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Technical specifications

SIZE
10.25" long x 8.0" high x 4" wide (260mm x 190mm x 105mm)

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
EZ VIEW 6 Digit LCD 43 mm (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% + .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

WEIGHT 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

Check system before use
Before you are going to use the Digi-Star weighing system you need to check the proper working of the system by charging all weighing points with a known weight. Digi-Star cannot be held responsible for deviations and problems arising from incorrect use of the weighing indicator, incorrect calibration or settings. Furthermore Digi-Star cannot be held responsible for deviations and problems arising from technical problems to the system.

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

Charging battery and welding
During welding you need to remove the weighing bars to avoid damaging. If this is not possible, you need to place the “ground” clip as close to the welding point as possible, in order to avoid that current can flow through the weighing bars. Digi-Star cannot be held responsible for problems arising from welding or charging of the battery.
OVERVIEW WEIGHING INDICATOR

Note: See page for installation instructions.

1. **RESET** – press and hold for 3 seconds to zero balance.
2. **Pre-Alarm Light** – Starts flashing and alarm sounds when weight is within preset limit.
3. **HOLD** – holds displayed weight when moving machine.
4. **Timer/counter**
5. **ON** – turns indicator on. Pressing while on will run self test.
6. **OFF** – turns indicator off.
7. **Display Window** – Displays current actions.
8. **ZERO** – temporary zero (Net mode).
9. **TARE** – records to memory or prints displayed weight.
10. **GROSS** – toggles between Net and Gross weights.
11. **RECIPE** – selects recipes in memory, program recipes.
12. **SELECT** – displays additional tasks.
13. **ENTER** – accepts change or proceed to next item.
14. **– select ingredients, hold key to erase ingredient/pen from recipe.
15. **– select pens, hold key to insert ingredient/pen to recipe.
16. **Keypad** — input numbers or letters as required.
17. **ID** — used to enter label numbers for weight value to be displayed and printed.
18. **CLEAR** — clear current command.
19. **?** — add space in command.

20. **Serial port/printer port** — communication with inputs and outputs of the computer and other digital devices (optional).
21. **Port for remote display** — to connect the remote display (optional).
22. **Load cell port** — to connect the J-Box cable.
23. **Power supply port** — to connect the power supply cable.
24. **Serial Number Plate** — Serial Number of indicator.

>>See pages 30, 31 and 32 for installation instructions.
OPERATION

Switching on the weighing indicator

1. Press \( \text{I \ ON} \).

Switching off the weighing indicator

2. Press \( \text{O \ OFF} \).

Zero balancing the weighing indicator

1. Press and hold \( \text{ZERO} \) for 3 seconds to zero balance the weighing indicator.
PROGRAMMING RECIPES

The ingredients in a recipe can be entered in three different ways:

1. Amount per animal (standard setting)
Enter the amount of ingredients in weight per animal. For example, 9 kg silage and 8 kg corn per animal. Depending on the number of animals, the weighing indicator will calculate the total amount of the ingredients automatically: For example, with 100 animals this will be 900 kg silage and 800 kg corn.

2. Percentage (%) per ingredient
Enter the amount of ingredient as a percentage (%). For example, 55% silage and 45% corn. The weighing indicator will calculate the amount per ingredient automatically based on the total weight:
For example, with a total weight of 1000Kg this will be 550 kg silage and 450 kg corn. Attention; the total must be 100%.

3. Amount per ingredient
Enter the required total amount per ingredient. For example, 2500 kg silage and 2000 kg corn.

Changing the programming method

1. Enter 441 and press Δ/inc.
2. Press direction repeatedly to select the required programming method for the recipes.
   - 1 = Amount per animal
   - 2 = Percentage (%) per ingredient
   - 3 = Amount per ingredient
3. Press Δ/inc to confirm the selected programming method.

