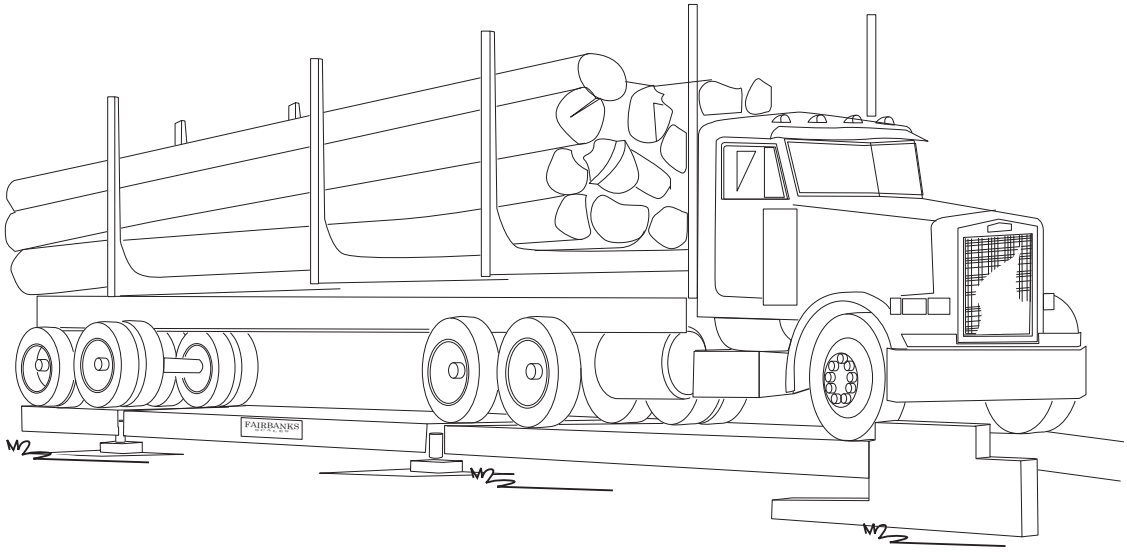
Instruction Manual

“Rodan RC”
Motor Truck Scale

Model : 6010 Series
6020 Series
6030 Series



50518

Revision 11 03/12

Amendment Record

Rodan RC
50518

Manufactured by Fairbanks Scales Inc.
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Kansas City, Missouri 64106

Created		
Issue #1		
Issue #2		
Issue #3		
Issue #4		
Issue #5		
Issue #6	09/99	Product Update, Load Cell changes
Issue #7	06/00	Updated to the new Model Numbers
Issue #8	09/01	Added: EZ-Under Mount design
Issue #9	03/04	Added technical information and corrected drawings.
Issue #10	07/05	Revised replacement parts list.
Revision 11	03/12	Added changes for anti-rotation pins on the load cells ECR 253

Disclaimer

Every effort has been made to provide complete and accurate information in this manual. However, although this manual may include a specifically identified warranty notice for the product, Fairbanks Scales makes no representations or warranties with respect to the contents of this manual, and reserves the right to make changes to this manual without notice when and as improvements are made.

Table of Contents

Section 1: Introduction

This Instruction manual provides installation instructions for the Fairbanks Modular Steel, Field-Pour, and Megabar™ model scales, in both the Original and the EZ-Under-Mount designs.

For correct Rodan scale installation(s), use:

- Methods and Procedures FF-2267 / 101732 (Appendix I)
- The Certified prints/setting plans supplied with the scale
- This Instruction Manual, 50518

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.)

Section 2: Description

The Modular Steel, Field Pour and Megabar™ truck scales are available in various lengths from 10 to 100 feet and widths from 10' to 12'. The scale is made up of modules of 10', 15', 20' or 23'-4" in length. All modules are assembled and welded at the factory. Megabar™ models have factory poured and cured concrete decks.

The scale should be located so that vehicles can approach and exit the scale as easily as possible. The platform should be visible from the instrument location. Drainage of surface water must be such that water does not collect under the scale. Smooth and level approaches are required at each end of the platform to reduce loading shock and facilitate testing of the scale. 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, which states that the first 10 feet must be level and on the same plane as the scale platform.

COC #: 96-089A2

Rodan RC Field Pour Industrial Duty 60K DTAC

Product Number	Capacity Lbs	Platform Size	Number Sections	DTA Lbs	Modules
90433	30 Ton	10’ x 10’	2	60K	1
90013	30 Ton	10’ x 11’	2	60K	1
90002	30 Ton	15’ x 10”	2	60K	1
90014	30 Ton	15’ x 11”	2	60K	1
90003	30 Ton	20’ x 10”	2	60K	1
90015	30 Ton	20’ x 11”	2	60K	1
90005	60 Ton	30’ x 10”	3	60K	2
90017	60 Ton	30’ x 11”	3	60K	2
90006	60 Ton	40’ x 10”	3	60K	2
90018	60 Ton	40’ x 11”	3	60K	2
90007	60 Ton	47’ x 10”	3	60K	2
90019	60 Ton	47’ x 11”	4	60K	2
90008	100 Ton	60’ x 10”	4	60K	3
90020	100 Ton	60’ x 11”	4	60K	3
90009	100 Ton	70’ x 10”	4	60K	3
90021	100 Ton	70’ x 11”	4	60K	3
90010	100 Ton	80’ x 10”	5	60K	4
90022	100 Ton	80’ x 11”	5	60K	4
90011	100 Ton	90’ x 10”	5	60K	4
90023	100 Ton	90’ x 11”	5	60K	4
90012	100 Ton	100’ x 10”	6	60K	5
90024	100 Ton	100’ x 11”	6	60K	5

Rodan RC Field Pour Heavy Duty 60K DTAC

Product Number	Capacity Lbs	Platform Size	Number Sections	DTA Lbs	Modules
90373	30 Ton	10’ x 10”	2	60K	1
90025	30 Ton	10’ x 11”	2	60K	1
90374	30 Ton	15’ x 10”	2	60K	1
90026	30 Ton	15’ x 11”	2	60K	1
90375	30 Ton	20’ x 10”	2	60K	1
90027	30 Ton	20’ x 11”	2	60K	1
90376	30 Ton	23’ x 10”	2	60K	1
90028	30 Ton	23’ x 11”	2	60K	1
90377	60 Ton	30’ x 10”	3	60K	2
90029	60 Ton	30’ x 11”	3	60K	2
90378	60 Ton	40’ x 10”	3	60K	2
90030	60 Ton	40’ x 11”	3	60K	2
90379	60 Ton	47’ x 10”	3	60K	2
90031	60 Ton	47’ x 11”	3	60K	2
90380	100 Ton	60’ x 10”	4	60K	3
90032	100 Ton	60’ x 11”	4	60K	3
90381	100 Ton	70’ x 10”	4	60K	3
90033	100 Ton	70’ x 11”	4	60K	3
90382	100 Ton	80’ x 10”	5	60K	4
90034	100 Ton	80’ x 11”	5	60K	4
90383	100 Ton	90’ x 10”	5	60K	4
90035	100 Ton	90’ x 11”	5	60K	4
90384	100 Ton	100’ x 10”	6	60K	5
90036	100 Ton	100’ x 11”	6	60K	5

Rodan RC Field Pour Industrial Duty 80K DTAC

Product Number	Capacity Lbs	Platform Size	Number Sections	DTA Lbs	Modules
90037	40 Ton	10’ x 10”	2	80K	1
90049	40 Ton	10’ x 11”	2	80K	1
90061	40 Ton	10’ x 12”	2	80K	1
90038	40 Ton	15’ x 10”	2	80K	1
90050	40 Ton	15’ x 11”	2	80K	1
90062	40 Ton	15’ x 12”	2	80K	1
90039	40 Ton	20’ x 10”	2	80K	1
90051	40 Ton	20’ x 11”	2	80K	1
90063	40 Ton	20’ x 12”	2	80K	1
90040	40 Ton	23’ x 10”	2	80K	1
90052	40 Ton	23’ x 11”	2	80K	1
90064	40 Ton	23’ x 12”	2	80K	1
90041	70 Ton	30’ x 10”	3	80K	2
90053	70 Ton	30’ x 11”	3	80K	2
90065	70 Ton	30’ x 12”	3	80K	2
90042	70 Ton	40’ x 10”	3	80K	2
90054	70 Ton	40’ x 11”	3	80K	2
90066	70 Ton	40’ x 12”	3	80K	2
90043	70 Ton	47’ x 10”	3	80K	2
90055	70 Ton	47’ x 11”	3	80K	2
90067	70 Ton	47’ x 12”	3	80K	2
90044	100 Ton	60’ x 10”	4	80K	3
90056	100 Ton	60’ x 11”	4	80K	3
90068	100 Ton	60’ x 12”	4	80K	3
90045	100 Ton	70’ x 10”	4	80K	3
90057	100 Ton	70’ x 11”	4	80K	3
90069	100 Ton	70’ x 12”	4	80K	3
90046	100 Ton	80’ x 10”	5	80K	4
90058	100 Ton	80’ x 11”	5	80K	4
90070	100 Ton	80’ x 12”	5	80K	4
90047	100 Ton	90’ x 10”	5	80K	4
90059	100 Ton	90’ x 11”	5	80K	4
90071	100 Ton	90’ x 12”	5	80K	4
90048	100 Ton	100’ x 10”	6	80K	5
90060	100 Ton	100’ x 11”	6	80K	5
90072	100 Ton	100’ x 12”	6	80K	5

Rodan RC Field Pour Heavy Duty 80K DTAC

Product Number	Capacity Lbs	Platform Size	Number Sections	DTA Lbs	Modules
91841	40 Ton	10’ x 10”	2	80K	1
91865	40 Ton	10’ x 11”	2	80K	1
91889	40 Ton	10’ x 12”	2	80K	1
91842	40 Ton	15’ x 10”	2	80K	1
91866	40 Ton	15’ x 11”	2	80K	1
91890	40 Ton	15’ x 12”	2	80K	1
91843	40 Ton	20’ x 10”	2	80K	1
91867	40 Ton	20’ x 11”	2	80K	1
91891	40 Ton	20’ x 12”	2	80K	1
91844	40 Ton	23’ x 10”	2	80K	1
91868	40 Ton	23’ x 11”	2	80K	1
91892	40 Ton	23’ x 12”	2	80K	1
91845	70 Ton	30’ x 10”	3	80K	2
91869	70 Ton	30’ x 11”	3	80K	2
91893	70 Ton	30’ x 12”	3	80K	2
91846	70 Ton	40’ x 10”	3	80K	2
91870	70 Ton	40’ x 11”	3	80K	2
91894	70 Ton	40’ x 12”	3	80K	2
91847	70 Ton	47’ x 10”	3	80K	2
91871	70 Ton	47’ x 11”	3	80K	2
91895	70 Ton	47’ x 12”	3	80K	2
91848	100 Ton	60’ x 10”	4	80K	3
91872	100 Ton	60’ x 11”	4	80K	3
91896	100 Ton	60’ x 12”	4	80K	3
91849	100 Ton	70’ x 10”	4	80K	3
91873	100 Ton	70’ x 11”	4	80K	3
91897	100 Ton	70’ x 12”	4	80K	3
91850	100 Ton	80’ x 10”	5	80K	4
91874	100 Ton	80’ x 11”	5	80K	4
91898	100 Ton	80’ x 12”	5	80K	4
91851	100 Ton	90’ x 10”	5	80K	4
91875	100 Ton	90’ x 11”	5	80K	4
91899	100 Ton	90’ x 12”	5	80K	4
91852	100 Ton	100’ x 10”	6	80K	5
91876	100 Ton	100’ x 11”	6	80K	5
91900	100 Ton	100’ x 12”	6	80K	5

Rodan RC Steel Deck Industrial Duty 60K DTAC

Product Number	Capacity Lbs	Platform Size	Number Sections	DTA Lbs	Modules
90157	30 Ton	10’ x 10”	2	60K	1
90217	30 Ton	10’ x 11”	2	60K	1
90158	30 Ton	15’ x 10”	2	60K	1
90218	30 Ton	15’ x 11”	2	60K	1
90159	30 Ton	20’ x 10”	2	60K	1
90219	30 Ton	20’ x 11”	2	60K	1
90160	30 Ton	23’ x 10”	2	60K	1
90220	30 Ton	23’ x 11”	2	60K	1
90161	60 Ton	30’ x 10”	3	60K	2
60221	60 Ton	30’ x 11”	3	60K	2
90162	60 Ton	40’ x 10”	3	60K	2
90222	60 Ton	40’ x 11”	3	60K	2
90163	60 Ton	47’ x 10”	3	60K	2
90223	60 Ton	47’ x 11”	3	60K	2
90164	100 Ton	60’ x 10”	4	60K	3
90224	100 Ton	60’ x 11”	4	60K	3
90165	100 Ton	70’ x 10”	4	60K	3
90225	100 Ton	70’ x 11”	4	60K	3
90166	100 Ton	80’ x 10”	5	60K	4
90226	100 Ton	80’ x 11”	5	60K	4
90167	100 Ton	90’ x 10”	5	60K	4
90227	100 Ton	90’ x 11”	5	60K	4
90168	100 Ton	100’ x 10”	6	60K	5
90228	100 Ton	100’ x 11”	6	60K	5

