.1.1. Checklist

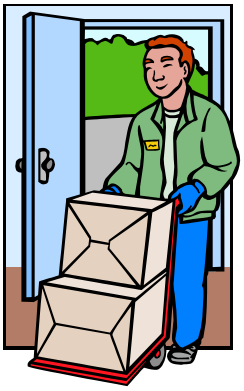
*The following points should be checked and discussed with the **customer**, if necessary, before the technician goes to the site and installs the equipment.*

- ✓ Check the customer's application to make certain it is within the capabilities and design parameters of the equipment.
- ✓ If the installation process might disrupt normal business operations, tell the customer and ask that they make ample arrangements.
- ✓ Be sure that the equipment operator(s) are available for training.
- ✓ The service technician reviews the recommended setup with the Sales Manager or Service Manager, and together they identify all necessary variations to satisfy the customer's application.

2.1.2. Unpacking

Follow these guidelines when unpacking all equipment.

- ✓ Check in all components and accessories according to the customer's order.
- ✓ Remove all components from their packing material, checking against the invoice that they are accounted for and not damaged.
    - *Advise the shipper immediately, if damage has occurred.*
    - *Order any parts necessary to replace those which have been damaged.*
    - *Keep the shipping container and packing material for future use.*
    - *Check the packing list.*
- ✓ Collect all necessary installation manuals for the equipment and accessories.
- ✓ Open the equipment and perform an inspection, making certain that all hardware, electrical connections and printed circuit assemblies are secure.
- ✓ Do not reinstall the cover if the final installation is to be performed after the pre-installation checkout.



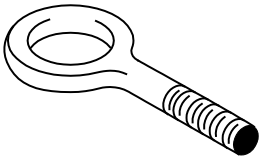
2.1.3. Equipment Checkout

Position the equipment with these points in mind:

- ✓ Intense direct sunlight can harm the display.
- ✓ Do not locate near magnetic material or equipment/Indicators which use magnets in their design.
- ✓ Avoid areas which have extreme variations in room temperatures. Temperatures outside the Indicator's specifications will affect the weighing accuracy of this product.
- ✓ Do not load the platform if there is any evidence of damage to the platform or supporting structure.

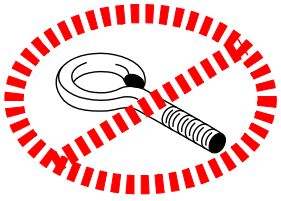
2.1.4. Loading and Unloading

1. Select a location that is flat, solid, level, and one that fully supports the weight of the platform plus a full capacity load.
2. Remove the top of the crate and all packing material.
3. Screw the **two (2) eyebolts** into the threaded adapters in the platform top.
4. Use a forklift or other lifting means, along with chains, cables, or nylon straps to remove the scale from the crate bottom.



TWO TYPES of EYE BOLTS

- ✓ **Closed Gap Eyebolts**
  - — Open Gap Eyebolts (***NOT USED***)
  - — Lifting Hooks (***NOT USED***)



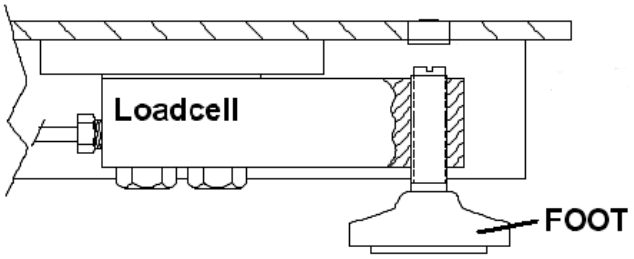
C A U T I O N

DO NOT use hooks or unclosed eyebolts.
Failure to use proper lifting tools may result in personal injury.

5. Set the scale so that the interface cable exits in a direction where it can be protected.
   - If possible, use a cable protector to reduce 'trip' hazards and to protect the interface cable from being damaged.
   - The scale is shipped with the threaded legs of the feet up tight against the load cells.
6. Remove the plugs at the corners of the scale.

2.2. Scale Installation

1. Insert and turn the feet clockwise a minimum of four (4) complete turns with a large screwdriver.



2. Wire the scale cable to the proper type indicator, as shown in the chart below.

WIRE COLOR	FUNCTION
Black	(—) Excitation
Red	(+) Excitation
Yellow	Shield
Green	(+) Signal
White	(—)Signal

3. Once the scale platform is completely wired to the indicator, calibrate the unit.
   - Follow the appropriate indicator service manual to ensure a good calibration.

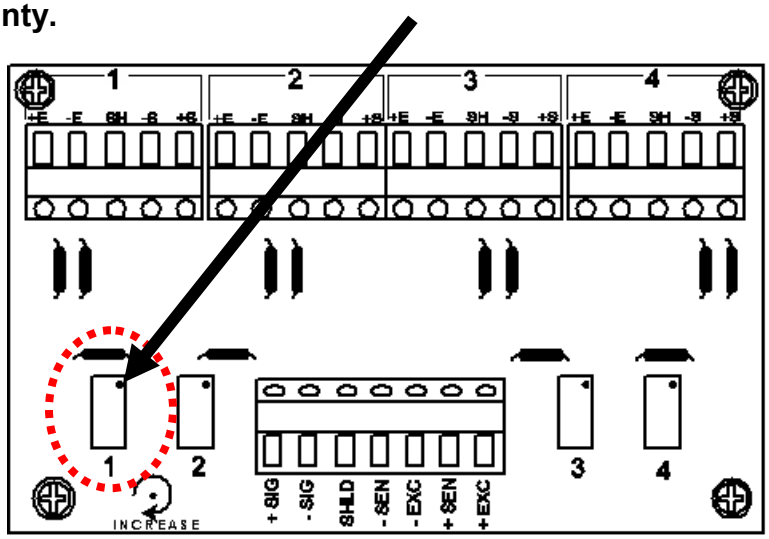
2.3. Calibration Steps

Adjust the analog interface indicator to the platform.

