TABLE OF CONTENTS

TECHNICAL SPECIFICATIONS .................................................................................. 1
SAFETY DURING USE .............................................................................................. 2
  Cleaning .............................................................................................................. 2
  Charging Battery and Welding ............................................................................. 2
INDICATOR OVERVIEW ............................................................................................ 3
OPERATION ................................................................................................................. 5
  Turn on Indicator ............................................................................................... 5
  Zero Balance Indicator ...................................................................................... 5
  Tare and Net/Gross ............................................................................................ 5
  Print Key ............................................................................................................. 7
  Timer Option ...................................................................................................... 7
  Using the M+, RM and CM Options ................................................................ 8
  Printing Weight from Memory .......................................................................... 10
  Weight Averaging .............................................................................................. 10
  Printing Average Weight ................................................................................... 11
OTHER FUNCTIONS .................................................................................................. 12
  Hold .................................................................................................................... 12
  Using Dimmer Option ....................................................................................... 12
  Function and Select keys ................................................................................... 12
MENUS AND CALIBRATION .................................................................................... 13
  Change Set up and Calibration Numbers .......................................................... 17
INSTALLATION ........................................................................................................... 18
  Indicator Mounting ............................................................................................ 18
  Cable Connection .............................................................................................. 19
  Indicator Connection Diagram ......................................................................... 19
  Bottom Panel Cable Connections ..................................................................... 19
  Connect Load Cells to J-Box ........................................................................... 20
  Load Cell Direction ........................................................................................... 20
OPTIONAL EQUIPMENT ............................................................................................ 21
  Cab Control (Wireless) ...................................................................................... 21
  Data Transfer Options ...................................................................................... 21
  Transmitter/Receiver ......................................................................................... 22
  Remote Indicators ............................................................................................. 22
TROUBLESHOOTING ................................................................................................. 23
LEGAL-FOR-TRADE CERTIFICATION ................................................................ 25
  Legal for Trade Functions .................................................................................. 25
  On Legal-For-Trade Units Only ....................................................................... 26
# TECHNICAL SPECIFICATIONS

**SIZE**
10.25" long x 8.0" high x 4" wide (260mm x 190mm)

**WEIGHT**
4.5 lbs (2.04 Kg)

**HELP MESSAGES**
Context sensitive help messages in 10 languages
Long messages are scrolled

**TRANSDUCER EXCITATION**
8 volts D.C. Nominal
Capable of driving ten 350 Ohms transducers
Short circuit proof

**ATC**
Auto Temperature Compensation of the internal circuitry for high accuracy weighing measurements

**TRANSDUCER SIGNAL**
Compatible with transducers having full scale indicator transfer characteristics greater than 0.25 mv/v

**“AUTO RANGE”**
(Selectable) To increase display counts at weight values of 300 and 600 display counts.

**CONNECTOR**
AMP plastic weather resistant circular connector. Gold contacts.

**POWER REQUIREMENTS**
10.5 to 16.0 V.D.C.
160 mA nominal with four 350Ω L.C.

**SET UP AND CALIBRATION**
Via front panel

**GROSS RANGE**
999,999 max.display

**LOW BATTERY WARNING**
Enabled at 10.5V nominal

**POUND/KILOGRAM**
Selectable

**DISPLAY**
STD EZ  6 Digit LCD 1.0. high
EZ VIEW  6 Digit LCD 1.7" high

**DISPLAY RESOLUTION**
.01, .02, .05, .1, .2, .5, 1, 2, 5, 10, 20, 50, 100

**DISPLAY UPDATE RATE**
Selectable: 1, 2, 3, 4 times/sec.

**MAX. DISPLAY RESOLUTION**
Adjustable to 40,000 counts max.

**ZERO TRACKING**
Selectable, On/Off

**SPAN ACCURACY**
±(.1% + .005%/ °F) or (.1% + 0.009% °C) full scale ± 1 output count

**MOTION DETECTION**
Selectable, On/Off

**ZERO ACCURACY**
(0.005%/ °F.) or (0.009% °C) full scale ±1 output count
for 0.5 mv/v transducer

**ENVIRONMENTAL ENCLOSURE**
IP65, IEC 529

**WEIGH ALGORITHM**
4 internally selectable digital filters to optimize performance
(General, Slow, Fast and Lock-on)

**HOLD MODE**
Used in mobile applications to stabilize displayed weight while moving the scale

**NON-VOLATILE MEMORY**
EEPROM for balance

**OPERATING TEMP**
-29°C to 60°C
-20°F to 140°F

**REMOTE INPUTS**
Tare / Advance Recipe / Re-enter Preset
SAFETY DURING USE

Caution

Cleaning
Do not use running water (high pressure cleaners, hoses) to clean the indicator.

