



EZ2400(V)

User' s manual



Ft. Atkinson, Wisconsin USA



Panningen, the Netherlands

www.digi-star.com

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APPENDIX A1: EC DECLARATION OF CONFORMITY

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CAB CONTROL (WIRELESS)



Features

- Wireless remote operation in front loader with full key control of the weighing indicator mounted on the feed mixer.
- Thanks to Cab Control the weight can be easily readout in your front loader.
- Ingredients can be loaded more accurately

Functions

- Communicates with several feed mixers
- Manual advance when loading ingredients.

Specifications

- Built-in wireless 2.4 GHz radios
- Range up to 1000ft (300m)
- 24 channels
- 12 or 24 Vdc systems

>>For additional information, see www.digi-star.com

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.

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.

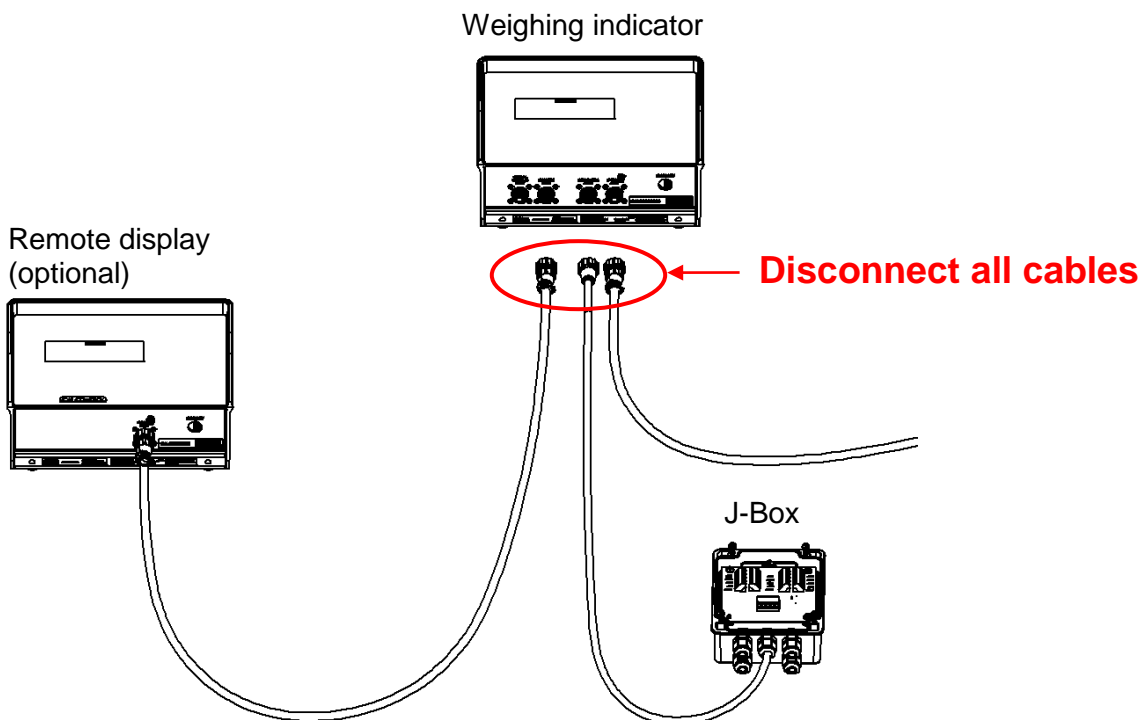
Cleaning

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

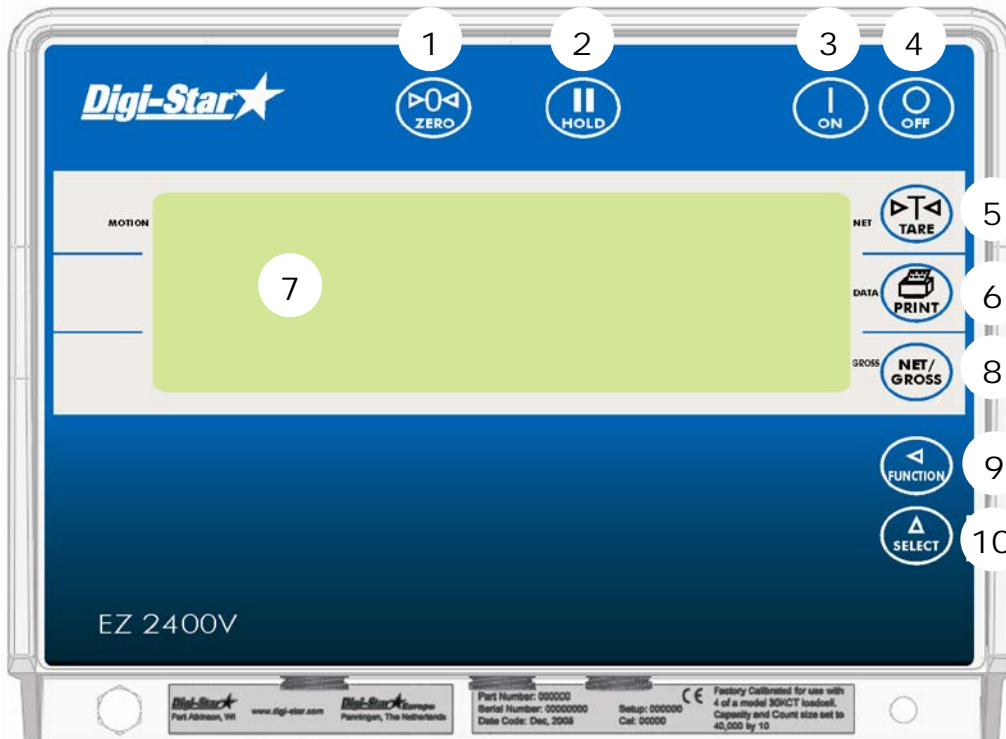
Charging battery and welding










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.

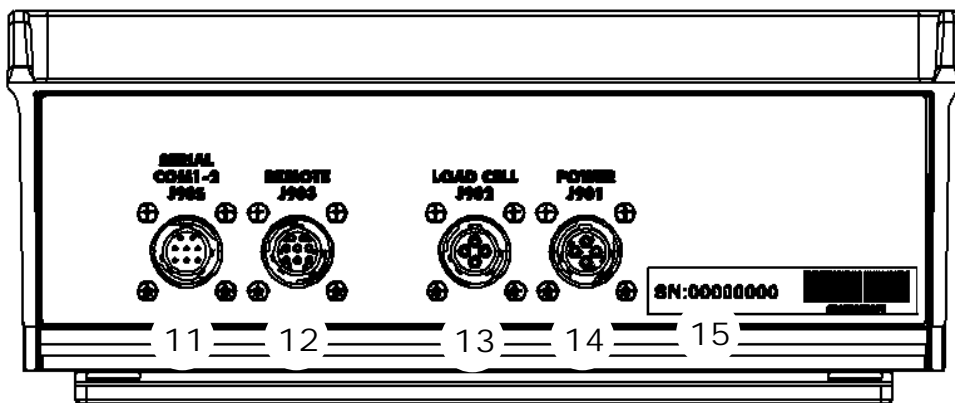
Digi-Star cannot be held responsible for problems arising from welding or charging of the battery.



