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## 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

**TRANSUDER 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

**TRANSUDER 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 VIEW6 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**
  (.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**
Sense Auger / Conveyor Start

**RELAY OUTPUT**
10A, Internal Fuse
SAFETY DURING USE

⚠️ Caution

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

⚠️ Caution

Moving Seed Tender
An accidental button press may activate the auger. The scale should be turned off or in "HOLD" mode and the manufacturer's controls turned off or disengaged when moving, transporting or maintaining the seed tender.

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**

1. **Zero** – press and hold for 3 seconds to zero balance.

2. **Pre-Alarm Light** – starts flashing and alarm sounds when weight is within preset limit. See page 20.

3. **HOLD** – holds displayed weight when moving machine.

4. **START/STOP** – see page 16.

5. **ON** – turns indicator on. Pressing while on will run self test.

6. **OFF** – turns indicator off.

7. **Display Window** – displays current actions.

8. **TARE** – temporary zero (Net mode).

9. **PRINT** – records to memory or prints displayed weight.

10. **NET/GROSS** – toggles between Net and Gross weights.

*Note: See page 30-34 for installation instructions.*
11 **BIN** – selects bins in memory, program bins.

12 **FIELD** – enter field name to print.

13 **ENTER** – accepts change or proceeds to next item.

14 **Keypad** – input numbers or letters as required.

15 **ID** – used to enter label numbers for weight value to be displayed and printed.

16 **CLEAR** – clear current command.

17 **SPACE** – add space in command.

18 **FUNCTION** – performs tasks displayed by select.

19 **SELECT** – displays additional tasks.

20 **HELP** – view for additional information.

**Standard Connector**

21 **Serial/Printer Port** – communicate with computer and other digital input/output devices.

22 **Load Cell Port** – for J-Box cord (Standard Connector) or individual load cells (EZ Mate and Crown Connectors).

23 **Power Port** – for control box with cord.

24 **Serial Number Plate** – Serial Number of indicator.
EZ Mate Connector, Optional

Crown Connector, Optional

Basic Definitions
Preset: Enter seed amount to send to planter.

Direct Access Numbers (D.A.N.): Three-digit number used to access Menus.

Menu: View menus 1,2,3,4 and calibrate. See page 24.

Setup: Change setup and calibration numbers. See page 29.

M+: Adding weight to weight memory.

RM: Recall weight memory.

CM: Clear weight memory.

MS: Memory Store, overwrites memory.

Dimmer: High/Low backlight control. Toggle between high/low using .

Help: Explains operation of select and function key.

Total: Displays total of BIN weights when BINNUM is active.
GENERAL 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. Indicator ready to weigh when flashing arrow points to GROSS.

Tare and Net/Gross

Tare is a temporary zero (Net Weight) to display total weight (Gross Weight) Press \( \text{NET/GROSS} \).

1. Starting weight displayed.
   Example: 4000
2. Press \( \text{TARE} \) to set weight to zero. Flasing arrow points to NET.

3. Add more weight. Example: 300

4. Press \( \text{GROSS} \) to show GROSS weight of starting weight of 4000 pounds plus added 300 pounds. Flasing arrow points GROSS.

5. Press \( \text{NET/NET} \) . 300 pounds displayed flashing arrow points NET.
**Automatic Scale Mode**

**ST3400 Indicator Controls Shutoff**

1. Verify control box switch is set to AUTO.

   NOTE: Control box type may vary, standard control shown.

2. Press **BIN** until active seed tender bulk bin is selected.

   NOTE: Bin function is disabled when **BINNUM** is set to OFF. See page 20 to enable BIN function.