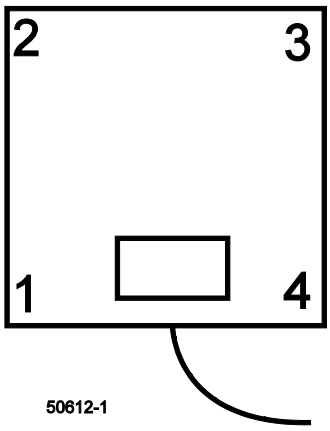
- Install all the corners to within **one (1) division of each other at 25% of rated capacity.**

. Follow the appropriate indicator service manual to ensure a proper calibration.

1. Center the four **Junction Box Potentiometers** by turning the adjustment screw **counter-clock-wise position** until a clicking sound is heard, then turning each of them back **clock-wise ten (10) turns**.
   — Total number of turns is **twenty.**



2. Identify the platform corner numbers.
3. Place a concentrated weight (**25%** of platform capacity) onto **corner #1**, then move it to **#2, #3** and **#4**, noting the displayed reading on each corner.
4. Identify the lowest reading, and then place the concentrated weight on this corner.



2.3. Calibration Steps, Continued

CORNER ADJUSTMENTS

If corners require adjustment, follow these steps.

1. Place the concentrated weight on the corner displaying the lowest weight.
2. Turn the adjustment on the potentiometer clockwise (**CW**) to the displayed weight so it reads the same as the highest reading.
3. Repeat this procedure while rechecking all corners until they are equal.

IMPORTANT NOTE: *When moving the weight(s) from corner to corner,* ***DO NOT*** *zero the scale. The purpose is to adjust the corners to be the same, and not to perform a correct calibration.*

4. Perform a zero reference check with an unloaded platform.
5. Repeat the corner test to ensure all readings are the same before proceeding.

NO CORNER ADJUSTMENTS

If corners do not require adjustment, follow these steps.

1. Remove all weights.
2. Zero the indicator.
3. Perform a final calibration with test weights.
4. Follow the appropriate indicator service manual to ensure a proper calibration.

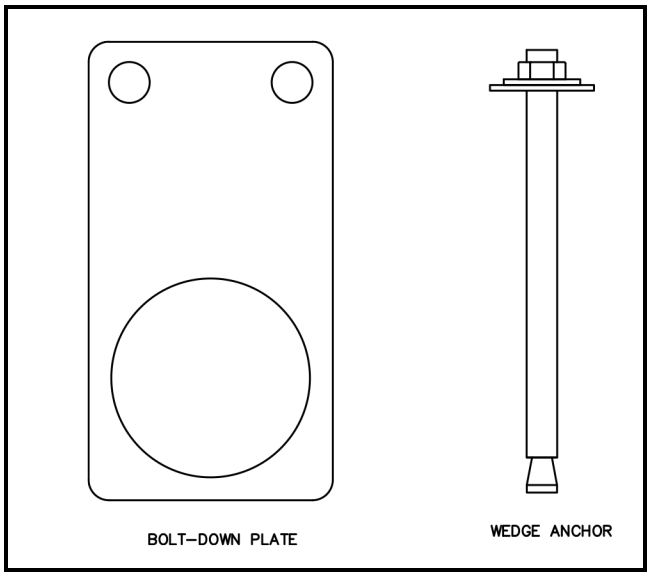
Section 3: Installing Accessories

3.1. Installing Bolt-Down Plates

Bolt down plates keep the scale from sliding or moving when loads are applied. The plates are bolted using anchors at each of the scales feet.

1. Place the platform into the correct position.
2. Place the bolt-down plate under the foot.
   - The plate edge extends out from under the scale.
   - Ensure the thru holes for the bolts are outside the frame of the scale
3. Drill **two (2) 7/16”** attachment holes using a hammer drill.
4. Insert anchors with the nut and washer already on them.
5. Tap the anchor into the hole, then tighten the nuts securely.
6. Repeat this process for each plate.

NOTE: *If ramps are **not** installed and bolt-down plates are needed, then a full set of four bolt-down plates are required.*



3.2. Installing Ramps

Each Mild Steel Ramp Accessory comes with two (2) integral bolt-down plates and (4) four anchors.

1. Place the ramp in position, then lift and set the platform feet into the bolt-down plate holes.
2. Drill the **two (2) 7/16" holes** using a hammer drill. Insert the anchors with the nut and washer already on.
3. Tap the anchor into the hole, then tighten the nuts securely.

