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APPENDIX A1: EC DECLARATION OF CONFORMITY
FEED MANAGEMENT SOFTWARE

A full featured Windows® based system that offers powerful and easy to use features.

>>For additional information, see www.digi-star.com
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
- Easily call-up recipes without leaving the front loader.
- 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.

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. **zero** – press and hold for 3 seconds to zero balance the weighing indicator.
2. **Warning light pre-alarm** – light flashes and alarm sounds when weight is within preset limit.
3. **hold** – to hold displayed weight when moving the machine.
4. **os** – to set mixing time
5. **on** – to switch on weighing indicator. Press this key while the weighing indicator is on to run the self test.
6. **off** – to switch off weighing indicator.
7. **Display** – to display actual values and settings.
8. **temp zero** – to temporarily zero the weighing indicator [Net mode].
9. **print** – to register or print the displayed weight.
10. **g** – to toggle between net and gross weights.
11. **r** – to select recipes.
12. **id** – to enter user and feed cycle numbers. Any user number can be entered as long as this number has not been assigned by the management software.
13. **CLEAN** – to clear <Backspace>
14. **SF** – to start dosing out recipe for groups [List mode]. See page 12.
15. **ENT** – to confirm modification or select the next item.
16. **Arrow keys** – to scroll through a list of information.
17. **Keyboard** – to enter numbers and letters.
18. **?** – to display extra information.
19. **** – to display extra tasks.
20. **** – to perform the selected task.
21. **USB stick** – to transfer data from computer to weighing indicator and vice versa.

22. **Serial port/printer port** – communication with inputs and outputs of the computer and other digital devices (optional).
23. **Port for remote display** – to connect the remote display (optional).
24. **Load cell port** – to connect the J-Box cable.
25. **Power supply port** – to connect the power supply cable.
26. **USB port** – to insert the USB stick to upload/download data.
27. **Serial number**

>>See pages 36, 37 and 38 for installation instructions.
OPERATION

Switching on the weighing indicator

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

2. Enter the user number, if required.

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

4. Press and hold \( \text{ZERO} \) for 3 seconds to zero balance the weighing indicator.
USING EZ3600(V) AS A DATA TRANSFER UNIT

Recipes can be programmed using the TMR Tracker software and sent to the EZ3600(V) unit via USB stick or DataLink. When running in “PC” mode it is not possible to program a recipe using the front panel.

To set unit to PC programmable see page 30 TMR Tracker or Front Panel programming.
DATA TRANSFER

USB mode

1. Insert the USB stick in the weighing indicator.
2. Press \( \text{to upload data.} \)

Note: If the weighing indicator displays uncompleted recipes in the memory, press \( \text{to overwrite this data. Remove USB stick after data has been transferred.} \)

To download data of completed recipes:
Insert the USB stick in the weighing indicator. The weighing indicator automatically sends data to the USB stick.
Remove the USB stick.

DataLink modes

<table>
<thead>
<tr>
<th>Operation</th>
<th>Displayed message</th>
</tr>
</thead>
<tbody>
<tr>
<td>DataLink connects with the weighing indicator</td>
<td>( \leftarrow \text{PC} \rightarrow )</td>
</tr>
<tr>
<td>DataLink sends data to the weighing indicator</td>
<td>( \text{DL} \leftarrow \text{IN} )</td>
</tr>
<tr>
<td>The weighing indicator gives a message that all data has been received.</td>
<td>( \text{NEW DATA} )</td>
</tr>
<tr>
<td>Weighing indicator connects with DataLink</td>
<td>( \leftarrow \text{PC} \rightarrow )</td>
</tr>
<tr>
<td>Weighing indicator sends complete data to DataLink</td>
<td>( \text{DL} \rightarrow \text{OUT} )</td>
</tr>
<tr>
<td>To send data to the PC, if not all recipes have been fed. Press until a message [right column] appears on the display. Press ( \text{to select this.} )</td>
<td>( \text{EZ} \rightarrow \text{PC} )</td>
</tr>
<tr>
<td>The weighing indicator marks uncompleted recipes as being completed and sends data of the completed recipes to DataLink.</td>
<td></td>
</tr>
</tbody>
</table>

Note: After data has been sent, uncompleted recipes will be deleted.

