Installation Manual

Aegis Industrial Stainless Steel Floor Scale Model 3400

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Amendment Record

Aegis Industrial Stainless Steel Floor Scale

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Section 1: General Information

1.1 Introduction

*The **Aegis Stainless Steel Floor Scale** uses a standard junction box for interfacing to all analog weight instruments.*

- The scale platform is shipped in a crate, fully assembled, and wired.
- The floor scale sizes range from **30" x 30" to 6' x 8'**.
- The floor scale capacities range from **1K to 10K (lbs).**
- The scale comes equipped with a **thirty-foot** interface cable.
- The junction box is constructed of stainless steel.
- All models have threaded holes in the decks for attaching eyebolts *(not included with scale)* ***set of two - P/N 70895***. The eyebolts can assist in lifting the scale to facilitate installation and cleaning.

1.2 Platform Specifications

Platform Deck Plate	*0.25"; type 304 stainless steel*
Platform Height	*3.0"*
Operating Temperature	*15° to 104°F*
Overload Capacity	*150% of rated capacity*
Endloading Capacity	*100% of rated capacity*
Humidity	*100% suitable for water wash-down*
Grade Level	*Within 3° of level*

1.3 Load Cell Specifications

Protection rating	*IP69K*
Load cell construction	*17-4 Stainless Steel*
Sealing	*True Hermetic Seal*
Rated Output	*2 mV/V/ohm +/-*
Output resistance	*1000 ohms +/- 1 ohm*
NTEP CC	*04-102*
FM Approved	*Yes*
Compensated Temperature Range	*-10° C to 40° C*
Safe Operating Temperature Range	*-10° C to 40° C*

1.4 Models

Part Number	Size	Capacity
63715	30” x 30”	1000 lb.
63716	3’ x 3’	1000 lb.
63717	3’ x 3’	2500 lb.
63718	4’ x 4’	2500 lb.
63719	4’ x 4’	5000 lb.
63720	4’ x 4’	10000 lb.
63721	4’ x 5’	5000 lb.
63722	4’ x 5’	10000 lb.
63723	4’ x 6’	5000 lb.
63724	4’ x 6’	10000 lb.
63725	5’ x 5’	5000 lb.
63726	5’ x 5’	10000 lb.
63727	5’ x 7’	5000 lb.
63728	5’ x 7’	10000 lb.
63729	6’ x 8’	10000 lb.

1.5 General Service Policy

Prior to installation, ***always*** verify that the equipment satisfies the customer's requirements as supplied, and as described in this manual.

If the equipment cannot satisfy the application and the application cannot be modified to meet the design parameters of the equipment, the installation should *NOT* be attempted.

It is the customer/operator's responsibility to ensure the equipment provided by Fairbanks is operated within the parameters of the equipment's specifications and protected from accidental or malicious damage.

W A R N I N G

Absolutely NO physical, electrical or program modifications, other than selection of standard options and accessories, can be made by customers to this equipment.

Repairs are performed by Fairbanks Scales Service Technicians and Authorized Distributor Personnel ONLY!

1.5. General Service Policy, Continued

- Check all devices for proper operation. If any error messages occur, refer to Troubleshooting or the proper manual of that device.
- ***Only those charges which are incurred as a result of the equipment's inability to be adjusted to performance specifications may be charged to warranty.***
- No physical alterations (mounting holes, etc.) are allowed during installation.

The installing technician is responsible that all personnel are fully trained and familiar with the equipment's capabilities and limitations before the installation is considered complete.

- All electrical assemblies must be replaced as assemblies or units.
  - Replacement of individual components is not allowed.
  - These components must be returned intact for replacement credit per normal procedures.
- All electronic and mechanical adjustments are considered to be part of the installation and are included in the installation charge(s).
  - Included is any required computer programming or upgrades.
  - Included are any accuracy and/or operational specification changes.
- The AC receptacle / outlet shall be located near the Instrument and easily accessible.
- Electrical connections other than those specified may not be performed.
- The technician must be prepared to recommend the arrangement of components which provide the most efficient layout, utilizing the equipment to the best possible advantage.
- The warranty policy must be explained and reviewed with the customer.

1.6 Users' Responsibility

- All electronic and mechanical calibrations and/or adjustments required for making this equipment perform to accuracy and operational specifications are considered to be part of the installation.
  - They are included in the installation charge.
  - Only those charges which are incurred as a result of the equipment's inability to be adjusted or calibrated to performance specifications may be charged to warranty.

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

- Absolutely no physical, electrical or program modifications other than selection of standard options and accessories are to be made to this equipment.
- The equipment consists of printed circuit assemblies which must be handled using ESD handling procedures and must be replaced as units.
  - Replacement of individual components is not allowed.
  - The assemblies must be properly packaged in ESD protective material and returned intact for replacement credit per normal procedures.

Section 2: Scale Installation

2.1 Pre-Installation

2.1.1 Checklist

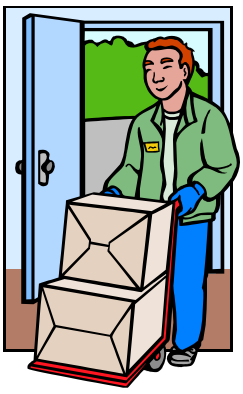
*The following points should be checked and discussed with the **Area Sales Manager and/or customer**, if necessary, before the technician goes to the site and installs the equipment.*

- ✓ 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 Area Sales Manager or Area Service Manager, and together they identify all necessary variations to satisfy the customer's particular 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:

