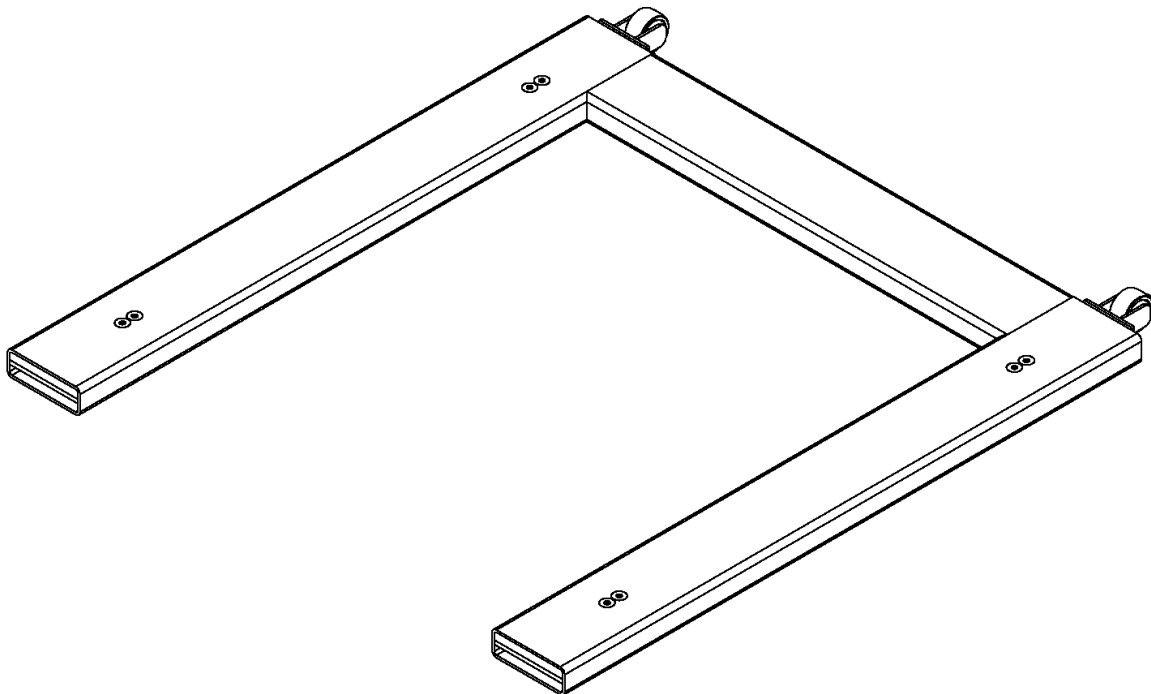




3500 Series Yellow Jacket U-Shaped Floor Scale



Amendment Record
3500 Series Yellow Jacket
U-Shaped Floor Scale

Document 51358

Manufactured by Fairbanks Scales, Inc.

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Section 1: General Information

1.1. INTRODUCTION

Fairbanks Scales' **3500 Series Yellow Jacket U-Shaped Floor Scale** allows material handling equipment to easily weigh pallets, skids, or totes.

The U-shaped design allows loads to access the scale without the pallet jack contacting the scale. The material can be quickly weighed and removed with this design. This eliminates the need for a ramp in this type of application. With two built-in lifting handles and wheels (optional accessory), this scale is highly portable.

The load cell connections use a wire-nut connection to sum the signals. The connections inside the stainless steel platform are inside a plastic junction box.

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 size is **48”L x 46”W** (outside) and **42” L x 34”W** (opening).
- The floor scale capacity is **5,000 (lbs)**.
- Powder coat mild steel and stainless steel versions.
- Both scale types are equipped with a **30 foot** interface cable.

Section 2: Company Service Information

2.1. 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 to this equipment by customers.

Repairs performed by Fairbanks Scales service technicians and authorized distributor personnel ONLY!

Failure to comply with this policy voids all implied and/or written warranties.

2.2. OVERVIEW

2.2.1. Physical Installation Notes

- 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.

2.2.2. Conferring with Our Client

- 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.

2.2.3. Pre-Installation 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.



2.2.4. 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.