Weighing indicator data formats

Data can be sent to the weighing indicator in two different modes:

- **Complete load mode**: Each load is prepared by the TMR Tracker software. In this mode groups are assigned to recipes and an accurate load is prepared.
- **Recipe and group list mode**: The TMR Tracker software sends the recipe and group data in two separate lists. The operator selects the recipe to be prepared and the dose outs per group.
LOADING AND FEEDING IN COMPLETE LOAD MODE

Loading recipes

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

   ![Image](image1.png)

   1. The weighing indicator displays recipe, group number and feeding number in succession.

2. Press \[ \text{FEED 1} \] to select the required recipe.

   ![Image](image2.png)

3. Press \[ \text{ENTER} \] to start the recipe selected.

   ![Image](image3.png)

   ![Image](image4.png)

   ![Image](image5.png)

   ![Image](image6.png)

Resizing recipe weight

If the RESIZE function is activated, the recipe amount for the group(s) can be adjusted.

1. Enter the new recipe amount or keep the original amount.

   ![Image](image7.png)

2. Press \[ \text{RESIZE} \]. The weighing indicator recalculates the recipe.

   ![Image](image8.png)

   ![Image](image9.png)

   ![Image](image10.png)

   ![Image](image11.png)

   ![Image](image12.png)

   ![Image](image13.png)

Note: Press \[ \text{SELECT} \] to change the number of animals instead of the recipe amount. After the number of animals has been changed, the weighing indicator will automatically adjust the recipe amount.

Press \[ \text{ENTER} \] to accept the recipe amounts of the group(s) without adjusting them.

If the weighing indicator indicates that the resized recipe exceeds the capacity of the feed mixer, press \[ \text{ENTER} \] to ignore this message.
1. The first ingredient and the corresponding amount will flash on the display.

2. As soon as the amount starts to approach zero the alarm light starts flashing and you will hear an alarm signal.

3. a) Manually advance next ingredient: When the ingredient amount to be loaded has been reached, press \( \text{[Accept]} \) to accept this amount. Press \( \text{[Accept]} \) again to advance to the next ingredient.

   b) Automatically advance next ingredient: When the ingredient amount to be loaded has been reached, the weighing indicator will automatically advance to the next ingredient.

   Note: See pages 26, 27 and 28 for settings.

Note: To load the ingredients in a different order, press \( \text{[Up]} \) or \( \text{[Down]} \) to select the required ingredient. Press \( \text{[Accept]} \) to start loading this ingredient.

Feeding groups

When the ingredients have been loaded, the weighing indicator will show the first group to be fed.

1. a) Manual advance: Press \( \text{[Accept]} \) to select the group to be fed. When the amount to be fed has been dosed out, press \( \text{[Accept]} \) to accept this. Press \( \text{[Accept]} \) again to advance to the next group, or

   b) Automatic advance: When the amount to be fed has been dosed out, the weighing indicator will automatically advance to the next group.

After the last group has been fed, following message will appear on the display:

\textit{RECIPE COMPLETE.}

Note: Do not press \( \text{[Clear]} \).

To feed the groups in a different order, press \( \text{[Up]} \) or \( \text{[Down]} \) to select the required group. Press \( \text{[Accept]} \) to start feeding this group.
LOADING AND FEEDING IN RECIPE AND GROUP LIST MODE

Loading the recipe

1. Press \[ \text{RECIPE} \].
2. On the display appears, for example:
   \[ \text{RECIPE DRY COW TOT - 2500} \]
3. Press \[ \text{▲} \] and \[ \text{▼} \] to select the required recipe.
4. Press \[ \text{ENTER} \] to start loading the selected recipe.

Resizing recipe weight

If the RESIZE function has been activated, the recipe amount can be adjusted.

1. Enter the new recipe amount or keep the original amount.
2. Press \[ \text{ENTER} \]. The recipe is recalculated.

Note: If the weighing indicator indicates that the resized recipe exceeds the capacity of the feed mixer, press \[ \text{RECIPE} \] to ignore this message.

1. The first ingredient and the corresponding amount will flash on the display.
2. As soon as the amount starts to approach zero the alarm light starts flashing and you will hear an alarm signal.
3. a) Manually advance next ingredient: When the ingredient amount to be loaded has been reached, press \[ \text{ENTER} \] to accept this amount. Press \[ \text{ENTER} \] again to advance to the next ingredient, or …
   b) Automatically advance next ingredient: When the ingredient amount to be loaded has been reached, the weighing indicator will automatically advance to the next ingredient. See pages 26, 27 and 28 for settings.

   Note: To load the ingredients in a different order, press \[ \text{▲} \] or \[ \text{▼} \] to select the required ingredient. Press \[ \text{ENTER} \] to start loading this ingredient.
Feeding groups

1. After the last ingredient has been loaded, \textit{RECIPE COMPLETE} will appear on the display. Press \( \text{[Enter]} \). The weighing indicator shows the groups to be fed.

