## Hardware and Accessories

TABLE OF CONTENTS
Hardware and Accessories331
Load Cell Mounting Hardware Safety Guidelines332
Mounting Assembly Component Identification333
Jam Nuts
Eye Nuts
Clevis Mount Assemblies
Coupling Nuts
Load Cell Eye Bolts
Rod End Ball Joints336
Connecting Links
Load Cell Isolators
Threaded Adapters337
ITCM Hardware Kits338
Grounding Straps339
Ball Bearings339
Load Receiver Plate339
Load Cups
Wire Rope Assemblies340
Cardinal® Wire Rope Assemblies340
Custom Wire Ropes340
Custom Wire Rope Definition Form341
Spherical Washer Sets342
Load Cell Spacers342
Load Button342
Weldless End Links342
Load Button Insert Kit343
Flintec® Adjustable Rubber Foot343
Bench Scale Feet343
Surefoot™343
Polyurethane Rubber Leveling Feet344
Captured Ball Floor Scale Leveling Feet344
Leveling Mount345
Leveling Pads345

Leveling Pad Stems	345
RoughDeck® Scale Base	346
Summit® 3000 Scale Base	346
Floor Scale Base	346
Complete Custom Cable Services	347
EL147, 6 Wire	348
Standard Load Cell Cable	0.46
<b>EL147RP Plus, 6 Wire</b>	348
EL147HE, 6 Wire	349
EL147IS, 6 Wire	349
EL146, 4 Wire	350
EL146HE, 4 Wire	350
Fiber-optic Cable	351
EL144 Communications Cable	
BCD Cable	351
<b>SURVIVOR® EL620HE</b>	
EL148HE Mettler Toledo®	352
Power Cell Replacement Cable	25.
SURVIVOR® Cable Armor	
Mettler Toledo® Power Cell® Homerun Cable	352
Cord Grip Assemblies	353
EL214 Cable Splicing Kit	353
Load Cell Conduit Adapters	353
EL214T Cable Splicing Kit	354
EL215 Cable Splicing Kit	354
Flintec® Load Cell Cable	354
Five-Position Connectors, Shell Plugs, Receptacles	355
Seven-Position Connectors, Shell Plugs, Receptacles	355
Six-Position Connectors, Shell Plugs, Receptacles	
T-Grip Molding	

I-Strip Molaing	356
Electronic Scale Tickets	357
Mechanical Scale Tickets Create Your Own Custom Ticket	358
Printer Dust Covers	358
Printer Cables	359
Static Brushes	360
Ionizing Strips	360
Desiccants	360
Crimper and Lead Seals	360
Ionizing Strip Accessories	360
Industrial Corrosion Inhibitor	360
Static Control Table Mat and Floor Mat	361
Static Control Wrist Strap	361
Static Shielding Bags	361
Static-safe Service Kit	361
Dica Laka's Scala Tachnician Kits	363

## Load Cell Mounting Hardware Safety Guidelines

Install only load cell mounting hardware and assemblies that have been specifically designed for use in tank, hopper or hanging scale applications. Often, the use of an inferior-grade product results in component failure which risks equipment damage and personal injury. These simple suggestions are provided to help minimize your exposure to vessel scale installation hazards.

#### **Estimating Gross Load**

To select the correct load cell or load cell hardware for a given application, it is necessary to know the total weight on the scale including net weight of product, tare weight of the vessel and weight of the platform, tank or hopper, as appropriate.

#### Safe Load

Do not exceed safe load figures listed in Rice Lake Weighing Systems' catalog for any load cell hardware. Where shock loads are present, it may be necessary to derate these safe load figures depending on severity of the shock load.

#### 3. Load Distribution

In multiple-load-cell applications, weight must be evenly distributed between all cells.

#### 4. Threaded Connections

Check that all threaded connections are engaged. For example, an eye bolt screwed into an s-type load cell should protrude slightly on the opposite side.

#### 5. Jam Nuts

All threaded connections must be locked with jam nuts to prevent inadvertent disassembly. If a load is suspended from a single load cell, it is critical that the load cannot rotate as this may loosen the jam nut.

#### Wire Rope Assemblies

With wire rope assemblies, do not twist the rope during assembly or disassembly. For example, do not remove a frozen nut from one end of a rope assembly by holding the opposite end.

#### Attachment Points of a Load Cell

The attachment points of a load cell hardware assembly must be aligned properly and the assembly should be essentially vertical.

#### 8. Swaying in a Suspended Vessel Scale

If there is excessive swaying in a suspended vessel scale, apply horizontal checking to reduce amplitude.

#### Safety Backup

If failure of one or more load cell hardware assemblies could cause injury or damage, a safety backup (safety chains, safety rods, etc.) must be used. The assemblies should be inspected routinely for damage, excessive wear or corrosion and replaced if necessary.

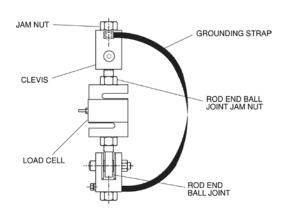
#### 10. Hopper Scales: Guarding Against Contamination

With hopper scales, guard against contamination of the product being weighed in case of failure of the load cell or hardware assembly. For example, do not locate a wire rope assembly over a hopper scale where broken strands of wire could fall into the weighing vessel, contaminating the product being weighed.

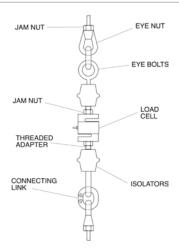
## 11. Selecting Steel Rod or Any Other **Weight-bearing Components**

Select steel rod or any other weight-bearing components so the minimum tensile strength is at least four times the total weight carried by that component. Note that threaded rod is generally made from a low tensile-strength mild steel which should be checked for tensile strength before use in any suspended vessel scale.

# **Mounting Assembly Component Identification**







Conventional Tension Mounting Assembly

Our popular Isolated Tension Cell Mount (ITCM) assembly and other conventional suspended weighing system assemblies employ a variety of serviceable hardware components. Rice Lake Weighing Systems offers a comprehensive selection of these items for all of your suspended vessel service needs. These drawings are designed to enable you to quickly identify and differentiate components from both of these common designs. All corresponding replacement hardware is located on the following pages.

## **Jam Nuts**

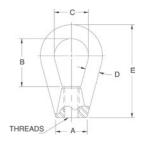
Thread Size	Part#	Price
Mild Steel, Fine Thread		
1/4-28 UNF	14639	\$1.00
3/8-24 UNF	14651	\$1.00
1/2-20 UNF	14664	\$1.60
3/4-16 UNF	14687	\$1.60
1-12 UNF	14702	\$5.99
1-14 UNF	14703	\$4.90
1 1/4-12 UNF	14708	\$3.60
1 1/2-12 UNF	14711	\$4.90
Mild Steel, Coarse Thread		
1/4-20 UNC	14636	\$1.00
3/8-16 UNC	14649	\$2.25
1/2-13 UNC	14661	\$1.00
5/8-11 UNC	14676	\$4.00
3/4-10 UNC	14686	\$1.06
1-8 UNC	14701	\$1.20
1-1/4-7 UNC	14707	\$3.30

S	Standard Features
•	Coarse or fine thread
•	Course of fine timeda

· Zinc-plated mild steel or stainless steel

Thread Size	Part#	Price
Stainless Steel, Fine Thread		
1/4-28 UNF	14640	\$1.30
1/2-20 UNF	14665	\$1.95
3/4-16 UNF	14688	\$2.30
Stainless Steel, Coarse Thread		
3/8-16 UNC	14653	\$2.10
1/2-13 UNC	14662	\$1.85
5/8-11 UNC	14680	\$2.10
3/4-10 UNC	14690	\$2.25





#### **Standard Features**

• Drop-forged steel, tapped NC right-hand threads

#### Part Number/Price

Part #	A	В	С	D	E	Thread Size	Safe Load*	Price
17772	0.50 in	1.06 in	0.75 in	0.25 in	1.68 in	1/4-20 UNC	500 lb	\$50.00
17773	0.75 in	1.18 in	0.87 in	0.31 in	2.25 in	3/8-16 UNC	1,800 lb	\$34.00
17774	1.00 in	1.56 in	1.12 in	0.43 in	3.00 in	1/2-13 UNC	3,600 lb	\$50.00
17775	1.25 in	1.93 in	1.37 in	0.56 in	3.75 in	5/8-11 UNC	5,800 lb	\$55.00

\*Do not exceed the safe load



#### **Standard Features**

· Heavy hex

#### Part Number/Price

Part#	Thread Size	Length	Flat	Safe Load*	Price
14638	1/4-20 UNC	1.75 in	0.44 in	500 lb	\$8.50
14650	3/8-16 UNC	1.75 in	0.62 in	1,500 lb	\$8.50
14663	1/2-13 UNC	1.75 in	0.87 in	3,000 lb	\$8.50
14681	5/8-11 UNC	2.12 in	1.06 in	7,500 lb	\$11.50
14691	3/4-10 UNC	2.25 in	1.25 in	10,000 lb	\$12.50

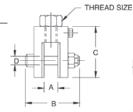
\*Do not exceed the safe load

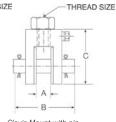
## **Clevis Mount Assemblies**



#### **Standard Features**

- Mild steel or stainless steel
- · Used in the ITCM assembly
- Adapts rod to rod-end ball joint
- Provides electrical isolation for load cell protection
- · Eliminates unwanted side loads