Rodan RC Steel Deck Heavy Duty 60K DTAC

Product Number	Capacity Lbs	Platform Size	Number Sections	DTA Lbs	Modules
90097	30 Ton	10’ x 10”	2	60K	1
90109	30 Ton	10’ x 11”	2	60K	1
90098	30 Ton	15’ x 10”	2	60K	1
90110	30 Ton	15’ x 11”	2	60K	1
90099	30 Ton	20’ x 10”	2	60K	1
90111	30 Ton	20’ x 11”	2	60K	1
90100	30 Ton	23’ x 10”	2	60K	1
90112	30 Ton	23’ x 11”	2	60K	1
90101	60 Ton	30’ x 10”	3	60K	2
90113	60 Ton	30’ x 11”	3	60K	2
90102	60 Ton	40’ x 10”	3	60K	2
90114	60 Ton	40’ x 11”	3	60K	2
90103	60 Ton	47’ x 10”	3	60K	2
90115	60 Ton	47’ x 11”	3	60K	2
90104	100 Ton	60’ x 10”	4	60K	3
90116	100 Ton	60’ x 11”	4	60K	3
90105	100 Ton	70’ x 10”	4	60K	3
90117	100 Ton	70’ x 11”	4	60K	3
90106	100 Ton	80’ x 10”	5	60K	4
90118	100 Ton	80’ x 11”	5	60K	4
60107	100 Ton	90’ x 10”	5	60K	4
90119	100 Ton	90’ x 11”	5	60K	4
90108	100 Ton	100’ x 10”	6	60K	5
90120	100 Ton	100’ x 11”	6	60K	5

Rodan RC Steel Deck Industrial Duty 80K DTAC

Product Number	Capacity Lbs	Platform Size	Number Sections	DTA Lbs	Modules
90121	40 Ton	10’ x 10”	2	80K	1
90133	40 Ton	10’ x 11”	2	80K	1
90145	40 Ton	10’ x 12”	2	80K	1
90122	40 Ton	15’ x 10”	2	80K	1
90134	40 Ton	15’ x 11”	2	80K	1
90146	40 Ton	15’ x 12”	2	80K	1
90123	40 Ton	20’ x 10”	2	80K	1
90111	40 Ton	20’ x 11”	2	80K	1
90147	40 Ton	20’ x 12”	2	80K	1
90124	40 Ton	23’ x 10”	2	80K	1
90136	40 Ton	23’ x 11”	2	80K	1
90148	40 Ton	23’ x 12”	2	80K	1
90125	70 Ton	30’ x 10”	3	80K	2
90137	70 Ton	30’ x 11”	3	80K	2
90149	70 Ton	30’ x 12”	3	80K	2
90126	70 Ton	40’ x 10”	3	80K	2
90138	70 Ton	40’ x 11”	3	80K	2
90150	70 Ton	40’ x 12”	3	80K	2
90127	70 Ton	47’ x 10”	3	80K	2
90139	70 Ton	47’ x 11”	3	80K	2
90151	70 Ton	47’ x 12”	3	80K	2
90128	100 Ton	60’ x 10”	4	80K	3
90140	100 Ton	60’ x 11”	4	80K	3
90152	100 Ton	60’ x 12”	4	80K	3
90129	100 Ton	70’ x 10”	4	80K	3
90141	100 Ton	70’ x 11”	4	80K	3
90153	100 Ton	70’ x 12”	4	80K	3
90130	100 Ton	80’ x 10”	5	80K	4
90142	100 Ton	80’ x 11”	5	80K	4
90154	100 Ton	80’ x 12”	5	80K	4
90131	100 Ton	90’ x 10”	5	80K	4
90143	100 Ton	90’ x 11”	5	80K	4
90155	100 Ton	90’ x 12”	5	80K	4
90132	100 Ton	100’ x 10”	6	80K	5
90144	100 Ton	100’ x 11”	6	80K	5
90156	100 Ton	100’ x 12”	6	80K	5

Rodan RC Steel Deck Heavy Duty 80K DTAC

Product Number	Capacity Lbs	Platform Size	Number Sections	DTA Lbs	Modules
91769	40 Ton	10’ x 10”	2	80K	1
91793	40 Ton	10’ x 11”	2	80K	1
91817	40 Ton	10’ x 12”	2	80K	1
91770	40 Ton	15’ x 10”	2	80K	1
91794	40 Ton	15’ x 11”	2	80K	1
91818	40 Ton	15’ x 12”	2	80K	1
91771	40 Ton	20’ x 10”	2	80K	1
91795	40 Ton	20’ x 11”	2	80K	1
91819	40 Ton	20’ x 12”	2	80K	1
91772	40 Ton	23’ x 10”	2	80K	1
91796	40 Ton	23’ x 11”	2	80K	1
91820	40 Ton	23’ x 12”	2	80K	1
91773	70 Ton	30’4” x 10”	3	80K	2
91797	70 Ton	30’4” x 11”	3	80K	2
91821	70 Ton	30’4” x 12”	3	80K	2
91774	70 Ton	40’4” x 10”	3	80K	2
91798	70 Ton	40’4” x 11”	3	80K	2
91822	70 Ton	40’4” x 12”	3	80K	2
91775	70 Ton	47’ x 10”	3	80K	2
91799	70 Ton	47’ x 11”	3	80K	2
91823	70 Ton	47’ x 12”	3	80K	2
91776	100 Ton	60’ x 10”	4	80K	3
91800	100 Ton	60’ x 11”	4	80K	3
91824	100 Ton	60’ x 12”	4	80K	3
91777	100 Ton	70’ x 10”	4	80K	3
91801	100 Ton	70’ x 11”	4	80K	3
91825	100 Ton	70’ x 12”	4	80K	3
91778	100 Ton	80’ x 10”	5	80K	4
91802	100 Ton	80’ x 11”	5	80K	4
91826	100 Ton	80’ x 12”	5	80K	4
91779	100 Ton	90’ x 10”	5	80K	4
91803	100 Ton	90’ x 11”	5	80K	4
91827	100 Ton	90’ x 12”	5	80K	4
91780	100 Ton	100’ x 10”	6	80K	5
91804	100 Ton	100’ x 11”	6	80K	5
91828	100 Ton	100’ x 12”	6	80K	5

Rodan RC Megabar Heavy Duty 60K DTAC

Product Number	Capacity Lbs	Platform Size	Number Sections	DTA Lbs	Modules
90181	30 Ton	10’ x 10”	2	60K	1
90193	30 Ton	10’ x 11”	2	60K	1
90182	30 Ton	15’ x 10”	2	60K	1
90194	30 Ton	15’ x 11”	2	60K	1
90183	30 Ton	20’ x 10”	2	60K	1
90195	30 Ton	20’ x 11”	2	60K	1
90184	30 Ton	23’ x 10”	2	60K	1
90196	30 Ton	23’ x 11”	2	60K	1
90185	60 Ton	30’ x 10”	3	60K	2
90197	60 Ton	30’ x 11”	3	60K	2
90186	60 Ton	40’ x 10”	3	60K	2
90198	60 Ton	40’ x 11”	3	60K	2
90187	60 Ton	47’ x 10”	3	60K	2
90199	60 Ton	47’ x 11”	3	60K	2
90188	100 Ton	60’ x 10”	4	60K	3
90200	100 Ton	60’ x 11”	4	60K	3
90189	100 Ton	70’ x 10”	4	60K	3
90201	100 Ton	70’ x 11”	4	60K	3
90190	100 Ton	80’ x 10”	5	60K	4
90202	100 Ton	80’ x 11”	5	60K	4
90191	100 Ton	90’ x 10”	5	60K	4
90203	100 Ton	90’ x 11”	5	60K	4
90192	100 Ton	100’ x 10”	6	60K	5
90204	100 Ton	100’ x 11”	6	60K	5

Rodan RC Megabar Heavy Duty 80K DTAC

Product Number	Capacity Lbs	Platform Size	Number Sections	DTA Lbs	Modules
91685	40 Ton	10’ x 10”	2	80K	1
91697	40 Ton	10’ x 11”	2	80K	1
91709	40 Ton	10’ x 12”	2	80K	1
91686	40 Ton	15’ x 10”	2	80K	1
91698	40 Ton	15’ x 11”	2	80K	1
91710	40 Ton	15’ x 12”	2	80K	1
91687	40 Ton	20’ x 10”	2	80K	1
91699	40 Ton	20’ x 11”	2	80K	1
91711	40 Ton	20’ x 12”	2	80K	1
91688	40 Ton	23’ x 10”	2	80K	1
91700	40 Ton	23’ x 11”	2	80K	1
91712	40 Ton	23’ x 12”	2	80K	1
91689	70 Ton	30’4” x 10”	3	80K	2
91701	70 Ton	30’4” x 11”	3	80K	2
91713	70 Ton	30’4” x 12”	3	80K	2
91690	70 Ton	40’4” x 10”	3	80K	2
91702	70 Ton	40’4” x 11”	3	80K	2
91714	70 Ton	40’4” x 12”	3	80K	2
91691	70 Ton	47’ x 10”	3	80K	2
91703	70 Ton	47’ x 11”	3	80K	2
91715	70 Ton	47’ x 12”	3	80K	2
91692	100 Ton	60’ x 10”	4	80K	3
91704	100 Ton	60’ x 11”	4	80K	3
91716	100 Ton	60’ x 12”	4	80K	3
91693	100 Ton	70’ x 10”	4	80K	3
91705	100 Ton	70’ x 11”	4	80K	3
91717	100 Ton	70’ x 12”	4	80K	3
91694	100 Ton	80’ x 10”	5	80K	4
91706	100 Ton	80’ x 11”	5	80K	4
91718	100 Ton	80’ x 12”	5	80K	4
91695	100 Ton	90’ x 10”	5	80K	4
91707	100 Ton	90’ x 11”	5	80K	4
91719	100 Ton	90’ x 12”	5	80K	4
91696	100 Ton	100’ x 10”	6	80K	5
91708	100 Ton	100’ x 11”	6	80K	5
91720	100 Ton	100’ x 12”	6	80K	5

Section 3: Installation

Installation consists of the following:

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

Note: Original style Rodans and the 'EZ-Under-Mount' style differ in installation procedures. Additional installation instructions are provided for the Field-Pour deck in Section 4 of this manual.

A. Preparations for Installations, all Models:

Tools, Equipment, and Materials Required:

1. Certified Prints

2. A mobile crane of sufficient capacity to safely lift and place the weighbridge modules.

Approximate maximum weights:

- Steel modules - 4 tons
- MegaBar™ modules - 6.5 tons
- Field pour Modules - 2.5 tons
  w/concrete - 25K - 30K lbs +/-5%

3. Four (4) equal length (20 ft) lifting chains or cables with hooks to safely attach to the modules near each corner

NOTE: These MUST be requested in advance from the Crane Service Company!

4. Machinists levels (starrett # 134 & 132-6)

5. Hand tools

6. Hammer Drill with 5/8" bit, 16" long

7. Hydraulic jacks-Use hydraulic jacks that have sufficient capacity + a safety factor for the model scale you are installing.

• Steel modules	10 ton hydraulic jacks (2)
• MegaBar™ modules	15 ton hydraulic jacks (2)
• Field pour Modules	30 ton hydraulic jacks (2)
• 93296	30 ton jacks
• 93297	Hand pump
• 93298	Hose, 6’

8. 100' steel tape measure

9. Stringline or chalkline (both)

10. Prybars

11. Quality grease and anti-seize

12. Load cell locating tools, one for each load cell, available from CPD

Part No. 71717 for 5 ½"
Part No. 76623 for 7"

13. 4" x 4" x 12' timbers (supplied) for field pour models

B. Foundation:

Before installing any part of the scale, the foundation must be checked for accuracy using Foundation Inspection, Field Check List, FF-2267 /101732 (see Appendix I).

1. 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 (thinly, enough to fill in small imperfections) under the base plates. A maximum of +/- 1/8" adjustment is allowed.