2. Press \( \triangleleft \) or \( \triangleright \) to select the required group.

3. Press \( \text{[Enter]} \)

4. The weighing indicator shows the group to be fed and the corresponding recipe amount. Feeding can be started.

5. a) Manually advance: When the recipe amount to be fed has been dosed out, press \( \text{[Enter]} \) to accept this. Press \( \text{[Enter]} \) again to advance to the next group.

or

b) Automatically advance: When the recipe amount to be fed has been dosed out, the weighing indicator will automatically advance to the next group to be fed.

6. When the group(s) have been fed, press \( \text{[Recipe]} \) to select the recipe for the next group to be fed.

See pages 26, 27 and 28 for settings.
ADVANCED FUNCTIONS

Partially feeding groups

1. Press \( \downarrow \) to advance to next group without finishing feeding the current group.

Note: If you have set the group tolerance and feeding is stopped before the preset recipe amount is reached, an alarm will sound and the weighing indicator displays:

\[
\text{PEN UNDERFED - PRESS PRINT } \\
\text{TO REMOVE THIS PEN FROM LIST - } \\
\text{PRESS ON TO KEEP PEN}
\]

To set group tolerance, see page 27.

Return to the skipped ingredient

1. Press \( \triangleleft \) or \( \triangleright \) to return to the skipped ingredient.
2. Press \( \text{ENTER} \)

Note: If the ingredient amount has changed by more than 4 counts, this ingredient can no longer be selected.

Changing the feeding cycle number

1. Press \( \text{ID} \).
2. Enter user number.
3. Press \( \text{ENTER} \).
4. Enter feeding number (1-9).
5. Press \( \text{ENTER} \).
Clearing the indicator memory

1. Press \( \text{OFF} \).
2. Press and hold \( \text{CLEAR} \).
3. Press \( \text{ON} \), while holding \( \text{CLEAR} \). The weighing indicator will successively show:
   \( \text{ON}=\text{ERASE} \quad \text{CLEAR}=\text{REUSE} \quad \text{NET}=\text{EXIT} \)
   Release \( \text{CLEAR} \).
4. Press \( \text{ON} \).

Re-using recipe / group data

1. Press \( \text{OFF} \).
2. Press and hold \( \text{CLEAR} \).
3. Press \( \text{ON} \) while holding \( \text{CLEAR} \). The weighing indicator will successively show:
   \( \text{ON}=\text{ERASE} \quad \text{CLEAR}=\text{REUSE} \quad \text{NET}=\text{EXIT} \).
   Release \( \text{CLEAR} \).
4. Press \( \text{CLEAR} \) again to re-use recipe and group data.

Note: The weighing indicator re-uses the recipe and group information stored in the weighing indicator. The loaded ingredient amounts and fed recipe amounts will be removed. Download the complete data to the USB stick, before re-using the recipe and stored group data.
For continuous re-use, set number 466 from the list with direct access number (D.A.N.-list) to ON. See page 33.

Adding a group to group list

1. Enter group name or number.
2. Press \( \text{OFF} \).
3. Press \( \text{ON} \) to add the group.
4. Press \(\uparrow\) or \(\downarrow\) to select the required recipe.
5. Press \(\text{Enter}\).
6. Enter the recipe amount to be fed to the group.
7. Press \(\text{Enter}\).
8. Enter the number of animals in this group.
9. Press \(\text{Enter}\).
10. If you work with zones, the following will appear on the display:

    \text{ENTER ZONE 0-9}
11. Enter the required zone.
12. Press \(\text{Enter}\).
EZ3600(V) FRONT PANEL PROGRAMMING

Recipes can be programmed using the EZ3600(V) front panel.

To set front panel programming see page 30 *TMR Tracker or Front Panel programming.*
PROGRAMMING RECIPES

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

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

2. **Percentage (%) per ingredient**
Enter the amount of ingredient per recipe as a percentage (%). For example, 55% silage and 45% corn. The weighing indicator will calculate the total amount to be prepared per ingredient: 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 of ingredient per recipe. For example, 2500 kg silage and 2000 kg corn.

**Changing the programming method**

[E-MTHD]

1. Enter 441 and press \( a \).
2. Press \( a \) repeatedly to select the required programming method for blends.
   - 1 = Amount per animal
   - 2 = Percentage (%) per ingredient
   - 3 = Amount per ingredient
3. Press \( o \) to confirm the selected programming method.

**Changing ingredient names**
The standard ingredient names can be changed as required:

1. Repeatedly press \( a \) until \( INGRNM \) is displayed.
2. Press \( v \).
3. Press \( a \) to select the ingredient to be changed.
4. Press \( q \) to change the name. \( EDIT \) will briefly be displayed, followed by a flashing cursor.
5. Press \textit{CLEAR} repeatedly to delete an ingredient.