Charging Battery and Welding
Disconnect all cables from the weighing indicator before charging the battery or welding on the machine. If cables are left connected, the weighing indicator and connected load cells could be damaged.
INDICATOR OVERVIEW

Note: See page 18-20 for installation instructions.

1. **ZERO** – press and hold for 3 seconds to zero balance indicator.
2. **HOLD** – holds displayed weight press to release.
3. **ON** – turns indicator on. Press while on runs self test.
4. **OFF** – turns indicator off.
5. **TARE** – temporary zero (Net Mode).
6. **PRINT** – records to memory or prints displayed weight.
7. **Display Window** – Displays current actions.
8. **NET/GROSS** – toggles between Net and Gross weights.
9. **FUNCTION** – performs task displayed by select.
10. **SELECT** – displays additional tasks.
11. **Serial/Printer Port** - optional, to communicate with computer and other digital input/output devices.

12. **Remote Port** – optional, for remote display.

13. **Load Cell Port** – for J-Box cord.

14. **Power Port** – for power cord.

15. **Serial Number Plate** – Serial Number of indicator.
OPERATION

Turn on Indicator

1. Press \[ \text{ON} \].

Zero Balance Indicator

1. Press and hold \[ \text{ZERO} \] for 3 seconds to zero balance indicator.

2. Flashing arrow points to gross next to the display window, indicator ready to weigh.

Tare and Net/Gross

Tare is a temporary zero (Net Weight) to display total weight (Gross Weight) Press \[ \text{TARE} \].

1. Weight displayed, press \[ \text{TARE} \] sets zero weight.
2. Pressing \[\text{[Tare]}\] displays zero weight and flashing arrow on side of display points to NET.

3. Add more weight.

4. To know total of original weight of 4000 pounds plus added 300 pounds, press \[\text{[Gross]}\] to show 4300 pounds, flashing arrow points GROSS.

5. Press \[\text{[Net]}\] 300 pounds displayed flashing arrow points NET.
Operation

Print Key

Note: Optional serial port must be installed for printing.

1. Press \( \text{PRINT} \). Indicator sends data to printer or PC.

```
Date in ddmmyy format
10JA08 12:01P
```

```
Weight
4300 LB GR
```

```
Gross (GR) or Net (NET)
```

Timer Option

Stopwatch for mixing time.

1. Repeatedly press \( \text{SELECT} \) until \text{TIMER} is displayed.

```
1
```

1. Press \( \text{FUNCTION} \) to displays hours, minutes and seconds (hh:mm:ss).

```
00:00:0
```
Using the M+, RM and CM Options
Use these options to weigh truck or wagon one axle at a time.

1. Add weight on scale. Example: 500 pounds.

2. Repeatedly press until M+ is displayed.

3. Press 500 pounds and RM briefly displayed 500 pounds added to indicator memory and indicator in gross weight mode.

1. Repeatedly press moves flashing digit left.

2. Repeatedly press changes number.

3. Press to start timer.

4. When timer reaches zero press to clear timer.

5. Repeatedly press $\Delta_{\text{SELECT}}$ until $M+$ is displayed.

6. Press $\Delta_{\text{FUNCTION}}$ indicator add 1000 pounds to 500 pounds in memory and $RM$ flashes.

7. Repeatedly press $\Delta_{\text{SELECT}}$ until $RM$ is displayed.

8. Press $\Delta_{\text{FUNCTION}}$.

9. Total of both weights, 1500 pounds, display, indicator switches to gross weight mode.
Printing Weight from Memory
Indicator must have optional printer port for printing.