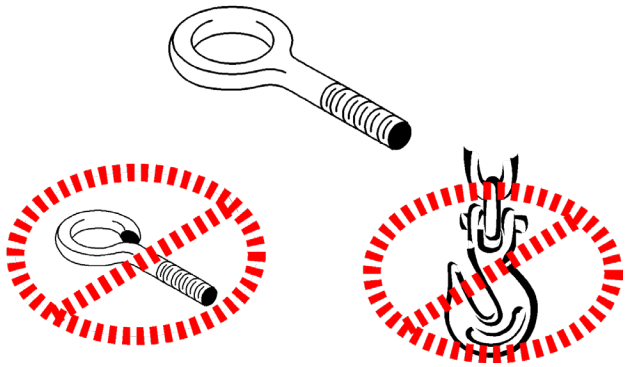
- ✓ Intense direct sunlight can harm the display.
- ✓ Do not locate near magnetic material or equipment/Instruments which use magnets in their design.
- ✓ Avoid areas which have extreme variations in room temperatures. Temperatures outside the Instrument's specifications will affect the weighing accuracy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

2.2 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 **two (2) eyebolts** into the threaded adapters in the platform top. Eyebolts are not included but may be ordered (see Appendix III: Accessories)
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***)



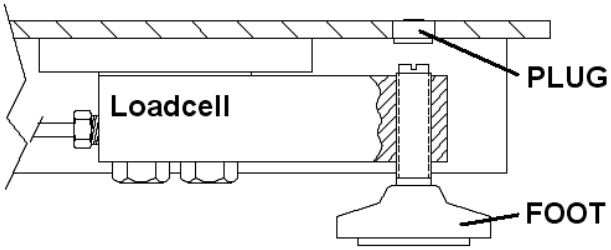
C A U T I O N

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.

2.3 Scale Installation

1. Insert and turn the feet clockwise a minimum of four (4) complete turns with a large screwdriver.
2. Level the scale by turning the foot pads into place.



2.3.1 Scale Wiring

1. Wire the scale cable to the proper type instrument, as shown in the chart below.

Analog Interface with **Junction Box** (**67171**)

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

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

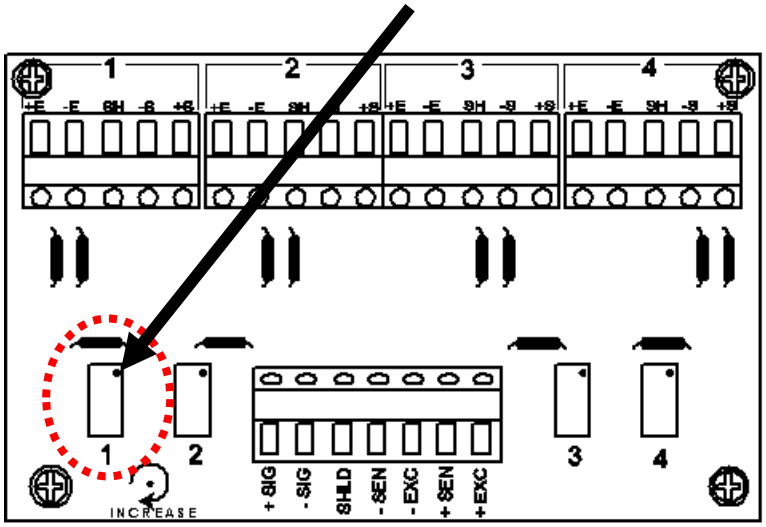
IMPORTANT NOTE: *See Appendix I for specific load cell color code and wiring information.*

2.4 Calibration Steps

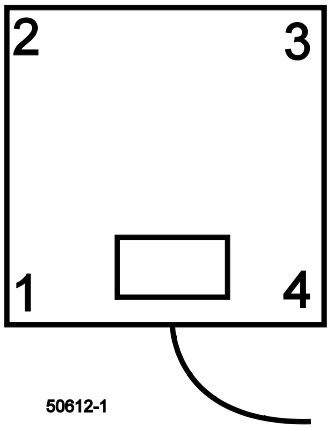
Adjust the Analog Interface instrument to the platform.

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



2.4. 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.*

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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 instrument.
3. Perform a final calibration with test weights.
4. Follow the appropriate instrument service manual to ensure a proper calibration.

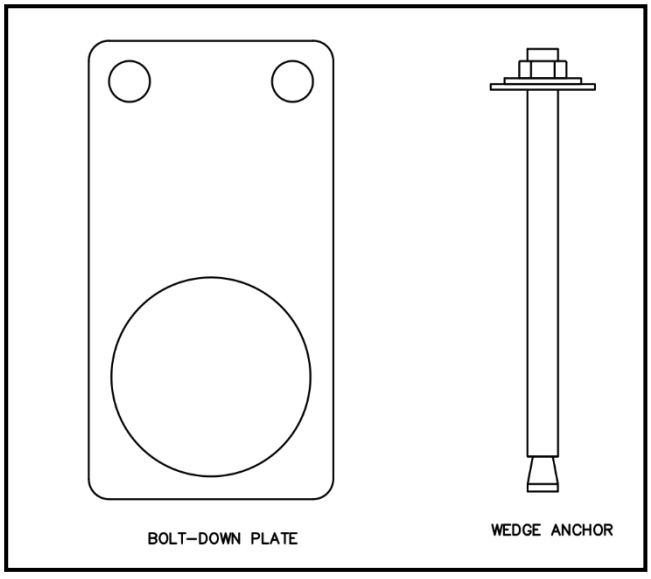
Section 3: Installing Accessories

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 scale's 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 through holes 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 Stainless 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.

1. 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.
2. Drill the **7/16"** fastening holes using a hammer drill.
3. Insert the anchors with the nut and washer already on it.
4. Tap the anchor into the hole.
5. Tighten the nuts securely.