OVERVIEW WEIGHING INDICATOR



1.  – press and hold for 3 seconds to zero balance the weighing indicator.
2.  – to hold displayed weight when moving the machine.
3.  – to switch off weighing indicator . Press this key while the weighing indicator is on to run the self test.
4.  – to switch off weighing indicator .
5.  – to temporarily zero the weighing indicator [Net mode].
6.  – to register or print the displayed weight.
7. Display – to display current values and settings.
8.  – to toggle between net and gross weights.
9.  – to perform the selected task.
10.  – to display extra tasks.

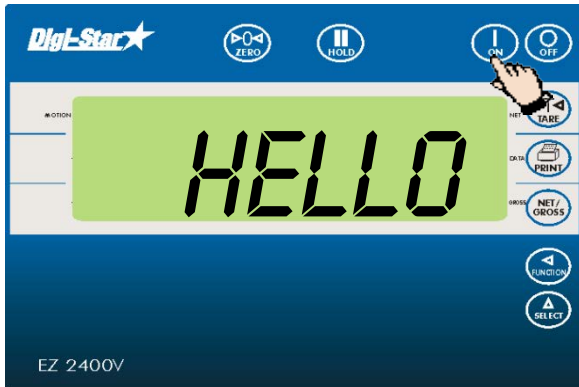



- 11. Serial port/printer port – communication with inputs and outputs of the computer and other digital devices (optional).
- 12. Port for remote display – to connect the remote display (optional).
- 13. Load cell port – to connect the J-Box cable.
- 14. Power supply port – to connect the power supply cable.
- 15. Serial number

>>See pages 18, 19 and 20 for installation instructions.

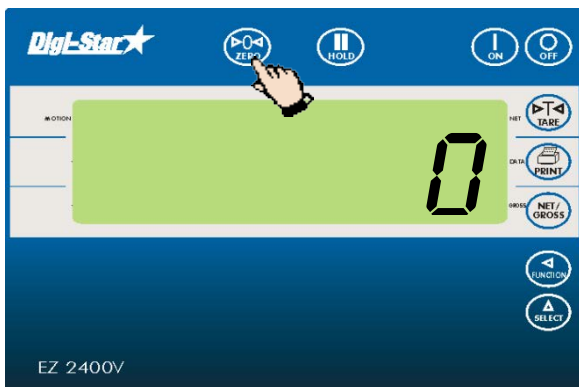
OPERATION

Switching on the weighing indicator



Press  to activate the weighing indicator.



Zero balancing the weighing indicator




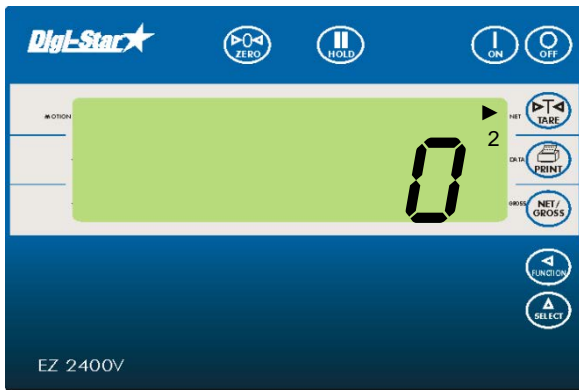
Press and hold  for 3 seconds to zero balance the weighing indicator.

Loading weights using Tare and Net/Gross



If you want to load more amounts,  to set the system temporarily to zero.
Press  to display the total weight of all individual amounts already loaded.

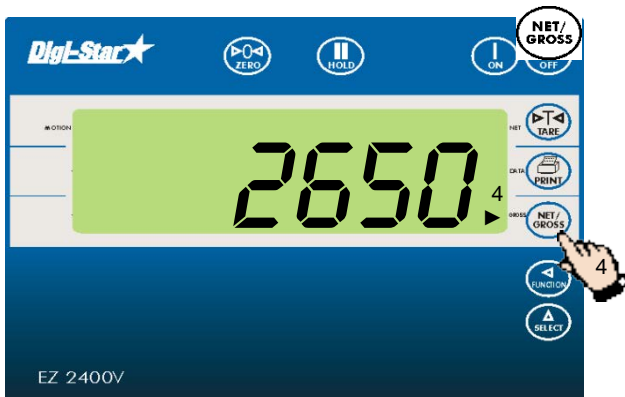
1. After the first product amount has been loaded, press  to set the weighing indicator temporarily to zero.



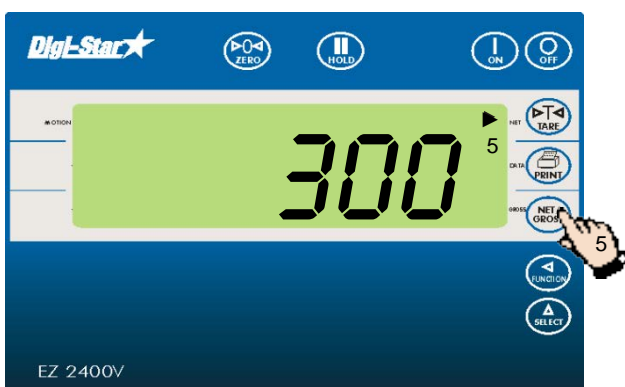
- The value 0 is displayed. In the upper right of the display a flashing arrow points towards NET (net weight).



- Add the next amount to be loaded.

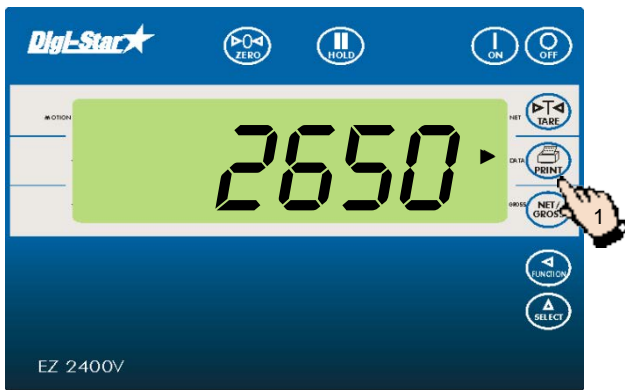


- Press **NET/GROSS** to display the total amount already loaded. In this example: 2350 kg + 300 kg = 2650 kg. In the lower right of the display a flashing arrow points towards GROSS (gross weight).



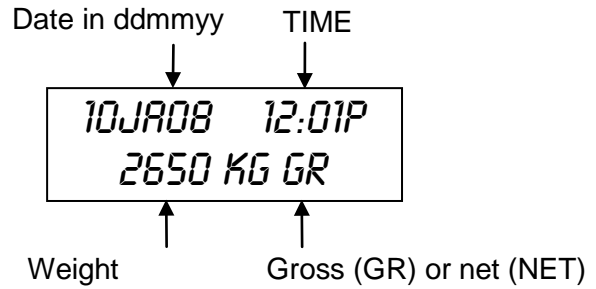
- Press **NET/GROSS** again to return to Net mode. In the upper right of the display a flashing arrow points towards NET (net weight).
- To add more individual loads repeat steps 1 thru 5.