Changing ingredient or pen name

The standard ingredient and pen names can be changed as required:

1. Repeatedly press Δ/inc, until RENAME is displayed.
2. Press and hold Δ/inc for 3 seconds.
3. Press direction or direction to go to the ingredient/pen you want to change.
4. Press Δ/inc to edit the name. The display briefly shows EDIT and a flashing cursor will display.
5. Press Δ/inc repeatedly to delete the ingredient/pen.
Programming a new recipe

1. Press and hold \( \text{REC} \) for 3 seconds.

2. \( \text{PROGRAM} \) will briefly display followed by:
   a. The first programmed recipe (or)
   b. \( \text{REC } \_) \) (This indicates that the memory is empty).

3. Enter a new recipe number.
4. Press \( \text{REC} \) to store new recipe number. \( \text{INGRED} \) will blink.

5. Press \( \uparrow \) or \( \downarrow \) to scroll through the available ingredients.
6. Press \( \text{REC} \) to select the displayed ingredient.

7. Enter the required amount for this ingredient.
8. Press \( \text{REC} \) to store.

(Repeat steps 5 - 8 if you need to add more ingredients in the recipe).

Note: If you don’t want to add pens to the recipe please continue with step 13.

6. Press \( \frac{1}{2} \) \( \text{REC} \) 1x to enter the number 1; Press 2x is A, 3x is B and 4x is C.
7. When you have entered a letter or number, wait briefly before entering the next number or letter.
8. Press \( \text{REC} \) to confirm.

(Repeat steps 3 through 8 for the other ingredients/pens in the recipe).
9. Press \( \text{CLEAR} \) to exit.

(Use \( \uparrow \) and \( \downarrow \) to toggle between pens and ingredient names).
Operation

EDIT RECIPE

Enter programming mode

1. Press and hold ENTER for 3 seconds.
2. PROGRAM will briefly display followed by the first recipe in the memory.
3. Press ▲ or ▼ to go to the recipe you want to edit.
4. Press ENTER to select the recipe.

9. Press ▶ to switch to pens.
10. Press ▲ or ▼ to scroll through the available pens.
11. Press ENTER to select the displayed pen.
12. Enter the number of animals in this pen and press ENTER to store.
   (Repeat steps 10 -12 if you need to add more pens in the recipe).

13. Press ENTER again to complete recipe.
    Repeat steps 3 – 13 if you want to program more recipes.
14. Press CLEAR to exit.

Note: During the programming it is also possible to rename the ingredient/pen. When scrolling through the available ingredients/pens (key 5 or 10) you can rename the displayed ingredient or pen name by pressing the ENTER key.

(See page 10 “changing ingredient or pen name” steps 5 through 8 for the procedure).

Please note that this will also affect other recipes where this ingredient/pen is used.
Change amount or number of animals
a recipe

1. Enter the “recipe programming” mode. See “Enter programming mode on page 12”
2. The first ingredient name is displayed followed by AMOUNT.
3. Use or to go to the ingredient/pen you want to change.
4. Change the amount/number of animals.
5. Press to store the new amount/number of animals.

Repeat steps 3-5 for each ingredient or pen you want to change.

6. When ready repeatedly press until you see DONE.
7. Press one more time to store the changes and leave the recipe.

Insert ingredient or pen in a recipe

1. Enter the “recipe programming” mode. See “Enter programming mode on page 12”
2. Use or to go to the location where you want to insert an ingredient/pen.
3. Press and hold to insert a new ingredient/pen.

   Note: This will insert a new ingredient before the current ingredient on the screen.

4. Press or to scroll through the available ingredients/pens.
5. Press to select the required ingredient/pen.
6. Enter the required amount/number of animals.
7. Press to store amount.
8. When ready repeatedly press [amt] until you see DONE

9. Press [enter] one more time to store the changes and leave the recipe

Note: If you want to insert an ingredient or pen you want to delete from the recipe.