1. Repeatedly press \( \text{SELECT} \) until \( RM \) displayed.

2. Press \( \text{FUNCTION} \) shows weight in memory. Example: 1500 pounds.

3. Press \( \text{PRINT} \) while weight displayed.

Weight Averaging

1. Repeatedly press \( \text{SELECT} \) until \( RM \) is displayed.
1. Press [PRINT] while average weight is displayed.

Sample output format shown below:

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Counts</th>
<th>Average Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>10JA08</td>
<td>12:01P</td>
<td>2CT</td>
<td>750LB AV</td>
</tr>
</tbody>
</table>

Printing Average Weight

2. Press [F] twice within three seconds performs weight average.

3. Display shows \textit{COUNT 2} if number of individual weights to average is two. Example weight of 1000 pounds and 500 pounds averaged.

4. Displays \textit{AVERAG}.

5. Display shows average of two weights in memory. After displaying average weight, indicator returns to gross weight mode.
OTHER FUNCTIONS

Hold
Hold mode prevents displayed weight from changing while moving.

1. Press \( \text{HOLD} \).
2. Press \( \text{HOLD} \) indicator normal.

If weight added in hold mode, press \( \text{ON} \) to cancel hold.

Note: This feature is disabled on all legal for trade systems.

Using Dimmer Option

1. Repeatedly press \( \text{SELECT} \) until \( \text{DIMMER} \) is displayed.
2. Press \( \text{FUNCTION} \) dimgs backlight.

Function and Select keys

1. Repeatedly press \( \text{SELECT} \) gives following options:
   - Timer: Stopwatch for mixing time
   - \( \text{M+} \): Adding weight to weight memory
   - \( \text{RM} \): Recall weight memory
   - \( \text{CM} \): Clear weight memory
   - \( \text{Dimmer} \): Dimming backlight
   - \( \text{Menu} \): View menus 1, 2, 3, 4 and calibrate. See page 13.
   - \( \text{Setup} \): Change setup and calibration numbers. See page 17.
   - \( \text{Help} \): Explains operation of select and function key
2. Desired option displayed, press \( \text{FUNCTION} \) to activate.
**MENUS AND CALIBRATION**

Options changed by user. To display menus 1,2,3,4 and calibrate:

1. Repeatedly press \( \Delta \) until MENU is displayed.
2. Press \( \triangleright \).
3. Repeatedly press \( \Delta \) selects Menu1,2,3,4 or calibrate
4. Press \( \blacksquare \) displays setting name and allows value changes.
5. Press \( \Delta \) selects options for each setting/display.
6. Press \( \blacksquare \) saves setting and next option for menu displays.