3. Determine seed weight to fill each planter hopper.

4. Use keypad to enter PRESET weight.

5. Press **ENTER** to store. Display will show **PRESET STORED**.

6. Move seed tender chute to planter hopper.

7. Dispense seed to planter using method(s) from page 16.

8. Auger will turn off when reaching PRESET weight.

9. Repeat steps 6-8 until planter is filled.
General Operation

Manual Mode
Operator controls seed dispensing; Indicator monitors weight

1. Verify control box switch is set to MANUAL.
2. Follow manufacturer’s instructions to operate seed tender.
3. Operator controls seed dispensing and shutoff.

NOTE: Control box type may vary, standard control shown.

Print Key

1. Press to send data to printer or PC.

NOTE: Print format PRTST3 shown.
DETAILED OPERATION

Using BIN Function

NOTE: BIN function is disabled when BINNUM is set to OFF. See page 20 to enable BIN function.

Selecting Seed Tender Bin

1. Press $\text{BIN}$ once to display active seed tender bin. The display will show $\text{BIN X}$ for the active bin.

2. Press $\text{BIN}$ until desired bin is displayed. The display will alternate from $\text{BIN X}$ to bin weight.

3. When a BIN is selected, only the selected BIN and TOTAL weight values change. The other BIN values do not change until selected.
Detailed Operation

Viewing TOTAL weight

1. Repeatedly press \( \text{SELECT} \) until TOTAL is displayed.
2. Press \( \text{FUNCTION} \); total of BIN weights display for two seconds.

Setting Seed Tender BIN Weights

Assign known seed weight to BIN memory.

1. Press \( \text{BIN} \) until desired seed tender bin is displayed.
2. Enter BIN weight with keypad.

NOTE: BIN weight can be stored when BINNUM set to OFF. No confirmation message is displayed.

3. Press \( \text{BIN} \) to store. \( \text{BIN X} \) and \( \text{STORED} \) will be displayed.

Example: 1300 pounds is loaded into BIN 2. Press \( \text{BIN} \) until BIN 2 displays. Type in the weight, 1-3-0-0. Press \( \text{BIN} \) to store.
Clearing BIN Weights
Cleans BIN memory before loading seed tender.

1. Press \textbf{BIN} until desired bin is displayed.

2. Press and hold \textbf{ZERO} to clear BIN weight.

3. Load seed into seed tender bin. Displayed weight is BIN seed weight.
Using the M+, RM and CM Options

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.
4. Put another weight on scale. Example: 1000 pounds

5. Repeatedly press \( \Delta \) until \( M^+ \) is displayed.

6. Press \( \text{FUNCTION} \). Indicator adds 1000 pounds to 500 pounds in memory and \( RM \) flashes.

7. Repeatedly press \( \Delta \) until \( RM \) is displayed.

8. Press \( \text{FUNCTION} \).

9. Total of both weights, 1500 pounds, displays, indicator switches to gross weight mode.

(See page 15 to print weight in memory.)
To Clear Memory

1. Repeatedly press $\Delta$ select until $CM$ displayed.
2. Press $\text{Function}$.

Printing Weight from Memory

1. Repeatedly press $\Delta$ select until $RM$ displayed.
2. Press $\text{Function}$ to show weight in memory. Example: 1500 pounds
3. Press $\text{Print}$ while weight displayed.
AUTOMATIC MODE SEED DISPENSING METHODS

Seed Dispensing Options
The following methods may be used to dispense seed while in AUTO mode. Please note that not all methods may be available on your seed tender model. In all methods, display will alternate between “PRESET” and remaining weight. Auger will turn off automatically when reaching PRESET weight.

Option 1

1. Press START on indicator.

NOTE: Not applicable to variable throttle shutoff models. Use Option 2 or 3 to start seed dispensing.

Option 2
Refer to Seed Tender Manual for details.

Press auger button or throttle switch on seed tender.

NOTE: The wired button on standard seed tenders may need to be held down while dispensing seed or PRESET function may restart during operation.

Option 3
Refer to Seed Tender Manual for details.

Press auger speed increase or throttle up button on radio control for seed tender.