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

- **Original Rodan types:** Insert two ½" roll pins into each base plate for anti-rotation. Position the plates with pins toward the OUTSIDE. This will leave the load cell cable and the anti-rotation pin exiting the cell to the INSIDE. It is NOT necessary to install base plate anchors at this time.

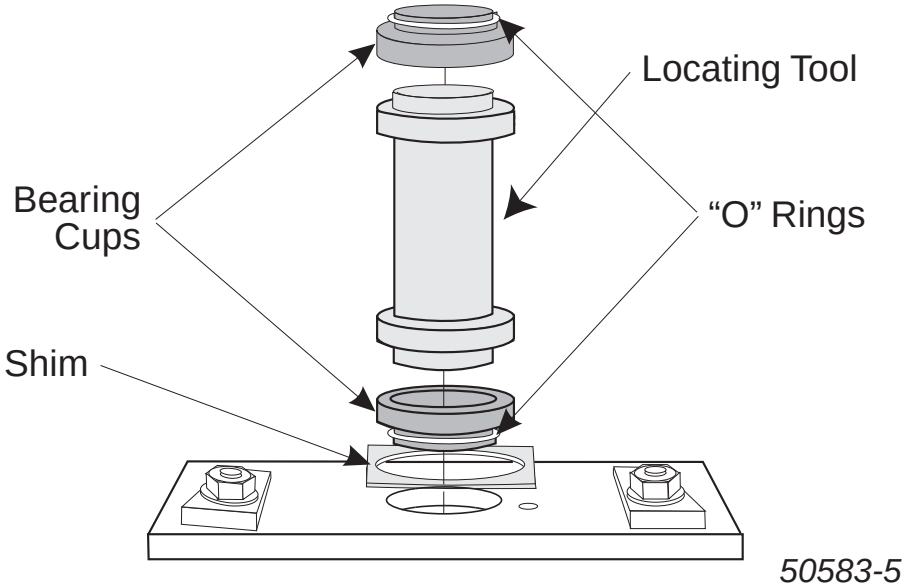
- **E-Z Under Mounts:** Insert two ½" roll pins into each lower cup for anti-rotation.

WARNING: The base plate's center anchor bolt (5/8" x 6") MUST be installed in each plate at this time.

3. For 5½" and 7" cell cups, grease and install the inner "O" ring in each cup if they are not already installed. On all cups, grease the large outer "O" rings, then install one in the groove on the outside of each cup. Put a 3/16" shim on the lower cups, grease the outsides, then insert them into the base plates. Lower cups for 5½" or 7" load cells have a pin which must be aligned between the two roll pins in the base plate.

4. Place the upper cup with greased "O" ring on the edge of the the upper foundation next to each base plate.

5. Place the proper sized load cell locating tool next to each base plate.



50583-5

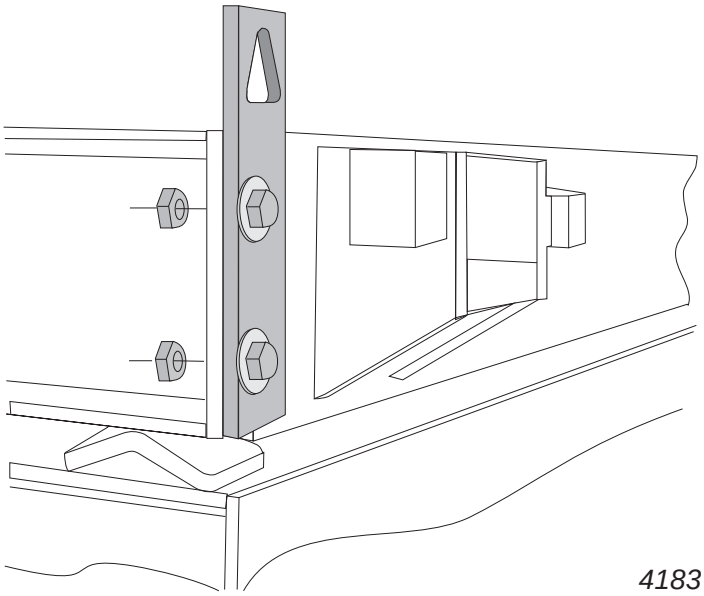
Note: If this is a field pour installation, see Section 4 of this manual.

C. Setting The Modules:

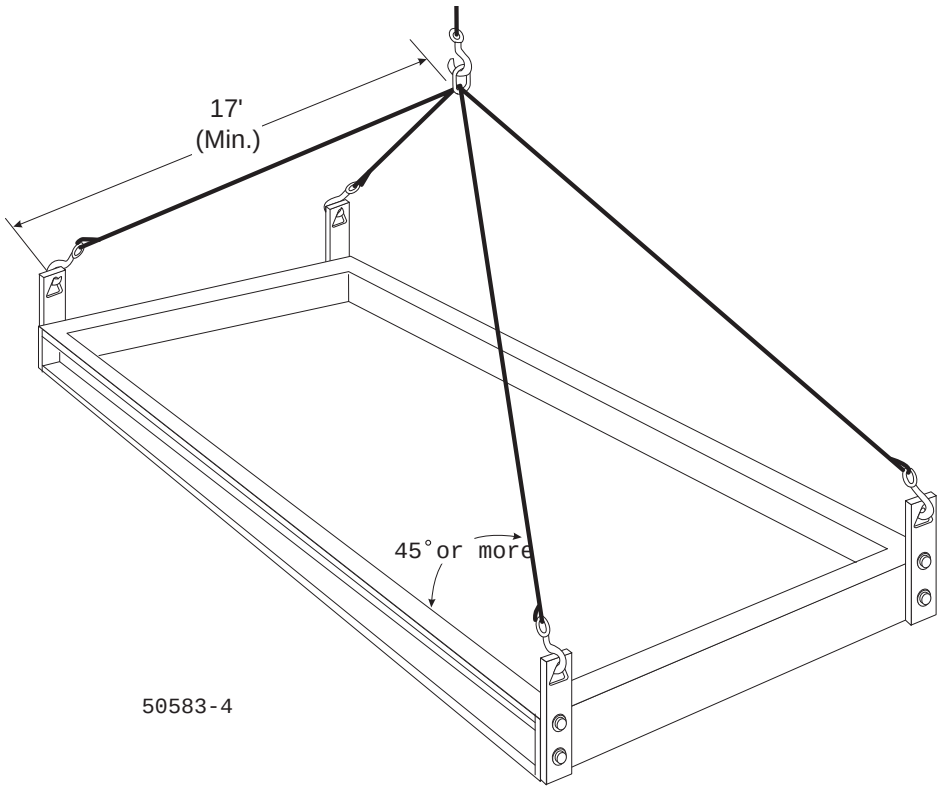
1. Preparing The Modules For Lifting

- **Original Rodan types:**

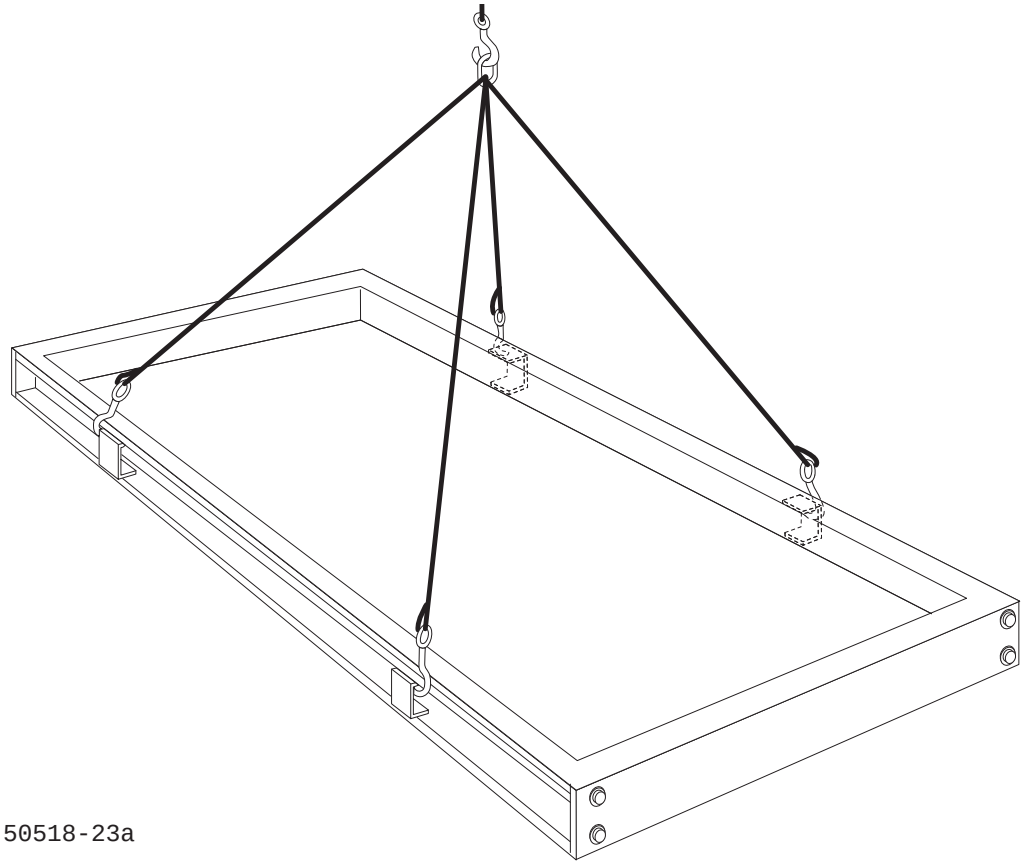
  The original style modules must have lifting brackets installed at each corner before they can be lifted. Use only the high-strength bolts provided or parts from the factory. Tighten the bolts as tight as possible.



4183



- **E-Z Under Mounts:** The newer modules are complete with channel pieces welded to the sides for attaching lifting hooks. NO bolts are needed.



2. Setting The Center Module:

The center module is always set first. The center module will have 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.

- **Original Rodan types:** These scales do NOT have a left-right orientation and have 'unmarked' ends. The center module may be installed facing either direction as long as it is in the center. The other modules will set upon the center module from either end.

- **E-Z Under Mounts:** These scales HAVE a definite orientation because the cable conduit is welded to 1 side only. These modules have 'unmarked' ends as well. The conduit side of the center module should face the 'home-run' conduit; the conduit side of the other modules must face the same way.

Both Types:

a. Place blocks that will set the modules at a height slightly less than the finished height as safety blocks, or for setting modules on.

b. Lift the center module to a location above the four center load cell base plates.

OPTION 1: You may set the module directly on the locating tools and the blocks will act as safety stands.

- Install a Load Cell Bearing Cup with "O" rings into the upper receiver of each corner, grease will help hold the cup in place.

- Insert the upper end of the locating tool into the upper cup on the module.

- Lower the module while holding the locating tool upright and guiding the bottom of the tool into the lower cup.

- When the center module is set on all four locating tools, keep tension on the cables until the module is centered and straight.

- Use hydraulic jacks to lift the unit slightly and shift the base plates to get the locating tools PLUMB and the top and bottom flanges FLUSH with the sides of the cup.

OPTION 2: Set the modules on the blocks first, then onto 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. Shift the base plates to get the tools PLUMB and the top and bottom flanges FLUSH with the sides of the cup.

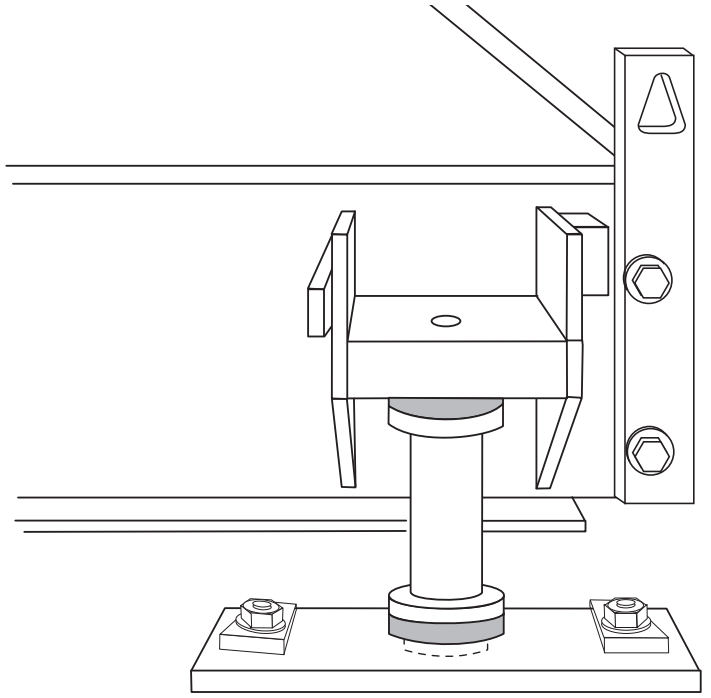
c. Measure from each side of each end of the module to the end walls, to be certain the module is plumb and square before removing tension.

d. Once the tension on the lift cables is released, remove the lift brackets and/or hooks.