IMPORTANT TIPS

- If two ramps are installed, then no other bolt-down plates are needed.
- If only one ramp is installed, then a set of two bolt-down plates *are* necessary.
- Only two (2) ramps (total) may be installed on opposite sides of a scale platform.

3.3. Installing Bumper Guards

Bumper Guards help protect the platform from direct hits from forklift traffic. The guards are slightly higher than the scale and help deflect the forks.

4. Place the bumper guard into a position so it protects the platform from non-scale traffic.
   - Neither should touch or interfere with the platform's movement.
5. Drill the **7/16"** fastening holes using a hammer drill.
6. Insert the anchors with the nut and washer already on it.
7. Tap the anchor into the hole.
8. Tighten the nuts securely.

3.4. Installing Pit Frames

The pit frame accessory is a one-piece welded unit. There are three (3) different types of frames, each with six (6) sizes.

- Two (2) are for the standard duty scale and one (1) is for the heavy capacity.
- The Pit Frame is designed for in-floor, or 'flush', applications.
- Standard duty frames are available in mild steel for all six floor scale sizes

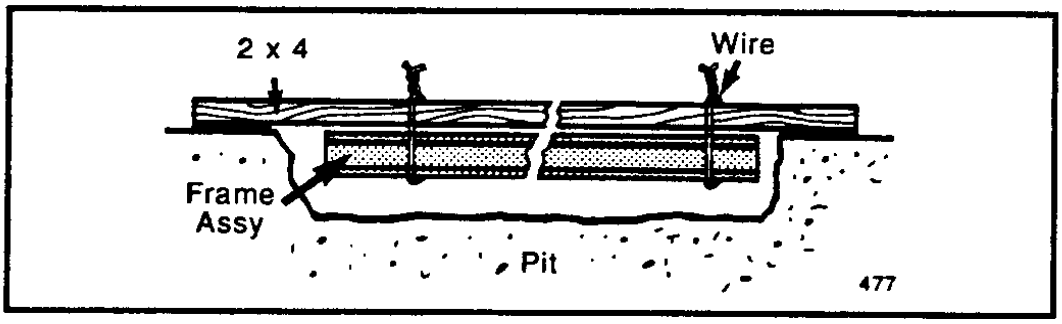
For normal installations, cut a square hole in the concrete, install the pit-frame accessory into this hole, then pour concrete around and under the frame.

- The concrete work and frame setting is usually completed by a contractor.
- A scale technician completes the project by setting and installing the scale.
- Once installed, no additional welding is required.

1. Place the pit frame in the approximate position it will occupy on the floor.
2. Mark the position of the hole to be made.
   - The hole ***must*** be a minimum of **twelve inches (12") wider** on all sides than the pit frame.
   - The hole will have to be deep enough to accommodate the pit coping, plus the thickness of the pit floor.
   - Use the drawing in **Appendix IV** for measurements.
   - Should pit drainage be required, slope the pit floor to an installed drain while maintaining a level area at each corner.
3. Cut the hole in the concrete floor.
4. Clean up any debris in the way of further installation steps.
5. Set the frame in the hole supported at about the correct height.
6. Set two 2x4 's on the top edge (longer than the width of the hole) across the opening.

3.4. Installing Pit Frames, Continued

7. Use soft wire and make **two (2) loops** by twisting wire around each 2x4 and the frame.



8. With the frame supported by the wire and 2x4's, use a level to set the frame flush with the surrounding floor, level, and at the correct height by twisting or untwisting the wire.

NOTE: *Use the drawing in* **Appendix IV** *for measurements, concrete specifications and amounts.*

9. Set into place and secure the conduit for the scale cable into the frame opening.
10. Pour the concrete around and under the frame.
11. Level and smooth it with a hand trowel, as needed.
12. If a drain is required, form the pit to place a slope in the pit floor to the drain.
    - *See* Appendix IV.
    - Allow cement to cure to a **minimum of 2000 psi** before cutting the wire.
13. Pull the cable through the conduit before placing the scale platform in the frame.
14. Level the platform before installing the instrumentation.

Section 4: Parts Replacement

4.1. Load Cell Replacement

1. **Cycle-down the power** to the indicator, then unplug the unit.
2. Remove the platform and junction box access covers.
3. Disconnect the failed load cell cable(s) at the junction box.
4. Loosen the gland bushing, and tie a string or wire to the end of the cable to act as a pull wire.
5. Place wire markers on the cable ends.
   - Masking tape is an effective alternative
6. Disconnect the faulty load cells wires from the terminal block.
7. Lift the platform end with a forklift or heavy pry bar, using wood blocks for safety.
8. Remove the load cell mounting bolts with a **3/4" socket**.
9. Remove the load cell, pulling the cable through the scale while leaving the pull string/wire in the scale.
10. Remove the foot assembly from the old cell, then install it onto the new load cell.
    - Use anti-seize on the threads.
11. Disconnect the pull string/wire from the old cell's cable, then attach to the new cell's cable end.
12. Pull the cable from the new cell through to the junction box.
13. Mount the cell to the scale platform.
    - Torque it to **90 ft/lbs**, using anti-seize on the mounting bolts.
14. Lower the scale to the surface removing the safety blocks.
15. Distribute the scale's weight evenly by all four (4) feet.
16. Connect the load cell wires into the junction box, then tighten the box gland bushing(s).
17. Replace the platform access cover.
18. Replace the box cover and torque all screws to **18-20 in/lbs**.
19. Recalibrate the unit as necessary.

