

Cardinal

 **Cardinal.**  
Cardinal Scale Manufacturing Co.





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Products bearing this symbol are manufactured in compliance with recommendations set forth in Handbook 44, issued by the National Institute of Standards and Technology and have been issued a Certificate of Conformance under the National Type Evaluation Program.



Products bearing this symbol have been evaluated and found to conform with the appropriate requirements and issued a Notice of Approval by Measurement Canada, an agency of Industry Canada.



Products bearing this symbol have been tested and found to conform with the applicable safety directives of the European Union.



Products bearing this symbol require some assembly and setup that is not included in purchase price. Contact your local Cardinal/Detecto scale technician for this service.



Products bearing this symbol meet or exceed the applicable National Sanitation Foundation requirements for equipment used in processing food.



Products bearing this symbol have been evaluated and found to conform with the appropriate legal metrology recommendations for the European Union and have been issued an OIML certificate of conformity by the responsible member state. Scales identified with this mark are legal for trade within the European Union and in other countries accepting this OIML approval.

## SYMBOL KEY



# Working Together

Cardinal Scale's 400-employee strong workforce combine with an experienced global network of distributors providing you with the latest weighing systems for your application and a friendly face to help serve you. Please call us or visit our Web site today to find out how the Cardinal family is "building a better weigh" for our customers.



## SCALES & WEIGHING SYSTEMS



### CORPORATE HEADQUARTERS

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203 East Daugherty St.  
Webb City, MO 64870

**Phone:** (417) 673-4631  
**Fax:** (417) 673-5001  
**E-mail:** cardinal@cardet.com



### WAREHOUSES

**Canadian Warehouse**  
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Pickering, Ontario L1W 3W9

**Phone:** (905) 839-6239  
**Fax:** (905) 839-6522  
**E-mail:** canada@cardet.com



**European Warehouse**  
Units 17/18, Mercers Road  
Chapel Pond Hill  
Bury St. Edmunds, Suffolk,  
England IP32 7HX

**Phone:** 44-1284-703117  
**Fax:** 44-1284-703559  
**E-mail:** sales@cardinalscales.co.uk



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1500 Farmer Road  
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Conyers, GA 30207

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**Fax:** (770) 483-2838  
**E-mail:** atlanta@cardet.com



**Miami Branch**  
3215 NW 10th Terrace  
Suite 203  
Oakland Park, FL 33309

**Phone:** (954) 563-4120  
**Fax:** (954) 563-9920  
**E-mail:** miami@cardet.com



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**Parts Department:**  
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parts@cardet.com

**Quality Assurance:**  
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qa@cardet.com

**[www.cardet.com](http://www.cardet.com)**

**Factory Hours:**  
8 am - 5 pm CST Mon. - Fri.



## COMPANY HISTORY

Cardinal officially began operations in 1950 with founder William H. Perry. An experienced scale industry man from Webb City, Missouri, Perry created a new line of special capacity scales designed to meet the growing needs of customers during America's construction-era boom.



Cardinal 10-ingredient batching scale circa 1950.

With builder demand at an all-time high, Perry saw the necessity for improved weighing systems as development of the nation's highways, bridges and structures swept America. As the country postured for vast growth, Perry's scale designs pioneered a new method for batch weighing concrete, stone and asphalt.

As prosperity and progress seized America, Perry was authorized to launch his own company for the production of new, light-capacity scales to be marketed through the Webb Corporation. The response was overwhelming.

Perry's new line of scales proved to be so successful, the long-time employee of the Webb Corporation was compelled to resign his post and devote his full attention to his new and rapidly growing company. And so, Cardinal Scale was born.

Today, the company that emerged as the result of one man's foresight is the leader of industrial scales in that same small Missouri town, where Cardinal Scale calls home.



Cardinal headquarters, Webb City, MO, in 1960.

Cardinal floor scale with automatic tare circa 1960.

Perry's vision of responding to the specialized weighing needs of numerous industries enabled Cardinal to continue expansion of its

product line as well as the development of new and innovative weighing technology.

A drive to be the industry leader and an ever-creative spirit led Perry to make two major acquisitions that would further diversify Cardinal's product line over the years. Fuller Weighing Systems became part of the Cardinal family in 1980, giving the pail and drum filler making company the research and development support

to become the industry standard of excellence. One year later, Cardinal acquired New York City-based Detecto Scale Company. With roots reaching back to 1900, Detecto was established by three immigrant brothers who serviced the butchers supply business. The Jacobs Brothers branded Detecto as a symbol of superiority in the food industry and clinical field.

The Detecto acquisition in 1981 brought with it an important, new dimension for Cardinal: scale building and experience that dated back to the beginning of the 20th Century.

As Cardinal Scale continues to be the industry fore-runner in the 21st Century, the family-owned company

in Webb City, Missouri still maintains William H. Perry's determination to meet the unique weighing needs of its customers and the American spirit of building a product that is second to none. Cardinal is the largest independent scale manufacturer in the United States and is invested in the future to bring its customers the best weighing equipment on the market.



Cardinal beam type dormant scale with rollaway jack circa 1950.



Cardinal founder W.H. Perry

VISIT US ONLINE!

Access the latest product information!



[www.cardet.com](http://www.cardet.com)

[www.cardinalscale.com](http://www.cardinalscale.com)

[www.detecto.com](http://www.detecto.com)

Product Brochures • Engineering Drawings • Certifications • Press Releases • Case Studies • Pictures • Virtual Tours





### SINGLE SOURCE CONVENIENCE AND SECURITY

**Cardinal Scale provides a one-stop shop** for all your weighing needs with a complete line of peripheral equipment to complete your truck scale. Your risk is eliminated when you own a Cardinal truck scale, since you only have one call to make for new products and service support.

Our most popular vehicle weighing package includes an **EPR** Truck Scale (pages 10-11), **WinVRS** Vehicle Weight Management Software (pages 26-27), **225** Digital Weight Indicator (page 33), and **SB500** Remote Display (page 39).



# HYDRAULIC TRUCK SCALES



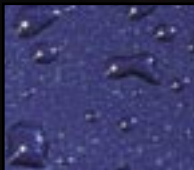
Hydraulic load cells are the most rugged and long-lasting weighing device available in the scale market. Cardinal's extensive truck scale experience has culminated in developing The Guardian™ Hydraulic Truck Scale, the most dependable truck scale you can buy.



**LIGHTNING AND POWER SURGES**  
Cardinal's hydraulic load cells, the heart of the Guardian™, are immune to electrical surges and from lightning damage. The instrumentation includes transient suppression to provide superior protection.



**SHOCK LOADING**  
The Guardian™ truck scale has built-in protection, inherent in its hydraulic load cells, against vibration and shock loading as part of the vehicle weighing process.



**WATER DAMAGE**  
The Guardian™ will operate completely submerged in water. Steam and humidity have no effect on scale operation, because all vulnerable electronic components are housed away from harsh climates.



**RODENT DAMAGE**  
The Guardian's™ copper tubing is protected against rodent damage. Rodents enjoy chewing on typical electronic load cell cables and can cause extensive damage and costly load cell replacements.

## WE PROVIDE MORE INSURANCE For Your Investment

Cardinal's Guardian™ Hydraulic Truck Scales are ideal for the solid waste, aggregate, chemical, grain, and construction industries because they offer a high level of protection against many of the conditions that can adversely affect truck scale installations. Water, lightning, power surges, explosive areas, corrosion, welding, shock loading, extreme temperature fluctuations and even rodents can cause scale problems, all at a cost to the owner. Cardinal's Guardian™ Hydraulic Truck Scale provides a superior level of performance which protects the scale against these conditions.

### Guardian™ EPR Low-Profile Hydraulic Truck Scales STEEL DECKS

Model	Platform Size	Tons Capacity	CLC* Tons	No. of Sections	Shipping Weight
H4020-EPR	20' x 11'	40	40	2	9,400 lb
H7040-EPR	40' x 11'	70	40	3	17,700 lb
H8050-EPR	50' x 11'	80	40	4	22,500 lb
H11060-EPR	60' x 11'	110	40	4	26,000 lb
H13570-EPR	70' x 11'	135	40	4	29,600 lb
H13580-EPR	80' x 11'	135	40	5	34,400 lb
H13590-EPR	90' x 11'	135	40	5	38,000 lb
H135100-EPR	100' x 11'	135	40	6	42,800 lb
H135120-EPR	120' x 11'	135	40	6	51,100 lb

### Guardian™ EPR Low-Profile Hydraulic Truck Scales CONCRETE DECKS

Model	Platform Size	Tons Capacity	CLC* Tons	No. of Sections	Shipping Weight
H4020-EPR-C	20' x 11'	40	40	2	5,800 lb
H7040-EPR-C	40' x 11'	70	40	3	10,450 lb
H8050-EPR-C	50' x 11'	80	40	4	13,400 lb
H11060-EPR-C	60' x 11'	110	40	4	15,200 lb
H13570-EPR-C	70' x 11'	135	40	4	16,900 lb
H13580-EPR-C	80' x 11'	135	40	5	19,900 lb
H13590-EPR-C	90' x 11'	135	40	5	21,700 lb
H135100-EPR-C	100' x 11'	135	40	6	24,700 lb
H135120-EPR-C	120' x 11'	135	40	6	29,700 lb

### Guardian™ Pit Type Truck and Axle Load Scales CONCRETE DECKS

Model	Platform Size	Tons Capacity	CLC* Tons	No. of Sections	Shipping Weight
H3010ASRC-I	10' x 10'	30	30	2	2,635 lb
H3012ASRC-I	12' x 10'	30	30	2	2,826 lb
H3024SRC-I	24' x 10'	30	30	2	6,091 lb
H5034SRC-I	34' x 10'	50	30	3	7,847 lb
H5040SRC-I	40' x 10'	50	30	3	8,400 lb
H6050SRC-I	50' x 10'	60	30	4	10,410 lb
H10060SRC-I	60' x 10'	100	30	4	11,884 lb
H10070SRC-I	70' x 10'	100	30	4	13,170 lb
H10080SRC-I	80' x 10'	100	30	5	14,661 lb
H100100SRC-I	100' x 10'	100	30	6	18,022 lb
H12060SRC-I	60' x 10'	120	40	4	13,670 lb
H12070SRC-I	70' x 10'	120	40	4	16,186 lb
H12080SRC-I	80' x 10'	120	40	5	16,881 lb
H120100SRC-I	100' x 10'	120	40	6	20,422 lb

\*CLC = Concentrated Load Capacity; The maximum axle-load concentration for a group of two axles with a center line spaced 4' apart and an axle width of 8' that can safely be applied to the scale.





## THE GUARDIAN<sup>®</sup>

## The Ultimate in Scale Protection

- Low-Profile or Pit Type Scales
- Concrete or Steel Decks
- Numerous Capacities and Platform Sizes Available

**SEVERE-DUTY RATED PROTECTION**



*Shown with  
optional  
side rails.*



The Guardian's<sup>™</sup> all-stainless steel hydraulic compression load cells are geared for applications requiring superb accuracy in a hostile environment.



LEGAL FOR TRADE

Cert. No.  
Truck Scale:  
97-093  
Load Cell:  
05-076



The Cardinal model PTG-3K Pressure Transducers are fluidly coupled to the SST hydraulic load cell to convert the pressure signal into an electrical signal.



Because the pressure transducers are located in the totalizer cabinet away from the scale, a buffer level of safety is created for the scale.



# The Widest Range of Truck Scale Technology and Applications



**PORTABLE AXLE**



**WEIGH-IN-MOTION**



**SELF-CONTAINED**



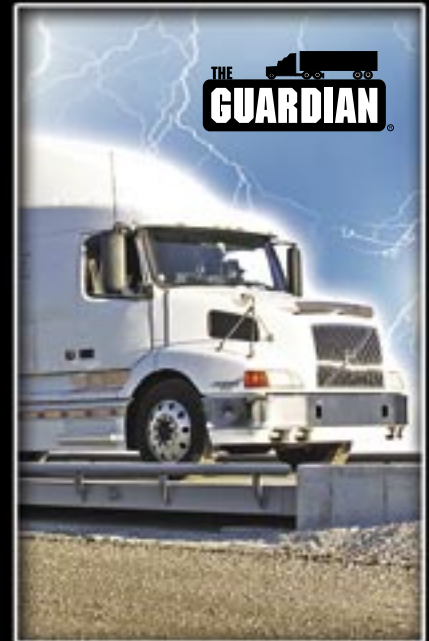




**ELECTRO-MECHANICAL**



**ELECTRONIC**



**HYDRAULIC**

**Available From One  
Manufacturer**



# ELECTRONIC TRUCK SCALES



## Pitless Truck Scale - Double-Link Suspension

A wide selection of capacities, platform sizes, and deck types are available.

### EPR Low-Profile Electronic Truck Scales 30 Ton CLC\* - STEEL DECKS

Model	Platform Size	Tons Capacity	No. of Sections	Shipping Weight
3020-EPR	20' x 11'	30	2	7,625 lb
3030-EPR	30' x 11'	30	3	11,125 lb
6040-EPR	40' x 11'	60	3	14,620 lb
7050-EPR	50' x 11'	70	4	19,480 lb
10060-EPR	60' x 11'	100	4	24,212 lb
10070-EPR	70' x 11'	100	4	26,746 lb
10075-EPR	75' x 11'	100	4	27,443 lb
10080-EPR	80' x 11'	100	5	28,139 lb
10090-EPR	90' x 11'	100	5	31,090 lb
100100-EPR	100' x 11'	100	6	35,132 lb
100110-EPR	110' x 11'	100	6	38,645 lb
100120-EPR	120' x 11'	100	6	41,661 lb

### EPR Low-Profile Electronic Truck Scales 45 Ton CLC\* - STEEL DECKS

Model	Platform Size	Tons Capacity	No. of Sections	Shipping Weight
4520-EPR	20' x 11'	45	2	9,400 lb
7040-EPR	40' x 11'	70	3	17,700 lb
8050-EPR	50' x 11'	80	4	22,500 lb
11060-EPR	60' x 11'	110	4	26,000 lb
13570-EPR	70' x 11'	135	4	29,600 lb
13580-EPR	80' x 11'	135	5	34,400 lb
13590-EPR	90' x 11'	135	5	38,000 lb
135100-EPR	100' x 11'	135	6	42,800 lb
135110-EPR	110' x 11'	135	6	47,200 lb
135120-EPR	120' x 11'	135	6	51,000 lb

### EPR Low-Profile Electronic Truck Scales 45 Ton CLC\* - CONCRETE DECKS

Model	Platform Size	Tons Capacity	No. of Sections	Shipping Weight
4520-EPR-C	20' x 11'	45	2	5,800 lb
5030-EPR-C	30' x 11'	50	3	13,500 lb
7040-EPR-C	40' x 11'	70	3	10,450 lb
8050-EPR-C	50' x 11'	80	4	13,400 lb
11060-EPR-C	60' x 11'	110	4	15,200 lb
13570-EPR-C	70' x 11'	135	4	16,900 lb
13580-EPR-C	80' x 11'	135	5	19,900 lb
13590-EPR-C	90' x 11'	135	5	21,700 lb
135100-EPR-C	100' x 11'	135	6	24,700 lb
135110-EPR-C	110' x 11'	135	6	27,170 lb
135120-EPR-C	120' x 11'	135	6	29,700 lb

### 14' Wide EPR Extra-Wide Electronic Truck Scales 45 Ton CLC\* - STEEL DECKS

Model	Platform Size	Tons Capacity	No. of Sections	Shipping Weight
8050-EPR14	50' x 14'	80	4	24,840 lb
11060-EPR14	60' x 14'	110	5	29,860 lb
13570-EPR14	70' x 14'	135	5	33,353 lb
13580-EPR14	80' x 14'	135	6	37,720 lb

### 14' Wide EPR Extra-Wide Electronic Truck Scales 45 Ton CLC\* - CONCRETE DECKS

Model	Platform Size	Tons Capacity	No. of Sections	Shipping Weight
8050-EPR14-C	50' x 14'	80	4	16,550 lb
11060-EPR14-C	60' x 14'	110	5	19,700 lb
13570-EPR14-C	70' x 14'	135	5	21,874 lb
13580-EPR14-C	80' x 14'	135	6	25,010 lb

\*CLC = Concentrated Load Capacity:

The maximum axle-load concentration for a group of two axles with a center line spaced 4' apart and an axle width of 8' that can safely be applied to the scale.







# ELECTRONIC TRUCK SCALES

## EPR



Load Cell  
Stands Arrive  
Installed



### TONS OF OPPORTUNITY!

All EPR Truck Scales include the upgraded environmentally-sealed 75,000 lb capacity stainless steel double-ended Cardinal DB shear beam load cell.



- Automatic Robotic Welders Ensure Strength and Uniformity.
- Baked-on Epoxyde Cross-Linked Anti-Corrosion Gray Powder Paint for Long-Lasting Durability.
- Stainless Steel Environmentally-Sealed Shear Beam Load Cells.
- Scale Arrives Ready for Easy Installation.

*The structural steel is shot blasted to an SSPC-SP6 condition to remove rust and mill scale, then protected with a baked-on epoxyde polyester anti-corrosion powder paint for the highest quality.*



Choose an EPR with either a concrete deck (shown here) or steel deck. Scale arrives on truck ready for efficient set-up.



Notice of Approval  
AM-4890



DB Load Cell:  
R60/1991-DK-99.01



Cert. No.  
Truck Scale:  
97-093  
Load Cell:  
97-133

(800) 441-4237





# ELECTRONIC TRUCK SCALES

## PRC

### Low-Profile Truck Scale - Compression Load Cells

Cardinal's PRC Truck Scale features a movement restraint system to protect key components from damage while providing the accuracy and reliability you require. Available in steel or concrete deck designs, these scales offer strength, quality, and dependable accuracy.

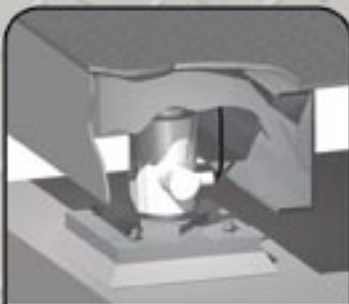
### PRC Low-Profile Electronic Truck Scales STEEL DECKS

Model	Platform Size	Tons Capacity	CLC* Tons	No. of Sections	Shipping Weight
3010PRC-I	10' x 11'	30	30	2	4,300 lb
3020PRC-I	20' x 11'	30	30	2	6,700 lb
6040PRC-I	40' x 11'	60	40	4	15,700 lb
8050PRC-I	50' x 11'	80	40	4	18,000 lb
10060PRC-I	60' x 11'	100	40	5	21,700 lb
13570PRC-I	70' x 11'	135	40	5	24,800 lb
13580PRC-I	80' x 11'	135	40	6	28,600 lb
13590PRC-I	90' x 11'	135	40	7	31,700 lb
135100PRC-I	100' x 11'	135	40	7	35,400 lb
135120PRC-I	120' x 11'	135	40	10	43,300 lb

### PRC Low-Profile Electronic Truck Scales CONCRETE DECKS

Model	Platform Size	Tons Capacity	CLC* Tons	No. of Sections	Shipping Weight
3010PRC-I-C	10' x 11'	30	30	2	3,250 lb
3020PRC-I-C	20' x 11'	30	30	2	5,100 lb
6040PRC-I-C	40' x 11'	60	40	4	10,000 lb
8050PRC-I-C	50' x 11'	80	40	4	11,248 lb
10060PRC-I-C	60' x 11'	100	40	5	13,542 lb
13570PRC-I-C	70' x 11'	135	40	5	15,237 lb
13580PRC-I-C	80' x 11'	135	40	6	17,533 lb
13590PRC-I-C	90' x 11'	135	40	7	19,900 lb
135100PRC-I-C	100' x 11'	135	40	7	21,950 lb
135120PRC-I-C	120' x 11'	135	40	10	27,000 lb

\*CLC = Concentrated Load Capacity: The maximum axle-load concentration for a group of two axles with a center line spaced 4' apart and an axle width of 8' that can safely be applied to the scale.



Cert. No.  
Truck Scale:  
95-162  
Load Cell:  
89-042



SCA Load Cell:  
R60/1991-DK-96.05



Notice of Approval  
AM-4890



The PRC series incorporates Cardinal's SCA stainless steel, environmentally-sealed, compression load cells designed to ISO guidelines and NIST specifications for extreme accuracy in rugged day-to-day heavy-capacity applications.



[www.cardet.com](http://www.cardet.com)



# SELF-CONTAINED ELECTRONIC TRUCK SCALES

## EPR-LF

- 15.5" Overall Height
- 75,000 lb Capacity Stainless Steel Shear Beam Load Cells
- Heavy-Duty Checkered Deck Plate
- Minimal Installation Costs
- Baked-on Epoxyde Cross-Linked Polyester Anticorrosion Gray Paint



Notice of Approval  
AM-4890



Cert. No.  
97-093

**EPR-LF  
DOUBLE LINK  
SUSPENSION**  
ENSURES ACCURATE  
WEIGHT IN ROUGH CONDITIONS



### EPR-LF Low-Profile Self-Contained Truck Scales STEEL DECKS

Model	Platform Size	Tons Capacity	CLC* Tons	No. of Sections	Shipping Weight
4520-EPR-LF	20' x 11'	45	45	2	14,000 lb
7040-EPR-LF	40' x 11'	70	45	3	28,000 lb
8050-EPR-LF	50' x 11'	80	45	4	31,125 lb
11060-EPR-LF	60' x 11'	110	45	4	33,900 lb
13570-EPR-LF	70' x 11'	135	45	4	40,400 lb
13580-EPR-LF	80' x 11'	135	45	5	45,125 lb
135100-EPR-LF	100' x 11'	135	45	6	56,406 lb

\*CLC = **Concentrated Load Capacity**: The maximum axle-load concentration for a group of two axles with a center line spaced 4' apart and an axle width of 8' that can safely be applied to the scale.

**Cardinal's EPR-LF self-contained vehicle scale is the ideal answer** when a scale is needed that can be moved to other sites. Industries such as rock quarries, sand and gravel pits, and logging companies must relocate equipment from time to time to maintain efficient product flow. Cardinal's EPR-LF contributes to the ease and efficiency of these moves. The complete scale is contained in modules which are furnished with lifting eyes for easy moving. Simply lift, move, and lower the scale to its new location for weighing with minimal time and effort necessary.

The EPR-LF may be placed on compacted surfaces or timbers for an economical installation (applicable in states which approve temporary installations).





# TOP 10 REASONS TO BUY A CARDINAL TRUCK SCALE

1



## **Reduce Risk With Single Source Manufacturing:**

When you purchase a truck scale it is important to consider availability and warranty concerning ALL the product's components. Cardinal Scale produces and warrants every component in the scale including the load cells, electronic junction boxes and the weight instrument. All of this gives you, the buyer, the minimum risk in a long term investment.

2



## **Stainless Steel Load Cells:**

The most significant component of a truck scale is the load cell. Cardinal Scale boasts the most advanced load cell production facility in the United States. Our load cells are individually tested to meet and exceed design parameters and are 100% stainless steel and environmentally-sealed to insure that your scale performs well even in the harshest environment.

3



## **Superior Bridge Design:**

Cardinal Scale utilizes a robot welding system to insure continuity of all welding and fabrication. With over 58 years of high capacity scale experience, Cardinal truck scales are well known for having many years of reliable operation.

4



## **Exterior Scale Protection:**

All of the steel utilized in our scales is shot blasted and then painted with a baked-on epoxyde cross-linked polyester anticorrosion paint. This is unmatched for total environmental protection.

5



## **Weight Indicators:**

Cardinal Scale produces a complete range of weight indicators designed to meet any operational sequence you require for your business. Many of these instruments are designed with NEMA 4X enclosures for added protection in the harsh environments truck scales operate in. Cardinal's wireless truck scales can even eliminate costly construction work on your site, eliminating the need to run cumbersome lines and dig trenches across the facility.

6



## **Stainless Steel Electronics Boxes:**

Cardinal Scale adds value where you least expect it. Our electronic junction boxes feature stainless steel NEMA 4X protection to prevent weather from affecting the way your scale performs.

7



## **Automated Systems Design:**

Whether you require unattended operation, special materials tracking, multiple scales for in and out weighing, or bar code scanners, Cardinal Scale can customize our products to work exactly like you need them. We won't change the way you do things, we will make what you do more efficient to save you money in the long run.

8



## **Premium Security Of Operation:**

The Cardinal iCan fiber optic load cell system can provide you with added service support when you need it most and further protect you from unnecessary down time. The iCan system is designed to alert you of errors in the weighing components. The fiber optic cabling provides further protection against voltage surges and lightning strikes. Additionally, Cardinal offers iSite remote diagnostic software for monitoring your scale from anywhere in the world via an internet connection. Reduce your risk with Cardinal's iCan.

9



## **5 Year Bridge-And-Below Warranty:**

To give you peace of mind and ensure that you make the best buying decision by using Cardinal products, we proudly boast a 5-year warranty covering manufacturer defects in the weighbridge and electronic components under the scale.

10



## **Made In The USA:**

You have the chance to purchase from a U.S. manufacturer with over 58 years of truck scale manufacturing experience. Your risk is eliminated when you own a Cardinal truck scale. You have only one source and one call to make for new products and service support. Cardinal is an ISO 9001:2000 registered company. Design, manufacture, and service are all part of our quality oriented philosophy.







