

# BenchMark<sup>®</sup> Series

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*Single Point Bench Scales*

## Technical Manual



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# 1.0 Introduction

Congratulations on choosing a scale from the *BenchMark* series, the highest-quality single point benchtop scale available. The following types of NTEP-approved *BenchMark* scales are available:

The *BenchMark SL* is a light-capacity scale featuring stainless steel construction in 10" x 10" and 12" x 12" platforms with capacities from 2-100 lb.

A mid-range model with a 12" x 18" platform and a cover and frame that are constructed of stainless steel. This model is available in capacities from 50-100 lb.

The medium to high capacity series is constructed with stainless steel covers and mild steel or optional stainless steel frame construction. They are available in sizes from 12" x 12" up to 24" x 24" in capacities from 30-1000 lb.

A feature of the *BenchMark* series is its ability to be converted into a checkweigher. Add the neck and head from a CW-80 CheckWeigher to a *BenchMark* scale and the features of a checkweigher are available. Contact your Rice Lake Weighing Systems distributor for more information.



Manuals are available for viewing and/or downloading from the Rice Lake Weighing Systems website at [www.ricelake.com/manuals](http://www.ricelake.com/manuals)

Warranty information can be found on the website at [www.ricelake.com/warranties](http://www.ricelake.com/warranties)

## 1.1 Safety

### Safety Signal Definitions:



*Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. Includes hazards that are exposed when guards are removed.*



*Indicates a potentially hazardous situation that, if not avoided, could result in serious injury or death. Includes hazards that are exposed when guards are removed.*



*Indicates a potentially hazardous situation that, if not avoided, could result in minor or moderate injury.*



*Indicates information about procedures that, if not observed, could result in damage to equipment or corruption to and loss of data.*

### General Safety



*Do not operate or work on this equipment unless this manual has been read and all instructions are understood. Failure to follow the instructions or heed the warnings could result in injury or death. Contact any Rice Lake Weighing Systems dealer for replacement manuals.*



*Failure to heed could result in serious injury or death.*

*Do not allow minors (children) or inexperienced persons to operate this unit.*

*Do not operate without all shields and guards in place.*

*Do not jump on the scale.*

*Do not use for purposes other than weight taking.*

*Do not place fingers into slots or possible pinch points.*

*Do not use any load bearing component that is worn beyond 5% of the original dimension.*

*Do not use this product if any of the components are cracked.*

*Do not exceed the rated load limit of the unit.*

*Do not make alterations or modifications to the unit.*

*Do not remove or obscure warning labels.*

*Before opening the unit, ensure the power cord is disconnected from the outlet.*

*Keep hands, feet and loose clothing away from moving parts.*

## 1.2 10" x 10" / 12" x 12" SL Models

All seven models of the 10" x 10" and 12" x 12" SL series have stainless steel covers and frame systems. All models use a single point load cell. The 10, 20, 30, 50, and 100 lb models come standard with a potted single point load cell that offers extra protection against water infiltration but is not designed for washdown use. The 30, 50, and 100 lb models can also be supplied with an RL1140 stainless steel load cell. Extra load cell protection is also available in optional stainless steel clamshells, which enclose the load cell. See [Section 4.2 on page 11](#) for information about clamshell installation. All load cells come with 10' of cable.

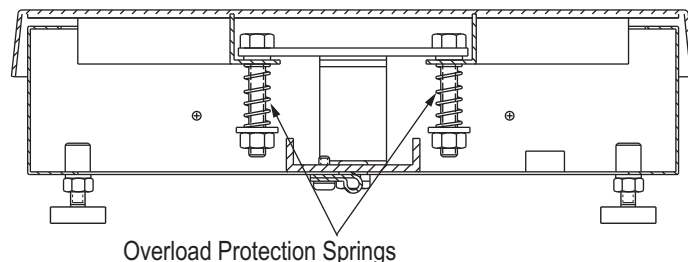


Figure 1-1. Overload Springs

The SL series scales use a sensitive 4-point, spring-plate suspension to minimize shock and overload damage susceptible of light-capacity scales. The system uses a bolt and an overload protection spring at each of four loading points beneath the top cover (see [Figure 1-1](#)). Each spring is set for a specific tension so that it will compress to prevent overload damage. If a potentially damaging load is placed on a corner of the scale, the spring at that corner compresses. When the spring compresses, the load is taken off the load cell. This eliminates the possibility of overloading the load cell. Likewise, if a load more than 150% of total capacity is placed anywhere on the deck, the springs will compress and remove the load from the load cell.

In addition to the overload protection spring, the SL models incorporate a load cell overload protection screw beneath the load cell to help prevent overload damage.

To protect the load cell from being accidentally forced upward and damaged by improperly lifting the scale by the spider, a lift up protection screw is incorporated into the design (see [Figure 1-2](#)).

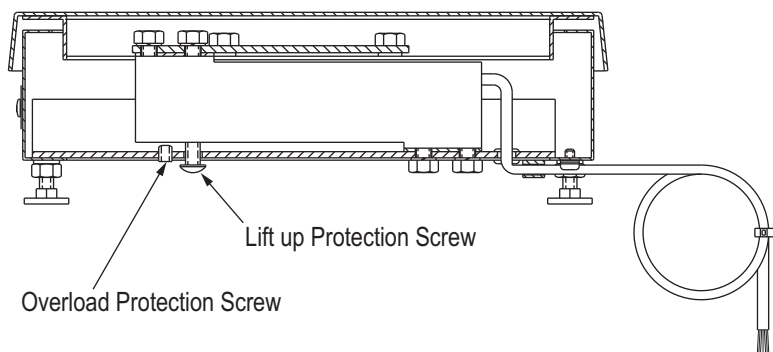


Figure 1-2. Lift up Protection Screw

### 1.3 12", 18" and 24" Models

Larger models in the series use mild steel frames and stainless steel deck covers for light washdown with a damp sponge. All models are available with mild steel or optional stainless steel underbody frame construction. The standard load cell is a single point load cell. Options include a stainless steel RL1140 load cell for 12" x 12" and 12" x 18" models and protective stainless steel clamshells for all models using a single point load cell. All load cells come with 10' of cabling.