2. Repeatedly press [↑] or [↓] to go to the ingredient/pen you want to delete from the recipe.

3. Press and hold [←] to erase the ingredient/pen. Display shows: LEFT or ZERO TO ERASE.

4. Press [←] again to erase the displayed ingredient/pen.

5. When ready repeatedly press [amt] until you see DONE.

6. Press [enter] one more time to store the changes and leave the recipe.

Deleting recipe

1. Enter the “recipe programming” mode. See “Enter programming mode on page 12”

2. Repeatedly press [↑] or [↓] to go to the recipe you want to delete.

3. Press and hold [←] The display shows: PRESS ZERO TO ERASE RECIPE OR NET/GROSS TO EXIT.

4. Press [←] again to erase the recipe.

5. Press [clear] to exit.
**Calling up a recipe**

1. Press \( \text{REC} \).
2. Repeatedly press \( \uparrow \) or \( \downarrow \) to go to the desired recipe.
3. Press \( \rightarrow \) to display each ingredient, weight or % and total for the recipe.
4. Press \( \text{CLEAR} \) to exit.

**Printing recipes**

Note: The serial port (optional) must be installed in order to print.

1. Press \( \text{REC} \) to display first recipe.
2. Repeatedly press \( \uparrow \) or \( \downarrow \) to go to the recipe you want to print.
3. Press \( \text{PRINT} \) to print this recipe.
4. Press \( \text{CLEAR} \) twice to print all the recipes saved in the memory.
5. Press \( \text{CLEAR} \) to return to normal weighing mode.

**Printing ingredient names**

1. Repeatedly press \( \uparrow \), until \( \text{RENAME} \) is displayed.
2. Press and hold \( \text{MEM} \).
3. Press \( \text{MEM} \) once to print total accumulations for this ingredient.
4. Press \( \text{MEM} \) twice to print accumulations for all ingredients that are currently used in all recipes.
Running a recipe according to amount per animal

1. Press \( \text{Animal} \) repeatedly until the recipe you want to start is displayed.
2. Press \( \text{Start} \) to start the selected recipe.
3. The weighing indicator displays Animal/Resize followed by the first pen.

4. If required change the number of animals in the pen.
5. Press \( \text{Start} \) to confirm the new number of animals.

*Note: If you work using a percentage per ingredient or an amount ingredient, the total amount \( \text{TOTamt} \) will be displayed.*

6. After Resizing all pens, the indicator displays the first ingredient and amount to load. While loading the ingredient the weight on the indicator counts down to zero.
7. After the ingredient has been loaded press \( \text{Start} \) to manually advance to the next ingredient.

(See page 24 for auto advance)

8. After the last ingredient is loaded the indicator displays START DELIVERIES.
9. The indicator displays the first pen and amount to feed. While feeding the pen the weight on the indicator counts down to zero.
10. After the pen has been fed press \( \text{Start} \) to advance to the next pen.
11. After the last pen has been fed the indicator displays *DONE - TOTAL =............*.
ADVANCED FUNCTIONS

Holding the displayed amount

In Hold mode the displayed weight remains on the display while moving the feed mixer.

1. Press \( \text{Hold} \) to hold the displayed weight.
2. Press \( \text{Hold} \) to return to the normal mode.

If by mistake an ingredient is loaded while the weighing indicator is still in Hold mode you can press \( \downarrow \) to overrule the hold mode and show the added weight.

Backlight intensity

1. Press \( \text{Dimmer} \) until \text{Dimmer} shows on the display.
2. Press \( \text{Dimmer} \) to reduce the backlight intensity by 60%.
   Press again to return to the full intensity.

Preset (presetting)

If you want to manually load or unload a specific amount you can enter a “preset” weight in the weighing indicator. The weighing indicator will count down from this amount to zero and will give a loud alarm signal as soon as zero is reached.

1. Enter the required amount that you want to load or unload.
2. Press \( \text{Enter} \). The weighing indicator will round off the amount.