IMPORTANT NOTE: *See* **Appendix I** *for specific load cell color code and wiring information.*

4.1.1. Load Cell Specifications

DESCRIPTION	SPECIFICATION
Material	**Mild Steel**
Rated Output	**3mV/V**
Impedance	**350 ohm**
Safe Overload	**150%**
Compensated Temperature Range	**-10° C to 40° C**
Safe Operating Temperature Range	**-10° C to 40° C**

4.2. Junction Box Replacement Steps

1. **Cycle-down the power** to the indicator, then unplug the unit.
2. Open the platform access cover.
3. Open the junction box cover.
4. Loosen all gland bushing nuts.
5. Place wire markers on all the load cell cable ends.
6. Disconnect the load cells' wires from the terminal blocks.
7. Disconnect the homerun wires.
8. Remove the PCB, clean the junction box, then install the new PCB.
9. Reconnect all load cell and home-run wires to the new PCB.
10. Tighten all gland bushing nuts.

IMPORTANT NOTE: *L eave the junction box cover **off** until all corner adjustments are completed.*

11. Replace the junction box cover, and torque all screws to **18-20 in/lbs**.
12. Replace the platform access cover.
13. Recalibrate the unit as necessary.

4.3. Foot Assembly Replacement Steps

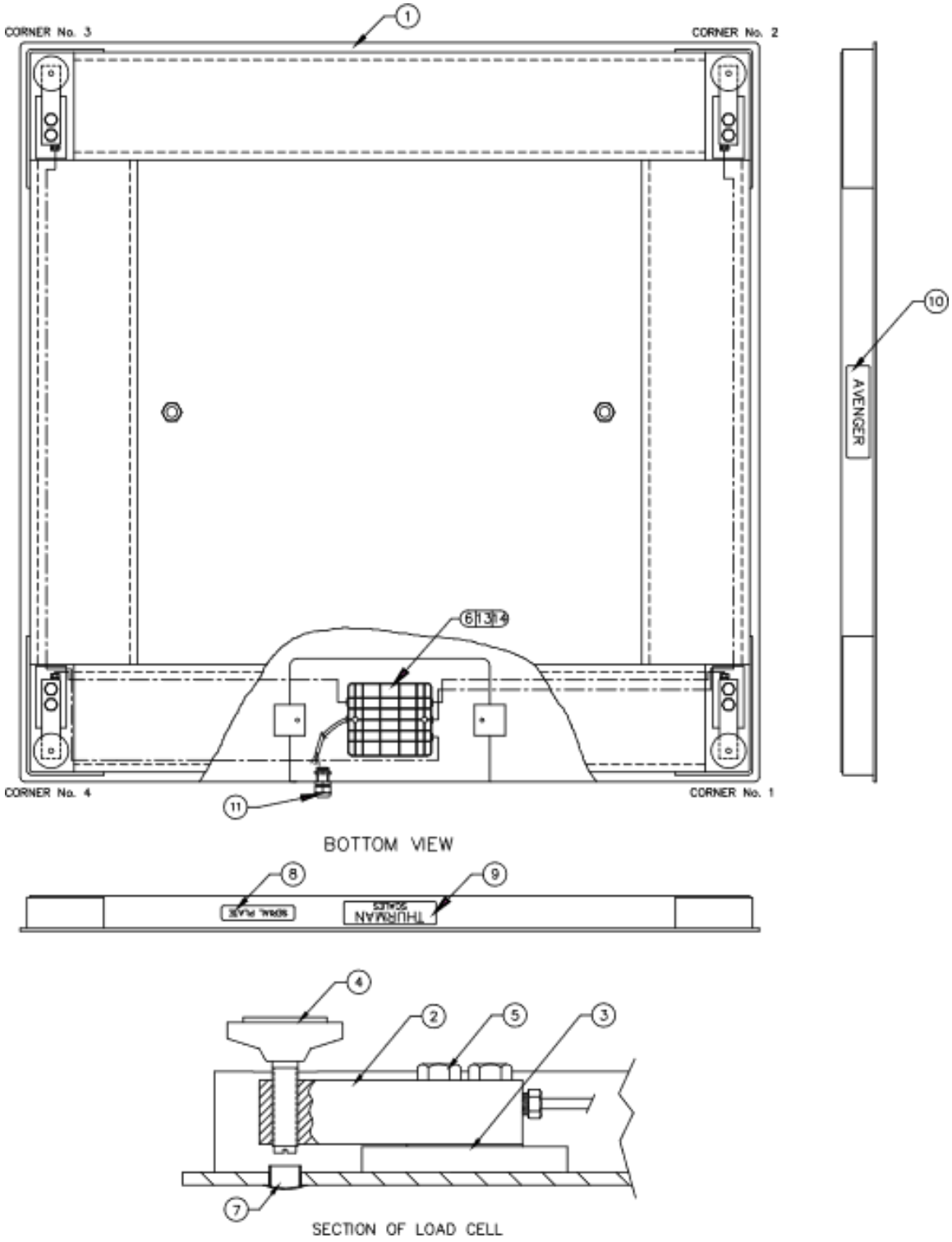
14. Lift the platform end with a forklift or heavy pry bar using wood blocks for safety.
15. Remove the hole plug over the foot to be replaced.
16. Using a standard screwdriver, unscrew the foot assembly.
17. Replace the Foot Assembly, using anti-seize on the screws attaching to the load cell.
18. Lower the scale to the surface removing the safety blocks.
19. Distribute the scale's weight evenly by all four (4) feet.
20. Replace the hole plug in the access hole.

