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Important: Disconnect all indicator leads before charging battery or welding. Damage may occur to indicator and load cells.

Warning! Disconnect the indicator power cord before jump-starting or fast charging a battery.

Disconnect all indicator leads before welding on equipment. Damage may occur to the indicator and load cells.
INDICATOR OVERVIEW

1. ZERO/BALANCE operation when the scale is empty.
2. Start unloading and stop unloading, indicator displays amount unloaded, stores or prints data to serial port when complete.
3. Edit name and display weight accumulation value.
4. Turns the unit on and off.
5. Net – arrow flashes in net mode.
6. Print – arrow flashes when printing or saving to Data-Down-Loader.
8. Unload – arrow flashes in unload mode.
Bottom Panel

- **Power Cord Connection** – +12 VDC.
- **Load Cell Connection** – Connect the cable from the J-Box.
- **PRINTER OR DDL** – Attach the printer or Data-Down-Loader to the “SERIAL/J905 port on the bottom panel.

### Pin J905 Connector Signals

<table>
<thead>
<tr>
<th>Pin</th>
<th>J905 Connector Signals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20ma Current Loop (+)</td>
</tr>
<tr>
<td>2</td>
<td>Com #1 Out (Tx) - DDL &amp; Computer</td>
</tr>
<tr>
<td>3</td>
<td>Com #1 In (Rx) - DDL &amp; Computer</td>
</tr>
<tr>
<td>4</td>
<td>Com #1 Out (Tx) - Printer</td>
</tr>
<tr>
<td>5</td>
<td>+12 VDC</td>
</tr>
<tr>
<td>6</td>
<td>Gnd – Available for any Com device</td>
</tr>
<tr>
<td>7</td>
<td>Com #2 In (Rx)</td>
</tr>
<tr>
<td>8</td>
<td>20ma Current Loop (-) is GND</td>
</tr>
</tbody>
</table>
OPERATION

TURNING ON THE SCALE

1. Press \( \text{ON/OFF} \).
2. Scale enters the GROSS weighing mode indicated by flashing arrow.

ZERO BALANCING

Note: Zero balance indicator when empty at least once a day or more as required. If zero balance is not correct it only affects the gross weight reading, it does not affect accuracy of net weight displayed.

1. Press and hold \( \text{Zero} \) to zero balance.
LOADING AND UNLOADING

Note: For best accuracy park scale on level surface and allow weight reading to stabilize before Zero balancing the scale and before beginning to unload.

1. Load cart.
3. Unload weight from cart. Display shows amount unloaded.
4. Press \[\text{START}\] after unloading is complete. Data is automatically added to accumulator and saved to printer or DDL (See print format section, page 9), a flashing arrow will point to PRINT.

Note: Print and accumulator features are available with Serial Option only.

5. Indicator displays GROSS weight remaining on scale.
FIELD ID
6 character identification value stored in internal memory of indicator to identify field being unloaded, truck being loaded or other information.

1. Press \( \text{FIELD} \). \( \text{FIELD} \) is displayed and a flashing cursor or character is displayed in the first position.

2. Press \( \text{FIELD} \) to scroll available characters. Hold \( \text{FIELD} \) for 4 seconds to increase second scroll rate.

3. Press \( \text{VIEW} \) to scroll backwards through available characters. Press \( \text{START/STOP} \) to move to the next character.

4. Press \( \text{ON/OFF} \) to accept and save.

PRINT ACCUMULATION
(Serial Option Only)
Stores accumulated value in memory location called PRTACC.

1. After saving Field ID (see above), PRTACC is displayed momentarily followed by accumulated weight.

2. Pressing \( \text{VIEW} \) while value is displayed clears accumulator memory. Indicator displays “ACCUMULATOR MEMORY EMPTY”.

Press \( \text{ON/OFF} \) to return to GROSS mode.

Note: Each time “PRINT” command is executed weight value on display is added to PRTACC value.
PRINT FORMATS
Three print formats are available to output PRTACC value and FIELD ID to DDL or printer.

PRTAC1: FIELD ID, 4856, GR, 274575, PA, 05FE08, 1:44P

Includes following information:
- FIELD ID
- Weight
- Weight Tag (NE, GR, Load/Unload)
- Accumulated Weight
- Print Accumulator Tag
- Date and Time

PRTAC2: FIELD ID, 05FE08, 1:44P
4856, GR, 274575, PA

Includes above and adds “Unit of Measure”.

PRTAC3: FIELD ID, 5977, LB, ,GR, 309719,PA,05FE08, 4:42P

Includes above and adds “Unit of Measure”.