3. Setting End Modules, Both Types:

a. Interlocking Pin

- **Original Rodan types:** Drive an interlocking pin into each load cell bracket of the center module.

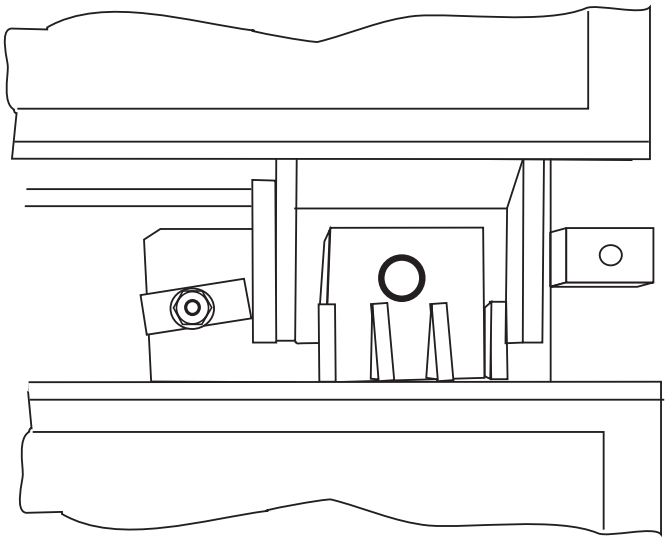


50518-4

- **E-Z Under Mounts:** No action required.

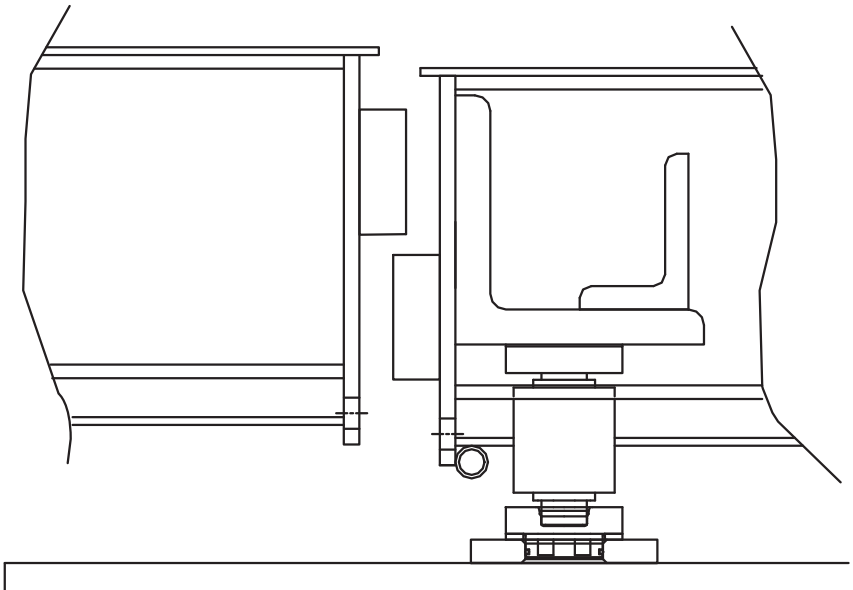
b. Module Placement

- **Original Rodan types:** Guide the modules into place with the supporting blocks on the end of the module coming to rest on the center module load cell bracket interlocking pins. Lower the other end of the module onto the load cell locating tools or blocks.



4018

- **E-Z Under Mounts:** 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. Lower the other end of the module onto the load cell locating tools or blocks.



50518-24

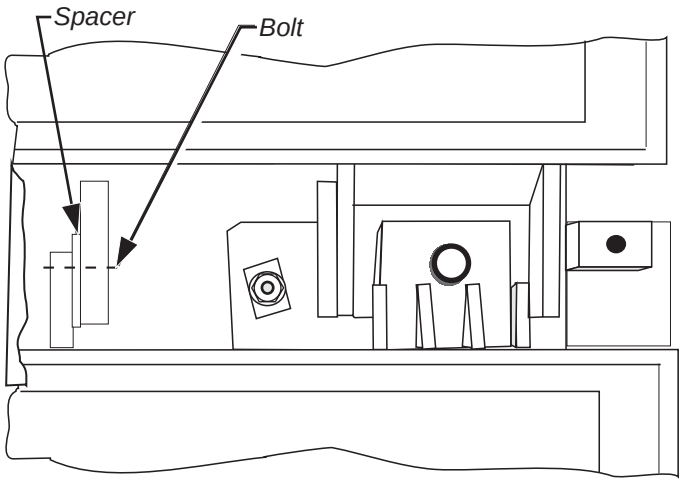
4. Before releasing tension on the cables, check the alignment of the end modules to the center module and to the end wall.

- **Original Rodan types**: Ensure end modules are aligned with the center module and the foundation.

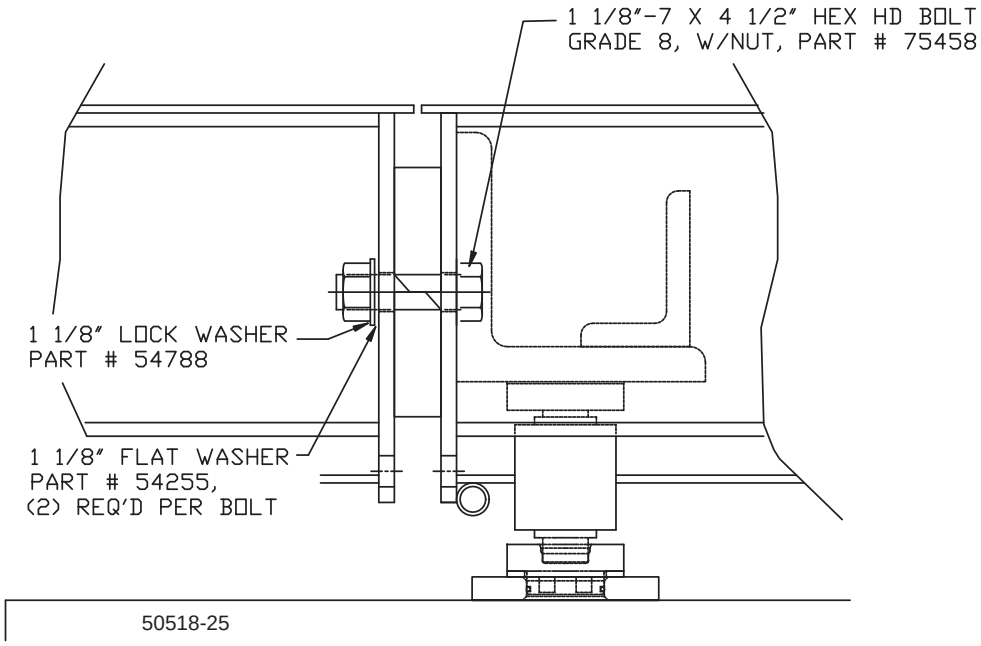
- **E-Z Under Mounts:** Use the provided shims to set height and fill any gaps on the supporting blocks to get the modules aligned.

5. Connecting the Modules:

- **Original Rodan types:** Bolt the modules' channels together using the ½" x 4" x 6" spacers and 1" x 3" bolts. Insert the ½" x 4" x 6" spacer plates between the channels. The bolts go through the back-to-back channels and the spacer. Snug the bolts, but do not tighten yet.



- **E-Z Under Mounts:** Bolt the modules together using the 1⅛" x 4½" bolt, lock washer, flat washers and nut provided. Remember to shim the supporting blocks if necessary to align modules.

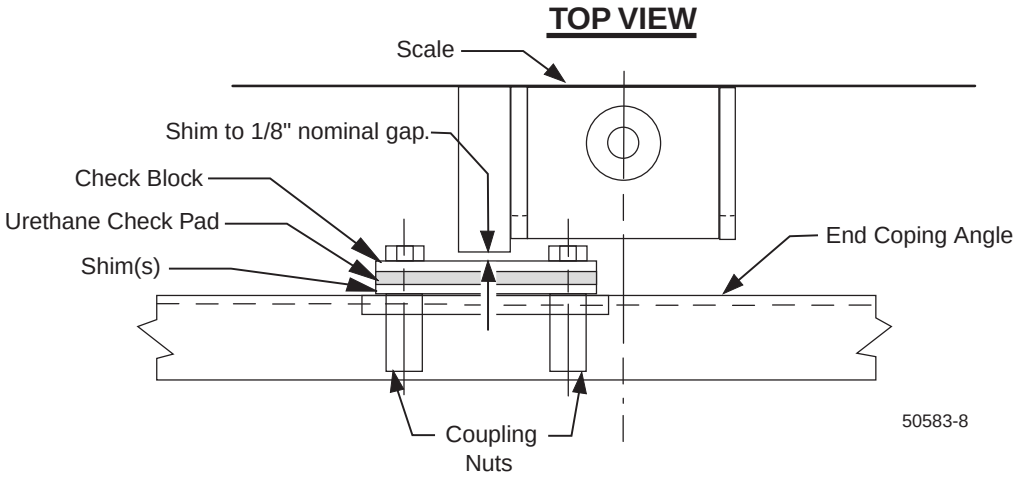


Warning: Module-to-module bolts MUST be installed correctly and torqued properly after all lifting, etc. is completed. Do NOT substitute or omit bolts.

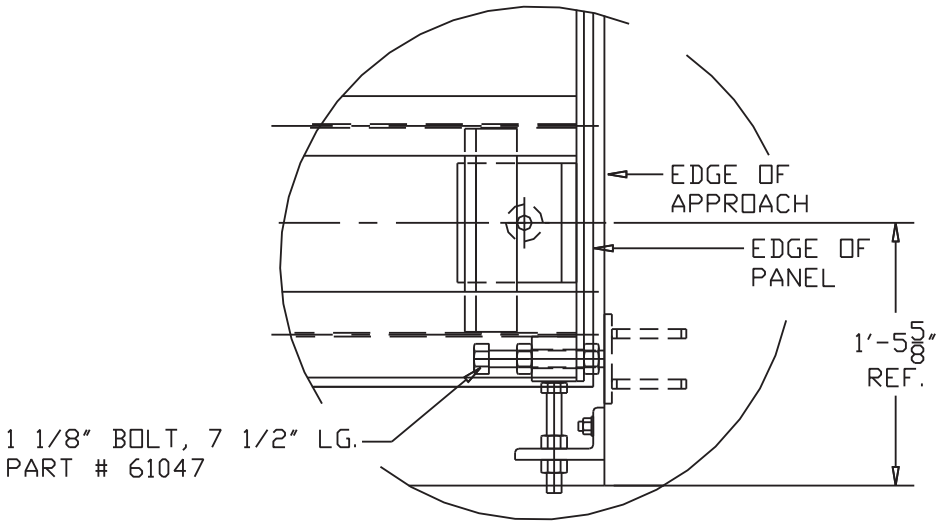
6. Checking Adjustment

a. Adjust End Checking

- **Original Rodan Type:** Use the end checking shims provided to adjust end checking so that they touch and prevent movement.



- ***E-Z Under Mounts:*** Adjust the End Checking Bolt so that they touch and prevent movement.



50581-26

b. Install the side checking brackets:

- **Original Rodan types:** Bolt the brackets onto the end copings per the Certified drawings. Set the bolts so that they touch the channels they bump against.

- **E-Z Under Mounts:** Bolt the brackets to the end checking plates embedded in the end walls per Certified prints. Set the bolts so that they touch the channels they bump against.

7. Base Plate Completion:

- **Original Rodan types:** Check that all locating tools are properly aligned and flush with the receiver cups. Drill the holes for the base plate anchors using a hammer-drill and the 5/8" drill bit. Tap the anchors into clean holes and tighten the nuts securely.

- **E-Z Under Mounts:** Check that all locating tools are properly aligned and flush with the receiver cups. Drill the holes for the outside base plate anchors using a hammer-drill and the 5/8" drill bit. Tap the anchors into clean holes and tighten the nuts securely.