Section 5: Parts

5.1. Avenger Mild Steel Floor Scale Parts List

Item	Part No.	Description	Model
1	*See Appendix II*	Platform Weldment	*See Appendix II*
2	58925S	Load cell, 1k capacity	1K, 2.5K
2	12896S	Load cell, 2.5k capacity	5K
2	63593S	Load cell, 5k capacity	10K
3	66754	Load cell Shim	All
4	63914	Ball-in-cup Foot	All
5	54502	Load cell Mtg. Bolt ½" – 20 x 1 ¾"	All
6*	67171	Analog Junction Box	Analog
*	96141	PCB for Analog	Analog
12	17546	Liquid Tight Connector	All
13	63586	Hole Plug, 5/8"	All
14	54203	SS Hex Nut 10-24 (for ground)	All
15	14721	5" Velcro Loop (use with Hook)	All
16	14722	5" Velcro Hook (use with loop)	All
17	11175	Rubber Bushing (for #11 conn)	All

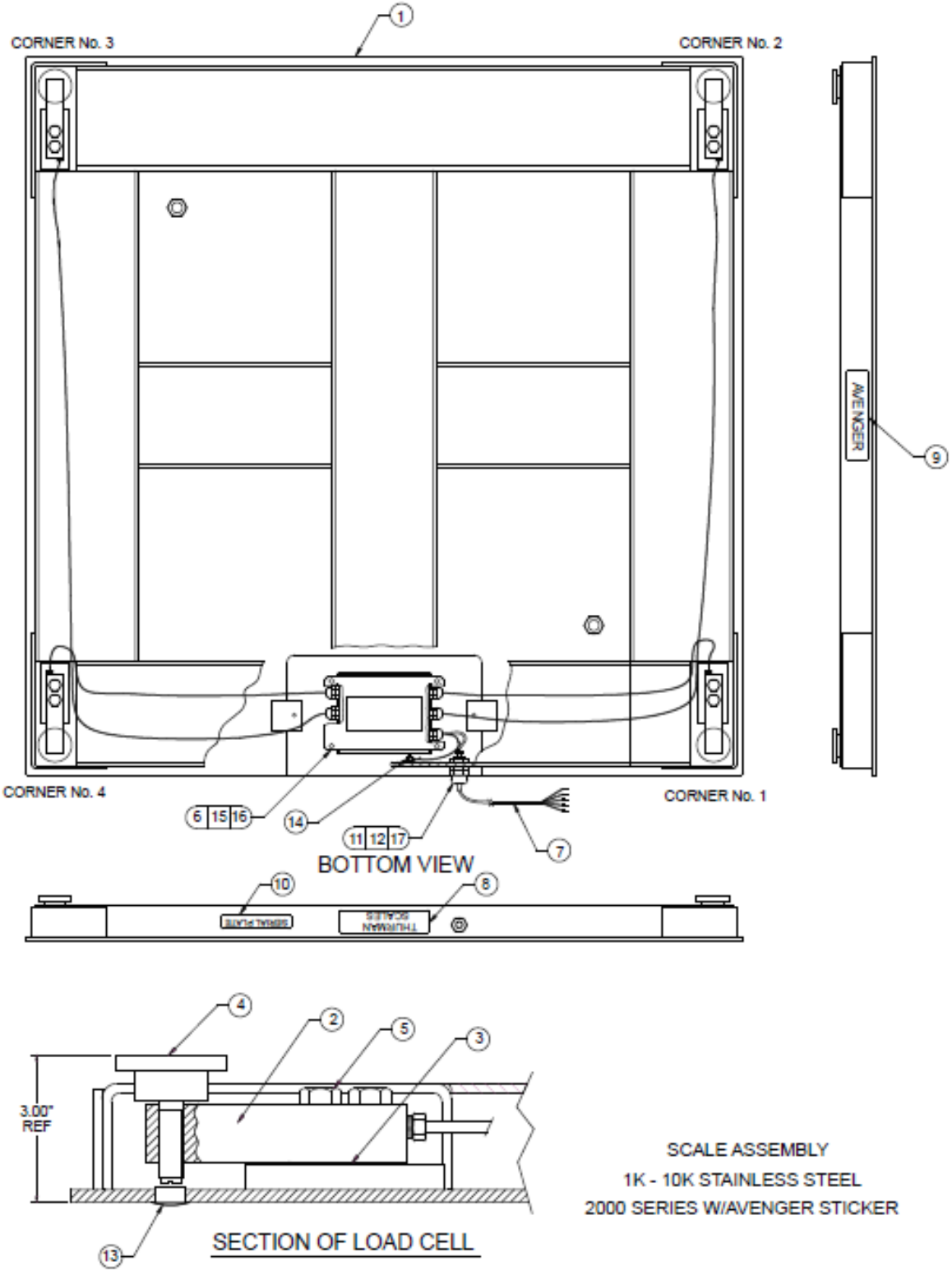
5.2. Avenger Mild Steel Floor Scale Parts Diagram