# INTELLIGENT JUNCTION BOXES

## Proactive, Preventive Solutions

**Save Time and Money  
with Online Scale Diagnostics**



Notice of Approval  
AM-5574



DK 0199-R76-03.06



Certificate of  
Conform. No. 03-108



### DIAGNOSTIC DISPLAY IN THE BOX

The iCan diagnostic display provides a scale-side weight indicator where the scale technician is working thus saving them time and money.



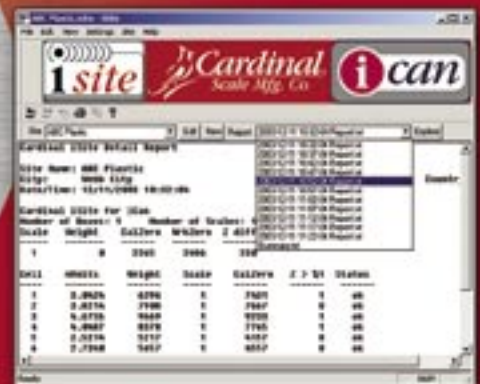
### Intelligent Junction Box

### THE BENEFITS OF DIGITAL TECHNOLOGY

Cardinal's iCan system provides a digitally-controlled, high-performance weighing and diagnostic environment for your scale where every step from installation to operation to maintenance is not only simplified, but closely monitored by the latest ISP flash micro-controller-based circuitry and reported using advanced internationally standardized CAN serial bus. What this means is the cost of ownership for your scale just became smaller since system faults are automatically detected and reported, resulting in less downtime and fewer service calls.



### Remote Monitoring Software



### REMOTE MONITORING OF SCALE PERFORMANCE

Cardinal's iSite facilitates electronic communications from dealer or support remote locations to iCan scale sites. The communications can be performed via network TCP/IP connections, direct serial port connections, or dial-up modem connections. Status reports may be electronically requested from each iCan site at any time.

## WIRELESS

**REDUCED INSTALLATION COSTS.  
NO TRENCH OR LONG CONDUIT RUNS REQUIRED!**



**IMPORTANT FOR RETROFITTING!**  
No more rewiring  
existing scale installations!



# OFF-ROAD TRUCK SCALES



## Tough Scales for Tough Environments

- 1/2 Inch Thick Deck Plate
- Epoxy Painted Steel Resists Corrosion
- Width Range From 10 Feet To 25 Feet
- Lengths to 280 Feet or More
- Concrete or Steel Deck Designs
- CLC - Up to 80 Tons

### Heavy-Duty Scales for Off-Road Vehicles

Although Cardinal has a broad line of standard scale models, they also manufacture custom truck scales of different lengths, widths, and capacities for your special needs. The mining, construction, steel, aggregate, and forestry industries demand rugged, high-quality scales built to unique specifications that will provide dependable performance for extreme duty cycles and accommodate the largest off-road vehicles.



**Truck Scale Gross  
Capacities up to 1 Million lbs**





# ELECTRONIC PIT & AXLE LOAD TRUCK SCALES



**ALL THE RIGHT FEATURES  
TO MEET YOUR VEHICLE  
WEIGHING CHALLENGES**

## SRC Electronic Pit and Axle Load Truck Scales **CONCRETE DECKS**

Model	Platform Size	Tons Capacity	CLC* Tons	No. of Sections	Shipping Weight
3010ASRC-I	10' x 10'	30	30	2	2,635 lb
3012ASRC-I	12' x 10'	30	30	2	2,826 lb
3024SRC-I	24' x 10'	30	30	2	6,091 lb
5034SRC-I	34' x 10'	50	30	3	7,847 lb
5040SRC-I	40' x 10'	50	30	3	8,400 lb
6050SRC-I	50' x 10'	60	30	4	10,410 lb
10060SRC-I	60' x 10'	100	30	4	11,884 lb
10070SRC-I	70' x 10'	100	30	4	13,170 lb
10080SRC-I	80' x 10'	100	30	5	14,661 lb
100100SRC-I	100' x 10'	100	30	6	18,022 lb
12060SRC-I	60' x 10'	120	40	4	13,670 lb
12070SRC-I	70' x 10'	120	40	4	16,186 lb
12080SRC-I	80' x 10'	120	40	5	16,881 lb
120100SRC-I	100' x 10'	120	40	6	20,422 lb

\*CLC = Concentrated Load Capacity

The maximum axle load concentration for a group of two axles with a center line spaced 4' apart and an axle width of 8' that can safely be applied to the scale.

Through simple pit installation, the concrete deck weighbridge in Cardinal's SRC Electronic Pit Type Truck Scale is supported by SCA compression load cells, which accurately and quickly weigh the truck and its cargo.

### NO WEAR ---

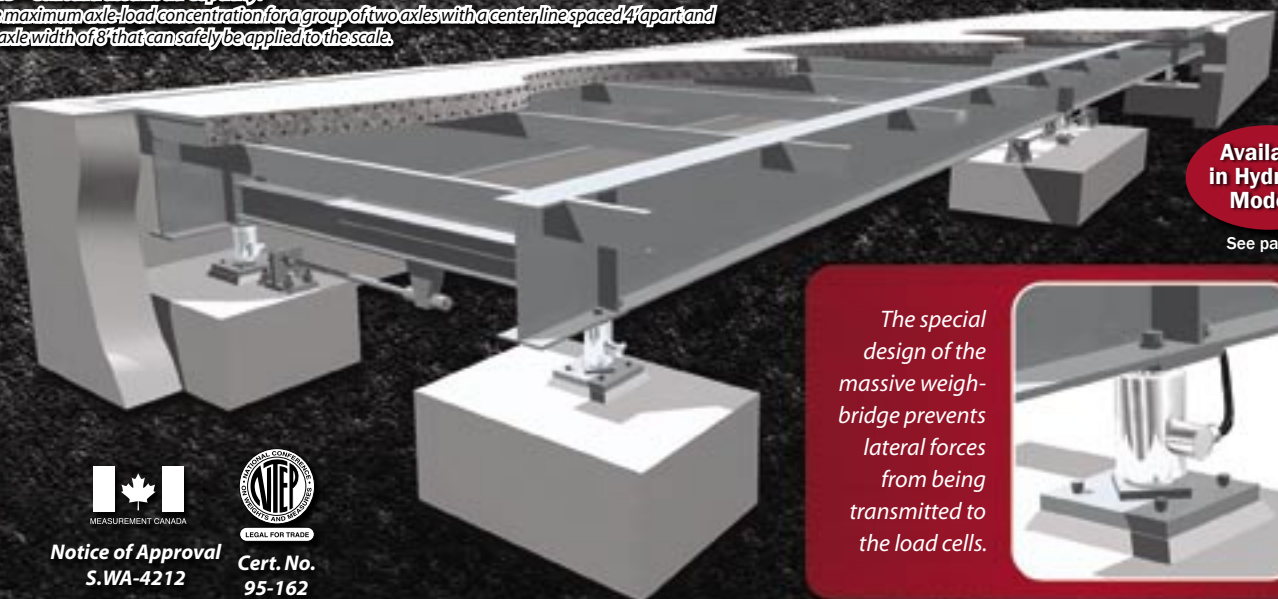
Unlike many scales of this type, there are no moving or delicate parts to wear or require replacement. Down time is infrequent.

### WEIGHBRIDGE ---

The heavy-duty fabricated steel weighbridge is designed to prevent lateral forces, caused from traffic, from being transmitted to the load cells.

### SIMPLE MAINTENANCE ---

The heavy-duty structural weighbridge design delegates maintenance to simple periodic inspection of the restraint system and the location of load cells with respect to their mounting plates.



**Available  
in Hydraulic  
Models**

See page 6

The special design of the massive weighbridge prevents lateral forces from being transmitted to the load cells.



Notice of Approval  
S.WA-4212



Cert. No.  
95-162

**(800) 441-4237**



# SELF-CONTAINED ELECTRO- MECHANICAL TRUCK SCALES



## PRL

- Single Units or Tandem
- Welded Steel Weigbridge and Frame
- Cardinal Tandem Connecting System
- Lever Design and Excellent Portability
- Double-Link Suspension
- 5/16" Checkered Steel Deck

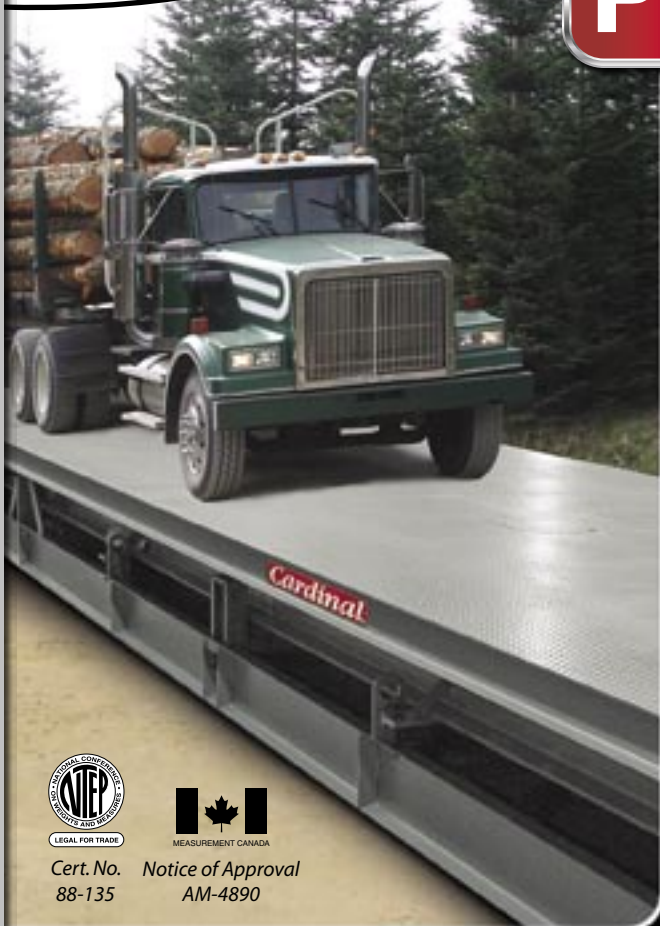
Cardinal's PRL Series is a heavy-duty electro-mechanical vehicle scale that is made for endurance and accuracy, while remaining completely self-contained. Tandems units are simply composed of two or more scales of the same or different platform lengths tandem-connected for greater capacity. When split, each unit is a self-contained scale in itself, offering 3-in-1 scale flexibility. The tandem connecting system is simple and patented. Scale sections bolt together quickly for installation or later lengthening of the scale.

### PRL Electro-Mechanical Self-Contained Scales

**STEEL DECKS** (wood decks also available - consult factory)

Model	Platform Size	Tons Capacity	CLC* Tons	Shipping Weight
2020PRL	20' x 10'	20	20	10,900 lb
2530PRL	25' x 10'	30	30	11,850 lb
3030PRL	30' x 10'	30	30	16,375 lb
3540PRL	35' x 10'	40	30	18,840 lb
Tandem Connected				
2525-60PRL	50' x 10'	60	30	29,260 lb
3030-60PRL	60' x 10'	60	30	33,840 lb
3535-60PRL	70' x 10'	60	30	37,700 lb
3030-80PRL	60' x 12'	80	45	46,990 lb
3535-80PRL	70' x 12'	80	45	55,093 lb
2525-100PRL	50' x 12'	100	60	45,150 lb
3030-100PRL	60' x 12'	100	60	54,218 lb
3535-100PRL	70' x 12'	100	60	58,970 lb

\*CLC = **Concentrated Load Capacity**: The maximum axle-load concentration for a group of two axes with a center line spaced 4' apart and an axle width of 8' that can safely be applied to the scale.



Cert. No.  
88-135



Notice of Approval  
AM-4890

Cardinal's PRL series features a 5/16" full checkered steel deck plate standard which keeps debris from falling into the scale mechanism. Installation is fast and easy, and an optional wood deck is available.

### OPTIONAL TRUCK SCALE EQUIPMENT

To complete your truck scale, Cardinal offers a selection of optional accessories, including built-in side rails, manhole covers, protective posts, grain dumps, rubber tee belting for approaches, and an add-a-bridge option for adding modules at a later date.

4" Diameter Pipe Side Rails  
(pictured on a model EPR-LF)



**OPTIONAL GRAIN DUMP MODULES**  
available on all Cardinal truck scales

(picture and overhead diagram shown above)

*Expedites unloading - saving time and operation costs.*







**For Fixed Installation  
in a Concrete Pit**

# ELECTRO- MECHANICAL PIT & AXLE SCALES



Cert. No.  
88-012



Notice of Approval  
AM-4890



## Electro-Mechanical Pit Truck Scales

This original heavy-duty welded steel truck scale is still considered the benchmark in vehicle scale design concepts. Thousands of installations over the past 58 years are testimony to its superior quality and long-term accuracy. Since its introduction, Cardinal has continued to modernize and improve its design: only four main levers with one transverse lever on the four section truck scale and two main levers with one transverse lever on the two section truck scale.



Advantages of both mechanical and electronic scale systems are combined. With the dependability of the lever system and one Cardinal strain gauge load cell, weight indication and recording instruments can be located away from the scale platform.

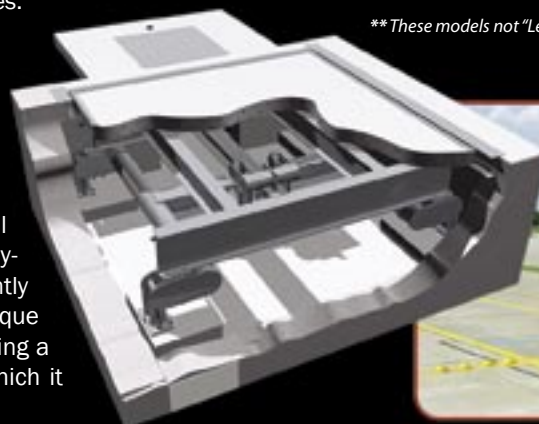


Cardinal's Double-Link Suspension System eliminates shock, saves wear on pivots and bearings and prolongs the scale life. The unique suspension construction maintains the bearings in a permanent position on the knife edges and prevents them from rubbing on the knife edges.

**Breakage impossible even  
under the heaviest loads.**

## Pit Type Axle Load Scales

You can depend on Cardinal's all-steel welded axle load scales to determine whether individual axle loads are within legal limits. These ruggedly-designed axles load scales are to be permanently installed in a concrete pit and utilize the unique features of Cardinal's truck scales, thus assuring a lifetime of dependable service beyond that which it will receive under the most severe usage.



## SRL Pit Type Electro-Mechanical Truck Scales CONCRETE DECKS

Model	Platform Size	Tons Capacity	CLC* Tons	Shipping Weight
3024-SRL	24' x 10'	30	30	6,516 lb
5040-SRL	40' x 10'	50	30	10,453 lb
6050-SRL	50' x 10'	60	30	13,386 lb
6060-SRL	60' x 10'	60	30	15,865 lb
6070-SRL	70' x 10'	60	30	17,380 lb
8050-SRL	50' x 10'	80	45	15,782 lb
8060-SRL	60' x 10'	80	45	17,950 lb
8070-SRL	70' x 10'	80	45	20,792 lb
10060-SRL	60' x 10'	100	60	30,155 lb
10070-SRL	70' x 10'	100	60	34,576 lb
10080-SRL	80' x 10'	100	60	39,566 lb
10090-SRL	90' x 10'	100	60	44,487 lb
100100-SRL	100' x 10'	100	60	49,700 lb

## ASRL Pit Electro-Mechanical Axle Load Scales CONCRETE DECKS

Model	Platform Size	Tons Capacity	CLC* Tons	Shipping Weight
3010ASRL**	10' x 10'	30	30	4,975 lb
3012ASRL**	12' x 10'	30	30	5,154 lb
3014ASRL**	14' x 10'	30	30	5,657 lb

\*CLC = **Concentrated Load Capacity**: The maximum axle-load concentration for a group of two axles with a center line spaced 4' apart and an axle width of 8' that can safely be applied to the scale.

\*\*These models not "Legal for Trade."





# WEIGH-IN-MOTION SCALES



Cardinal In-Motion Vehicle Scales provide a means of doing more with less. The high-speed models allow you to weigh vehicles moving at speeds up to 80 mph (130 km/h) making stopping unnecessary. Over-weight trucks are quickly identified and directed to a static scale for enforcement weighing. Slow and intermediate-speed models can be used to verify loading as trucks leave the terminal or warehouse. Incoming weights can be verified and accumulated without any interruption. Slow-speed models can be used to weigh in motion or statically providing greater precision.

## Weigh - in - Motion Vehicle Scales

SERIES	SPEED	ACCURACY	TECHNOLOGY	APPLICATIONS	CLASSIFICATION
QWIM	20-80 mph	+/-6% total weight	Quartz	Main line sorting and data collection	Yes
PWIM	20-80 mph	+/-10% total weight	Piezoelectric	Main line sorting and data collection	Yes
CWIM	2-30 mph	+/- 6% total weight	Load Cell	Sorting and Verification	Yes
SWIM	0-5 mph	+/- 2% total weight	Load Cell	Verification and Compliance	No

Cardinal Utilizes Kistler's  
Lineas® Quartz Sensors



QWIM Quartz Sensor-Based In-Motion Scales

### HIGH SPEED WEIGHING

#### QWIM Series

Cardinal's QWIM Series of in-motion scale utilize Kistler's Lineas® Quartz sensors. These 2-inch wide sensors are embedded in the pavement surface and have an IP-67 environmental rating making them acceptable for any climate. QWIM scales are available with two or four pairs of sensors and meet or exceed the accuracy requirements for a Type III WIM as defined in ASTM E1318-02. These scales provide not only total vehicle weight but axle weight, axle group weight, axle spacing, speed, vehicle classification, consecutive number, and time and date as well. The QWIM scale can be installed and calibrated in a single day with minimal interruption of traffic and is a perfect choice for main line sorting and monitoring.

#### PWIM Series

The PWIM Series of in-motion vehicle scale uses piezoelectric technology. WIM-grade piezoelectric sensors are embedded in the roadway and used to measure axle weight, axle spacing, speed, and vehicle weight. The total vehicle weight and classification are determined from this information and made available for sorting or data collection purposes. The PWIM Series of in-motion scale uses the same high quality charge amplifier and WIM controller as the QWIM series but less expensive sensors.

### INTERMEDIATE SPEED WEIGHING

#### CWIM Series

The CWIM Series of in-motion scale relies on the same load cell technology that has made Cardinal's vehicle scales legendary. The CWIM-1 uses two independent welded-steel weighbridges each supported by four 50,000 pound capacity stainless steel compression load cells. Designed for intermediate speed weighing applications, the CWIM series meets or exceeds ASTM specifications while providing individual wheel loads, axle weights, axle group weights, vehicle speed, and classification information. Piezoelectric sensors are included to measure vehicle speed. The CWIM is ideal for toll plazas or truck terminals or for intermediate speed identification of overweight vehicles.

CWIM Load Cell-Based In-Motion Scales







# WEIGH-IN-MOTION SCALES

## SLOW SPEED WEIGHING

### SWIM Series

The SWIM Series of in-motion scale is a precision load cell based axle load scale used to weigh vehicles at slow speeds. This scale can also be used in a static mode for greater precision and is a perfect choice when accuracy is a must. The scale is available with either a steel or concrete platform and comes complete with weight-indicating instrumentation.

WIM Sensor Array

License Plate Reader

Camera

Wireless Antennae

## ROCS™ System for Measuring Vehicle Speed, Axle Weight, Axle Spacing, Over Height Detection, with License Plate Reader

### ROADSIDE MONITORING SYSTEMS

#### ROCS™ Series

Using the QWIM Series in-motion scale as the foundation, additional peripheral devices can be added to form a complete roadside monitoring station. License plate readers or DOT readers can be added to identify the vehicles being weighed while video cameras can be used to capture its image. Other cameras can be used to monitor the surrounding area while even a weather station can be used to measure the climatic

conditions. Monitoring of the operation can be accomplished from a remote location from a few hundred feet away to thousands of miles away. The ROCS™ system can be used for vehicle screening, remote site monitoring, infrastructure protection, and accident avoidance. A ROCS™ system can be custom tailored to your specific application

### COMPLETE WEIGH STATION COMPLIANCE SYSTEMS

Starting with an in-motion vehicle scale, Cardinal engineers can design and install a complete integrated weighing and compliance system for your application. From a simple sorting system to a full-blown multi-lane sorting and static weighing system with traffic control, over height detectors, video cameras, license plate readers, and other special peripherals Cardinal can provide you with a cost effective solution to your compliance and monitoring needs.

*View vehicle images and weight information from a patrol car.*



*Video capture of selected vehicles.*





# LIVESTOCK SCALES



- Concrete Deck
- Easy To Install
- 10" Height

Cardinal's Fully Electronic Livestock Scales provide easy top plate access to the load cells and bumper bolts. The low profile design 10" high reduces foundation costs to a minimum. The LSE model features stainless steel beam load cells and concrete deck design.

## Full Electronic Low-Profile Livestock Scales CONCRETE

Model	Platform Size	Tons Capacity	Number of Sections	Number of Modules	Number of Load Cells	Shipping Weight
LSE818	18' x 10'	8	2	1	4	3,153 lb
LSE820	20' x 10'	8	2	1	4	3,500 lb
LSE1630	30' x 10'	16	3	2	6	6,127 lb
LSE1635	35' x 10'	16	3	2	6	7,148 lb



Cert. No.  
97-043

Livestock rack  
not included.



- Double-Link Suspension Bearings
- Concrete or Wood Deck Models
- Simple Pit Design
- "Legal For Trade"



Cert. No.  
88-017

## Electro-Mechanical Livestock Scales CONCRETE

Model	Platform Size	Tons Capacity	Shipping Weight
LS051208	12' x 8'	5	1,800 lb
LS051408	14' x 8'	5	2,100 lb
LS101609	16' x 9'	10	2,600 lb
LS101809	18' x 9'	10	2,850 lb
LS102209	22' x 9'	10	3,400 lb
LS153014	30' x 14'	15	6,250 lb
LS202614	26' x 14'	20	6,000 lb

## WOOD DECK

Model	Platform Size	Tons Capacity	Shipping Weight
LS051208-W	12' x 8'	5	1,550 lb
LS051408-W	14' x 8'	5	1,800 lb
LS101609-W	16' x 9'	10	2,330 lb
LS101809-W	18' x 9'	10	2,560 lb
LS102209	22' x 9'	10	3,070 lb
LS153014-W	30' x 14'	15	5,775 lb
LS202614-W	26' x 14'	20	5,570 lb

Whether it will go in a stockyard, processing plant, or ranch, if you deal in the weighing of livestock, Cardinal has a heavy-duty scale to accurately weigh your animals.

Features the advantages of both electronic and mechanical.







# PORTABLE AXLE WEIGHERS

## Portable Electronic Axle Load Scales

Model	Nominal Capacity	Deck	Shipping Weight
CWL-40	20 ton	Aluminum	270 lb / 122 kg

**Platform Dimensions:** 14" W x 24" L / 36 cm W x 61 cm L

**Overall Dimensions With Ramp:** 17.5" W x 28" L x 1.7" H / 45 cm W x 72 cm L x 4 cm H

**Capacity:** 20,000 lb / 9,000 kg per platform or 40,000 lb / 18,000 kg for single axle

**Division Size:** 20 lb

Cardinal's corrosion-resistant mobile axle weighers are rugged, but light enough for easy transport, weighing in at only 60 pounds per platform. With Cardinal's model P150 battery-operated portable tape printer, you may print axle weight, gross weight, time, and date. The interlocking rubber ramps snap perfectly into place with the CWL-40's unique design.

- Low-profile (1.75 Inch / 44 mm High) Design with Integral Transport Handle
- Six Strain Gauge Load Cell Design
- Large Enough To Weigh Dual Axles
- Rechargeable Battery Power
- Optional Cigarette Lighter Adapter and Clamps for Car Battery Adapter

# CWL



**Print Axle Weight, Gross Weight, Time, and Date.**

CWL-40 scale shown here with optional 215 indicator and P150 tape printer.



## Portable Electronic Tandem Axle Load Scales

Model	Nominal Capacity	Deck	Shipping Weight
760PS	30 ton	Steel	1,765 lb / 800 kg
760PA	30 ton	Aluminum	820 lb / 371 kg

**Platform Dimensions:**

30" W x 7' L x 5.5" H / 76 cm W x 2 m L x 14 cm H

**Overall Dimensions With Ramp:**

30" W x 10' L x 5.5" H / 76 cm W x 3 m L x 14 cm H

**Capacity:** 30,000 lb / 13,600 kg per platform

- 60,000 lb x 50 lb graduations (for portable installations)
- 60,000 lb x 20 lb graduations (for permanent installations)

**The Performance Where You Need It When You Need It!**

# 760



- Low Profile
- Two Modules
- Low Duty Cycle



Model 760PS shown here with optional model 210 indicator.

Cardinal's completely portable, two-module, tandem axle load scale is a real lightweight (only 400 lbs per aluminum platform) that handles the real heavyweights (60,000 lb capacity). Each scale comes complete with either steel or aluminum platform, NEMA 4 junction box, environmentally-protected stainless steel load cells, and four access ramps.