As soon as a preset value has been entered the amount to be loaded or dosed out will be displayed in one of the following three weighing settings:

- Gross weighing mode
- Load/Dosing out weighing mode
- Net weighing mode
Clear preset alarm

1. Press \( \text{CLEAR} \) to clear the preset value.
2. Press \( \text{CLEAR} \) again to return to the gross weighing mode.

Display in gross weighing mode

1. Press \( \text{GROSS} \). The display shows the gross weight.

While loading or unloading a preset amount the weighing indicator starts counting down. The word PRESET and the required amount will be displayed alternately until 5% of the required amount has been loaded or unloaded.

Display in load/unload weighing mode

1. Press \( \text{ENTER} \).

The amount still to be loaded/unloaded is displayed. During loading or unloading the weighing indicator will count down to zero.
Display in net weighing mode

1. Press \( \text{NET/\text{GROSS}} \times 2 \).

The already loaded/unloaded amount since the required weight was set will be displayed. During loading the displayed value will increase; during dosing out the displayed value will decrease.

Entering tare weight

This function is used to trace the net content of, for example, a container that has already been filled. If you know the empty weight of the container, this tare weight can be entered in the weighing indicator. The weighing indicator will display the net container content.

1. Pre-Tare: enter 405, press \( \text{SET} \). Press \( \text{下称} \) to turn on.
2. Press and hold \( \text{PDT} \) for 3 seconds to set the weighing indicator to zero.
3. Fill the container.
4. Enter the empty weight of the container.
5. Press \( \text{PDT} \).
6. Press \( \text{NET/\text{GROSS}} \).
OPTIONS

Printing

Note: The serial port (optional) must be installed to print data.


Mixing clock (timer)

To set a mixing time. HOURS, MINUTES and SECONDS (HH:MM:SS) are displayed, separated by two vertical dots, which briefly light up every second. After the mixing clock has started the time on the display will count down to 00:00:00.

1. Press .
2. Enter the mixing time (HH:MM:SS).
3. Press to confirm the entered time and to start the mixing clock. The weighing indicator counts down to zero. The weighing indicator will give a loud alarm signal when 0 is reached. A negative value indicates that the set mixing time has been exceeded.
4. Press to deactivate the alarm and mixing clock.
Function and Select key

1. Repeatedly press \( \text{SELECT} \) to select following options:
   - **RENAME**: Rename ingredient.
   - **MENU**: View menus 1,2,3,4 and calibrate
   - **SETUP**: Change setup and calibration numbers.
   - **DIMMER**: High/Low backlight control.
   - **ACCUM**: Displays amount of recipe ingredients loaded or unloaded.
   - **HELP**: Explains operation of select key.
   - **PRGREC**: Create or edit recipes.

2. When the required option is displayed, press \( \text{ENTER} \) to activate this option.

Calling up accumulative ingredient amounts

Display the total amount loaded of ingredients since the last time these accumulative values were deleted.

1. Repeatedly press \( \text{SELECT} \), until **ACCUM** is displayed.
2. Press \( \text{ENTER} \).
3. Press \( \text{ or } \text{ } \) to display accumulation of other ingredients.
4. Press \( \text{ } \) to display pens. Press \( \text{ } \) to display ingredients.
5. Press \( \text{ENTER} \) to exit.

Deleting accumulative ingredient amounts

1. Repeatedly press \( \text{SELECT} \), until **ACCUM** is displayed.
2. Press \( \text{ENTER} \) Ingredient is displayed.

Example: corn silage.
3. Press \( \rightarrow \) to display pens. Press \( \leftarrow \) to display ingredients.