Clevis Mount with bolt

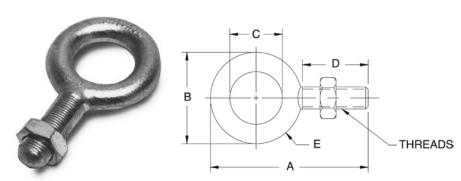
Clevis Mount with pin

#### Part Number/Price

Part #	A	В	С	D	Thread Size	Safe Load*	Price
Mild Steel w	ith Bolt						
17792	0.52 in	2.38 in	1.94 in	0.38 in	3/8-16 UNC	300 lb	\$87.00
17793	0.52 in	2.38 in	1.94 in	0.38 in	1/2-13 UNC	300 lb	\$87.00
17783	0.39 in	1.81 in	1.69 in	0.25 in	1/2-13 UNC	500 lb	\$99.00
17784	0.65 in	2.68 in	2.31 in	0.50 in	3/4-10 UNC	4,000 lb	\$99.00
17785	0.78 in	3.37 in	3.00 in	0.62 in	1-8 UNC	10,000 lb	\$99.00
17786	0.39 in	1.81 in	1.69 in	0.25 in	3/8-16 UNC	500 lb	\$94.00
17787	0.65 in	2.68 in	2.31 in	0.50 in	1/2-13 UNC	2,000 lb	\$99.00
17788	0.65 in	2.68 in	2.31 in	0.50 in	5/8-11 UNC	2,500 lb	\$99.00
17789	0.78 in	3.37 in	3.00 in	0.62 in	3/4-10 UNC	5,000 lb	\$99.00
Mild Steel w	ith Pin						
17790	1.39 in	4.12 in	4.50 in	1.00 in	1 1/4-7 UNC	15,000 lb	\$367.00
17791	1.22 in	4.12 in	5.00 in	1.25 in	1 1/2-6 UNC	20,000 lb	\$367.00
Stainless Ste	eel with Pin						
33644	0.52 in	2.38 in	1.94 in	0.38 in	1/2-13 UNC	300 lb	\$192.00
33643	0.39 in	1.81 in	1.69 in	0.25 in	1/2-13 UNC	500 lb	\$192.00
33641	0.39 in	1.81 in	1.69 in	0.25 in	3/8-16 UNC	500 lb	\$192.00
33658	0.52 in	2.38 in	1.94 in	0.38 in	3/8-16 UNC	500 lb	\$192.00
33642	0.65 in	2.68 in	2.31 in	0.50 in	3/4-10 UNC	4,000 lb	\$250.00
33640	0.65 in	2.68 in	2.31 in	0.50 in	1/2-13 UNC	2,000 lb	\$250.00
33639	0.65 in	2.68 in	2.31 in	0.50 in	5/8-11 UNC	2,500 lb	\$250.00
33638	0.78 in	3.37 in	3.00 in	0.62 in	3/4-10 UNC	5,000 lb	\$250.00

\*Do not exceed the safe load

# **Load Cell Eye Bolts**



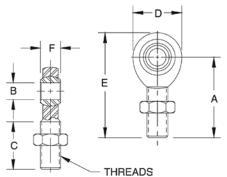
#### **Standard Features**

- Mild steel
- One jam nut included with each eye bolt

Part #	A	В	С	D	E	Thread Size	Safe Load*	Price
Mild Steel								
17705	2.25 in	1.25 in	0.75 in	1.00 in	0.25 in	1/4-28 UNF	500 lb	\$30.00
17707	2.91 in	1.66 in	1.00 in	1.25 in	0.33 in	3/8-24 UNF	1,300 lb	\$30.00
17709	3.56 in	2.06 in	1.19 in	1.50 in	0.44 in	1/2-20 UNF	2,400 lb	\$31.00
17711	4.25 in	2.50 in	1.37 in	1.75 in	0.56 in	5/8-18 UNF	4,000 lb	\$36.00
17713	4.81 in	2.81 in	1.50 in	2.00 in	0.66 in	3/4-16 UNF	5,000 lb	\$76.00
17715	6.06 in	3.56 in	1.81 in	2.50 in	0.87 in	1-12 UNF	9,000 lb	\$120.00
17716	6.06 in	3.56 in	1.81 in	2.50 in	0.87 in	1-14 UNS	9,000 lb	\$120.00
17704	2.25 in	1.25 in	0.75 in	1.00 in	0.25 in	1/4-20 UNC	500 lb	\$25.00
17706	2.91 in	1.66 in	1.00 in	1.25 in	0.33 in	3/8-16 UNC	1,300 lb	\$27.00
17708	3.56 in	2.06 in	1.19 in	1.50 in	0.44 in	1/2-13 UNC	2,400 lb	\$27.00
17710	4.25 in	2.50 in	1.37 in	1.75 in	0.56 in	5/8-11 UNC	4,000 lb	\$40.00
17712	4.81 in	2.81 in	1.50 in	2.00 in	0.66 in	3/4-10 UNC	5,000 lb	\$60.00
17714	6.06 in	3.56 in	1.81 in	2.50 in	0.87 in	1-8 UNC	9,000 lb	\$62.00
17717	7.44 in	4.44 in	2.19 in	3.00 in	1.12 in	1 1/4-7 UNC	15,000 lb	\$175.00

<sup>\*</sup>Do not exceed the safe load





#### **Standard Features**

- Mild steel or stainless steel
- Used in the ITCM assembly
- One jam nut included with each rod end ball joint

#### Part Number/Price

Part#	Safe Load*	Breaking Strength	PTFE Lined	Price
Mild Stee	el			
17746	975 lb	3,915lb	YES	\$34.00
17734	1,200 lb	4,916lb	NO	\$24.00
17736	4,000 lb	16,238 lb	NO	\$60.00
17738	7,000 lb	28,081 lb	NO	\$103.00
17735	2,000 lb	8,075 lb	NO	\$29.00
17737	3,250 lb	13,831 lb	NO	\$42.00
17739	500 lb	2,158 lb	YES	\$34.00
17740	4,000 lb	16,238 lb	YES	\$55.00
17741	10,000 lb	40,572 lb	YES	\$82.00
17742	10,500 lb	43,541 lb	NO	\$154.00
26007	15,000 lb	76,200 lb	YES	\$318.00
17747	19,000 lb	76,200 lb	YES	\$366.00
17743	20,000 lb	79,728 lb	NO	\$276.00
17744	24,000 lb	96,510 lb	NO	\$382.00
Stainless	Steel			
33505	500 lb	2,158 lb	YES	\$148.00
33506	1,500 lb	7,362lb	YES	\$148.00
33507	3,000 lb	16,238 lb	YES	\$159.00
33508	7,000 lb	40,572 lb	YES	\$366.00
*Do not ove	cood the safe load	1		

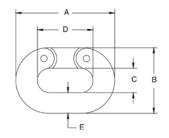
#### \*Do not exceed the safe load

## **Dimensions**

Part#	A	В	С	D	E	F	Thread Size
Mild Ste	el						
17746	1.94 in	0.37 in	1.25 in	1.00 in	2.43 in	0.50 in	3/8-24 UNF
17734	1.94 in	0.37 in	1.25 in	1.00 in	2.43 in	0.50 in	3/8-24 UNF
17736	2.44 in	0.50 in	1.50 in	1.31 in	3.09 in	0.62 in	1/2-20 UNF
17738	2.87 in	0.75 in	1.75 in	1.75 in	3.75 in	0.87 in	3/4-16 UNF
17735	2.44 in	0.50 in	1.50 in	1.31 in	3.09 in	0.62 in	1/2-20 UNF
17737	2.87 in	0.75 in	1.75 in	1.75 in	3.75 in	0.87 in	3/4-16 UNF
17739	1.56 in	0.25 in	1.00 in	0.75 in	1.93 in	0.37 in	1/4-28 UNF
17740	2.44 in	0.50 in	1.50 in	1.31 in	3.09 in	0.62 in	1/2-20 UNF
17741	2.87 in	0.62 in	1.75 in	1.75 in	3.75 in	0.75 in	3/4-16 UNF
17742	4.12 in	1.00 in	2.12 in	2.75 in	5.50 in	1.37 in	1-12 UNF
26007	4.12 in	1.00 in	2.12 in	2.75 in	5.50 in	1.37 in	1-14 UNS
17747	4.12 in	1.00 in	2.12 in	2.75 in	5.50 in	1.37 in	1-12 UNF
17743	4.12 in	1.25 in	2.12 in	2.75 in	5.50 in	1.09 in	1 1/4-12 UNF
17744	5.37 in	1.50 in	3.00 in	3.50 in	7.12 in	1.31 in	1 1/2-12 UNF
Stainles	s Steel						
33506	1.94 in	0.37 in	1.25 in	1.00 in	2.43 in	0.50 in	3/8-24 UNF
33505	1.56 in	0.25 in	1.00 in	0.75 in	1.93 in	0.37 in	1/4-28 UNF
33507	2.44 in	0.50 in	1.50 in	1.31 in	3.09 in	0.62 in	1/2-20 UNF
33508	2.87 in	0.62 in	1.75 in	1.75 in	3.75 in	0.75 in	3/4-16 UNF

# **Connecting Links**





#### **Standard Features**

• Drop-forged carbon steel, heat-treated, hot-dipped galvanized finish

#### Part Number/Price

Part#	А	В	С	D	E	Safe Load*	Price
17794	1.50 in	1.00 in	0.43 in	0.87 in	0.25 in	1,325 lb	\$45.00
17795	2.06 in	1.37 in	0.56 in	1.12 in	0.37 in	2,750 lb	\$48.00
17797	3.31 in	2.09 in	0.78 in	1.81 in	0.62 in	7,250 lb	\$58.00
17798	3.87 in	2.50 in	0.93 in	2.12 in	0.75 in	10,250 lb	\$77.00
17799	5.00 in	3.31 in	1.25 in	2.75 in	1.00 in	15,500 lb	\$130.00

\*Do not exceed the safe load

## **Load Cell Isolators**



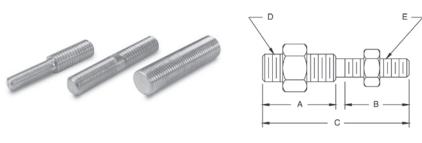
Power surges such as those caused by welding or electrical shorts frequently damage load cells and indicators. To prevent such damage, these isolators electrically separate the mechanical assembly from its tension-type load cell.

