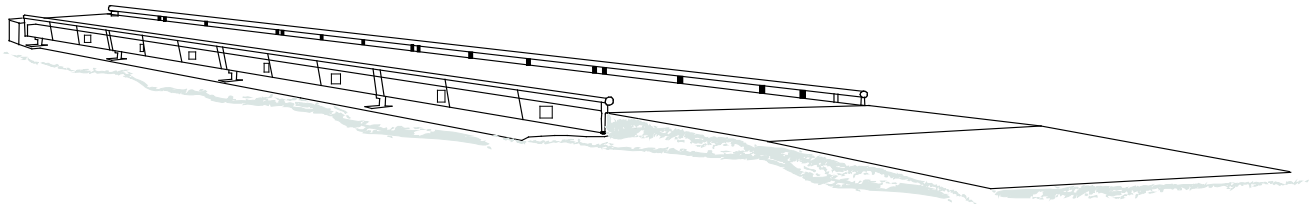




## Instructional Manual

# Talon Low Profile Motor Truck Scale



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# AMENDMENT RECORD

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## Talon Low Profile Motor Truck Scale

### Instructional Manual Document 51447

Manufactured by  
**Fairbanks Scales Inc.**

Created	06/2019	
Revision 1	06/2019	New Documentation release
Revision 2	10/2019	Updated: Hydraulic Jack details
Revision 3	09/2020	Updated: Installation > Setting the Modules; Wiring for Analog Instruments
Revision 4	04/2021	Updated: Tool Checklist



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# SECTION 1: GENERAL INFORMATION

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## 1.1. Introduction

This Instruction manual provides installation instructions for the Fairbanks Modular Steel Deck scales.

For correct Talon Scale installation, use these tools.

- Methods and Procedures FF-2267 / 101732 (Appendix I).
- The Certified prints/setting plans supplied with the scale.
- This Instruction Manual, **51447**.

The concrete foundation work must be performed according to the Certified prints issued for the specific customer and order number.

- The name and order number for the particular customer will be on the prints.

### 1.1.1. Load Cell Technical Specifications

Capacity	<b>66,000 lbs.</b>	
Type	<b>4 1<sup>1</sup>/<sub>16</sub>" Stainless Steel Rocker Column (RC Cells)</b>	
Sealing	<b>Glass-to-Metal Connection Points, complete hermetic sealing; cable entry sealed by four (4) water-tight gland bushings</b>	
Material	<b>Stainless Steel</b>	
Rating	<b>NEMA 6P (IP68 / 69K)</b>	
Resistance	<b>1,000 Ohms</b>	
Operating Temperature	<b>-10 to +40 °C (-14 to 104 °F)</b>	
Output	<b>2.4 mv/v</b>	<b>2.0 mv/v</b>
Combined Error	<b>≤0.02%</b>	
Zero Balance (FSO)	<b>1.0%</b>	
Excitation	<b>5 to 15 VDC</b>	
Ultimate Overload	<b>300%</b>	
Cable Length	<b>15'</b>	
Cable Protection	<b>Stainless Steel Sheathing</b>	
Approvals	<b>NTEP CC# 14-024 Factory Mutual (FM) Approved</b>	

### 1.1.2. Platform Specifications

Deck Dimensions	<b>Widths: 10' and 11' Standard</b> <b>Lengths: 60' to 80' Standard</b> — <i>Custom sizes also available.</i>
Scale Capacity	<b>100 tons to 120 tons</b>
CLC	<b>60,000</b>
Sections	<b>4 thru 5</b>
Deck Construction	<b>Steel</b>
Module Construction	<b>Structural Steel</b>
Deck Thickness	<b>1/4" plate</b>
Approval	<b>NTEP CC# 96-089</b> <b>MC# AM-4949</b>

### 1.1.3. Scale Description

The **TALON Modular Steel Deck Scale** is available in various lengths and widths.

- The scale is made up of modules of **20'** or **23'-4"**.
- All modules are assembled and welded at the factory.

Locate the scale so that trucks can approach and exit easily.

- Smooth and level approaches are required at each end of the platform to reduce loading shock and facilitate scale testing.
- Approaches must conform to the requirements of the law in the state in which the scale is being installed.
  - *In the absence of such laws, the approaches must conform to **Paragraph UR.2.6 National Institute of Standards and Technology Handbook 44.***
  - *The first ten feet (10') must be level and on the same plane as the scale platform.*
- The platform should be visible from the instrument location.
- It must be built so surface water will drain easily, and not collect under the scale.

### ***1.1.4. Users' Responsibility***

- ✓ **All electronic and mechanical calibrations and/or adjustments required for making this equipment perform to accuracy and operational specifications should be performed by trained service personnel.**
- ✓ **Absolutely no physical or electrical modifications other than selection of standard options and accessories are to be made to this equipment.**
- ✓ **Electrical connections other than those specified may not be performed, and physical alterations (holes, etc.) are not allowed.**



*Please call your local*  
**FAIRBANKS SCALES REPRESENTATIVE**  
*For any question, problems, or comments.*



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# SECTION 2: INSTALLATION

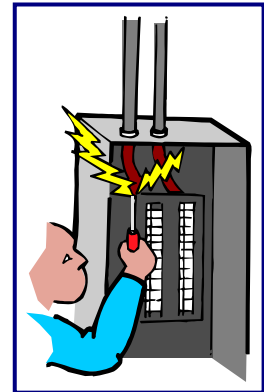
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## 2.1. General Service Policy

- Instructions within this manual apply to the instrument and its specific accessories. Installation procedures for printers and other peripherals are given in manuals specifically provided for those units. The instructions include a pre-installation checkout which must be performed either at the service center before the technician goes to the site, or at the site before he places the equipment in service.
- All electronic and mechanical calibrations and/or adjustments required to make this equipment perform to accuracy and operational specifications are considered to be part of the installation, and 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.**

***All load cells, load cell cables, and all interconnecting cables used for the scale components **must be located a minimum of thirty-six inches (36") away** from all single and multiple phase high energy circuits and electric current-carrying conductors.***

- This includes, but is not limited to **digital weight instruments, junction boxes, sectional controllers, and power supplies.**
- This includes any peripheral devices, such as **printers, remote displays, relay boxes, remote terminals, card readers, and auxiliary data entry devices.**
- Scale components themselves must also be at least **thirty-six inches (36") away** from other high energy components, including the following devices.
- Any machinery with outputs of **120, 240, or 480 VAC.**
- High voltage wiring runs and stations, AC power transformers, overhead or buried cables, electric distribution panels, electric motors, florescent and high intensity lighting which utilize ballast assemblies, electric heating equipment, traffic light wiring and power, and all relay boxes.
- Scale components are not designed to operate on internal combustion engine driven electric generators and other similar equipment.
  - This includes all digital weight Instruments and peripheral devices.
- Electric arc welding can severely damage scale components, such as digital weight Instruments, junction boxes, sectional controllers, power supplies, and load cells.
- The Service Technician's responsibility that all personnel are fully trained and familiar with the equipment's capabilities and limitations before the installation is considered complete.



## 2.2. Standard Installation Steps

*Standard installation consists of these steps.*

- Foundation check, layout, and base plate setting
- Tools, materials, documentation, and a crane
- Setting the modules
- Setting the modules on load cells

## 2.3. Pre-Installation Guidelines

*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.*

- If the installation process might disrupt normal business operations, inform the customer to schedule arrangements.
- Is properly-grounded power available at the installation location?
- 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.

*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.
- Checklist of Tools, Equipment, and Materials



*Listed below are the approximate maximum weights of scale modules. This applies to the following model:*

- Steel Modules – 4 tons

*The following lists all the needs of a standard installation.*

- ☐ Certified Prints
- ☐ Mobile Crane of sufficient capacity to safely lift and place the weigh bridge modules.\*
- ☐ Four (4) Lifting Chains/Cables with Hooks\*
  - Equal in length (20 ft.) to safely lift and install the modules.\*
- ☐ Machinists Levels (Starrett # 134 & 132-6)
- ☐ Hand Tools
  - Wrenches and Sockets:
    - 15/16"                      ▪ 1 1/8"
    - 1 1/2"                      ▪ 1 11/16"
- ☐ Hammer Drill with 5/8" Bit, 24" long
- ☐ Low profile hydraulic jacks (2)
  - Hydraulic Jacks that have sufficient capacity plus (+) a safety factor for the model of scale you are installing.
  - Recommended Jacks:
    - Enterpac model CUSP50 cylinder
    - Enterpac model P141 pump
    - Enterpac model HB9206Q hose
    - Enterpac model A360 coupler
    - Enterpac model FZ1630 reducer
    - Available at [www.enerpac.com](http://www.enerpac.com)
- ☐ 100' Steel Tape Measure–String-line and / or chalk-line
- ☐ Pry-bars
- ☐ Grease and anti-seize (**see note below**)

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**NOTE: Grease** for load cell cups: equal to *Super Lube White Grease* (food grade)

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- ☐ Load Cell Locating Tools (one per load cell)
  - **157069** for 4 11/16" cell

**\* IMPORTANT NOTE:** Request the Mobile Crane and Chains in advance from the crane vendor.

## 2.4. Installation

### 2.4.1. Installing the Foundation

Noted below are the steps to a standard foundation installation.

The foundation must be checked for accuracy using Foundation Inspection.

- Before installing any part of the scale **Field Check List, FF-2267 / 101732.**
- See [APPENDIX I: FOUNDATION CHECKLIST](#).

Layout and position the base plates in the proper locations using the Methods & Procedures and Certified prints.

- Each base plate must be level and in full contact with the top of the pier.
- Adjustments can be made by chipping the concrete or grouting under the base plates.

Re-check the locations of each base plate against the Certified prints.