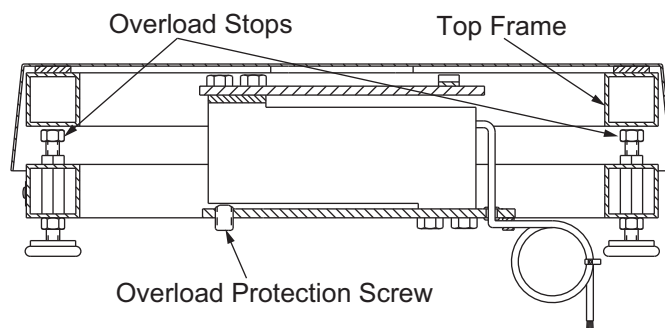


Figure 1-3. 12" x 12" Overload Stops

These medium-capacity bench scales provide overload protection for the load cell by positive stops located beneath each corner of the top frame (see [Figure 1-3](#)). These stops are set at the factory for 100% of scale capacity. Additional overload protection is provided by an overload screw beneath the load cell to help prevent shock damage.

### 1.4 12" x 18" Stainless Steel

The 12" x 18" model has a stainless steel cover and underbody frame to meet USDA requirements and make it ideal for washdown use. The 12" x 18" comes standard with a single point load cell; a stainless steel load cell is optional for both the 50 lb and 100 lb models. Extra load cell protection is available with the optional stainless steel clamshell that encloses the load cell. See [Section 4.2 on page 11](#) for information about clamshell installation. All load cells come with 10 feet of cabling.

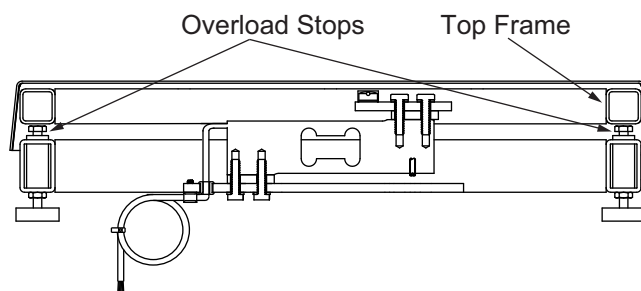


Figure 1-4. 12" x 18" Overload Stops

These medium-capacity bench scales provide overload protection with positive stops located beneath each corner of the top frame. These stops are set at the factory for 100% of scale capacity. Additional overload protection is provided by an overload screw beneath the load cell to help prevent shock damage.

## 1.5 Specifications

### 1.5.1 10" x 10" and 12" x 12" SL Models

Load Cell:	Potted single point (5 lb not potted); Stainless steel load cells available on 30, 50 and 100 lb models
Rated Output:	0.91 mV/V
Maximum Overload:	200%
Overload Protection:	Spring loaded spider
Cable Length:	10' (3 m) – 6 wire shielded
Output Impedance (ohms):	350Ω
Compensated Temperature Range:	-10°C/14°F to +50°C/122°F
Safe Temperature Range:	-30°C/-22°F to +70°C/158°F

#### Dimensions/Capacities:

Size	Capacity	Height
10" x 10" / 254 mm x 254 mm	5 lb / 2.3 kg	3.15" / 80 mm
	10 lb / 4.5 kg	3.15" / 80 mm
	20 lb / 9.1 kg	3.15" / 80 mm
	30 lb / 13.6 kg	3.15" / 80 mm
12" x 12" / 305 mm x 305 mm	30 lb / 15 kg	3.25" / 92 mm
	50 lb / 25 kg	3.25" / 92 mm
	100 lb / 50 kg	3.25" / 92 mm

Table 1-1. SL Model Sizes

### 1.5.2 12" x 18" Stainless Steel Model

Load Cell:	Potted single point; Stainless steel load cells available on 50 lb and 100 lb models
Rated Output:	0.91 mV/V
Maximum Overload:	200%
Overload Protection:	5 point, independently adjusted
Cable Length:	10' (3 m) – 6 wire shielded
Output Impedance:	350Ω
Compensated Temperature Range:	-10° C/14° F to +50° C/122° F
Safe Temperature Range:	-30° C/-22° F to +70° C/158° F

#### Dimensions/Capacities:

Size	Capacity	Height
12" x 18" / 305 mm x 457 mm	50 lb / 25 kg	4.00" / 102 mm
	100 lb / 50 kg	4.00" / 102 mm

Table 1-2. Stainless Steel Model Sizes



### 1.5.3 12", 18" and 24" Models

Load Cell:	Potted single point
Available Sizes:	12"x 12", 12"x1 8", 18"x1 8", 18"x 24", 24"x 24":
Overload Protection:	5 point, independently adjusted
Cable Length:	10 ft. (3 m) – 6 wire shielded
Rated Output:	0.91 mV/V
Output Impedance:	350 $\Omega$
Maximum Overload:	200%
Compensated Temperature Range:	-10°C/14°F to +50°C/122°F
Safe Temperature Range:	-30°C/-22°F to +70°C/158°F

#### Dimensions/Capacities:

Size	Capacity	Height
12" x 12" / 305 mm x 305 mm	30 lb / 13.6 kg	3.62" / 92 mm
	50 lb / 25 kg	
	100 lb / 50 kg	
12" x 18" / 305 mm x 457 mm	50 lb / 25 kg	3.62" / 92 mm
	100 lb / 50 kg	
18" x 18" / 457 mm x 457 mm	50 lb / 25 kg	5.25" / 133 mm
	100 lb / 50 kg	
	150 lb / 75 kg	
	200 lb / 100 kg	
	250 lb / 125 kg	
	300 lb / 150 kg	
	500 lb / 250 kg	
	1000 lb / 500 kg	
18" x 24" / 457 mm x 610 mm	50 lb / 25 kg	5.25" / 133 mm
	100 lb / 50 kg	
	150 lb / 75 kg	
	200 lb / 100 kg	
	250 lb / 125 kg	
	300 lb / 150 kg	
	500 lb / 250 kg	
	1000 lb / 500 kg	
24" x 24" / 610 mm x 610 mm	100 lb / 50 kg	5.25" / 133 mm
	150 lb / 75 kg	
	200 lb / 100 kg	
	250 lb / 125 kg	
	300 lb / 150 kg	
	500 lb / 250 kg	
	1000 lb / 500 kg	

Table 1-3. Larger Capacity Model

## 2.0 Installation

### 2.1 Leveling Scale

Remove the scale from the shipping container and place it in the desired location. Lift off the deck cover and locate the bubble level. Adjust the four corner feet until the scale is level and all feet contact the support surface so the scale does not rock. Lock the jam nuts on the feet when the final level is correct.

### 2.2 Connecting the Load Cell Cable

All models come with 10 feet of color-coded load cell cable.