<table>
<thead>
<tr>
<th>SETTING</th>
<th>D.A.N</th>
<th>OPTIONS [displayed]</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>[display]</strong></td>
<td><strong>NO.</strong></td>
<td><strong>[BOLD=DEFAULT]</strong></td>
<td></td>
</tr>
<tr>
<td><strong>MENUS 1. BASIC FEATURES IN MOST INDICATORS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LANGUAGE</strong></td>
<td>101</td>
<td><strong>ENGLISH</strong></td>
<td>Select language to be displayed.</td>
</tr>
<tr>
<td>(LANGAG)</td>
<td></td>
<td><strong>Dutch</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>French</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>German</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Italian</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Portuguese</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Spanish</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Danish</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Hungarian</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Spanish</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Danish</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Hungarian</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Spanish</strong></td>
<td></td>
</tr>
<tr>
<td><strong>DISPLAY RATE</strong></td>
<td>102</td>
<td><strong>1,2,3,4</strong></td>
<td>Update display times per second.</td>
</tr>
<tr>
<td>(D RATE)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ZERO TRACK</strong></td>
<td>104</td>
<td><strong>ON/OFF</strong></td>
<td>If ON -zero track adjust balance for build up of snow &amp; mud.</td>
</tr>
<tr>
<td>(ZTRACK)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>WEIGH METHOD</strong></td>
<td>105</td>
<td><strong>1=General,</strong></td>
<td>Select weigh method</td>
</tr>
<tr>
<td>(W MTHD)</td>
<td></td>
<td><strong>2=Fast,</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>3=Slow,</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>4=Lock-On</strong></td>
<td></td>
</tr>
<tr>
<td><strong>SCALE ID SETUP</strong></td>
<td>108</td>
<td><strong>NEW EZ</strong></td>
<td>Identity of scale location (truck id or Mixer number).</td>
</tr>
<tr>
<td>(SCALID)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1 PRESS ZERO</strong></td>
<td>115</td>
<td><strong>ON/OFF</strong></td>
<td>If ON -press and hold Zero key to Zero/Balance scale.</td>
</tr>
<tr>
<td>(1 ZERO)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MENUS 2. CLOCK, PRINTER, COMMUNICATIONS FEATURES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TIME FORMAT</strong></td>
<td>201</td>
<td><strong>24 HR</strong></td>
<td></td>
</tr>
<tr>
<td>SETTING [display]</td>
<td>D.A.N NO.</td>
<td>OPTIONS [displayed] BOLD=DEFAULT</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------</td>
<td>----------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>{TIME F}</td>
<td></td>
<td>AM/PM</td>
<td>Select time format -AM/PM or 24 hour</td>
</tr>
<tr>
<td>1 TIME {TIME}</td>
<td>202</td>
<td>XX:XX:XX</td>
<td>Select key changes time, function key chooses hh:mm:ss.</td>
</tr>
<tr>
<td>DATE FORMAT {DATE F}</td>
<td>203</td>
<td>1-mm-dd 2-mm/dd/yy 3-mm/dd/yyyy 4-dd-mm 5-dd/mm/yy 6-dd/mm/yyyy 7-ddmoy 8-ddmooyyyy.</td>
<td>Select date format</td>
</tr>
<tr>
<td>DATE {DATE}</td>
<td>204</td>
<td>Enter XXXXXXX</td>
<td>Select key changes date - function key chooses mm/dd/yy .</td>
</tr>
<tr>
<td>TARE AUTO PRINT {TAREAP}</td>
<td>211</td>
<td>ON/OFF</td>
<td>If ON -tare auto-prints displayed weight.</td>
</tr>
<tr>
<td>ONE LINE PRINT {I L PRT}</td>
<td>212</td>
<td>ON/OFF</td>
<td>If ON -indicator data prints on one line.</td>
</tr>
<tr>
<td>AUTO PRINT {APRINT}</td>
<td>214</td>
<td>ON/OFF</td>
<td>If ON -pressing keys auto-prints weight values.</td>
</tr>
<tr>
<td>PRINT FORMAT {PRTFAT}</td>
<td>216</td>
<td>AUTO WTONLY DOWNLD DT+TM ID+TM IDWT TM ANIMAL 3200-A 3200-B 32-TMR DATCH1 FDINFO WTRCTM EIDINF EID EIDVID</td>
<td>Select alternate &amp; comma (CSV) formats.</td>
</tr>
</tbody>
</table>
### Menus and Calibration

#### MENU 3. SCALE CALIBRATION SETTINGS

<table>
<thead>
<tr>
<th>Setting</th>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale Calibration Dead Weight</td>
<td>CAL</td>
<td>Calibration method using weights</td>
</tr>
<tr>
<td>Scale Calibration Number</td>
<td>NUM</td>
<td>Weight displayed at 0.4mV/V for these load cells</td>
</tr>
<tr>
<td>Remote Display</td>
<td>viewing</td>
<td>Select type of remote display</td>
</tr>
<tr>
<td>Analog Low Weight</td>
<td>LOW WT</td>
<td>Enter analog weight value to equal 4mA or 0 volts</td>
</tr>
<tr>
<td>Analog High Weight</td>
<td>HIGH WT</td>
<td>Enter analog weight value to equal 20mA or 5 volts</td>
</tr>
<tr>
<td>Analog Select</td>
<td>AOUT</td>
<td>Select 0-5V, 4-20ma or 0-20ma output</td>
</tr>
<tr>
<td>Display Unit</td>
<td>COUNT</td>
<td>Select display count size of weigh values.</td>
</tr>
<tr>
<td>Auto Range</td>
<td>ARRANGE</td>
<td>Scale increases display count size for weights over 300 again at 600 lbs/kg.</td>
</tr>
<tr>
<td>Display Unit</td>
<td>LB-KG</td>
<td>Display pounds -lb or kilograms -kg</td>
</tr>
<tr>
<td>Capacity</td>
<td>CRP</td>
<td>Enter MAXIMUM weight measurable on scale.</td>
</tr>
</tbody>
</table>