4. Hold \( \text{CLEAR} \). Indicator scrolls CLEAR TO ERASE, CLEAR/CLEAR TO ERASE ALL

5. Press \( \text{CLEAR} \) to erase ingredient accumulation for corn silage.

6. Press \( \text{CLEAR} \) again to erase all accumulations.

7. Press \( \text{CLEAR} \) to exit.

**Print Accumulation Values**

**For one ingredient/pen**

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

2. Press \( \text{ENTRY} \).

3. Use \( \uparrow \) or \( \downarrow \) to go to the required ingredient/pen.

4. Press \( \text{PRINT} \) to print accumulation value for the ingredient/pen.

5. Press \( \text{ENTRY} \) to exit.

**Print Accumulation Values**

**For all ingredients/pens**

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

2. Press \( \text{ENTRY} \).

3. Press \( \text{PRINT} \) to display pens. Press \( \leftarrow \) to display ingredients.

4. Press \( \text{PRINT} \) again to print all ingredient/pen accumulations in memory.

5. Press \( \text{ENTRY} \) to exit.
COMMONLY USED DIRECT ACCESS NUMBERS

Ingredient Name Table
The Ingredient Name Table contains 99 entries made up of ingredients and pens that are used when programming a recipe.

Number Of Ingredients
Defines how many ingredients are in the Ingredient Name Table. The default is 30 ingredients and 69 pens.

1. Enter 473 press \( \text{SELECT} \).
2. Enter the number of ingredients
3. Press \( \text{ENTER} \) to save.

Pre-alarm

[\( P-\text{ALM} \)]
Select weight or percentage method. Enter value to activate early warning sign when indicator reaching preset value.

1. Enter 401 press \( \text{SELECT} \).
2. Press \( \text{UP} \) to select \( \text{WEIGHT} \) or \( \text{PERCENT} \).
3. Press \( \text{ENTER} \) to save.
4. Enter the pre-alarm value in weight or percent.
5. Press \( \text{ENTER} \) to save.

Auto Advance

When the auto advance feature is activated the indicator automatically advances to the next ingredient once the tolerance and delay time requirements are met.

Tolerance

[\( \text{TOLE} \)]
Tolerance is a specific percentage or weight of the desired amount. When reaching the desired amount minus the “Tolerance”, the weighing indicator will accept the loaded amount and automatically advance to the next ingredient, depending on the set delay time.
1. Enter 442 press \( \text{SELECT} \).
2. Press \( \text{UP} \) to choose tolerance method \text{WEIGHT} or \text{PERCNT}.
3. Press \( \text{ENTER} \) to save.
4. To change percentage, press \( \text{UP} \) until desired value is shown. To change weight, enter value.
5. Press \( \text{ENTER} \) to save.

**NOTE:** OFF setting always advances after preset amount reached.

Example: Preset = 1000 kg. If tolerance is set to 5%, Auto Advance will activate at 950 kg or 95% of preset weight.

### Delay time

[DELAY]

Enter the time that the weighing indicator should wait before advancing to the next ingredient.

1. Enter 443 press \( \text{SELECT} \).
2. Enter delay time in seconds.
3. Press \( \text{ENTER} \) to save.

**NOTE:** Set to 0 prevents automatic advance.

### Rotate counter

[REVCTR]

Indicator counts mixer auger rotations.

**NOTE:** Feature requires optional sensor kit.

1. Enter 421 press \( \text{SELECT} \).
2. Press \( \text{DOWN} \) to select \text{REV} option.
3. Press \( \text{ENTER} \) to save.
4. Press \( \text{RESETP} \).
5. Enter number of rotations.
6. Press \( \text{RESETP} \). The rotation counter counts down. When counter reaches zero the alarm light and buzzer will be activated.
7. Press \( \text{RESETP} \) again to deactivate buzzer and light.
Drive ratio

[DRATIO]
Drive ratio is the number of revolutions of the power take-off of the feed mixer divided by the number of revolutions of the mixer auger.