**IMPORTANT** Do not cut this cable. The load cell is temperature-compensated for an exact cable length of 10 feet.

See the indicator manual to determine the proper load cell cable input connectors. Use the following color codes to wire the load cell cable.

6-Wire Color Code	Function
Red	+Signal
White	- Signal
Green	+ Excitation
Black	- Excitation
Blue	+ Sense
Brown	- Sense
Yellow or Bare	Shield

Table 2-1. Load Cell Wiring - 6 Wire

4-Wire Color Code	Function
Red	+ Signal
White	- Signal
Green and Blue*	+ Excitation
Black and Brown*	- Excitation
Yellow or Bare	Shield

\* Connect Sense and Excitation wires together if using 4-wire system without sense leads.

Table 2-2. Load Cell Wiring - 4 Wire

### 2.3 Grounding the Scale Base

Bench scales can build up a static electricity charge during weighing operations. If powerful enough, this charge can travel through the load cell cable to the indicator. To prevent this, all bench scales should be adequately grounded so that static charges and transient electrical surges can drain directly to ground. Recommended practice is to connect the scale base to an AC ground circuit using at least #12 wire. All BenchMark scales have either a grounding screw or a hole for such a grounding screw located on the bottom of the lower frame for this purpose.

## 3.0 Calibration

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It is recommended that the scale be exercised by loading it to near capacity two or three times before calibration to be certain that everything is seated. To calibrate the BenchMark:

1. With no load on scale, place the indicator in its calibration mode and perform a zero calibration.
2. Place test weights on platform equal to 70%–100% of scale's capacity. If several weights are used, distribute them evenly around the platform.
3. Perform a span calibration.
4. Remove the test weights and check the zero reading. If necessary, repeat the calibration process.

See the indicator manual for the specific indicator calibration procedure.

## 4.0 Maintenance/Troubleshooting

Use the following troubleshooting tips for the Benchmark scale if necessary.

Symptom	Probable Cause	Remedy
No display	Power disconnected	Connect power
	Cable cut or disconnected	Repair cable
	Signal leads incorrectly wired at indicator	Connect according to the manual
Display starts at zero	Incorrect load cell cable connections	Connect according to the manual
	Faulty indicator	Service indicator
Erratic Weight display	Vibration near the scale	Remove the source of the vibration, or adjust digital averaging of indicator to minimize erratic display
	Scale not level	Level the scale
	Water damage to the load cell or cable	Replace the load cell
	Faulty indicator	Service the indicator
	Loose load cell screws	Tighten to correct torque
	Faulty load cell	Test and replace if necessary
Consistently low weight	Indicator not properly adjusted to zero	Zero indicator correctly
	Scale deck cover binding	Obtain adequate clearance
	Overload stops set too high	Reset the stops correctly
	Indicator not calibrated for scale	Calibrate the scale
	Faulty load cell	Test and replace if necessary

Table 4-1. Benchmark Troubleshooting Table

### 4.1 Load Cell Replacement

#### 4.1.1 10"x 10" and 12"x 12" SL Models

1. Unplug AC power from indicator and disconnect load cell cable from indicator.
2. Lift off scale top cover.
3. Locate two upper load cell screws. Use 7/16" wrench to unscrew and remove those two load cell screws.

**IMPORTANT** Do not remove four spring-loaded screws that attach load plate to spider assembly.

4. Lift off load plate/spider assembly as a unit.
5. Remove spacer between load plate and load cell and set it aside.

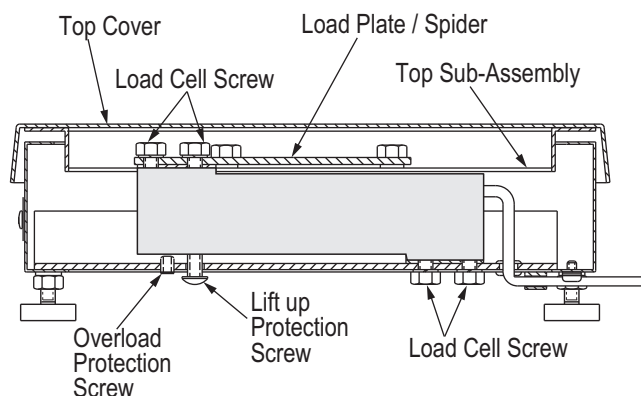


Figure 4-1. Load Cell Mount Diagram

6. Turn scale over and back off overload protection screw one complete turn. Completely unscrew and remove lift up protection screw.
7. Use 7/16" wrench to unscrew and remove two lower load cell screws. The load cell and cable can now be removed from scale. Do not lose shim beneath load cell.

8. Thread cable of replacement load cell through rubber grommet. Position load cell on shim and screw in two lower load cell screws. Torque to 80 in-lb.
9. Replace lift up protection screw by screwing it in until it lightly bottoms, then back it off 1/4 turn.
10. Turn scale right side up. Position spacer on load cell, then place load plate/spider assembly into position. Screw in two upper load cell screws. Torque to 80 in-lb.
11. Using an accurate caliper, check compressed spring length on four overload springs ([Figure 4-2](#)). If necessary, adjust spring length to specifications shown in [Table 4-2](#). Replace top cover and re-level scale if necessary.
12. Connect load cell cable to indicator.
13. Recalibrate scale as described in [Section 3.0 on page 7](#).
14. Adjust overload protection screw on bottom of scale by loading scale to 125% capacity. Place this weight on top cover, centered on platform. Use a hex wrench to screw in overload protection screw until it touches load cell, then back off 1/6 turn. Recheck calibration.

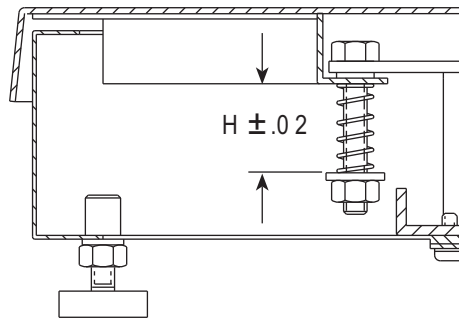


Figure 4-2. Spring Height

Scale Model	Spring Length "H"
10 x 10 - 5 Lb	1.06
10 x 10 - 10 Lb	.94
10 x 10 - 20 Lb	.97
10 x 10 - 30 Lb	1.43
12 x 12 - 30 Lb	1.43
12 x 12 - 50 Lb	1.12
12 x 12 - 100 Lb	1.16

Table 4-2. Overload Spring Length

#### 4.1.2 12", 18", and 24" Models

1. Unplug AC power from indicator and disconnect load cell cable from indicator.
2. Lift off scale top cover.
3. Remove two load cell screws.
4. Lift off top spider.
5. Remove spacer plate and set it aside.