NOTE: This may be a toggle switch, momentary button, 2 buttons for auger ON/OFF, or Fast/Slow controls.
NOTE: The manufacturer’s button may need to be pressed 2 times to fill the next planter hopper on standard seed tenders

1. Press to disengage or reset OEM controls.
2. Press to dispense seed again. Some radio models may require the ‘Auger OFF’ to be pressed first before pressing ‘Auger ON’ to reset the system at each hopper fill.

Option 4

1. Press optional Digi-Star Transmitter button.

NOTE: Not applicable to variable throttle shutoff models. Use Option 2 or 3 to start seed dispensing.

Tips and practices for best accuracy

In order to achieve the greatest accuracy in seed dispensing weight, fill the planter hopper(s) in the most consistent manner as possible.

- Dispense seed on level ground.
- Avoid areas of high wind.
- Fill all planter hoppers in the same manner. The auger and seed chute will hold more seed when fully extended than when vertical, and may change the weight of the seed dispensed.
- When filling with a fully extended seed chute, the auger tolerance (DAN 442) may need increasing compared to filling the same planter with a short chute.
- The seed chute should rest on or against the planter hopper the same way for every fill.
- Do not let the seed chute hang free or rest on the seed as it is filling.
- For fast moving augers or conveyors, a restrictor plate may be required from your seed tender manufacturer to better control the seed dispensing rate.
- When using seed boxes, adjust the slide door to slow down the seed dispensing rate if needed.
- Adjust the tolerance for the seed type and weight being used.
ADVANCED COMMANDS

Preset

The Preset feature is used to fill planter hoppers to the programmed weight.

1. Enter desired preset weight.
2. Press ENTER. Indicator rounds weight to nearest display count; displays PRESET STORED.

Clear Preset

1. Press CLEAR to clear preset value.

Preload A Tare Value

Weighing containers after already loaded. If weight of container is known, a tare weight is preloaded in indicator and only net weight displayed.

Pre-Tare: enter 405, press SELECT, press SELECT to turn on.
1. Press and hold ZERO for 3 seconds to zero balance the indicator.
2. Add weight to container.
3. Enter known weight of unloaded container.
4. Press TARE.
5. Press NET/GROSS.
SYSTEM SETUP

Auger Tolerance will be setup and changed as needed based on seed type or weight.

Number of Bins, BINNUM 132
Enter number of Seed Tender bulk bins. Refer to page 20 for details, D.A.N. 132.

Tolerance, TOLER 442
Enter Seed Tender auger tolerance weight. Refer to page 21 for details, D.A.N. 442.

Calculating Auger Tolerance
Auger tolerance is the weight offset of seed remaining in the seed tender auger or conveyor while filling the planter. This value is set to adjust for the delay of the auger to stop movement of seed sliding out of the seed chute. This value may need to change based on seed chute size, extended seed chute length, seed type, and seed weight. Set the “TOLER” value for the expected use of the seed tender.

1. Load at least 200 pounds of seed into the tender.
2. Park seed tender on level ground.
3. Collect three empty containers of same size and weight to hold 60 pounds of seed each.
4. Have other scale nearby that can measure one full container.
5. Either weigh empty container and zero scale or record container weight.
6. Enter PRESET of 30 pounds on indicator. 3-0-ENTER
7. Extend seed chute to normal distance and height of planter to fill.
8. Dispense seed in AUTO mode into one empty container. Refer to page 8, Automatic Scale Mode.
9. Weigh filled container.
10. Subtract PRESET weight from total weight:
    a. Subtract container empty weight if needed

    Method:                  Example:
    Total filled container   52  pounds (container with seed)
     - 30lb PRESET           -30  pounds (PRESET number)
     - Container             - 5  pounds (container, step 10.a)
    = TOLER Weight           = 17  pounds (TOLER 442)

12. Repeat steps 7-10 two more times to verify accuracy.
13. For tender dispensing too much seed, increase tolerance weight by the amount of overfill. For tender dispensing too little seed, decrease tolerance weight.
COMMONLY USED DIRECT ACCESS NUMBERS (D.A.N.)