1. Enter 422 and press \( \Delta \) to enter drive ratio value.
2. Press \( \text{SAVE} \) to save.
Menu and Calibration

Access to menus

1. Repeatedly press \( \text{select} \) until \text{MENU} is displayed.
2. Press and hold \( \text{enter} \) for 3 seconds.
3. Press \( \uparrow \) to choose the required menu.
4. Press \( \text{enter} \) to enter the selected menu.
5. Press \( \text{select} \) to scroll through the options.
6. Press \( \uparrow \) to change the options.
7. Press \( \text{enter} \) to save the changes.

Changing setup and calibration numbers

[\text{SETUP}] & [\text{CAL}]

1. Enter 871.
2. Press \( \text{select} \).
3. Weighing indicator briefly shows \text{SETUP} followed by a six digit number. Enter the new number.
4. Press \( \text{on} \).

Use 872 and follow the same procedure to change the calibration \text{CAL} number.
TROUBLE SHOOTING

1. Is the value displayed on the weighing indicator?
   - YES
   - NO

2. If the value is unstable or, [__ERROR__] flashes on the display, disconnect the J-Box cable from the weighing indicator. Is the value still unstable?
   - YES
   - NO

3. Check all J-Box and load cell cables for loose contacts, cuts or pinched, flat spots.
   - YES
   - NO

4. Does the J-Box have a bad connection or loose wires?
   - YES
   - NO

5. Check the J-Box for bad connections/contacts. Move the power supply cable.
   - Bad connection

6. Bad battery
   Replace the battery. A weak battery may test good if it is tested with no load on the battery.

7. Bad power supply cable
   Make sure the red wire is connected to the + (positive side) and the black wire to the - (negative side).
   When using a multimeter to check the voltage, do you measure between pin 1 (positive) and pin 2 (negative)? The meter should show a value between 10.5 and 14.5 Vdc. If using a tractor power supply cable, the black wire is connected to the + and the white wire to the -.

8. Bad weighing indicator
   Try another weighing indicator; even a different model or setup should function.

START

Switch the weighing indicator on?

NO

YES

Does the J-Box have a bad connection or loose wires?

NO

YES

Remove the cover from the J-Box.

Is there moisture inside the J-Box?

YES

NO

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

NO

Does the J-Box have a bad connection or loose wires?

YES

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

YES

Repair or replace the J-Box.

NO

See next page

NO

YES

Are all values positive? (negative values indicate that the load cell concerned is mounted upside down).

YES

NO

The weighing indicator is probably not set-up and calibrated correctly. Check the decal on the bottom of the weighing indicator. It shows the type of load cells, for which the weighing indicator was calibrated. By pressing the ON key while the weighing indicator is switched on, the setup (SETUP) and calibration number (CAL) will appear successively on the display. Ensure these numbers correspond with the numbers on the decal on the bottom of the weighing indicator. Contact your dealer for additional information.

NO

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

YES

NO

Are all values positive? (negative values indicate that the load cell concerned is mounted upside down).

YES

NO

Does the weighing indicator weigh you approx. the same over all load cells?

YES

NO

The weighing indicator is probably defective. Test another weighing indicator to be sure. Note: Be aware of electrical interference that might affect the weighing indicator, such as mobile phones, CB radios, radio towers, electrical motors etc. Make sure load cell cables are not attached to hydraulic lines or reservoirs.

YES

NO

Is there moisture inside the J-Box?

YES

NO

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

YES

Repair or replace the J-Box.

NO

See next page
CONTINUED

Disconnect all wires of the load cell cables from the terminals in the J-Box; Leave the weighing indicator switched on while disconnecting and reconnecting the wires. It will not damage the load cells and weighing indicator if wires are shorted during this step. Is the value displayed on the weighing indicator stable?

NO

Replace the J-Box; Be aware of electrical interference that might affect the weighing indicator, such as mobile phones, CB radios, radio towers, electrical motors etc.

YES

Zero balance the weighing indicator. (press and hold ZERO for 3 seconds). The value 0 appears on the display of the weighing indicator.

Note: Connect the load cells to the J-Box one at the 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 readout, flashing of [± RANGE] on the display, negative value, etc.