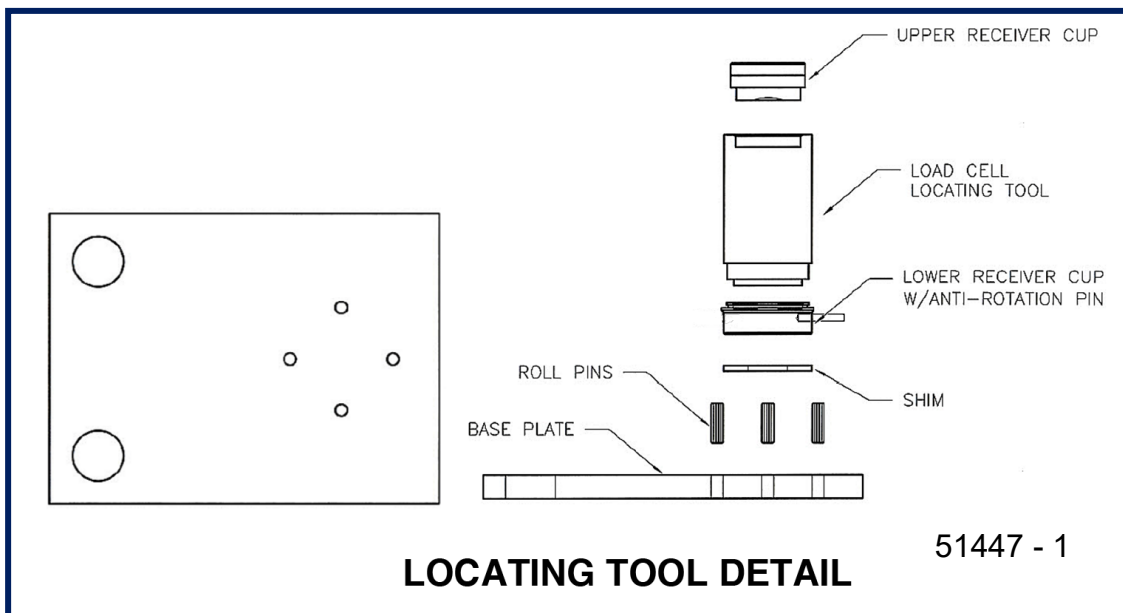
Insert four (4)  $\frac{3}{8}$ " roll pins into each baseplate to retain cup.

Put a  $\frac{3}{16}$ " shim on the Baseplate between the Retaining Pins and under the Lower Cup.

- a. The Lower Cups for the load cells have a pin which should be aligned in, towards the center line of the scale.

Place the upper cup on the edge of the upper foundation next to each base plate.

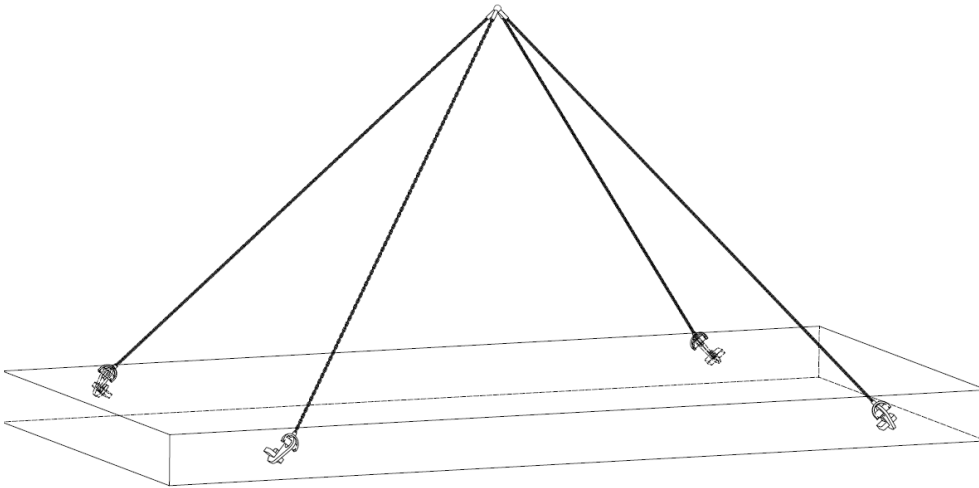
Place the Load Cell Locating Tool next to each Base Plate.



## 2.4.2. Setting the Modules

### 1. Steel Deck Scales

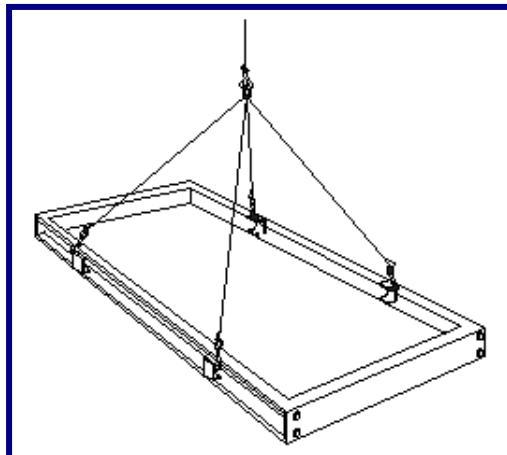
- a. Prepare the modules for lifting
- b. The modules use a “lifting hook & receiver” method to safely and easily rig the scale for lifting.
- c. Open box on truck labeled “Lifting Hooks” and insert a lifting hook into each slanted receiver near the “Lift Here” labels on the sides of the scales.
- d. After the lifting hook is securely in place, proceed to rig the lifting points at the operator’s preference following safety guidelines on the bulletin included in the box.
- e. The scale should be balanced properly when all four hooks are used.



- f. Once the module is set into place, slide the hooks out and repeat for next module.

### 2. Field Pour Scales

- a. Field pour scales are provided with “lifting channels.” Attach hooks or chains as preferred by operator to lift scale into place.
- b. No bolts are required.



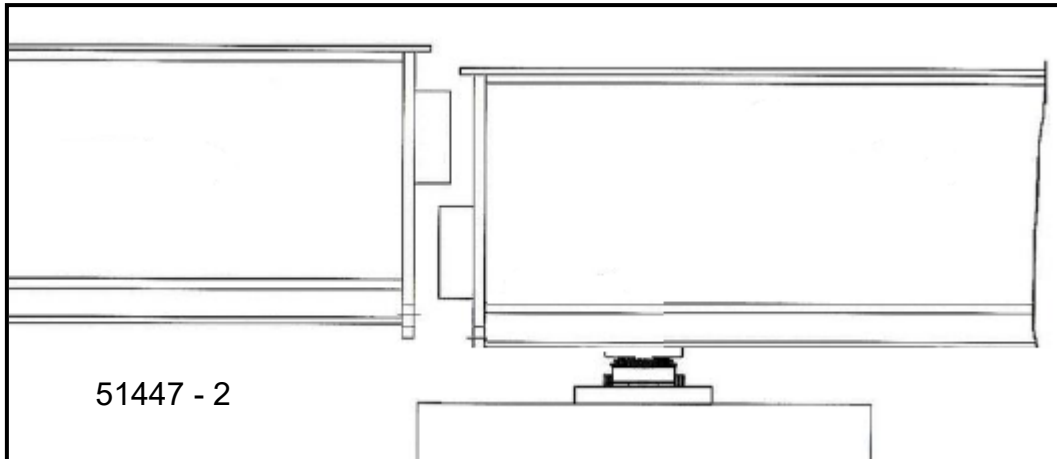
### 2.4.3. *Setting the Center Module*

Always set the center module into place first.

- The center module has four load cells to install, all other modules will have two load cells.
  - The modules must be placed in the proper order and aligned in the foundation so that all modules fit correctly.
1. Place blocks that will set the modules at a height slightly less than the finished height as safety blocks, or for setting the modules on.
  2. Lift the center module to a location above the four-center load cell base plates.
  3. Set the module down over the base plates so each corner pocket aligns over load cell cups.
  4. Use blocks to set scale to adjust each base plate into exact position through the corner pocket access.
  5. Set the modules on the blocks first, then onto the locating tools.
    - When the module is set on the blocks, keep tension on the cables until the module is properly aligned.
    - Use hydraulic jacks to lift the unit slightly then install the locating tools.
    - You may need to use a “stepjack” on the outside beam as the clearance is not enough for a standard bottle jack.
  6. Shift the base plates to get the tools plumb with the bottom flange, **FLUSH** with the side of the cup.
  7. Measure from each side of each end of the module, to the end walls, to be certain the module is plumb and square before removing tension.
  8. Once the tension on the lift cables is released, remove the lift cables.

### 2.4.4. Setting End Modules

1. Guide the modules into place with the supporting blocks on the end of the module coming to rest on the supporting blocks of the center module.
2. Lower the other end of the module onto the load cell locating tools or blocks (see 51447 – 2 below).

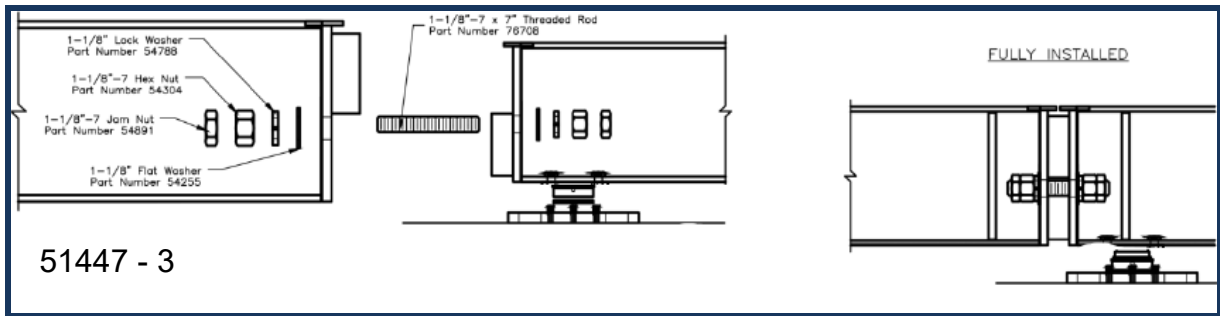


3. Before releasing tension on the cables, check the alignment of the end modules to the center module and to the end wall.
4. Use the shims provided to set height and fill any gaps on the supporting blocks to get the modules aligned.