Pre-Alarm (P-ALM)
Select weight or percentage method, enter value to activate early warning indicator reaching preset.

1. Enter 401 press SELECT.
2. Press SELECT again to choose between WEIGHT and PERCENT.
3. Press ON.
4. Enter Pre-Alarm value. Press ON.

Number of Bins (BINNUM)
Program number of seed tender bulk bins. Set to OFF when not tracking individual bin weights.

1. Enter 132 press SELECT.
2. Press SELECT again until number of seed tender bins is displayed.
3. Press ON to save.
Tolerance (TOLER)
Sets weight offset for seed remaining in auger.

1. Enter 442 and press \(\Delta\) SELECT.
2. Set T Method to "Weight".
3. Press \(\text{ON}\) to save.
4. Set TOLER to desired weight with keypad.
5. Press \(\text{ON}\) stores setting.

Save Battery (AUTOFF)
Indicator turns off at set time.

1. Enter \(\text{III}\) and press \(\Delta\) SELECT. AUTOFF briefly displays.
2. Repeatedly press \(\Delta\) SELECT. Set time.
3. Press \(\text{ON}\) to save.
OTHER FUNCTIONS

Hold

Hold mode prevents displayed weight from changing while moving.

1. Press \( \text{II} \) to enter Hold Mode.
2. Press \( \text{II} \) to return to Normal Mode.
3. If weight added in hold mode, press \( \text{I ON} \) to cancel hold.

Using Dimmer Option

1. Repeatedly press \( \text{\^} \) until \text{DIMMER} \) is displayed.
2. Press \( \text{FUNCTION} \) to dim backlight.

Field

1. Press \( \text{FIELD} \) and enter the field name.
2. Press \( \text{I ON} \) to save.
Function and Select Keys

1. Repeatedly press $\text{SELECT}$ to get following options:

- **Preset**: Enter seed amount to send to planter
- **Menu**: View menus 1, 2, 3, 4 and calibrate. See page 25.
- **Setup**: Change setup and calibration numbers. See page 29.
- **M+**: Adding weight to weight memory.
- **RM**: Recall weight memory.
- **CM**: Clear weight memory.
- **MS**: Memory Store, overwrites memory.
- **Dimmer**: High/Low backlight control. Toggle between high/low using $\text{FUNCTION}$.
- **Help**: Explains operation of select and function keys.
- **Total**: Displays total of BIN weights when BINNUM is active.

2. Desired option displayed, press $\text{FUNCTION}$ to activate.
**Access To Menus**

1. Press and hold [NET/GROSS] and [ON].
2. Press [SELECT] to choose required menu.
3. Press [ON] to enter selected menu.
5. Press [SELECT] to change options.
6. Press [ON] to save changes.
**MENUS AND CALIBRATION**

Enter Direct Access Number (D.A.N.), press \[select\] to display setting name and allows value change.

Press \[on\] to save setting.

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<tr>
<th>SETTING [display]</th>
<th>D.A.N NO.</th>
<th>OPTIONS [displayed]</th>
<th>DESCRIPTION</th>
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</thead>
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<td><strong>LANGUAGE (LANGAG)</strong></td>
<td>101</td>
<td><strong>ENGLISH</strong> (NEDERL) (FRANCS) (DEUTSH) (ITAL) (PORT) (ESPAN) (DANSK) (MAGYAR) (VESTA)</td>
<td>Select language to be displayed.</td>
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<td><strong>DISPLAY RATE (D RATE)</strong></td>
<td>102</td>
<td>1,2,3,4</td>
<td>Update display times per second.</td>
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<td><strong>WEIGH METHOD (W MTHD)</strong></td>
<td>105</td>
<td>1=General, 2=Fast, 3=Slow, 4=Lock-On, not recommended</td>
<td>Select weigh method.</td>
</tr>
<tr>
<td><strong>FIELD ID SETUP (FIELD)</strong></td>
<td>108</td>
<td>NEW EZ</td>
<td>Identity of field or seed type.</td>
</tr>
<tr>
<td><strong>SAVE BATTERY (SAVBAT)</strong></td>
<td>111</td>
<td>OFF, 15, 30, 45, 60</td>
<td>Indicator turns off after set time.</td>
</tr>
<tr>
<td><strong>1 PRESS ZERO (I ZERO)</strong></td>
<td>115</td>
<td>ON/OFF</td>
<td>If ON -press and hold the Zero key to Zero/Balance scale.</td>
</tr>
<tr>
<td><strong>BINNUM</strong></td>
<td>132</td>
<td>OFF, 2-10</td>
<td>Program number of seed tender bulk bins.</td>
</tr>
</tbody>
</table>