#### Part Number/Price

Part#	Height Thread Size	Diameter	Safe Load*	Price
17722	3/8-16 UNC	2.50 in	600 lb	\$52.00
17724	1/2-13 UNC	2.50 in	600 lb	\$56.00
17726	1/2-20 UNF	2.50 in	600 lb	\$95.00
17725	1/2-13 UNC	2.00 in	3,000 lb	\$130.00
17723	3/8-24 UNF	2.50 in	600 lb	\$98.00
17728	1/2-13 UNC × 1/2-20 UNF	2.50 in	600 lb	\$73.00
17732	1/4-20 UNC	1.12 in	250 lb	\$56.00

<sup>\*</sup>Do not exceed the safe load

## **Threaded Adapters**



#### **Standard Features**

- For coupling isolators with load cells and steelyard rods
- · Supplied with jam nuts
- Stainless steel

#### Part Number/Price

Part#	A	В	С	D	E	Safe Load*	Price			
33561	-	-	2.00 in	1/4-28 UNF	1/4-28 UNF	300 lb	\$29.00			
33562	0.94 in	0.94 in	2.00 in	1/4-28 UNF	1/4-20 UNC	300 lb	\$32.00			
33563	0.92 in	1.02 in	2.06 in	1/4-28 UNF	3/8-24 UNF	300 lb	\$37.00			
33564	0.94 in	0.94 in	2.00 in	1/4-28 UNF	3/8-16 UNC	300 lb	\$29.00			
33565	1.06 in	1.06 in	2.25 in	1/4-20 UNC	3/8-16 UNC	300 lb	\$32.00			
33567	1.06 in	1.06 in	2.25 in	1/4-28 UNF	1/2-13 UNC	300 lb	\$32.00			
33568	-	-	2.00 in	3/8-24 UNF	3/8-24 UNF	500 lb	\$42.00			
33569	0.91 in	0.91 in	2.00 in	3/8-16 UNC	3/8-24 UNF	500 lb	\$36.00			
33570	1.06 in	1.06 in	2.25 in	3/8-24 UNF	1/2-13 UNC	500 lb	\$32.00			
33571	1.31 in	1.31 in	2.75 in	1/2-13 UNC	5/8-11 UNC	3,000 lb	\$32.00			
33572	0.87 in	0.87 in	2.00 in	1/2-13 UNC	1/2-20 UNF	3,000 lb	\$36.00			
33573	-	-	2.06 in	1/2-20 UNF	1/2-20 UNF	3,000 lb	\$36.00			
33574	1.31 in	1.31 in	2.75 in	1/2-20 UNF	5/8-11 UNC	3,000 lb	\$38.00			
33575	1.31 in	1.31 in	3.00 in	3/4-16 UNF	3/4-10 UNC	7,000 lb	\$40.00			

\*Do not exceed the safe load

## **ITCM Hardware Kits**



Mount only - does not include load cell

The Isolated Tension Cell Mount (ITCM) is a mounting assembly designed for tension mounting S-beam load cells in suspended hopper assemblies and mechanical scale conversions. The ITCM incorporates clevis and unique rod end ball joint assemblies, reducing the overall length to less than half of traditional tension cell mounts, while providing correct load alignment. In addition, the load cell is completely electrically isolated from stray currents, a major cause of load cell failure. To complete the design, a grounding strap connects the two clevis assemblies to further ensure load cell safety.

#### Standard Features

- Provides greater safety than traditional suspension configurations
- Complete package for ease of installation
- Built-in electrical isolation without having to use isolators (not available on 20,000 lb version)
- · Provides correct load cell loading even in difficult installations
- Dramatically reduces overall length
- Capacities from 300 to 20,000 lb
- Clevis mounts with nylon insulating washers
- PTFE-lined rod end ball joints (not available on 20,000 lb version)
- Completely isolates load cell from stray currents
- Grounding strap for electrical continuity
- Zinc plated clevis
- · Mount only: does not include load cell

#### **Applications**

- · Suspended hoppers
- Mechanical scale conversions
- · Replaces traditional eye bolt, isolator configurations

#### Part Number/Price

Part#	Load Rating	Clevis Thread	Rod End Thread	Safe Load*	Price
Mild Stee	ı				
17968	300 lb	3/8-16	3/8-24	300 lb	\$236.00
17969	300 lb	1/2-13	3/8-24	300 lb	\$236.00
17894	500 lb	3/8-16	1/4-28	500 lb	\$236.00
17895	500 lb	1/2-13	1/4-28	500 lb	\$236.00
17896	2,000 lb	1/2-13	1/2-20	2,000 lb	\$285.00
17897	2,500 lb	5/8-11	1/2-20	2,500 lb	\$285.00
17898	4,000 lb	3/4-10	1/2-20	4,000 lb	\$285.00
17899	5,000 lb	3/4-10	3/4-16	5,000 lb	\$325.00
17900	10,000 lb	1-8	3/4-16	10,000 lb	\$325.00
17958	15,000 lb (RL20000I)	1 1/4-7	1-12	15,000 lb	\$1,284.00
63166	15,000 lb (RL20001)	1 1/4-7	1-14	15,000 lb	\$1,229.00
17959	20,000 lb**	1 1/2-6	1 1/4-12	20,000 lb	\$1,134.00
Stainless	Steel				
33630	500 lb	3/8-16	3/8-24	500 lb	\$643.00
33631	300 lb	1/2-13	3/8-24	300 lb	\$643.00
33632	500 lb	3/8-16	1/4-28	500 lb	\$643.00
33633	500 lb	1/2-13	1/4-28	500 lb	\$643.00
33634	2,000 lb	1/2-13	1/2-20	2,000 lb	\$774.00
33635	2,500 lb	5/8-11	1/2-20	2,500 lb	\$774.00
33636	3,000 lb	3/4-10	1/2-20	3,000 lb	\$774.00
33637	5,000 lb	3/4-10	3/4-16	5,000 lb	\$1,124.00

<sup>\*</sup> Do not exceed the safe load \*\*Not electrically isolated

Note: Replacement parts for mounts can be found in the Replacement Parts Catalog.



#### **Standard Features**

- Used in the ITCM assembly
- · Tinned copper braid
- Crimped sleeve on ends with 0.25 in hole
- Available in 12 in, 14 in, 16 in, 24 in or 32 in lengths

#### Part Number/Price

Part#	Length	Price
17778	12 in	\$22.00
17779	14 in	\$22.00
17780	16 in	\$22.00
17781	24 in	\$22.00
17782	32 in	\$30.00



#### **Standard Features**

- Use with load cup and load receiver to build a custom scale
- 52100 chrome alloy steel

#### Part Number/Price

Part#	Drawing Dimensions	Price
18815	5/8 in diameter crush strength 32,000 lb	\$16.00
18816	7/8 in diameter crush strength 59,000 lb	\$18.00
65841	1.25 in diameter crush strength 100,000 lb	\$37.00

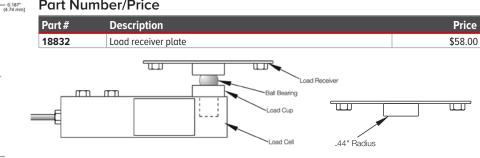
## **Load Receiver Plate**



#### **Standard Features**

- Design offers accurate point loading
- Self-centering effect built in
- Use with load cup and ball bearings to build a custom scale
- Ball and cup load introduction provides point loading for maximum accuracy
- Stainless steel construction

#### Part Number/Price



## **Load Cups**



#### **Standard Features**

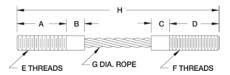
- Ball and cup load introduction provides point loading for maximum accuracy
- For use with most popular single-ended beam load cells
- Constructed of 440C stainless steel

Part#	A	В	С	D	Price		
31911	1.70 in	0.54 in	1.07 in	1/2-20 UNF	\$58.00		
212364	1.70 in	0.54 in	1.07 in	M8	\$70.00		
33654	1.12 in	0.54 in	0.78 in	1/2-20 UNF	\$49.00		
33653	1.50 in	0.80 in	1.12 in	3/4-16 UNF	\$48.00		
33652	2.00 in	0.85 in	1.75 in	1-12 UNF	\$118.00		
33651	2.85 in	0.85 in	1.75 in	1-12 UNF	\$165.00		
33650	2.85 in	0.85 in	1.75 in	1-14 UNF	\$165.00		
33647	2.75 in	0.50 in	0.75 in	1/2-20 UNF	\$59.00		
72364	1.78 in	0.53 in	0.78 in	1/2-20 UNF	\$69.00		
69431	Replacement cup for Cardinal® SCA-50,000 load cell						

## Wire Rope Assemblies

Note: Wire ropes should not be exposed to shock loads, chemicals or twisting. Chains or rods should be used as a safety backup in case of catastrophic failure.





#### Wire Rope Assemblies

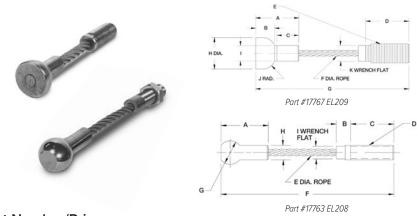
Wire rope assemblies provide better alignment and greatly increase load cell repeatability. In addition, they act as natural vibration dampeners.

#### Part Number/Price

Part#	A	B & C	D	E	F	G	Н	Safe Load*	Price
17760	0.87 in	0.50 in	0.87 in	1/4-20 UNC-2A	1/4-28 UNF-2A	0.12 in	4.00 in	400 lb	\$58.00
17762	1.25 in	0.50 in	1.25 in	3/8-16 UNC-2A	3/8-24 UNF-2A	0.18 in	5.00 in	850 lb	\$64.00
17766	1.62 in	0.50 in	1.62 in	1/2-13 UNC-2A	1/2-20 UNF-2A	0.25 in	6.50 in	1,400 lb	\$66.00
17765	1.62 in	0.50 in	1.62 in	1/2-13 UNC-2A	1/2-20 UNF-2A	0.25 in	5.50 in	1,400 lb	\$79.00
17764	1.00 in	-	1.37 in	1/2-20 UNF-2A	1/2-20 UNF-2A	0.25 in	4.00 in	1,400 lb	\$95.00
17768	2.00 in	-	2.50 in	3/8-24 UNF-2A	3/8-24 UNF-2A	0.12 in	5.50 in	400 lb	\$143.00
17769**	1.25 in	-	0.75 in	1/4-28 UNF-2A	1/4-28 UNF-2A	0.12 in	3.00 in	400 lb	\$159.00
17771**	1.25 in	-	0.75 in	1/2-20 UNF-2A	1/2-20 UNF-2A	0.25 in	3.00 in	1,400 lb	\$69.00
115292***	1.25 in	-	0.75 in	1/4-28 UNF-2A	1/4-28 UNF-2A	0.12 in	3.00 in	300 lb	\$111.00
33084****	1.31 in	-	1.00 in	1/2-20 UNF	1/2-20 UNF	0.125 in	3.62 in	850 lb	\$87.00

\*Do not exceed the safe load \*\*Used with Rice Lake Weighing Systems flexure bases \*\*\*Stainless steel \*\*\*\*Used with Rice Lake Weighing Systems FXB flexure bases

## Cardinal® Wire Rope Assemblies



#### **Cardinal Wire Rope Assemblies**

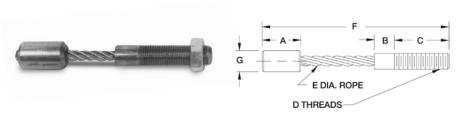
- EL208 Cardinal wire rope assembly: Used on 7,500 lb capacity FH model and 8,000 lb capacity EP model
- EL209 Cardinal wire rope assembly: Used on 20,000 lb capacity FH and EP models. May also be used on 15,000 lb capacity FH and EP models

#### Part Number/Price

Part#	A	В	С	D	E	F	G	н	ı	J	K	L&M	N	Safe Load*	Price
17763	1.50 in	-	0.50 in	1.50 in	-	1/2- 13 UNC	0.25 in	6.00 in	0.81 in	0.43 in	-	-	0.43 in	1,400 lb	\$126.50
17767	1.71 in	0.75 in	0.09 in	2.00 in	0.43 in	6.31 in	3/4-10 UNC-2A	1.25 in	-	0.60 in	0.50 in	0.625 in	0.375 in	2,880 lb	\$247.50

\*Do not exceed the safe load

## **Custom Wire Ropes**



#### **Custom Wire Ropes**

- When ordering, please complete Custom Wire Rope Definition form and provide a sample if possible, and specify the required tension rating and total capacity
- Wire ropes should not be exposed to shock loads, chemicals or twisting. Chains or rods should be used as safety backup in case of catastrophic failure.