2.2.5. 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.

2.2.6. 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.
- ✓ 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 3: Scale Installation

3.1. INSTALLING THE SCALE

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. Carefully lift the scale (using two people) and place where needed.
4. 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.

5. Level the scale using a screwdriver to turn the threaded foot assembly.
6. Wire the scale cable to the proper type instrument, as shown in the chart below.
7. Once the scale platform is completely wired to the instrument, calibrate the unit.
 - Follow the appropriate instrument service manual to ensure a good calibration.

3.1.1. Platform Interface Cable Wiring

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

3.1.2. Calibration Steps

Refer to the appropriate instrumentation service manual for the proper calibration procedure.

Section 4: Installing Accessories

The optional Portable Wheel Kit Assembly is stainless steel and compatible with both the mild steel and stainless steel versions.

4.1. INSTALLING THE PORTABLE WHEEL KIT ASSEMBLY

STEPS:

1. Locate the **two (2)** sets of holes in the back of the scale platform.
2. Position the Wheel Mount Weldments (part #33029) in back of the holes.
3. Secure both Wheel Mount Weldments into the holes using the Screws (part #11061) and Washers (part #11090).
4. Attach the Wheels (part #32953) to the Wheel Mount Weldments by aligning the hole in each wheel with the holes in the Weldments.
5. Slide a screw (part #21534) through the holes and secure with a nut (part #11097) and washer (part #11090).

NOTE: Please see the [Wheel Assembly Kit Parts List and Diagram](#) in Section 6 for further clarification.

Section 5: Parts Replacement

5.1. LOAD CELL REPLACEMENT STEPS

1. Cycle-down the power to the instrument, and then unplug the unit.
2. Lift the platform end with a forklift or heavy pry bar, using wood blocks for safety.
3. Remove access cover.
4. Disconnect the failed load cell cable(s).
5. Loosen the gland bushing, and tie a string or wire to the end of the cable to act as a pull wire.
6. Place wire markers on the cable ends.
 - Masking tape is an effective alternative
7. Disconnect the faulty load cells wires from the terminal block.
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. Connect the load cell wires using gland nuts, then tighten the box gland bushing(s).
15. Lower the scale to the surface removing the safety blocks.
16. Distribute the scale's weight evenly by all four (4) feet.
17. Recalibrate the unit as necessary.

5.1.1. Load Cell Specifications

DESCRIPTION	SPECIFICATION
Material	Mild Steel/Stainless
Rated Output	2mV/V
Impedance	1000 ohm
Safe Overload	150%
Compensated Temperature Range	-10° C to 40° C
Safe Operating Temperature Range	-20° C to 60° C

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

5.1.2. Junction Box Replacement Steps

1. Remove power to the instrument.
2. Open the platform access cover, then the junction box cover.
3. Loosen all gland bushing nuts.
4. Place wire markers on all the load cell cable ends.
5. Disconnect the load cells' wires.
6. Disconnect the homerun wires.
7. Reconnect all load cell and home-run wires.
8. Tighten all gland bushing nuts.
9. Replace the junction box cover, and torque all screws to **18-20 in/lbs.**
10. Recalibrate the unit as necessary, including corner adjustments.
11. Replace the platform access cover.