5.3. Avenger Stainless Steel Floor Scale Parts List

Item	Quantity	Part No.	Description
1	1	See Appendix II	Platform Weldment
2	4	See Appendix I	Load cell, SST
3	4	66754	Shim, load cell
4	4	71803	Foot assy, SST
5	8	54503	Screw, cap, hex hd. ½-20 x 1 ¾" sst
6	1	67171M	Junction box
7	1	12838	Cable assy
11	1	17546	Connector, liquid tight
12	1	14278	Nut, lock
13	4	63586	Plug, hole
14	2	52403	Nut, hex SST 10-24
17	1	11175	Bushing, Amphenol rubber

5.4. Avenger Stainless Steel Floor Scale Parts Diagram



SCALE ASSEMBLY
1K - 10K STAINLESS STEEL
2000 SERIES W/AVENGER STICKER

Appendix I: Load Cells

A. Avenger Mild Steel

Some scale models were manufactured with different brands of load cells, which have different wiring color codes schemes. Wire the load cells according to the following charts.

TABLE A

ITEM	PART NO.	DESCRIPTION	SCALE CAPACITY
2	**58925S**	1K lb Capacity Load Cell 350 Ohm, 3 mV/V, Plated Tool Steel	Both 1K, 2.5K
2	**12896S**	2.5K lb Capacity Load Cell 350 Ohm, 3 mV/V, Plated Tool Steel	5K
2	**63593S**	5K lb Capacity Load Cell 350 Ohm, 3 mV/V, Plated Tool Steel	10K

TABLE A WIRING

WIRE COLOR	FUNCTION
Black	(–) Excitation
Red	(+) Excitation
Yellow	Shield
Green	(+) Signal
White	(–)Signal

TABLE B

ITEM	PART NO.	DESCRIPTION	SCALE CAPACITY
2	**58925C**	1K lb Capacity Load Cell 350 Ohm, 3 mV/V, Plated Tool Steel	Both 1K, 2.5K
2	**12896C**	2.5K lb Capacity Load Cell 350 Ohm, 3 mV/V, Plated Tool Steel	5K
2	**63593C**	5K lb Capacity Load Cell 350 Ohm, 3 mV/V, Plated Tool Steel	10K

TABLE B WIRING

WIRE COLOR	FUNCTION
Black	(–) Excitation
Green	(+) Excitation
Yellow	Shield
White	(+) Signal
Red	(–)Signal

B. Avenger Stainless Steel

ITEM	PART NO.	DESCRIPTION	SCALE CAPACITY
2	**29449**	1K lb Capacity Load Cell 350 Ohm, 3 mV/V, Stainless, Welded	Both 1K, 2.5K
2	**29450**	2.5K lb Capacity Load Cell 350 Ohm, 3 mV/V, Stainless, Welded	5K
2	**29451**	5K lb Capacity Load Cell 350 Ohm, 3 mV/V, Stainless, Welded	10K

WIRE COLOR	FUNCTION
Green	(+) Excitation
Black	(—) Excitation
White	(+) Signal
Red	(—)Signal
Braided/Yellow	Shield

PRODUCT: 3013-06 –POTTED LOAD CELLS AND FOOT

PART NO.	DESCRIPTION	LCF NO.	SCALE CAP.	FOOT ASSY
63889	1K Stainless Steel, Potted, Beam Cell, Blind Hole	LCF-HR4050-2	1k, 2.5k	63899
63890	2.5K Stainless Steel, Potted, Beam Cell, Blind Hole	LCF-HR4050-3	5k	63899
63891	5K Stainless Steel, Potted, Beam Cell, Blind Hole	LCF-HR4050-4	10k	63899

PRODUCT: 3002-02 BLIND HOLE LOAD CELLS AND FOOT

PART NO.	DESCRIPTION	LCF NO.	SCALE CAP.	FOOT ASSY
63895	1K Stainless Steel, Hermetic, Beam Cell, Blind Hole	LCF-HR4060-2	1k, 2.5k	63899
63896	2.5K Stainless Steel, Hermetic,, Beam Cell, Blind Hole	LCF-HR4060-3	5k	63899
63897	5K Stainless Steel, Hermetic,, Beam Cell, Blind Hole	LCF-HR4060-4	10k	63899

PRODUCT: 3016-12 CAPTIVE BALL FEET

PART NO.	DESCRIPTION
63914	Captive Ball Foot Assembly Mild Steel 1-5k capacities

Appendix II: Model Matrix

Avenger Mild Steel

PRODUCT NO.	SIZE	CAPACITY	PLATFORM WELDMENT
63606	**3' x 3"**	1000 lbs	63489
63607	**3' x 3'**	2500 lbs	63489
63608	**4' x 4'**	2500 lbs	63491
63609	**4' x 4'**	5000 lbs	63491
63610	**4' x 4'**	10,000 lbs	63491
63611	**4' x 5'**	5000 lbs	63523
63612	**4' x 5'**	10,000 lbs	63523
63613	**4' x 6'**	5000 lbs	63525
63614	**4' x 6'**	10,000 lbs	63525
63615	**5' x 5'**	5000 lbs	63493
63616	**5' x 5'**	10,000 lbs	63493
63617	**5' x 7'**	5000 lbs	63495
63618	**5' x 7'**	10,000 lbs	63495
63667	**6' x 8'**	10,000 lbs	22484