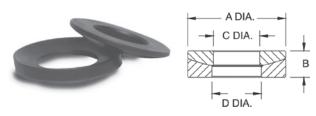
# **Custom Wire Rope Definition**



ompany:	1		Name:	
ate:	Phone:	Fax:	Email:	
		Background Ir	nformation	
lication			Safe Load	
ronment			Desired Materia	l
	C	ustom Wire Rop	e Dimensions	
			nsions. Use drawings for ref	erence.
E-			A THREAD LENGTH	B LENGTH
→ A	-	D -	C SHANK LENGTH	<b>D</b> THREAD LENGTH
	c-		E THREADS	<b>F</b> ROPE DIAMETER
DIA. I			G OVERALL LENGTH	<b>H</b> BALL DIAMETER
J RAD.	F DIA. ROPE	ENCH FLAT	I SHANK DIAMETER	J RADIUS
-	G —	Sty	le 1 K WRENCH	
			A THREAD LENGTH	B SHANK LENGTH
A — H	I WRENCH FLAT	<b>D</b>	C THREAD LENGTH	<b>D</b> THREADS
	FLAT		E ROPE DIAMETER	<b>F</b> OVERALL LENGTH
	T		G BALL DIAMETER	H SHANK DIAMETER
a /	E DIA. ROPE  F	Sty	le 2	
			TUDEAD	CHANK
			A THREAD LENGTH	B SHANK LENGTH
- A-	F B   C		C THREAD LENGTH	<b>D</b> THREADS
G		- annu	E ROPE DIAMETER	F OVERALL LENGTH
E DIA. F	OPE		G SHANK DIAMETER	
D THREADS		Sty	le 3	
			Λ THRFΔD	<b>S</b> SHANK
			A THREAD LENGTH	B SHANK LENGTH
<b>-</b> A → B  -	- H	4	C SHANK LENGTH	D THREAD LENGTH
			E THREADS	F THREADS
E THREADS G D	A. ROPE F THREAD	5	G ROPE DIAMETER	H OVERALL LENGTH

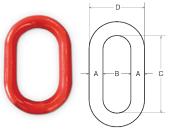
## **Spherical Washer Sets**

## Weldless End Links



#### Part Number/Price

Part#	Bolt Size	A	В	С	D	Price
Mild Stee						
15196	0.25 in	0.62 in	0.20 in	0.28 in	0.31 in	\$16.00
15197	0.38 in	0.88 in	0.25 in	0.41 in	0.44 in	\$19.00
15198	0.50 in	1.12 in	0.31 in	0.53 in	0.56 in	\$8.50
15199	0.62 in	1.38 in	0.31 in	0.66 in	0.69 in	\$20.00
15200	0.75 in	1.62 in	0.38 in	0.78 in	0.81 in	\$25.00
15201	1.00 in	2.00 in	0.50 in	1.06 in	1.12 in	\$39.00
15202	1.25 in	2.62 in	0.50 in	1.31 in	1.38 in	\$72.00
15203	1.50 in	2.88 in	0.53 in	1.56 in	1.62 in	\$79.00
15205	2.00 in	3.88 in	0.81 in	2.06 in	2.12 in	\$127.00
Stainless	Steel					
33218	0.50 in	1.12 in	0.31 in	0.53 in	0.56 in	\$27.00
33220	0.75 in	1.62 in	0.38 in	0.78 in	0.81 in	\$38.00



#### **Standard Features**

- Self-colored or hot-dip galvanized finish
- Forged carbon steel quenched and tempered

#### Part Number/Price

Part#	A	В	С	D	Safe Load*	Price
F312L	0.625 in	1.00 in	3.25 in	2.32 in	9,300 lb	\$58.00
17810	0.875 in	2.00 in	5.13 in	3.75 in	12,000 lb	\$175.00
21911	1.00 in	2.25 in	5.75 in	4.25 in	15,200 lb	\$344.00
65430	1.25 in	2.50 in	7.00 in	5.00 in	26,400 lb	\$159.00
21912	1.375 in	2.75 in	7.75 in	5.50 in	30,000 lb	\$488.00

<sup>\*</sup>Do not exceed the safe load

## **Load Cell Spacers**

## **Load Button**

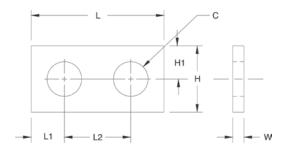


#### **Standard Features**

- Use with most popular single-ended beams
- Provides flat mounting surface required for optimal load cell performance
- Zinc-plated mild steel or stainless steel

#### Part Number/Price

Part#	С	Н	H1	L	L1	L2	W	Price	
Mild Ste	Mild Steel								
17754	0.53 in	1.25 in	0.62 in	2.25 in	0.62 in	1.00 in	0.25 in	\$29.00	
17755	0.78 in	1.50 in	0.75 in	3.00 in	0.75 in	1.50 in	0.25 in	\$29.00	
17756	1.03 in	2.00 in	1.00 in	4.00 in	1.00 in	2.00 in	0.25 in	\$30.00	
18260	0.53 in	1.25 in	0.62 in	2.25 in	0.62 in	1.00 in	0.37 in	\$31.00	
Stainles	s Steel								
17757	0.78 in	1.50 in	0.75 in	3.00 in	0.75 in	1.50 in	0.25 in	\$37.00	
18383	0.53 in	1.25 in	0.62 in	2.25 in	0.62 in	1.00 in	0.37 in	\$32.00	
18411	0.53 in	1.25 in	0.62 in	2.25 in	0.62 in	1.00 in	0.25 in	\$33.00	

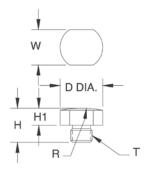


#### **Standard Features**

#### **Load Button**

- Suitable for use with compression mounting assemblies, canisters, S-beams and single-ended beams
- · Hardened alloy steel

Part#	T	D	Н	H1	R	W	Price
17750	3/8-24 UNF	0.75 in	0.60 in	0.30 in	2.00 in	0.63 in	\$37.00
17751	1/2-20 UNF	0.75 in	0.70 in	0.30 in	4.00 in	0.63 in	\$32.00
17752	3/4-16 UNF	1.50 in	0.90 in	0.30 in	6.00 in	1.25 in	\$50.00





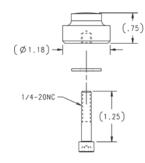
#### **Standard Features**

#### **Load Button Insert Kit**

- To be used with RLSSB and VPG Revere SSB load cells (1,000 to 5,000 lb)
- · Hardened alloy steel

#### Part Number/Price

	Part#	Description	Price
ĺ	26112	Load button insert kit	\$37.00





#### **Standard Features**

- Replacement foot, adapts to most floor scales
- Use with single-ended beams to provide large, flat, adjustable introduction surface
- Special neoprene rubber sandwich base gives high accuracy, linearity and repeatability

#### Part Number/Price

Part#	Material	Thread Size	Base Ht.	Total Ht.	Diameter	Price
18756	Stainless steel	1/2-20 UNF	0.75 in	2.62 in	3.47 in	\$50.00
39021	Mild steel	3/4-16 UNF-2B	0.875 in	3.25 in	4.40 in	\$93.00
39022	Mild steel	3/4-16 UNF-2B	0.875 in	4.06 in	5.40 in	\$135.00
110930	Mild steel	1-14 UNF	1.00 in	4.06 in	5.40 in	\$235.00
42130	Stainless steel	M12	0.75in	2.62 in	3.47 in	\$103.00

## Flintec® Adjustable Rubber Foot



SLB, SB4, SB5, SB14 and SB6



#### **Standard Features**

- · Blind hole introduction
- Low profile
- · Height adjustable by rotation
- · Includes spacer
- Stainless steel

#### Part Number/Price

Part#	Foot Diameter	Load Cell Capacity	Price			
SLB, SB4, SB5	, SB14 and SB6					
46230	2.36 in	200 to 500 lb	\$65.00			
77561	3.14 in	1,000 to 5,000 lb	\$65.00			
BK2						
87096	3.140 in	200 to 2,000 kg	\$65.00			

## Bench Scale Feet



#### Part Number/Price

Part#	Description	Price				
Rubber Pad						
35128	Bench scale feet	\$14.00				
107476	CW-90/CW-90X feet	\$21.00				
Stainless Steel						
19141	Bench scale feet	\$8.00				

#### **Standard Features**

- Rubber pad, 1/4-20 UNC thread
- Stainless steel, 3/8-16 UNC thread

## Polyurethane Rubber Leveling Feet



#### **Standard Features**

- Stainless steel stem for corrosion resistance
- · Heavy-duty construction, low-cost replacement feet
- · Four standard diameters all with 1/2-20 UNF stainless steel stud, slotted for top-access applications
- · Stainless steel jam nut provided
- · Top of stud is machined undersize 10% for easy alignment into load cell