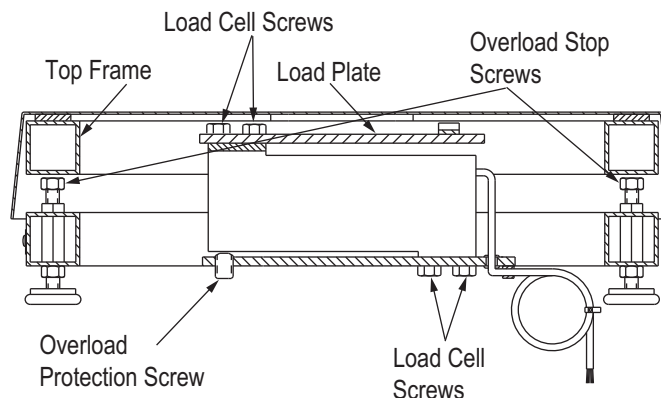


Figure 4-3. 12" x 12" Load Cell Mount

6. Loosen the four overload stop screws and turn each screw in one turn to provide ample clearance for the new load cell. Turn scale over and back off overload protection screw one complete turn to provide clearance.
7. Unscrew and remove lower load cell screws. Depending on model of scale, there will be either two or four lower load cell screws.
8. Remove bottom shim beneath load cell and set it aside.
9. Remove load cell and cable from scale.
10. Thread cable of replacement load cell through rubber grommet.
11. Position bottom shim directly beneath load cell and screw in lower load cell screws. Torque to 80 in-lbs for 12" x 12" and 12" x 18" scales, to 120 in-lb for 18" x 18", 18" x 24", and 24" x 24" scales.
12. Turn scale right side up. Position spacer plate on load cell, then place top spider into position.
13. Screw in four upper load cell screws. Torque to 80 in-lbs for 12" x 12" and 12" x 18" scales, to 120 in-lb for 18" x 18", 18" x 24", and 24" x 24" scales.
14. Connect load cell cable to indicator.
15. Recalibrate scale as described in [Section 3.0 on page 7](#) of this manual.
16. Adjust overload protection screw on bottom of scale by loading scale to 125% capacity. Place this weight on top cover, centered on platform. Use a hex wrench to screw in overload protection screw until it touches the load cell, then back off 1/6 turn. Recheck calibration.
17. To reset corner overload stop screws, load top spider over one corner with approximately 30% of scale capacity. Adjust screw under that corner to just touch top frame. Place a drop of a non-permanent, high-strength locking compound such as LOCTITE® on the thread. Back screw off slightly so it is not touching.

## 4.2 Installing Protective Clamshells

Stainless steel enclosures called clamshells are available to provide extra protection for the load cell of every BenchMark scale. All clamshells are pre-drilled for load cell screws, overload screws, and cables. Any existing load cell shims or spacers are installed inside the clamshells.

1. The lower clamshell fits inside the upper clamshell and is installed first. Position the clamshell so that no part of it touches the load cell, then tighten the lower load cell screws to the specifications given [Section 4.1.1 on page 8](#) or [Section 4.1.2 on page 10](#).

**IMPORTANT**

*When installing the upper clam shell, position it so there is clearance on all sides to prevent any binding problems with the lower clam shell.*

2. Tighten the upper load cell screws to the required torque.
3. When installation is complete, reset all overload protection screws as described in [Section 4.1.1 on page 8](#) or [Section 4.1.2 on page 10](#).
4. Calibrate the scale according to the procedure described in [Section 3.0 on page 7](#).