8. Installing Load Cells:

Note: Field-Pour scales are poured, formed and cured with locating tools in place. Do NOT install load cells until cure strength is reached (typically 28-30 days; use a core sample to confirm).

a. Unpack the load cells and mark each calibration certificate with the cell location/position.

b. Starting at one end of the assembled platform, place hydraulic jacks at the corners so the section can be lifted off the locating tool (2 hydraulic jacks may be required).

c. 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.

Caution: Use eye protection! Grease can 'shoot' out of the cup at high velocity!

d. For 6” or 7½” Load Cells, insert the load cell's upper end into the upper cup, and align so the anti-rotation pin in the cell goes between the two roll pins in the baseplate. The anti-rotation pin should be located on the cable entry side of the load cell.

For 5½” or 7” load cells, the bottom of the cell has two flatsides which must be aligned with the flats in the lower cup. Carefully lower the scale (hydraulic jacks) while seating the bottom of the cell into the lower cup.

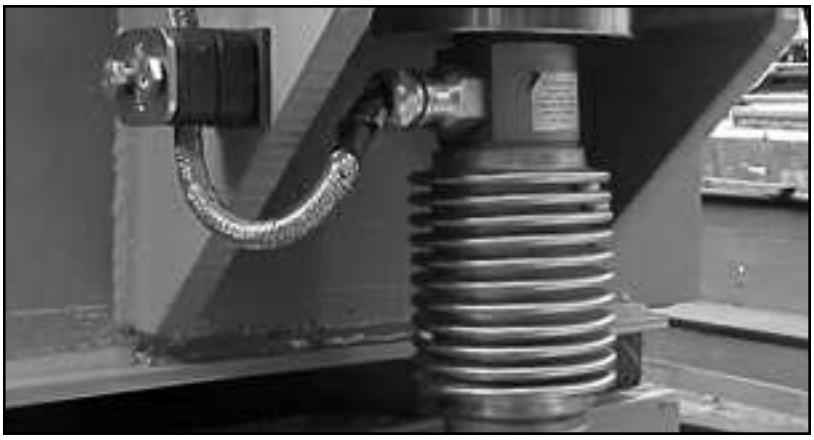
Check the scale's level and height, particularly at the approaches. Use the load cell shims provided to adjust load cell cups for correct height and to ensure that all cells share the proper amount of load. Center section cells will have up to twice the deadload of end section cells.

e. Once satisfied with height and level, tighten the module-to-module bolts.

- **Original Rodan types:** The bolts must be torqued to 690 ft lbs.
- **E-Z Under Mounts:** The bolts must be torqued to 500 ft lbs.

f. Load cell cables:

- **Original Rodan types:** Route the load cell cables through the holes in the channels to the SSC/PPS mounting bar location in the center. Install the strain relief 'clamps' for load cell cables on the strain relief base that is welded onto the scale.



- **E-Z Under Mounts:** Route the 'far-side' load cell cables to the conduits that go under the scale. Install the strain relief 'clamps' for load cell cables on the strain relief base that is welded onto the scale, then run the cable end through the conduits to the PPS/SSC mounting bar locations on the side.

9. Final Checking Adjustment:

a. Adjust End Checking

- **Original Rodan types:** Remove shims on end checking to allow 1/16" to 1/8" clearance

- **E-Z Under Mount:**Adjust the End Checking Bolts to allow 1/16" to 1/8" clearance

b. Adjust side checking bolts to allow 1/16" clearance from channel

Section 4: Field Pour Installation

The Field Pour modules' installation is much the same as the other models, with some minor variations. The basic procedure is to install the foundation for the scale, install the base plates, position and level the shoring, install the platform modules with locator tools in place, pour the deck, cure the concrete, then install the load cells.

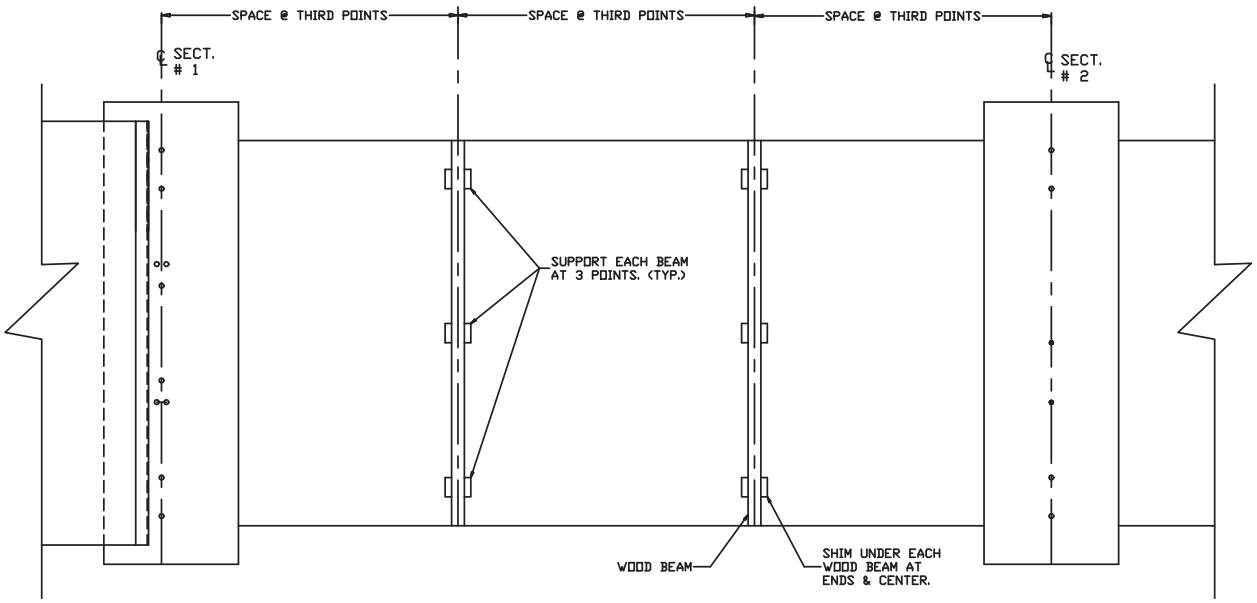
A. Concrete Specifications:

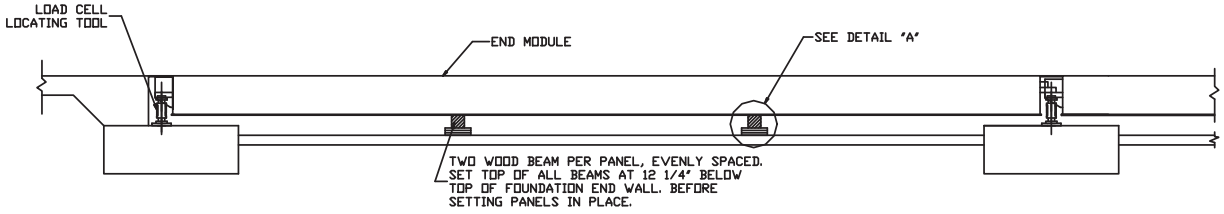
Use the Certified Prints for all concrete specifications.

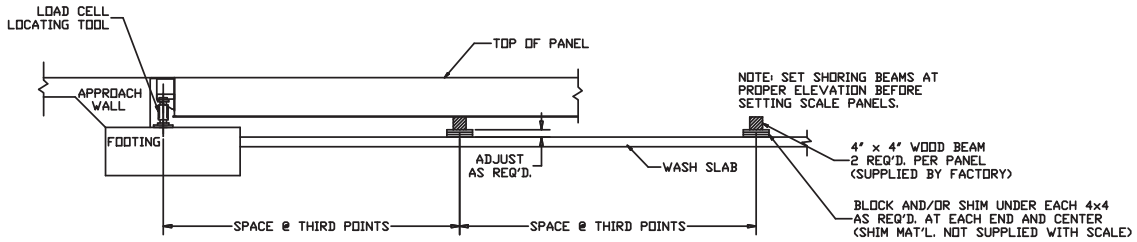
B. Shoring:

The recommended shoring is made up of the provided 4" x 4" timbers 12 feet long. The "crown" of the shoring timbers should be up. The actual dimensions of the timbers will depend on the distance from the foundation floor to the bottom of the modules. Shims should be placed under each end and center of the shoring beams to achieve proper elevation. The shoring timbers should be located equally spaced between the load cells.

See drawing on following page.


SPACE @ THIRD POINTS
SPACE @ THIRD POINTS
SPACE @ THIRD POINTS
℄ SECT. # 1
℄ SECT. # 2
SUPPORT EACH BEAM AT 3 POINTS. (TYP.)
WOOD BEAM
SHIM UNDER EACH WOOD BEAM AT ENDS & CENTER.


LOAD CELL LOCATING TOOL
END MODULE
SEE DETAIL "A"
TWO WOOD BEAM PER PANEL, EVENLY SPACED. SET TOP OF ALL BEAMS AT 12 1/4" BELOW TOP OF FOUNDATION END WALL. BEFORE SETTING PANELS IN PLACE.


LOAD CELL LOCATING TOOL
TOP OF PANEL
APPROACH WALL
FOOTING
ADJUST AS REQ'D.
WASH SLAB
NOTE: SET SHORING BEAMS AT PROPER ELEVATION BEFORE SETTING SCALE PANELS.
4" x 4" WOOD BEAM 2 REQ'D. PER PANEL (SUPPLIED BY FACTORY)
BLOCK AND/OR SHIM UNDER EACH 4x4 AS REQ'D. AT EACH END AND CENTER (SHIM MAT'L. NOT SUPPLIED WITH SCALE)
SPACE @ THIRD POINTS
SPACE @ THIRD POINTS

DETAIL "A"

C. Setting the field pour modules:

1. The shoring timbers should be placed before setting scale modules. Using the approach walls as the reference, place the shoring timbers so they will be at the same elevation as the bottom of the weigh bridge. A tight string between the approach walls could be used.

2. Install the modules as outlined in Section 2C of this manual, starting with the center module.

WARNING: The modules MUST be set on loading tools. Do Not support load cell bracket with lumber, as this will cause warping.

3. Wedge additional shims as required under the end of the shoring timbers to ensure tight contact between the scale frame and the shoring.

Caution: Make sure the edge beams of the scale are straight and not bowed down, or in, before pouring the concrete deck. Do not install the load cells before the concrete deck is cured.

4. Pour the concrete. A spud-type vibrator is required to remove any air bubbles and to work the material into all of the corners.

5. A rough "broom" finish is recommended. Crown concrete 1/4" to allow drainage. Allow the concrete to cure until the required minimum strength as specified on the Certified Prints is achieved.

Caution: At the time the deck is poured, samples must be taken for later testing. At the end of 14 days, test the first sample. A sample must pass the test at 4,000 psi before the scale can be placed into service. A copy of the test report must be retained as part of the customer record in the service center or distributor location, otherwise warranty will be void.

6. After the concrete has cured, remove all of the shoring. The modules will have to be lifted so the shoring can be removed.

Warning : Place hydraulic jacks ONLY at the CORNERS of the modules. Hydraulic jacks must be placed on opposite sides to lift the module in a level position. Lifting mid-span or between load cells will cause cracks in the concrete.

7. Install the load cells in place of the locator tools.

8. Set end wall checking at 1/8" maximum, 1/16" minimum gap. Set side wall checking at 1/16" gap.

Section 5: Electrical Installation

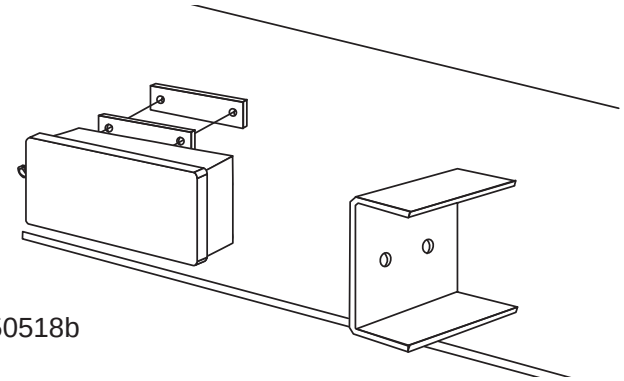
A. Balance Box 21912, Installation for Analog Indicators:

1. Introduction: Balance box 21912 is intended to be installed at the platform, one box per section.

2. Description: Each Stainless Steel balance box has four (4) terminal blocks to connect two (2) load cells and two (2) cables for connection to the analog instrument. Load cells and sections are adjusted by means of adjusting potentiometers.

3. Installation:

a. Boxes: The box has 'tabs' for bolting to adapters either in the space between modules, or on the side of the EZ Under Mount modules. Attach the ground wire lug to one of the mounting bolt studs. Tighten securely to provide a good electrical ground.