Avenger Stainless Steel

PRODUCT NO.	SIZE	CAPACITY	PLATFORM WELDMENT
29325	30" x 30"	1 k	29449
29326	3' x 3'	1 k	29449
29327	3' x 3'	2.5 k	29449
29328	4' x 4'	2.5 k	29449
29329	4' x 4'	5 k	29450
29330	4' x 4'	10 k	29451
29331	4' x 5'	5 k	29450
29332	4' x 5'	10 k	29451
29333	4' x 6'	5 k	29450
29334	4' x 6'	10 k	29451
29335	5' x 5'	5 k	29450
29336	5' x 5'	10 k	29451
29337	5' x 7'	5 k	29450
29338	5' x 7'	10 k	29451
29339	6' x 8'	10 k	29451

Appendix III: Avenger Accessories

A. Ramps, Bumper Guards and Pit Frames – Mild Steel

Size	Cap	Ramp	Bumper Guard	Pit Frame
3' x 3'	2.5K	63751 (3')	72198 (3')	63757
4' x 4'	2.5K	63753 (4')	72194 (4')	63759
4' x 4'	5K	63753 (4')	72194 (4')	63759
4' x 4'	10K	63753 (4')	72194 (4')	63759
4' x 5'	5K	63753 (4')	72190 (5')	63761
4' x 5'	10K	63753 (4')	72190 (5')	63761
4' x 6'	5K	63753 (4')	72196 (6')	63763
4' x 6'	10K	63753 (4')	72196 (6')	63763
5' x 5'	5K	63755 (5')	72190 (5')	63765
5' x 5'	10K	63755 (5')	72190 (5')	63765
5' x 7'	5K	63755 (5')	72192 (7')	63765
5' x 7'	10K	63755 (5')	72192 (7')	63767

B. Bolt-Down Plates, Eyebolts, and Hole Plugs – Mild Steel

Size	Cap	Bolt-down Plates	SS Eyebolts	SS Hole Plugs
All	All	63776 (set of 4)	70895 (2)	70896 (2)
All	All	63778 (set of 2)		

C. Ramps, Bumper Guards and Pit Frames – Stainless Steel

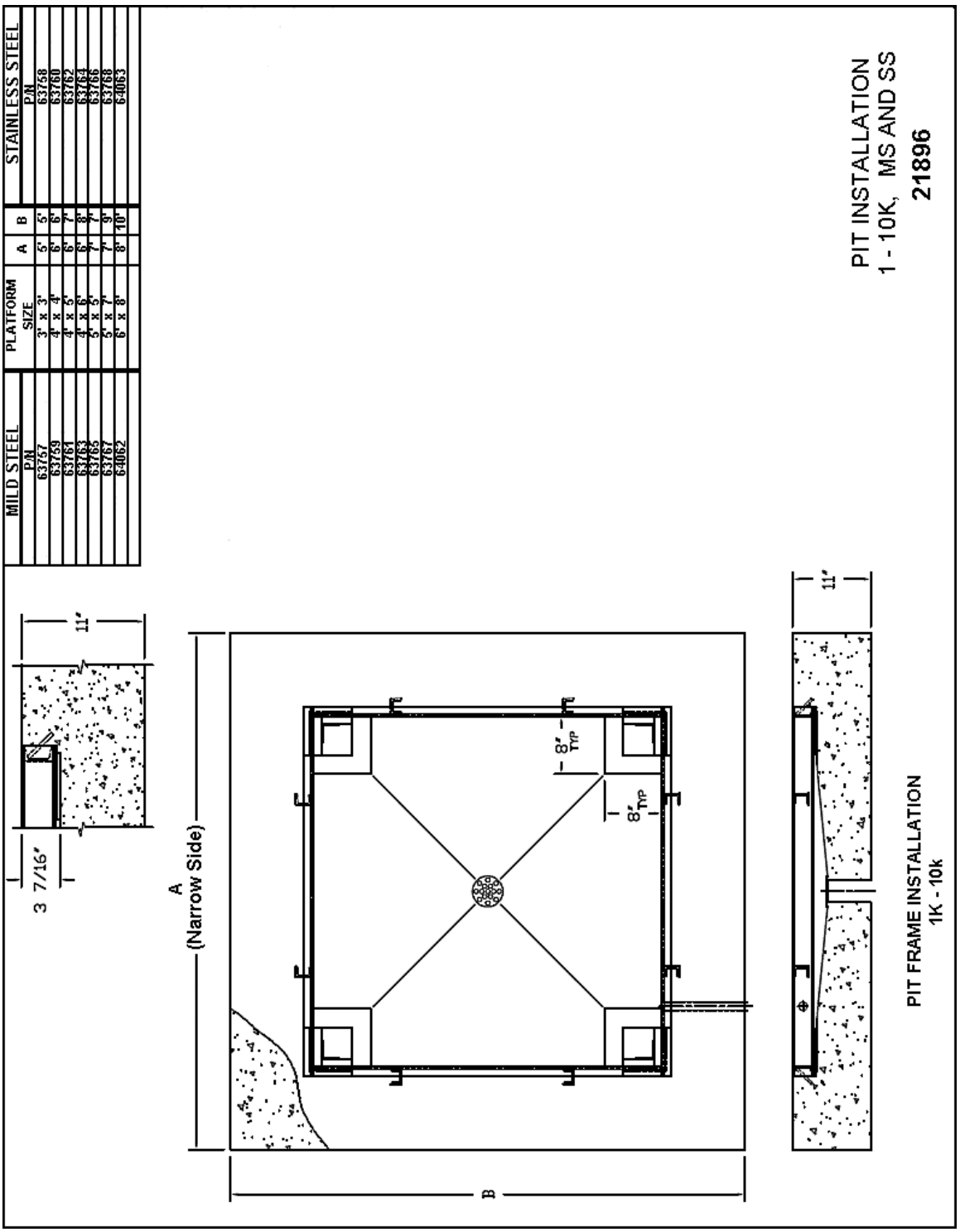
Size	Cap	Ramp	Bumper Guard	Pit Frame
30” x 30’	1K	64059	72199 (3’)	---
3' x 3'	2.5K	63752	72199 (3’)	63758
4' x 4'	2.5K	63754	72195 (4’)	63760
4' x 4'	5K	63754	72195 (4’)	63760
4' x 4'	10K	63754	72195 (4’)	63760
4' x 5'	5K	63754	72195 (4’)	63762