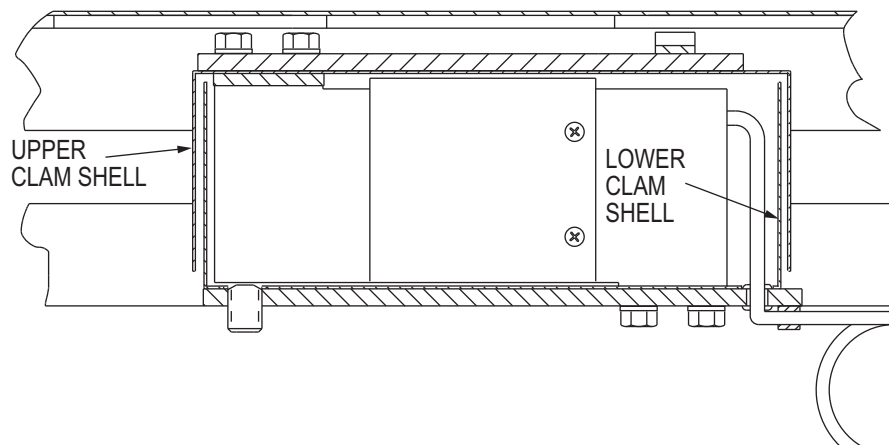


Figure 4-4. Clamshell Enclosure

## 4.3 Replacement Parts

### 10" x 10" and 12" x 12" SL and SL/HE Series

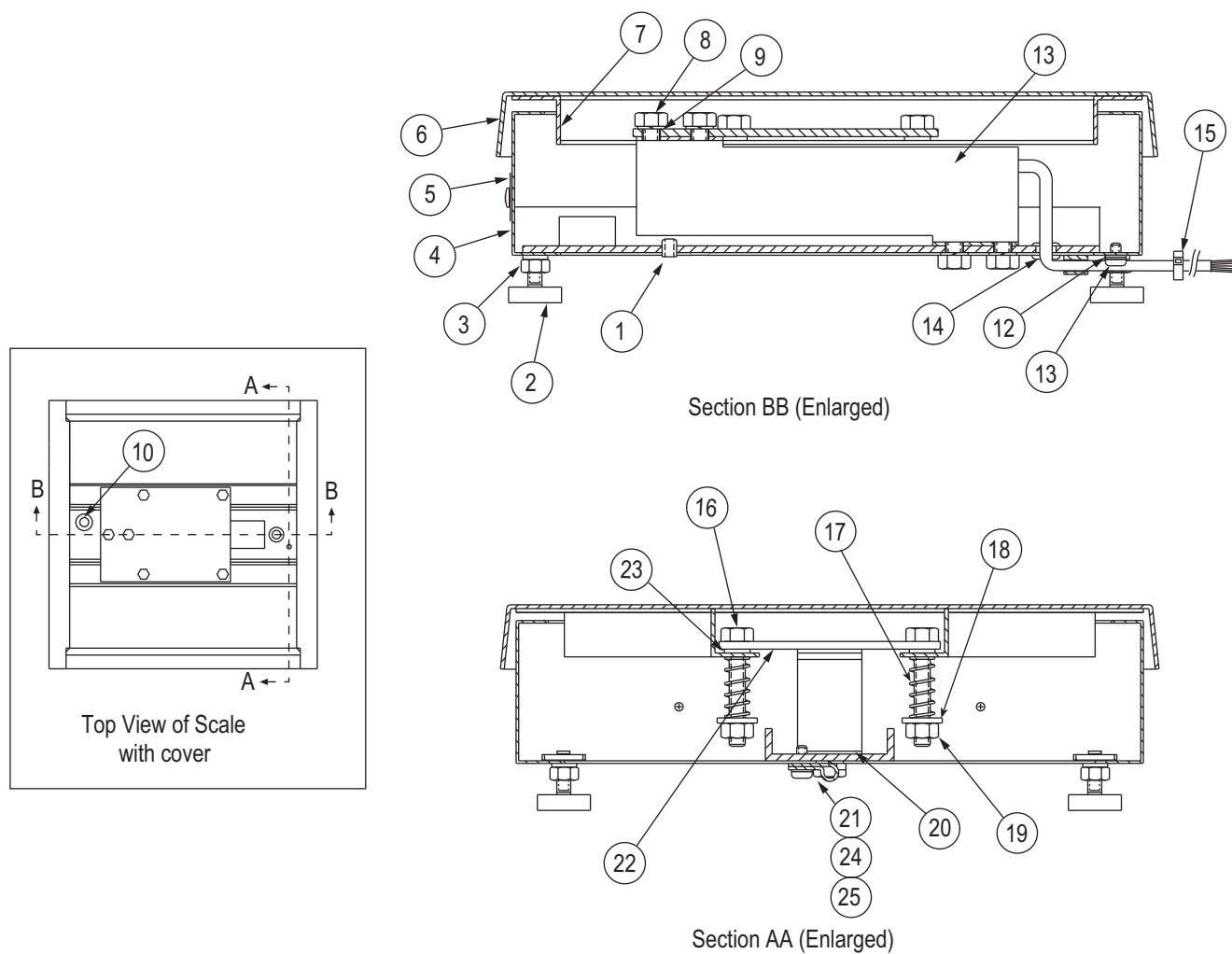


Figure 4-5. 10 x 10 and 12 x 12 SL and SL/HE Parts Illustration



Item	Part No.	Description	Qty.
1	14920	Screw, Overload Protection, 8 -32UNC x 1/4, SS	1
2	35128	Foot, 1/4 - 20 NC x 1 3/16 SS	4
3	14645	Jam Nut, Foot 1/4 - 20, SS	4
4	19086	Bottom Subassembly, (2 lb – 30 lb, 10 in x 10 in)	1
	35066	Bottom Subassembly, (30 lb – 100 lb, 12 in x 12 in)	1
5	52342	Label, Bench Scale	1
6	19091	Cover, Top, 10 x 10 SS	1
	35069	Cover, Top, 12 x 12 SS	1
7	19088	Spider, Top, 10 x 10	1
	35068	Spider, Top, 12 x 12	1
8	15148	Lockwasher 1/4 SS	4
9	21948	Screw, Load Cell, 1/4 - 20 x 5/8 SS	4
10	15410	Bubble Level, Plastic, 15 mm	1
11		Load Cell	1
12	15132	Lockwasher, #8, SS	1
13	14857	Pan Head Screw, 8 - 32 x 1/4 SS	1
14	15408	Rubber Grommet, 3/16 ID x 1/2 OD	1
15	16141	Cable Tie, 8"	1
16	14984	Cap Screw (2 lb-20 lb Models)	4
	21947	Cap Screw (30 lb Models)	4
	35199	Cap Screw (50 lb-100 lb Models)	4
17	15412	Spring, Overload (2 lb Models)	4
	21945	Spring, Overload (5 lb Models)	4
	15416	Spring, Overload (10 lb Models)	4
	21946	Spring, Overload (20 lb Models)	4
	21944	Spring, Overload (30 lb Models)	4
	35086	Spring, Overload (50 lb Models)	4
	35200	Spring, Overload (100 lb Models)	4
18	15149	Flat Washer, 1/4 type A, SS	4
19	14634	Nut, Nylon Insert, 1/4-20, SS	4
20	19089	Load Cell Shim, SS	1
21	15409	Plastic Wire Clamp	1
22	19090	Load Plate, (2 lb – 30 lb, 10 in x 10 in)	1
	35067	Load Plate, (30 lb – 100 lb, 12 in x 12 in)	1
23	15150	Washer, Rubber	4
24	15138	Washer, #8, SS	1
25	14862	Screw, 8 - 32 x 3/8 SS	1