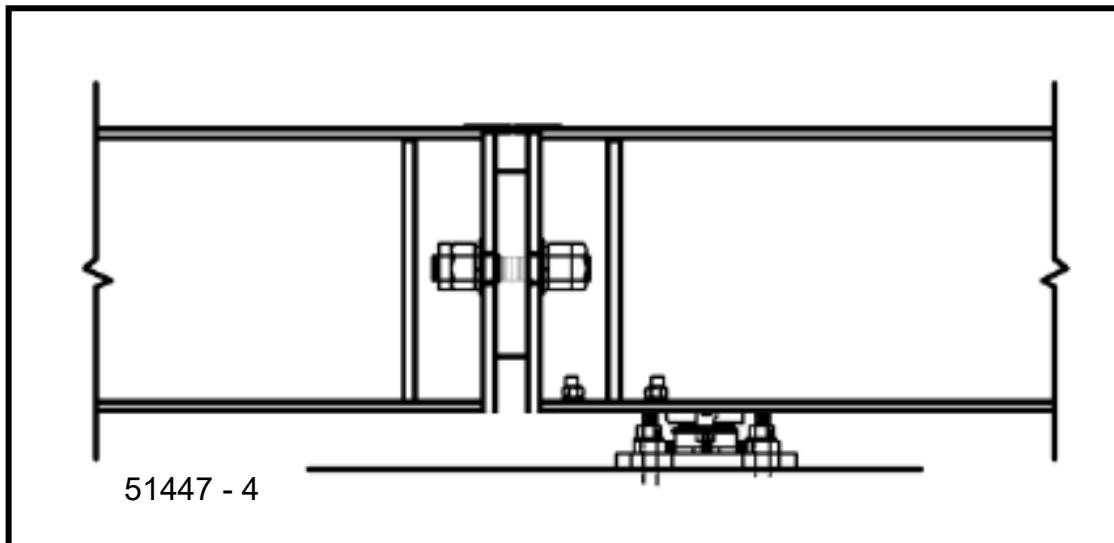
**\*\* Repeat this process for the other end of the module, or for the Interior Module. \*\***

### 2.4.5. Connecting the Modules

1. Bolt the modules together using the 1-1/8" x 7" full-thread rod, lock washer, flat washers and nut provided.
2. Shim the supporting blocks, as needed to align modules.
3. Snug the nuts, but do not fully tighten them yet. (see 51447-3, below) .



Platform Connection



## WARNING!

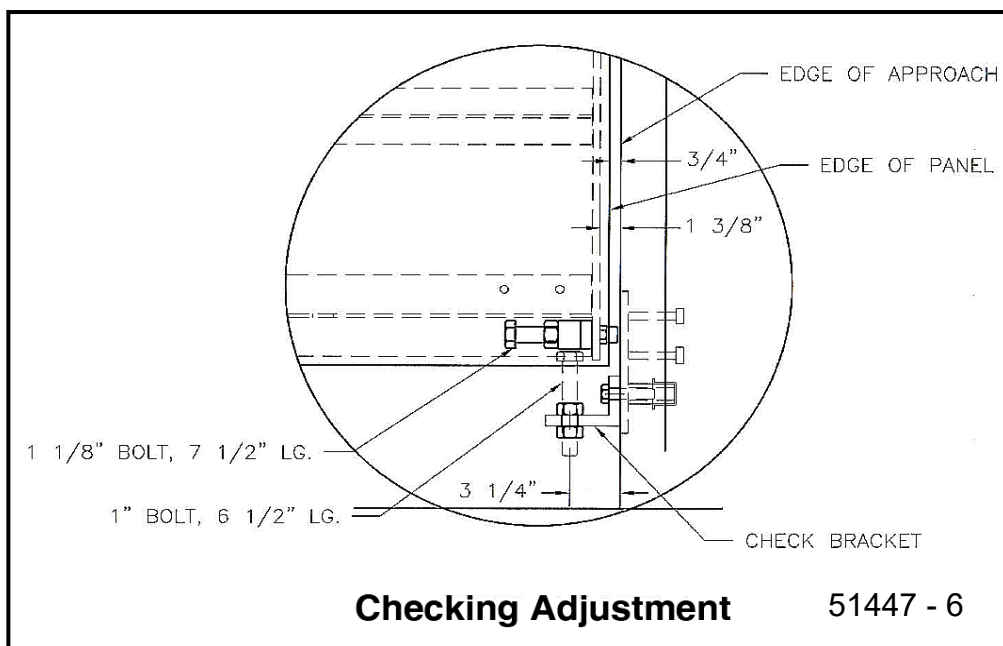
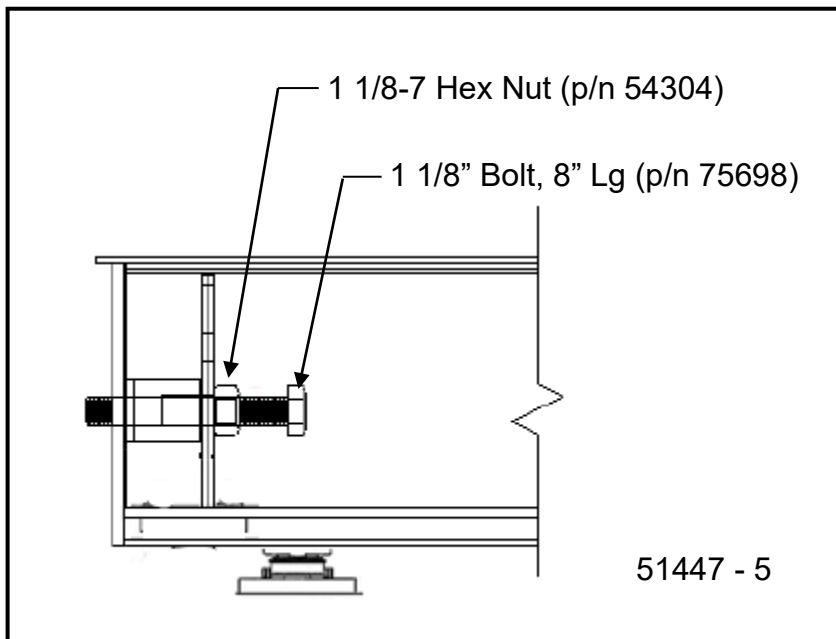
*Module-to-module bolts **MUST** be installed correctly and torqued properly after all steps are completed.*

*Do **NOT** substitute or omit any bolts.*



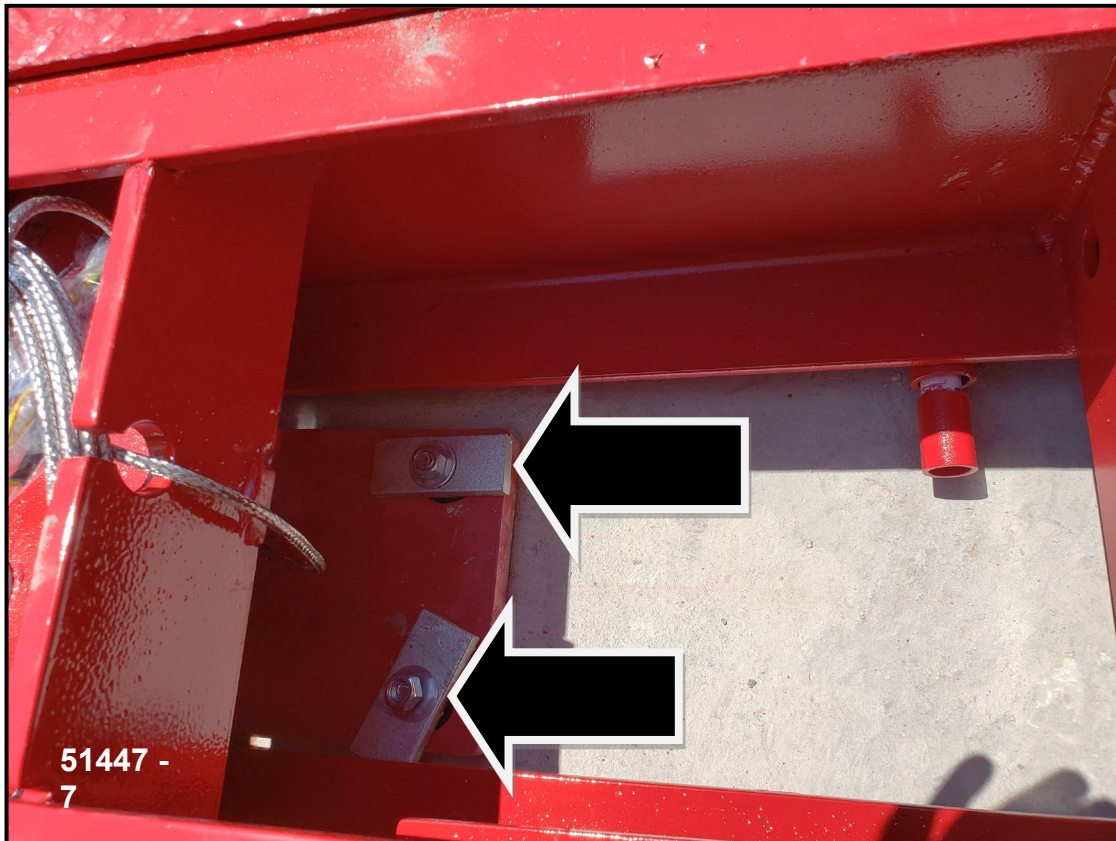
## 2.4.6. Checking Adjustment

1. Adjust the **End Checking**.
  - Set the **End Checking Bolts** so that they touch and prevent movement.
2. Install the Side Checking Brackets.
3. Bolt the brackets to the end checking plates embedded in the end walls according to the Certified Prints.
  - Set the bolts so that they touch the block they bump against. (see 51447 -5 & 6, below)