#### Part Number/Price

Part#	Foot Diameter	Height	Price
74585	1.87 in	3.00 in	\$32.00
74586	2.00 in	3.00 in	\$32.00
74587	2.50 in	3.00 in	\$32.00
73801	3.00 in	3.00 in	\$32.00

## Captured Ball Floor Scale Leveling Feet





Stainless Steel

## Part Number/Price

Part#	Foot Diameter	Thread Size Inches	Height	Price
Carbon St	eel			
74578	1.87 in	1/2-20 UNF	3.50 in	\$45.00
74579	2.00 in	1/2-20 UNF	3.50 in	\$45.00
74580	2.50 in	1/2-20 UNF	3.50 in	\$45.00
74581	3.00 in	1/2-20 UNF	3.50 in	\$45.00
74582	3.00 in	3/4-16 UNF	4.50 in	\$56.00
74583	3.00 in	1-12 UNF	4.50 in	\$67.00
74584	3.00 in	1-14 UNF	4.50 in	\$67.00
171449	3.00 in	1-14 UNF	5.00 in	\$83.00
173018	4.40 in	3/4-16 UNF	3.13 in	\$96.00
174937	5.40 in	3/4-16 UNF	4.13 in	\$139.00
Stainless :	Steel			
74572	1.87 in	1/2-20 UNF	3.50 in	\$80.00
74573	2.00 in	1/2-20 UNF	3.50 in	\$80.00
73800	2.50 in	1/2-20 UNF	3.50 in	\$80.00
74574	3.00 in	1/2-20 UNF	3.50 in	\$80.00
74575	3.00 in	3/4-16 UNF	4.50 in	\$113.00
74576	3.00 in	1-12 UNF	4.50 in	\$136.00
74577	3.00 in	1-14 UNF	4.50 in	\$136.00
92380*	2.50 in	1/2-20 UNF	3.50 in	\$80.00
175615	3.47 in	1/2-20NF	2.62 in	\$108.00

## \*Stem is fully threaded

#### **Standard Features**

#### Carbon steel

- · Bright zinc and clear chromate plating for corrosion resistance
- Active ball suspension provides ideal load cell loading with maximum side load protection
- Hardened alloy steel with plated finish
- · Includes one jam nut in carbon steel and stainless steel feet
- Top of stud is machined undersized 10% for easy alignment into load cell plus slotted for top-access applications

#### Stainless steel

- Provides outstanding accuracy, repeatability and performance
- Active ball suspension provides optimal load cell performance
- Hardened stainless steel material, welded with polished finish
- Includes one jam nut in carbon steel and stainless steel feet
- Top of stud is machined undersized 10% for easy alignment into load cell plus slotted for top-access applications

## **Leveling Pads**



#### **Standard Features**

- Replacement feet adapt to most floor scales
- Available in mild steel or stainless steel
- Simple swivel design
- Use with single-ended shear beams or bending beams to provide a large, flat load introduction surface

#### Part Number/Price

Part#	Thread Size	Height	Diameter	Price
Mild Steel				
18817	1/2-13 NC	1.12 in	1.87 in	\$27.00
18820	3/4-10 NC	1.50 in	3.00 in	\$47.00
Stainless Ste	el			
18818	1/2-13 NC	1.12 in	1.87 in	\$63.00
18833	3/4-10 NC	1.50 in	3.00 in	\$109.00

Used in conjunction with leveling pad stems

## **Leveling Mount**



#### Part Number/Price

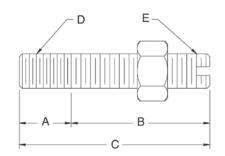
Part#	Thread Size	Height	Diameter	Price
18819	1/2-13 NC	1.81 in	5.00 in	\$106.00

#### **Standard Features**

- Designed for use with some floor scales or machinery platforms
- Can limit vibrations transmitted to the scale through the floor
- · Provides vibration isolation on most portable platforms

# **Leveling Pad Stems**





#### **Standard Features**

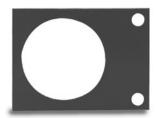
- For use with leveling pads
- One jam nut included

#### Part Number/Price

Part#	Α	В	С	D	E	Slot	Material	Price
Mild Steel								
17693	0.75 in	2.00 in	2.75 in	3/4-10 UNC	3/4-16 UNF	No	1045	\$17.00
Stainless Steel								
17689	0.50 in	1.50 in	2.00 in	1/2-13 UNC	1/2-20 UNF	Yes	Stainless steel	\$25.00
17695	0.75 in	2.00 in	2.75 in	3/4-10 UNC	3/4-16 UNF	No	Stainless steel	\$40.00

Warning: Do not use to suspend a load

## RoughDeck® Scale Base



#### Part Number/Price

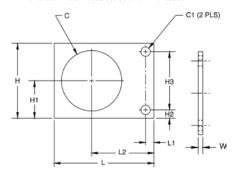
Part#	Description	Price
19075	Mild steel, 1,000 to 10,000 lb	\$19.00
19076	Stainless steel, 1,000 to 10,000 lb	\$25.00

#### **Dimensions**

Part #	С	C1	Н	H1	H2	Н3	L	L1	L2	W
19075	3.62 in	0.56 in	4.50 in	2.25 in	0.50 in	3.50 in	6.00 in	0.50 in	3.75 in	0.25 in
19076	3.62 in	0.56 in	4.50 in	2.25 in	0.50 in	3.50 in	6.00 in	0.50 in	3.75 in	0.25 in

#### **Standard Features**

- Secures RoughDeck and other popular floor scales
- · Prevents movement in horizontal plane
- Useful with SureFoot™ and other load cell foot assemblies
- · Available in stainless steel and mild steel



## Summit® 3000 Scale Base



#### Part Number/Price

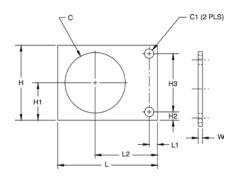
Part#	Description	Price
76149	Mild steel, 2,000 to 10,000 lb	\$19.00

#### **Dimensions**

Part #	С	C1	Н	H1	H2	НЗ	L	L1	L2	W
76149	3.19 in	0.56 in	4.50 in	2.25 in	0.50 in	3.50 in	6.00 in	0.50 in	3.75 in	0.25 in

#### **Standard Features**

• Mounting plate for Summit 3000 floor scales



## Floor Scale Base





#### Part Number/Price

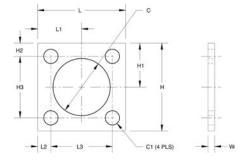
Part#	Description	Price
18737	Mild steel, 1,000 to 10,000 lb	\$9.00
18738	Mild steel, 10,000 to 20,000 lb	\$10.00
18751	Stainless steel, 1,000 to 10,000 lb	\$34.00

#### **Dimensions**

Part#	С	C1	Н	H1	H2	Н3	L	L1	L2	L3	W
18737	2.00 in	0.53 in	4.00 in	2.00 in	0.50 in	3.00 in	4.00 in	2.00 in	0.50 in	3.00 in	0.25 in
18738	3.25 in	0.81 in	5.00 in	2.50 in	0.75 in	3.50 in	5.00 in	2.50 in	0.75 in	3.50 in	0.38 in
18751	2.00 in	0.53 in	4.00 in	2.00 in	0.50 in	3.00 in	4.00 in	2.00 in	0.50 in	3.00 in	0.25 in

#### **Standard Features**

- Suitable for use with leveling pads
- Generic mounting plate for popular floor scales
- Fits most floor scale foot assemblies
- Available in stainless steel and mild steel (mild steel parts are zinc plated/painted)



# HARDWARE AND

# **Complete Custom Cable Services**



#### **Approvals**





#### **Standard Features**

- Special cable requirements
- Custom-built cable designed specifically for your application
- Choose from design elements and Rice Lake Weighing Systems will build a cable to your specifications
- Quick turnaround
- · Competitively priced
- 5,000 ft minimum purchase

#### **Specifications**

Jacket Material: PVC Polyurethane Double-jacketed

#### **Conductors:**

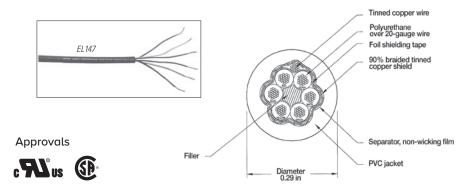
Unlimited number Twisted pairs Color code Gauge

Shielding: Braided Foil

Jacket Colors:
Black, brown, green, orange, red, blue, yellow, gray, natural

#### Ink Colors:

Black, white, silver, orange Custom logos



#### **Standard Features**

#### **EL147 Standard Cable**

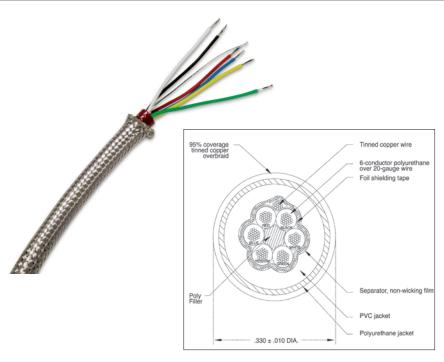
- · 20 AWG tinned copper wire stranded for flexibility
- Braided shielding is encased in red PVC
- All conductors are industry-standard color-coded
- Diameter: 0.29 in
- The six-wire cable is best suited for longer runs where remote sense lines can be used
- Temperature rating: -22 °F to 126 °F (-30 °C to 80 °C)

#### Part Number/Price

Part#	Continuous Roll	Description	Price
15515	100 ft	Six-conductor cable	\$245.00
15516	250 ft	Six-conductor cable	\$535.00
15517	500 ft	Six-conductor cable	\$950.00
15518	1,000 ft	Six-conductor cable	\$1,875.00
15495	Custom length	Six-conductor cable	\$2.45/ft

## EL147RP Plus, 6 Wire

Rodent Protection Load Cell Cable



#### **Standard Features**

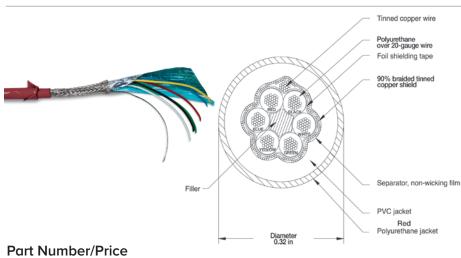
#### **EL147RP Rodent Protection Cable**