3.4 Installing Pit Frames

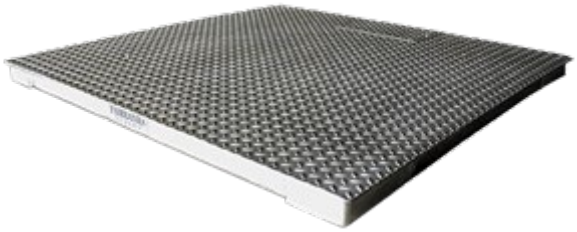
Pit frames allow for in-floor, flush floor scale installations. A Pit Frame is a one-piece welded unit. For this type of installation, refer to ***Bulletin 50644 – Pit Frame Installation Guide***.

Section 4: Maintenance

4.1 Cleaning the Scale

Accuracy in weighing is dependent upon regular maintenance of the scale. In addition to regular servicing and calibration, the scale must be kept clean and free of debris and dirt that can cause binding, and an uneven weighing surface. Regular cleaning helps to ensure the accuracy of your weighments.

Your cleaning protocol will partly be determined by the product that you are weighing. Products such as raw meat, poultry, and fish are prone to bacterial growth, while the weighing of dry industrial products may not require the same frequency of cleaning. Be sure to consult your company's cleaning and sanitation plan to ensure that your methods and cleaning products adhere to industry best practices.



Part of regular maintenance of the Aegis Stainless Steel Floor Scale is routine cleaning. The Aegis Stainless Steel Floor Scale is constructed of 304 stainless steel. 304 stainless steel is well-suited for equipment requiring regular cleaning due to its corrosion resistance, durability, and hygienic surface.

4.2 Steps for Cleaning and Sanitizing the Aegis Floor Scale

To begin cleaning the scale:

- Protect all exposed products and/or packaging materials with plastic or remove them from the area to be cleaned.
- Next, **conduct a visual inspection of the scale and remove debris** by dry brushing, sweeping, or vacuuming the platform.
- **Safely lift the scale taking care not to damage or pinch cables.** Depending on the size of your scale, you may need to secure proper equipment such as a forklift or assistance from a co-worker to safely lift the scale.

For safe lifting, consider a version of the Aegis Stainless Steel scale that includes the addition of integrated forklift pockets, lifting handles, or a portability frame. For scales requiring frequent washdowns, consider the Aegis Lift Deck Food-Grade Floor Scale which includes a platform that can be easily raised and lowered by a single operator.

- **Sweep and remove debris on the floor** beneath the scale and on the bottom of the scale.

- **Clean all surfaces of the scale** with an alkali detergent or appropriate stainless-steel cleaner diluted per manufacturer instructions.

Prioritize your Safety!

When using chemicals staying safe involves equipping yourself with appropriate protective gear such as: goggles, face shield, gloves, boots, and a chemical apron - as deemed necessary for the task at hand. Additionally, exercise caution when walking on wet surfaces to prevent slips or falls.

  - Consult your industry's list of approved cleaning agents, as well as, your company's cleaning and sanitation plan.
  - If cleaning the scale with a power washer, work from the top down and use smooth, overlapping strokes to ensure thorough coverage, Keep the nozzle at a consistent distance from the surface to maintain even pressure.
  - Gently agitate areas of stubborn accumulation by using a back-and-forth or circular motion.
- **Once the scale has been thoroughly cleaned, rinse the scale.** Detergent residue can render some sanitizers ineffective.

The load cells of the Aegis Stainless Steel Scale have the highest ingress protection rating of IP69k. Consequently, its load cells can withstand high-pressure and high temperature washdowns. However, allow the scale to dry and return to ambient temperatures before weighing-high temperatures may affect weighing accuracy.

- **Sanitize all surfaces of the scale per your industry's requirements**. Be sure that the sanitizing solution contacts all surfaces. Some solutions require sufficient dwell time to be effective and others should be left on the surface without rinsing. Consult the manufacturer's instructions for the most effective use.
- **Allow the scale and floor to dry and lower the scale back into place**.

4.3 Advantages of Alkalis and Acids in Stainless Steel Cleaning

Cleaning stainless steel surfaces involves selecting appropriate cleaning agents based on the type of contaminants, the nature of the surface, and the desired cleaning outcome. Alkalis and acids each have their advantages.

Here are the advantages of each type of cleaning product:

1. **Alkalis**:
   - Advantages:
     - **Grease and Oil Removal**: Alkalis, such as sodium hydroxide (lye) or potassium hydroxide, are effective at breaking down and emulsifying

grease and oils, making them suitable for cleaning stainless steel surfaces in kitchens or industrial settings where oily residues are common.

- **Protein Removal**: Alkalis are often effective in removing protein-based soils, making them useful in environments where proteinaceous contaminants are a concern, such as food processing facilities.

2. **Acids**:

- Advantages:
  - **Scale and Mineral Deposit Removal**: Acids, like citric acid or hydrochloric acid, can be effective in removing scale, mineral deposits, and hard water stains from stainless steel surfaces, which is useful in environments where water hardness is an issue.
  - **Oxide and Rust Removal**: Some acids can help dissolve oxides and rust stains on stainless steel surfaces, restoring the metal's appearance.

It's important to note that while each type of cleaning agent has its advantages, proper usage is crucial to prevent damage to stainless steel surfaces. Some considerations include:

- **Material Compatibility**: Verify that the cleaning agent is compatible with stainless steel to avoid damage to the surface.
- **Concentration and Dilution**: Follow manufacturer instructions regarding the proper concentration and dilution of the cleaning agent to ensure effective and safe use.
- **Rinsing**: Thoroughly rinse the stainless-steel surface after cleaning to remove any residues from the cleaning agents.