#### MENU 4. PRESET, BATCHING & ROTATION COUNTER FEATURES

Does not apply to 2400 indicator

<table>
<thead>
<tr>
<th>Setting</th>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dead Weight Cal</td>
<td>CAL</td>
<td>Calibration method using weights</td>
</tr>
<tr>
<td>Setup Number</td>
<td>SETUP</td>
<td>Quick entry method selects weigh method 1-4lbs, 5-8 kg, gain 1-9, display counts 1-9 and capacity *1000</td>
</tr>
<tr>
<td>Calibration Number</td>
<td>NUM</td>
<td>Weight displayed at 0.4mV/V for these load cells</td>
</tr>
<tr>
<td>SETTING [display]</td>
<td>D.A.N NO.</td>
<td>OPTIONS [displayed]</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------</td>
<td>---------------------</td>
</tr>
<tr>
<td>(CRL)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Change Set up and Calibration Numbers

1. Repeatedly press \( \Delta \text{ SELECT} \) until SETUP is displayed.
2. Press \( \text{FUNCTION} \).
3. Six digit setup number displayed. Change number, press \( \text{SELECT} \) moves flashing position left. Press \( \Delta \text{ SELECT} \) changes number.
4. Press \( \text{ON} \) stores setup number. Indicator displays \( \text{CAL} \), change number by pressing \( \Delta \text{ SELECT} \) and \( \text{FUNCTION} \).
5. Press \( \text{ON} \) to exit.
## INSTALLATION

### Indicator Mounting

**RAIL MOUNT**

**WING MOUNT**

**WEDGE MOUNT**

<table>
<thead>
<tr>
<th>KEY</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>404353</td>
<td>BRACKET-EZ3 PLASTIC RAIL *</td>
</tr>
<tr>
<td>B</td>
<td>403780</td>
<td>SCR-#10 X 5/8 FHSTS BLACK ZP</td>
</tr>
<tr>
<td>C</td>
<td>840459</td>
<td>SUPPORT-HAT BRACKET</td>
</tr>
<tr>
<td>D</td>
<td>405069</td>
<td>U-BOLT 1/4-20 X 3.25 ZP</td>
</tr>
<tr>
<td>E</td>
<td>405084</td>
<td>NUT-1/4-20 TOP LOCKING FLANGE</td>
</tr>
<tr>
<td>F</td>
<td>403770</td>
<td>BRACKET- WING MOUNT *</td>
</tr>
<tr>
<td>G</td>
<td>405124</td>
<td>PACK-WEDGE MOUNT BRACKET WITH U- BOLTS &amp; FLANGE NUTS</td>
</tr>
<tr>
<td>H</td>
<td>405244</td>
<td>EZ3 WEDGE MOUNT</td>
</tr>
</tbody>
</table>

### RAM MOUNT

<table>
<thead>
<tr>
<th>KEY</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>404799</td>
<td>RAM MOUNT FOR EZ III INDICATOR WITH HARDWARE</td>
</tr>
<tr>
<td>J</td>
<td>404230</td>
<td>RAM SUCTION CUP W/TWIST LOCK</td>
</tr>
</tbody>
</table>
Cable Connection

Scale Indicator

Power Cord

Remote Indicator (Optional)

Pin To 12VDC Power Supply
1 Red +Terminal
2 Black -Terminal
3 Orange Alarm Out
4 Blue Remote Input

See J-Box Connections

Indicator Connection Diagram

Bottom Panel Cable Connections

Digital Input/Output Connection (Optional)

Remote Indicator Connection (Optional)

Power Cord Connection
Connect Load Cells to J-Box

Load Cell Direction

Observe direction of arrow when installing load cell.
OPTIONAL EQUIPMENT

Cab Control (Wireless)
The EZ2400V Cab Control is a wireless remote and scale indicator display that is mounted in the Loader and communicates with the EZ2400V Scale Indicator. The Cab Control displays everything that the Scale Indicator displays and the Loader can easily TARE a weight and cycle between displaying NET and GROSS weights. Use of a Cab Control increases efficiency and accuracy of the loading operation.