- Tinned copper overbraid provides superior rodent and abrasion deterrent
- Enhanced EMI/RFI protection
- Six-conductor industry-standard color-coded
- Ideal for truck and railroad-track scales
- Diameter: 0.33 in
- Temperature rating: -22 °F to 176 °F (-30 °C to 80 °C)
- Jacket coating enhanced with a chemical coating "NAW" that is distasteful to rodents

Part#	Continuous Roll	Description	Price
31475	Custom length	Six-conductor rodent protection cable	\$4.25/ft
131964	100 ft	Six-conductor rodent protection cable	\$415.00
131965	250 ft	Six-conductor rodent protection cable	\$950.00
131966	500 ft	Six-conductor rodent protection cable	\$1,875.00
131967	1,000 ft	Six-conductor rodent protection cable	\$3,595.00

## EL147HE, 6 Wire

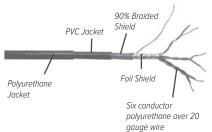
#### Hostile Environment Load Cell Cable



#### **Standard Features**

#### **EL147HE Hostile Environment Cable**

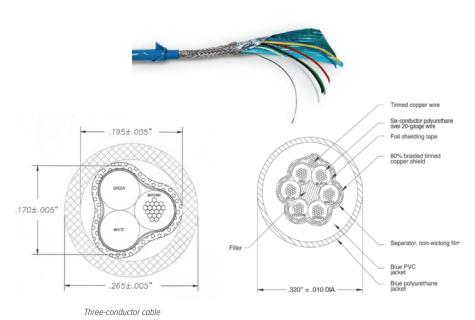
- Designed for use in hostile environments
- Polyurethane jacketing provides superior chemical and abrasion resistance
- RFI and EMI protected with foil overbraid shield
- Unmatched durability, yet extremely flexible
- · All conductors are industry-standard color-coded
- Diameter: 0.32 in
- Temperature rating: -22 °F to 176 °F (-30 °C to 80 °C)



Part#	Continuous Roll	Description	Price
15520	100 ft	Six-conductor hostile environment cable	\$285.00
15521	250 ft	Six-conductor hostile environment cable	\$675.00
15522	500 ft	Six-conductor hostile environment cable	\$1,225.00
15523	1,000 ft	Six-conductor hostile environment cable	\$2,125.00
15496	Custom length	Six-conductor hostile environment cable	\$2.95/ft

## EL147IS, 6 Wire

Hazardous Environment Blue Jacket Load Cell Cable



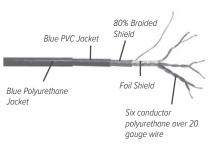
#### Part Number/Price

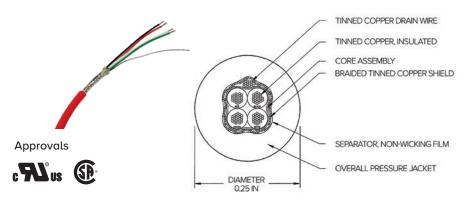
Part#	Description	Price
32817	EL147IS, blue jacket six-conductor	\$3.65/ft
72241	Blue jacket, shielded three-conductor, UL and CSA recognized	\$3.15/ft

#### **Standard Features**

#### EL147IS Hazardous Environment Blue Jacket Cable

- Designed for intrinsically safe applications (must be wired according to Factory Mutual System-approved diagram)
- Polyurethane over PVC double jacketing provides superior chemical and abrasion resistance
- Both foil and braided wire shields for added RFI and EMI protection
- Six-conductor is industry-standard color-coded (Also available three-conductor)
- Suited for longer runs where remote sense lines can be used
- Temperature rating:
   -22 °F to 176 °F (-30 °C to 80 °C)
- · Diameter: 0.32 in





#### Part Number/Price

Part#	Continuous Roll	Description	Price
15505	100 ft	Four-conductor cable	\$155.00
15506	250 ft	Four-conductor cable	\$375.00
15507	500 ft	Four-conductor cable	\$725.00
15508	1,000 ft	Four-conductor cable	\$1,150.00
15493	Custom length	Four-conductor cable	\$1.65/ft

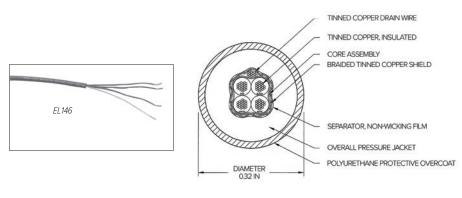
#### **Standard Features**

#### **EL146 Standard Cable**

- · Four-wire load cell cable
- · 20 AWG tinned copper wire stranded for flexibility
- Braided shielding is encased in red PVC
- All conductors are industry-standard color-coded
- Diameter: 0.25 in
- Use the four-wire cable for repairing or extending existing cable
- · Temperature rating: -22 °F to 126 °F (-30 °C to 80 °C)

## EL146HE, 4 Wire

Hostile Environment Load Cell Cable



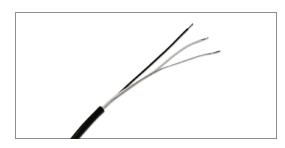
#### **Standard Features**

#### **EL146HE** Hostile Environment Cable

- Designed for use in hostile environments
- Polyurethane jacketing provides superior chemical and abrasion resistance
- RFI and EMI protected with foil overbraid shield
- Unmatched durability, yet extremely flexible
- · All conductors are industry-standard color-coded
- Diameter: 0.32 in
- Temperature rating: -22 °F to 176 °F (-30 °C to 80 °C)

Part#	Continuous Roll	Description	Price
15510	100 ft	Four-conductor hostile environment cable	\$195.00
15511	250 ft	Four-conductor hostile environment cable	\$465.00
15512	500 ft	Four-conductor hostile environment cable	\$875.00
15513	1,000 ft	Four-conductor hostile environment cable	\$1,750.00
15494	Custom Length	Four-conductor hostile environment cable	\$2.10/ft

## **EL144 Communications Cable**



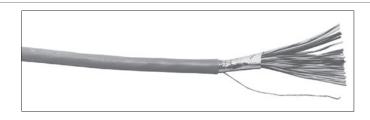
#### Part Number/Price

Part#	Description	Price
32803	EL144	\$1.30/ft
72691	EL144, 100 ft	\$115.00
72072	EL144, 500 ft	\$495.00
72693	EL144, 1,000 ft	\$925.00

#### **Standard Features**

- Two-conductor with bare ground
- · RFI/EMI protected with foil shield
- 20 gauge conductors
- Perfect for RS-232, two-wire RS-485 and 20 mA current loop communications
- Diameter: 0.19 in
- Conductor colors are black and white

## **BCD** Cable



## **Standard Features** • Sheathed in gray PVC

- · Mylar aluminum foil shield with stranded tinned copper drain wire
- Diameter: 0.375 in

#### Part Number/Price

Part#	Description	Price
15497	BCD, 24 AWG, 30-conductor	\$35.00/ft

# Fiber-optic Cable



Color Code: Black-TXD, Blue-RXD

#### **Standard Features**

- Duplex cable polyethylene black jacket material
- · Plastic fiber core
- 4.4 + 0.10 mm outer diameter of duplex cable
- 2.2 + 0.007 mm single cable outer diameter
- Operating temperature: 32 °F to 158 °F (0 °C to 70 °C)

Part#	Description	Price
78910	Custom length	\$1.85/ft
78026	100 ft cable	\$185.00
78027	200 ft cable	\$350.00
78028	300 ft cable	\$447.00
83052*	Flber-optic connector	\$55.00
80892	Fiber-optic cable cutter	\$15.00
85548	Fiber-optic hot knife	\$75.00

<sup>\*</sup>Duplex fiber cable requires two connectors

## SURVIVOR® EL620HE

High Temperature Cable

## SURVIVOR® Cable Armor

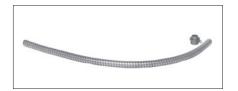


#### **Standard Features**

- · Multi-conductor overall foil and braid shield
- Suitable for temperatures from -40 °C (-40 °F) to 200 °C (392 °F)
- Insulation thickness: 0.010 in
- Jacket thickness: 0.017 in
- 18 gauge, tinned copper conductors
- · Six-conductor
- FEP jacket, resistant to chemical corrosion and high temperature
- Aluminum-polyester shield with 85% tinned copper braid shield
- 150 V NEC 725 Class 2 classified for use in an air plenum non-conduit
- 0.24 in diameter cable

#### Part Number/Price

Part#	Description	Price
15605	EL620HE	\$17.00/ft



#### **Standard Features**

- Flexible all-metal protective armor
- · Ideal for protecting load cell cable from mechanical abrasion or rodents
- · Available in stainless steel and galvanized steel
- 0.5 in internal diameter, 2.0 in minimum bend radius
- Optional end fitting with 1/2 in male pipe thread

#### Part Number/Price

Part#	Description	Price
17808	Galvanized steel	\$4.75/ft
17806	Stainless steel	\$5.75/ft
17807	Optional end fitting	\$2.85 each

## EL148HE Mettler Toledo®

Power Cell Replacement Cable

# Mettler Toledo® Power Cell®

Homerun Cable

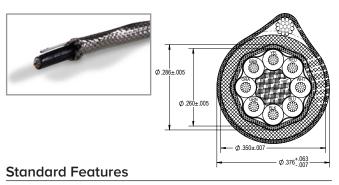


#### **Standard Features**

- 100% stainless steel military connector-electro deposited nickel plating with stainless banding and epoxy heat-shrink strain relief
- Stainless steel arctic ring precision cut for improved connection
- Textured rubber boot for additional grip
- Standard Mettler Toledo color code
- Compatible with Mettler Toledo Powercell CMOS/NMOS and MTX load cells. NOT compatible with Mettler Toledo PDX load cells.
- · Custom lengths available

#### Part Number/Price

Part#	Cable Length Each	Price
100268	8 ft	\$395.00
101102	12ft	\$415.00
104164	15ft	\$395.00
100269	26 ft	\$435.00
100270	35 ft	\$450.00



- · Galvanized steel drain wire
- 20 gauge 8 conductors
- · Stainless steel braid shield

Part#	Description	Price
194837	Galvanized steel	\$8.75/ft

## **Load Cell Conduit Adapters**



#### **Standard Features**

- Used to adapt conduit to load cells
- 303 stainless steel

#### Part Number/Price

Part#	A	В	Price
Thread-On			
31533	3/8-24 UNF	_	\$40.00
31534	_	1/4-18 NPT	\$40.00
31535	5/8-18 UNF	1/2-14 NPT	\$40.00