Ultimately, the choice of cleaning agent will depend on the specific contaminants to be removed and the requirements of the cleaning task. Always refer to the manufacturer's recommendations and guidelines for the cleaning agents being used.

4.4 Conclusion: Spotless Solutions and Reliable Results

Maintaining the accuracy of your Aegis Stainless Steel Floor Scale relies heavily on a thorough and regular cleaning protocol. Utilizing the scale’s construction of 304 stainless steel, which boasts corrosion resistance and hygienic properties, ensures durability and cleanliness.

Following the outlined steps for cleaning and sanitizing not only preserves the integrity of the scale but also ensures accurate weighments. Understanding the advantages and proper usage of cleaning agents, whether alkalis or acids, further enhances the efficacy of the cleaning process while safeguarding the stainless-steel surfaces. By adhering to industry best practices and manufacturer guidelines, you can maintain the performance and longevity of your Aegis Stainless Steel Floor Scale.

Section 5: Parts Replacement

5.1 Load Cell Replacement

1. **Cycle-down the power** to the instrument, 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 box cover and torque all screws to **18-20 in/lbs**.
18. Replace the platform access cover.
19. Recalibrate the unit as necessary.

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

5.2 Junction Box Replacement Steps

1. **Cycle-down the power** to the instrument, 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: *Leave 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.

5.3 Foot Assembly Replacement Steps

1. Lift the platform end with a forklift or heavy pry bar using wood blocks for safety.
2. Remove the hole plug over the foot to be replaced.
3. Using a standard screwdriver, unscrew the foot assembly.
4. Replace the Foot Assembly, using anti-seize on the screws attaching to the load cell.
5. Lower the scale to the surface removing the safety blocks.
6. Distribute the scale’s weight evenly by all four (4) feet.
7. Replace the hole plug in the access hole.