### **2.4.7. Base Plate Completion**

1. Check that all locating tools are properly aligned and flush with the receiver cups.
2. Drill the holes for the outside base plate anchors using a hammer drill and the 5/8" drill bit.
3. Tap the anchors into clean holes and tighten the nuts securely. (see 51447 -7, below)



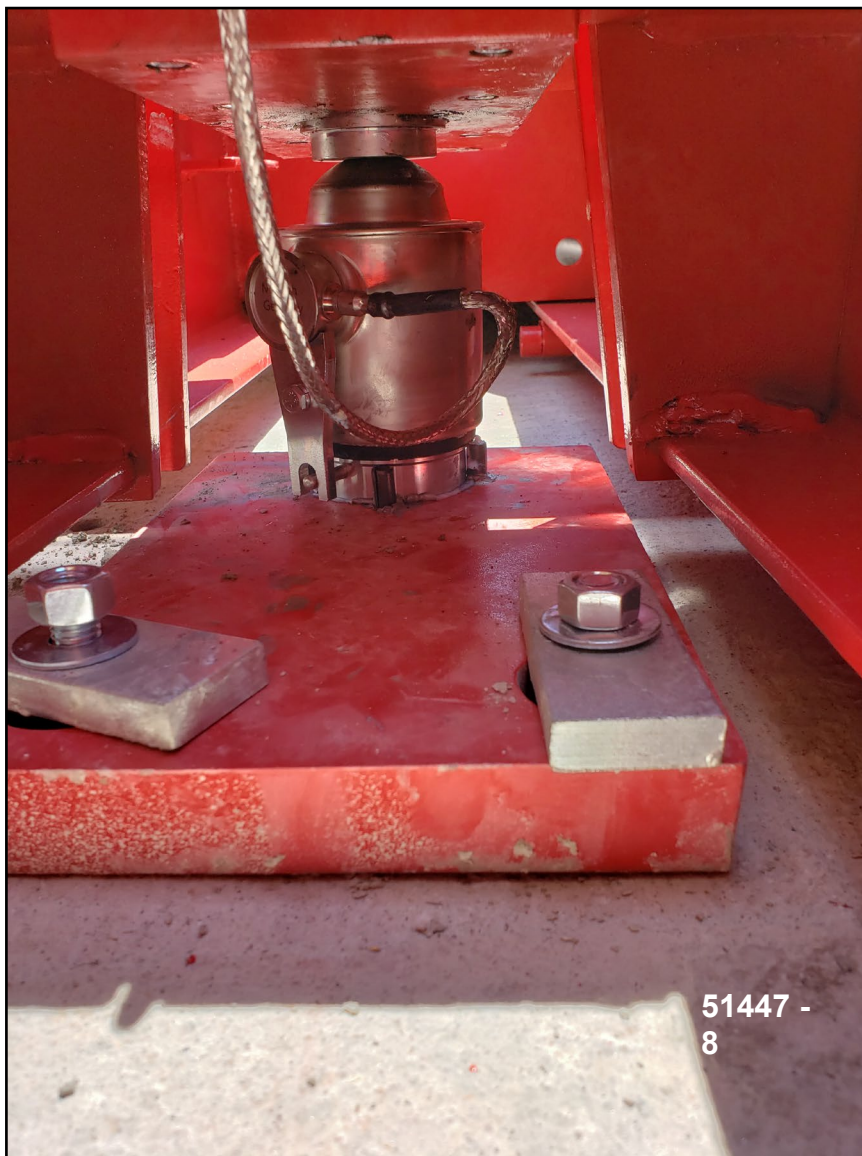
### **2.4.8. Installing Load Cells**

1. Unpack the load cells and mark each calibration certificate with the load cell location and position.
2. Assemble Anti-rotation Clip to the side of the Load Cell.
3. Starting at one end of the assembled platform, place hydraulic jacks at the corners so the section can be lifted off the locating tool.
  - May need to use “stepjack” as clearance is not enough for traditional bottle jack.
  - Two (2) hydraulic jacks may be required.
4. Lift the platform so the load cell locating tool can be removed from the upper and lower bearing cups.
  - Once removed, fill both cups with grease (provided with the cups).

### 2.4.8. Load Cell Cables, Continued



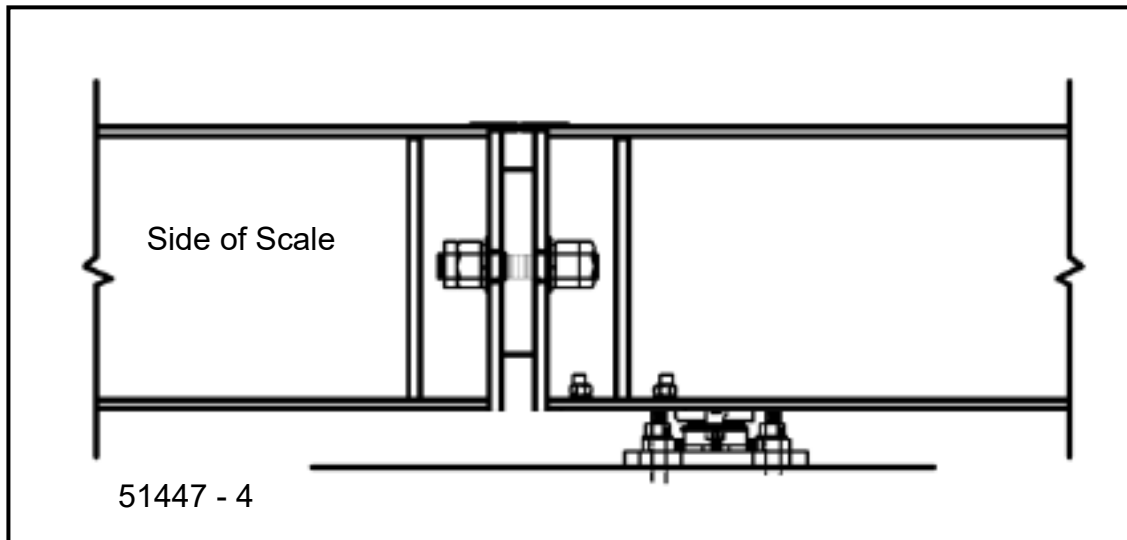
Carefully lower the scale (hydraulic jacks) while seating the bottom of the cell into the lower cup. (see 51447-8, below)



## 2.4.8. Load Cell Cables, Continued

**NOTE:** Anti rotation must be positioned to the inside of scale. See illustration below:

### Platform connection



- Check the scale's level and height, particularly at the approaches.
- Use the load cell shims provided to adjust load cell cups for correct height and to ensure that all cells share an equal amount of the load.
- Center section cells will have up to twice the dead-load of end section cells.
- When the height and level are correct, tighten the module-to-module bolts.
- Torque the nuts to **five hundred (500) ft./lbs.**