Print key



ATTENTION! An optional serial (printer) port is required for printing.

7. Press . The weighing indicator sends data to the printer or PC. A sample output format is shown below:

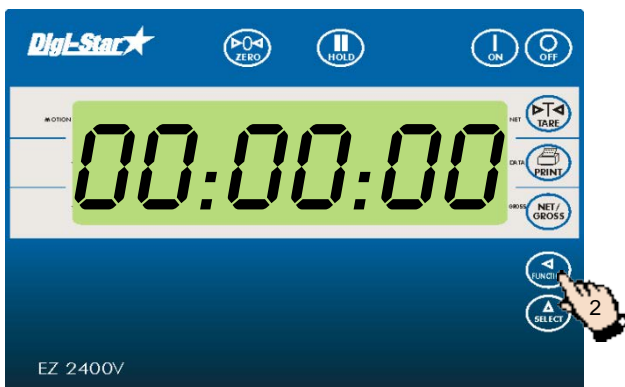


Timer option







The timer option can be used to set a mixing time. After mixing (timer reaches zero) the weighing indicator gives a loud alarm.

1. Repeatedly press until *TIMER* is displayed.

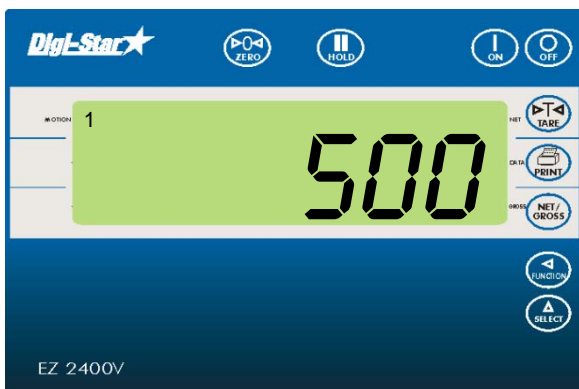


2. Press to display hours, minutes and seconds (hh:mm:ss).



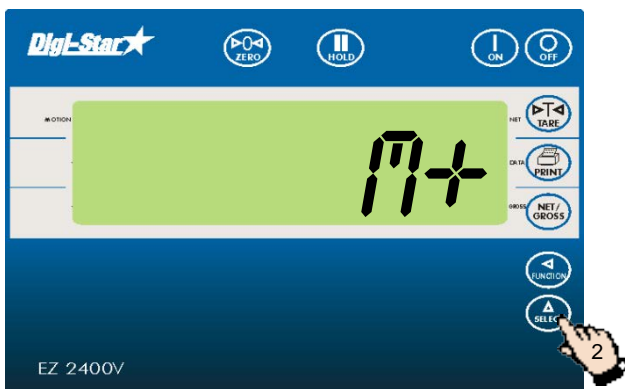
3. Use  to move to the section (hours, minutes or seconds) to be changed. The selected digit starts flashing.
4. Repeatedly press  to select the required digit.
5. Press  to start the timer.
6. When timer reaches zero, press  to stop the alarm signal and function.

Using M+, RM and CM options

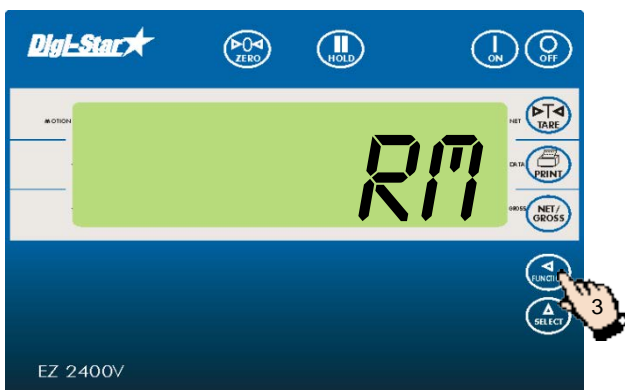



Use these options to weigh, for example, the axles of a truck or wagon one at a time.

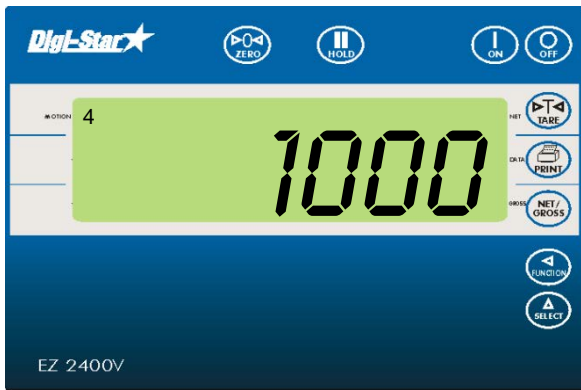
1. Put the first weight on the weighing platform. For example: 500 kg.



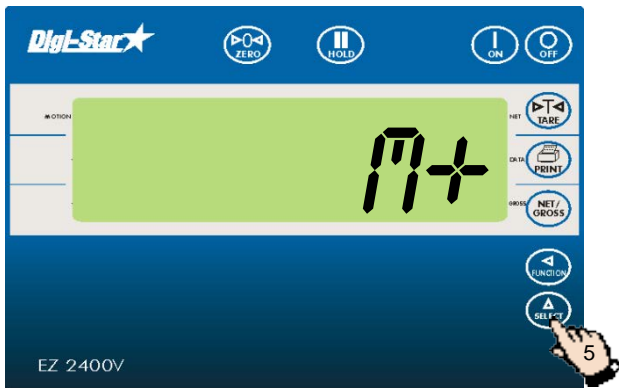
2. Repeatedly press  until *M+* is displayed.



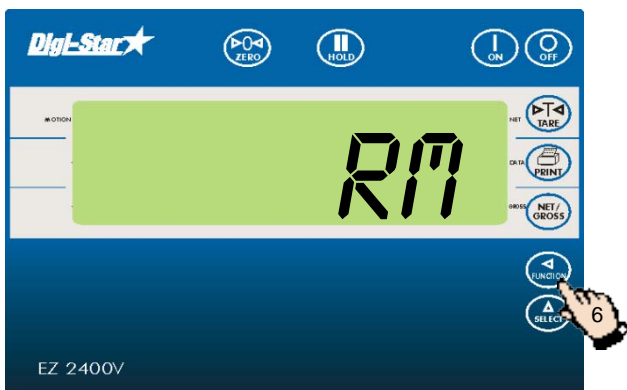
3. Press . *500 KG* and *RM* are briefly displayed. 500 Kg will be added to the memory and the weighing indicator returns to gross weighing mode.