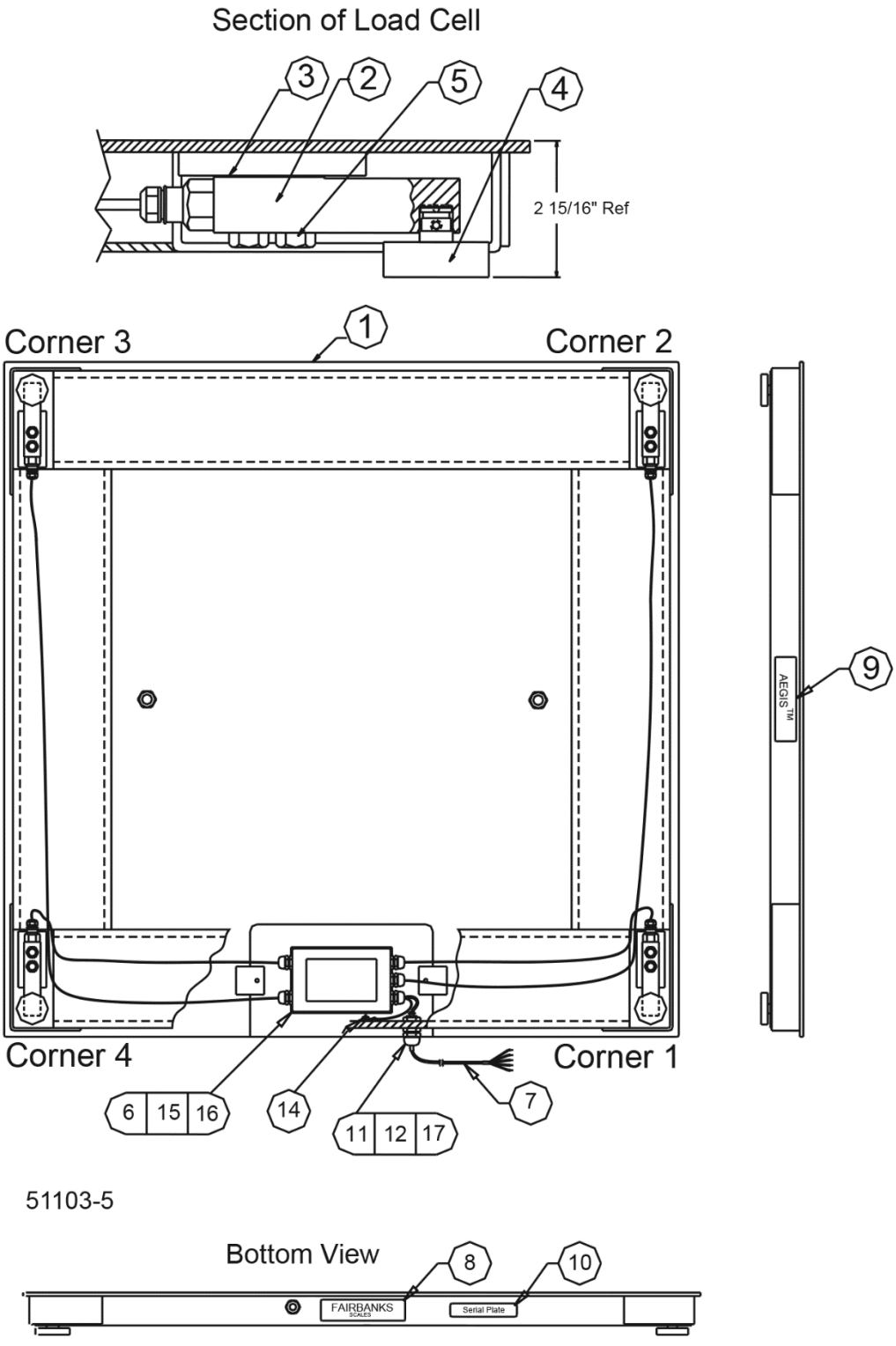
Section 6: Parts

6.1 Parts List – Stainless Steel Platforms

ITEM	PART NO.	DESCRIPTION	SCALE CAPACITIES
1		Platform Weldment	Contact PM
2	63895	1K lb Capacity Load Cell	1K, 2.5K
2	63896	2.5K lb Capacity Load Cell	5K
2	63897	5K lb Capacity Load Cell	10K
3	66754	Load Cell Shim	ALL
4	63899	Foot Assembly	ALL
5	54503	Load Cell Mounting Bolt, ½" – 20 x 1-3/4"	ALL
6	67171m	Analog Junction Box	ANALOG
*	96141	PCB for Analog Junction Box	ANALOG
6	15291	QMB Junction Box (Optional)	INTALOGIX™
	15635	PCB for QMB Box (Optional)	INTALOGIX™
7	12838	Cable Assembly	ANALOG
8	11224	"Fairbanks Scales" Decal	ALL
9	63592	"Aegis" Decal	ALL
10		Serial Tag	INDIVIDUAL
11	17546	Liquid Tight Connector	ALL
12	14278	Lock Nut (for #11 Connector)	ALL
14	54203	SS Hex Nut (for #11 Connector)	ALL
15	14721	" Velcro Loop (use with hook)	ALL
16	14722	5" Velcro Hook (use with loop)	ALL
17	11175	Rubber Bushing (for #11 connection)	ALL
See* Appendix I *for Load Cell wiring information.			

NOTE: *If the complete assembly is required (both the Junction Box and Board), order part number* **67171M** *as the new style replacement.*

6.2 Parts Diagram



Appendix I: Load Cells

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.

LOAD CELLS

ITEM	PART NO.	DESCRIPTION	SCALE CAPACITY
2	**23426**	1K lb Capacity Load Cell 1000 Ohm, 2 mV/V, Stainless Steel, IP69K	Both 1K, 2.5K
2	**23427**	2.5K lb Capacity Load Cell 1000 Ohm, 2 mV/V, Stainless Steel, IP69K	5K
2	**23428**	5K lb Capacity Load Cell 1000 Ohm, 2 mV/V, Stainless Steel, IP69K	10K

WIRING

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

PRODUCT: 3015-11 – THREADED HOLE LOAD CELLS & FOOT

PART NO.	DESCRIPTION	SCALE CAP.	FOOT ASSY
29449	1K Stainless Steel, Welded, Beam Cell, Threaded Hole	1k, 2.5k	71803
29450	2.5K Stainless Steel, Welded, Beam Cell, Threaded Hole	5k	71803
29451	5K Stainless Steel, Welded, Beam Cell, Threaded Hole	10k	71803

Appendix II: Model Matrix

A. Analog Stainless Steel Series

PRODUCT NO.	MODEL	SIZE	CAPACITY
63715	PLF-HR3400-A1	**30" x 30"**	1000 lbs
63716	PLF-HR3400-B1	**3' x 3"**	1000 lbs
63717	PLF-HR3400-C1	**3' x 3'**	2500 lbs
63718	PLF-HR3400-D1	**4' x 4'**	2500 lbs
63719	PLF-HR3400-F1	**4' x 4'**	5000 lbs
63720	PLF-HR3400-I1	**4' x 4'**	10,000 lbs
63721	PLF-HR3400-O1	**4' x 5'**	5000 lbs
63722	PLF-HR3400-P1	**4' x 5'**	10,000 lbs
63723	PLF-HR3400-Q1	**4' x 6'**	5000 lbs
63724	PLF-HR3400-R1	**4' x 6'**	10,000 lbs
63725	PLF-HR3400-G1	**5' x 5'**	5000 lbs
63726	PLF-HR3400-J1	**5' x 5'**	10,000 lbs
63727	PLF-HR3400-H1	**5' x 7'**	5000 lbs
63728	PLF-HR3400-K1	**5' x 7'**	10,000 lbs
63729	PLF-HR3400-S1	**6' x 8'**	10,000 lbs

Appendix III: Accessories

A. Ramps, Bumper Guards, Pit Frames and Portability Frames

SIZE	CAPACITY	RAMP*	BUMPER GUARD	PIT FRAME	PORTABILITY FRAME
30" x 30"	1000 lbs	64059 (30")	-----	23557	
3' x 3"	1000 lbs	63752 (3')	72199 (3')	63758	
3' x 3'	2500 lbs	63752 (3')	72199 (3')	63758	
4' x 4'	2500 lbs	63754 (4')	72195 (4')	63760	39508***
4' x 4'	5000 lbs	63754 (4')	72195 (4')	63760	39508***
4' x 4'	10,000 lbs	63754 (4')	72195 (4')	63760	39508***
4' x 5'	5000 lbs	63754 (4')	72191 (5')	63762	
4' x 5'	10,000 lbs	63754 (4')	72191 (5')	63762	
4' x 6'	5000 lbs	63754 (4')	72197 (6')	63764	
4' x 6'	10000 lbs	63754 (4')	72197 (6')	63764	
5' x 5'	5,000 lbs	63756 (5')	72191 (5')	63766	39499***
5' x 5'	10000 lbs	63756 (5')	72191 (5')	63766	39499***
5' x 7'	5,000 lbs	63756 (5')	72193 (7')	63768	
5' x 7'	10000 lbs	63756 (5')	72193 (7')	63768	
6' x 8'	10000 lbs	-----	72201 (8')	64063	
****4'**	-----	27868**	-----	-----	
****5'**	-----	81522**	-----	-----	