Features
- Wireless remote with full key control of indicator on mixer
- Mount remote in easy view of loading
- Improves loading accuracy

Functions
- One Cab Control will communicate with multiple scale indicators. The Loader Operator can easily switch between multiple mixers.

Specification
- Models with internal 2.4 GHz or 900MHz radios available
- Up to 1000 foot range
- 24 channels
- 12 or 24 volt DC system

Data Transfer Options
- Kit Data Down Loader

Allows transfer of data from indicator to PC. (Optional communication port must already be installed in indicator)
Transmitter/Receiver

Transmitter (shown) with factory installed receiver in indicator. Use to zero indicator from a remote location. Operating range about 90 feet.

Remote Indicators

RD440 small remote display
RD2500V backlit remote display with 1.7” high numbers
RD4000 remote display 4” high numbers
TROUBLESHOOTING

FLOW CHART

START

Does the indicator come on?

YES

Is the reading on the Indicator stable?

YES

Put your weight on each load cell. Does the indicator respond to your weight?

YES

Check all J-Box and Load Cell cables for cuts or pinched/flat spots.

YES

Are the readings all positive? If not Load Cell is upside down.

YES

Your Indicator is probably defective. Try another Indicator to verify. Note: Be aware of electrical interference that might affect Indicator, such as mobile phones, CB radios, radio towers, electrical motors, etc. Make sure Load Cell cables are not attached to hydraulic lines or reservoir.

NO

Does your display is unstable, or flashes "±RANGE" disconnect the j-box cord from Indicator. Is display still unstable?

NO

If your display is unstable, or flashes "±RANGE" disconnect the j-box cord from Indicator. Is display still unstable?

YES

Poor Connection: Take them apart and clean connections. (Rust or paint should be wire brushed.) Then reconnect and tighten securely.

Bad Battery: Replace battery (weak battery may test good if tested with no load on battery)

Bad Power Cord: Make sure red wire is connected to (+) positive side and black wire is connected to (-) negative side. When using a multimeter to check for voltage measure between pin 1 (pos) and pin 2 (neg). Meter should read between 10.5 and 14.5 volts DC if using a tractor power cord, black wire is positive and white wire is negative.

Bad Indicator: Try another Indicator. (Even a different model or set-up should come on.)

NO

Does the scale weigh you approx. the same over all Load Cells? (Weight will not be accurate)

YES

Remove the cover from your J-Box

YES

Is there moisture inside the box?

YES

Dry out your J-Box (use a hairdryer). Check cable strain reliefs for tightness. Cables have drip loops. Is lid gasket damaged?

NO

Look for loose connections. Watch your Indicator display while moving the wires and pressing on the circuit board inside the J-Box. You will see if there is a loose connection or bad solder joint.

NO

Fix or replace the J-Box

Did the J-Box have a bad connection or loose wire?

See next Page
1. Disconnect all the Load Cell wires from the terminal blocks inside the J-Box (leave the Indicator on while connecting and disconnecting the wires, it will not damage Load Cells or Indicator if wires are shorted during this step). Is reading on Indicator stable?

2. Zero balance the Indicator. (Press "NET/GROSS" then "ZERO"). Indicator should display "0".

   YES

   Note: Hook up the Load Cells to the J-Box one at a time (only one Load Cell connected at a time). This will get a reading for each Load Cell. While performing this test, watch for any other symptoms such as erratic/unstable display. Indicator flashing "±RANGE", negative reading, etc. If the Indicator reading should ever appear abnormal with any Load Cell connected then it is probably bad.

   NO

   Replace J-Box (be aware of electrical interference that might affect your scale such as: mobile phones, CB radios, radio towers, electric motors, etc.).

3. Connect one Load Cell back into one of the terminals in the J-Box. (The reading you get for each Load Cell is dependent on the size and type of each Load Cell and how much weight is over each Load Cell. In general, the number should be positive and stable.)