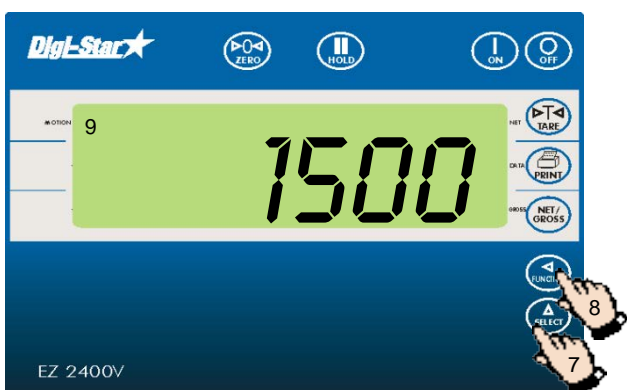
- Put the next weight on the weighing platform. For example: 1000 kg.





- Repeatedly press , until *M+* is displayed.

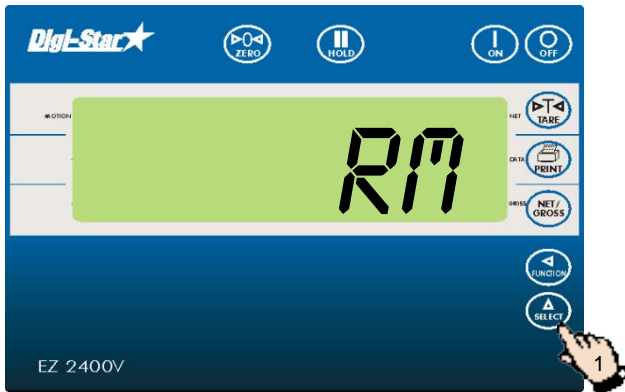


- Press . The weighing indicator adds 1000 kg to 500 kg in the memory. *RM* flashes on the display and the weighing indicator returns to gross weighing mode.



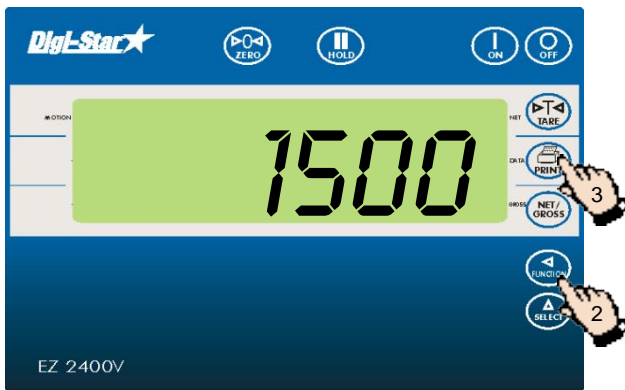
- Repeatedly press , until *RM* is displayed.
- Press .
- The total of both weights, 1500 kg, is displayed. The weighing indicator is in gross weight mode.



Printing weight from memory



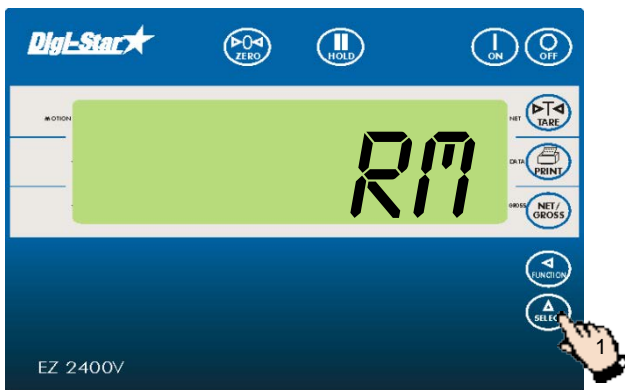
ATTENTION! An optional serial (printer) port is required for printing.

1. Repeatedly press  , until *RM* is displayed.

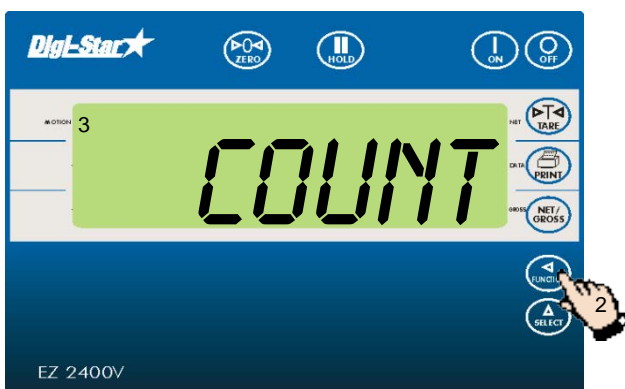



2. Press  to display the weight in the memory. For example: 1500 kg.
3. Press  when the weight is displayed.

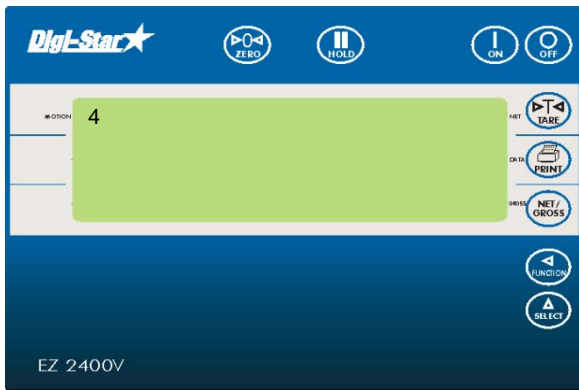
Determining average weight



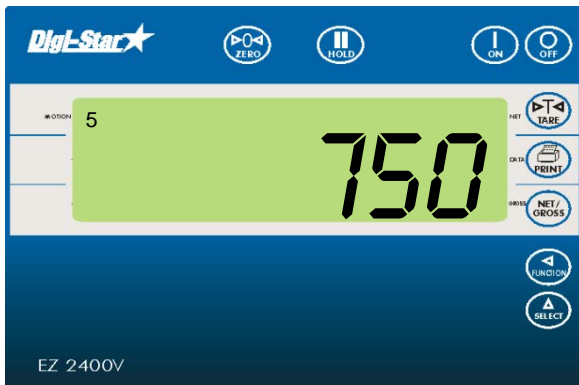
1. Repeatedly press  , until *RM* is displayed.



2. Press  twice within three seconds to perform a weight average.
3. *COUNT 2* is displayed to indicate that the weight average is calculated from two individual weights. In this example, the weighing indicator calculates the average from 1000 kg and 500 kg.

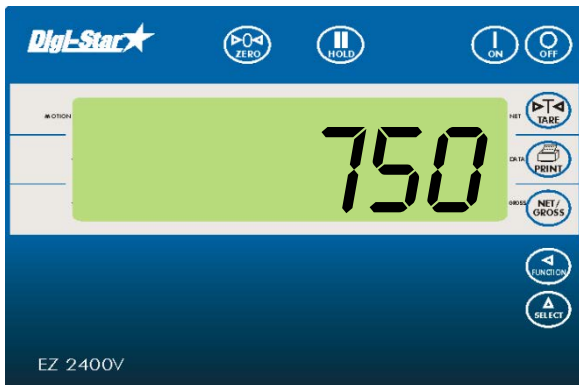



4. *AVERAG* (average) is displayed.