*Standard Ramps are at a 5° grade

**Ramps are at a 3.5° grade

***An optional pedestal with instrument mounting plate is available for the Portability Frame (39510).

B. Bolt-down Plates, Eyebolts and Hole Plugs

SIZE	CAPACITY	BOLT-DOWN PLATES	EYEBOLTS	EYEBOLTS
ALL	ALL	63777 (Set of 4)	70895 (2)	70896 (2)
ALL	ALL	63779 (Set of 2)		

Appendix IV: Scale Modifications

A. Available Modifications List

- Nonstandard floor scale dimensions
- Smooth deck
- Stainless steel lifting handle
- Nonstandard size ramp
- Ramp with smooth surface
- Nonstandard size bumper guards
- Nonstandard size pit frame
- ACC 2801 Intrinsically Safe controller (FB2550 or FB3000 II Instruments)
- ACC 2802 Intrinsically Safe controller (2800 Series Instrument)
- Stainless steel potted sealed load cells
- Lower capacity load cells
- Multi-Interval Serial Tag
- Aegis forklift pocket modification with optional instrument pedestal.

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: 3004-02

Floor Scales with ACC 2801 Intrinsically Safe Controller (FB2550 or FB3000 II Instruments)

- Includes ACC 2801 ISC
- Interface cable and Instrument is not included.

See also: ***ACC 2801 Intrinsically Safe Controller, Bulletin 50570***

Description: “The 2801 accessory, Intrinsically Safe Controller (ISC), is used for interfacing up to four (4) analog load cells while installed in a Hazardous Area. It

operates through an Intrinsically Safe Interface Box (ISIB) located in the Safe Area next to the instrument with Intalogix technology."

PRODUCT: 3005-02

Floor Scales with ACC 2802 Intrinsically Safe Controller (2800 Series Instrument)

- Includes ACC 2802 ISC
- Interface cable and Instrument is not included.

See also: ***2800 Series Intrinsically Safe Instrument, Service Manual 50646***

Includes information on 2802 Intrinsically Safe Controller Accessory

Description: "**Accessory 2802 Intrinsically Safe Controller (22119**): Each controller allows up to four (4) load cells to be interconnected and communicate to the model 2800 series instrument using Intalogix™ Technology"

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.

For Installation Information, see: ***Aegis Floor Scale Pit Frame Installation Guide, Bulletin 50644***

PRODUCT: 3008-03

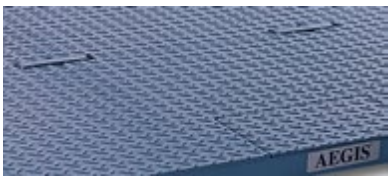
Floor Scales with non-standard Bumper Guard dimensions

- Round up to the nearest standard size Bumper Guard.

PRODUCT: 3010-03

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: 3012-03

Floor Scale with Lower Capacity Load Cells

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: 3017-14

Replace existing Serial tag with multi-interval Serial tag.

- Must be on the same order as a new floor scale.
- Reference the table below for dual range availability.

Scale	Serial Tag Cap (lbs)	Serial Tag Min (lbs)
Reliant	2,500 / 5,000	0.5 / 1.0
Aegis MS, SS & LD	5,000 / 10,000	1.0 / 2.0
Aegis MS, SS & LD	2,500 / 5,000	0.5 / 1.0
Aegis MS, SS & LD	1,000 / 2,500	0.2 / 0.5
Aegis HC	10,000 / 20,000	2.0 / 5.0

PRODUCT: 3021-01

Floor scale with Intalogix technology

- Included: Stainless Steel, NEMA 4X QLC (Quad Load Cell)
- Also, see ***QLC Wiring Instruction Bulletin 51536***

Description: "**The ACC-3300 Quad Loadcell Controller (QLC)** is a high-speed digital control element for industrial scale instrument and platforms. Each QLC connects to up to four load cells and up to four QLCs can be daisy chained to a single instrument."

PRODUCT: 3024-02

Aegis Forklift Pocket Modification
Structural channels are integrated into the scale design for the forks of a forklift

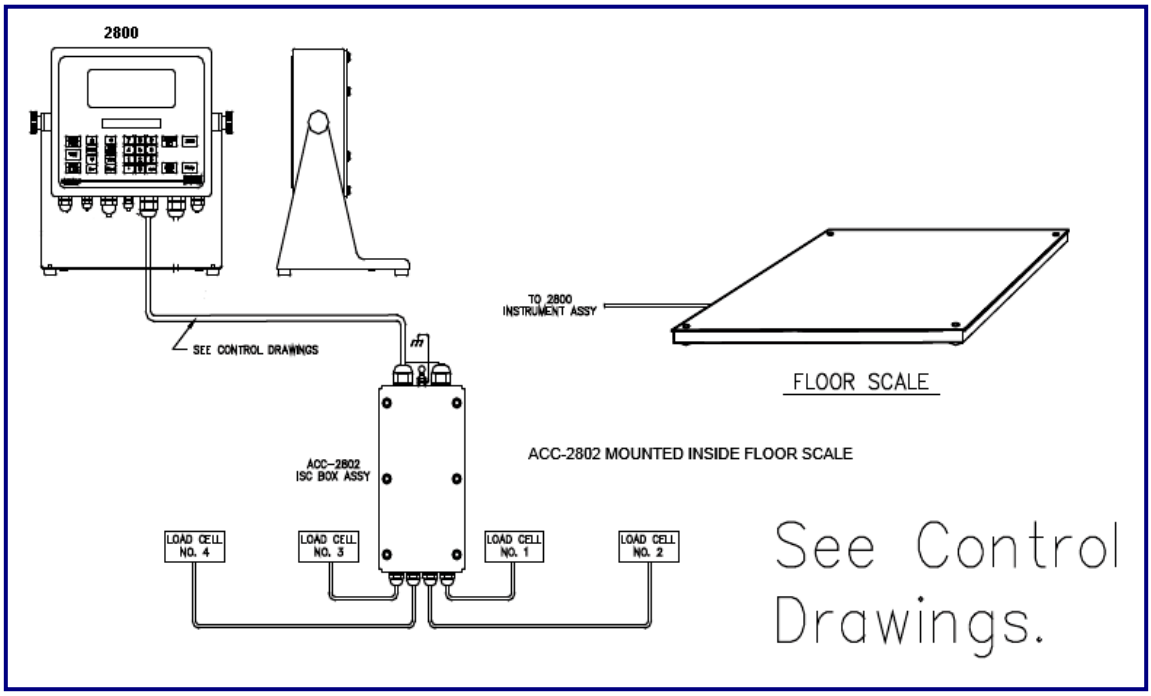
- Available only on 1-10K capacity floor scales
- Available only on 4'x4' and 5'x5' floor scales
- Optional Instrument Pedestal for scales modified with forklift pockets
    - Product: 3024-04
        - 48" tall
        - Must be ordered with 3024-02