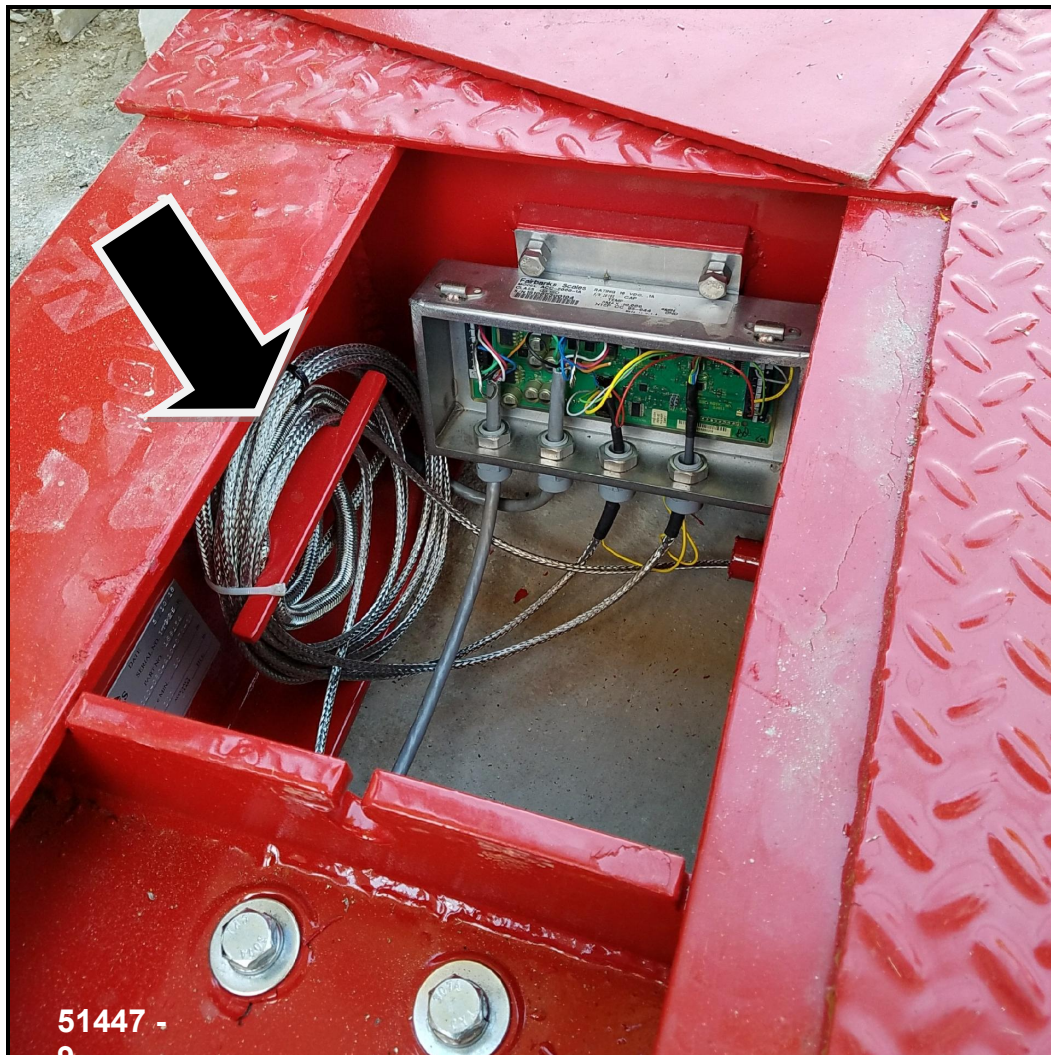
## 2.4.8. Load Cell Cables, Continued

### LOAD CELL CABLES

Cable protection on truck scales is extremely important to the reliability of the scale. It is imperative for all cables to be installed off of the ground and out of sight. The Talon truck scale has been designed to accommodate this type of cable protection. Described in this section is the manufacturer's recommended installation procedure for installing and protecting cables on the Talon Truck Scale.

### CABLE HANGERS

**Cable Hangers** are located behind every SSC or PPS mounting block for all excess load cell and interconnecting cables. (see arrow in 51447-9, below)



## **2.4.8. Load Cell Cables, Continued**

### **CABLE ROUTING**

1. Route the load cell cables through the conduits that go across the bottom of the scale laterally. Route the junction box interface cables through the conduits that ran longitudinally along the inside web of the side beams.
2. Once all wiring is complete, fasten all the cables together and hang them safely on the cable hanger.
  - In a correct installation, the only cable visible is the home run cable.

## **2.4.9. Final Checking Adjustment**

1. Adjust the **End Checking Bolts** to allow **1/16"** to **1/8"** clearance.
2. Adjust the **Side Checking Bolts** to allow **1/16"** clearance from Bumper Block.

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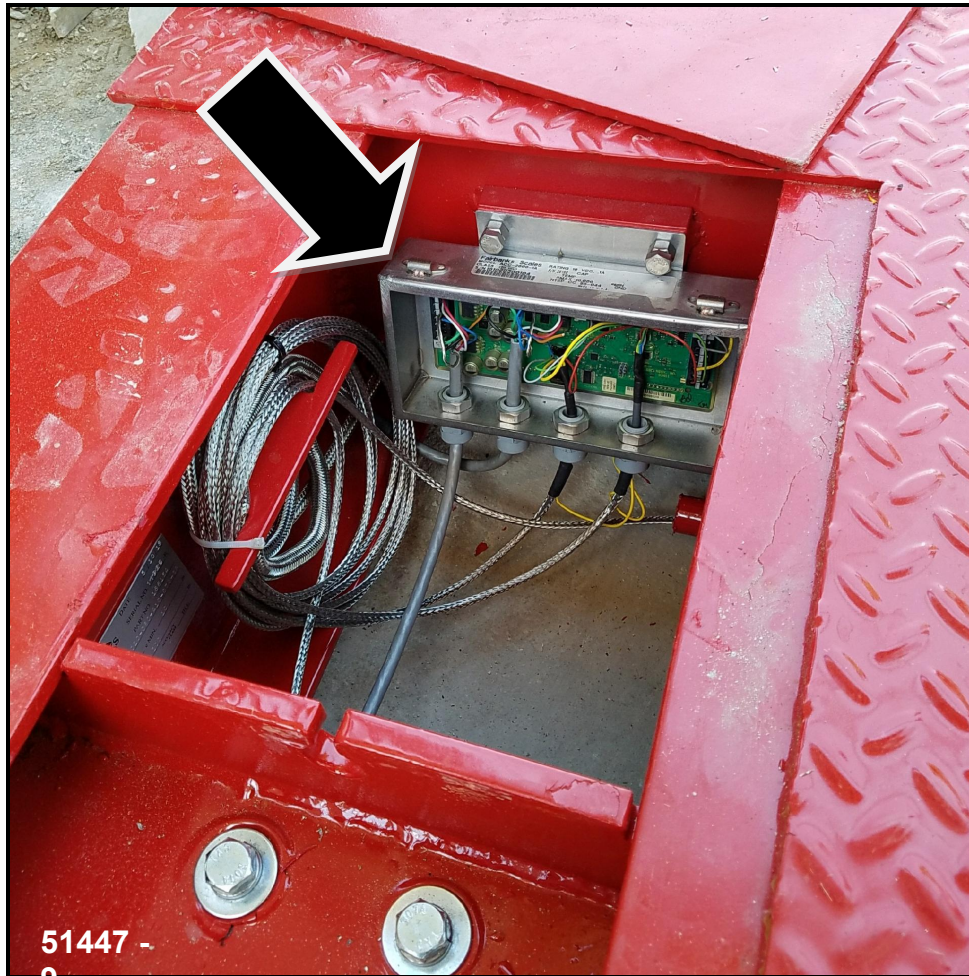
## SECTION 3: ELECTRICAL INSTALLATION

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### 3.1. Balance Box (21912) for Analog Instruments

Installed the Balance Box (21912) at the platform, one box per section.

- Each Stainless Steel Balance Box has four (4) terminal blocks connecting two (2) load cells and two (2) cables to the analog instrument.
  - Load cells and sections are adjusted by potentiometers.
1. Mount the Box thru the tabs to the mounting brackets inside the cover plate pocket.
  2. Attach the ground wire lug to one of the mounting bolt studs.
  3. Tighten the wire lug securely to provide a good electrical ground. (see 51447-9, below)





## 3.2. WIRING for Analog Instruments

**NOTE:** All cable wiring must be a minimum of **18 AWG (17204 or equivalent)**.

1. Connect the Balance Boxes from **TB4** to **TB3**

2a. Attach this either at the **end section** where the interface cable conduit enters the scale.

**OR...**

2b. If the conduit enters the scale in the middle, use **Instrument SVP (14478)**.

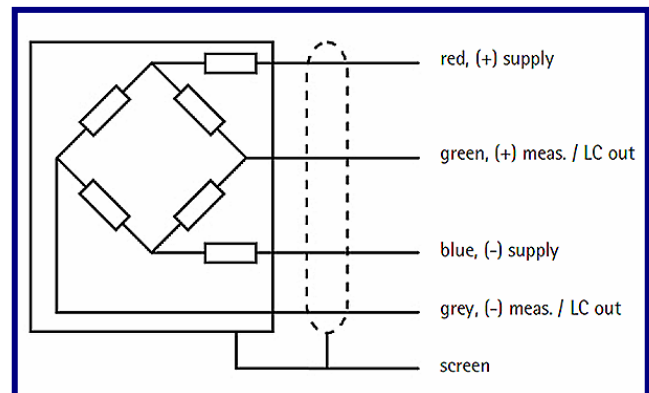
- This will allow separate connections to go in each direction toward the ends of the scale.

**NOTE:** See **Bulletin 50113** for complete 529 Loadcell SVP wiring diagrams.

### 3.2.1. Load Cell Wiring

(For the 66K Load Cells.)

COLOR	DESCRIPTION
Blue	– Excitation
Red	+ Excitation
Gray	– Signal
Green	+ Signal



### 3.2.2. Cells-to-Junction Box Wiring

TERMINAL	COLOR	TB3 AND TB4
1	Blue	– Excitation
2	Red	+ Excitation
3	Shield	Shield
4	Green	+ Signal
5	Gray	– Signal



### 3.2.3. Box-to-Box Wiring

TERMINAL	TB1
1	– Excitation
2	+ Excitation
3	+ Sense
4	– Sense
6	Shield
7	+ Signal
8	– Signal

### 3.2.4. Box-to-Instrument

TERMINAL	TB2
1	– Excitation
2	+ Excitation
3	+ Sense
4	– Sense
6	Shield
7	+ Signal
8	– Signal

---

**NOTE:** Balance Boxes must attach to one (1) ground rod in the pit.

**Inadequate grounding prevents the surge protector from functioning properly.**

---

### 3.2.5. Preventing Moisture Entry

The Full Electronic scales have been designed to provide protection from the effects of moisture.

- Load cells are calibrated with the cable attached. **DO NOT EVER cut the cable.**
- The cable is connected directly to the Balance Box or SSC through a sealed bushing, which **MUST** be tightened properly to keep water/moisture out of the box.
- All cabling should have a drip loop at the cell or box entry location to help prevent water entry.
- On all boxes, particularly stainless steel, the black plastic fittings 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 bushing in the hole, then insert cable and carefully tighten the gland until it is very snug.
  - Do not over-tighten where bushing turns. Secure the cover.

### 3.2.6. Instrument Cable Connection, Balance Box

The two (2) cables from the two (2) center section boxes, as well as the instrument cable, will enter and terminate at the **Instrument SVP (14478)**.

1. Prepare the cable ends in the standard manner.
  - Use **Appendix II** for wiring instructions of all pit balance boxes.

Connect the instrument interface cable to the instrument in the scale house according to the instructions in the appropriate instrument service manual.

### 3.2.7. Adjusting Cells and Sections

Try to install load cells of matching outputs in sections to reduce side-to-side errors.