4' x 5'	10K	63754	72195 (4')	63762
4' x 6'	5K	63754	72197 (6')	63764
4' x 6'	10K	63754	72197 (6')	63764
5' x 5'	5K	63756	72191 (5')	63766
5' x 5'	10K	63756	72191 (5')	63766
5' x 7'	5K	63756	72193 (7')	63768
5' x 7'	10K	63756	72193 (7')	63768
6' x 8'	10K	64061	72201 (8')	64063

D. Bolt-Down Plates, Eyebolts, and Hole Plugs – Stainless Steel

Size	Cap	Bolt-down Plates	SS Eyebolts	SS Hole Plugs
All	All	63777 (set of 4)	70895 (2)	70896 (2)
All	All	63779 (set of 2)		

Appendix IV: Pit Frame Installation



Appendix V: Scale Modifications

A. Available Modifications List

- Nonstandard floor scale dimensions
- Smooth deck
- Mild steel lifting handle
- Stainless Steel lifting handle
- Nonstandard size ramp
- Ramp with smooth surface
- Nonstandard size bumper guards
- Nonstandard size pit frame

B. Modification Descriptions

PRODUCT: 3000-02

Floor Scales with Non-standard dimensions

- Available only on floor scales between 30” x 30” and 6’ x 8’ in size.
- Determine floor scale dimensions required. Example: 4.5’ x 6.25’
- Calculate the square feet.
- Round up to the next square foot of a standard floor scale. 5’ x 7’ = 35 sq. ft.
- Some platform sizes and capacities may not be NTEP Approved.

PRODUCT: 3001-02

Floor Scales with Smooth deck

PRODUCT: 3006-03

Floor Scales with non-standard Ramp dimensions

- Floor Scale Ramps are sized in one foot increments.
- Round the non-standard dimensional size ramp up to the nearest standard ramp size.

PRODUCT: 3007-03

Floor Scales with non-standard Pit Frame dimensions

- Floor Scale pit frames are priced by the square foot.
- Round the non-standard dimensional size pit frame up to the nearest standard pit frame size square foot.

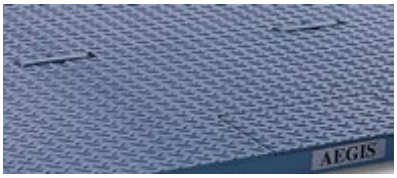
B. Modification Descriptions, Continued

PRODUCT: 3008-03

Floor Scales with non-standard Bumper Guard dimensions

- Round up to the nearest standard size Bumper Guard.

PRODUCT: 3009-03



Mild Steel Floor Scale with built-in Lifting Handles.

- Handle opening is 5.75”h x 8.92”w.

PRODUCT: 30W-03

Stainless Steel Floor Scale with built-in Lifting Handles.

- Handle opening is 5.75”h x 8.92”w.

PRODUCT: 3011-03

Floor Scale with Ramp with Smooth Surface

PRODUCT: 3014-06

Floor Scale with Intalogix™ Technology

- Included: Stainless steel NEMA 4X QMB (Quad Multiplexer board) and 27’ interface cable.
- Instrument not included.

PRODUCT: 3015-11

Floor Scale stainless steel load cell with welded covers and threaded ball-in-cup load cell foot

- Floor scale will use the same capacity load cell as standard product.

PRODUCT: 3016-12

Replace existing knuckle ball foot with threaded ball-in-cup foot

- Available only on 1-10k capacity floor scales.
- Available only on 3’ x 3’ − 6’ x 10’ floor scales.

Avenger Floor Scale

Installation Manual
Document 51118

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