Note: 31533 and 31534 are used together to form male-to-male adapter

## **Cord Grip Assemblies**





#### **Standard Features**

- Assemblies include cord grip, locknut, O-ring seal, gray and black reducer glands
- Fittings are made of weather- and corrosion-resistant nylon

#### Part Number/Price

Gland Cal	Gland Cable Ranges					
Part #	Thread	Panel Hole Diameter	Regular (Black)	Reducer (Gray)	Price	
15669	PCN9	0.625 in	0.157 to 0.314 in	0.118 to 0.236 in	\$5.50	
15670	3/8 NPT	0.687 in	0.157 to 0.314 in	0.118 to 0.236 in	\$5.00	
15671	1/2 NPT	0.844 in	0.236 to 0.472 in	0.200 to 0.354 in	\$5.75	

# EL214 Cable Splicing Kit



#### **Standard Features**

#### **EL214**

- Designed for a complete, professional transducer cable splice
- Prevents moisture from entering the load cell through the cable connector
- Each kit contains a high-impact plastic splicing box, liquid-tight cable fittings, circuit card, PTFE sleeving, pre-measured potting compound and complete instructions
- · Solder terminals

#### **Specifications**

#### **Dimensions:**

(L × W × H) 3.00 × 1.00 × 1.50 in

#### **Mounting Centers:**

2.50 in

#### Number of Connections: Seven

Cable Diameter:

#### 0.187 to 0.312 in

## Cure Time For Potting:

Two hours at 73 °F (23 °C)

Part#	Description	Price
15485	EL214	\$155.00

## **EL214T Cable Splicing Kit**



#### **Standard Features**

#### **EL214T**

- Designed to accommodate cables larger than the EL214; all other dimensions and performance features are the same
- Solder terminals

#### **Specifications**

#### **Dimensions:**

 $(L \times W \times H)$  $3.00 \times 1.00 \times 1.50$  in

#### **Mounting Centers:**

2.50 in

#### **Number of Connections:**

Seven

#### Cable Diameter:

0.187 to 0.312 in

#### **Cure Time For Potting:**

Two hours at 73 °F (23 °C)

#### Part Number/Price

F	Part#	Description	Price
1	15486	EL214T	\$210.00

## **EL215 Cable Splicing Kit**



#### **Standard Features**

- Designed for use in weather-exposed or direct-burial locations
- Each kit contains plastic splicing tube, circuit board, insulating resin and instructions
- Solder terminals

#### **Specifications**

#### **Dimensions:**

 $(L \times W)$ 6.00 × 1.38 in

**Number of Connections:** 

#### Cable Diameter:

Up to 0.75 in

#### **Cure Time For Potting:**

2 hours at 70 °F (21 °C)

#### Part Number/Price

Part#	Description	Price
15612	EL215	\$125.00

## Flintec® Load Cell Cable

Replacement Kits



## **Standard Features**

• Each kit includes cable for four Flintec SB4 load cells as listed

Part#	Description	Cable Length Ea. Feet	Price
18412	For SB4, 225 to 5,200 lb	10 ft	\$385.00
18413	For SB4, 11,250 to 22,500 lb	15 ft	\$415.00

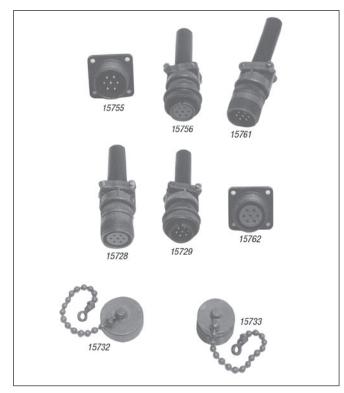
## Five-Position Connectors, Shell Plugs, Receptacles

## Six-Position Connectors, Shell Plugs, Receptacles



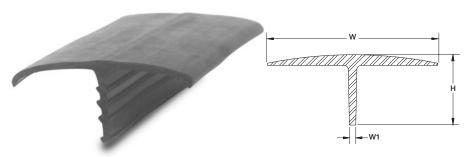


## Seven-Position Connectors, Shell Plugs, Receptacles



Part#	Description	Price
15753	Five-pin, external thread	\$35.00
15722	Five-socket, internal thread	\$36.00
15723	Five-pin, internal thread	\$35.00
15757	Five-socket, external thread	\$40.00
15754	Five-pin chassis mount, external thread	\$40.00
15758	Five-socket chassis mount, external thread	\$26.00
15730	Dust cap for ext. thread five-position connector	\$17.00
15731	Dust cap for int. thread five-position connector	\$22.00
15759	Six-pin, external thread, male	\$35.00
60124	Six-socket, internal thread connector, female fits Toledo load cells, Condec indicators	\$30.00
15727	Six-pin, internal thread, male	\$34.00
15724	Six-socket, external thread	\$38.00
15726	Six-pin chassis mount, external thread	\$27.00
15760	Six-socket chassis mount, external thread	\$26.00
15730	Dust cap for ext. thread six-position connector	\$17.00
15731	Dust cap for int. thread six-position connector	\$22.00
15761	Seven-pin, external thread	\$36.00
15756	Seven-socket, internal thread	\$38.00
15729	Seven-pin, internal thread	\$38.00
15728	Seven-socket, external thread	\$38.00
15755	Seven-pin chassis mount, external thread	\$27.00
15762	Seven-socket chassis mount, external thread	\$30.00
15732	Dust cap for ext. thread seven-position connector	\$23.00
15733	Dust cap for int. thread seven-position connector	\$34.00

## **T-Grip Molding**



#### **Standard Features**

- Designed for use in truck scale applications to prevent spillover into the pit
- Impact, tear and weather-resistant EPDM rubber
- Barbed web to hold molding in place
- · Web thickness 0.22 in
- Available by the foot: 10 ft, 11 ft, 70 ft, 80 ft and 100 ft lengths
- Maximum continuous length is 450 ft

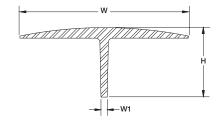
#### Part Number/Price

Part#	Н	W	W1	Length	Price
18799	2.56 in	5.75 in	0.22 in	Sold by the foot	\$13.00/ft
18800	2.56 in	5.75 in	0.22 in	10 ft	\$100.00
18801	2.56 in	5.75 in	0.22 in	11 ft	\$110.00
18802	2.56 in	5.75 in	0.22 in	70 ft	\$795.00
33219	2.56 in	5.75 in	0.22 in	80 ft	\$895.00
33222	2.56 in	5.75 in	0.22 in	100 ft	\$1,125.00

Note: Maximum continuous length is 450 ft. Call for price and availability.

# **T-Strip Molding**





#### **Standard Features**

- Designed for use in truck scale applications to prevent spillover into the pit
- · Impact, tear and weather-resistant SBR rubber
- · Web thickness 0.25 in
- Available by the foot: 10 ft, 11 ft, 70 ft, 80 ft and 100 ft lengths
- Maximum continuous length is 450 ft

#### Part Number/Price

Part#	Н	W	W1	Length	Price
18736	2.00 in	4.50 in	0.25 in	Sold by the foot	\$12.00/ft
18776	2.00 in	4.50 in	0.25 in	10 ft	\$95.00
18797	2.00 in	4.50 in	0.25 in	11 ft	\$105.00
18798	2.00 in	4.50 in	0.25 in	70 ft	\$695.00
33223	2.00 in	4.50 in	0.25 in	80 ft	\$825.00
33224	2.00 in	4.50 in	0.25 in	100 ft	\$1,025.00

Note: Maximum continuous length is 450 ft. Call for price and availability.

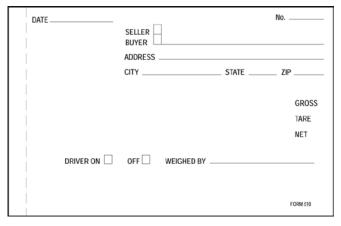
## **Electronic Scale Tickets**

#### **Standard Features**

#### Hecon® Printers, EL522 & EL516 - 20266

- · Triplicate interleaved
- Size (L × W): 7.875 × 4.25 in (200 × 127 mm)
- Order quantity: 500 per package
- Carbonless

20266



#### **Standard Features**

#### SP2200, SP2000 - 20265

- Triplicate interleaved, perforated and glued on one end
- Size (W × L): 5.5 × 9 in (139.7 × 228.6 mm)
- Order quantity: 500 per package
- Carbonless

20265				Limit of Carbon Coverage
	ELEC.	TRONIC SCALE TICK	ET No.	
DATE			NO	_
SELLER BUYER				
ADDRESS				
спу	STATE	ZIP		
COMMODITY				
PRICE				
REMARKS				
l   _	☐ OFF			
WEIGHER				
Form ES-4				

#### **Standard Features**

#### Rice Lake Scales - 71630 or 105182

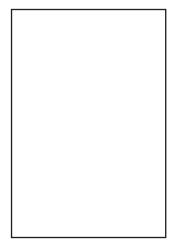
- Duplicate or triplicate
- Size (W × L): 4.25 × 7 in (107 × 177.8 mm)
- Attached at 4.25 side
- Order quantity: 500 per package
- Custom (duplicate): Add company name (min. order two packs)
- Custom (triplicate): Add company name (min. order two packs)
- Carbonless



#### **Standard Features**

#### Blank Scale Ticket - 22263

- Triplicate
- White, canary yellow and pink
- Size (L × W): 5.50 × 4.25 in (140 × 108 mm)
- Attached at 4.25 edge
- Order quantity: 100 per package
- · Custom: Add company name (min. order of 1,000)
- Carbonless



Part #	Description	Price
20266	Hecon printers, EL522 & EL516, 500/pack	\$110.40
20265	SP2200, SP2000, EL250 & EL500, 500/pack	\$114.00
71630	Rice Lake ticket, two part, 500/pack	\$60.00
105182	Rice Lake ticket, three part, 500/pack white, canary yellow, pink	\$86.50
22263	Blank scale ticket, 100/pack	\$25.00 each

## **Mechanical Scale Tickets**

#### **Standard Features**

#### Fairbanks Scales® - 20260

- Carbonless triplicate with 2 in (50.8 mm) tear-off flap
- Size (W × L): 4.75 × 1.875 in (120.7 × 47.6 mm)
- Order quantity: 500 per package

	WEIGHED ON A	A FAIRBANKS SCALES	No	
Load		Date		
From	·			
Gross	lbs.	То		
Tare	lbs.	Address		
Net	lbs.	Price	Amt	d by
On	Off	Weigher	Printed in U.S.A.	Received

#### **Standard Features**

#### Howe Scales - 20261

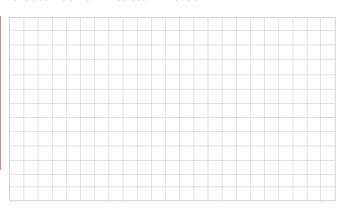
- Carbon triplicate with 2 in (50.8 mm) tear-off flap
- Size (W × L): 5.5 × 1.75 in (139.7 × 44.5 mm)
- Order quantity: 500 per package

Weight obtained by using	Weight obtained by using THE HOWE PATENTED RECORDING BEAM No				
From	To				
g Gross	Load of				
Net		Weigher			

#### Part Number/Price

Part #	Description	Price
20260	Fairbanks Scales, 500/pack	\$78.00
20261	Howe Scales, 500/pack	\$78.00

#### Create Your Own Custom Ticket



Send us a copy of the existing custom format or drawing of a completely new one. Please specify number of carbon copies, dimensions, colors and text. Minimum order quantity may apply.