Table 4-3. 10 x 10 and 12 x 12 SL and SL/HE Parts List

## 12" x 12" and 12" x 18" Models, Mild Steel

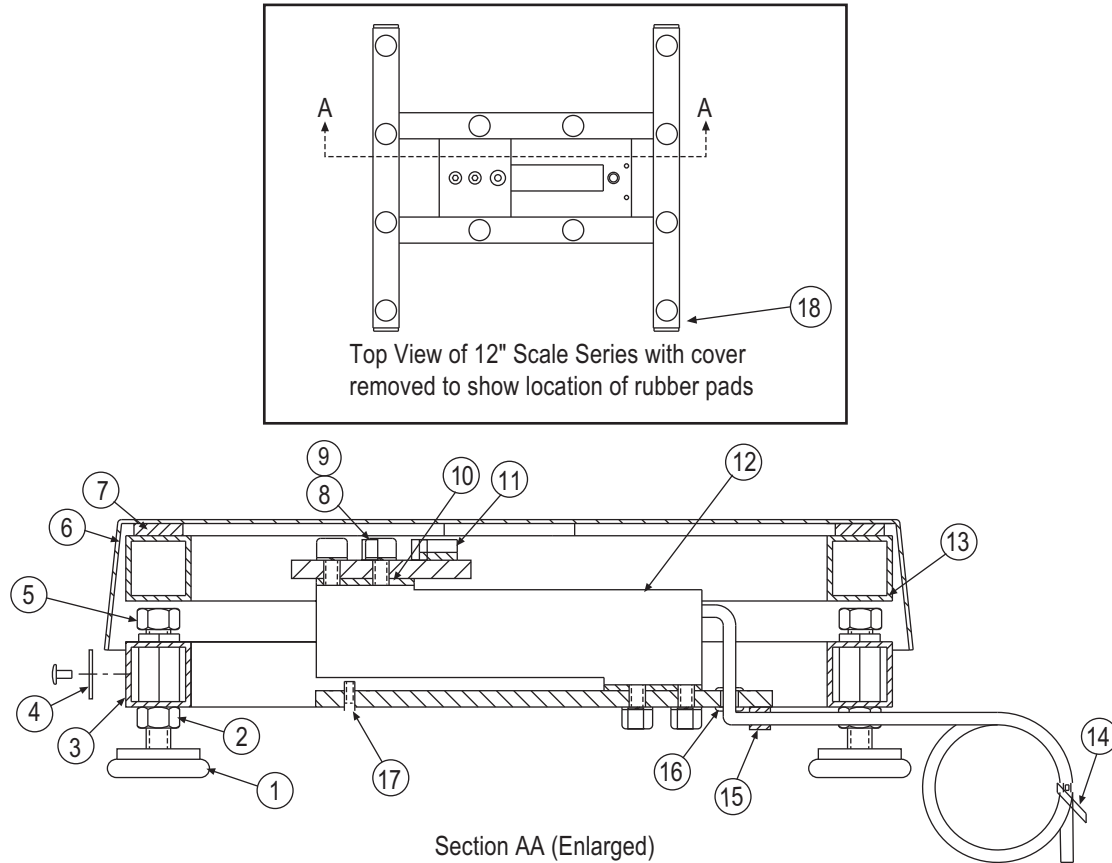


Figure 4-6. 12" x 12" and 12" x 18" Mild Steel Parts Illustration

Item	Part No.	Description	Qty.
1	35128	Foot, 1/4-20 NC x 1 3/16	4
2	14645	Jam Nut, Foot	4
3	32993	Frame, Bottom, 12" X 12"	1
	32992	Frame, Bottom, 12" X 18"	1
4	52342	Label, Bench Scale	1
5	14739	Bolt, Overload, 12" X 12"	4
6	19092	Cover, Top, 12" X 12"	1
	19093	Cover, Top, 12" X 18"	
7	26408	Bumper, Round Self Adhesive	12
8	15147	Washer, Locking, 1/4	4
9	14962	Screw Cap, 12" X 18"	4
10	19089	Spacer, Load Cell	1
11	15410	Spirit Level Bubble, Plastic	1
12		Load Cell	1
13	19132	Frame, Top, 12" X 12"	1
	19134	Frame, Top, 12" X 18"	1
14	16141	Cable Tie	1
15	15409	Plastic Wire Clamp	1
16	15418	Rubber Grommet, 3/16 X 1/2 od	1
17	14918	Overload Protection Screw, 8-32 X 1/4	1
18	19139	Square Insert Guide	8