**MENU 2. CLOCK, PRINTER, COMMUNICATION FEATURES**

<p>| TIME FORMAT (TIME F) | 201 | 24 HR AM/PM | Select time format - AM/PM or 24 hour. |
| 1 TIME (TIME) | 202 | XX:XX:XX | Select key changes time, function key chooses hh:mm:ss. |</p>
<table>
<thead>
<tr>
<th>SETTING [display]</th>
<th>D.A.N NO.</th>
<th>OPTIONS [displayed]</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>
| DATE FORMAT (DATE) | 203       | 1-mm-dd  
2-mm/dd/yy  
3-mm/dd/yyyy  
4-dd-mm  
5-dd/mm/yyyy  
6-dd/mm/yyyy  
7-ddmoyy  
8-ddmoyyyy. | Select date format. |
| DATE (DATE) | 204       | Enter XXXXXX | Select key changes date -function key chooses mm/dd/yy. |
| ONE LINE PRINT (IL PRT) | 212 | ON/OFF | If ON -indicator data will be printed on one line. |
| PRINT FORMAT (PRTFMT) | 216 | PRTST1 (1 line print)  
PRTST3 (3 line print) | Select print format. Refer to EZIII Technical Manual for more options. |
| ZERO OUTPUT (ZEROOUT) | 219       | Perform the Zero/Balance for the SCOREM #11 weight output and the analog output (4-20mA). |
| ANALOG LOW WEIGHT (LOW WT) | 241 | Enter analog weight value to equal 4mA or 0 volts. |
| ANALOG HIGH WEIGHT (HIGH WT) | 242 | Enter analog weight value to equal 20mA or 5 volts. |
| ANALOG SELECT (ANAOOUT) | 243 | Select 0-5V,4-20mA or 0-20mA output. |