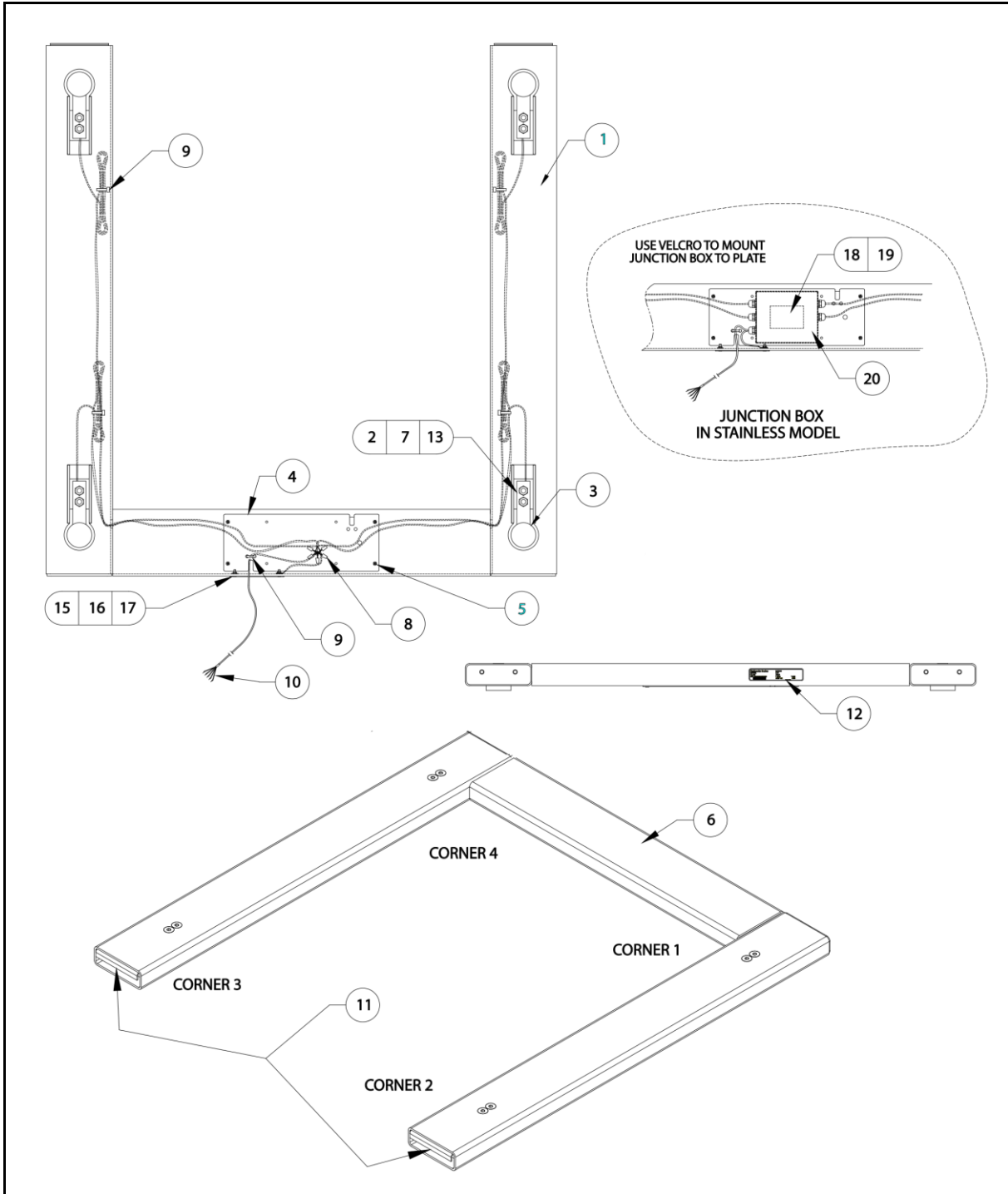
5.1.3. Foot Assembly Replacement Steps

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

Section 6: Section 6: Parts

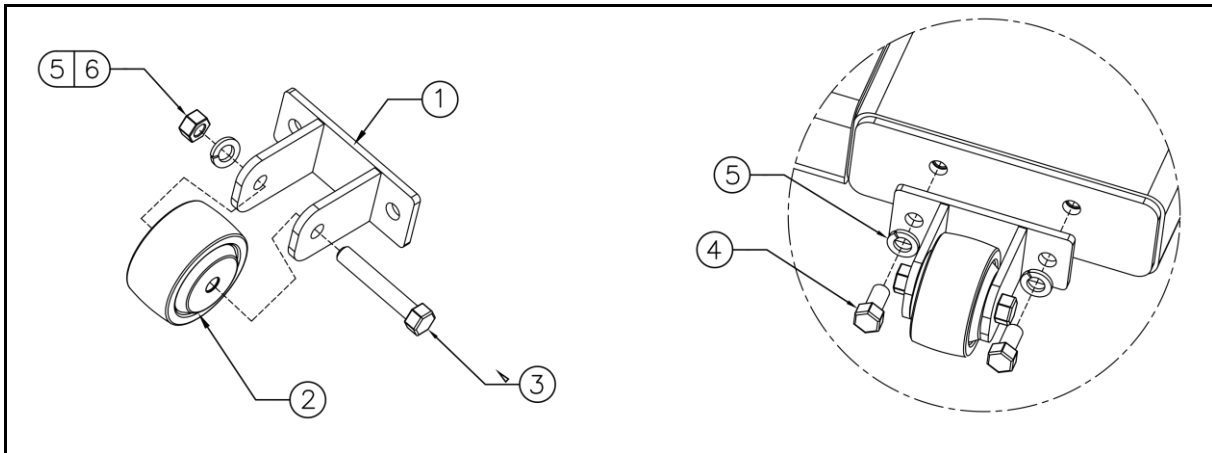
6.1.1. General Parts List and Diagram

33000 (MILD STEEL)			
ITEM	PART NO.	QTY	DESCRIPTION
1	33010	1	SCALE WELDMENT
2	83635	4	LOAD CELL, 2.5K, BLIND, SS, 6' CABLE LC1-LC4
3	63899	4	FOOT ASSEMBLY
4	32948	1	MOUNTING PLATE, JUNCTION BOX, U SHAPED SCALE
5	22114	4	SCREW, MACH, FLAT HD, PHIL 8-32 X .38 SS
6	28896	1	LABEL, FAIRBANKS
7	33511	8	SCREW, CAP, FLAT, SOCKET HEAD, 1/2-13 X 2.25", SS
8	24988	5	WIRE NUT, CRIMP ON STYLE
9	17614	A/R	TIE, WIRE
10	12838	1	CABLE ASSY (30 FT. LONG) W1
11	30632	11 IN	TRIM, VINYL, PUSH ON CUT INTO TWO 5.5 IN PCS
12	33028	1	NAMEPLATE, SPECIFICATION
13	28763	8	NUT, NYLON STOP 1/2-13, SS
15	30251	1	PLATE, NAMEPLATE