Appendix V: ACC 2802

A. Introduction

The **2802 Accessory**, Intrinsically Safe Controller (ISC), interfaces up to four (4) analog load cells while installed in a Hazardous Area.

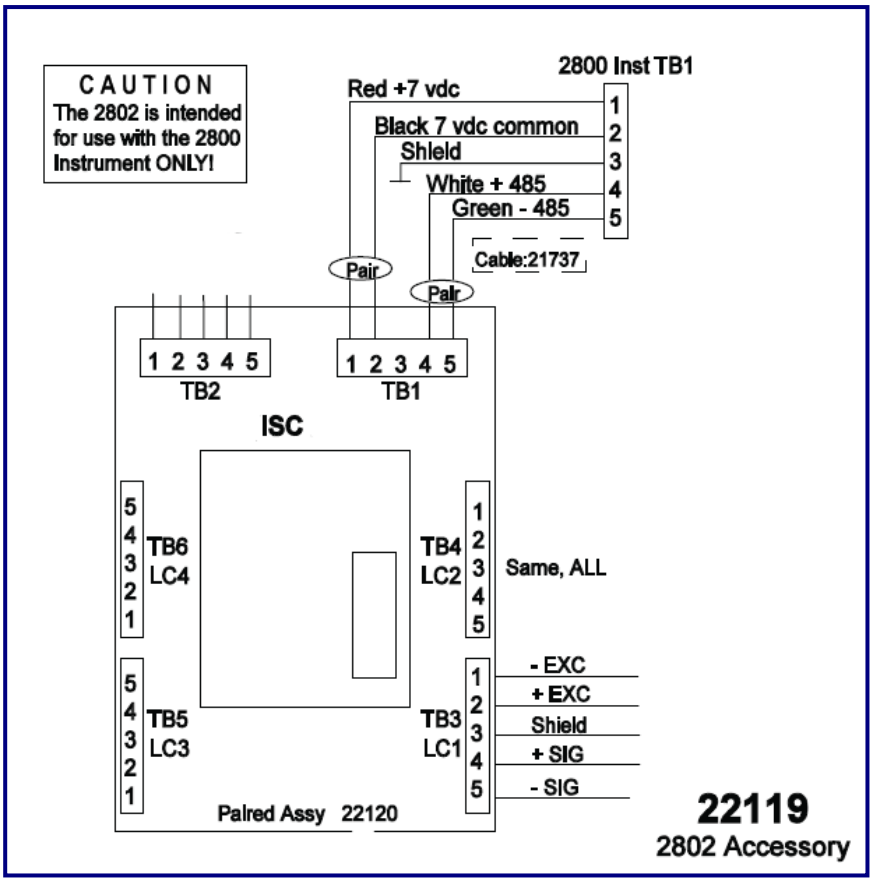
- It operates through an Intrinsically Safe Interface Box (ISIB), Acc 2825, located in the Safe Area with an Intrinsically Safe 2800 Model Instrument.
- The ISC contains four (4) A-D Processors for converting load cells' analog outputs into a digital signal.
- The ISC is contained in a stainless steel box with six (6) gland bushings for load cells and interconnection cables.



A T T E N T I O N !

Factory Mutual (FM) Approval is issued with strict guidelines.
DO NOT, under any circumstances, change or modify any FM-approved equipment, cable, or procedure.

B. Interface Connection Layout



C. Wiring Load Cells

- Mount the scale with the ISC in the Hazardous area where it is accessible and protected.
- Number each analog load cell and bring the properly routed cables through the gland bushings for **TB3 thru TB6**.

TB3, TB4, TB5, TB6	DESCRIPTION
1	(-) EXC
2	(+) EXC
3	SHIELD
4	(+) SIG
5	(-) SIG

CELL	PORT
1	TB3
2	TB4
3	TB5
4	TB6

C. Wiring Load Cells, Continued

NOTES:
All cabling should have a "drip loop" at the cell and box to help prevent liquid entry.

On all boxes, the gland bushings have "O" rings that can be forced out of position if the bushing itself is not tight.

- *To prevent this, first tighten the inner nut securing the gland bushing in the hole, then insert the cable and carefully tighten the gland nut with pliers.*
- *Do not over-tighten where the gland bushing 'turns'.*

*The cover MUST be secured with ALL screws tightened properly (***18-20 in/lbs***) for protection against moisture and for* **Factory Mutual (FM)** *specifications.*

D. ISC Switch Settings:

S1-1	S1-2	S1-3	S1-4
ON	**ON**	OFF	**ON**

E. Grounding

The **ACC 2802** must be grounded to the platform by attaching the box to the frame with bolts.