# RAILROAD TRACK SCALES



Cert. No.  
91-041



Notice of Approval  
S.WA-4332

**E-80 Cooper  
A.R.E.M.A. Rating**



**RSCA**

**Full Floating Deck  
A.R.E.M.A. Design**

**Designed to Meet those Rugged  
Railway Weighing Challenges**



The heavy-duty weighbridge design coupled with rugged load cells and mounting assemblies make the Cardinal RSCA scale the logical choice for virtually every railroad track weighing need.

## RSCA Pit Type Electronic Railroad Track Scale

Model	Platform Size	Gross Tons Capacity	Section Tons Capacity	Shipping Weight
6080-RSCA	60' x 10'	270	180	29,083 lb
6680-RSCA	66' x 10'	270	180	35,261 lb
7280-RSCA	72' x 10'	270	180	43,323 lb

Please consult factory for other sizes and capacities.  
The models listed above are built to AAR/A.R.E.M.A. Handbook specifications.

The massively constructed, heavy steel weighbridge is stabilized laterally and longitudinally with checkrods and other specially designed restraints. Special design techniques and manufacturing procedures prevent excessive moisture, dirt and foreign materials from entering the pit.

The unique weighbridge design prevents lateral forces, caused from rail traffic going on and off the platform, from being transmitted to the load cells. Special restraints include shock absorbent material which absorbs the shock created from heavy railroad traffic. This design permits the weighbridge to move across the assembly when necessary, so that if expansion or contraction of the weighbridge occurs, it does not create a side load on the load cells. In effect, the weighbridge floats on top of the assemblies and is held in proper position by heavy-duty checkrods. The stainless steel load cells are hermetically sealed against moisture. Standard graduations of the digital weight indicator is 50 lb. Please consult a Cardinal representative for the option of 20 lb graduations.



**Full Floating  
Deck A.R.E.M.A.  
Design**

## RSAL Electro-Mechanical Combination Railroad Track and Truck Scale

Model	Platform Size	Gross Tons Capacity	Section Tons Capacity	Shipping Weight
6080-RSAL	60' x 10'	250	150	46,721 lb
6680-RSAL	66' x 10'	300	150	54,612 lb
7280-RSAL	72' x 10'	300	150	62,823 lb

Please consult factory for other sizes and capacities.  
The models listed above are built to AAR/A.R.E.M.A. Handbook specifications.

**RSAL**



Cert. No.  
88-015

The RSAL design is the first fabricated steel lever railway scale approved by the A.R.E.M.A. (American Railway Engineering Maintenance Association) and the first to adapt "A"-Frame Construction. Standard installation includes the lever system, digital indicator, and a steel weighbridge for concrete deck.





# RAILROAD TRACK SCALES



**E-80 Cooper  
A.R.E.M.A. Rating**

## LPRA RailHugger Low-Profile Railroad Track Scale

### Cardinal's LPRA Railroad Track Scale Meets the Demand for Top Performance in all Types of Environments.

Cardinal's Rail Hugger is engineered to give you the most advanced alternative available in today's railway scales. From its rugged weighbridge to its unique load cell mounting assemblies, the Rail Hugger's solid-state electronic design assures accuracy, dependability and long service. Because it is mounted above ground in a shallow, concrete foundation, there is no worry about shifting ballast resulting in weight errors. As a result, maintenance is minimized and precious track time is rarely interrupted. That translates into money saved.

***An economical, heavy-duty  
combination of accuracy,  
convenience and railroad  
car weighing efficiency.***



The Rail Hugger's securely-anchored weighbridge does not permit lateral forces caused from traffic on the platform to be transmitted to the load cell assemblies. The bridge slides over the load cell assemblies so that expansion or contraction due to thermal changes does not create a side load on the cell. Lateral stabilization from the check rods is further assurance of absolute accuracy. And, for routine re-alignment or adjustment, the checkrods are readily accessible. The Rail Hugger's modular nature allows it to be tailored to an almost limitless variety of length needs.

Model	Platform Size	Gross Tons Capacity	Section Tons Capacity	Shipping Weight
13-80LPRA-120	13'	100	100	12,400 lb
1313-80LPRA-120	13' and 13'	200	100	25,250 lb
26-80LPRA-120	26'	200	100	20,800 lb
1326-80LPRA-120	13' and 26'	200	100	33,700 lb
2626-80LPRA-120	26' and 26'	200	100	42,100 lb
13-80LPRA-200	13'	180	180	12,400 lb
1313-80LPRA-200	13' and 13'	270	180	25,500 lb
26-80LPRA-200	26'	270	180	20,800 lb
1326-80LPRA-200	13' and 26'	270	180	33,700 lb
2626-80LPRA-200	26' and 26'	270	180	42,100 lb

*Please consult factory for other sizes and capacities.  
The models listed above are built to AAR/A.R.E.M.A. Handbook specifications.*



*Includes steel deck weighbridge,  
compression load cells and load cell  
stands, J-boxes and power supplies,  
digital weight indicator and printer.*



Cert. No.  
93-051



Notice of Approval  
S.WA-4458



# WEIGHT MANAGEMENT SOFTWARE

## WinVRS-TOUCH



WinVRS Featuring  
the Ease of a Plasma  
Touchscreen Display  
Without the Need  
for a Separate  
Keyboard.

### WinVRS At Your Finger Tips!

WinVRS-TOUCH offers all of the same great features as WinVRS Vehicle Recording Software, but comes with larger fonts and buttons for convenient touchscreen navigation. When a user enters into any WinVRS window with input prompts, an on-screen keyboard appears. Pressing the "Symbols" button brings up additional keyboard options (shown to the right).



WinVRS offers Ethernet or serial communications and support for all Cardinal and other SMA standard protocol indicators with serial ports.



### IMAGE FILES

WinVRS offers you the ability to associate image files with items. For example, in the WinVRS material list view, an image may be associated with each material for operator ease of use and accuracy.



### HELP GUIDE

WinVRS features a detailed help guide to answer specific questions that may arise. The user-friendly search feature lets you look up the answer to your question quickly and easily.





# WinVRS

## WEIGHT MANAGEMENT SOFTWARE



Step  
**1**  
Vehicle is  
Weighed



Step  
**2**  
WinVRS Records  
Transaction



Step  
**3**  
Ticket is  
Printed



### VEHICLE RECORDING SYSTEM

Optimized for Windows 2000 and XP®

Ideal for Power Plants, Sand and Gravel, Concrete, Asphalt, Recycling Centers, Transfer Stations, Landfills, Agricultural Industry, and Warehouse Applications.

Cardinal's powerful WinVRS software keeps traffic moving over your scale by providing fast, accurate collection of data on vehicles, accounts, orders, and materials. Unique, user-defined fields allow you to easily configure the system to meet your needs. A wide range of reports are available to provide period histories, material totals, customer information and more. WinVRS's convenient file utilities menu allows data to be exported to other applications such as accounting and materials control.



Cert. No.  
05-029

WinVRS software features powerful multiple-material transactions. For example, a landfill may charge a per ton price for dumping plus a per unit price for tires. A single transaction ticket will show both charges and totals.

Cardinal specializes in aftermarket support. All WinVRS systems include a full year's support from Cardinal's technical support group, who can connect directly to your system for system diagnostics and application analysis from your location.



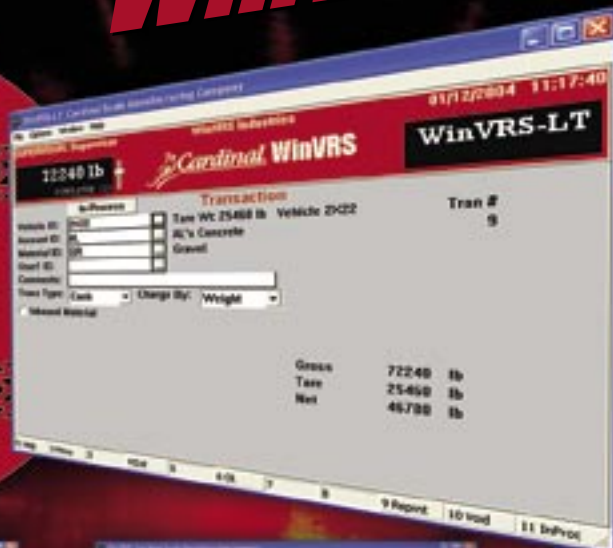
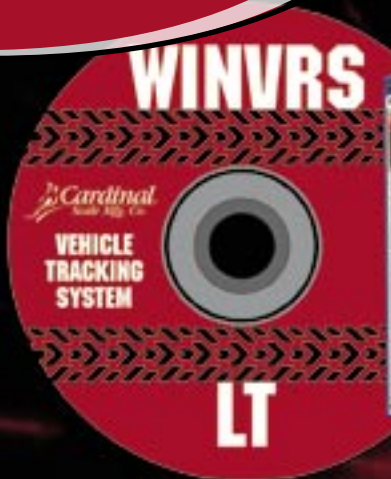
(800) 441-4237





# WEIGHT MANAGEMENT SOFTWARE

# WinVRS-LT



**WinVRS-LT Vehicle Recording Software** will add efficiency to your truck scale operation at an economical price.

WinVRS-LT's easy-to-use Windows®-based system allows for multiple operators and provides detailed reports on vehicles and materials weighed. Order the complete WinVRS-LT system with computer, printer, and one year of technical support, or the software only.



Entering transactions is always just one keystroke away with WinVRS-LT's easy-to-use navigation menu.



Materials may be tracked by weight, unit, or load. Easily enter prices, tax status, and track materials on hand.



WinVRS-LT offers a full complement of reports to track daily operations, including an export utility.



After a weight is placed on the scale and the indicator detects a stable weight, WinDDE sends that weight to a spreadsheet cell.



**Easily Transmit  
Your Weight Into Windows®  
with Cardinal's WinDDE Server**

Communicate with up to 20 weight indicators connected to a computer via standard serial port or optional Ethernet (using TCP/IP). WinDDE allows the weight and status of the indicators to be transferred directly into spreadsheets, databases, and industrial control applications by means of Dynamic Data Exchange.

- Continuous monitoring of weight in Excel® while updating bar graphs in real time.
- Threshold weights can be set to automatically capture weight and time/date stamp in Excel® files.
- Capture weight ticket information in Excel® each time the PRINT key is pressed.



Windows and Excel are registered trademarks of Microsoft Corp.





Model RE3

# UNATTENDED WEIGHING SYSTEMS

RE

## IDEAL FOR:

- Truck Stops
- Transfer Stations
- Landfills
- Quarries
- Recycling

*may be  
interfaced  
with*  
**WinVRS**

## Lower Operating Costs

**with a Fully-Automated Vehicle Weighing Solution**

Cardinal's unattended systems provide an effective solution for unmanned vehicle weight management that is fast, accurate and easy to operate. Cardinal can also custom design the system to meet the specific requirements of your operation. Featuring the model 225 indicator with truck storage software in a weatherproof outdoor enclosure, the system is available with barcode badge reader or proximity badge reader, and/or ticket printer (RE3 pictured above).

Cardinal's unattended weighing systems can be interfaced to WinVRS software for a complete vehicle weight management system. The WinVRS computer may be located any distance from the scale connecting via short haul modems or RF modems. With a wide variety of arrangements, please consult a Cardinal representative to discuss application requirements and for complete specifications.



Model 225  
Digital  
Weight  
Indicator

RFID  
Proximity  
Badge  
Reader

Model RE3

High-speed Thermal  
Printer

Model  
WINENCL-P  
outdoor printer  
for use with any  
Cardinal NEMA 4  
indicators



Model	Description	Includes
RE2	Outdoor enclosure with 225 indicator / printer	<ul style="list-style-type: none"><li>• 225 weight indicator / remote terminal</li><li>• Large-capacity, high-speed thermal printer</li><li>• Internal heater with thermostat</li></ul>
RE3	Outdoor enclosure with 225 indicator / printer / proximity reader	<ul style="list-style-type: none"><li>• 225 weight indicator / remote terminal</li><li>• Large-capacity, high-speed thermal printer</li><li>• Internal heater with thermostat</li><li>• RFID proximity badge reader mounted on the front of the enclosure (reading distance: 4 - 6 inches)</li></ul>

**Dimensions:** 20" W x 9" D x 24" H / 51 cm W x 23 cm D x 61 cm H

**Power:** 110 to 230 VAC, 50/60 Hz

**Shipping Weight:** 105 lb / 48 kg

Model	Description
WINENCL-P	Outdoor enclosure with high-capacity printer

**Dimensions:** 24" W x 8" D x 20" H / 61 cm W x 20 cm D x 51 cm H

**Power:** 110 to 230 VAC, 50/60 Hz

**Shipping Weight:** 47 lb / 21 kg

**(800) 441-4237**





# DIGITAL WEIGHT INDICATORS



## 180

- 0.56"/14 mm High 6-Digit Red LED
- Robust Stainless Steel Enclosure
- "Legal-For-Trade" • Serial Port
- 10 ft (3m) Load Cell Cable Length
- Gross, Tare, Net Conversion • Economical

Dimensions	7.63" W x 1" D x 3.75" H / 19 cm W x 2 cm D x 10 cm H
Enclosure	NEMA 12/IP55 stainless steel
Max Resolution	5,000 divisions approved 10,000 divisions non-approved
Power	115V - 230 VAC 50/60 Hz Adapter
Load Cells	Up to 4 - 350 ohm



Model 180

Whether your business is food processing or warehousing, shipping or bulk commodities, the economical 180 digital indicator with stainless steel enclosure and swivel mounting bracket can meet your demands at the right price! Cardinal's model 180 is an economical choice for use with floor scales or other weighing applications using up to four load cells. It features serial connectivity for output to one label/ticket printer or PC.



Panel Mount

## 200

- 0.6"/14 mm High 6-Digit LED • Two Serial Ports
- Analog Output Option • External Power Supply
- Terminal Block For Easy Connectivity
- Simple Two-Screw, Side-Slide-Mounting Assembly

Cardinal's Model 200 Panel Mount Digital Weight Indicator takes up little space, but provides exceptional functionality. Engineered to adapt easily to your system design, the versatile 200 features input control lines for remote activation of zero, acquire tare, gross and print functions, seven weight units, push-button tare, gross, tare, net conversion, and more.

Dimensions	5.67" W x 9.13" D x 2.81" H / 14 cm W x 23 cm D x 71 cm H
Enclosure	Aluminum extrusion
Max Resolution	NTEP 10,000 (Class III/IIIL) CANADA 10,000 (Class III/IIH) OIML 10,000 (Class III) NON-COMMERCIAL 240,000
Power	90 to 260 VAC, 50 or 60 Hz
Load Cells	Up to 8 - 350 ohm
Units Conversion	Pounds, pounds/ounces, ounces, tons, kilograms, grams, metric tons





# DIGITAL WEIGHT INDICATORS



**204**

Dimensions	8" W x 2.13" D x 6.63" H / 20 cm W x 5 cm D x 17 cm H
Enclosure	NEMA 12/IP55 stainless steel
Max Resolution	5,000 divisions approved 10,000 divisions non-approved
Power	115 VAC 60 Hz adapter or, 230 VAC 50/60 Hz, or 6 "C" cell alkaline or rechargeable Ni-Cad batteries
Load Cells	Up to 4 - 350 ohm

- Large 1"/25 mm High 6-Digit LCD
- Gross, Tare, Net Operation • AC or DC Battery Power

Ideal for floor and bench scales, the 204 is furnished complete with motion detection and a serial printer port that allows a print out of weigh data. The 204 is suitable for desk or wall mount and can be adjusted to any angle for easy viewing with its large, 1" high LCD.



**205**

Dimensions	9.2" W x 2.75" D x 7.5" H / 23 cm W x 7 cm D x 19 cm H
Enclosure	NEMA 4X/IP66 stainless steel
Max Resolution	NTEP 10,000 (Class III/IIIL) CANADA 10,000 (Class III/IIILD) OIML 10,000 (Class III) NON-COMMERCIAL 240,000
Power	90 to 260 VAC, 50 or 60 Hz
Load Cells	Up to 8 - 350 ohm
Units Conversion	Pounds, pounds/ounces, ounces, tons, kilograms, grams, metric tons, custom



Model 205

- Large 0.6"/14mm High 6-Digit LED
- Dual Serial Ports • Auto Shutoff/Sleep Modes

The rugged and versatile 205 indicator is ideal for a wide range of weighing needs; whether its paired with bench scales, heavy-duty floor scales, or even truck scales. Features four input control lines for remote activation of zero, tare, gross, and print.





# DIGITAL WEIGHT INDICATORS

The 210FE features all the same great features as the 210, but super-sized for convenience.

**210FE**

**210**



Model 210

The 210 features a numeric keypad and three preset weight comparators.



Model 210FE

- **210:** 0.6"/14 mm High 6-Digit Red LED
- **210FE:** 2.25"/57 mm High 6-Digit Red LED
- **10-Level Brightness Control** • **Dual Serial Ports**
- **210FE Features Extra-Large Key Sizes**

Dimensions	
<b>210</b>	9.2" W x 2.75" D x 7.5" H / 23 cm W x 7 cm D x 19 cm H
<b>210FE</b>	15" W x 3.1" D x 9.7" H / 38 cm W x 8 cm D x 25 cm H
Enclosure	NEMA 4X/IP66 stainless steel
Max Resolution	NTEP 10,000 (Class III/IIIL) CANADA 10,000 (Class III/IIILD) OIML 10,000 (Class III) NON-COMMERCIAL 240,000
Power	90 to 260 VAC, 50 or 60 Hz
Load Cells	Up to 8 - 350 ohm



Optional checkweigher lightbar



Model 215

The 215 utilizes 10 "AA" rechargeable batteries (not included), easily replaced via the convenient battery cartridge slot on the bottom of the indicator. The 215's NEMA 4X/IP66 washdown enclosure is versatile and ideal for indoor or outdoor weighing applications with its highly-visible 1" high LCD. The unit features multiple print formats and is field re-programmable via PC.

**215**

- **Large 1"/25 mm High 6-Digit LCD**
- **10 "AA" Rechargeable Batteries**
- **10 Key Numeric Keypad** • **Dual Serial Ports**
- **Axle Weigher Operation** • **Four Input Lines**

Dimensions	9.2" W x 3.13" D x 7.5" H / 23 cm W x 8 cm D x 19 cm H
Enclosure	NEMA 4X/IP66 stainless steel
Max Resolution	NTEP 10,000 (Class III/IIIL) CANADA 10,000 (Class III/IIILD) OIML 10,000 (Class III) NON-COMMERCIAL 240,000
Power	90 to 260 VAC, 50/60 Hz or 10 "AA" NiMH batteries
Load Cells	Up to 8 - 350 ohm





# DIGITAL WEIGHT INDICATORS



Model 225  
Navigator

**225**  
**NAVIGATOR**

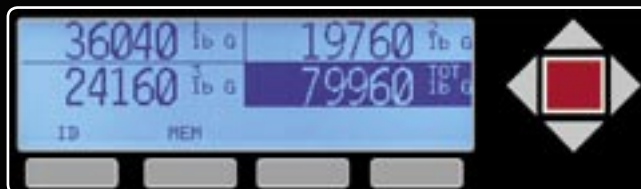


**The 225 Navigator's  
Powerful 240 x 64 Pixel  
Backlit Graphics LCD**

Dimensions	10.88" W x 4" D x 8.38" H / 28 cm W x 10 cm D x 21 cm H
Enclosure	NEMA 4X/IP66 stainless steel
Max Resolution	NTEP 10,000 (Class III/IIIL) CANADA 10,000 (Class III/IIILD) OIML 10,000 (Class III) NON-COMMERCIAL 240,000
Power	110 to 230 VAC, 50/60 Hz
Load Cells	Up to 14 - 350 ohm
Units Conversion	Pounds, kilograms, tons, grams, metric tons, ounces, custom

- 5" W x 1.33" H / 127 mm W x 34 mm H LCD
- Navigation Keys for Convenient User Interface
- 4 Serial Ports, 3 Bi-Directional
- 4 Soft Keys with the Ease of Menu-Driven Operation
- Alphanumeric Keypad for Easy ID Entries and Recalls
- Infrared Port for Wireless Control
- Up to 16 Definable Preset Weight Comparators

Cardinal's 225 Navigator features transfective technology which allows the 225's display to be viewed under any lighting conditions from direct sunlight to total darkness. One-inch-high (25 mm) weight characters make viewing easy and it features piece counting, checkweighing, batching and much more.



## VIEW 3 SCALES PLUS TOTAL SIMULTANEOUSLY

The optional plug-and-play model 225-DS dual scale board turns your indicator into a one-, two- or three-scale system.



## EASY SET-UP AND CONFIGURATION

Select the Mode of Operation category and make your selection from the easy-to-use menu utilizing the 225's navigation keys.



Cardinal's indicators are enhanced by the company's proprietary **VISUALIZER** Ticket and Label Generation Software which also allows file transfer between the indicator and PC.





# CUSTOM APPLICATION SOFTWARE



## Cardinal is One of the Only Scale Manufacturers to Provide Rapid Response Custom Application Software.

For those weighing applications that require a little something special that's not standard, Cardinal's programmers can help. And there's no delay and no waiting for EPROMs involved. Cardinal's 200 series digital weight indicators are Flash upgradeable and can be updated onsite once an application

has been e-mailed from Cardinal. An AVR In-System Programmer and laptop are all that's necessary for upgrades out in the field. If you can imagine it, Cardinal can probably program it. Take advantage of Cardinal's unique rapid response ability in creating custom application software.

### EXAMPLES

#### "There She Blows"

Measures and holds force required to break clay pipes, break telephone poles and impact of bullet striking a surface.

#### "How's It Going?"

Replaces normal weight display with rate of flow for second/minute/hour.

#### "How Many Times?"

Indicator will allow only one print per vehicle. After print the truck must leave the scale before print is enabled again.

#### "Driver's License, Please"

Allow for magnetic driver's license swipe and read to identify trucks. Signature pad to capture driver signature and print on ticket.

#### "Have A Tote, Man"

This application allows removal of product from large totes. The tote lift is controlled via the indicator to remove product into smaller containers.

#### "A Bit Chilly Today"

Application involves weighing and filling liquid nitrogen containers.

#### "Got A Buck?"

Pay-to-weigh.  
Place your truck on the scale, insert the money and take your ticket.

#### "There Goes My Part"

Counting and weighing automotive parts on multiple conveyors with proximity sensors to insure placement and barcode scanner to id the part.





# DIGITAL WEIGHT INDICATORS



Model 825  
Spectrum



**Full "Spectrum" of Colors!**  
**Brilliant 640 x 480 Pixel**  
**Interactive Touchscreen**  
**Backlit LCD Display**

- Navigation Keys Combine with Intuitive Menus
- Optional 8 Programmable I/O's with Counter
- QWERTY Keyboard For Easy Data Entry
- USB Connection (2 USB-A / 1 USB-B)
- Ethernet Connection (TCP/IP or EIP)
- Up to 4 GB USB Memory Storage
- 8 Digital I/O (4 Input/4 Output)
- Optional Scale Input Cards
- 10 Option Slots Available
- DeviceNet / iCan System
- 64 MB User Memory
- 3 Serial Ports



*Cardinal's 825 USB drive supports data transfer, USB QWERTY keyboards, and Cardinal-supported printers.*

Dimensions	12" W x 3.74" D x 9.72" H / 31 cm W x 10 cm D x 25 cm H
Enclosure	NEMA 4X/IP66 stainless steel
Max Resolution	NTEP 10,000 (Class III/IIIL) CANADA 10,000 (Class III/IIHLD) OIML 10,000 (Class III) NON-COMMERCIAL 240,000
Power	90 to 264 VAC, 50/60 Hz
Load Cells	Up to 14 per SIB / 48 - 350 ohm cells total
Units Conversion	Pounds, kilograms, tons, metric tons, custom



## CHECKWEIGHER MODE

The 825 Spectrum allows instant operator recognition of weight status by color with large, bright indicators and five-level ratio bar.



## MULTIPLE SCALES PLUS TOTAL WEIGHT

View multiple scales plus total weight onscreen simultaneously with the 825 Spectrum's giant display. Ideal for multi-platform scales.

## FILE MANAGEMENT VIA NETWORK

Copy files over the Internet directly from the 825 to the file server when connected to the network:

- in the office
- across town
- around the world





# PRINTERS



Model P150

Model P240



Model P400



Model P500



Model CTP-1



Model P800



Model P801



Model P900



## **P150 Thermal Tape Printer**

Cardinal's P150 printer is a battery-operated ticket printer that prints at 50 mm/sec and utilizes a long-life lithium-ion battery that supplies up to 40,000 lines of 8 dots/mm (203 dpi) thermal printing on a single charge. It features a compact size: 4.57" W x 3.54" D x 2.01" H / 116 mm W x 90 mm D x 51 mm H and RS-232 serial connectivity with battery low status lamp.

## **P240 Thermal Label Printer**

The P240 high-quality direct thermal printer is perfect for labeling, features a flip-up print head for easy media loading or cleaning, and produces characters at 203 dots per inch. The P240 has a print width of 4" and features a print speed of up to 4" per second. Interfacing to Cardinal's indicators via a RS-232 serial port, they can print lines, boxes and graphics.

## **P400 Dot Matrix Ticket Printer**

The P400 Ticket Printer is a multifunctional printer capable of printing a variety of tickets. This printer prints on the original and up to 4 copies. Tickets can easily be inserted and removed. Front panel controls permit tickets to be advanced, reversed, or released. Its long-life print mechanism and easy-to-change ink cartridge permit frequent use with no sacrifice in speed or quality of printout.