**MENU 3. SCALE CALIBRATION SETTINGS**

<p>| DISPLAY COUNT (COUNT) | 301 | .01,.02,.05,.1,.2,.5,1,2,5,10,20,50,100 | Select display count size of weigh values. |
| DISPLAY UNIT (LB-KG) | 303 | LB/KG | Display pounds -lb or kilograms -kg |
| CAPACITY (CAP) | 304 | 40000 | Enter MAXIMUM weight measurable on scale. |</p>
<table>
<thead>
<tr>
<th>SETTING</th>
<th>D.A.N NO.</th>
<th>OPTIONS [displayed]</th>
<th>BOLD=DEFAULT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
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<tr>
<td><strong>MENU 4. PRESET, BATCHING &amp; COUNTER FEATURES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRE ALARM (P Meth &amp; P-ALM)</td>
<td>401</td>
<td>WEIGHT PERCNT</td>
<td></td>
<td>Select weight or percentage method, then enter a value to activate an early warning that indicator is reaching the preset.</td>
</tr>
<tr>
<td>REMOTE INPUT (RM INP)</td>
<td>402</td>
<td>MIXCTR INGRED PRET SEEDTD</td>
<td></td>
<td>Set function of remote input line on the power cord; do not change.</td>
</tr>
<tr>
<td>ALARM OUTPUT (AL OUT)</td>
<td>403</td>
<td>PRESET TR Switch</td>
<td></td>
<td>Select preset to control auger; do not change.</td>
</tr>
<tr>
<td>BUZZER (BUZZER)</td>
<td>404</td>
<td>1-4, ON/OFF</td>
<td></td>
<td>ALARM BUZZER - allows user to turn off alarm horn.</td>
</tr>
<tr>
<td>PRELOAD TARE (PRETAR)</td>
<td>405</td>
<td>ON/OFF</td>
<td></td>
<td>If ON -tare weights can be entered using the numeric keypad.</td>
</tr>
<tr>
<td>RELAY</td>
<td>406</td>
<td>SEEDTD OFF STPNT PRESET PRNOPA PREACT</td>
<td></td>
<td>Enables seed tender relay; do not change. SEEDTD is default for standard seed tenders PRNOPA is default for variable throttle seed tenders</td>
</tr>
<tr>
<td>GROSS SET PNT OUTPUT (SETOUT)</td>
<td>426</td>
<td>SIG0V SIG12V</td>
<td></td>
<td>Polarity of output signal; Do not change</td>
</tr>
<tr>
<td>T MTHD (TOLER)</td>
<td>442</td>
<td>WEIGHT PERCENT</td>
<td></td>
<td>Auger offset method; do not change.</td>
</tr>
<tr>
<td>TOLERANCE (TOLER)</td>
<td>442</td>
<td>MANUAL ENTRY</td>
<td></td>
<td>Set tolerance weight of seed remaining in auger.</td>
</tr>
<tr>
<td>PAST</td>
<td>475</td>
<td>MANUAL ENTRY</td>
<td></td>
<td>Time for output relay to turn off: 0.00-99.9</td>
</tr>
<tr>
<td>STTHRO</td>
<td>478</td>
<td>ON/OFF</td>
<td></td>
<td>ON-enables variable throttle mode OFF- keep in standard mode</td>
</tr>
<tr>
<td>SETTING [display]</td>
<td>D.A.N NO.</td>
<td>OPTIONS [displayed] BOLD=DEFAULT CALIBRATION</td>
<td>DESCRIPTION</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>----------</td>
<td>---------------------------------------------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>DEAD WEIGHT CAL {CAL}</td>
<td>802</td>
<td></td>
<td>Calibration method using weights.</td>
<td></td>
</tr>
<tr>
<td>SETUP NUMBER {SETUP}</td>
<td>871</td>
<td></td>
<td>Quick entry method selects weigh method 1-4lbs, 5-8 kg, gain 1-9, display counts 1-9 and capacity *1000.</td>
<td></td>
</tr>
<tr>
<td>CALIBRATION NUMBER {CAL}</td>
<td>872</td>
<td></td>
<td>Weight displayed at 0.4mV/V for these load cells.</td>
<td></td>
</tr>
</tbody>
</table>
Change Setup And Calibration Numbers

1. Enter 871 press \( \text{SELECT} \)
2. \( \text{SETUP} \) briefly displays, then a 6 digit number. Enter new number.
3. Press \( \text{ON} \)

Follow same procedure to change calibration number, except use 872.
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>
</tbody>
</table>
**MAGNETIC SWIVEL MOUNT**

<table>
<thead>
<tr>
<th>KEY</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>408880</td>
<td>MOUNT FOR EZ 3 INDICATOR WITH HARDWARE AND MAGNET</td>
</tr>
<tr>
<td>L</td>
<td>408828</td>
<td>MOUNT FOR EZ 3 INDICATOR WITH HARDWARE WITHOUT MAGNET</td>
</tr>
</tbody>
</table>
Caution

A control box is typically required for proper connection from the ST3400 to the seed tender. Improper wiring may damage the ST3400 or seed tender controls such as the radio.