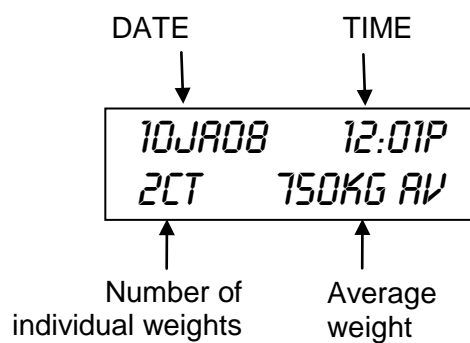
5. The display shows the calculated average of these two weights. After displaying the average weight, the weighing indicator returns to gross weighing mode.

Printing average weight



1. Press  when the average weight is displayed.

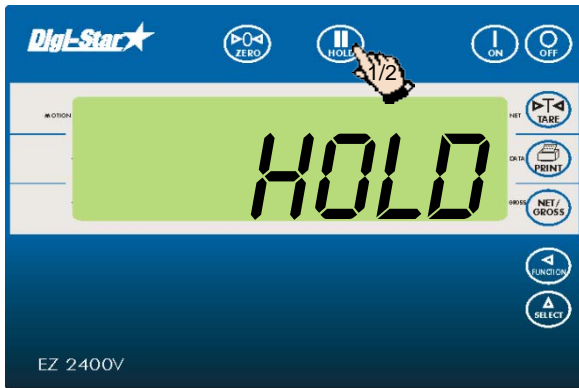
A sample output format is shown below:






OTHER FUNCTIONS

Holding the displayed amount

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

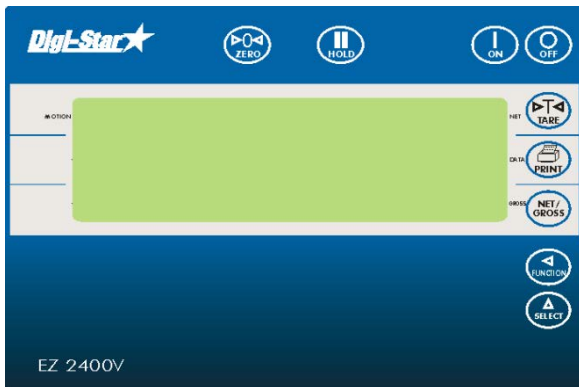


1. Press  to hold the displayed weight.
2. Press  to return to normal weighing mode.

If an amount is loaded while the weighing indicator is in Hold mode, press  to exit hold mode.

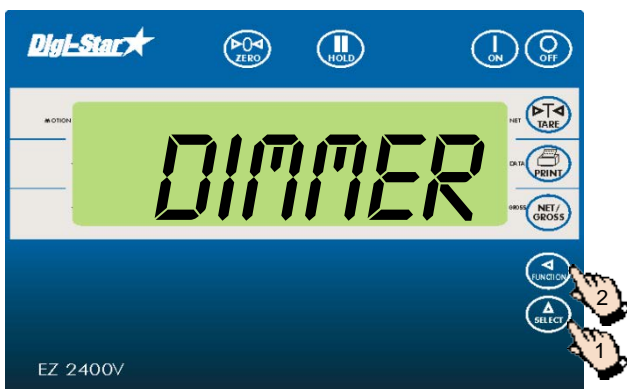
PRINTING




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



Reference: technical manual D3648 on www.digi-star.com

Backlight intensity



1. Press , until *DIMMER* appears on the display.
2. Press  to reduce the backlight intensity by 60%. Press  again to return to full intensity.

Function and Select keys



1. Repeatedly press  to select following options:

Timer: Stopwatch for mixing time

M+: Adding new weigh to total weight in memory.

RM: Displaying weight in memory


CM: Clearing total weight in memory

Dimmer: Decreasing intensity of the background light

Menu: Viewing menus 1,2,3 and 4 and calibrating. See pages 14 and 15.

Setup: Changing setup and calibration numbers See page 20.

Help: Explains the function of the last key pressed.

2. When the required option is displayed, press  to activate this option.

MENUS 1 THRU 4 AND CALIBRATION

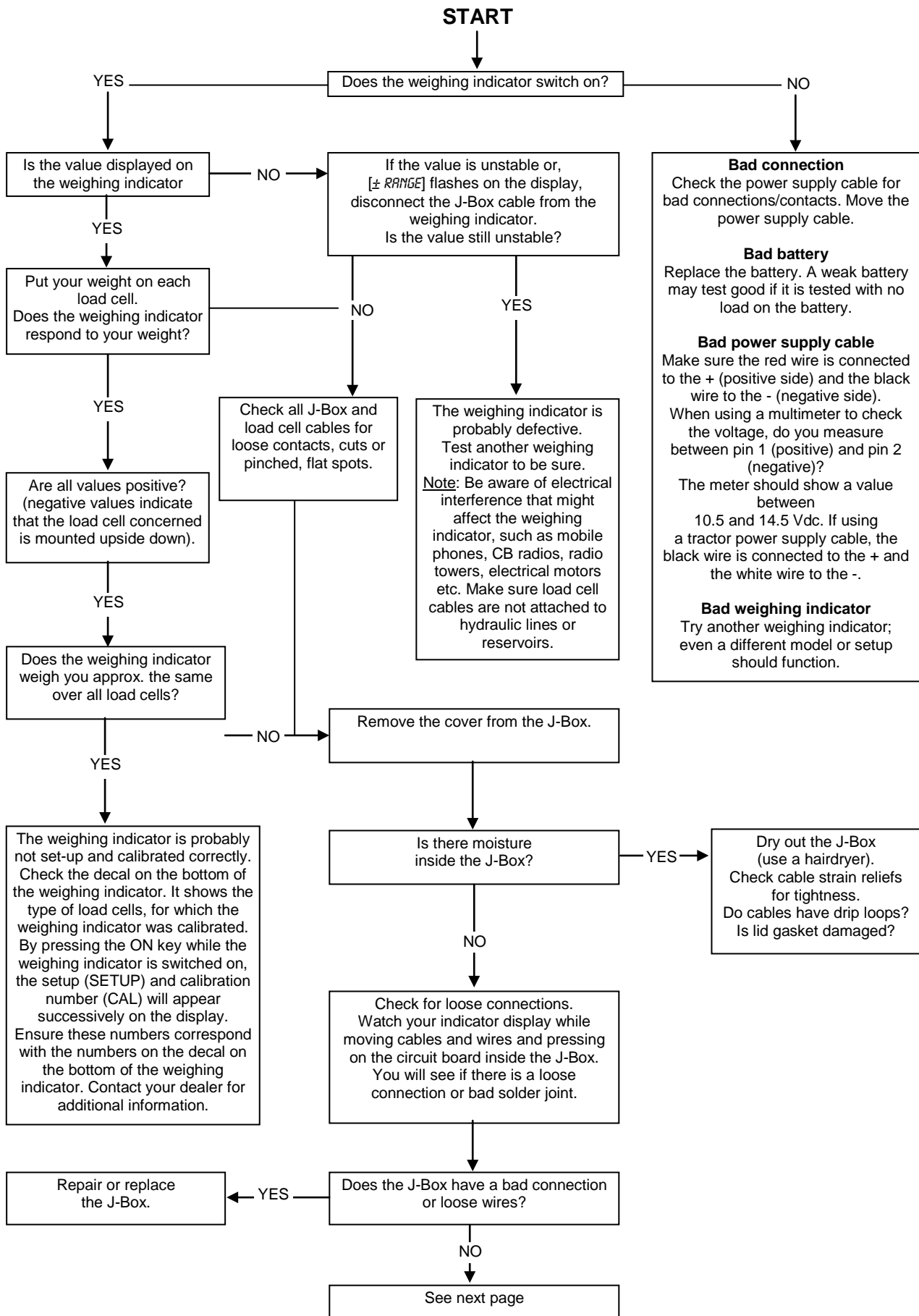
1. Repeatedly press , until *MENU* is displayed.
2. Press and hold for 3 seconds.
3. Repeatedly press to select Menu 1,2,3, 4 or to calibrate.
4. Press to access the selected menu and display the first menu setting.
5. a) Press to move to the next setting without making any changes or,
 b) Press to select the required options for each setting.
6. Press to save the edited setting and to select the next setting in the menu.