## **P500 Dot Matrix Tape Printer**

The P500 Tape Printer incorporates versatile on-board electronics and has a print speed of up to 4.2 lines per second. The printer can be configured for continuous eject tape or can provide individual receipt slips as needed for the weighing installation.

## **CTP-1 Dot Matrix Ticket Printer**

Cardinal's CTP-1 Dot Matrix Ticket Printer prints up to 2.1 lines per second. Its features include insert ticket and multi copy printing. It interfaces with Cardinal indicators via a RS-232 serial port. Standard serial printer cable provided. Character size is 2.9 mm x 1.6 mm and the printer has 35 columns.

## **P800 USB Deskjet Printer**

The P800 Deskjet Printer is excellent for printing reports from such applications as Cardinal's WinVRS software where full-color graphics reports are necessary. The detail is sharper and the print speed faster than other printer models. Connect via USB or parallel, and the USB connection allows two printers without having to buy additional computer hardware.

## **P801 USB Laserjet Printer**

The P801 Laserjet Printer delivers up to 14 pages per minute and holds up to 150 sheets. It features 600 dpi x 600 dpi and connects via hi-speed USB. The P801 has a media size of A4 (8.25 in x 11.7 in) and will take up to legal size sheets (8.5 in x 14 in). The P801 has a monthly duty cycle of 5,000 pages.

## **P900 and P900S Dot Matrix Form Printer**

The durable 9-PIN print head, self-inking ribbon cartridge, and adjustable pin feed mechanism allows these printers to accept an assortment of paper types and sizes with a print speed of 300 CPS. The P900 Printer is furnished with a parallel input while the P900S is supplied with a serial input board.





## Indicator Connectivity Options



**2XX-USB**  
USB card



**2XX-IP** - 10/100 MB TCP/IP Ethernet  
**2XX-EIP** - Industrial Ethernet



**2XX-RS232**  
Additional bi-directional serial card  
**2XX-DN**  
DeviceNet® option card



**2XX-SFP**  
Plastic fiber optic card  
**2XX-SFG**  
Glass fiber optic card



**2XX-AB**  
Allen-Bradley® remote I/O card



**2XX-DAC**  
Analog output card



**SFP1**  
Serial to plastic fiber converter  
**SFG1**  
Serial to glass fiber converter



**RB3**  
Relay box with 3 relays  
**RB9**  
Relay box with 9 relays

\*2XX denotes use with  
200 series indicators



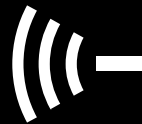
**2XX-WIFI**  
802.11 WIFI card

**RF1**  
ConnexLink® RS232 to 900  
MHz wireless transceiver.  
Up to 200 ft.

**RF2**  
MaxStream® high power  
RS232 to 900 MHz  
wireless  
transceiver.  
Up to 500 ft.



**RF3**  
Point-to-point  
network for  
distances up  
to 3 miles



## Wireless Technologies

Cardinal allows you to enjoy wireless freedom in your scale installations. If digging up parking lots to bury cable or running lines through buildings doesn't sound appealing to you, then we have an answer. Cardinal's representatives will work with you to define your wireless weighing needs and create a unique solution to allow you to "break free from the ties that bind", whether your application will utilize point to point, 802.11 networking, or Bluetooth®.



All Cardinal  
Indicators are  
NTEP Wireless

Cardinal's wide selection of quality weighing products are adaptable to wireless connectivity and can operate in a point-to-point or point-to-multipoint configuration. Create multiple sub-networks by assigning unique radio addresses to specific device groups. Whether you need to connect weighing products 5 feet or 5 miles apart, give Cardinal a call to see how we can help.



**REMOTEKEY**



((-- short range --))  
via keyfob RF



**MODEL 205**



**MODEL 825**



((-- short range --))  
via BlueTooth®



**PDA**



**MODEL 225**



((-- medium range --))  
via model RF2



**MODEL SB500**



**MODEL 205**



((-- long range --))  
via model RF3



**MODEL 225**





# REMOTE DISPLAYS



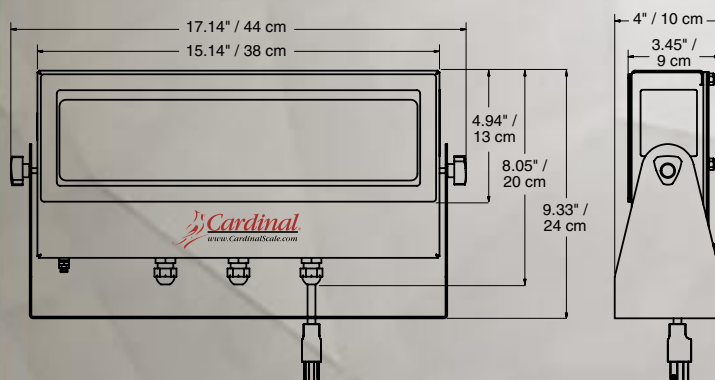
Model RD2

**Viewing Range**..... 150' / 46 m  
**Display**..... Six-digit, seven-segment, 2.25" / 57 mm high LED  
**Power**..... 94 to 264 VAC, 47/63 Hz  
                     Universal Input  
**Annunciators**..... lb, kg, T, t, G, N  
**Interface**..... 20mA current loop, RS-232  
**Display Capacity**..... -99999 to 999999  
**Enclosure**..... NEMA 4 / IP66 stainless steel  
**Operating Temp**..... -10 to 120° F (-23 to +49° C)  
**Shipping Weight**..... 16 lb / 7.3 kg

## RD2

**2.25"/57mm High LED • 3 Navigation Keys**  
**Auto-Learn Feature Selects Input Protocol**  
**RS232 Interface • 10 Levels of Brightness**  
**Compact Size • Versatile Mounting Bracket**

Whether your application necessitates monitoring weight on tanks, bins, vehicle scales or process control systems, the RD2 remote display includes an RS-232 serial interface that is configurable to meet the communication requirements of your weight instrumentation. The rugged stainless steel enclosure is rated NEMA4/IP66 for added protection from water and dust inherent in industrial environments.



## 180

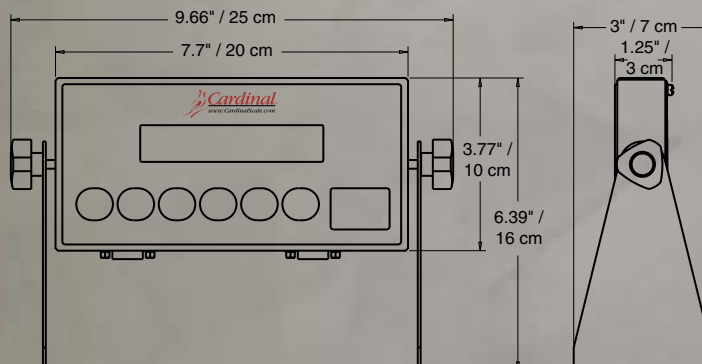
**0.56"/14mm High LED • On-Demand Serial Data**  
**Continuous Serial Data • Indoor/Outdoor Use**  
**Stainless Steel Enclosure • Space-Saving Size**  
**Versatile Mounting Bracket • Economical Value**

Designed for economy-based applications with a close viewing range, Cardinal's 180 remote display features a bright-red LED, stainless steel enclosure, and versatile mounting bracket for wall or desktop use.



Model 180

**Viewing Range**..... 20' / 6 m  
**Display**..... Six-digit, seven-segment, 0.56" / 14 mm high LED  
**Power**..... 12 VDC 1A UL/CSA listed AC  
                     power supply  
**Annunciators**..... lb, kg, oz  
**Interface**..... 20mA current loop, RS-232  
**Display Capacity**..... -99999 to 999999  
**Enclosure**..... NEMA 1 / IP40 stainless steel  
**Operating Temp**..... 14 to 104° F (-10 to +40° C)  
**Shipping Weight**..... 3 lb / 1.3 kg

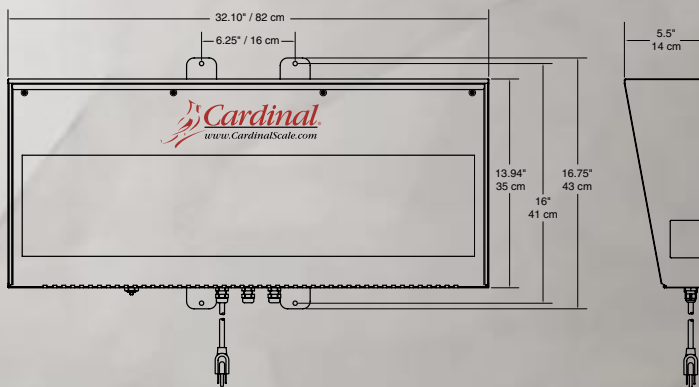


# REMOTE DISPLAYS



## RED/GREEN TRAFFIC LIGHT

Configurable control of Stop/Go light traffic signal via serial message or OPTO-22 plug-in relay.



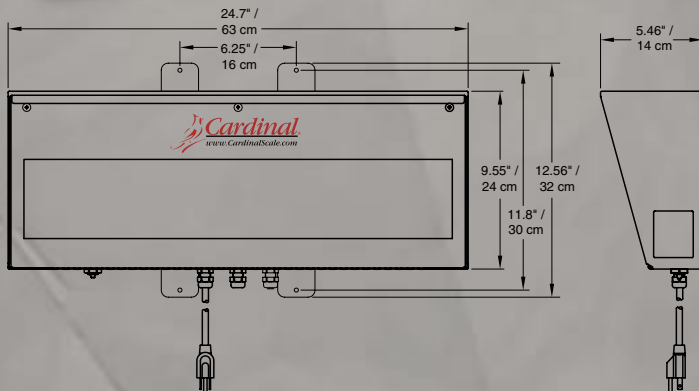
## SB500

- 5"/127mm High LED
- Long Range Visibility

**Viewing Range**..... 250' / 76 m  
**Display**..... Six-digit, seven-segment, 5" / 127 mm high LED  
**Power**..... 115/230 VAC 50/60 Hz  
**Annunciators**..... lb, kg, T, G, N  
**Interface**..... 20 mA, active or passive, RS232, RS422/485, fiber optic, ethernet  
**Display Capacity**..... -99999 to 999999  
**Enclosure**..... SB500 and SB500M NEMA 4/IP65 painted mild steel SB500S NEMA 4/IP65 stainless steel  
**Operating Temp**..... -15 to 130° F (-26 to +54° C)  
**Shipping Weight**..... 39 lb / 17.6 kg

## SB250

The SB250 employs many of the same features as the SB500, but in a slightly smaller package. These remote displays feature 2.6-inch-high digits consisting of nine 5 x 7 alphanumeric characters for readouts of upper and lower case letter messages. The integral rain hood provides extra protection and greater visibility during inclement weather. The SB250 features ten levels of display intensity which adjust automatically via an ambient light sensor, ensuring readability both day and night. Message board is standard.



**Viewing Range**..... 200' / 61 m  
**Display**..... Six-digit, seven-segment, 2.6" / 66 mm high LED  
**Power**..... 115/230 VAC 50/60 Hz  
**Annunciators**..... lb, kg, T, t, G, N  
**Interface**..... 20 mA, active or passive, RS232, RS422/485, fiber optic, ethernet  
**Display Capacity**..... -99999 to 999999  
**Enclosure**..... NEMA 4/IP65 painted mild steel  
**Operating Temp**..... -15 to 130° F (-26 to +54° C)  
**Shipping Weight**..... 20 lb / 9 kg





# ELECTRONIC FLOOR SCALES

Underdeck Protection!



Cert. No.  
06-056

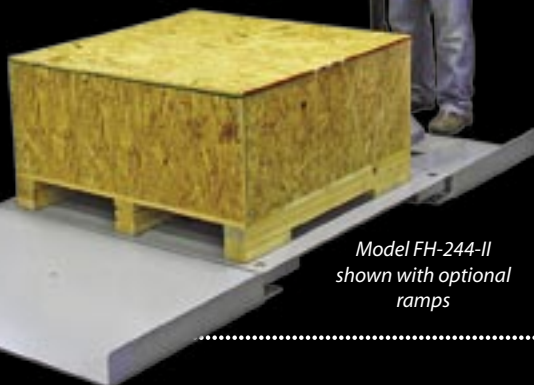


Model FH-544-F shown with optional ramps

- Electronic Scale with Low-Profile Design for Easy Loading
- Optional Access Ramps Available
- Four Way Approach
- Well-Protected Stainless Steel Environmentally-Sealed Load Cells
- Custom Sizes Available



Notice of Approval  
AM-4592



Model FH-244-II shown with optional ramps

Cardinal's Floor Hugger Floor Scales provide the latest in weighing technology. Cardinal's unique load cell assemblies are self-checking, incredibly well-protected, and IP 67-rated environmentally sealed for those less-than-perfect locations.

*When necessary, the entire scale can be conveniently lifted, moved, and re-installed as your production and traffic flow needs change.*

Cert. No.  
96-113



Model FHN-1044 shown with optional single checkered steel ramp

## RuggedWeigh Economical Floor Scales CHECKERED STEEL DECKS

Model	Platform Size	Approx. Shipping Wt.
Capacity: 5,000 lb x 1 lb / 2,268 kg x 0.5 kg		
FH-533-F	3' x 3' / 0.9 m x 0.9 m	146 lb / 66 kg
FH-544-F	4' x 4' / 1.2 m x 1.2 m	277 lb / 126 kg
FH-555-F	5' x 5' / 1.5 m x 1.5 m	404 lb / 183 kg

The strength of Cardinal's RuggedWeigh floor scale lies in its unique channel structure which provides sturdy, enclosed protection for under-deck components, so they can't be damaged through rugged use.

## Heavy-Duty Frameless Floor Huggers SMOOTH STEEL DECKS

Model	Platform Size	Approx. Shipping Wt.
Capacity: 1,000 lb x 0.2 lb / 454 kg x 0.09 kg		
FH-133-II	3' x 3' / 0.9 m x 0.9 m	165 lb / 75 kg
FH-144-II	4' x 4' / 1.2 m x 1.2 m	240 lb / 109 kg
FH-155-II	5' x 5' / 1.5 m x 1.5 m	330 lb / 150 kg
Capacity: 2,000 lb x 0.5 lb / 907 kg x 0.2 kg		
FH-233-II	3' x 3' / 0.9 m x 0.9 m	165 lb / 75 kg
FH-244-II	4' x 4' / 1.2 m x 1.2 m	240 lb / 109 kg
FH-255-II	5' x 5' / 1.5 m x 1.5 m	330 lb / 150 kg

These models are ideal for all types of manufacturing, food and chemical processing, and shipping-receiving operations. All Cardinal Floor Huggers are available in stainless steel or painted steel, depending on your application. Optional ramps provide easy access to the scale for pallet jacks and forklifts. Custom sizes are also available.

## Extra Heavy-Duty Frameless Floor Huggers CHECKERED STEEL DECKS

Model	Platform Size	Approx. Shipping Wt.
Capacity: 5,000 lb x 1 lb / 2,268 kg x 0.5 kg		
FHN-533	3' x 3' / 0.9 m x 0.9 m	467 lb / 211 kg
FHN-544	4' x 4' / 1.2 m x 1.2 m	521 lb / 237 kg
FHN-554	5' x 4' / 1.5 m x 1.2 m	610 lb / 277 kg
FHN-555	5' x 5' / 1.5 m x 1.5 m	701 lb / 318 kg
FHN-564	6' x 4' / 1.8 m x 1.2 m	745 lb / 338 kg
FHN-575	7' x 5' / 2.1 m x 1.5 m	940 lb / 426 kg
Capacity: 10,000 lb x 2 lb / 4,536 kg x 0.9 kg		
FHN-1044	4' x 4' / 1.2 m x 1.2 m	521 lb / 237 kg
FHN-1054	5' x 4' / 1.5 m x 1.2 m	610 lb / 277 kg
FHN-1055	5' x 5' / 1.5 m x 1.5 m	701 lb / 318 kg
FHN-1064	6' x 4' / 1.8 m x 1.2 m	745 lb / 338 kg
FHN-1075	7' x 5' / 2.1 m x 1.5 m	940 lb / 426 kg

These robust Cardinal FHN Floor Hugger models are designed for long-term service and accuracy even in the most severe installations.





Model FH-555-II Extra  
Heavy-Duty Lower Frame Floor Hugger



# ELECTRONIC FLOOR SCALES

- Capacities  
up to 20,000 lbs
- Standard Platform  
Sizes from 4 ft x 4 ft  
up to 12 ft x 10 ft
- Custom Sizes Also Available
- Top Side Access to Load Cell Junction Box



## Extra Heavy-Duty Lower Frame Floor Huggers CHECKERED STEEL DECKS

### PIT TYPE APPLICATIONS

The Cardinal  
Lower Frame  
Floor Scale is the  
perfect choice for  
pit type applications  
where you need the  
scale flush with your  
floor surface (shown here).



**Optional Four-Way  
Approach Ramps Also Available**

Model	Platform Size	Approx. Shipping Wt.
<b>Capacity: 5,000 lb x 1 lb / 2,268 kg x 0.5 kg</b>		
NTEP Certificate of Conformance 90-069A2 Canadian Notice of Approval S.WA-3219		
FH-544-II	4' x 4' / 1.2 m x 1.2 m	521 lb / 237 kg
FH-555-II	5' x 5' / 1.5 m x 1.5 m	701 lb / 318 kg
<b>Capacity: 10,000 lb x 2 lb / 4,536 kg x 0.9 kg</b>		
NTEP Certificate of Conformance 90-069A2 Canadian Notice of Approval S.WA-3219		
FH-1044-II	4' x 4' / 1.2 m x 1.2 m	521 lb / 237 kg
FH-1055-II	5' x 5' / 1.5 m x 1.5 m	701 lb / 318 kg
<b>Capacity: 20,000 lb x 5 lb / 9,071 kg x 2.3 kg</b>		
NTEP Certificate of Conformance 90-069A2 Canadian Notice of Approval S.WA-4048 (except model FH-201210-II)		
FH-2055-II	5' x 5' / 1.5 m x 1.5 m	975 lb / 442 kg
FH-2064-II	6' x 4' / 1.8 m x 0.9 m	950 lb / 431 kg
FH-2075-II	7' x 5' / 2.1 m x 1.5 m	1,290 lb / 585 kg
FH-2086-II	8' x 6' / 2.4 m x 1.8 m	1,675 lb / 760 kg
FH-2097-II	9' x 7' / 2.7 m x 2.1 m	2,010 lb / 912 kg
FH-201010-II	10' x 10' / 3 m x 3 m	3,962 lb / 1,797 kg
FH-201210-II	12' x 10' / 3.7 m x 3 m	4,287 lb / 1,944 kg



Model RFH-544  
with built-in ramp  
and checkered  
steel deck  
for easy transport

### Floor Scale with Integral Ramp

Model	Platform Size	Shipping Wt.
<b>Capacity: 5,000 lb x 1 lb / 2,268 kg x 0.5 kg</b>		
RFH-544	48" x 40" / 122 cm x 122 cm (flat area)	595 lb / 270 kg



# STAINLESS STEEL FLOOR SCALES



## RuggedWeigh Economical Floor Scales CHECKERED STAINLESS STEEL DECKS

Model	Platform Size	Approx. Shipping Wt.
<b>Capacity: 5,000 lb x 1 lb / 2,268 kg x 0.5 kg</b>		
NTEP Certificate of Conformance 06-056		
FH-533-FS	3' x 3' / 0.9 m x 0.9 m	146 lb / 66 kg
FH-544-FS	4' x 4' / 1.2 m x 1.2 m	277 lb / 126 kg
FH-555-FS	5' x 5' / 1.5 m x 1.5 m	404 lb / 183 kg

## Heavy-Duty Frameless Floor Huggers SMOOTH STAINLESS STEEL DECKS

Model	Platform Size	Approx. Shipping Wt.
<b>Capacity: 1,000 lb x 0.2 lb / 454 kg x 0.09 kg</b>		
Canadian Notice of Approval AM-4592		
FH-133-IIS	3' x 3' / 0.9 m x 0.9 m	165 lb / 75 kg
FH-144-IIS	4' x 4' / 1.2 m x 1.2 m	240 lb / 109 kg
FH-155-IIS	5' x 5' / 1.5 m x 1.5 m	330 lb / 150 kg
<b>Capacity: 2,000 lb x 0.5 lb / 907 kg x 0.2 kg</b>		
FH-233-IIS	3' x 3' / 0.9 m x 0.9 m	165 lb / 75 kg
FH-244-IIS	4' x 4' / 1.2 m x 1.2 m	240 lb / 109 kg
FH-255-IIS	5' x 5' / 1.5 m x 1.5 m	330 lb / 150 kg



Cardinal Model  
FH-544-IIS Lower Frame  
Stainless Steel Floor Hugger

Cardinal's Stainless Steel Floor Scales come in a multitude of sizes and capacities. They are built for endurance and the low-profile design offers ideal and safe loading conditions. Optional ramps provide easy access for lift trucks, pallet jacks, and carts.

## Extra Heavy-Duty Lower Frame Floor Huggers CHECKERED STAINLESS STEEL DECKS

Model	Platform Size	Shipping Weight
<b>Capacity: 5,000 lb x 1 lb / 2,268 kg x 0.5 kg</b>		
NTEP Certificate of Conformance 90-069A2 Canadian Notice of Approval S.WA-3219		
FH-544-IIS	4' x 4' / 1.2 m x 1.2 m	521 lb / 237 kg
FH-555-IIS	5' x 5' / 1.5 m x 1.5 m	701 lb / 318 kg
<b>Capacity: 10,000 lb x 2 lb / 4,536 kg x 0.9 kg</b>		
NTEP Certificate of Conformance 90-069A2 Canadian Notice of Approval S.WA-3219		
FH-1044-IIS	4' x 4' / 1.2 m x 1.2 m	521 lb / 237 kg
FH-1055-IIS	5' x 5' / 1.5 m x 1.5 m	701 lb / 318 kg
<b>Capacity: 20,000 lb x 5 lb / 9,071 kg x 2.3 kg</b>		
NTEP Certificate of Conformance 90-069A2 Canadian Notice of Approval S.WA-4048		
FH-2064-IIS	6' x 4' / 1.8 m x 0.9 m	950 lb / 431 kg
FH-2075-IIS	7' x 5' / 2.1 m x 1.5 m	1,290 lb / 585 kg
FH-2086-IIS	8' x 6' / 2.4 m x 1.8 m	1,675 lb / 760 kg
FH-2097-IIS	9' x 7' / 2.7 m x 2.1 m	2,010 lb / 912 kg

## Extra Heavy-Duty Frameless Floor Huggers CHECKERED STAINLESS STEEL DECKS

Model	Platform Size	Approx. Shipping Wt.
<b>Capacity: 5,000 lb x 1 lb / 2,268 kg x 0.5 kg</b>		
NTEP Certificate of Conformance 96-113		
FHN-533S	3' x 3' / 0.9 m x 0.9 m	467 lb / 211 kg
FHN-544S	4' x 4' / 1.2 m x 1.2 m	521 lb / 237 kg
FHN-554S	5' x 4' / 1.5 m x 1.2 m	610 lb / 277 kg
FHN-555S	5' x 5' / 1.5 m x 1.5 m	701 lb / 318 kg
FHN-564S	6' x 4' / 1.8 m x 1.2 m	745 lb / 338 kg
FHN-575S	7' x 5' / 2.1 m x 1.5 m	940 lb / 426 kg
<b>Capacity: 10,000 lb x 2 lb / 4,536 kg x 0.9 kg</b>		
FHN-1044S	4' x 4' / 1.2 m x 1.2 m	521 lb / 237 kg
FHN-1054S	5' x 4' / 1.5 m x 1.2 m	610 lb / 277 kg
FHN-1055S	5' x 5' / 1.5 m x 1.5 m	701 lb / 318 kg
FHN-1064S	6' x 4' / 1.8 m x 1.2 m	745 lb / 338 kg
FHN-1075S	7' x 5' / 2.1 m x 1.5 m	940 lb / 426 kg

The lift-up top design with stainless steel gas spring shocks allows for easy lifting of the heavy-duty deck.

Model  
FHLT-1044S



## Lift-Up Top Stainless Steel Floor Scales SMOOTH STAINLESS STEEL DECKS

Model	Capacity	Platform Size	Shipping Wt.
FHLT-544S	5,000 lb x 1 lb / 2,268 kg x 0.5 kg	4' x 4' / 1.2 m x 1.2 m	559 lb / 254 kg
FHLT-555S	5,000 lb x 1 lb / 2,268 kg x 0.5 kg	5' x 5' / 1.5 m x 1.5 m	709 lb / 322 kg
FHLT-1044S	10,000 lb x 2 lb / 4,536 kg x 0.9 kg	4' x 4' / 1.2 m x 1.2 m	559 lb / 254 kg
FHLT-1055S	10,000 lb x 2 lb / 4,536 kg x 0.9 kg	5' x 5' / 1.5 m x 1.5 m	709 lb / 322 kg

Model HH-544S  
Guardian Hydraulic  
Stainless Steel Floor Scales



# HYDRAULIC FLOOR SCALES



## THE GUARDIAN



### Guardian Hydraulic Floor Scales CHECKERED STAINLESS STEEL DECKS

- Features Cardinal Model SST All-Stainless Steel Corrosion-Resistant Hydraulic Load Cells.
- Comes with Scale Totalizer Sized for the System and 20 ft. of Copper Tubing.
- Optional Ramps Available - Loading Convenience.
- Low-Profile Scale Deck Design Offers Safe and Easy Loading Conditions.