Cable Connection

<table>
<thead>
<tr>
<th>Pin</th>
<th>To Auger Control Box</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Red +Terminal</td>
</tr>
<tr>
<td>2</td>
<td>Black -Terminal</td>
</tr>
<tr>
<td>3</td>
<td>Orange Relay Out (to solenoid)</td>
</tr>
<tr>
<td>4</td>
<td>Blue Control Input</td>
</tr>
</tbody>
</table>

Auger Control Wiring

For standard On/Off seed tenders, refer to D3967, 408000 control box installation.

For variable throttle seed tenders, refer to D3977, 408221, and 408853 control box installation.
Bottom Panel Cable Connections

Standard Connector

EZ Mate Connector, Optional

Crown Connector, Optional
Connect Load Cells to J-Box (Standard Indicator)

Connect load cell wires to terminal blocks

J-Box illustrated for 4 load cell installation

Wire Color Key

<table>
<thead>
<tr>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>White</td>
</tr>
<tr>
<td>2</td>
<td>Green</td>
</tr>
<tr>
<td>3</td>
<td>Red</td>
</tr>
<tr>
<td>4</td>
<td>Black</td>
</tr>
<tr>
<td>5</td>
<td>Shield</td>
</tr>
</tbody>
</table>

Tighten nuts

Load cell cable

Connect to indicator bottom panel

Load Cell Direction

BENDING DIRECTION

DIRECTION DE FLEXION

BIEGERICHTUNG

Observe direction of arrow when installing load cell.
OPTIONAL EQUIPMENT

Transmitter/Receiver

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

NOTE: Option on standard seed tenders only. Will not function on variable throttle models.

Data Transfer Options

Kit Data Down Loader

Allows transfer of data from indicator to PC.

Printer

12 Volt Printer

Connects to indicator serial port and 12VDC power.
**Troubleshooting**

**TROUBLESHOOTING**

**FLOW CHART**

```plaintext
START

YES

Does the indicator come on?

NO

Is the indicator on? [-]

NO

If your display is unstable, or flashes “-RANGE”, disconnect the J-Box cord from Indicator. Is display still unstable?

YES

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

NO

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.

NO

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

NO

Remove the cover from your J-Box

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

Your Indicator is probably not set-up and calibrated correctly. Check the decal on the bottom of Indicator. It shows what type of Load Cells the Indicator was calibrated to. By pressing the on key while the Indicator is already on, you will get the Indicator’s “Set-up” and “Cal” numbers. See if they compare to the set-up and calibration numbers on the Indicator. Contact dealer for further information.

Fix or replace the J-Box

NO

See next page
```

**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.)
Troubleshooting

FLOW CHART

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?

   YES

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

   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.)

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.)

   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)

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.

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.

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QUICK REFERENCE

MANUAL – Manual Mode
1. Verify control box switch is set to MANUAL.
2. Follow manufacturer’s instructions to operate seed tender.

AUTO – Automatic Scale Mode
1. Set control box switch to AUTO.
2. Press (BIN) to select seed tender bin. Remains in TOTAL when BIN function disabled.
3. Use keypad to enter PRESET weight, press (ENTER) to store. Display will show “PRESET STORED”.
4. Move seed chute to planter hopper.
5. Dispense seed to planter; hold down seed chute button if needed.
6. Auger will turn off automatically when reaching PRESET weight.
7. Repeat steps 4-6 to finish filling planter.

Auger Tolerance
Enter D.A.N. 442 to adjust auger tolerance; TOLER = entered weight value; T MTHD stays at “WEIGHT”. If seed tender is dispensing too much seed, increase TOLER weight by the amount of overfill. If tender is dispensing too little seed, decrease TOLER weight.

Setting and Clearing BIN Weights
1. Press (BIN) until desired seed tender bin is displayed.
2. Enter BIN weight with keypad.
3. Press (BIN) to store weight.
4. Press and hold (ZERO) to clear BIN weight.
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