Note: Press and hold Then press to exit the menu.

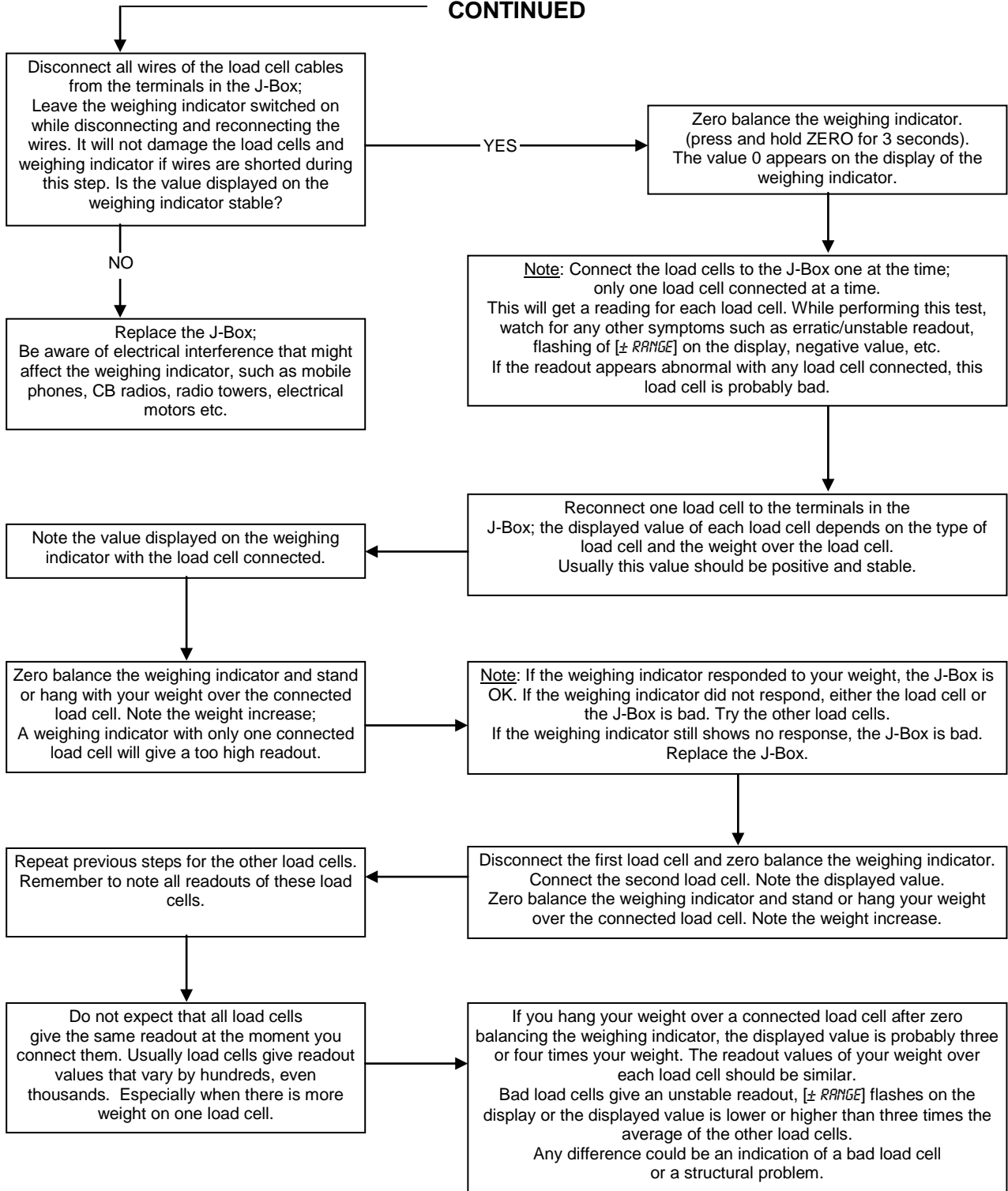
Setting [display]	Access Nº	Options [displayed] (bold=default)	Description	
MENU 1. BASIC FUNCTIONS IN MOST WEIGHING INDICATORS				
LANGUAGE [LANGAG]	101	English Dutch French German Italian Portuguese Spanish Danish Hungarian Vesta	[ENGLISH] [NEDERL] [FRANCS] [DEUTSH] [ITAL] [PORT] [ESPAN] [DANSK] [MAGYAR] [VESTA]	Settings and texts will appear in this language on the display.
WEIGHING INDICATOR ID SETUP [SCALID]	108	NEW EZ	Identity number of the weighing indicator [feed mixer number].	

Setting [display]	Access N°	Options [displayed] (bold=default)	Description
MENU 2. TIME, PRINT, COMMUNICATION & WEIGHING FUNCTIONS			
TIME FORMAT [TIME F]	201	24 HR AM/PM	Time format: AM/PM or 24 hour
1 TIME [TIME]	202	XX:XX:XX	Use Select and Function key to set the time
DATE FORMAT [DATE F]	203	1-mm-dd 2-mm/dd/yy 3-mm/dd/yyyy 4-dd-mm 5-dd/mm/yy 6-dd/mm/yyyy 7-ddmmyy 8-ddmmyyyy	Date format.
DATE [DATE]	204	Enter XXXXXX.	Use Select and Function key to set the date
WEIGHING INDICATOR NR. [SCL NO]	231		Weighing indicator number to communicate with the Cab control.
REMOTE DISPLAY [RMDISP]	234		Type of remote display.
MENU 3. CALIBRATION SETTINGS WEIGHING INDICATOR			
DISPLAY UNIT [LB-KG]	303	LB/KG	Display in lb or kg.
MENU 4. PRESET, RECIPE & COUNTER FUNCTIONS			
NOT USED WITH EZ2400			
CALIBRATION			
CONFIGURATION NUMBER [SETUP]	871		The unit of weight (1-4lbs or 5-8 kg), the gain (1-9), the sensitivity (display counts 1-9) and the capacity * 1000 can be entered using direct number entry.
CALIBRATION NUMBER [CAL]	872		Displayed amount at 0.4mV/V for these load cells.