Model	Platform Size	Approx. Shipping Wt.
<b>Capacity: 5,000 lb x 1 lb / 2,268 kg x 0.5 kg</b>		
HH-544S	4' x 4' / 1.2 m x 1.2 m	564 lb / 256 kg
HH-555S	5' x 5' / 1.5 m x 1.5 m	744 lb / 337 kg
<b>Capacity: 10,000 lb x 2 lb / 4,536 kg x 0.9 kg</b>		
HH-1044S	4' x 4' / 1.2 m x 1.2 m	596 lb / 270 kg
HH-1055S	5' x 5' / 1.5 m x 1.5 m	776 lb / 352 kg

### SANITARY APPLICATIONS

To avoid hard-to-clean pockets that can breed bacteria and allow food or chemicals to build up over time, the pneumatic springs in these Guardian Hydraulic Floor Scales allow the platform to easily lift up providing access to the floor for cleaning.

These scales are specifically designed to meet the special sanitation requirements in food processing and pharmaceutical plants. The lift-up scale deck provides quick and easy access to components below the scale surface for cleaning and inspection.

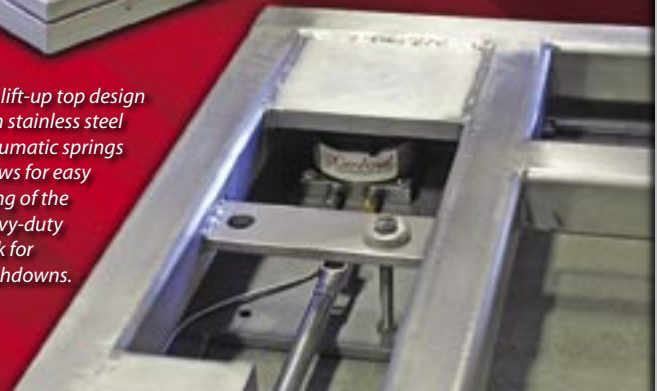


Cardinal Model  
HHLT-555S Lift-Up Top  
Guardian Floor Scales  
with stainless steel  
checkered decks for  
easy cleaning in  
sanitary  
environments..

### Lift-up Top Guardian Hydraulic Floor Scales

Model	Platform Size	Approx. Shipping Wt.
<b>Capacity: 5,000 lb x 1 lb / 2,268 kg x 0.5 kg</b>		
HHLT-544S	4' x 4' / 1.2 m x 1.2 m	621 lb / 282 kg
HHLT-555S	5' x 5' / 1.5 m x 1.5 m	908 lb / 412 kg
<b>Capacity: 10,000 lb x 2 lb / 4,536 kg x 0.9 kg</b>		
HHLT-1044S	4' x 4' / 1.2 m x 1.2 m	653 lb / 296 kg
HHLT-1055S	5' x 5' / 1.5 m x 1.5 m	940 lb / 426 kg

The lift-up top design with stainless steel pneumatic springs allows for easy lifting of the heavy-duty deck for washdowns.



(800) 441-4237





# DIGITAL BENCH AND FLOOR SCALES



Notice of Approval  
S.WA-4233  
(5852F only)



Cert. No.  
88-106

Model  
5852F-204



Model  
5852F-215

## Portable Digital Floor Scales

These portable receiving scales protect your profits and actually "pay for themselves" by accurately weighing commodities coming in your door. Constructed entirely of heavy-duty welded fabricated steel bases and electrostatically coated with long-life paint, these "legal-for-trade" floor scales provide fast, portable, accurate performances that let the weighing come to where you need it. Large 5" (127mm) diameter heavy-duty rubolene wheels make the scales easy-to-roll wherever they are needed and battery operation adds to their portability.

Choose from two different digital weight indicators to suit your specific need. The model 215 has most of the features of the 204, but also includes keypad tare and various other features. For 200 series weight indicator features, please refer to the indicator's product information within this catalog.

Model	Capacity	Shipping Weight
5852F-204	500 lb x 0.2 lb / 220 kg x 0.1 kg	108 lb / 49 kg
5852F-215	500 lb x 0.2 lb / 220 kg x 0.1 kg	108 lb / 49 kg
8852F-204	1,000 lb x 0.5 lb / 440 kg x 0.2 kg	108 lb / 49 kg
8852F-215	1,000 lb x 0.5 lb / 440 kg x 0.2 kg	108 lb / 49 kg

**Platform Size:** 19" W x 28" D / 48 cm W x 71 cm D

**Power:**

**204 Indicator** 6 "C" size Alkaline batteries (not included).  
Optional AC adapter available

**215 Indicator** 10 "AA" size NiMH, 2300 mAh batteries  
(not included) or 90 to 264 VAC, 50 or 60 Hz

## Digital Bench Scale

Cardinal's model 7045G digital bench scale, built to withstand rugged industrial environments, is perfect for inventory purposes, laundry services, weighing bulk commodities or shipping and receiving departments. The 7045G's model 204 digital indicator with 0.7"/18mm high LCD display can be tilted upward for a better viewing angle with its versatile mounting bracket. The base of the scale is 10.5" W x 14.5" D with a fixed auxiliary oversized galvanized platform which measures 18" W x 18" D with 4" upturned lip on back only.

Choose from pounds or kilograms readout with the switch selectable display that also features pushbutton tare. Long-life alkaline batteries add to this scale's portability while the oven-baked enamel finish remains mar-resistant after years of rugged use. The galvanized L-shaped pan gives you a larger weighing surface without taking up as much counter space for the base. For 204 digital weight indicator features, please see page 29 of this catalog.

Model	Capacity	Shipping Weight
7045G	400 lb x 0.2 lb / 180 kg x 0.1 kg	42 lb / 19 kg

**Platform Size:** 10.5" W x 14.5" D / 27 cm W x 37 cm D with a fixed auxiliary oversized platform: 18" W x 18" D x 4" H / 46 cm W x 46 cm D x 10 cm H (upturned lip on back only).

**Power:** 6 "C" size Alkaline batteries (not included). Optional AC adapter available

**7045G**

Model  
7045G



# DIGITAL FLOOR SCALES

Available in your choice of mild or stainless steel



**RW-1000**  
With Stainless Steel  
204 indicator

**Integral Handles**  
Makes it easy to lift and lower the scales into position.



**Built-in Wheels**  
Permits the scales to be rolled anywhere they are needed.



**RW-1000S**  
NEMA 4X/IP66 Stainless Steel 205 indicator

## Run-a-Weigh Portable Floor Scales

Model	Material
<b>500 lb x 0.2 lb / 225 kg x 0.1 kg</b>	
RW-500	Mild Steel
RW-500S	Stainless Steel
<b>1,000 lb x 0.5 lb / 450 kg x 0.2 kg</b>	
RW-1000	Mild Steel
RW-1000S	Stainless Steel

**Platform Size:** 24.5" W x 30" D / 62 cm W x 76 cm D

**Overall Size:** 32.5" W x 40.5" D x 3.5" H / 83 cm W x 103 cm D x 9 cm H (including carrying handles and wheels)

**Power:** **204 Indicator** 6 "C" cell or NiCad batteries, standard 12VDC (115 VAC 60 Hz adapter) or 115 VAC 60 Hz

**205 Indicator** 90 to 260 VAC, 50 or 60 Hz

**Shipping Weight:** 105 lb / 48 kg

Weighing in at less than 100 pounds (45 kg) and featuring built-in handles, ramp and wheels, the Run-a-Weigh is easy to lift and roll to wherever you need it. Whether it's multiple weighing locations at a single facility or the need to take a scale to special job sites, the Run-a-Weigh gives you true portability. Its ideal for weighing barrels, drums, and small crates - anywhere!. This portable scale features a Cardinal digital weight indicator which can be mounted on the wall or desk for convenient viewing. Setup is simple and quick with the Run-a-Weigh's self-aligning feet.



**Model**  
**MH-524**  
with 205  
indicator



## Mini Hugger Stationary Floor Scales

Model	Capacity	Material
MH-524	500 lb x 0.2 lb / 225 kg x 0.01 kg	Mild Steel

**Platform Size:** 24" W x 24" D x 6" H / 61 cm W x 61 cm D x 15 cm H

**Shipping Weight:** 225 lb / 102 kg

Great for industrial applications, Cardinal's Mini Hugger low-profile drum scale is rugged enough for everyday use in the busiest of warehouses. Cardinal's heavy-duty CHB single point load cell and 0.5" (13 mm) thick steel deck plate mean low maintenance and high performance. The load cell cable length is 10 feet (3 m) long. Add a Cardinal 200 series indicator (205 shown) and you'll have a weighing system to get the job done accurately and reliably (weight indicator is not included). The platform height is 6" (152 mm) maximum, and the MH-524 features four adjustable mounting feet 2" (51 mm) in diameter.





# MECHANICAL BENCH & FLOOR SCALES

## General Utility Dial Scales

Model	Capacity	Galvanized Tray Size
47100-36	100 lb x 8 oz	No
47200-36	200 lb x 1 lb	No
47300-36	300 lb x 1 lb	No
48100-36	100 lb x 8 oz	Double Lip Pan 18" x 18" with 7" x 5" lip (46 cm x 46 cm x 18 cm x 13 cm)
4860-36B	60 lb x 2 oz	Single Lip Pan 18" x 18" with 4" lip (46 cm x 46 cm x 18 cm x 13 cm)
48100-36B	100 lb x 8 oz	Single Lip Pan 18" x 18" with 4" lip (46 cm x 46 cm x 18 cm x 13 cm)

**Platform Size:** 10.5" W x 14.5" D / 27 cm W x 37 cm D

**Overall Size:** 11" W x 21" D x 36" H / 28 cm W x 53 cm D x 91 cm H

**Dial:** 10" / 25 cm diameter dial - protected by glass cover

*Dials may be furnished facing the platform or running parallel with the sides.*

**Shipping Weight:** 54 lb / 24 kg



### Accessories

5M35	Galvanized Double Lip Pan 18" x 18" with 7" x 5" lip (46 cm x 46 cm x 18 cm x 13 cm)
5M36	Galvanized Single Lip Pan 18" x 18" with 4" lip (46 cm x 46 cm x 18 cm x 13 cm)



Cert. No.  
88-106



Notice of Approval  
S.WA-4097

Model  
854F100P

Model  
954F100P



Notice of Approval  
S.WA-4097



Cert. No.  
88-108



## Portable Mechanical Floor Scales with Beam

Model	Capacity	Front of Beam	Back of Beam
854F100P	1,000 lb	100 lb x 0.5 lb	100 lb x 0.5 lb
854F50P	500 lb	50 lb x 0.25 lb	50 lb x 0.25 lb
854F50K	500 kg	50 kg x 0.25 kg	50 kg x 0.25 kg
854F50PK	500 lb / 200 kg	20 kg x 100 g	50 lb x 0.25 lb
854F100PK	1,000 lb / 500 kg	50 kg x 0.25 kg	100 lb x 0.5 lb

**Platform Size:** 19" W x 28" D / 48 cm W x 71 cm D

**Overall Size:** 24" W x 35" D x 45" H / 61 cm W x 89 cm D x 114 cm H

**Shipping Weight:** 132 lb / 60 kg

**Wheels:** 5" / 13 cm diameter heavy-duty Rubolene wheels

## Portable Mechanical Floor Scales - Large Platform

Model	Capacity	Front of Beam	Back of Beam
954F100P	1,000 lb	100 lb x 0.5 lb	100 lb x 0.5 lb
954F50K	1,000 kg	50 kg x 0.25 kg	50 kg x 0.25 kg

**Platform Size:** 28" W x 28" D / 71 cm W x 71 cm D

**Overall Size:** 33" W x 35" D x 45" H / 84 cm W x 89 cm D x 114 cm H

**Shipping Weight:** 206 lb / 93 kg



# MECHANICAL BENCH SCALES

## Bench Dial Scales

The 1100 series offers high accuracy and sturdy construction with minimum scale maintenance, due in part to the standard thermal elastic temperature-compensating springs and oil dashpot.

Model	Capacity	Shipping Weight
1100DB	50 lb x 1 oz	150 lb / 68 kg
1100DBK	25 kg x 25 g	150 lb / 68 kg
1102DE	100 lb x 2 oz	150 lb / 68 kg
1102DEX	100 lb x 4 oz	150 lb / 68 kg
1102EDK	50 kg x 50 g	150 lb / 68 kg
1102EDX	100 lb x 45 g	150 lb / 68 kg
1105DG	200 lb x 4 oz	150 lb / 68 kg
1105DGK	100 kg x 100 g	150 lb / 68 kg
1106DK	300 lb x 8 oz	150 lb / 68 kg
1106DKK	150 kg x 250 g	150 lb / 68 kg

*Lb/kg models also available - please consult factory*

**Platform Size:** 14" W x 18" D / 36 cm W x 46 cm D

**Dial:** 19" / 48 cm diameter single dial - protected by glass cover

Accessories	
259R922	L-shaped stainless steel pan 18" W x 18" D x 4" H / 46 cm W x 46 cm D x 10 cm H
948GR933	Adjustable wheeled stand



Model  
1105DG



Optional Adjustable  
Wheeled Stand



Notice of Approval  
S.WA-380



Cert. No.  
89-032

## "Legal-for-Trade" Bench Beam Scales

Model	Capacity	Shipping Weight
4420	350 lb x 4 oz	49 lb / 22 kg
4420KG	140 kg x 100 g this model is not "legal-for-trade"	49 lb / 22 kg

Accessory	
259R922	L-shaped stainless steel pan 18" W x 18" D x 4" H / 46 cm W x 46 cm D x 10 cm H

**Platform Size:** 14" W x 19" D / 36 cm W x 48 cm D

**Overall Height:** 29.625" / 75 cm



Model  
4420



Cert. No.  
91-162

## Bench Weigh Beam Scales

Model	Capacity	Upper Beam	Lower Beam
4570	130 lb	10 lb x 1 oz	120 lb x 10 lb
4520	350 lb	50 lb x 4 oz	300 lb x 50 lb
4527PK	350 lb / 160 kg	50 lb x 4 oz / 20 kg x 100 g	300 lb x 50 lb / 140 kg x 20 kg

**Platform Size:** 10.5" W x 14.5" D / 27 cm W x 37 cm D

**Overall Height:** 27" / 69 cm

**Shipping Weight:** 46 lb / 21 kg



Model  
4570





# STAINLESS STEEL BENCH SCALES



## EB Series Stainless Steel Bench Scales

The EB Bench Scales are designed for top performance and long-term accuracy. For weight indicator differences, please refer to the appropriate 200 series weight indicator product page in this catalog.



Model  
EB-150-205

**EB**

Model	Capacity	Platform Size	Shipping Weight
EB-15-204	15 lb x 0.005 lb / 6 kg x 0.005 kg	10" W x 12" D / 25 cm W x 30 cm D	28 lb / 13 kg
EB-15-205			30 lb / 14 kg
EB-15-210			30 lb / 14 kg
EB-15-215			30 lb / 14 kg
EB-30-204	30 lb x 0.01 lb / 15 kg x 0.005 kg	10" W x 12" D / 25 cm W x 30 cm D	28 lb / 13 kg
EB-30-205			30 lb / 14 kg
EB-30-210			30 lb / 14 kg
EB-30-215			30 lb / 14 kg
EB-60-204	60 lb x 0.02 lb / 30 kg x 0.01 kg	14" W x 16" D / 35 cm W x 40 cm D	43 lb / 20 kg
EB-60-205			45 lb / 20 kg
EB-60-210			45 lb / 20 kg
EB-60-215			45 lb / 20 kg
EB-150-204	150 lb x 0.05 lb / 60 kg x 0.02 kg	14" W x 16" D / 35 cm W x 40 cm D	43 lb / 20 kg
EB-150-205			45 lb / 20 kg
EB-150-210			45 lb / 20 kg
EB-150-215			45 lb / 20 kg
EB-300-204	300 lb x 0.1 lb / 150 kg x 0.05 kg	20" W x 24" D / 50 cm W x 60 cm D	77 lb / 35 kg
EB-300-205			79 lb / 36 kg
EB-300-210			79 lb / 36 kg
EB-300-215			79 lb / 36 kg

**Units:** Pounds, kilograms, ounces, grams, or pounds/kilograms

**Sample Rate:** 1 - 50 samples per second, selectable

**Power:** 90 to 260 VAC, 50 or 60 Hz



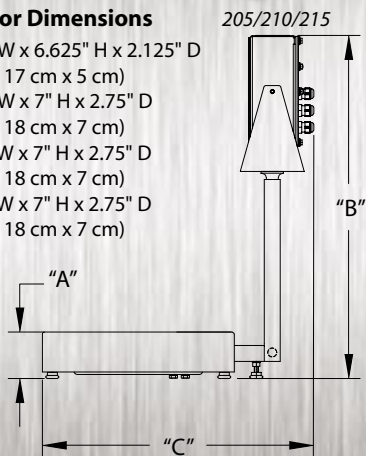
### Indicator Dimensions

**204:** 8" W x 6.625" H x 2.125" D  
(20 cm x 17 cm x 5 cm)

**205:** 9" W x 7" H x 2.75" D  
(23 cm x 18 cm x 7 cm)

**210:** 9" W x 7" H x 2.75" D  
(23 cm x 18 cm x 7 cm)

**215:** 9" W x 7" H x 2.75" D  
(23 cm x 18 cm x 7 cm)



**EB DIMENSIONS**

Model	Platform	Indicator	"A"	"B"	"C"
EB-15- EB-30-	10" x 12"	204	2.9375"	21"	16"
		205/210/215	2.9375"	21.4375"	16.5"
EB-60- EB-150-	14" x 16"	204	3.1875"	27.875"	20"
		205/210/215	3.1875"	28.0625"	20.5"
EB-300-	20" x 24"	204	5.125"	27.1875"	27"
		205/210/215	5.125"	27.625"	27.5"





# STAINLESS STEEL BENCH SCALES

**Stainless steel bench scales...  
now with improved features  
to answer your weighing needs!**

Simplicity of design and rugged construction are the key features of Detecto's stainless steel bench scale series. A simple frame and bridge design with lift-off platform simplifies cleanup by providing direct access to all of the components.



Model  
EB-150-204



*The optional checkweigher light bar for the model 210 indicator allows you to instantly know what the status of your weight is whether you are near or far. It mounts on top of the display for a clear, bright indication of checkweighing functions.*

**SPLASHPROOF**



Model  
EB-300-210

**Stainless Steel Construction • Large LED or LCD Display • Push Button Tare • Flexible Print Formats  
Pounds/Kilograms • Gross, Tare, Net • AC Power • Auto Shutoff**



Model  
210 Indicator

Model  
EB-150-LPAN



Optional  
commodity pan  
with built-in drain



Select the size and capacity EB scale you need and match it up with the Cardinal digital weight indicator that best suits your application. The 204 is perfect for basic weighing. For harsher environments, choose the 205 with NEMA 4X enclosure or the 210 or 215 which also features keypad tare, piece count and checkweighing. Whatever your needs may be, select from the complete line of stainless steel bench scales (stainless steel base, deck, and column).



# NAUTILUS WATERPROOF BENCH SCALES



## FEATURES:

Multiple weight modes, including lb/oz

All stainless steel construction

NEMA 4X/IP66 indicator enclosure

Available in four capacities

Multiple print formats

Dual RS232 ports

Model  
NB1418-60-205



Cert. No.  
02-006



Notice of Approval  
AM-5470



**WASHDOWN**

Model  
NB1418-125-210

## Nautilus Stainless Steel Bench Scales

As tough and resilient as their namesake, Cardinal's Nautilus Series waterproof bench scales are engineered to provide years of accurate, reliable weighing. The robust parallel flexure weigh-bridge conforms to Scale Manufacturers Association standards for shock and overload protection.

The Nautilus is constructed entirely of heavy-duty, stainless steel to withstand constant use and frequent wash down with high-pressure hoses. Featuring the model 205 or 210 digital weight indicator with NEMA 4X/IP66 stainless steel enclosure, the Nautilus works even in the harshest, wettest environments.

Available in four capacities and featuring selectable key lockout, label printing, and adjustable filtering, the Nautilus is the most versatile wash down scale available. Print tab settings make it easy to setup a ticket or label with information you need to print. Bar code print setup is also available and Cardinal can create custom print formats for you.

## Nautilus Waterproof Bench Scales Featuring the Model 205 Weight Indicator

Model	Capacity	Shipping Weight
NB1418-60-205	60 lb x 0.02 lb	57 lb / 26 kg
NB1418-125-205	125 lb x 0.05 lb	57 lb / 26 kg
NB1418-30KG-205	30 kg x 0.01 kg	57 lb / 26 kg
NB1418-60KG-205	60 kg x 0.02 kg	57 lb / 26 kg

## Featuring the Model 210 Weight Indicator

Model	Capacity	Shipping Weight
NB1418-60-210	60 lb x 0.02 lb	57 lb / 26 kg
NB1418-125-210	125 lb x 0.05 lb	57 lb / 26 kg
NB1418-30KG-210	30 kg x 0.01 kg	57 lb / 26 kg
NB1418-60KG-210	60 kg x 0.02 kg	57 lb / 26 kg

For weight indicator features, please refer to the appropriate weight indicator product page.

### Overall Dimensions:

15" W x 23.25" D x 27.75" H /  
38 cm W x 59 cm D x 70 cm H

### Platform Dimensions:

14" W x 18" D / 35 cm W x 45 cm D

### Indicator Dimensions:

9" W x 7" H x 2.75" D / 23 cm x 18 cm x 7 cm

### Platform Construction:

All-stainless steel with stainless steel load cell

**Power:** 90 to 260 VAC, 50/60 Hz - 12 VDC







Model  
CS30

**Capable of Counting  
the Smallest of Parts!**

## CS Series Counting Scales

Take the guess work out of counting with Cardinal's CS series counting scales. Designed for portable use with a built-in rechargeable battery pack, the CS series is ideal for inventory when mobility is a must. This scale is ideal for multiple operators with its easy-to-use keypad.

- Rechargeable battery pack (up to 200 hours of continuous use).
- Sleep mode for extended battery life.
- Vinyl dust and debris cover protects the scale from accumulation over long term use.
- Memory key to accumulate total piece count and weight Preset feature for setting weight and quantity limits.
- With 15,000 weight divisions, the CS series is capable of counting the smallest of parts.

Model	Capacity	Shipping Weight
CS-6	6 lb x 0.0005 lb / 3 kg x 0.2 kg	13 lb / 6 kg
CS-15	15 lb x 0.001 lb / 7.5 kg x 0.5 kg	13 lb / 6 kg
CS-30	30 lb x 0.002 lb / 15 kg x 1 g	13 lb / 6 kg
CS-65	65 lb x 0.005 lb / 30 kg x 2 g	13 lb / 6 kg

**Platform Size:** 11.38" W x 8.25" D / 29 cm W x 21 cm D

**Overall Size:** 11.75" W x 12.63" D x 4.25" H / 30 cm W x 32 cm D x 11 cm H

**Display:** 0.75" / 19 mm high LCD with backlight

**Internal Resolution:** 1 part in 300,000

**Power:** Rechargeable battery pack or 115 VAC 50/60Hz or 230 VAC 50/60Hz

The CS scale's LCD is backlit to provide easy viewing of weight, average piece weight, and count.



Model  
2240-20



## 2240 Series Counting Scales

A second scale input allows the 2240 to be connected to a remote scale, which can be used as either the sampling scale, the bulk scale, or both. The 2240 retains the last average piece weight and automatically recalculates the average piece weight when the sample size is changed. It stores up to 300 ID numbers, each with its own tare weight, average piece weight, and accumulator. The 2240 features dual displays for count and weight and QuickCount keys for simplified operation.