50518b

b. Wiring: Cable used in ALL wiring MUST be a minimum of 18 AWG. Use cable 17204 or an equivalent. The balance boxes are interconnected from TB4 to TB3 beginning at the end section where the interface cable conduit enters the scale. An alternate method if the conduit enters the scale in the middle is to use 14478 Instrument SVP. This will allow separate connections to go in each direction toward the ends of the scale. See Bulletin 50513 for the wiring diagrams.

B. Load Cell wiring color codes:

5 ½" RC Load Cell Color Code:

Color	Description
Black	(-) Excitation
Green	(+) Excitation
Red	(-) Signal
White	(+) Signal
Yellow	Shield

6" RC Load Cell Color Code:

Color	Description
Black	(-) Excitation
Red	(+) Excitation
White	(-) Signal
Green	(+) Signal
Yellow	Shield

7" RC Load Cell Color Code:

Color	Description
Black	(-) Excitation
Green	(+) Excitation
Red	(-) Signal
White	(+) Signal
Yellow	Shield

7 ½" RC Load Cell Color Code:

Color	Description
Black	(-) Excitation
Green	(+) Excitation
Red	(-) Signal
White	(+) Signal
Yellow	Shield

C. Wiring:

1.) Cells to Junction Box:

Terminal	TB1	TB2
1	(-) EXC	(-) EXC
2	(+) EXC	(+) EXC
6	Shield	Shield
7	(+) SIG	(+) SIG
8	(-) SIG	(-) SIG

2.) Box to Box:

Terminal	TB4
1	(-) EXC
2	(+) EXC
3	(+) SENSE
4	(-) SENSE
6	SHIELD
7	(+) SIG
8	(-) SIG

3.) Box to Instrument:

Terminal	TB3
1	(-) EXC
2	(+) EXC
3	(+) SENSE
4	(-) SENSE
6	SHIELD
7	(+) SIG
8	(-) SIG

Note: The Full Electronic scales have been designed to provide protection from the effects of moisture. The load cells have been calibrated with the cable attached, therefore the cable should NOT be cut. The cable is connected directly to the balance box or SSC through a sealed bushing which MUST be tightened with pliers 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 gland with pliers until it is very snug. Do not over-tighten where bushing 'turns' . The cover MUST be secured with ALL screws tightened properly (18-20 in/lbs) for protection against moisture.

Note: Balance Boxes must have 1 pit ground rod in the pit for proper connection.

CAUTION: Without adequate ground(s), surge voltage protection installation is not complete.

4.) Indicator Cable Connection, Balance Box

The two (2) cables from the two (2) center section boxes will enter the 14478 Instrument SVP and terminate there. The cable from the indicator will connect at 14478 Instrument SVP as well. Prepare the cable ends in the standard manner. Use Appendix II for wiring instructions of all pit balance boxes. Connect the indicator interface cable to the instrument in the scale house per the instructions in the appropriate indicator service manual.

5.) Adjusting cells/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.

6.) Cover Plates, Original Style:

The cover plates bridge the gap between modules. The plates are held in place with ¾" x 1 ½" bolts. Use anti-seize or grease on the bolts and bolt holes.

D. Wiring SSCs and PPSs for Intalogix™ systems:

1. Introduction:

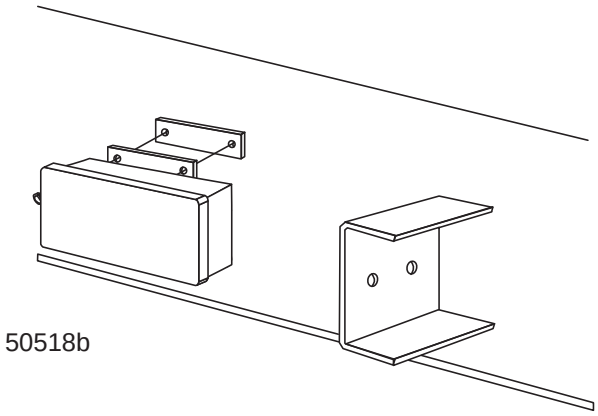
Intalogix™ systems utilize smart sectional controllers (SSCs) and pit power supplies (PPSs) for load cell excitation and signal processing.

2. Description:

There is one (1) SSC per section and one (1) PPS for the entire platform (unless the number and resistance of the cells require a second pit power supply). SSC boxes have four (4) terminals two (2) for load cells and two (2) for "inter connecting" to other SSC boxes or terminating to a pit power supply. All cell/section/scale adjustments are made via the Intalogix™ system instrument.

3. Installation:

a) Boxes: The box has 'tabs' for bolting to adapters either in the space between modules, or on the side of the EZ Under Mount modules.



50518b

b) Wiring: Cable used in all wiring must be a minimum of 18 AWG. Use cable 17204 or 17246. Use appropriate service manual for the Indicator being installed, or Appendix III to connect PPSs and SSCs.

Note: Intalogix™ installations utilize a different numbering system for load cells because of digital addressing of the SSCs. Number cells as follows: With respect to the following starting position, face the platform from where the indicator is located. The cell at the upper left (far side) of the platform is Cell 1. The cell positions along the far side will be odd cell numbers, the near side locations will be even cell numbers.

Note: SSCs have connections for 2 load cells, TB 1 and TB 2. The odd numbered cell should go to TB1 connection, and the even numbered cell to TB2 connection.

E. SSC

Wire cells into each section's SSC per the appropriate manual. Remember, odd numbered cells go to cell 1 location, and even numbered cells go to cell 2 location. Load cell 'drain' wires connect to ground lug on the sectional controller box exterior.

F. Grounding, SSCs

1. Intalogix™ systems must have 2 ground rods in the pit for proper connection. Pit power supplies use a ground separate from the steel and SSC ground rod.

G. Indicator-to-PPS Cable Connection:

Prepare the cable ends in the standard manner. Use the appropriate manual for wiring instructions of all pit SSCs and power supplies. Connect the indicator interface cable to the instrument in the scale house per the instructions in the appropriate indicator service manual.

Section 6: Maintenance

Scale Maintenance:

1. Check for accumulations of solid material under the scale which may affect the accuracy, i.e., ice, frozen mud, debris.

2. Have the customer clean under the platform regularly.

3. Inspect load cells for damage to the ends/cables. Check cups and "O" rings for damage.

4. The load cell bearing cups should be inspected, cleaned and greased periodically.

5. Inspect and adjust all check bolts using anti-seize on the threads.

Mechanical Faults:

1. Check all clearances around the scale for any obstructions or 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 that all connections at the terminal blocks are tight.

A. Parts, Original Style

Part No.	Description	Scale Types
54511	3/4" -10 x 1 ½" Hex Bolt (cover plates)	Orig
54236	3/4" Washer (cover plates)	Orig
54207	High Strength Bolt 1"-8 x 2 1/2" (for lifting brackets)	All
64327	Load Cell Base Plate	Orig
61743	Clamp Bar Washer (base plates)	All
62857	5/8" x 6" Anchor Bolts	All
63310	Interlocking Pin (Original style Rodans)	Orig
55010	Ground Rod Kit	All
62112	Spray Paint, Rodan Gray	All
63959	Spacer ½" x 4" x 6" (module-module)	Orig
54269	High Strength Bolt 1" x 3" w/nut (module-module)	Orig
54249	Washer 1" (module-module)	Orig
73682	Shim, receiver cup, 1/16"	All
64338	Shim, receiver cup, 1/8"	All
64334	Shim, receiver cup, 3/16"	All
63319	Side check bracket w/bumper bolts (1” x 5”)	
64208	Shim, longitudinal 1/4”	
64209	Shim, longitudinal 1/16”	
70045	Box, hardware, checking, consisting of: 8 each 64208 - Shim, end check, ¼” 8 each 64209 - Shim, end check, 1/16” 4 each 64213 - Bumper check block 4 each 70043 - 8 x 3 urethane check block 1 each 70094 - Checking hardware kit	

B. Parts, EZ Mount

Part No.	Description	Scale Types
75458	1 1/8" -7 x 4 ½" w/nut (module-module)	EZ Mount
54788	1 1/8" Lock Washer (module-module)	EZ Mount
54255	1 1/8" Flat Washer (module-module)	EZ Mount
75397	Load Cell Base Plate	EZ Mount
61743	Clamp Bar Washer (base plates)	All
62857	5/8" x 6" Anchor Bolts	All
55010	Ground Rod Kit	All
62112	Spray Paint, Rodan Gray	All
73682	Shim, receiver cup, 1/16"	All
64338	Shim, receiver cup, 1/8"	All
64334	Shim, receiver cup, 3/16"	All

C. Load Cells and Load Cell Hardware, ALL models:

LCF-HR4020-2A Flintec

Part No.	Description	Scale Types (after 12/10/99)
70510	**Load Cell, 5½" RC, 30t,1000 Ohm, 2 mV/V**	**All SN 8131Q+**
72274	"O" Ring, 5½", INSIDE of Cup,*ANSI #222	All
64340	"O" Ring, 5½",OUTSIDE of Cup*ANSI #228	All
70511	Receiver Cup, 5½" LOWER (w/ anti-rotation pin)	All
70512	Receiver Cup, 5½", UPPER	All
64382	Roll Pin, 1/2" x 2½" anti-rotation, baseplate	All
63981	Anti-Rotation Pin, LOWER Receiver Cup 3/8" x 2 ½"	All
71717	Locating Tool 5½"	All

651145-50K-1008H Sensortronics

63951	**Load Cell, 6" RC, 50K, 1000 Ohm, 2mV/V**	**Orig (before 12/10/99)**
63952	Spacer 1½", (for use with 6" load cell)	Orig
98359	"O" Ring, 7½" RC Load Cell, cell ENDS, *ANSI #218	All
64340	"O" Ring, 6" Cup, OUTSIDE, *ANSI #228	All
66980	Receiver Cup, 6" (Upper and Lower)	All
64382	Roll Pin, ½" x 2½" anti-rotation, Baseplates	All
63981	Anti-Rotation Pin, Load Cell, 3/8" x 2 ½"	All
64354	Locating Tool 6"	Orig

72139	**Load Cell, 7" RC, 50t,1000 Ohm, 2 mV/V**	**All**
98947	"O" Ring, 7", INSIDE of Cup,*ANSI #327	All
64340	"O" Ring, 7",OUTSIDE of Cup*ANSI #228	All
75952	Receiver Cup, 7" LOWER (w/ anti-rotation pin)	All
75951	Receiver Cup, 7", UPPER	All
64382	Roll Pin, ½" x 2½" anti-rotation, base plate	All
63981	Anti-Rotation Pin, LOWER Receiver Cup 3/8" x 2 ½"	All
76623	Locating Tool 7"	All

LCF-HR4020-1 Flintec

63215	**Load Cell, 7½" RC, 56K, 350 Ohm, 2 mV/V**	**Orig (before 10/98)**
98359	"O" Ring, 7½" RC Load Cell, cell ENDS, *ANSI #218	All
64340	"O" Ring, 7½" RC Cup, OUTSIDE, *ANSI #228	All
66980	Receiver Cup, 7½" RC Load Cell (Upper and Lower)	All
64382	Roll Pin, ½" x 2½" anti-rotation, Baseplates	All
63981	Anti-Rotation Pin, Load Cell, 3/8" x 2 ½"	All
64350	Locating Tool 7½"	All
73967	LCL Receiver cup	

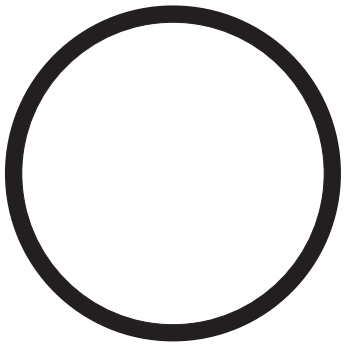
LCF-HR4020-2 Flintec

64166	Load Cell, 7½" RC, 50K, 1000 Ohm, 2 mV/V	All
98359	"O" Ring, 7½" RC Load Cell, cell ENDS, *ANSI #218	All
64340	"O" Ring, 7½" RC Cup, OUTSIDE, *ANSI #228	All
66980	Receiver Cup, 7½" RC Load Cell (Upper and Lower)	All
64382	Roll Pin, ½" x 2½" anti-rotation, Baseplates	All
63981	Anti-Rotation Pin, Load Cell, 3/8" x 2 1/2”	All
64350	Locating Tool 7½"	All
21912	Summing Junction Box - complete	
21842	Summing Junction PC Assembly	

*** ANSI# XXX:** defines a standard "O" ring size. "O" rings may be obtained at many hardware, hydraulic, or plumbing supply houses by using the number.