   NO

   Note: If the scale responded to your weight, that’s verification on the J-Box is OK. If the scale did not respond, either that Load Cell is bad or the J-Box is bad. Try the other Load Cells. If the Indicator still shows no response, the J-Box is bad. (Replace J-Box)

   YES

4. Record the Indicator reading with the Load Cell connected.

5. Stand or hang your weight over the connected Load Cell. Record how much the weight increased with your weight over the Load Cell. (A scale with only one Load Cell will weigh heavy.)

6. Disconnect the first Load Cell and reconnect a second one. Record the Indicator reading. Stand or hang your weight over the connected Load Cell. Record how much the weight increased.

7. Repeat step 6 for the remaining Load Cells. Remember to record your readings.

8. Bad Load Cells will have a reading that is either unstable, makes the indicator flash "±RANGE" or is more than three times greater or less than the average of the others. Also the readings of your weight over each Load Cell should be similar. (Probably 4 times your actual weight). Any differences could be an indication of a bad Load Cell or a structural problem.

Do not expect the Load Cells to give the same reading. It is common for Load Cells to have readings that vary by hundreds, even thousands. Especially when one is carrying more weight.
LEGAL-FOR-TRADE CERTIFICATION

Certain models of Digi-Star EZ400/2400/4600 Scale Indicators are available configured for Legal for Trade applications. These models are identified on the scale indicator model & serial number plate.

**United States**

In the USA, the Legal-for-Trade certification is regulated by the National Type Evaluation Program (NTEP). The NTEP certificate number is 08-40.

**Canada**

Measurement Canada is the Canadian agency that regulates Legal-for-Trade scales. The approval number from Measurement Canada is AM-5678C.

**Sealing to Prevent Unauthorized Modifications**

Legal for Trade Scale Indicators are sealed by a Category 1 Audit Trail. The audit trail system is always active and cannot be altered. Audit trails are stored in flash memory and do not require batteries to maintain the audit trail values.

Changing any of the following menu settings will change the Calibration Event Count Value or Parameter Audit Event Count Value:

- Setup
- Calibration
- Capacity
- Display Count
- Display Units
- Weigh Method
- Motion
- WMA1-1 through WMA2-3
- LFT Option Setting

Changes to the Calibration Event Count Value or Parameter Audit Event Count Value will void the Legal-for-Trade certification unless changes to the parameters are performed by properly trained personnel who can recertify the Scale Indicator as Legal for Trade.

**Legal for Trade Functions**

Digi-Star Legal-for-Trade indicators are modified to comply with US and Canadian regulatory agencies. These modifications either change or disable a number of functions in a standard scale indicator. Noticeable changes include:

**Warm Up Cycle**

The Scale Indicators will display "WAIT 30" seconds and count down to 0 when the Indicator is turned on.
Load Cell Disconnect Sensor
The Scale Indicator will display +RANGE or –RANGE and will not display a load when the load cells are disconnected.

Disabled Hold Function
The HOLD function is disabled on EZ4600 series scale indicators. A HOLD function is not available on the EZ400.

Printing
Printing weight values is not allowed while “Motion” is detected, during self-calibration, or if any error conditions such as +RANGE, OVRCAP, or OVRFLW are active.

Lock-On Weigh Method
The “Lock-On” weigh method, for animal weighing, cannot be enabled.

Tare
If a negative weight is shown the Tare function will work.

Special Labeling
The Capacity and Division information should be shown on the front of the Scale Indicator using the decals provided by Digi-Star or by the local Weights & Measures Official. The Capacity and Division information is filled out by the local Weights & Measures Official when the scale system is certified.

Additional information for Legal-For-Trade Setup and Settings
For more complete information and instructions on Digi-Star ‘Legal for Trade’ Scale Indicators see Digi-Star publication; D4203 – EZ3 Legal For Trade Supplement This supplement document is available at the following website: http://digi-star.com/support/1-19/Setup_and_Calibration

On Legal-For-Trade Units Only
Perform the following procedure on an empty and clean machine before the unit is to be “site-certified”.

- Install the LFT indicator on the machine and connect all load cells.
- Zero/balance the scale with no load on the machine.
- Hold and press .
- Press and to return to normal weighing.