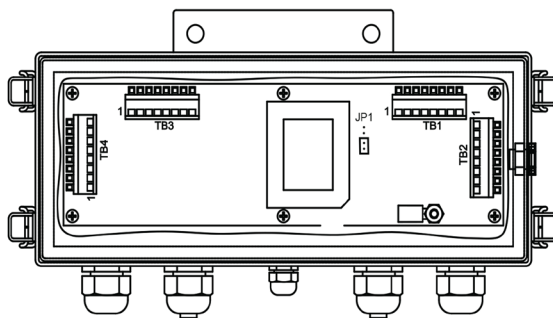
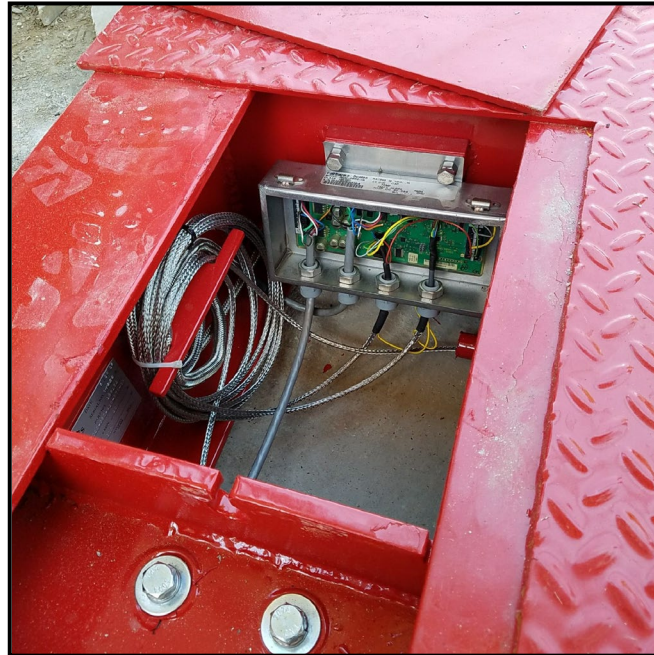
- When calibrating, place weights directly over the cell or directly on the section being tested.
- Adjust the potentiometers for the correct cell or section to compensate for differences.

## 3.3. Wiring SSCs and PPSs for Intalogix Systems

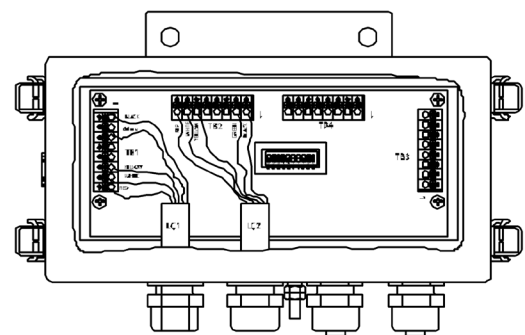
Intalogix™ systems use Smart Sectional Controllers (SSC)s and Pit Power Supplies (PPSs) for load cell excitation and signal processing.

- There is one (1) SSC per section and one (1) PPS for the entire platform
    - This is unless the number and resistance of the cells require a second PPS.
  - SSC Boxes have four (4) terminals.
    - Two (2) are for load cells and two (2) are for inter-connecting to other SSC boxes, or for terminating to a pit power supply.
  - All cell/section/scale adjustments are made from the Intalogix system instrument.
1. Mount the Box thru the tabs to the mounting brackets on the side of the modules.
  2. Wire the cable using a minimum of **18 AWG** (17204 or 17246).
    - See the following page for wiring diagrams.
    - See **Appendix III** to connect PPSs and SSCs, or use the appropriate service manual for the Instrument being installed.

### 3.3. Wiring SSCs and PPSs for Intalogix Systems, Continued



Pit Power Supply  
Part # 31519



Smart Section Controller  
Part # 26168 w/o float  
Part # 26172 w/ float

### 3.3.1. SSCs (Smart Sectional Controllers)

#### SSC CONNECTIONS

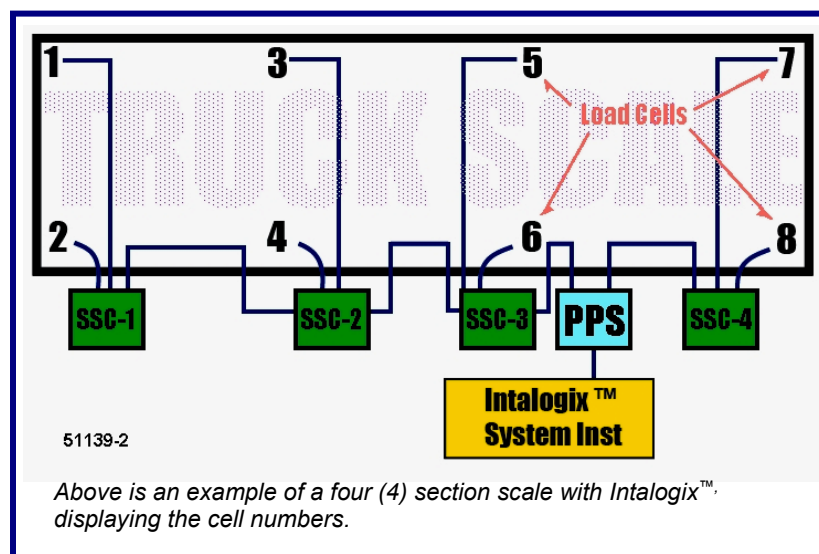
Wire the cells into each section's SSC according to the appropriate manual.

Each SSC has connections for two (2) incoming load cells, labeled **TB1** and **TB2**.

- The **odd** numbered cell goes to **TB1**.
- The **even** numbered cell goes to **TB2**.
- **Load cell drain wires** connect to ground lug on the sectional controller box exterior.

### 3.3.2. Cell Numbering

- Intalogix™ Technology installations use a specific numbering system for load cells because of digital addressing of the SSCs.
- With respect to the following starting position, face the platform where the instrument is located.
- The cell at the **upper-left** (far side) of the platform is **Cell One (1)**.
- The cell positions along the **far side** have **odd cell numbers**.
- The **near side locations** have **even cell numbers**.



### 3.3.3. Grounding

Intalogix™ Technology systems must have **two (2) ground rods** in the pit for proper connection.

- The **PPS** supplies one ground for the **weighbridge**, and connects the other to the **SSC**.
- For accurate operation and protection against damage from lightning strikes, all of the components of the system must be properly grounded.

Use the following guidelines to correctly ground the system:

- Use 8 AWG or larger wire, or braided ground straps.
- All ground connections should be **two feet (2')**, or as short as possible.
- The SSCs and PPSs housing attaches in a clean electrical connection **to the platform frame**. The platform frame is then connected to a pit ground rod.
- The insulated **WHITE WIRE** from the PPS connects directly to the separate ground rod.
- The **117 VAC SVP Unit** connects to a known good ground at the instrument location.
  - Use a voltmeter to test the electrical power source available.
  - The **Neutral-to-Ground** voltage level must be 0.2 VAC or less.
    - If unsure, or if the testing reveals higher than 0.2 VAC, install a separate ground rod at the **SVP location**, connecting it with braided cable or 8 AWG wire

# C A U T I O N

**Proper grounding is REQUIRED**  
so the Surge Voltage Protection (SVP) adequately shields the  
scale from lightning and other electrical interferences!

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## SECTION 4: SERVICE & MAINTENANCE

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### 4.1. Scale Maintenance

1. Check for accumulations of solid material under the scale which may affect the accuracy, i.e., ice, frozen mud, debris.
2. Check to see that the customer has cleaned under the platform regularly.
3. Inspect load cells for damage to the ends/cables, check cups and "O" rings for damage and/or excessive or uneven wear.
4. The load cell bearing cups should be inspected, cleaned and greased at least TWICE per year.
5. Inspect and adjust all check bolts using anti-seize on the threads.
6. Inspect and tighten all connecting and cover plate hardware for proper tightness.

### 4.2. Mechanical Faults

1. Check all clearances around the scale for any obstructions of interference with the free movement of the platform.
2. Check all check bolt clearances both with and without a concentrated load over each section, one at a time.
3. Check all load cells for plumb and level.
4. Inspect the boxes for leaks, the interior should be clean and dry. If there is moisture inside, clean then dry it out thoroughly. Check all connections at the terminal blocks to ensure they are tight.

### 4.3. Load Cell Replacement

1. **Remove all power from the instrument.**
2. Lift the scale using hydraulic jack(s) at the corner(s) closet to the defective load cell location. Use jacks that have sufficient capacity plus (+) a safety factor for the Talon scale.
3. Check upper and lower receiving cups. Replace as necessary and reapply grease.
4. Insert the new cell into the upper receiving cup and position the anti-rotation pin.
5. Carefully lower the hydraulic jack(s) until the cell is set into the lower cup.
6. Remove the cover of the SSC/Balance box, then loosen the gland bushing to free the cable. Remove the old cell wires and connect new cell wires in the balance Box/SSC.
7. Test and adjust scale as necessary.
8. Secure the cover.