Model	Capacity	Shipping Weight
2240-5	5 lb x 0.0005 lb / 2 kg x 0.0002 kg	21 lb / 10 kg
2240-10	10 lb x 0.001 lb / 4.54 kg x 0.005 kg	21 lb / 10 kg
2240-20	20 lb x 0.002 lb / 10 kg x 0.001 kg	21 lb / 10 kg
2240-50	50 lb x 0.005 lb / 20 kg x 0.002 kg	21 lb / 10 kg
2240-100	100 lb x 0.01 lb / 45.4 kg x 0.005 kg	21 lb / 10 kg

**Platform Size:** 14.5" W x 8.25" D / 37 cm W x 21 cm D

**Overall Size:** 14.5" W x 12" D x 4" H / 37 cm W x 30 cm D x 10 cm H

**Display:** 0.5" / 13 mm high LED

**Internal Resolution:** 1 part in 1,000,000

**Power:** 90/230 VAC, 50/60 Hz

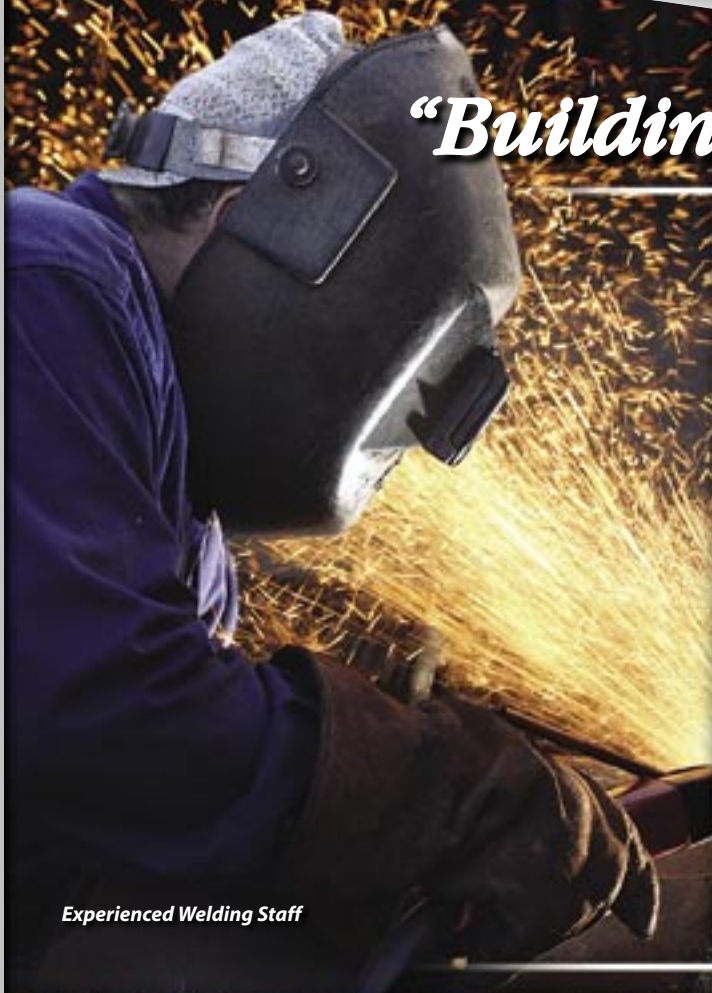
Optional P220 Label Printer prints ID, count, time, date, gross, tare, net weight, and units.



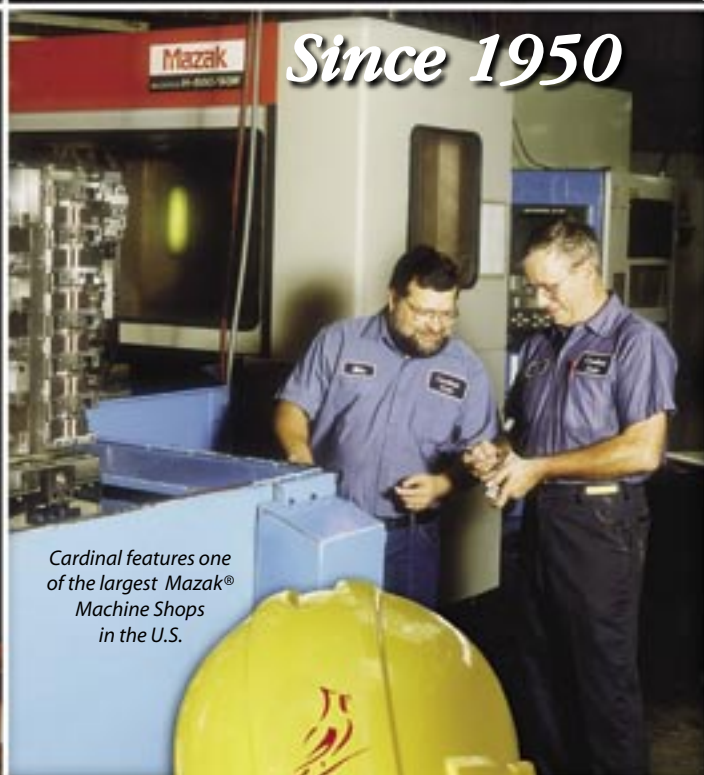


# *"Building a Better Weigh"*

*Since 1950*



*Experienced Welding Staff*



*Cardinal features one of the largest Mazak® Machine Shops in the U.S.*



*Recently-Expanded Big Scale Shop for Truck and Railroad Track Scales*



*State-of-the-Art Load Cell Department*



*Quality Assurance  
ISO 9001:2000 Certified*







# LIQUID FILLERS & CHECK WEIGHERS



Model  
17S

## **Fuller Model 17S** **Semi-Automatic, Subsurface Drum Filler**

*Semi-automatic machine for filling foaming materials  
in 30 and 55 gallon drums.*

**Scale Base:** 30" x 30" (76 cm x 76 cm)

**Fill Time:** 60 seconds per 55 gallon drum (208L)

**Product Delivery:** 110 GPM at 20 PSIG min. with 2" NPT  
connection (416 liters per minute at 1.3 Bars)

**Gross Capacity:** 1,000 lb (500 kg)

## **Fuller Model 23S** **Semi-Automatic, Subsurface Pail Filler**

*Semi-automatic machine for filling foaming materials  
in 5 and 10 gallon drums.*

**Scale Base:** 18" x 18" (46 cm x 46 cm)

**Fill Time:** 30 seconds per 5 gallon pail (18L)

**Product Delivery:** 110 GPM at 20 PSIG min. with 2" NPT  
connection (416 liters per minute at 1.3 Bars)

**Indication:** 200 lb (90 kg)

## **Fuller Model 25S** **Semi-Automatic, Subsurface Palletized Drum Filler**

*Semi-automatic filling of multiple containers or totes  
on a pallet.*

**Scale Base:** 48" x 48" (122 cm x 122 cm)

**Fill Time:** 60 seconds per 55 gallon drum (208L)

**Product Delivery:** 110 GPM at 20 PSIG min. with 2" NPT  
connection (416 liters per minute at 1.3 Bars)

**Gross Capacity:** 5,000 lb (2,268 kg)

## **Fuller Model 27S** **Semi-Automatic, Subsurface Palletized Drum Filler**

*Designed for filling four drums on a pallet or one tote  
on a pallet.*

**Scale Base:** 48" x 48" (122 cm x 122 cm)

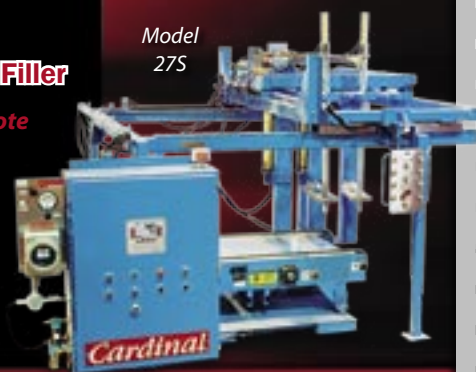
**Fill Time:** 60 seconds per 55 gallon drum (208L)

**Product Delivery:** 110 GPM at 20 PSIG min. with 2"  
NPT connection (416 liters per minute at 1.3 Bars)

**Gross Capacity:** 5,000 lb (2,268 kg)



Model  
23S



Model  
27S



Model  
CIM100

## **Fuller Models CIM100/200** **In-Motion Checkweighers**

- Available in 100 lb x 0.05 lb (45 kg x 0.02 kg) and 200 lb 0.1 lb (90 kg x 0.04 kg) capacities.
- Up to 200 ft. (61 m) per minute belt speed.
- Package weights up to 200 lb / 90 kg.
- Standard anti-static polyester or optional food grade conveyor belt.
- Dimensions: 48" L x 24" W x 32" H / 122 cm L x 61 cm W x 81 cm H.





# HYDRAULIC FLOOR STAND TANK/HOPPER ASSEMBLIES

THE  
**GUARDIAN**

Cardinal's Guardian hydraulic floor-mounted load cell kits are ideal for extreme-duty environment tank and hopper scales. They provide a superior level of performance in indoor and outdoor process control operations. Each kit comes complete with load cells, tank mounting hardware, copper hydraulic load cell tubing, and a system totalizer box.



Model  
HBC10-4

## Guardian Hydraulic Floor Stand Tank/Hopper Scale Kits - Three Leg Assemblies

Model	System Gross Capacity	Number of Load Cells	Cell Capacity	Individual Stand Dimensions
HBC2.5-3	7,500 lb	3	2,500 lb	11.5" W x 4.75" D x 4.61" H
HBC5-3	15,000 lb	3	5,000 lb	23" W x 8.31" D x 6.38" H
HBC10-3	30,000 lb	3	10,000 lb	23" W x 8.31" D x 7" H
HBC25-3	75,000 lb	3	25,000 lb	23" W x 8.5" D x 8.89" H
HBC50-3	150,000 lb	3	50,000 lb	14" W x 12" D x 9.3" H
HBC75-3	225,000 lb	3	75,000 lb	16" W x 12" D x 9.3" H

**Accuracy Classification:** 0.2% full scale

## Guardian Hydraulic Floor Stand Tank/Hopper Scale Kits - Four Leg Assemblies

Model	System Gross Capacity	Number of Load Cells	Cell Capacity	Individual Stand Dimensions
HBC2.5-4	10,000 lb	4	2,500 lb	11.5" W x 4.75" D x 4.61" H
HBC5-4	20,000 lb	4	5,000 lb	23" W x 8.31" D x 6.38" H
HBC10-4	40,000 lb	4	10,000 lb	23" W x 8.31" D x 7" H
HBC25-4	100,000 lb	4	25,000 lb	23" W x 8.5" D x 8.89" H
HBC50-4	200,000 lb	4	50,000 lb	14" W x 12" D x 9.3" H
HBC75-4	300,000 lb	4	75,000 lb	16" W x 12" D x 9.3" H

**Accuracy Classification:** 0.2% full scale

## Tank/Hopper Kits - Four Leg Assemblies with Ball Pivot Stands

Model	System Gross Capacity	Number of Load Cells	Number of Ball Pivot Stands	Cell Capacity
BPSSHBC10-4	40,000 lb	2	2	10,000 lb
BPSSHBC25-4	100,000 lb	2	2	25,000 lb
BPSSHBC50-4	200,000 lb	2	2	50,000 lb
BPSSHBC75-4	300,000 lb	2	2	75,000 lb

**Accuracy Classification:** 0.25% full scale

**Please Note:** Gross capacity includes the empty weight of the vessel

## High-Capacity Truck And Tank Assembly

The high-capacity load cell suspension assembly furnishes high performance in a variety of medium to heavy capacity truck, tank or hopper scales. This unique load cell mount also eliminates the need for check rods or expansion assemblies, and is supplied with quick connections for easy installation and removal.

Model	Number of Assemblies	Parts Included	System Capacity
THBC50K	1	Single Cell Assembly	50K stand
THBC50K-4	4	1 J-Box	60 ton
THBC50K-6	6	1 J-Box, 1 Section Seal Box	80 ton
THBC50K-8	8	1 J-Box, 1 Trim Box, 1 Section Seal Box	120 ton



## Electronic Tank Scale Systems - SB Load Cells

Cardinal's floor mounted load cell kits are ideal for any tank or hopper with legs for floor mounting. These load cell kits are ideal for new installations or for conversion. Each kit comes complete with

load cells, tank mounting hardware, load cell cable and a junction box. The stainless steel load cells are environmentally sealed and are waterproof. It is recommended for safety that structures have safety chains installed on them. They come with a full two year guarantee against defects of material and workmanship.

### 3 SB Cells - Mild Steel

Model	Cell Capacity	System Capacity	Shipping Weight
THBC2.5-3	2,500 lb / 1,135 kg	7,500 lb / 3,405 kg	120 lb / 54 kg
THBC5-3	5,000 lb / 2,270 kg	15,000 lb / 6,810 kg	120 lb / 54 kg
THBC10-3	10,000 lb / 4,535 kg	30,000 lb / 13,605 kg	180 lb / 82 kg
THBC20-3	20,000 lb / 9,070 kg	60,000 lb / 27,210 kg	190 lb / 86 kg

### 4 SB Cells - Mild Steel

Model	Cell Capacity	System Capacity	Shipping Weight
THBC2.5-4	2,500 lb / 1,135 kg	10,000 lb / 4,540 kg	160 lb / 73 kg
THBC5-4	5,000 lb / 2,270 kg	20,000 lb / 9,080 kg	160 lb / 73 kg
THBC10-4	10,000 lb / 4,535 kg	40,000 lb / 18,140 kg	240 lb / 109 kg
THBC20-4	20,000 lb / 9,070 kg	80,000 lb / 36,280 kg	250 lb / 113 kg

### 3 SB Cells - Stainless Steel

Model	Cell Capacity	System Capacity	Shipping Weight
THBCS2.5-3	2,500 lb / 1,135 kg	7,500 lb / 3,405 kg	120 lb / 54 kg
THBCS5-3	5,000 lb / 2,270 kg	15,000 lb / 6,810 kg	120 lb / 54 kg
THBCS10-3	10,000 lb / 4,535 kg	30,000 lb / 13,605 kg	180 lb / 82 kg
THBCS20-3	20,000 lb / 9,070 kg	60,000 lb / 27,210 kg	190 lb / 86 kg

### 4 SB Cells - Stainless Steel

Model	Cell Capacity	System Capacity	Shipping Weight
THBCS2.5-4	2,500 lb / 1,135 kg	10,000 lb / 4,540 kg	160 lb / 73 kg
THBCS5-4	5,000 lb / 2,270 kg	20,000 lb / 9,080 kg	160 lb / 73 kg
THBCS10-4	10,000 lb / 4,535 kg	40,000 lb / 18,140 kg	240 lb / 109 kg
THBCS20-4	20,000 lb / 9,070 kg	80,000 lb / 36,280 kg	250 lb / 113 kg

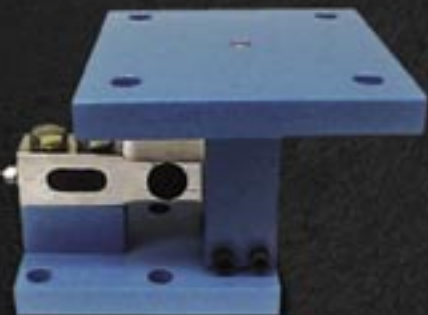
Kits consist of either 3 or 4 self-checking stand assemblies, 3 or 4 SB series stainless or mild steel load cells, 3 or 4 mild steel stands and 1 stainless steel NEMA 4 junction box.



This system protects sensitive scale components from abuse and wear. This protection is especially important for high volume, heavy loads which can accelerate wear and lead to premature failure. By placing our load cells within the protective framework of the double-link suspension system, Cardinal insures long-term accuracy under even the most demanding conditions.



# LOAD CELL SYSTEMS



## Electronic Tank Scale Systems TB Load Cells

This version of Cardinal's floor-mounted load cell kits come with stainless steel, environmentally-sealed TB series load cells, which are waterproof, making them ideal for tank or hopper scales. Choose from 3 or 4 cell kits with either mild steel stands, or for harsher environments, select one of the stainless steel stand varieties. Special self-centering load buttons protect against offset side loads. Each kit comes complete with load cells, tank mounting hardware, load cell cable and a NEMA 4 junction box. Cardinal has a capacity for every tank or hopper configuration. They are guaranteed for a full two years and are ideal for new or existing installations.

### 3 TB Cells - Mild Steel

Model	Cell Capacity	System Capacity	Shipping Wt.
TBCS-1KM-3	1,000 lb / 454 kg	3,000 lb / 1,361 kg	65 lb / 29 kg
TBCS-2.5KM-3	2,500 lb / 1,134 kg	7,500 lb / 3,402 kg	65 lb / 29 kg
TBCS-4KM-3	4,000 lb / 1,814 kg	12,000 lb / 5,443 kg	65 lb / 29 kg

### 3 TB Cells - Stainless Steel

Model	Cell Capacity	System Capacity	Shipping Wt.
TBCSS-1KM-3	1,000 lb / 454 kg	3,000 lb / 1,361 kg	67 lb / 30 kg
TBCSS-2.5KM-3	2,500 lb / 1,134 kg	7,500 lb / 3,402 kg	67 lb / 30 kg
TBCSS-4KM-3	4,000 lb / 1,814 kg	12,000 lb / 5,443 kg	67 lb / 30 kg

### 4 TB Cells - Mild Steel

Model	Cell Capacity	System Capacity	Shipping Wt.
TBCS-1KM-4	1,000 lb / 454 kg	4,000 lb / 1,814 kg	84 lb / 38 kg
TBCS-2.5KM-4	2,500 lb / 1,134 kg	10,000 lb / 4,524 kg	84 lb / 38 kg
TBCS-4KM-4	4,000 lb / 1,814 kg	16,000 lb / 7,258 kg	84 lb / 38 kg

### 4 TB Cells - Stainless Steel

Model	Cell Capacity	System Capacity	Shipping Wt.
TBCSS-1KM-4	1,000 lb / 454 kg	4,000 lb / 1,814 kg	86 lb / 39 kg
TBCSS-2.5KM-4	2,500 lb / 1,134 kg	10,000 lb / 4,524 kg	86 lb / 39 kg
TBCSS-4KM-4	4,000 lb / 1,814 kg	16,000 lb / 7,258 kg	86 lb / 39 kg

Kits consist of either 3 or 4 self-checking stand assemblies, 3 or 4 TB series stainless steel load cells, 3 or 4 mild or stainless steel stands and 1 stainless steel NEMA 4 junction box.



## Light Cell Electronic Tank Scale Systems CB Load Cells

A complete kit for floor-mounted tank or hopper scales, Cardinal's CB series stainless steel load cells come in sets of three or four cells with mild steel stands for legged tanks. They are easy to install with a low-profile design and come with a full two-year guarantee. The CBCS models are ideal for light-duty applications.

### 3CB Cells - Mild Steel

Model	Cell Capacity	System Capacity	Shipping Wt.
CBCS-50KG-3	110 lb / 50 kg	330 lb / 150 kg	21 lb / 10 kg
CBCS-100KG-3	200 lb / 100 kg	600 lb / 300 kg	21 lb / 10 kg
CBCS-200KG-3	400 lb / 200 kg	1,200 lb / 600 kg	21 lb / 10 kg

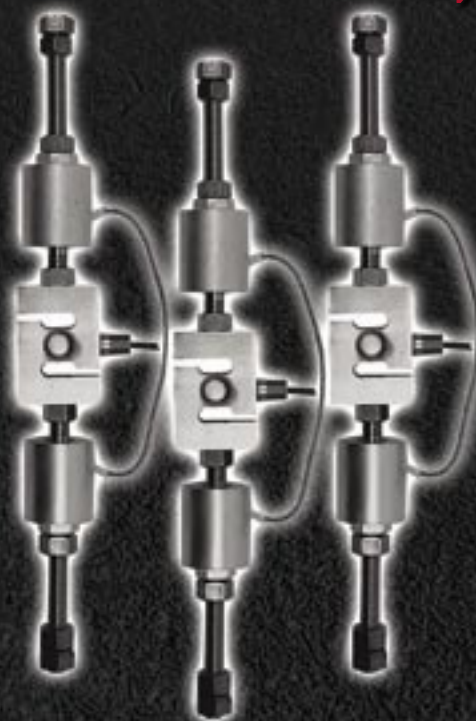
### 4CB Cells - Mild Steel

Model	Cell Capacity	System Capacity	Shipping Wt.
CBCS-50KG-4	110 lb / 50 kg	440 lb / 200 kg	25 lb / 11 kg
CBCS-100KG-4	200 lb / 100 kg	800 lb / 400 kg	25 lb / 11 kg
CBCS-200KG-4	400 lb / 200 kg	1,600 lb / 800 kg	25 lb / 11 kg

- A complete kit for floor-mounted tank or hopper scales.
- Ideal for new or existing installations - 3 or 4 legged tanks.
- Easy to install, low-profile design.
- Rugged, environmentally-sealed, stainless steel load cells.
- Self-centering load buttons protect against offset side loads.







## Tension Application Assemblies - 3ZX Load Cells

### 3ZX Suspension Cells

Model	Cell Capacity	System Capacity	Shipping Wt.
THTC250-3	250 lb / 115 kg	750 lb / 345 kg	30 lb / 14 kg
THTC500-3	500 lb / 225 kg	1,500 lb / 675 kg	36 lb / 16 kg
THTC5-3	5,000 lb / 2,270 kg	15,000 lb / 6,810 kg	69 lb / 31 kg
THTC10-3	10,000 lb / 4,535 kg	30,000 lb / 13,605 kg	75 lb / 34 kg
THTC20-3	20,000 lb / 9,070 kg	60,000 lb / 27,210 kg	165 lb / 75 kg

### 4ZX Suspension Cells

Model	Cell Capacity	System Capacity	Shipping Wt.
THTC250-4	250 lb / 115 kg	1,000 lb / 460 kg	35 lb / 16 kg
THTC500-4	500 lb / 225 kg	2,000 lb / 900 kg	42 lb / 19 kg
THTC5-4	5,000 lb / 2,270 kg	20,000 lb / 9,080 kg	87 lb / 39 kg
THTC10-4	10,000 lb / 4,535 kg	40,000 lb / 18,140 kg	95 lb / 43 kg
THTC20-4	20,000 lb / 9,070 kg	80,000 lb / 36,280 kg	215 lb / 98 kg

## Stretch Wrapper and Baler Load Cell Mounting Kits

Rapid, accurate weighing translates into optimum performance in any operation, and Cardinal's load cell packages help you reach that goal. These kits provide you with the latest in weighing technology. Cardinal's unique load cell assembly is self-aligning and environmentally sealed for those less-than-perfect locations.

Great for industrial applications, Cardinal's load cell packages are rugged enough for everyday use in the busiest of warehouses. Cardinal's heavy-duty load cells mean low maintenance and high performance. Add a Cardinal 200 series indicator and you'll have a weighing system to get the job done accurately and reliably. Our printers are equally flexible to meet your recording and data processing needs.

- A complete kit for floor-mounted stretch wrappers, balers, or conveyors.
- Ideal for new or existing installations.
- Easy to install, low-profile design.
- Rugged, environmentally-sealed, Cardinal stainless steel load cells.

Each kit comes complete with 4 or 6 load cells, articulating feet, stainless steel summation junction box, and 30 feet of load cell cable.

### Load Cell Mounting Kits - SB Cells

Model	Cell Capacity	System Capacity	Shipping Wt.
SWSB-4	2,500 lb / 1,134 kg	10,000 lb / 4,540 kg	39 lb / 18 kg
SWSB-6	2,500 lb / 1,134 kg	15,000 lb / 6,804 kg	60 lb / 27 kg



### Load Cell Mounting Kits - TB Cells

Model	Cell Capacity	System Capacity	Shipping Wt.
SWTB-4	2,500 lb / 1,134 kg	10,000 lb / 4,540 kg	17 lb / 8 kg
SWTB-6	2,500 lb / 1,134 kg	15,000 lb / 6,804 kg	28 lb / 13 kg





# FLOOR STAND TANK AND HOPPER SCALES



**Model  
FS-3**  
(load cell not included)

## CUSTOM DESIGNED AND MANUFACTURED TO MEET ANY SPECIFICATIONS

### INDUSTRIES:

- Feed Mills
- Wineries
- Fertilizer Plants
- Breweries
- Concrete Plants
- Mineral Plants
- Asphalt Plants
- Chemical Plants

Cardinal's Mechanical Floor Stand Tank and Hopper Scales can be supplied in a wide range of sizes and shapes to fit almost any individual tank or hopper (tanks and/or hoppers are generally furnished by the customer). The scales are designed so that the hopper or tank legs can be mounted directly on the scale girder chairs or on the fabricated steel weighbridge, whichever is preferred. The shallow construction of the Cardinal scale makes it ideal where minimum headroom is available. Complete blueprints are furnished on each installation to insure proper fitting.



#### VERTICAL TANK WITH FLAT BOTTOM

The scale shown to the left is a flat-bottomed tank and side discharge. Main lever arms are connected under the tank area. Scales of this type are generally designed for use with light gauge flat bottomed tanks supported on timber or steel plate decks mounted on a steel weighbridge. However, if desired, scales may be designed to accommodate heavier gauge tanks without a steel weighbridge by mounting tank supports directly to scale girder chairs.



#### HORIZONTAL TANK WITH END DISCHARGE

The tank shown to the left is an example where the scale is mounted beneath the tank with an end discharge. Tank saddles are mounted directly to the scale girder chairs. If desired, tank saddles could be mounted to the scale weighbridge instead of directly to the scale.



#### VERTICAL TANKS WITH CONE BOTTOMS

The scales shown to the left are examples of vertical tanks or hoppers with center discharges. Levers are so arranged with a center hookup and transverse lever outside of the scales which leave a center opening to permit discharge. Support legs of the hoppers can be mounted directly to the scale girder chairs or, if desired, a steel weighbridge could be used under the hoppers.

Model	Capacity	Divisions	BASE	
			Splice Arm Total	Pipe Length
FS-1	0 lb - 5,000 lb	1 lb	3'	3'
FS-2	5,001 lb - 7,000 lb	2 lb	3'	3'
FS-2.5	7,0001 lb - 10,000 lb	2 lb	4'	4'
FS-3	10,001 lb - 20,000 lb	5 lb	4'	4'
FS-4	20,001 lb - 30,000 lb	10 lb	5'	5'
FS-5	30,001 lb - 50,000 lb	10 lb	6'	6'
FS-6	50,001 lb - 60,000 lb	20 lb	6'	6'
FS-7	60,001 lb - 80,000 lb	20 lb	8'	8'
FS-8	80,001 lb - 90,000 lb	20 lb	8'	8'
FS-9	100,001 lb - 150,000 lb	50 lb	8'	6'
FS-10	150,001 lb - 200,000 lb	50 lb	10'	10'
FS-11	200,001 lb - 300,000 lb	50 lb	10'	10'

### IDEAL FOR:

- Inventory Control
- Weigh-in or Weigh-Out Operations
- Blending or Proportioning of Any Liquid or Free-Flowing Material



Certificate of  
Conform. No. 88-011



Notice of Approval  
AM-5277\*

\*For tank and hopper scales of more than 1,000 kg capacity and greater than 1.6 m square



**Complete  
Load Cell Systems  
Also Available  
Page 55**







# SUSPENSION HOPPER SCALES

## Scales for Square, Round, or Rectangular Suspension Hoppers

Cardinal Suspension Hopper Scales may be used in fixed positions or can be installed on lorry cars or on a monorail system, whichever is best for your application. The torque levers are made of seamless steel tubing and hopper lugs and are built with such flexibility they can be installed on virtually any special equipment application required. Standard scale equipment furnished in addition to the lever system are the four suspension rods for the hanging the scale from overhead supports, and four suspension rods for supporting the hopper or tank. These are supplied in any length specified by the user. A sliding balance weight is furnished on overhead arm to compensate for variable dead loads, residue, etc., and a steelyard rod is furnished from the lever system to the weight indication unit.