See “Setting Options” (page 11) to change print format (PRTFMT).
SAVING/PRINTING GROSS WEIGHTS
(Optional w/ Serial Option)

1. Press and hold START/STOP for three seconds to send displayed weight data out serial port and add displayed weight to accumulated weight.
   - Weight will be accumulated until cleared.
   - Weight is always stored as a positive value.

TURNING OFF THE SCALE

1. Press ON/OFF until “BYE” is displayed.
SETTING OPTIONS

The Indicator has optional settings that allow flexibility in the way that the scale is used and data is collected.

CHANGING OPTIONS USING LONG FORM SETUP

Enter Long Form Setup by holding \[\text{FIELD}\] and \[\text{ON/OFF}\] for three seconds.
Press \[\text{FIELD}\] to advance to desired menu 1,2,3,4,CALIB, or EXIT, press \[\text{ON/OFF}\] to select.
Press \[\text{ON/OFF}\] to advance to desired parameter.
Press \[\text{FIELD}\] to advance to proper setting.
Press \[\text{ON/OFF}\] to save setting and advance to next parameter.

Hold \[\text{START STOP}\] and press \[\text{ON/OFF}\] to return to indicator operation.

Default settings from the factory vary with options and due to customer preferences.

<table>
<thead>
<tr>
<th>Setting/Display</th>
<th>Options (Bold = Default)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language LANGAG</td>
<td>ENGLS, NEDERL, FRANCS, DEUTSH, ITAL, PORT, ESPAN, DANSK, MAGYAR, VESTA</td>
<td>Select from list English, Dutch, French, German, Italian, Portuguese, Spanish, Danish, Hungarian, Spanish</td>
</tr>
<tr>
<td>Display Rate D RATE</td>
<td>1, 2, 3, 4</td>
<td>Display updates 1,2,3 or 4 times per second.</td>
</tr>
<tr>
<td>FIELD ID FIELD</td>
<td>NEW EZ</td>
<td>Identity of FIELD location, Truck ID or Grain Cart ID.</td>
</tr>
<tr>
<td>Menu Item</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Time Format</td>
<td>Select time format AM/PM, 24</td>
<td></td>
</tr>
<tr>
<td>Date Format</td>
<td>Select date format 1-mm-dd, 2-mm/dd/yy, 3-mm/dd/yyyy, 4-dd-mm, 5-dd/mm/yy, 6-dd/mm/yyyy, 7-ddmooy, 8-ddmooyyy</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Select date format dd, mm, yy</td>
<td></td>
</tr>
<tr>
<td>Tare</td>
<td>On/Off Tare automatically sends data to SERIAL connector.</td>
<td></td>
</tr>
<tr>
<td>1 Line Print</td>
<td>ON/off Data printed on one line.</td>
<td></td>
</tr>
<tr>
<td>Auto Print</td>
<td>On/Off Pressing keys will auto-print weight values.</td>
<td></td>
</tr>
<tr>
<td>Interface COM IN</td>
<td>DOWNLD, EZ CMD, EZ2CMD Interface selections: DOWNLD = Data Down Loader, EZ CMD = Original EZ Commands EZ2CMD = EZII Escape Commands.</td>
<td></td>
</tr>
<tr>
<td>Print Format</td>
<td>AUTO, w r on ly, d ownload, dt+tm, id+t m, i dwtt m, animal, 3200-a, 3200-B, 32-tmr, batch 1, fdinfo, wtrctm, eidinf, eid, eidvid, prtac1, prtac2, prtac3, feed-1, prtac4, prtac5, prtac6, bufinf, Select alternate &amp; comma (CSV) formats.</td>
<td></td>
</tr>
</tbody>
</table>
## Operators Manual

| **ZEROOUT** | * | Perform the Zero/Balance for SCOREM #11 weight output and Analog Output Option (4-20mA). |
| **C1 DLY** | .10 | Select seconds to delay before advancing to next line. |
| **C2 DLY** | OFF | Select seconds to delay before advancing to next line. |
| **PRTACC** | - | Reset Print Accumulator |

### MENU 3

| **Display Count** | .01, .02, .05, .1, .2, .5, 1, 2, 5, 10, 20, 50, 00 | Select display weight increment. If count is set too small, readings will be unstable and indicator will not be accurate. |
| **Display Unit** | l b / kg | Unit of measure. When changing weight unit using long form, calibration is adjusted so scale displays accurately in new display unit. |
| **Capacity** | 85000 | Enter MAXIMUM weight measurable on scale. |

*Menu 4 is not used.*
WEIGHING ERRORS

Over-Capacity Limit (OVRCAP)
The display shows the message "OVRCAP" if the weight on the scale system exceeds the capacity limit. The capacity value is entered in SETUP to warn of overloading the scale system.