If the readout appears abnormal with any load cell connected, this load cell is probably bad.

Reconnect one load cell to the terminals in the J-Box; the displayed value of each load cell depends on the type of load cell and the weight over the load cell. Usually this value should be positive and stable.

Note: If the weighing indicator responded to your weight, the J-Box is OK. If the weighing indicator did not respond, either the load cell or the J-Box is bad. Try the other load cells.

If the weighing indicator still shows no response, the J-Box is bad. Replace the J-Box.

Zero balance the weighing indicator and stand or hang with your weight over the connected load cell. Note the weight increase; A weighing indicator with only one connected load cell will give a too high readout.

Repeat previous steps for the other load cells. Remember to note all readouts of these load cells.

Do not expect that all load cells give the same readout at the moment you connect them. Usually load cells give readout values that vary by hundreds, even thousands. Especially when there is more weight on one load cell.

Dispose the first load cell and zero balance the weighing indicator. Connect the second load cell. Note the displayed value.

Zero balance the weighing indicator and stand or hang your weight over the connected load cell. Note the weight increase.

If you hang your weight over a connected load cell after zero balancing the weighing indicator, the displayed value is probably three or four times your weight. The readout values of your weight over each load cell should be similar.

Bad load cells give an unstable readout, [± RANGE] flashes on the display or the displayed value is lower or higher than three times the average of the other load cells.

Any difference could be an indication of a bad load cell or a structural problem.
INSTALLATION

Mounting the indicator

<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>
<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>

Load cell direction

Observe direction of arrow when installing load cell.
Connecting the cables

Weighing indicator

Remote display (optional)

See figure 1

Power supply cable

* These colour codes apply to the standard Digi-Star power supply cable.

See figure 4: J-Box connections

Indicator connection diagram

J-Box connection

Digital input/output connection (optional)

Remote display connection (optional)

Power supply cable connection
Connecting load cells to J-Box

Connect load cell wires to terminals.

Tighten nuts

J-Box illustrated for connection of 4 load cells

Load cell cable

J-Box cable

Connect to bottom panel of weighing indicator.

<table>
<thead>
<tr>
<th>Pin</th>
<th>Colour</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Red</td>
<td>Power supply +</td>
</tr>
<tr>
<td>2</td>
<td>Green</td>
<td>Signal -</td>
</tr>
<tr>
<td>3</td>
<td>White</td>
<td>Signal +</td>
</tr>
<tr>
<td>4</td>
<td>Black</td>
<td>Power supply -</td>
</tr>
<tr>
<td>5</td>
<td>Transparent</td>
<td>Shield</td>
</tr>
</tbody>
</table>
APPENDIX A1: EC DECLARATION OF COMFORMITY


Manufacturer's Name Digi-Star, LLC
Manufacturer's Address 790 West Rockwell Avenue, Fort Atkinson, WI 53538
European Representative's Name Digi-Star Europe B.V.
European Representative's Address J.F. Kennedylaan 235, 5981 WX Panningen (NL)

Model name: EZ2400, EZ2400V, EZ3400, EZ3400V, EZ3600, EZ3600V, EZ4600, SW2600EID, SW4600EID, RD2400V, CAB CONTROL 2400/2400V/3400/3400V/3600/3600V

Conformance to:
- EN 61326 - electrical equipment for measurement, control and laboratory use (see Report Number 307245.)
- EN 55011 - for Class B ISM equipment for industrial, scientific, and medical equipment (see Report Number 307245).

Beginning serial No: 1001
Year of Manufacture: 2008

We, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s).

Manufacturer

Signature
Name: Kevin Klubertanz
Position: Director of Engineering
Place: Fort Atkinson, WI U.S.A.
Date: 15 March 2008

Legal representative in Europe

Signature
Name: Wim de Wit
Position: Managing Director
Place: Panningen, the Netherlands
Date: 15 March 2008