Cardinal®

iCAN Intelligent Junction Box

Proactive, Preventive Solutions

- **Retrofit Existing Analog Load Cell Scales**
- **Eliminate Load Cell and Section Trim Headaches with SmartCal®**

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 going back and forth to the indicator which saves you service call money. The on-board display provides a 6-digit display of load cell millivolt output, weight, and total scale weight while a single character identifies the load cell source.

The iCan system controller module is housed in a IP66/NEMA 4X junction box and is connected to the 225 Navigator indicator with transient-free plastic or glass fiber optic cable.

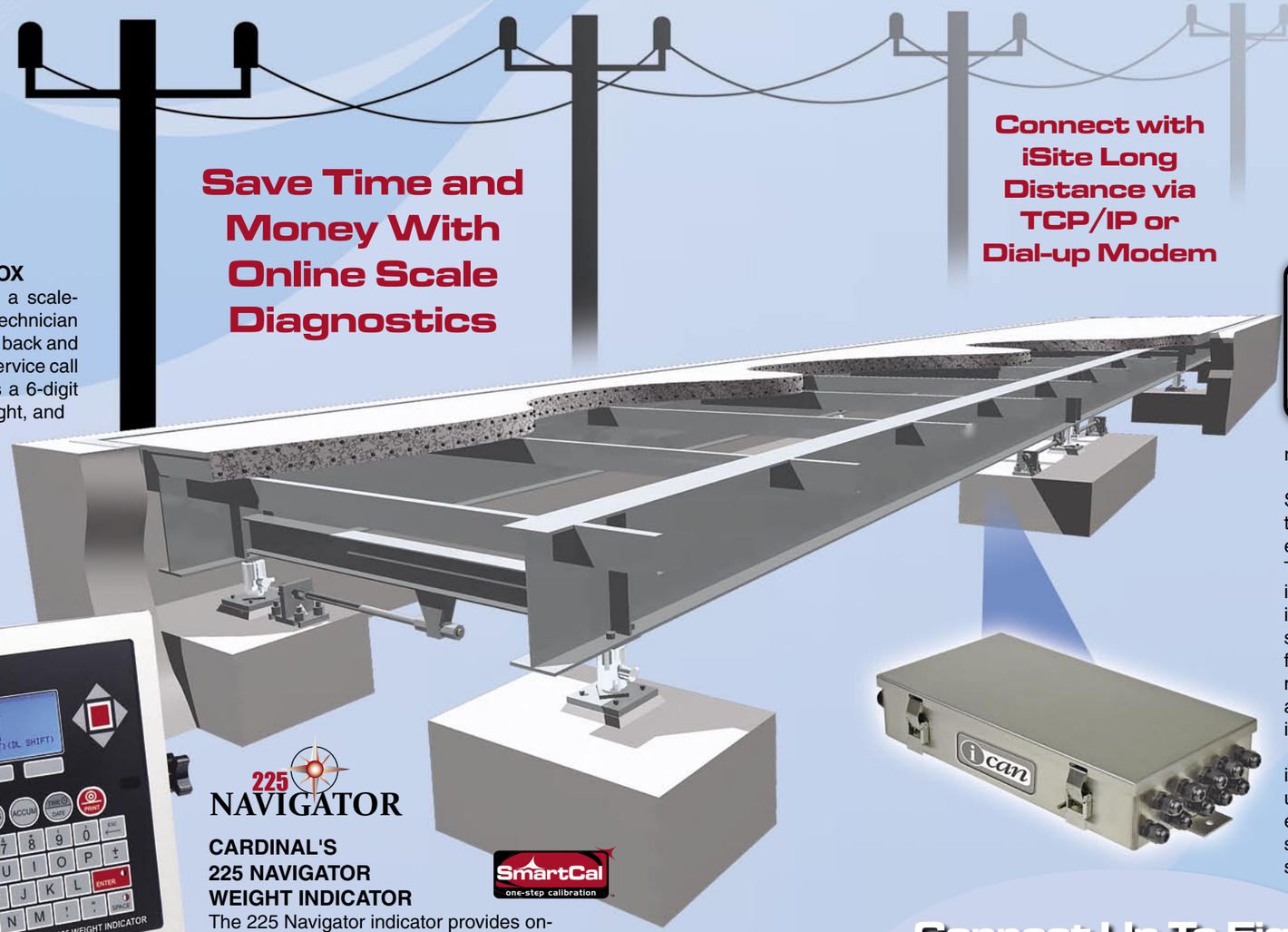
ENJOY THE BENEFITS OF DIGITAL TECHNOLOGY
Cardinal's iCan system provides a digitally-controlled, high-performance weighing and diagnostic environment for your scale where every step from installation to operation to maintenance is not only simplified, but closely monitored by the latest ISP flash micro-controller-based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