Table 4-4. 12" x 12" and 12" x 18" Mild Steel Parts List

## 12" x 18" Model, Stainless Steel

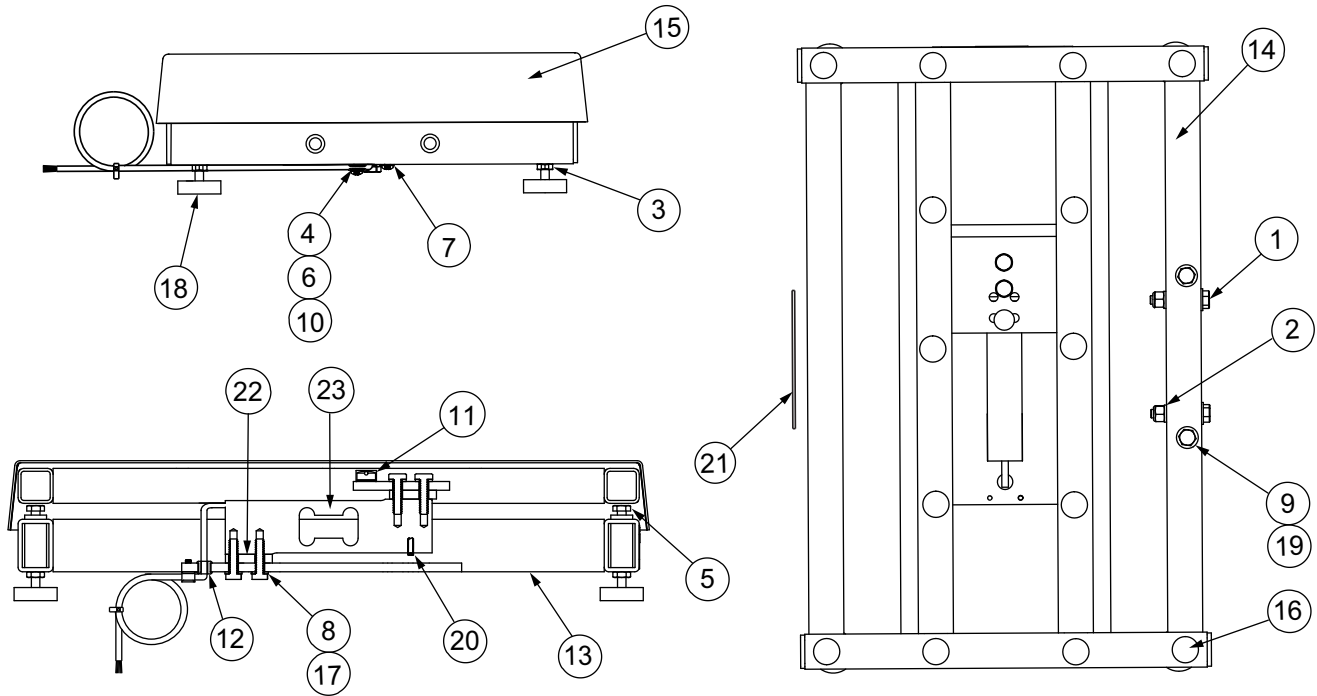


Figure 4-7. 12" x 18" Stainless Steel Parts Illustration

Item	Part No.	Description	Qty.
1	106462	Screw, Cap 1/4-20NC x 1-1/2 Hex Head SST	2
2	14634	Nut, Lock 1/4-20NC Hex SST	4
3	14645	Nut, Jam 1/4-20NC Hex SST	4
4	14862	Screw, Mach 8-32NC x 3/8Phillips Pan Head	2
5	14963	Screw, Cap 1/4-20NC x 3/4 Hex Head SST F593	4
6	15132	Washer, Lock NO 8 Type A Internal Tooth SST	1
7	15138	Washer, Plain STD #8 SST	1
8	15148	Washer, Lock 1/4 Regular Helical Spring SST	8
9	15149	Washer Plain 1/4 SST	4
10	15409	Clamp, Cable NO 8 Hole Nylon	1
11	15410	Level, Spirit Bubble	1
12	15418	Grommet, Rubber 3/16 ID x 7/16 OD	1
13	186226	Frame, Bottom Bench Scale 12 x 18 SST For RLSP4 Load Cell (Goes with 186224)	1
14	186225	Frame, Top Bench Scale 12 x 18 SST For RLSP4 Load Cell (Goes with 186224)	1
15	186936	Top Cover SS Bench Scale	1
16	26408	Bumper, Self Adhesive 3/4 DIA	14
17	35088	Screw, Cap 1/4-20NCX1 Hex	4
18	35128	Foot Bench Scale 1/4-20 x 1-3/16 SST USDA Approved	4
19	35199	Cap Screw 1/4-20NC x 2 Hex Head SST	2
20	43203	Screw, Set 8-32NC x 1/2 SST	1
21	52342	Label, 4.00 x 1.25 8000T	1
22	52383	Shim, Load Cell 0.25 x 1 x 1.34 SST	2
23	40962	Load Cell	1

Table 4-5. 12" x 18" Stainless Steel Parts List

## 18" x 18", 18" x 24" and 24" x 24" Models, Mild and Stainless Steel

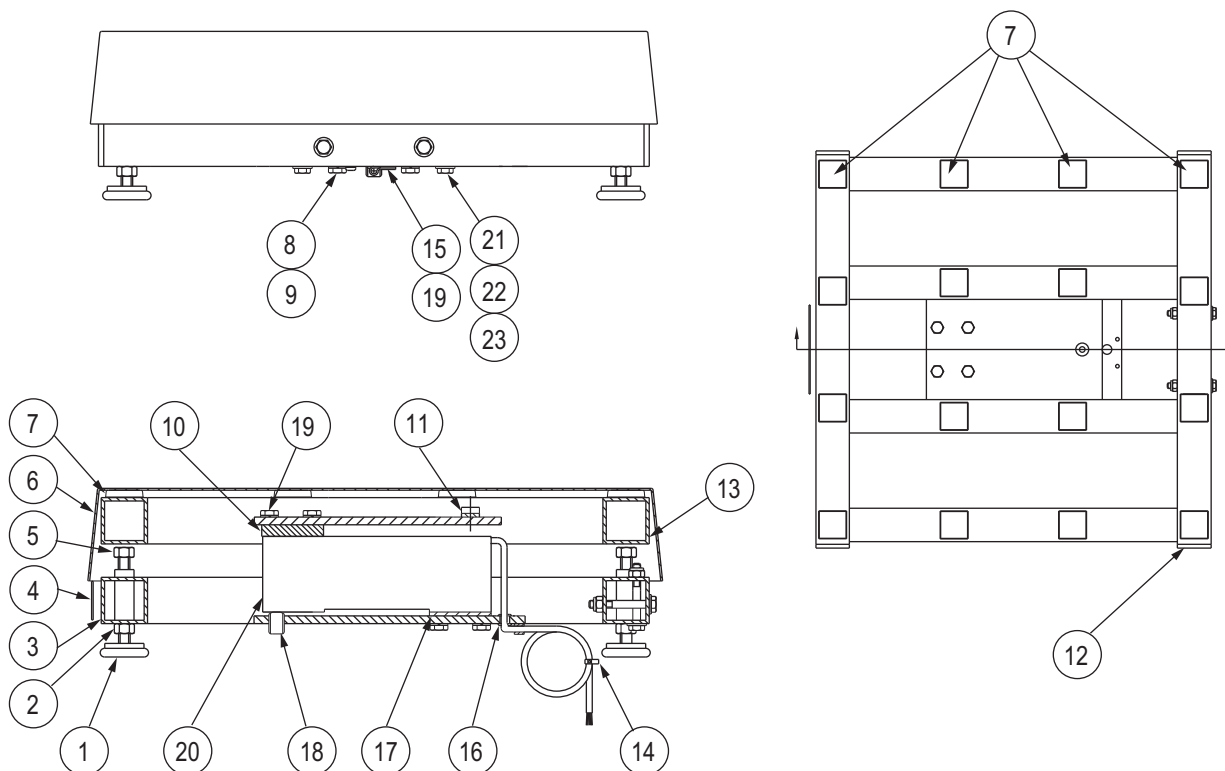


Figure 4-8. 18" x 18", 18" x 24" and 24" x 24" Models Parts Illustration

Item	Part No.	Description	Qty.
1	19141	Foot, 3/8-16 X 78	4
2	14649	Jam Nut, Foot MS	4
	14653	Jam Nut, Foot SS	4
3	49766	Frame Bottom, 18" X 18", MS (RL1260/PMW16 Load Cell)	1
	49768	Frame Bottom, 18" X 18", SS (RL1260/PMW16 Load Cell)	1
	49770	Frame Bottom, 18" X 24", MS (RL1260/PMW16 Load Cell)	1
	49772	Frame Bottom, 18" X 24", SS (RL1260/PMW16 Load Cell)	1
	49774	Frame Bottom, 24" X 24", MS (RL1260/PMW16 Load Cell)	1
	49776	Frame Bottom, 24" X 24", SS (RL1260/PMW16 Load Cell)	1
	19108	Frame Bottom, 18" X 18", MS (RL1250 Load Cell)	1
	19109	Frame Bottom, 18" X 18", SS (RL1250 Load Cell)	1
	19110	Frame Bottom, 18" X 24", MS (RL1250 Load Cell)	1
	19111	Frame Bottom, 18" X 24", SS (RL1250 Load Cell)	1
	19112	Frame Bottom, 24" X 24", MS (RL1250 Load Cell)	1
	19114	Frame Bottom, 24" X 24", SS (RL1250 Load Cell)	1
4	52342	Label Roll, 4" X 1.25"	1
5	14742	Bolt, 3/8-16 NC X 1, Hex Head	4
6	19094	Cover, Top, 18" X 18"	1
	19095	Cover, Top, 18" X 24"	1
	19096	Cover, Top, 24" X 24"	1
7	26407	Bumper, Self Adhesive	20
8	15153	Washer, Lock, 5/16 Regular, MS	8
	15154	Washer, Lock, 5/16 Regular, SS	8