16	10106	2	NUT, HEX 10-32
17	10311	2	WASHER, PLAIN, FLAT NO. 10
33200 (STAINLESS STEEL)			
1	33207	1	SCALE WELDMENT, STAINLESS
2	63896	4	LOAD CELL, 2.5K, BLIND, HERMETIC, SS, 10' CABLE LC1-LC4
3	63899	4	FOOT ASSEMBLY
4	32948	1	MOUNTING PLATE, JUNCTION BOX, USHAPED SCALE
5	22114	4	SCREW, MACH, FLAT HD, PHIL 8-32 X .38 SS
6	28896	1	LABEL, FAIRBANKS
7	33511	8	SCREW, CAP, FLAT, SOCKET HEAD, 1/2-13 X 2.25" SS
8	24988	5	WIRE NUT, CRIMP ON STYLE
9	17614	A/R	TIE, WIRE
10	12838	1	CABLE ASSY (30 FT. LONG) W1
11	30632	11 IN	TRIM, VINYL, PUSH ON CUT INTO TWO 5.5 IN PCS
13	28763	8	NUT, NYLON STOP 1/2-13 SS
15	30251	1	PLATE, NAMEPLATE
16	11103	2	NUT, HEX 10-32 SS
17	11119	2	WASHER, PLAIN, FLAT NO. 10 SS
18	14721	3 IN	VELCRO, LOOP - 2 IN WIDE, BLACK, ADHESIVE BACKED
19	14722	3 IN	VELCRO, HOOK - 2 IN WIDE, BLACK, ADHESIVE BACKED
20	28729	1	BOX ASSY, PLASTIC JUNCTION