APPLICATIONS

- **Multiple Cells / Single Scale**
- **Multiple Scales / Single Cell**
- **Multiple Cells / Multiple Scales**

Save Time and Money With Online Scale Diagnostics

Connect with iSite Long Distance via TCP/IP or Dial-up Modem



225 NAVIGATOR

CARDINAL'S 225 NAVIGATOR WEIGHT INDICATOR
The 225 Navigator indicator provides on-screen viewing of individual load cell report data, ensuring quick and concise information on your scale's performance. Cardinal's patented SmartCal® feature allows quick single-pass calibration without the need for manual adjustments. iCan's diagnostic software automatically identifies and reports potential problems before they can interrupt your weighing operations.

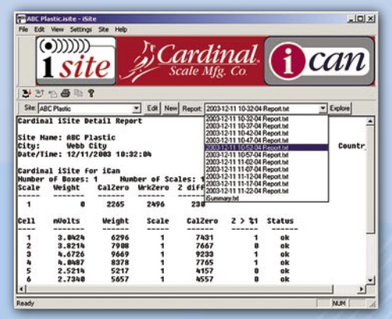
SmartCal one-step calibration

Connect Up To Eight Load Cells To One Cardinal iCan Junction Box

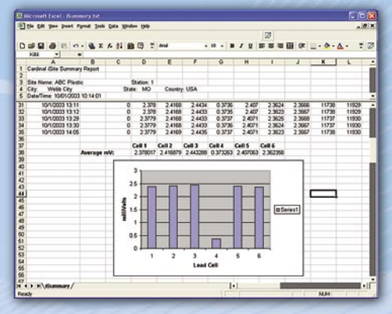
1site

REMOTE MONITORING OF SCALE PERFORMANCE
Cardinal's iSite software and hardware facilitates electronic communications from dealer or support 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. These reports include weight information and millivolt readings for each load cell of each scale. An automatic request feature may be used to obtain new status reports from a site automatically at a specified interval.



iSite software automatically updates a summary report for each site as individual reports are requested. The summary report for a site provides quick comparison of load cell readings over the history of the site, and may be opened with Excel® to allow further analysis or graphing of the data.



INTELLIGENT JUNCTION BOX

ICAN FEATURES

- **IP66/NEMA 4X stainless steel enclosure** provides rugged, corrosion-proof protection.
- **Real-time load cell diagnostics** identifies load cell problems before they cause inaccurate weighing, so scale downtime is minimized.
- **Troubleshoot directly from the indicator** with Cardinal's model 225 indicator, providing real-time operator notification of potential problems, including zero drift, instability, and load cell failure.
- **On-board diagnostic displays** (7-segment display with 14 LEDs) in the iCan provide load cell and diagnostic data right in the junction box, displaying current values where your scale technician is working.
- **Cardinal's patented SmartCal® allows quick calibration with no manual adjustments**, so there is less handling of test weights which saves time and money. Trim and calibrate scales in one pass.
- **The CAN bus multi-drop interface overcomes the limitations of daisy-chaining** where if you lose one connection, you lose them all. The iCan system can handle up to 32 load cells divided among up to 3 scales.
- **Ethernet interface** from Cardinal's 225 indicator allows networking capabilities.
- **Transient noise isolation** by fiber optic connection between the indicator and junction box.