# SECTION 5: PARTS

## 5.1. Parts

PART NO.	DESCRIPTION
76708	1 1/8" -7 x 8" Threaded Rod, Zinc (module-module)
54788	1 1/8" Lock Washer (module-module)
54304	1 1/8" - 7 Hex Nut
54306	1 1/8" SAE Flat Washer (module-module)
54891	1 1/8" - 7 Jam Nut
156965	Load Cell Base Plate (new) not available yet
61743	Clamp Bar Washer (base plates)
62857	5/8" x 6" Anchor Bolts ( <i>wedge type</i> )
55010	Ground Rod Kit
*161398	Shim, Upper Cup, 1/8" (2.25" OD)
*161397	Shim, Lower Cup, 1/16" (2.75" OD)
75398	Side check bracket w/bumper bolts (1" x 6 1/2")
79747	Rub Rail PVC End Caps
105297	Rub Rail Plugs



\* see image (right)

## 5.2. Load Cells and Hardware

### 5.2.1. PR6221/30t C3F

PART NO.	DESCRIPTION	TYPE
173115 *	Load Cell, 4 <sup>11</sup> / <sub>16</sub> " RC, 30t (or 66k), 1000 Ohm, 2.4 mV/V	HV
161197	Upper & Lower Cup (with anti-rotation pin) kit with gasket	HV
157278	Roll Pin, 3/8" x 1-1/4, Cup Retainer Baseplate	HV
157069	Locating Tool, 4 <sup>3</sup> / <sub>4</sub> "	HV

\* Includes Lower and Upper Cups

# SECTION 6: ACCESSORIES

## 6.1. Rub Rails

**Rub-Rails** are available for factory-installed and field-installed models. *Follow these steps for a Field Installed Rub Rail Installation.*

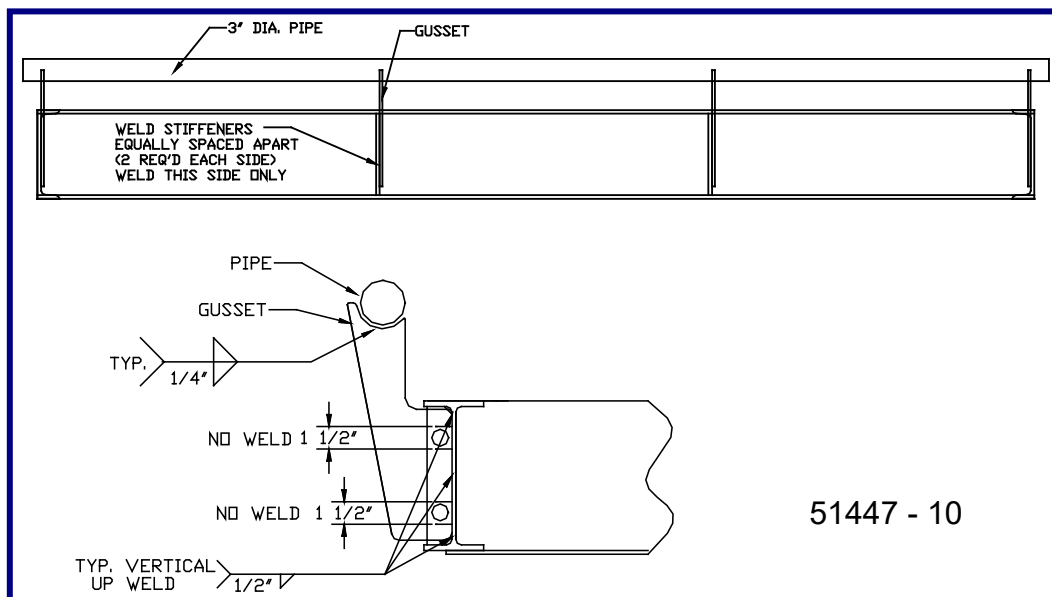
1. Use the print with the accessory for actual measurements.
2. Thoroughly clean and remove any primer around the areas to be welded.
  - This allows for good welding penetration.
3. Weld the stiffeners to the side weldments.
4. Bolt the gussets to the stiffeners and end weldments.
5. Weld the pipe to the gussets.
6. Clean and paint all welded sections of the Rub Rails.
  - This paint is normally provided.

## WARNING!

**Fairbanks does NOT recommend using foundation-mounted guide rails along the sides of this truck scale platform.**

**Damage may occur to the scale if a truck hits the guide rail, transferring damaging force to the platform and the checking system.**

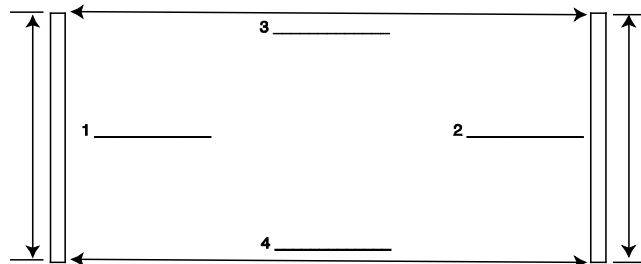
**Using foundation-mounted guide rails will VOID THE PRODUCT WARRANTY.**





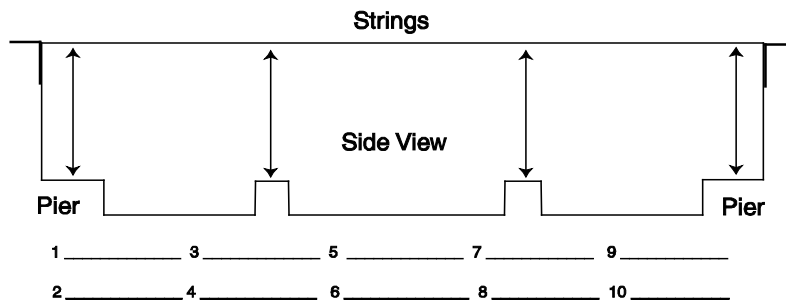
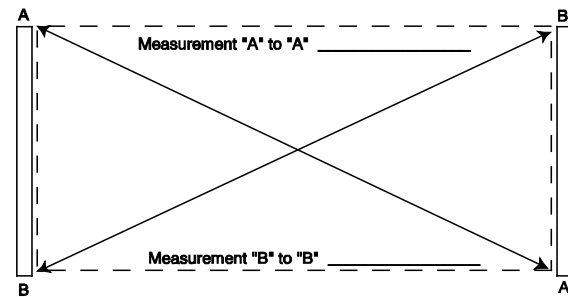
# APPENDIX I: FOUNDATION CHECK LIST

## Appendix I: Foundation Check List



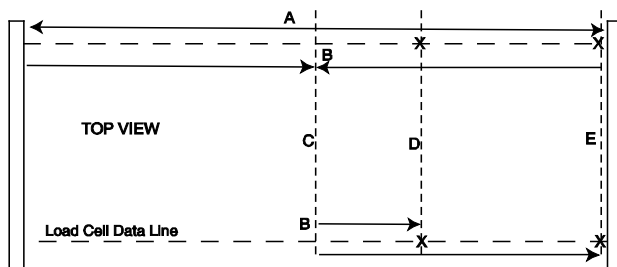
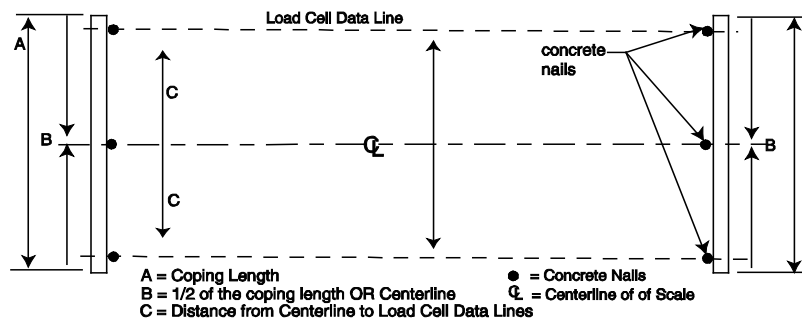
**Length & Width Check**