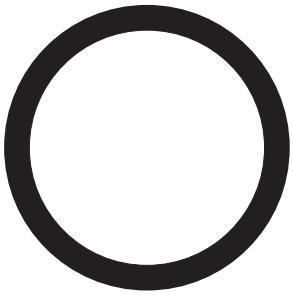
D. "O" Rings:

2 1/4" I.D.
2 1/2" O.D.
1/8" Thickness



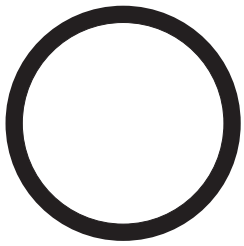
Part No. 64340
ANSI # 228
Outside of all
load cell cups

1 3/4" I.D.
2 1/8" O.D.
3/16" Thickness



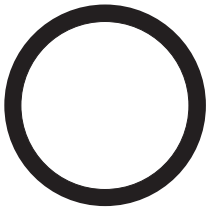
Part No. 98947
ANSI # 327
Inside of cup 7"
load cells

1 1/2"" I.D.
1 3/4" O.D.
1/8" Thickness



Part No. 72274
ANSI # 222
Inside of cup
5 1/2" load cells

1 1/4" I.D.
1 1/2" O.D.
1/8" Thickness



Part No. 98359
ANSI # 218
load cell ends
6" and 7 1/2"

50518- O rings

E. Replacing an RC load cell:

1. Remove power from the instrument.

2. Lift the scale using a proper sized and rated hydraulic jack(s) at the corner(s) closet to the "defective" cell location.

Warning: Lift scales ONLY at the corners. On field pour and MegaBar™ scales, use 2 properly 'rated' hydraulic jacks at opposite sides at the corners, and lift the section in a level fashion.

3. Disassemble the strain relief device, then remove the old cell.

4. Check upper and lower receiving cups and "O" rings for damage. Replace as necessary and reapply grease.

5. Insert the new cell into the upper receiving cup and position the anti-rotation pin.

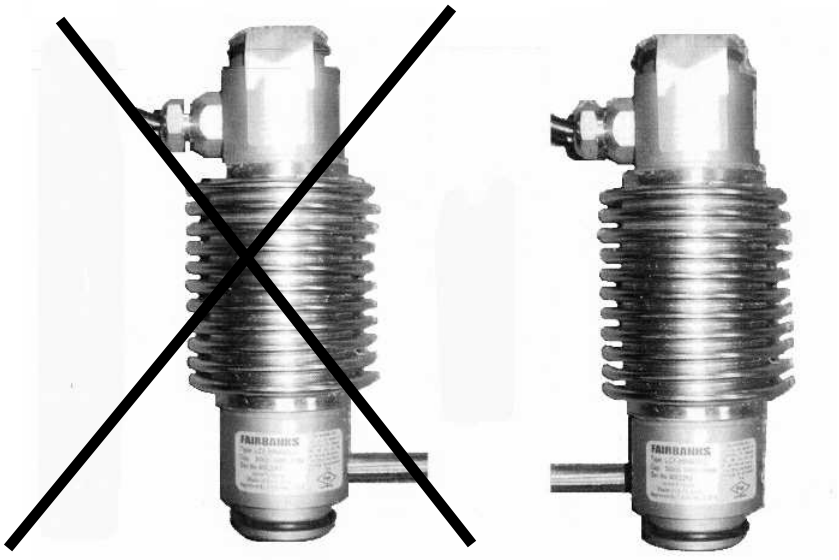
6. Carefully lower the hydraulic jack(s) until the cell is set into the lower cup.

7. Remove the cover of the SSC/Jct 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. Torque the cover screws to 18-20 in/lbs and tighten all gland nuts with a wrench to secure.

8. Test and adjust scale as necessary.

F. General Load Cell Information:

Load Cell Part No.	Description	Comments
70510	5½",	2 mV/V, 66K or 30t,1000 Ohm
63951	6",	2 mV/V, 50K, 1000 Ohm
72139	7",	2 mV/V, 110K or 50t, 1000 Ohm
63215	7½",	2 mV/V, 56K or 25t, 350 Ohm, Used Before 10/98
64166	7½",	2 mV/V @ 56K or 25t, 1000 Ohm



Correct Anti-Rotation Pin Orientation

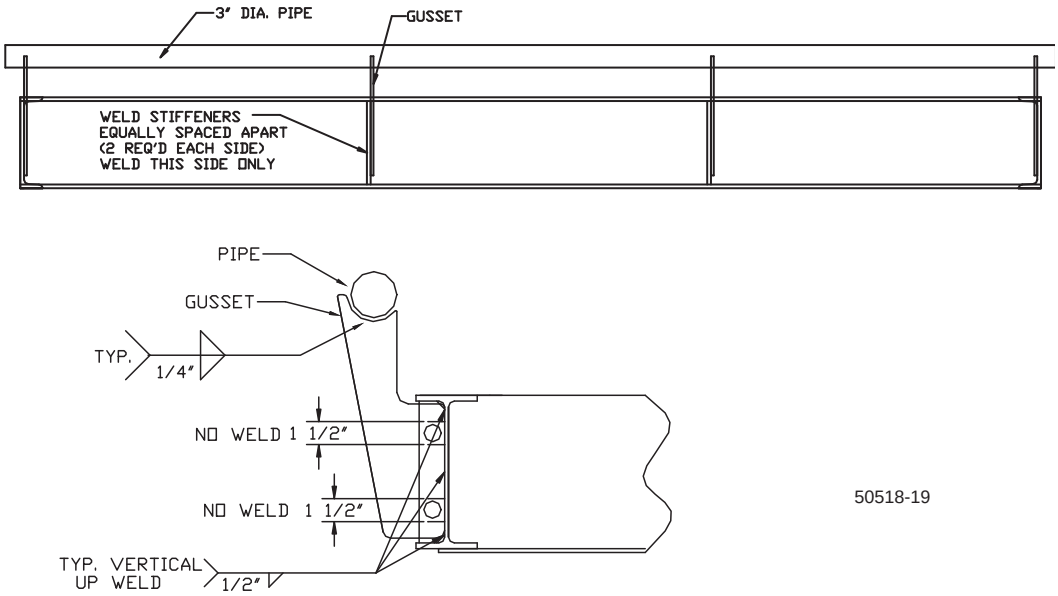
Section 8: Accessories

Rub-Rails: These accessories come in Factory installed and Field installed types.

A. Field Installed Rub Rail Installation:

- Use the print with the accessory for actual measurements.
- Clean (remove primer) the areas to be welded for good penetration.
- Weld stiffeners to the side weldments.
- Bolt the gussets to the stiffeners and end weldments.
- Weld pipe to the gussets.
- Clean and paint (paint provided) all weld areas.

Warning: Fairbanks does NOT recommend using foundation or ground installed guide rails along the sides of a truck scale platform. Damage may occur to the scale if a truck hits the guide rail, transferring damaging forces to the platform and the checking system. Use of this style guide rail will void product warranty.



Appendix I: Foundation Check List

Foundation Inspection

FOUNDATION FIELD CHECK LIST
(Field Form)

A Foundation Inspection **should ALWAYS** be performed prior to scale installation and to **confirm** correct foundation construction. If possible this should be done prior to scale shipment.

Tools required:
- ☐ Certified drawings and site plan
- ☐ 2' to 4' level
- ☐ 100' and 25' steel tapes
- ☐ Hammer and concrete nails
- ☐ Laser or builders level if possible
- ☐ String line (construction string)
- ☐ Straight edge for pit foundations (2 x 4, very straight and 4" wider than pit walls
- ☐ Construction paint (up-side-down type, for marking concrete).

Perform the following Foundation Checks. Refer to Methods and Procedures for complete description of each step. Recommended to copy check list and keep in job file. ALWAYS familiarize yourself with the **CERTIFIED** foundation prints for the job you are working on as model numbers and specifications are subject to change.

☐ 1. **Site Plan and Certified Prints** should be thoroughly reviewed to confirm accurate locations to the scale and all extra items (scoreboards, lights, poles, etc.) that are included in the bid or contract.

☐ 2. **Check for truck and crane access**, overhead wires, fences, green concrete, etc.

☐ 3. **Dimensional length and width check**; check all 4 sides and record on chart (other side).

☐ 4. **Diagonal measurements** check to verify that the foundation is square and record on chart (other side).These measurements should be equal, or within 1/2". Greater error could result in the scale not fitting in the foundation.

☐ 5. **Check ALL pier heights** to make sure they are the proper elevation and record on chart (other side). To high and the scale will not fit correctly, to low could result in excessive shimming..

☐ 6. **In pit foundations check walls to verify they are straight.** Straight walls are very important, but are even more critical for modular scales like the Rodan series.

☐ 7. **Verify conduit locations** and pull strings (if needed).

☐ 8. **Verify ground rod locations.**

☐ 9. **Verify that drains and sump openings** are piped correctly and are clear of debris.

☐10. **Check the end coping** to ensure they are centerline and that the coping is correct for the scale being installed (10',11' or 12' width, etc). Check all coping, side and end, for hollow areas.

☐11. **Verify location of any and all required embeds or pre-installed baseplates** (i.e., Hwy System, RR scales, etc). All of these dimensions will be located on the Certified foundation prints.

☐12. **Layout** - To help in locating pre-installed baseplates, embeds, load-cell centerlines, etc., refer to Methods and Procedures section on Layout. **See other side for foundation & Layout charts.**

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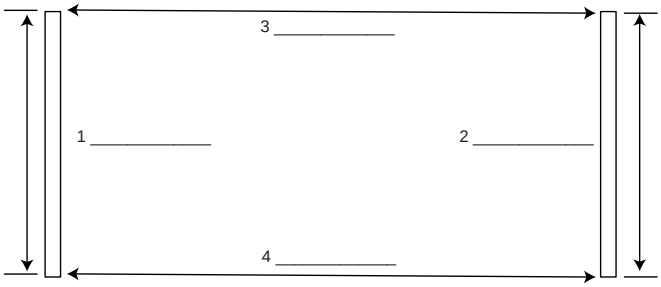
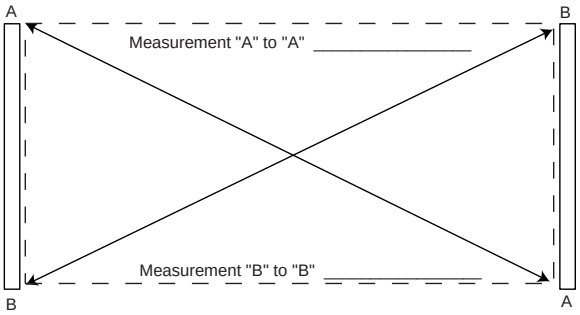
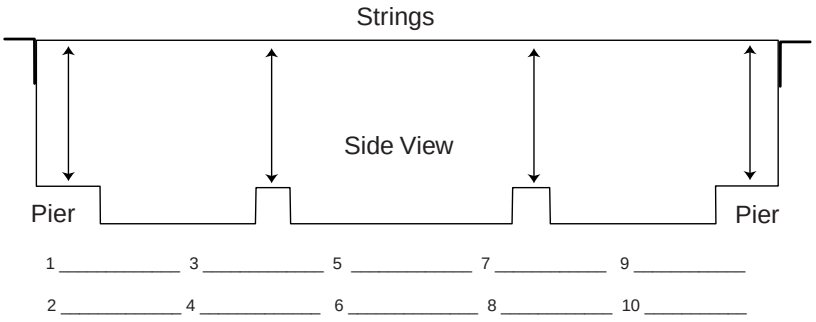