1. Drill a hole into the platform, if necessary, to properly ground the unit.
1. Clean the area around the hole so that there is good electrical contact between the box and the platform.
2. Secure the ground wire that exits through a gland bushing, to a box mounting bolt.

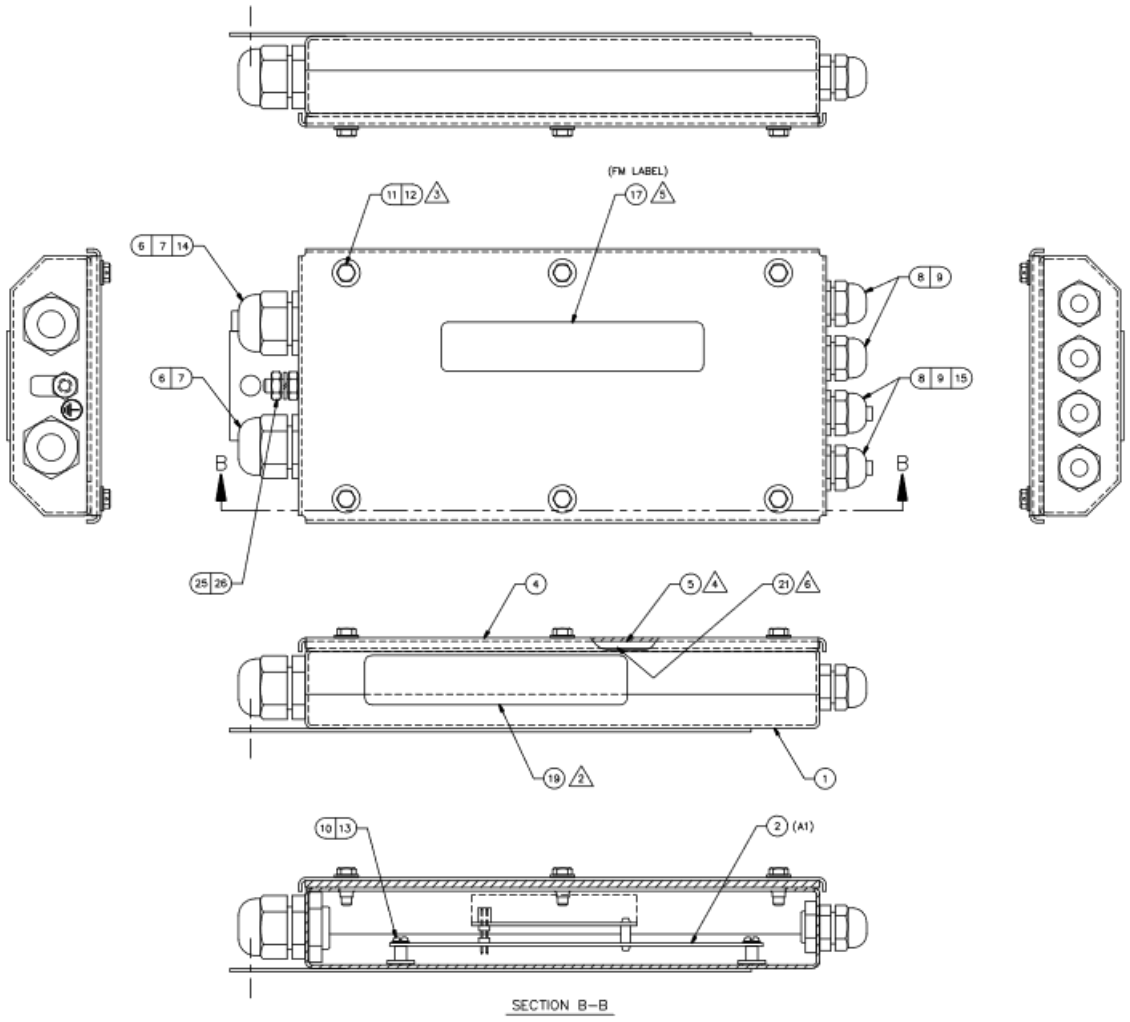
- Store any excess load cell cable.
- Install the gasket and cover on the **ACC 2802 ISC**.

NOTE: *Once all connections are complete, tighten all gland bushings with pliers. Place the gasket in proper position then secure box cover with all screws torqued to* **18-20 inch/lbs**.

F. Parts List

ITEM	PART NO.	QTY	DESCRIPTION
1	18460	1	BOX ASSY
2	22120	1	PAIRED PCB ASSY'S FOR I.S. SECTION CONTROLLER
4	18461	1	COVER
5	18462	1	GASKET
6	18455	2	CONNECTOR, LIQUID TIGHT
7	18454	2	RING, O (.750 I.D.)
8	17533	4	CONNECTOR, LIQUID TIGHT
9	15652	4	RING, O (.438 I.D.)
10	11153	4	SCREW-MACH-PH-PHIL 6-32 X .25
11	14083	6	SCREW, SEALING 10-32 X .50
12	11495	6	WASHER-PLAIN (NYLON)
13	11191	4	WASHER-LOCK-EXT. TOOTH NO. 6
14	12011	1	ROD, NYLON
15	12609	2	ROD, NYLON
17	22122	1	LABEL (FM)
19	22123	1	NAMEPLATE
21	50663	1	LABEL
23	12189	2	SEAL, WIRE
25	11131	2	NUT-HEX-JAM .25-20
26	11091	1	WASHER-LOCK-MED. SPRING NO. .25

G. Parts Diagram



Aegis Stainless Steel Floor Scale

Installation Manual
Document 51103

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