**Diagonal Measurements Check**



**Pier Height Check**

**Longitudinal Layout**

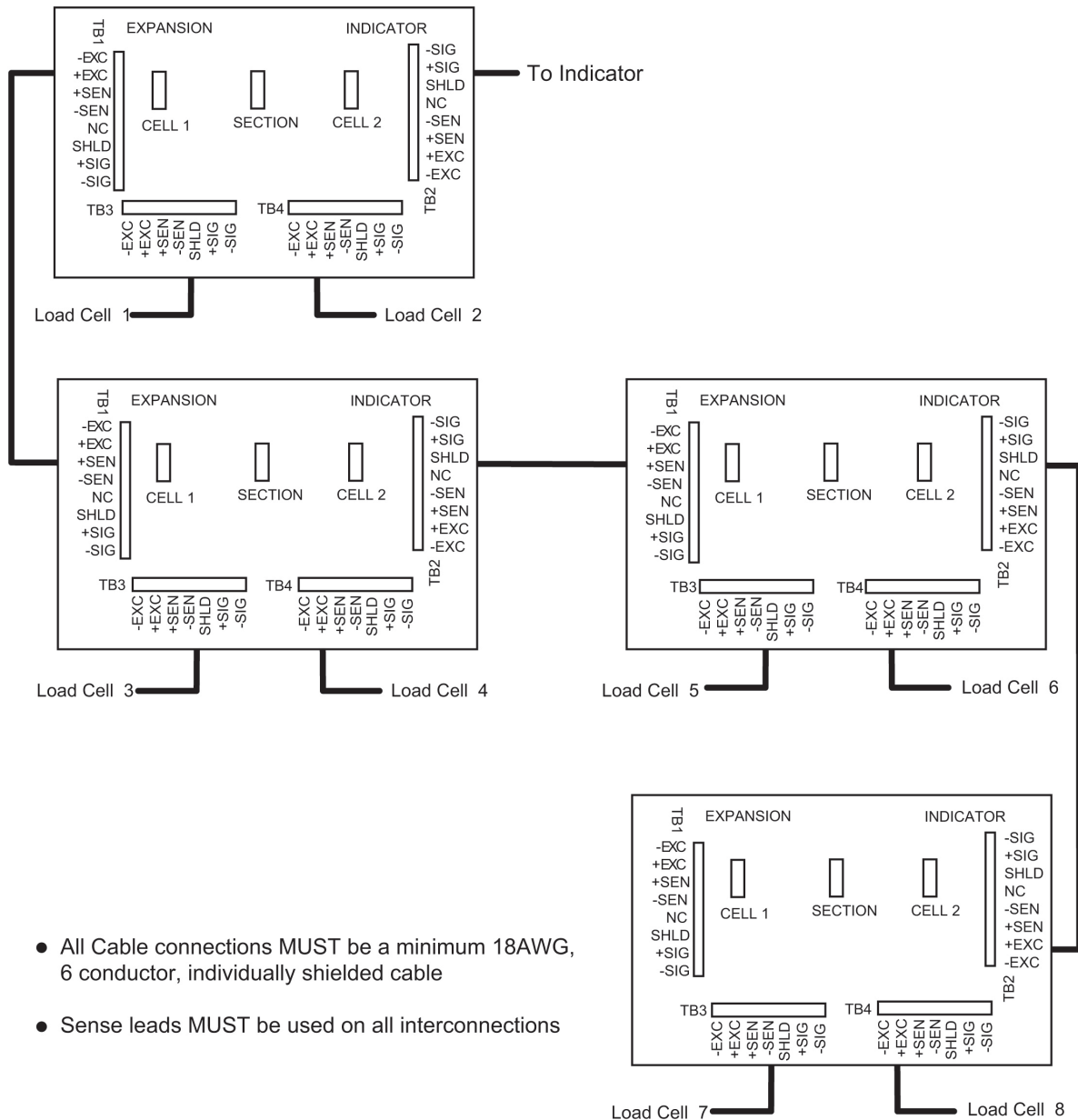


**Lateral Layout**

FF-2267

Issue #1

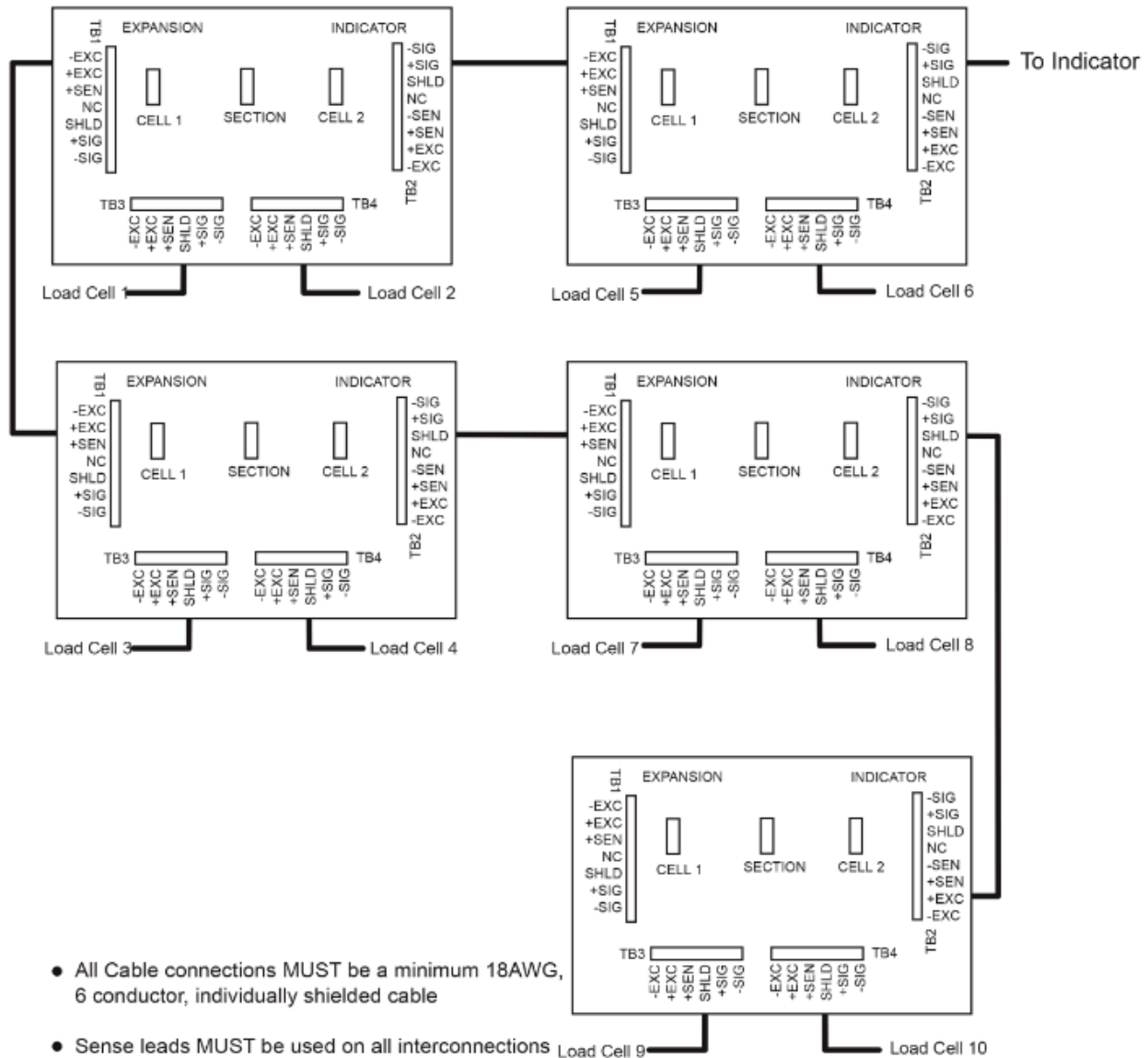
# APPENDIX II: FOUR SECTION ANALOG SCALE



- All Cable connections MUST be a minimum 18AWG, 6 conductor, individually shielded cable
- Sense leads MUST be used on all interconnections

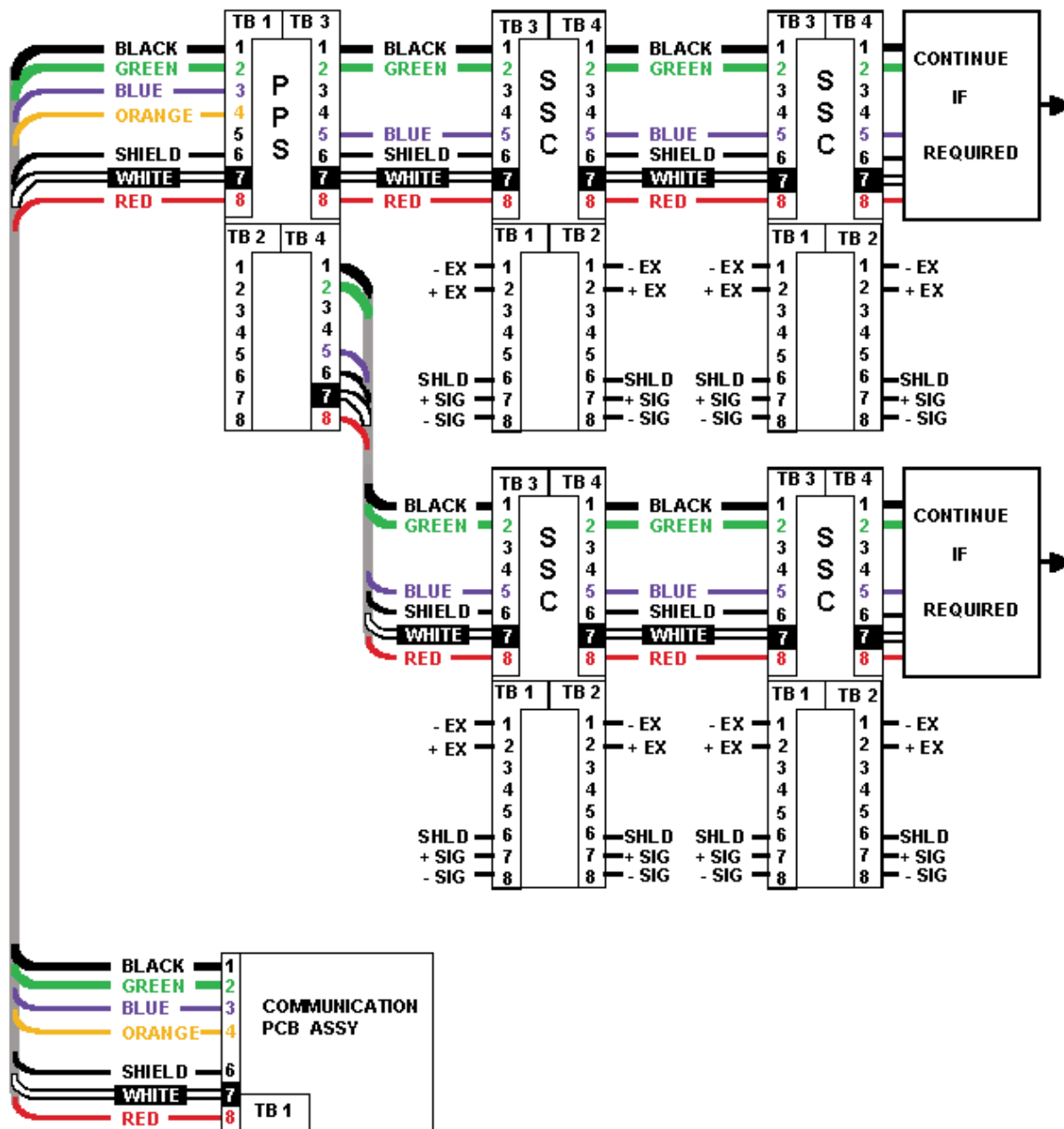
4-Section Analog

# APPENDIX III: FIVE SECTION ANALOG SCALE



5-Section Analog

# APPENDIX IV: FOUR SECTION INTALOGIX SCALE





Fairbanks Scales, Inc.  
[www.fairbanks.com](http://www.fairbanks.com)

# **Talon Series Truck Scale**

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**Instructional Manual**  
**Document 51447**