- Batching • Charging
- Proportioning • Filling
- Compounding and Processing

MAXIMUM 2,000 DIVISIONS			BASE	
Model	Capacity	Divisions	Splice Arm Total	Pipe Length
SH-1*	0 lb - 1,000 lb	1 lb	4'	4'
SH-2	1,001 lb - 5,000 lb	5 lb	6'	5'
SH-3	5,0001 lb - 9,000 lb	10 lb	7'	5'
SH-3.5	9,001 lb - 14,000 lb	10 lb	7'	6'
SH-4	14,001 lb - 23,000 lb	20 lb	7'	6'
SH-5	23,001 lb - 30,000 lb	20 lb	7'	6'
SH-6	30,001 lb - 40,000 lb	20 lb	8'	6'
SH-7	40,001 lb - 60,000 lb	50 lb	8'	6'
SH-8	60,001 lb - 100,000 lb	100 lb	8'	8'

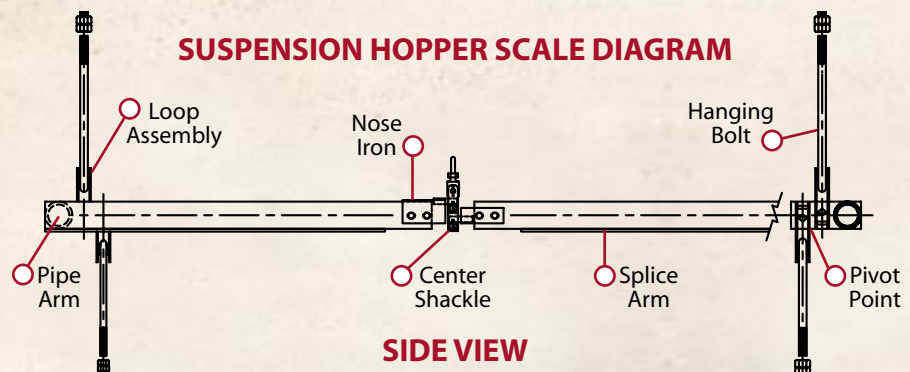
\* Requires graduations less than 1/2 lb and requires a "HI-ACC" system, which is not "Legal-For-Trade"



Certificate of  
Conform. No. 88-016



Complete  
Load Cell Systems  
Also Available  
Page 57

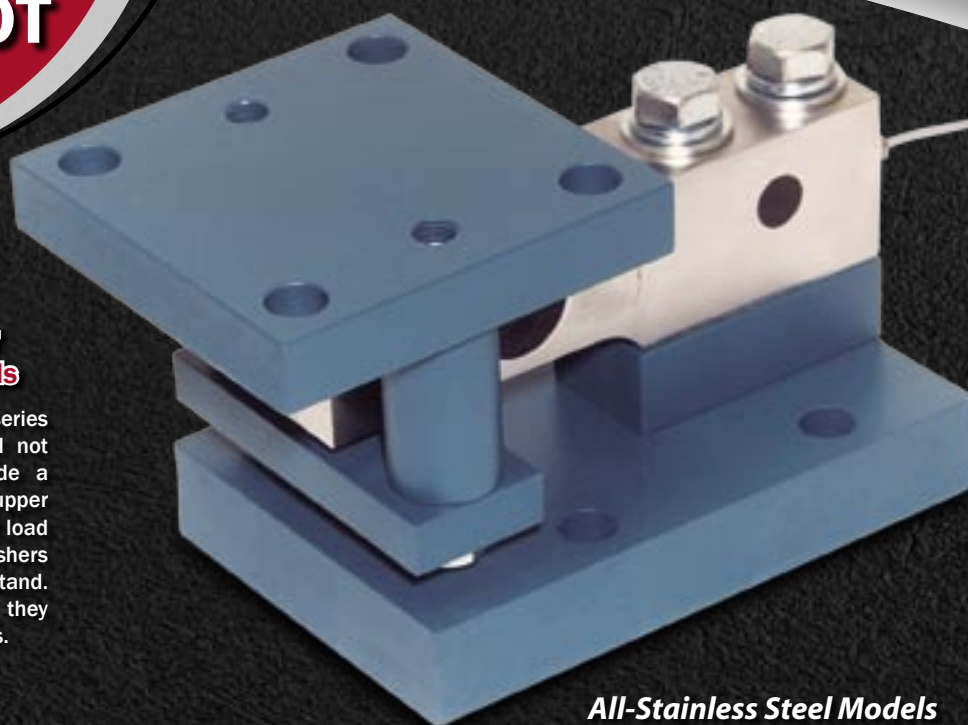




# LOAD CELL & BALL PIVOT STANDS

## Self-Checking Shear Beam Load Cell Stands

For use with Cardinal's SB series stainless steel loads only (cell not included), these stands include a lower load cell mounting plate, upper mounting plate, hardened steel load button, and bolts and lock washers for securing the load cell to the stand. Built with dependable quality, they are guaranteed for two full years.



**All-Stainless Steel Models Available for Harsh Environments.**

*For accurate liquid tank weighing, choose Cardinal products!*

## Mild Steel Self-Checking Shear Beam Stands

Model	LB Capacity	KG Capacity	Shipping Wt.
SBCS-NC5	2,500 and 5,000	1,135 and 2,270	29 lb / 13 kg
SBCS-NC20	10,000 and 20,000	4,535 and 9,070	46 lb / 21 kg

## Stainless Steel Self-Checking Shear Beam Stands

Model	LB Capacity	KG Capacity	Shipping Wt.
SBCSS-NC5	2,500 and 5,000	1,135 and 2,270	29 lb / 13 kg
SBCSS-NC20	10,000 and 20,000	4,535 and 9,070	46 lb / 21 kg

## Ball Pivot Stands

Designed specifically for use in liquid tank weighing applications, Cardinal ball pivot stands are an economical alternative to multiple load cell weighing systems. Cardinal ball pivot systems provide the accuracy you need at approximately half the cost of traditional systems. These 20,000 lb capacity stands are available in either stainless steel or painted mild steel; both models feature a stainless steel ball. For use with three-cell triangle or four-cell vertical and horizontal systems, these low-profile 6.5"/17cm high stands are ideal for new or existing installations.



Model	Finish	Capacity	Shipping Wt.
BPS-20	Painted Mild Steel	20,000 lb	25 lb / 11 kg
BPSS-20	Stainless Steel	20,000 lb	25 lb / 11 kg

**Designed specifically by Cardinal for liquid tank weighing applications to lower your costs. Cut load cell costs by 1/2 to 1/3!**



# HYDRAULIC LOAD CELL RETROFIT KITS



*Cardinal.*  
Cardinal Scale Manufacturing Co.

THE  
**GUARDIAN**

THE  
**GUARDIAN**



These retrofit kits permit various Cardinal and other manufacturers' truck scales to be upgraded using Cardinal hydraulic load cells. The Guardian load cells offer a high level of protection against many of the conditions that can adversely affect truck scale installations. Water, lightning, power surges, explosive areas, corrosion, shock loading, extreme temperature fluctuations and even rodents can cause scale problems, all at a cost to the owner. The Guardian load cells provides a superior level of performance which protects the scale against these conditions.



## Guardian Hydraulic Load Cell Retrofit Kits

Model	Tons Capacity	Number of Modules	Number of Load Cells	Cell Capacity	Shipping Weight
GTSC-4	60	1	4	50,000 lb	520 lb
GTSC-6	80	2	6	50,000 lb	725 lb
GTSC-8	100	3	8	50,000 lb	1,050 lb
GTSC-10	100	4	10	50,000 lb	1,175 lb
GTSC-12	120	5	12	50,000 lb	1,350 lb

Model	Description	Shipping Weight
GRSKIT	Optional Guardian restraint system kit, including: 2 lateral stabilizer rod assemblies and mounting brackets, plus 2 longitudinal stabilizer rod assemblies and anchor plates.	265 lb





# COMPRESSION LOAD CELLS



## SST

THE  
**GUARDIAN**



**Lifetime  
Warranty**

### Guardian Hydraulic SST Compression Load Cell

The Guardian all-stainless steel hydraulic compression load cells are geared for weighing applications requiring superb accuracy in a hostile environment. Cardinal's hydraulic load cells are built to last a lifetime and require no electricity within the scale itself. All of this extreme-duty protection means one thing, big savings over the life of your scale using Guardian load cells.

Model	Capacity	Shipping Wt.
*H2.5K	2,500 lb / 1,134 kg	7.5 lb / 3 kg
*H5K	5,000 lb / 2,268 kg	15.5 lb / 7 kg
*SST10	10,000 lb / 4,536 kg	7.5 lb / 3 kg
SST25	25,000 lb / 11,340 kg	20.5 lb / 9 kg
SST50	50,000 lb / 22,700 kg	53 lb / 24 kg
SST75	75,000 lb / 34,020 kg	70 lb / 32 kg

Accuracy Class	IIIL 10000
Safe Load Limit	150% R.C.
Rated Output	Hydraulic
Nominal Output	1800 psig
Copper Tubing	20' / 6 m
Material	Stainless Steel
Protection Class	IP68

\* Not "Legal for Trade"



Cert. No. 05-076

- Extreme-Duty, Superior Protection
- Immune to Lightning and Water Damage

## SCA

### SCA Compression Load Cell

The SCA heavy-capacity series of compression load cells are ideal for multiple load cell compression applications such as truck scales, railroad track scales and heavy-duty tank weighing systems. Load cells are fabricated from stainless steel to provide the ultimate in protection when caustic, corrosive or wet environments are encountered. Load cells are environmentally sealed for absolute water protection (IP68).



Model	Capacity	Shipping Wt.
50K-SCA	50,000 lb / 22,700 kg	14 lb / 6 kg
100K-SCA	100,000 lb / 45,350 kg	11 lb / 5 kg
120K-SCA	120,000 lb / 54,430 kg	12 lb / 5 kg
200K-SCA	200,000 lb / 90,700 kg	37 lb / 17 kg

Accuracy Class	IIIL 10000 / C3
Safe Load Limit	150% R.C.
Ultimate Load	300% R.C.
Rated Output	2mV/V
Cable Length	30' / 9 m
Material	Stainless Steel
Protection Class	IP68



89-042



R60/1991-DK-96.05

- IP68-Rated Environmentally-Sealed
- Includes Integral Multiconductor Cable

## SCD

### SCD Compression Load Cell

The Smartcell contains a microcomputer and digital circuitry that automatically compensates for non-linearity and temperature-induced error. These digital load cells are designed for use in truck and railroad scales plus vessel inventory management.



Model	Capacity	Shipping Wt.
50K-SCD	50,000 lb / 22,700 kg	11 lb / 5 kg
100K-SCD	100,000 lb / 45,350 kg	11 lb / 5 kg

Accuracy Class	IIIL 10000
Safe Load Limit	150% R.C.
Ultimate Load	300% R.C.
Rated Output	Digital
Cable Length	30' / 9 m
Material	Stainless Steel
Protection Class	IP68



89-071



# SHEAR BEAM LOAD CELLS

Model	Capacity	Shipping Wt.
DB-50000S	50,000 lb / 22,700 kg	18 lb / 8 kg
DB-75000S	75,000 lb / 34,000 kg	18 lb / 8 kg

Accuracy Class	IIIL 10000 / C3
Rated Output	2mV/V
Cable Length	32' / 10 m
Material	Stainless Steel
Protection Class	IP68



97-133



R60/1991-  
DK-99.01



**DB Double-Ended Shear Beam Load Cell**

Model	Capacity	Shipping Wt.
SB-2500S	2,500 lb / 1,135 kg	7 lb / 3 kg
SB-5000S	5,000 lb / 2,270 kg	7 lb / 3 kg
SB-10000S	10,000 lb / 4,535 kg	10 lb / 4 kg
SB-20000S	20,000 lb / 9,070 kg	12 lb / 5 kg

Accuracy Class	III 5000 / C3 IIIL 10000 / C3
Rated Output	2mV/V
Cable Length	20' / 6 m
Material	Stainless Steel
Protection Class	IP68



87-059



R60/1991-  
DK-97.02



**SB Shear Beam Load Cell**

The SB load cell may be used in such applications as low-profile platform scales, tank and/or hopper weighing, and other process control systems.

Model	Capacity	Shipping Wt.
TB-1KM	1,000 lb / 454 kg	2 lb / 1 kg
TB-2.5KM	2,500 lb / 1,134 kg	2 lb / 1 kg
TB-4KM	4,000 lb / 1,814 kg	2 lb / 1 kg

Accuracy Class	III 5000 / C3
Rated Output	2mV/V
Cable Length	10' / 3 m
Material	Stainless Steel
Protection Class	IP65



99-018



R60/1991-  
DK-97.03



**TB Shear Beam Load Cell**

Model	Capacity	Shipping Wt.
LFB-250M	250 lb / 115 kg	1.5 lb / 0.6 kg
LFB-500M	550 lb / 250 kg	1.5 lb / 0.6 kg
LFB-1000M	1,100 lb / 550 kg	2 lb / 1 kg
LFB-2500M	2,750 lb / 1,250 kg	2 lb / 1 kg

Accuracy Class	C3
Rated Output	2mV/V
Cable Length	10' / 3 m
Material	Stainless Steel
Protection Class	IP65



R60/1991-DK-00.02



**LFB Shear Beam Load Cell**

The cell's low profile is ideal for floor scales and light to medium weighing.





# SINGLE POINT LOAD CELLS



## SP



### SP Single Point Load Cell

Cardinal's SP series single point load cells are manufactured for light to medium weighing operations such as bench or counter scales. These cells are fabricated from aircraft-quality aluminum or stainless steel.

Model	Capacity	Shipping Wt.
SP-6L	6 lb / 3 kg	1 lb / 0.5 kg
SP-10L	10 lb / 5 kg	1 lb / 0.5 kg
SP-15L	15 lb / 7 kg	1 lb / 0.5 kg
SP-25L	25 lb / 12 kg	1 lb / 0.5 kg
SP-50L	50 lb / 23 kg	1 lb / 0.5 kg
SP-100L	100 lb / 45 kg	1 lb / 0.5 kg
SP-200LM	200 lb / 90 kg	3.5 lb / 2 kg
SP-500LM	500 lb / 225 kg	7 lb / 3 kg
SP-1000LM	1,000 lb / 455 kg	7.5 lb / 4 kg

#### SP-L

Accuracy Class	C3
Rated Output	2mV/V
Cable Length	7' / 2 m
Material	Aluminum
Protection	IP65

#### SP-LM (metric threads)

Accuracy Class	C3
Rated Output	2mV/V
Cable Length	10' / 3 m
Material	Stainless
Protection	IP65

## TSP



### TSP Single Point Load Cell

The economically-priced TSP is a high-performance, low-profile, single point load cell for use in platform and hanging scales, counting scales, hoppers and packaging scales, and a variety of other medical, industrial and process weighing applications. The TSP load cell features a moisture-proof barrier and 2-year limited warranty. The TSP single point load cell is easy to install and use and is interchangeable with most other load cells of its type.

Model	Capacity	Shipping Wt.
*TSP-5KG	10 lb / 5 kg	1.5 lb / 0.7 kg
*TSP-7KG	15 lb / 7 kg	1.5 lb / 0.7 kg
TSP-10KG	20 lb / 10 kg	1.5 lb / 0.7 kg
TSP-15KG	35 lb / 15 kg	1.5 lb / 0.7 kg
TSP-20KG	45 lb / 20 kg	1.5 lb / 0.7 kg
TSP-30KG	65 lb / 30 kg	1.5 lb / 0.7 kg
TSP-50KG	110 lb / 50 kg	1.5 lb / 0.7 kg
TSP-100KG	220 lb / 100 kg	2.5 lb / 1 kg

\* Not "Legal for Trade"

Accuracy Class	III 5000 / C3 / C4
Rated Output	2mV/V
Cable Length	10' / 3 m
Material	Aluminum
Protection Class	IP65



97-136



R60/1991-  
DK-97.01

## TSSP



### TSSP Single Point Load Cell

All critical components and wiring in the TSSP stainless steel single point load cell are encapsulated to protect against moisture and to insure stable operation of the TSSP cell in harsh environments.

Model	Capacity	Shipping Wt.
TSSP-20KG	44 lb / 20 kg	1.5 lb / 0.7 kg
TSSP-50KG	110 lb / 50 kg	1.5 lb / 0.7 kg
TSSP-75KG	165 lb / 75 kg	1.5 lb / 0.7 kg
TSSP-100KG	220 lb / 100 kg	1.5 lb / 0.7 kg
TSSP-200KG	440 lb / 200 kg	1.5 lb / 0.7 kg
*TSSP-200KGW	440 lb / 200 kg	1.5 lb / 0.7 kg

Accuracy Class	C3
Rated Output	2mV/V
Cable Length	10' / 3 m
Material	Stainless Steel
Protection Class	IP65

\* Wide model



R60/1991-NL-00.02



# BELLOWS AND TENSION LOAD CELLS

Model	Capacity	Shipping Wt.
*CB6-10KG	20 lb / 10 kg	1.2 lb / 0.5 kg
CB6-20KG	40 lb / 20 kg	1.2 lb / 0.5 kg
CB6-50KG	110 lb / 50 kg	1.2 lb / 0.5 kg
CB6-100KG	200 lb / 100 kg	1.2 lb / 0.5 kg
CB6-200KG	400 lb / 200 kg	1.3 lb / 0.6 kg

\* Not "Legal for Trade"

Accuracy Class	III 4000 / C3 / C4
Rated Output	2mV/V
Cable Length	10' / 3 m
Material	Stainless Steel
Protection Class	IP68



96-091



R60/1991-  
DK-96.04

## CB6



**CB6**  
Bellows Type  
Load Cell

Cardinal's CB6 is a high-performance, sealed bending beam load cell.

Model	Capacity	Shipping Wt.
Z-50	50 lb / 23 kg	1 lb / 0.5 kg
Z-100	100 lb / 45 kg	1 lb / 0.5 kg
Z-250	250 lb / 115 kg	1.8 lb / 0.8 kg
Z-500	500 lb / 225 kg	1.8 lb / 0.8 kg
Z-1000	1,000 lb / 455 kg	1.8 lb / 0.8 kg

Accuracy Class	III 5000/3000 IIIL 10000
Rated Output	2mV/V
Cable Length	Z-50/100: 30" / 76 cm Z-250/500/1000: 30' / 9 m
Material	Aluminum
Protection Class	IP65



88-166

## Z

**Z Tension Type  
Load Cell**

Cardinal's Z series load cells are fabricated from aircraft-quality aluminum alloy, and offer a cost-effective solution to many tension applications. Each load cell has threaded holes on each end for hanger assemblies.



Model	Capacity	Shipping Wt.
*ZX-250	250 lb / 115 kg	1.8 lb / 0.8 kg
*ZX-500	500 lb / 225 kg	2.2 lb / 1 kg
*ZX-1000	1,000 lb / 455 kg	2.5 lb / 1.1 kg
ZX-2500	2,500 lb / 1,135 kg	5 lb / 2.3 kg
ZX-3000	3,000 lb / 1,360 kg	6 lb / 2.7 kg
ZX-5000	5,000 lb / 2,270 kg	7 lb / 3 kg
ZX-10000	10,000 lb / 4,535 kg	8 lb / 3.6 kg
ZX-15000	15,000 lb / 6,803 kg	12 lb / 5.4 kg
ZX-20000	20,000 lb / 9,070 kg	15 lb / 6.8 kg

\* Potted sealant in ZX-250 through ZX-1000.  
ZX-2500 and larger are hermetically sealed.

Accuracy Class	III 5000 IIIL 10000
Safe Load Limit	150% R.C.
Rated Output	3mV/V
Cable Length	30' / 9 m
Material	Stainless Steel
Protection Class	IP66/68



92-192

## ZX

**ZX Tension Type  
Load Cell**

Cardinal's ZX series tension load cells are ideally suited for single or multiple load cell tension applications. Simplicity of design permits their use in a wide variety of configurations. When caustic or corrosive environments are encountered, the ZX series is ideal. Manufactured of stainless steel, it offers the ultimate in weighing protection.





# MAILING/ SHIPPING SCALES



Cert. No.  
94-066



Model  
MS-8

## MS-8 Electronic "Mail Master" Scale

Model	Capacity	Platform Size	Shipping Weight
MS-8	8 lb x 0.1 oz	10" W x 8.25" D / 25 cm W x 21 cm D	11 lb / 5 kg

**Display:** 5-digit, 0.6"/15 mm high red LED - weight and rate status indicators

**Power:** 115 VAC +/- 10% 60 Hz



Cert. No.  
91-163  
Models MS-15,  
MS-30, and  
MS-100



Model  
MS-15

## MS-15/30/100/1600 Postal/UPS Scales

Model	Capacity	Platform Size	Shipping Weight
MS-15	15 lb x 0.05 oz	15" W x 9" D / 38 cm W x 23 cm D	21 lb / 10 kg
MS-30	30 lb x 0.1 oz	15" W x 9" D / 38 cm W x 23 cm D	21 lb / 10 kg
MS-100	100 lb x 0.2 oz	15" W x 9" D / 38 cm W x 23 cm D	21 lb / 10 kg
MS-1600	100 lb x 0.1 oz Not "Legal-for-Trade"	15" W x 9" D / 38 cm W x 23 cm D	21 lb / 10 kg

**Display:** 0.5"/13 mm high LED

**Power:** 110/115 VAC, 50/60 Hz



Model  
MSB-25

## MSB-25 Bulk Mail Scale

Model	Capacity	Platform Size
MSB-25	25 lb x 0.005 lb or 0.1 oz	17.5" W x 15" D / 44 cm W x 38 cm D

Detecto's versatile MSB-25 bulk mail scale can display the weight of a single mailpiece, the number of pieces per pound, or the number of pieces on the scale after the entry of sample.

**Display:** Easy-to-read dot matrix

**Power:** 110/120 VAC, 60 Hz

**Shipping Weight:** 28 lb / 13 kg

**Features Serial Data Interface  
for Printer or PC Output**





# SCALE BASES WITH PC INTERFACE

## AS Series Scales for Computer-Based Systems

Ship your parcels on Deteco's full line of PC-Compatible Scales. Whether you need to weigh letter size mail or ship large boxes that need extra wide platforms, Deteco makes a variety of capacities and platform sizes listed below to suit your shipping needs. Whether in a mailroom, shipping department, or warehouse, just connect these scales to our computer (12 ft. / 3.7m cable included) and take advantage of the most dependable scales on the market. The setup diskette is included.

Some of Deteco's AS Series are "legal-for-trade" and their 5-digit 0.5" (13mm) high built-in vacuum fluorescent displays are easy to read. Controls include ON/OFF and Zero switches. The lift-off stainless steel platform wipes clean easily. Optional ball top transfers are available (pictured above).

- Switch selectable baud rate
- Selectable weight on demand or continuous weight output
- ASCII format with 8 data bits - no parity - 1 stop bit



Model  
AS-410D  
with BT-1818

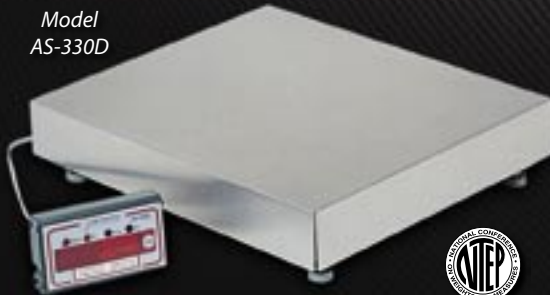
Models  
AS-350D and  
AS-400D



Model  
AS-350D

Model	Capacity	Division Value / Description	Platform Size / Ball top Height	Shipping Weight	NTEP Certificate
AS-350D	150 lb	150 lb x 0.02 lb or 0.5 lb x 0.1 oz / 5-100 lb x 0.5 oz / 100-150 lb x 1 oz	12" x 14" / 31 cm x 36 cm	33 lb / 15 kg	95-171
AS-400D	100 lb	0.5 oz	18" x 18" / 46 cm x 46 cm	45 lb / 20 kg	90-008
AS-410D	150 lb	0-100 lb x 0.5 oz / 100-150 lb x 1 oz	18" x 18" / 46 cm x 46 cm	45 lb / 20 kg	
AS-420D	200 lb	0.1 lb	24" x 24" / 61 cm x 61 cm	62 lb / 28 kg	
BT-1214		Ball top transfer for 12" x 14" platform	1.32" / 33 mm from platform	9 lb / 4 kg	
BT-1818		Ball top transfer for 18" x 18" platform	1.32" / 33 mm from platform	12 lb / 5 kg	

Model  
AS-330D



Cert. No.  
99-198



Model  
AS-3334D

## "Legal-for-Trade" PC-Compatible Scales

The displays for these "legal-for-trade" economical intelligent scale bases may be mounted on the stainless steel scale base, wall, or counter. The modular serial port allows the scale to be interfaced with a personal computer.