TROUBLE SHOOTING



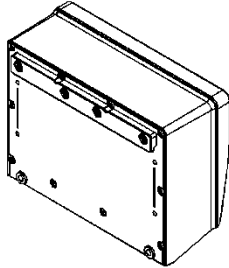
CONTINUED



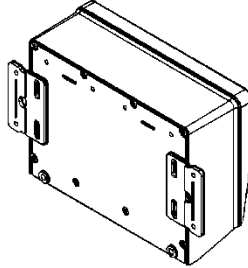
INSTALLATION

Mounting weighing indicator

Rail mounting
included



Wing mount
included



RAM mount
optional

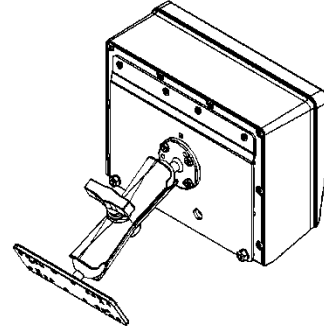
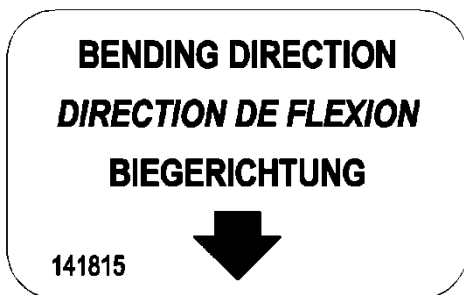


Figure 1: Mounting weighing indicator

Rail mounting (standard) and wing mount; included.
RAM mount (option); included with RAM mounting kit.

Load cell direction



Observe direction of arrow when installing load cell.

Connecting the cables

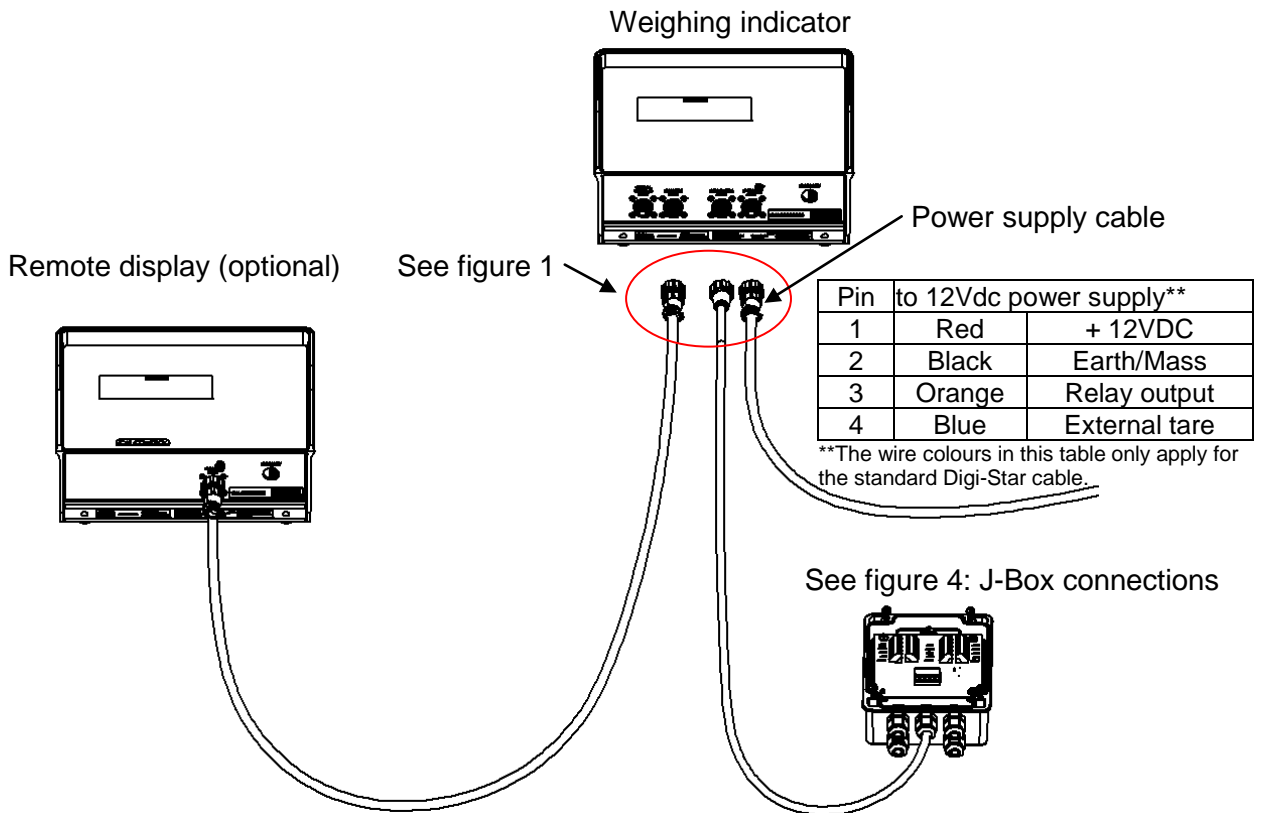


Figure 2: Connection diagram of weighing indicator

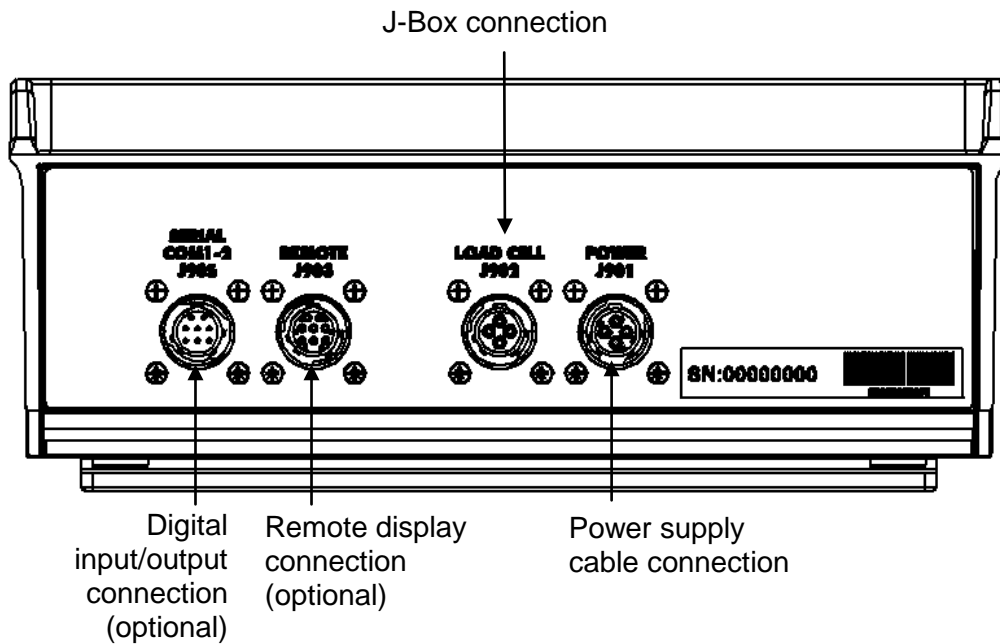


Figure 3: Bottom panel cable connections

Connecting load cells to J-Box

Connection of wires from load cell cable to terminals.