Length & Width Check

Diagonial Measurements Check



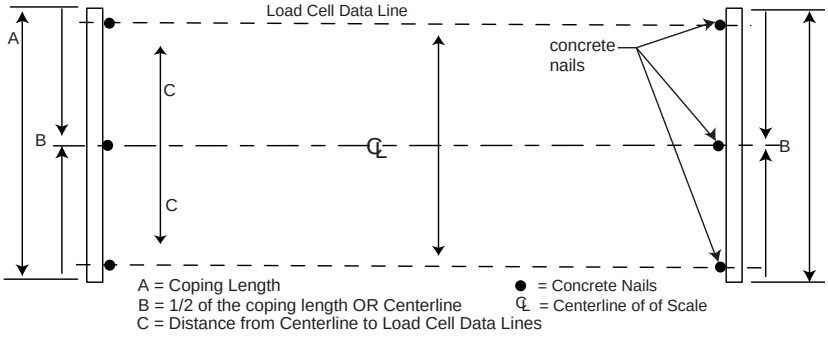


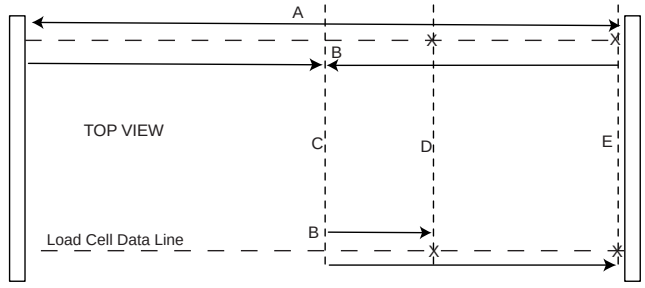
Pier Height Check

1 _____ 3 _____ 5 _____ 7 _____ 9 _____

2 _____ 4 _____ 6 _____ 8 _____ 10 _____

Longitudinal Layout



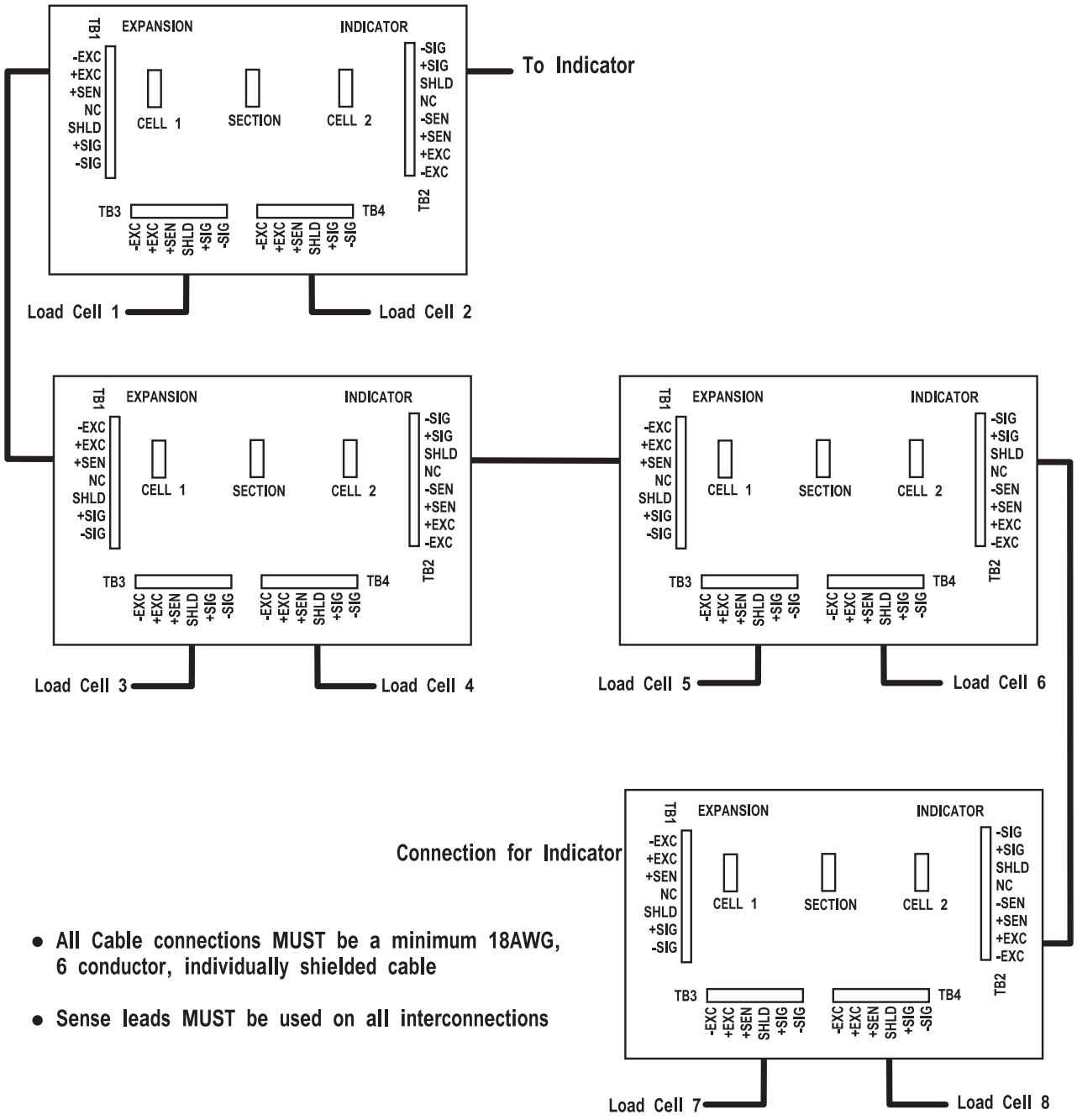


Lateral Layout

FF-2267

Issue #1

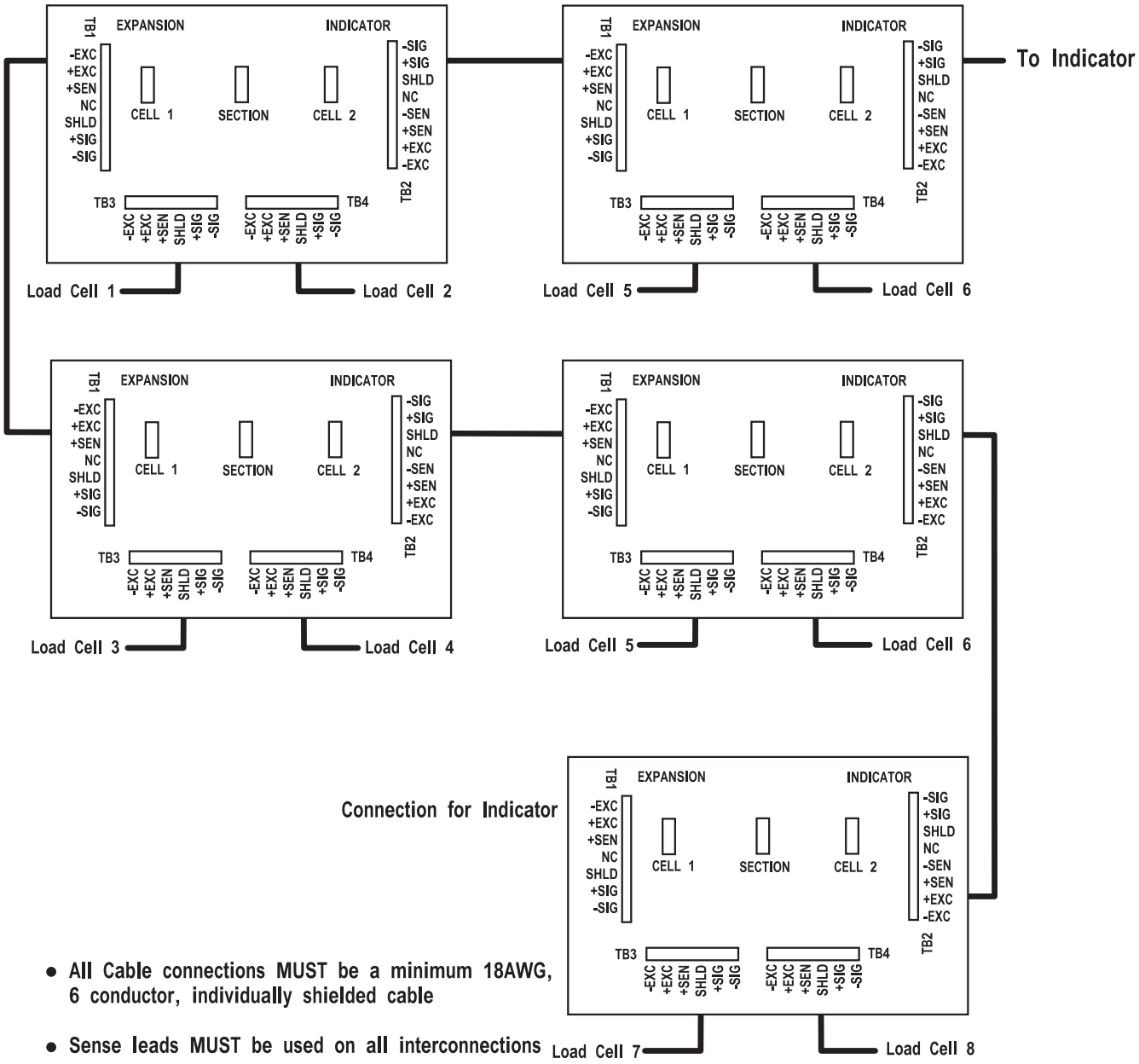
Appendix II: 4 Section Analog Scale



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

4 Section Analog

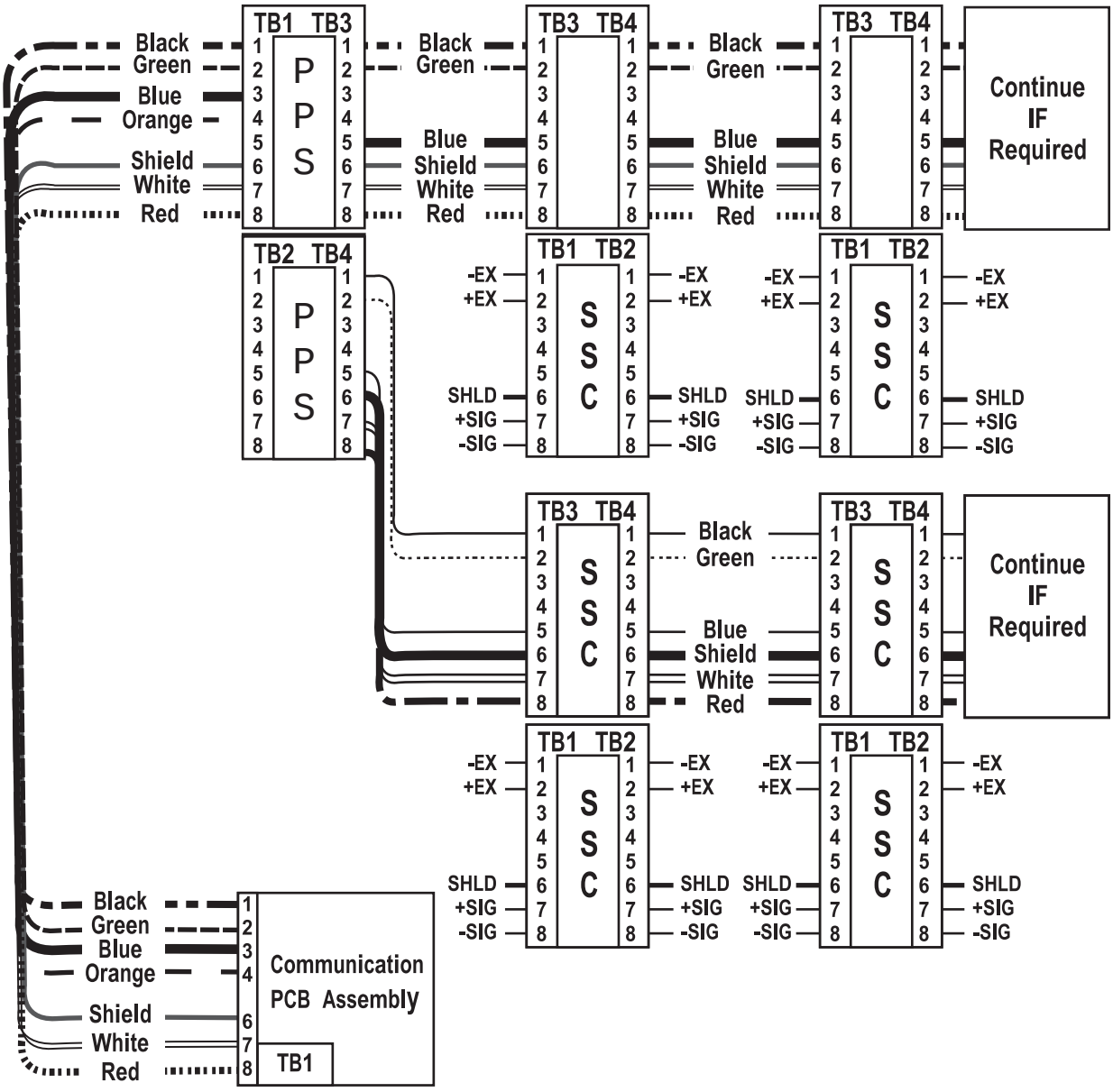
Appendix III: 5 Section Analog Scale



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

5 Section Analog

Appendix IV: 4 Section Intalogix Scale



PPS at Midsection