6.1.2. Wheel Assembly Kit Parts List and Diagram

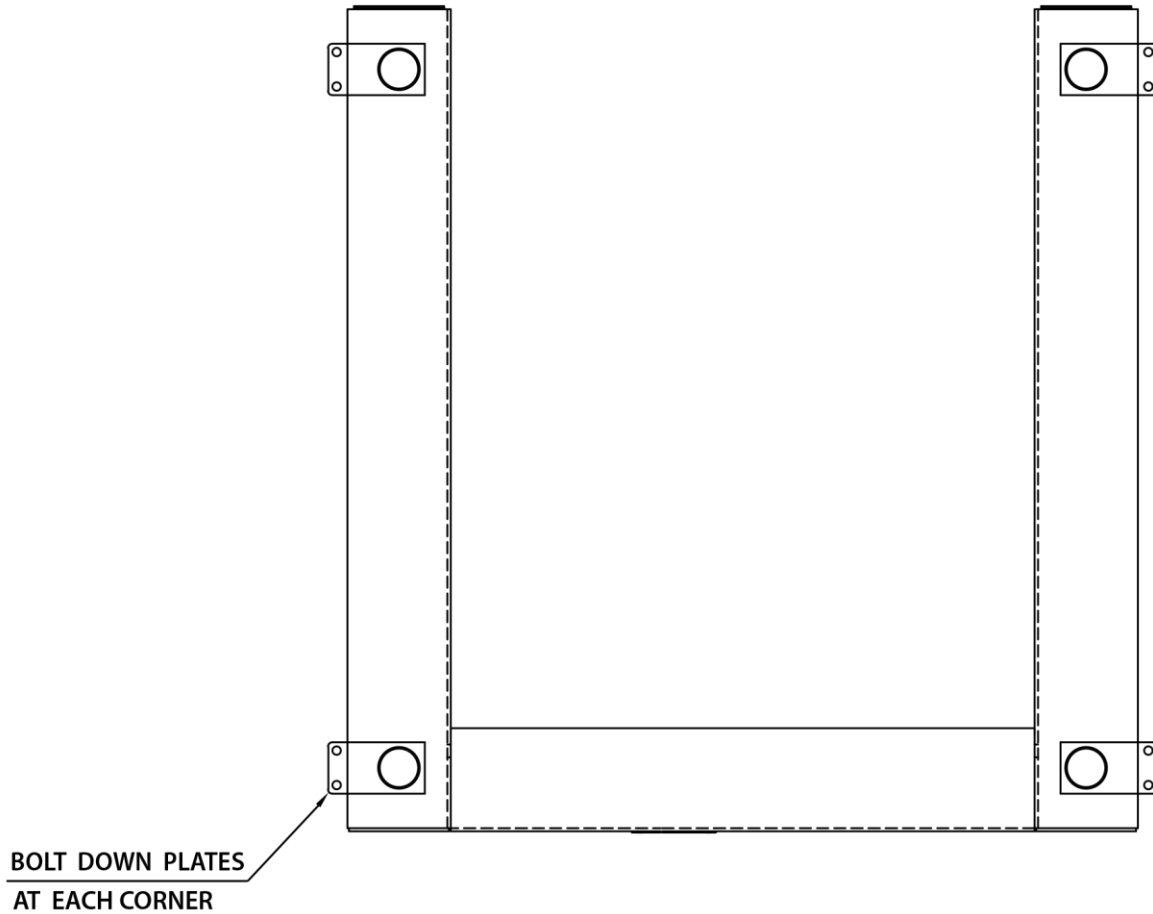
ITEM	PART NO.	QTY	DESCRIPTION
--	33030	1	WHEEL ASSEMBLY KIT
1	33029	2	WHEEL MOUNT WELDMENT, U SHAPED SCALE
2	32953	2	WHEEL, U SHAPED SCALE (INCLUDES COVERS)
3	21534	2	SCREW, CAP, HEX-HD 3/8-16 x 2.50
4	11061	4	SCREW, CAP, HEX-HD 3/8-16 x 1.00
5	11090	6	WASHER, LOCK, MED SPR 3/8
6	11097	2	NUT, HEX 3/8-16 SS



6.1.3. Accessories

ITEM	PART NO.	QTY	DESCRIPTION
--	34945	1	* BOLT DOWN PLATE KIT, 2 PLATES, SS STEEL CONSTRUCTION
--	34944	1	* BOLT DOWN PLATE KIT, 4 PLATES, SS STEEL CONSTRUCTION

* EACH PLATE INCLUDES 2 WEDGE ANCHOR BOLTS





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