Model	Capacity / Description	Shipping Weight
AS-330D	150 lb x 0.05 lb or 0-100 lb x 0.5 oz or 100-150 lb x 1 oz or kilograms mode	22 lb / 10 kg
BT-1214	Ball top transfer for 12" x 14" platform	9 lb / 4 kg

**Display Dimensions:** 4.5" W x 0.875" D x 2.5" H / 11 cm W x 2 cm D x 6 cm H  
**Platform Dimensions:** 12" L x 14" W x 3.5" H / 31 cm L x 36 cm W x 9 cm H  
**Power:** 120 Volt AC adapter with 12 volt DC

Model	Capacity	Shipping Weight
AS-333D	17.5 lb x 0.005 lb / 7 kg x 0.002 kg	10 lb / 5 kg
AS-334D	35 lb x 0.01 lb / 17.5 kg x 0.005 kg	10 lb / 5 kg

**Display Dimensions:** 4.5" W x 0.875" D x 2.5" H / 11 cm W x 2 cm D x 6 cm H  
**Platform Dimensions:** 6" L x 10" W x 2.5" H / 15 cm L x 25 cm W x 6 cm H  
**Power:** 120 Volt AC adapter with 12 volt DC





# PORTABLE ALL-PURPOSE SCALES

Model  
DR400



Model  
DR550



Cert. No.  
204 Indicator: 02-016  
GP-400 Base: 94-098

Model  
GP-400-204



Cert. No.  
205 Indicator: 01-011  
GP-400 Base: 94-098

Model  
GP-400-205



## DR Series Low-Profile Platform Scale

Accurate and reliable, Detecto's economical general purpose DR150, DR400, and DR550 platform scales quickly pay for themselves when used for receiving goods by weight. The remote indicator easily mounts on a table or wall and features a large 1"/25 mm display, units conversion, and tare. Battery powered, these scales are portable so you can have a scale anywhere you need it. Features RS-232 serial output and lightweight design.

Model	Capacity	Construction
DR150	150 lb x 0.2 lb / 68 kg x 0.1 kg	Mild steel
DR400	400 lb x 0.5 lb / 181 kg x 0.2 kg	Mild steel
DR550	550 lb x 0.2 lb / 250 kg x 0.1 kg	Stainless Steel
DR400CASE	Carrying case	Nylon mesh

**Display:** 4-digit, 7-segment, 1" / 25mm high LCD

**Power:** 6 "AA" alkaline batteries or 115 volt AC adapter (included)

**Platform Size:** 12.2" W x 11.8" D x 1.97" H / 31 cm W x 30 cm D x 5 cm H

**Shipping Weight:** 13 lb/6 kg

The DR series features an optional black nylon mesh carrying case with handle which protects the scale for easy transport.



## GP Series Digital Low-Profile Scales with Integral Carrying Handle

Uses for these "legal-for-trade" lightweight portable scales are almost limitless. With a convenient, built-in carrying handle, they go with you anywhere. The large 18" x 14" (46 cm x 36 cm) platform has a slip-proof mat and non-skid plastic feet for stability. The 204 model runs on AC power, Alkaline batteries, or rechargeable Ni-Cad batteries and features a bi-directional serial port, 1" high LCD display, and auto shutoff and sleep mode. The 205 model runs on AC power and features a bi-directional serial port, 0.6" high LED display, auto shutoff and sleep mode, accumulator, gross, and net, pushbutton tare, and adjustable filtering. These scales assure accuracy in your weighing while providing long-lasting durability.

Model	Capacity	Display
GP-400-204	400 lb x 0.2 lb / 180 kg x 0.1 kg	LCD
GP-400-205	400 lb x 0.2 lb / 180 kg x 0.1 kg	LED

**Platform Dimensions:** 18" W x 14" D x 2" H / 46 cm W x 36 cm D x 5 cm H

**Display:**

**GP-400-204:** 1" / 25 mm high, 6-digit, 7-segment LCD

**GP-400-205:** 0.6" / 14 mm high 6-digit, 7-segment LED

**Power:**

**GP-400-204:** 115 VAC 60 Hz adapter, or 230 VAC 50/60 Hz, or 6 "C" cell alkaline or rechargeable Ni-Cad batteries

**GP-400-205:** 90 to 260 VAC, 50 or 60 Hz

**Shipping Weight:** 19 lb / 9 kg



# PRICE COMPUTING SCALES

## DS Series Price Computing Scales

The built-in rechargeable battery supply not only monitors the battery life, but also recharges the battery while the scale is in operation ensuring no unexpected "down time". Pressing the PrePack key after the unit price has been entered, retains that price for repetitive price-computing making the operator's job even more simple.

Model	Capacity	Shipping Weight
DS-6	6 lb x 0.002 lb / 3 kg x 0.001 kg	13 lb / 6 kg
DS-12	12 lb x 0.005 lb / 6 kg x 0.002 kg	13 lb / 6 kg
DS-30	30 lb x 0.01 lb / 15 kg x 0.005 kg	13 lb / 6 kg
DS-60	60 lb x 0.02 lb / 30 kg x 0.01 kg	13 lb / 6 kg

**Display:** 0.75" / 19 mm high backlit LCD front and rear

**Platform Size:** 11.38" W x 8.25" D / 29 cm x 21 cm

**Power Source:** Rechargeable battery pack or 115 VAC 50/60Hz or 230 VAC 50/60Hz

## PC-6 Series Price Computing Scales

The PC-6 is less than nine inches square, so it doesn't take up valuable counter space in stores and fits easily in kiosks or vendor carts. Battery or AC power allows it to be easily moved wherever needed.

Model	Capacity	Shipping Weight
PC-6	6 lb x 0.002 lb	3 lb / 1.3 kg
PC-6KG	3 kg x 0.001 kg	3 lb / 1.3 kg

**Display:** 0.375" / 9.5 mm high multi-position LCD

**Platform Size:** 7.875" W x 4.5" D / 20 cm W x 11 cm D

**Power Source:** 12 VDC from 115 or 230 VAC power adapter (included) or 5 "AA" Alkaline, Ni-Cad, or NiMH batteries (not included). Internal recharging circuit for Ni-Cad or NiMH batteries.

## PC-10/20/30 Series Price Computing Scales

The PC Series features an alpha keypad to name each product for printing on the labels and is constructed of heavy steel guaranteeing top performance in the harshest environments. The bright red LED display is readily viewable by the operator and customer on both sides of the scale.

Model	Capacity / Description	Shipping Weight
PC-10	6 lb x 0.002 lb	21 lb / 9.5 kg
PC-10KG	3 kg x 0.001 kg	21 lb / 9.5 kg
PC-20	15 lb x 0.005 lb	21 lb / 9.5 kg
PC-20KG	6 kg x 0.002 kg	21 lb / 9.5 kg
PC-30	30 lb x 0.01 lb	21 lb / 9.5 kg
PC-30KG	15 kg x 0.005 kg	21 lb / 9.5 kg
P220	Thermal Printer	2.7 lb / 1.2 kg

**Display:** 0.56" / 14 mm high red LED front and rear

**Platform Size:** 13.5" W x 8.75" D / 34 cm W x 22 cm D

**Power Source:** 115 VAC, 50/60 Hz (optional 230 VAC, 50/60 Hz); powering a 12 VDC, 700 mA wall plug-in power module



Cert. No.  
04-085



Model  
DS-30



Cert. No.  
00-128



Model  
PC-6



Notice of Approval  
AM-4539

Model PC-30

Cert. No.  
88-028



Model  
P220





# BAKER DOUGH & INGREDIENT SCALES



Detecto's mechanical Baker Dough Scales are rugged, accurate scales designed specifically for the baker. Featuring USDA-approved white oven-baked enamel or stainless steel, counterweight set, and with or without a seamless, easy-to-clean plastic scoop, these models provide an economical package without any sacrifice to long term, accurate use. Used extensively in retail bakeries as well as other food establishments, these durable, precise scales are furnished with 9" (23 cm) diameter plates. Additional weights are also available.

## Baked Enamel Baker Dough Scales

Model	Capacity	Scoop	Beam Graduations	Shipping Weight
1001TB	16 lb	•	16 oz x 1/4 oz	38 lb / 17 kg
1001TBNS	16 lb		16 oz x 1/4 oz	38 lb / 17 kg
1001TBKG	8 kg	•	500 g x 5 g	38 lb / 17 kg
1001T2B	16 lb	•	32 oz x 1/2 oz	38 lb / 17 kg
1001T2BNS	16 lb		32 oz x 1/2 oz	38 lb / 17 kg
1002TB	8 lb	•	16 oz x 1/4 oz	30 lb / 14 kg
1002TBNS	8 lb		16 oz x 1/4 oz	30 lb / 14 kg
1002TBKG	5 kg	•	500 g x 5 g	30 lb / 14 kg

**Platform Size:** 9" / 23 cm diameter

**Scoop:** White plastic

**Includes Weights**

## Stainless Steel Baker Dough Scales

Model	Capacity	Scoop	Beam Graduations	Shipping Weight
1051TBS	16 lb	•	16 oz x 1/4 oz	38 lb / 17 kg
1051TBSKG	8 kg	•	500 g x 5 g	38 lb / 17 kg
1052TBS	8 lb	•	16 oz x 1/4 oz	30 lb / 14 kg
1052TBSKG	5 kg	•	500 g x 5 g	30 lb / 14 kg



Model  
1001TB



Model  
1001TBNS



Model  
1051TBS

## PZ Series Digital Ingredient Scales

Detecto's stainless steel PZ3000 Ingredient Scales allow convenient units switching between most used measurements and each measurement can easily be turned off.

**Totally Touchless  
for more  
Sanitary Conditions  
and  
Faster Prep Times**

Model	Capacity	Platform Size	Shipping Weight
PZ3015	15 lb x 1/8 oz / 240 oz x 0.1 oz / 15 lb x 0.005 lb / 7 kg x 2 g / 7 kg x 0.005 kg	8" W x 8" D x 1.75" H / 20 cm W x 20 cm D x 4.4 cm H	10 lb / 5 kg
PZ3015L	15 lb x 1/8 oz / 240 oz x 0.1 oz / 15 lb x 0.005 lb / 7 kg x 2 g / 7 kg x 0.005 kg	12" W x 12" D x 1.75" H / 30 cm W x 30 cm D x 4.4 cm H	18 lb / 8 kg
PZ3030	30 lb x 1/4 oz / 480 oz x 0.1 oz / 30 lb x 0.01 lb / 15 kg x 5 g / 30 lb x 0.1 oz / 15 kg x 0.005 kg	12" W x 12" D x 1.75" H / 30 cm W x 30 cm D x 4.4 cm H	18 lb / 8 kg
PZ3060	60 lb x 1/4 oz / 60 lb x 0.02 lb / 30 kg x 0.02 kg	14" W x 12" D x 3" H / 36 cm W x 30 cm D x 8 cm H	24 lb / 11 kg

**Display:** 6-digit, 0.7" / 17 mm high LCD

**Display Dimensions:** 7.5" W x 1.5" D x 4.5" H / 19 cm W x 4 cm D x 11 cm H

**Power Source:** 115 VAC 50/60Hz or 230 VAC 50/60 Hz powering a 12 VDC, 1 Amp wall plug-in UL/CSA listed power supply or 6 "AA" size NiMH batteries (2300 mAh minimum). Except on model PZ3060, batteries not included.





# PORTION CONTROL SCALES

**Use Wherever Food is  
Weighed, Portioned or Dispensed**

## Digital Portion Control Scales



**NSF**  
NSF Certified  
**Model PS-4**  
AC or battery power



**Model PS-5A**  
AC or battery power



**Model PS-6A**  
AC or battery power



**NSF**  
NSF Certified  
**Model PS-7**  
AC or battery power



**NSF**  
NSF Certified  
**Model PS-11**  
AC or built-in rechargeable battery power



Cert. No. 95-087  
**Notice of Approval AM-4539**

**Model AP-6**  
AC power

Model	Capacity	Shipping Weight
PS-4	4 lb x 0.1 oz / 2,000 g x 1 g	4 lb / 2 kg

**Display:** 0.8" / 20 mm high LCD  
**Overall Size:** 1.5" H x 5.9" W x 6.7" D / 4 cm H x 15 cm W x 17 cm D  
**Platform Size:** 5.9" W x 4.75" D / 15 cm W x 12 cm D

Model	Capacity	Shipping Weight
PS-5A	70 oz x 0.1 oz / 1,998 g x 2 g	4 lb / 2 kg

**Display:** 0.5" / 13 mm high LCD  
**Overall Size:** 2.75" H x 7" W x 7" D / 7 cm H x 18 cm W x 18 cm D  
**Platform Size:** 6.75" W x 5.25" D / 17 cm W x 13 cm D

Model	Capacity	Shipping Weight
PS-6A	70 oz x 0.25 oz	4 lb / 2 kg

**Display:** 0.5" / 13 mm high LCD  
**Overall Size:** 2.75" H x 7" W x 7" D / 7 cm H x 18 cm W x 18 cm D  
**Platform Size:** 6.75" W x 5.25" D / 17 cm W x 13 cm D

Model	Capacity	Shipping Weight
PS-7	7 lb x 0.1 oz / 112 oz x 0.1 oz / 112 oz x 1/8 oz / 3000 g x 1 g / 7 lb x 0.005 lb	4 lb / 2 kg

**Display:** 5-digit, 0.8" x 0.3" characters with fractions LCD  
**Overall Size:** 2.44" H x 8.03" W x 7.87" D / 6 cm H x 20 cm W x 20 cm D  
**Platform Size:** 8.02" W x 4.96" D / 20 cm W x 13 cm D

Model	Capacity	Shipping Weight
PS-11	11 lb x 0.1 oz / 176 oz x 0.1 oz / 176 oz x 1/4 oz / 5000 g x 2 g / 11 lb x 0.005 lb	6 lb / 3 kg

**Display:** 5-digit, 0.8" x 0.3" characters with fractions LCD  
**Overall Size:** 2.3" H x 7.25" W x 9.5" D / 6 cm H x 18 cm W x 24 cm D  
**Platform Size:** 6.89" W x 6.5" D / 18 cm W x 17 cm D

Model	Capacity	Shipping Weight
AP-6	99.95 oz x 0.05 oz	5 lb / 3 kg
AP-8	7.998 lb x 0.002 lb	5 lb / 3 kg
AP-10	9.995 lb x 0.005 lb	5 lb / 3 kg
AP-20	19.99 lb x 0.01 lb	5 lb / 3 kg
AP-4K	3999 g x 1 g	5 lb / 3 kg

**Display:** 0.5" / 13 mm high LED  
**Overall Size:** 2.75" H x 7.5" W x 7" D / 7 cm H x 19 cm W x 18 cm D  
**Platform Size:** 6.75" W x 5.25" D / 17 cm W x 13 cm D



# HANGING SCALES



## "Legal-for-Trade" Hanging Dial Scale with Stainless Steel Pan

Model	Capacity	Shipping Weight
T3530	32 lb - 10 lb x 1 oz	33 lb / 15 kg

Dial: Extra-large 14.5" / 37 cm diameter double dial

## "Legal-for-Trade" Hanging Digital Scales

Model	Capacity	Shipping Weight
HSDC-20	20 lb x 0.01 lb	5 lb / 2 kg
HSDC-40	40 lb x 0.02 lb	5 lb / 2 kg
HSDC-100	99.95 lb x 0.05 lb	5 lb / 2 kg
HSDC-200	200 lb x 0.1 lb	5 lb / 2 kg
HSDC-500	500 lb x 0.2 lb (this model not "legal for trade")	5 lb / 2 kg
HSDC-20KG	20 kg x 0.01 kg	5 lb / 2 kg
HSDC-40KG	40 kg x 0.02 kg	5 lb / 2 kg
HSDC-100KG	99.95 kg x 0.05 kg	5 lb / 2 kg

Display: 1" / 25mm high LCD

Power: 6 "C" size alkaline batteries

## Heavy-Duty Dial Scales with S-Hook

Model	Capacity	Shipping Weight
11S200H	200 lb x 0.5 lb	11 lb / 5 kg
11S400H	400 lb x 1 lb	11 lb / 5 kg
11S200HKG	100 kg x 500 g	11 lb / 5 kg
11S400HKG	200 kg x 500 g	11 lb / 5 kg

Dial: 7" / 18 cm diameter single dial with aluminum face

## "Legal-for-Trade" Hanging Dial Scales with Scoop or Pan

Model	Capacity	Description	Shipping Weight
LT20P	20 lb x 0.5 oz	Galvanized scoop and chains	7 lb / 3 kg
LT40P	40 lb x 1 oz	Galvanized scoop and chains	7 lb / 3 kg
LT20F	20 lb x 0.5 oz	Stainless steel pan + chains	7 lb / 3 kg
LT40F	40 lb x 1 oz	Stainless steel pan + chains	7 lb / 3 kg

Dial: 7" / 18 cm diameter single dial with shatter-resistant lens

## Utility Scales with S-Hooks

Model	Capacity	Chart	Shipping Weight
MCS-60H	60 lb	30 lb x 1/10 lb	4 lb / 2 kg
MCS-60M	60 lb	30 lb x 1/10 lb	4 lb / 2 kg

Dial: 8" / 20 cm diameter - MCS-60M features adjustable pointer



# TOP LOADING DIAL SCALES

## Petite Top Loading Dial Scales

Model	Capacity	Dial	Finish
PT-1	16 oz x 1/4 oz	Fixed	Enamel
PT-2	32 oz x 1/4 oz	Fixed	Enamel
PT-2R	32 oz x 1/4 oz	Rotating	Enamel
PT-2-SR	32 oz x 1/4 oz	Rotating	Stainless steel
PT-500RK	500 g x 2 g	Rotating	Enamel
PT-500SRK	500 g x 2 g	Rotating	Stainless steel
PT-5R	5 lb x 1/2 oz	Rotating	Enamel
PT-25R	25 lb x 1/8 lb	Rotating	Enamel

Dial: 6" / 15 cm diameter

Platform: 5.75" / 15 cm square stainless steel. PT-25R: 7.9" W x 5.9" D / 20 cm W x 15 cm D

Shipping Weight: 5 lb / 2 kg



Model  
PT-5R

## Dual-Reading LB's/KG's Top Loading Dial Scales

Model	Capacity	Dial	Finish
T1KP	1 kg x 5 g / 2.2 lb x 1/8 oz	Fixed	Enamel
T2KP	2 kg x 10 g / 4.3 lb x 1/2 oz	Fixed	Enamel
T25KP	25 kg x 100 g / 55 lb x 2 oz	Fixed	Enamel

Dial: 8" / 20 cm diameter

Platform: 9" / 23 cm square stainless steel

Shipping Weight: 8 lb / 4 kg



Model  
T25KP

## Large Top Loading Dial Scales

Model	Capacity	Dial	Finish
T2	32 oz x 1/8 oz	Fixed	Enamel
T2R	32 oz x 1/8 oz	Rotating	Enamel
T2RD with air dashpot	32 oz x 1/8 oz	Rotating	Enamel
T2S	32 oz x 1/8 oz	Fixed	Stainless steel
T2SD with air dashpot	32 oz x 1/8 oz	Fixed	Stainless steel
T5	5 lb x 1/2 oz	Fixed	Enamel
T5S	5 lb x 1/2 oz	Fixed	Stainless steel
T10	10 lb x 1 oz	Fixed	Enamel
T10S	10 lb x 1 oz	Fixed	Stainless steel
T25	25 lb x 1 oz	Fixed	Enamel
T25S	25 lb x 1 oz	Fixed	Stainless steel
T50	50 lb x 2 oz	Fixed	Enamel

Dial: 8" / 20 cm diameter

Platform: 9" / 23 cm square stainless steel

Shipping Weight: 8 lb / 4 kg



Model  
T5S

## Extra-Large, High-Capacity Top Loading Dial Scales

Model	Capacity	Platform Size	Shipping Weight
T100	100 lb x 4 oz	11.5" / 29 cm square	20 lb / 9 kg
T200	200 lb x 8 oz	15" / 38 cm square	24 lb / 11 kg

Dial: 10.5" / 27 cm diameter

Overall Size: 10" W x 14.75" D x 14.5" H / 25 cm W x 38 cm D x 37 cm H

Features enamel finish and chrome-plated steel spacious weighing platform.



Model  
T100





# JUNCTION BOXES AND ACCESSORIES



## Mild Steel Linkage with Aluminum Load Cell

Model	Cell Provided	Shipping Wt.
TC250-1-XX	Z-250	5 lb / 2 kg
TC500-1-XX	Z-500	5 lb / 2 kg
TC1-1-XX	Z-1000	5 lb / 2 kg

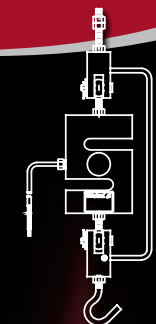
## Mild Steel Linkage with Stainless Steel Load Cell

Model	Cell Provided	Shipping Wt.
THTC250-1-XX	ZX-250	5 lb / 2 kg
THTC500-1-XX	ZX-500	6 lb / 3 kg
THTC1-1-XX	ZX-1000	6 lb / 3 kg
THTC2.5-1-XX	ZX-2500	9 lb / 4 kg
THTC3-1-XX	ZX-3000	9 lb / 4 kg

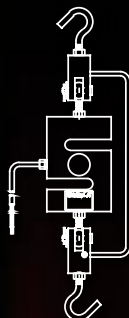
## Mild Steel Linkage with Stainless Steel Load Cell

Load cells listed below are furnished with "2R" or "SL" assemblies only

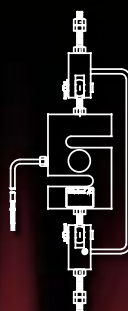
Model	Cell Provided	Shipping Wt.
THTC5-1-XX	ZX-5000	18 lb / 8 kg
THTC10-1-XX	ZX-10000	20 lb / 9 kg
THTC15-1-XX	ZX-15000	45 lb / 20 kg
THTC20-1-XX	ZX-20000	50 lb / 23 kg



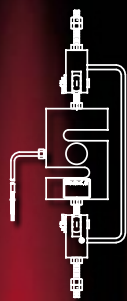
**JR Assembly**  
J-bolt and rod



**2J Assembly**  
2 J-bolts



**2R Assembly**  
2 Rods



**SL Assembly**  
Special Length Rods

## Tension Load Cell and Linkage Assemblies

Assemblies include tension load cell, two threaded rod ends, two complete clevis assemblies, and hanging assembly. To order, select the load cell and replace suffix "XX" with assembly number.

## Transformers

Constant voltage transformers are recommended for all applications if voltage change exceeds the requirements of instruments or printers.



Model	Description	Shipping Wt.
6960-0032	1 indicator with adapter (6960-0044) 60VA	10 lb / 4.5 kg
6960-0045	1 indicator and printer	40 lb / 18 kg

## Load Cell Junction Boxes

NEMA 4 stainless steel enclosure with fully gasketed cover.



Model	Description	Shipping Wt.
3502-B233-0A	For tension type load cell	5 lb / 2 kg
3502-C208-0A	Shear beam and tension cells only	5 lb / 2 kg
3502-C208-1A	Compression and double ended cells only	5 lb / 2 kg
3502-C208-2A	Same as 0A unit above but with mounting strap	5 lb / 2 kg
3502-D484-1A	J-box located at scale for 6 cell system	14 lb / 6 kg
3502-D484-0A	J-box located at scale for 12 cell system	14 lb / 6 kg
3502-D503-0A	J-box in scale house for up to 12 cell system	9 lb / 4 kg

## Guardian Hydraulic Load Cell Totalizer and Accessories



Model	Number of Load Cells Totalized / Description	Shipping Wt.
GHT4	4	50 lb / 23 kg
GHT6	6	50 lb / 23 kg
GHT8	8	50 lb / 23 kg
GHT10	10	50 lb / 23 kg
GHT12	12	50 lb / 23 kg
PTG-3K	Pressure transducer for Guardian totalizer	42 lb / 19 kg
6031-0506	1/8" Copper tubing	
6031-0517	1/8" Stainless steel tubing	



# INDEX BY MODEL NUMBER

1001	70	825	35	MH-524	45	RW	45
1002	70	854F	46	LFB	63	SB	63
1051	70	8852F	44	LPRA	25	SB250	39
1052	70	948GR933	47	LS	22	SB500	39
1100	47	954F	46	LSE	22	SBCS	60
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180	30, 38	ASRL	19	MS	66	SH	59
200	30	BPS	60	MSB	66	Spectrum	35
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205	31	BT	67	Navigator	33	SFG1	37
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210FE	32	CBCS	56	P150	36	SRC	17
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2XX-DN	37	EB	48	PRC	12	THBC	55
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2XX-RS232	37	FH	40	PT	73	TSSP	64
2XX-SFG	37	FHLT	42	PTG	74	Visualizer	33
2XX-SFP	37	FHN	40	PWIM	20	WIM	21
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7045G	44	iCan	15	RSCA	24		
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## EFFICIENT DELIVERY

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