Table 4-6. 18" x 18", 18" x 24" and 24" x 24" Models Parts List

Item	Part No.	Description	Qty.
9	26668	Screw, Cap, 5/16-18 NC x 3/4, Hex, MS	4
	26669	Screw, Cap, 5/16-18 NC x 3/4, Hex, SS	4
	26667	Screw, Cap, 5/16-18 NC x 1, hex, MS	4
	26670	Screw, Cap, 5/16-18 NC x 1, hex, SS	4
10	49785	Plate, Washer, MS (RL1260/RLPMW16 Load cell)	1
	49786	Plate, Washer, SS (RL1260/RLPMW16 Load cell)	1
	19102	Plate, Washer, MS (RL1250 Load cell)	1
	19103	Plate, Washer, SS (RL1250 Load cell)	1
11	15410	Level, Spirit Bubble	1
12	19140	Insert, Glide, Square	8
13	49765	Frame, Top, 18" x 18", MS (RL1260/RLPMW16 Load Cell)	1
	49767	Frame, Top, 18" x 18", SS (RL1260/RLPMW16 Load Cell)	1
	19116	Frame, Top, 18" x 18", MS (RL1250 Load Cell)	1
	19117	Frame, Top, 18" x 18", SS (RL1250 Load Cell)	1
	19118	Frame, Top, 18" x 24", MS (RL1250 Load Cell)	1
	19119	Frame, Top, 18" x 24", SS (RL1250 Load Cell)	1
	49769	Frame, Top, 18" x 24", MS (RL1260/RLPMW16 Load Cell)	1
	49771	Frame, Top, 18" x 24", SS (RL1260/RLPMW16 Load Cell)	1
	49773	Frame, Top, 24" x 24", MS (RL1260/RLPMW16 Load Cell)	1
	49775	Frame, Top, 24" x 24", SS (RL1260/RLPMW16 Load Cell)	1
	19120	Frame, Top, 24" x 24", MS (RL1250 Load Cell)	1
	19121	Frame, Top, 24" x 24", SS (RL1250 Load Cell)	1
14	16141	Cable, Tie, 8" Nylon	1
15	15409	Clamp, Cable, No. 8 Hole	1
16	15418	Grommet, Rubber	1
	49788	Screw, Cap, 5/16-18 NC X 1 1/4, Hex, MS (RL1260 Load Cell)	4
	49789	Screw, Cap, 5/16-18 NC X 1 1/4, Hex, SS (RL1260 Load Cell)	4
	26667	Screw, Cap, 5/16-18 NC X 1, Hex, MS (RL1250 Load Cell)	4
	26668	Screw, Cap, 5/16-18 NC X 3/4, Hex, MS (RL1250 Load Cell)	4
	26669	Screw, Cap, 5/16-18 NC X 3/4, Hex, SS (RL1250 Load Cell)	4
17	49787	Shim Plate (RL1260/RLPMW16 Load Cell)	1
	22264	Shim Plate (RL1250 Load Cell)	1
18	15045	Screw, Set, 1/2-20 NF X 1/2, Hex, MS	1
	15047	Screw, Set, 1/2-20 NF X 1/2, Hex, SS	1
19	14858	Screw, Mach, 8-32 NC X 5/16, MS	1
	14862	Screw, Mach, 8-32 NC X 3/8, SS	1
20	32849	Load Cell	1
21	35316	Screw, Cap, 1/4-20 NC X 2, Hex, MS	1
	35199	Screw, Cap, 1/4-20 NC X 2, Hex, SS	1
22	15145	Washer, Plain, 1/4 Type A, MS	1
	15149	Washer, Plain, 1/4 Type A, SS	1
23	14635	Nut, Lock, 1/4-20 NC, Hex, MS	1
	14634	Nut, Lock, 1/4-20 NC, Hex, SS	1

Table 4-6. 18" x 18", 18" x 24" and 24" x 24" Models Parts List (Continued)

## 5.0 BenchMark Series Limited Warranty

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Rice Lake Weighing Systems (RLWS) warrants that all RLWS equipment and systems properly installed by a Distributor or Original Equipment Manufacturer (OEM) will operate per written specifications as confirmed by the Distributor/OEM and accepted by RLWS. All systems and components are warranted against defects in materials and workmanship for two years.

RLWS warrants that the equipment sold hereunder will conform to the current written specifications authorized by RLWS. RLWS warrants the equipment against faulty workmanship and defective materials. If any equipment fails to conform to these warranties, RLWS will, at its option, repair or replace such goods returned within the warranty period subject to the following conditions:

- Upon discovery by Buyer of such nonconformity, RLWS will be given prompt written notice with a detailed explanation of the alleged deficiencies.
- Individual electronic components returned to RLWS for warranty purposes must be packaged to prevent electrostatic discharge (ESD) damage in shipment. Packaging requirements are listed in a publication, "Protecting Your Components From Static Damage in Shipment," available from RLWS Equipment Return Department.
- Examination of such equipment by RLWS confirms that the nonconformity actually exists, and was not caused by accident, misuse, neglect, alteration, improper installation, improper repair or improper testing; RLWS shall be the sole judge of all alleged nonconformities.
- Such equipment has not been modified, altered, or changed by any person other than RLWS or its duly authorized repair agents.
- RLWS will have a reasonable time to repair or replace the defective equipment. Buyer is responsible for shipping charges both ways.
- In no event will RLWS be responsible for travel time or on-location repairs, including assembly or disassembly of equipment, nor will RLWS be liable for the cost of any repairs made by others.

These warranties exclude all other warranties, expressed or implied, including without limitation warranties of merchantability or fitness for a particular purpose. Neither RLWS nor distributor will, in any event, be liable for incidental or consequential damages.

RLWS and buyer agree that RLWS's sole and exclusive liability hereunder is limited to repair or replacement of such goods. In accepting this warranty, the buyer waives any and all other claims to warranty.

**SHOULD THE SELLER BE OTHER THAN RLWS, THE BUYER AGREES TO LOOK ONLY TO THE SELLER FOR WARRANTY CLAIMS.**

No terms, conditions, understanding, or agreements purporting to modify the terms of this warranty shall have any legal effect unless made in writing and signed by a corporate officer of RLWS and the Buyer.

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