Over Range (+RANGE)
The display shows the message "+RANGE" if the weight on the scale system exceeds the maximum weight measurable by the scale system. The over range value is always the system’s maximum A/D counts multiplied by the scaling factor. The actual weight at which over range occurs depends on the calibration, zero, and display count size.

Under Range (-RANGE)
The display shows the message "-RANGE" if the weight on the scale system is less than the minimum weight measurable by the scale system. The under range value is always the system’s minimum A/D counts multiplied by the scaling factor. The actual weight at which under range occurs will depend on the; calibration, zero, and display count size.

Low Battery Indication (LO BAT)
If the supply voltage drops below the (10.5 Volts), the message "RECHARGE BATTERY - TURNING OFF" and "LO BAT" will periodically show on the display to alert the operator of the low battery condition.
RUN SELF TEST

1. Press 3 seconds until the LB symbol starts to blink. Release.
2. Press to start the Self Test.

SHORT FORM CALIBRATION

The Short Form Setup & Calibration procedure allows you to change “SETUP” and “CAL” numbers of indicator. Setup and calibration numbers are displayed during self-test.

Do not attempt to calibrate scale if indicator is not reading stable weights. Calibration procedure will not fix instability, inconsistencies, or flashing "RANGE" messages.

CURRENT SETUP AND CALIBRATION NUMBER

To run self test with indicator ON:
1. Press until LB symbol starts to blink. Release, then press to start Self Test.
2. Press to “pause” Self-Test while numbers are displayed.
3. Press again to allow self-test to complete normally.

SETUP # _______________
CAL # _______________

SETUP NUMBER

Following is a list of functions that are controlled by the “SETUP” number:
- Weigh Method (W MTHD)
- Gain
- Display Units (LB-KG)
- Scale Capacity
- Display Counts (COUNT)
CALIBRATION NUMBER
The “CAL” number is adjusted to make scale read proper weight for different load cells and to make accuracy adjustments on a scale system. Systems should be checked with known weights and adjusted if necessary to insure accuracy. Both setup and calibration numbers are changed to convert a scale from lbs to kgs.

CALIBRATING SCALE FOR MAXIMUM ACCURACY
Write down current SETUP and CAL numbers of your GT 400 indicator. These numbers are displayed during Self Test.

1. Press \( \text{ON/OFF} \) to "pause" Self-Test while setup and calibration numbers are displayed. Press \( \text{ON/OFF} \) again to "resume".

SETUP # _______________
CAL # _______________

Note: To accurately calibrate scale, you need a large amount of weight that has a known value. For best results you should have at least as much weight as largest load you plan to weigh.

DETERMINING NEW SETUP AND CALIBRATION NUMBERS

1. Press \( \text{Zero-Balance} \) to Zero-Balance.
2. Put KNOWN WEIGHT on scale platform and write down WEIGHT DISPLAY.

Perform following equation to find ACCURATE CAL #.

\[
\text{Known Weight} \times \text{Displayed Weight} = \text{Existing Calibration Number} = \text{Accurate Calibration Number}
\]

The setup number does not change.
ENTER A NEW SETUP AND CALIBRATION NUMBER

1. Press and hold [ON/OFF] press for 3 seconds to enter short form calibration.

2. The display will flash “SETUP” and then display the 6-digit setup number with the right digit flashing. To modify the setup number:

3. Press [FIELD] several times to increment digit to its proper value.

4. Press [START/STOP] to advance blinking digit left.

5. Repeat steps 3 and 4 for each digit as required.

6. Press [ON/OFF] to enter new setup number and display calibration number.

7. Repeat steps 3 and 4 to modify the calibration number.

8. Press [ON/OFF] to enter new calibration number and display will go back to normal.

9. Verify the accuracy of scale.
INDICATOR MOUNTING

Rail Mounting  Included
Wing Mount  Included
Wedge Mount  Optional
RAM Mount  Optional

POWER CONNECTION

Power can be obtained directly from a 12VDC battery or from a 120V or 220V AC power cube that plugs into a wall outlet. Attach power cable to POWER connector located on bottom panel of scale.

Connect RED wire from power cable to +12VDC and BLACK wire to GROUND. The indicator is fused internally at two amps.
LOAD CELL CONNECTION

Connect load cell wires to terminal blocks.

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

Tighten nuts

Load cell cable

Connect to Indicator bottom panel.

Figure 2. J-Box Connections

INDICATOR CALIBRATION
If you connect an indicator to a different weighing implement, the calibration and setup number may need to change. Refer to calibration procedures (page 15-17) or contact your Digi-Star representative for assistance.

Lightning Protection
Stationary systems use “Lightning-Protected” J-boxes and ground to protect scale when lightning strikes nearby. Please call your Digi-Star representative to request instructions F3050.