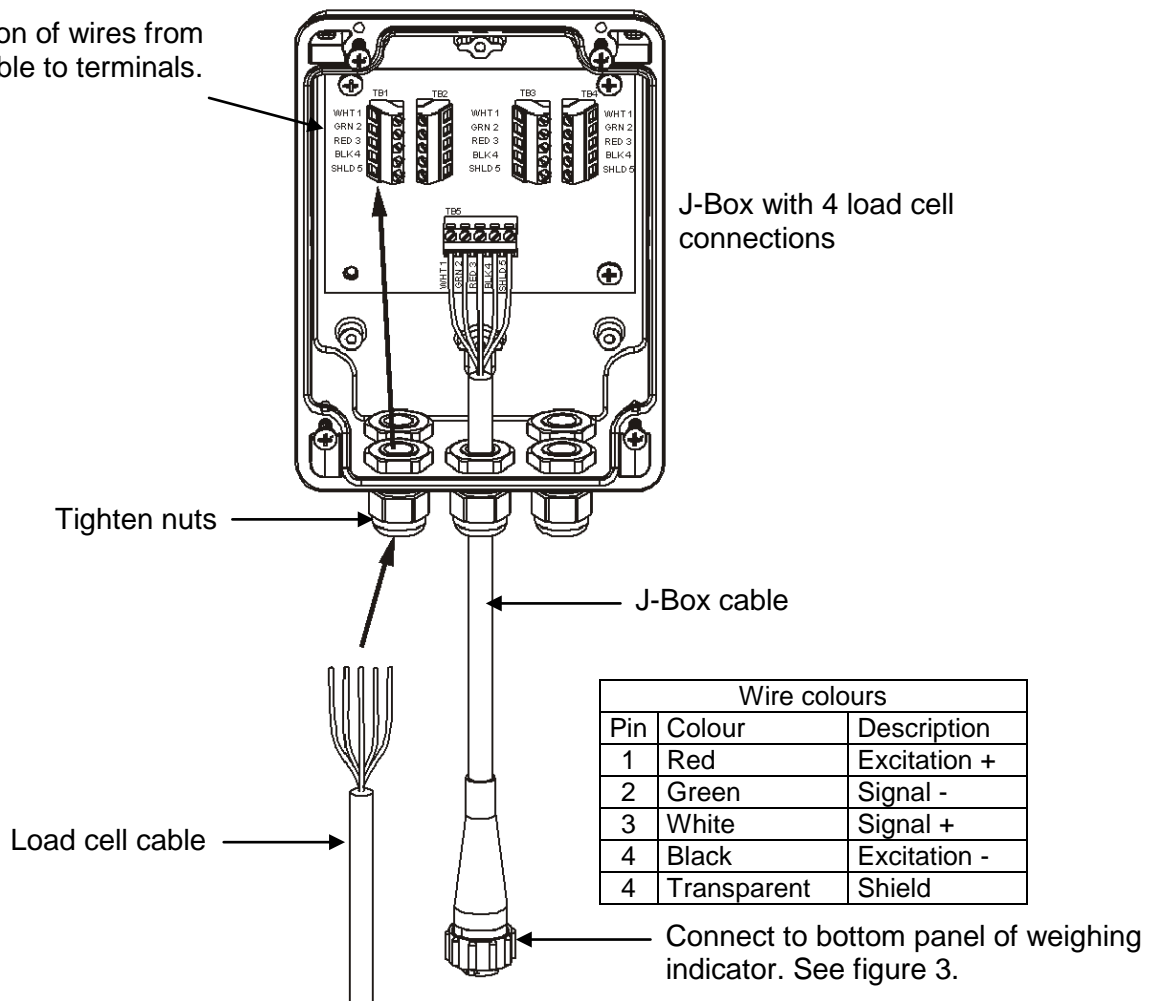
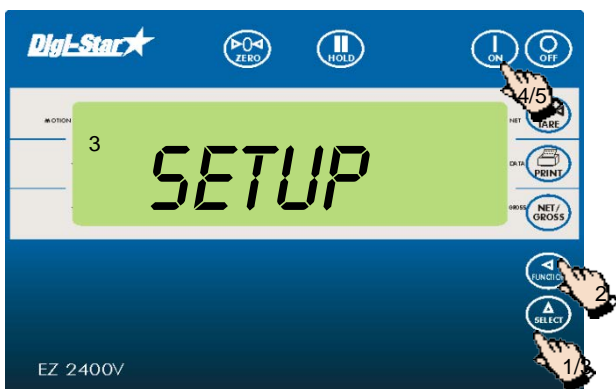


Figure4: J-Box connections

Changing setup and calibration numbers
[SETUP] & [CAL]



1. Repeatedly press **SELECT**, until *SETUP* is displayed.
2. Press and hold **FUNCTION** for 3 seconds .
3. The six digit setup number (*SETUP*) is displayed. Use **FUNCTION** to select the digit to be changed. Press **SELECT** to change the digit.
4. Press **ON** to save the setup number. The calibration number (*CAL*) appears on the display. Use keys **SELECT** and **FUNCTION** change the calibration number (*CAL*).
5. Press **ON** to save the calibration number and to return to gross weighing mode.

OPTIONAL EQUIPMENT

Data Downloader (DDL)



Kit to download data.

Allows transfer of data from weighing indicator to PC.

ATTENTION! This option requires installation of the optional communication in the weighing indicator.

Transmitter/receiver



Transmitter (shown left) with factory installed receiver in weighing indicator.

To be used to toggle between net and gross weight. The system can also be used to zero balance the weighing indicator from a distance. Operating range is approx. 50 m.

Remote displays



RD440 small remote display with 1" (2,5 cm) high digits.

RD2400V backlit remote display with 1.7" (4,3 cm) high digits.

RD4000 LED remote display 4" (10 cm) high digits.

APPENDIX A1: EC DECLARATION OF CONFORMITY

Application of Council Directive(s)	2004/108/EEC
Manufacturer's Name	Digi-Star, LLC
Manufacturer's Address	790 West Rockwell Avenue, Fort Atkinson, WI 53538
European Representative Name	Digi-Star Europe B.V.
European Representative 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).

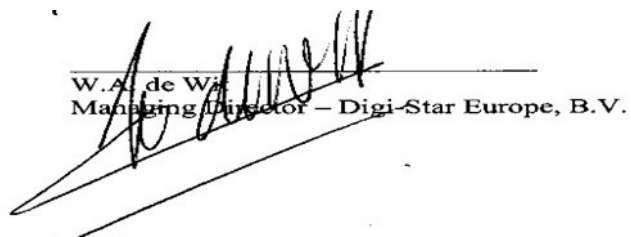
Beginning serial N°: 1001
Year of Manufacture: 2008

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

Manufacturer



Legal representative in Europe



W. A. de Wit
Managing Director – Digi-Star Europe, B.V.

Signature

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

Signature

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