PLASTIC FIBER OPTIC CABLE	MODEL	DESCRIPTION
Indicator and j-box sold separately. Indicator to iCan j-box up to 300 feet. *Indicator includes CAN card.	225 ICANP	225 Indicator for ICANP*
	ICAN4P	4 load cell iCan j-box
	ICAN6P	6 load cell iCan j-box
	ICAN8P	8 load cell iCan j-box
	ICAN10P	10 load cell iCan j-box
	ICAN12P	12 load cell iCan j-box
	ICAN14P	14 load cell iCan j-box

GLASS FIBER OPTIC CABLE	MODEL	DESCRIPTION
Indicator and j-box sold separately. Indicator to iCan j-box up to 5,000 feet. *Indicator includes CAN card.	225 ICANG	225 Indicator for ICANG*
	ICAN4G	4 load cell iCan j-box
	ICAN6G	6 load cell iCan j-box
	ICAN8G	8 load cell iCan j-box
	ICAN10G	10 load cell iCan j-box
	ICAN12G	12 load cell iCan j-box
	ICAN14G	14 load cell iCan j-box

ICAN SPECIFICATIONS

Power Requirements	115 to 230 VAC 50/60 Hz at 1 ampere per junction box
Temperature Range (Compensated)	-13 to 104 ˚F (-25 to +40 ˚C)
Junction Box Connections	2 AC Power, 8 load cell inputs, 2 fiber optic or copper wire
Junction Box Dimensions	17" W x 9 1/2" D x 3 3/8" H (432mm x 241mm x 88mm)
Sample Rate	1 to 50 samples per second, selectable
Load Cells	Up to eight 350-ohm strain gauge load cells per box
Load Cell / Scale Capacity	Thirty-two 350-ohm load cells among up to 3 scales (8 load cells per box, maximum of four boxes)
Excitation Voltage	12 VDC
Sensitivity:	**NON-COMMERCIAL** 0.15 uV/e **NTEP** 0.3 uV/e (Class III/IIIL) **CANADA** 0.3 uV/e (Class III/IIIHD) **OIML** 1.2 uV/e (Class III)
Scale Divisions:	**NON-COMMERCIAL** 240,000 **NTEP** 10,000 (Class III/IIIL) **CANADA** 10,000 (Class III/IIIHD) **OIML** 10,000 (Class III)
Internal Resolution	1 part in 16,777,216
Transmission Distance	Plastic Fiber: Up to 300 feet (30 foot minimum). Glass Fiber: Up to 5,000 feet. Copper Wire: Up to 1,000 feet.

BRIDGE AND 5 YEAR BELOW WARRANTY

Warranty Covers LIGHTNING DAMAGE

CERTIFICATIONS

The iCan Junction Box meets all requirements of Handbook 44, issued by the National Institute of Standards and Technology and has been issued the Certificate of Conformance number 03-108.

NTEP

Certificate Number DK 0199-R76-03.06

EU Type Approval

AM-5574

MEASUREMENT CANADA

CE

Cardinal Scale reserves the right to improve, enhance or modify features and specifications without prior notice. SmartCal® is a registered trademark of Cardinal Scale.

ISO REGISTERED 9001

MADE IN USA

Sold By:

Cardinal®
Cardinal Scale Manufacturing Co.
203 E. Daugherty, Webb City, MO 64870 USA
Ph: 417-673-4631 or 800-441-4237 • Fax: 417-673-5001
www.CardinalScale.com

© Copyright 2009 Cardinal Scale Mfg. Co. Printed in USA CAR/00/1009/289A