## **Printer Dust Covers**



Protect your electronic scales, weight indicators and printers with a scale veil or printer dust cover.

#### **Standard Features**

- Tough, flexible transparent vinyl, constructed with heavy-duty stitching
- · Loose fit allows for operation of switches or controls through the dust cover
- Available for most types of scale equipment

#### Part Number/Price

Part #	Model	Price
<b>EPSON</b> °		
29582	TM290/295	\$58.00
35666	TM-U200 TM-U220	\$63.00
111840	TM-U590	\$69.00
Oki-Data <sup>®</sup>		
21208	Oki-Data 184 Turbo Printer	\$65.00
21226	Oki-Data 320/390	\$65.00

Custom covers and specials available; consult factory.





156807 (3m) 156808 (5m)

#### Part Number/Price

Part Nu	mber/Price	
Part #	Description	Price
Interface C	ables for TicketPress, SP-2200, TM-U295, TM-U590 and Star® Printers	
15547	Blunt end, 25-pin D-sub male RS-232 serial interface cable	\$70.00
15548	25-pin D-sub male to 25-pin D-sub male 20 mA serial interface cable (SP2200 only)	\$70.00
15568	25-pin D-sub male to 25-pin D-sub male RS-232 serial interface cable	\$70.00
Consult	Custom 20 mA/RS-232 serial interface cable	\$95.00
Interface C	ables for I-Class	
15547	Blunt end, 25-pin D-sub male RS-232 serial interface cable	\$70.00
Consult	Custom RS-232 interface cable	\$95.00
Interface C	ables for Desktops, GoDEX Models, Zebra, E-4203 and M-4206	
41276	DB9 male RS-232 cable to blunt end	\$77.00
Straight Ca	ble	
70056	DB9 male to DB9 female	\$40.00
50749	DB9 female to DB9 female	\$60.00
41279	DB25 male to DB9 male	\$70.00
72440	DB25 male to DB9 female	\$67.00
Null Moder	n Cable	
66535	DB9F to DB9 female, Null modem	\$48.00
64794	DB9 male to DB9 female	\$69.00
USB Cable		
79074	USB-A (male) to USB-B (male) cable, 6 ft	\$35.00
156806	USB-A (male) to USB-A (male) cable, 1 m	\$35.00
156807	USB-A (male) to USB-A (male) cable, 3 m	\$50.00
156808	USB-A (male) to USB-A (male) cable, 5 m	\$60.00
156809	USB-A (male) to USB-B (male) cable, 1 m	\$55.00
156815	USB-A (male) to USB-B (male) cable, 3 m	\$55.00
156811	USB-A (male) to USB-B (male) cable, 5 m	\$70.00
Ethernet Ca	able/RJ45	
72697	RJ45 to RJ45, 7 ft	\$40.00
78860	RJ45 to RJ45, cross over 7 ft	\$40.00
75594	RJ45 to nine-pin female	\$70.00
156817	RJ45, 1 m	\$35.00
156818	RJ45, 3 m	\$42.00
156821	RJ45, 5 m	\$50.00
	es and Adapters	
22436	Blunt end, nine-pin D-sub female	\$70.00
130213	Blunt end DB25 male	\$58.00
165698	Female to male gender changer	\$11.25
119064	Slimline, Null modem gender changer, DB9 female/female	\$12.50
130789	Null modem DB9 M/F	\$14.50

Blunt-end cables interface to: UMC444, UMC555, UMC600, IQ700, IQ plus® 310A, IQ plus® 355, IQ plus® 390-DC, IQ plus® 510, IQ plus® 590-DC, IQ plus® 710, IQ plus® 800, and IQ plus® 810, 520 and 920i®

Custom cables are designed to interface with your specific equipment. Please specify equipment model number and connector type. Standard cable length is 5 ft.



156817 (1m) 156818 (3m) 156821 (5m)



Part #	Staticmaster Part #	Description	Price
76669	1C200	Static brush 1 in	\$140.00
76670	1C200R	Replacement cartridge	\$90.00



Part #	Staticmaster Part #	Description	Price
76671	3C500	Static brush 3 in	\$210.00
76672	3C500R	Replacement cartridge	\$145.00

## **Ionizing Strips**



Part #	Staticmaster Part #	Description	Price
76677	1U400	Ionizing unit 1 × 1in 500 microcurries	\$250.00
76678	1U200	Ionizing unit 1 × 1 in 250 microcurries	\$150.00
76676	2U500	Ionizing unit 1 × 3 in	\$250.00

## **Ionizing Strip Accessories**



Part #	Staticmaster Part #	Description	Price
76679	BF1	Ionizer positioner	\$73.00
76680	BF2	Ionizer positioner only - C bracket	\$105.00

## **Desiccants**

## Industrial Corrosion Inhibitor



Part Number/Price

Description

Mini Pax® 7 g

NatraSorb® 20 g

Silica get 1 unit pkg 3 g

Part#

16038

16039

92240

#### **Standard Features**

- Bagged desiccants to protect your enclosed electronic components from moisture and humidity
- Useful in junction boxes, indicators and all scale electronics

Price \$1.30 \$2.30



#### **Standard Features**

- Special chemical combination provides superior protection
- Protects 5 cubic ft/1.4 cubic m of enclosure volume for approximately
- Dimensions: (W × H) 2.5 × 1.5 in (64 × 38 mm)

#### Part Number/Price

Part#	Description	Price
16037	Corrosion inhibitor	\$45.00

## **Crimper and Lead Seals**





#### Part Number/Price

Part#	Description	Price
21111	Crimper and two die blanks	\$155.00
15318	Crimper die blank (replacements)	\$67.00
15317	100 seals/pkg	\$60.00

#### **Standard Features**

#### Crimper

- 5.0 in (127 mm) seal press with two 0.5 in (13 mm) engraving dies
- Maximum number of characters that can be engraved on die is nine
- Compound leverage
- · Quick delivery on custom dies

#### **Lead Seals**

- · Heavy-duty seal with galvanized steel wire
- Length 16.0 in (406 mm)

## Static Control Table Mat and Floor Mat



An absolute must for every workbench, this kit includes a 3-layer  $2 \times 4$  ft table mat,  $4 \times 6$  ft floor mat, ground cord and adjustable wrist strap. Designed specifically for energized circuit work, the static control table and floor mat provide superior protection against ESD.

#### Part Number/Price

Part#	Part # Description	
34265	Static control table mat and floor mat	\$925.00

## **Static Control Wrist Strap**



The single most important personal accessory for protecting ESD sensitive components and circuits, this wrist strap protects against charges from the body. The wrist strap consists of a comfortable elastic cuff or band and a detachable conductive cord for grounding the wrist band.

#### Part Number/Price

Part#	Description	
34263	Static control wrist strap	\$62.00

## **Static Shielding Bags**



This static shield bag offers total ESD protection, whether you're transporting ESD-susceptible products across the room or across the country. The outer layer of the bag consists of an abrasion-resistant polyester, while the antistatic polyethylene inner layer retards triboelectric static charging from inside the bag.

#### Part Number/Price

Part# Description		Price
16150	Static shielding bags, 8 × 10 in	\$1.20 each
16151	Static shielding bags, 12 × 18 in	\$3.50 each

## Static-safe Service Kit



#### **Standard Features**

- Eliminates static for safe board replacement
- Connects a field service technician and the static-safe work surface to the same ground point
- $\bullet \quad \text{Harmlessly drains static charges from the body and from any conductive objects placed on the mat}\\$
- Folds into a compact unit for transport and storage

Part#	Description	Price
32818	Static-safe service kit	\$215.00

## Rice Lake's Scale Technician Kits

Take Rice Lake's commitment to customer service into the field. Rice Lake's Scale Technician Kit has everything you need in one convenient backpack to troubleshoot and repair wherever you are.

#### PN 166205

## Technician Tool Kit

\$1,050.00

- Rice Lake backpack
- · Simulator with vernier
- · Digital volt meter
- · Communication Kit



#### PN 166204

#### **Communication Kit**

\$175.00

- · Cinch sack
- · Document Kit
- Six-in-one screwdriver
- · Small RLWS screwdriver
- Test LEDs
- · USB to serial converter
- DB9M to DB9F straight cable
- DB9F to blunt end cable
- DB25M to blunt end cable
- Female to female DB9 null modem adapter
- Female to male DB9 gender changers
- · Null modem adapter
- TCP/IP patch cable
- TCP/IP crossover cable



#### PN 166203

#### **Document Kit**

\$10.50

- Pinouts for a DB9 and DB25 cable shows both male and female connectors
- Pinouts and color codes for a patch and crossover Ethernet cable
- Recommended maximum cabling distances of RS-232, 20mA, 485 and Ethernet TCP/IP
- Standard ASCII chart in both decimal and hexadecimal
- Links to website to download latest version of Revolution® and iRev® (on CD)
- Link to freeware terminal program download (PUTTY, Hercules, RealTerm, etc.)
- · Load cell color wire chart
- · Weigh Modules and Vessel Weighing Handbook PN 43918
- · Load Cell and Weigh Module Handbook PN 22054



#### PN 118432

**Small Screwdriver** 

\$4.00