6. Press \textit{1} \text{x} \textit{1} to enter the number 1; Press 2x is A, 3x is B and 4x is C. Use this method to enter all the letters of the alphabet using the numeric keyboard.

7. When you have entered a letter or number, wait briefly before entering the next number or letter.

8. Press \textit{OK} to confirm.

9. Press \textit{\textbraceleft \textbracerright} to return to normal weighing mode.

**Printing an ingredient name**

1. Repeatedly press \textit{SELECT}, until \textit{INGRNM} is displayed.

2. Press \textit{\textbraceleft \textbracerright}.

3. Press \textit{\textbraceleft \textbracerright} to print all ingredients and the total amounts loaded per ingredient.

**Programming a new recipe**

1. Press and hold \textit{SELECT} until the weighing indicator emits a high pitched signal and \textit{PROGRM} is displayed. The first programmed recipe or \textit{REC\_} will be displayed.

2. Press \textit{CLEAR} or,

3. Enter the required recipe number.

4. Press \textit{\textbraceleft \textbracerright} to confirm the entered recipe number.
5. Use ↑ and ↓ to run through the list with ingredients.

6. Press → to select the displayed ingredient.

7. Enter the required ingredient amount*.

8. Press → to confirm the entered amount.

9. Repeat steps 5 thru 8 for the other ingredients in the recipe to be programmed.

* With the programming method Percentage (%) per ingredient enter 75%, for example, as 75.00 and 5.75% as 5.75.

10. Press → to confirm the entered recipe.

11. The weighing indicator calculates and displays the total amount of the recipe (TOTAL).

12. Repeat steps 1 thru 11 for the other recipes to be programmed.

13. Press NET/↑ to quit program mode.

### Changing ingredient amounts in the recipe

1. Press and hold ↵ until the weighing indicator emits a high pitched signal and PROGRN is displayed.

2. Press ↵ repeatedly until the recipe number to be changed is displayed.

3. Press → to select this recipe.
4. The first ingredient name is displayed, followed by \textit{AMOUNT}.
5. Enter the new amount.
6. Press \texttt{to save the new amount and continue with the following ingredient.}
7. Repeat steps 5 and 6 for the other ingredients in the recipe.
8. Press \texttt{to save the changed recipe.}
9. Press \texttt{.}

Note: It is only possible to change ingredient amounts. To add new ingredients to the recipe, first delete the recipe, then program it again.

**Deleting recipe**

1. Press and hold \texttt{until the weighing indicator emits a high pitched signal and \texttt{PROGRM} and the first recipe number are displayed in succession.
2. Press \texttt{repeatedly until the required recipe number is displayed.
3. Press and hold \texttt{until \texttt{PRESS ZERO TO DELETE RECIPE – PRESS NET/GROSS TO QUIT} are displayed.
4. Press \texttt{to delete this recipe.
5. Press \texttt{to return to normal weighing mode.

**Calling up a recipe**

1. Press \texttt{repeatedly until \texttt{ACCUM} is displayed.
2. Press \texttt{repeatedly until the required recipe is displayed.
3. Press \texttt{to display the various ingredients in the selected recipe.
4. Press \texttt{to return to normal weighing mode.

\begin{verbatim}
<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>5/9</td>
</tr>
<tr>
<td>6/8</td>
<td></td>
</tr>
<tr>
<td>4/5</td>
<td>1/7</td>
</tr>
<tr>
<td>6/7</td>
<td>3/4</td>
</tr>
</tbody>
</table>
\end{verbatim}
PRINTING RECIPES

Printing a single recipe

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

1. Press \( \text{REC} \) repeatedly until the required recipe is displayed.
2. Press \( \text{PRINT} \) to print this recipe.
3. Press \( \text{NET/GROSS} \) to return to normal weighing mode.

Printing all the recipes

1. Press \( \text{REC} \) to display the first recipe.
2. Press \( \text{PRINT} \) to print this recipe.
3. Press \( \text{PRINT} \) again to print all the recipes saved in the memory.
4. Press \( \text{NET/GROSS} \) to return to normal weighing mode.
LOADING AND DOSING OUT RECIPES

Loading recipe according to amount per animal

1. Press \[ \text{REC} \] repeatedly until the recipe to be loaded is displayed.
2. Press \[ \text{START} \] to start the recipe selected.
3. The weighing indicator displays LOAD RECIPE.

4. ANIMAL is displayed.

Note: If you work using a percentage per ingredient or an amount per ingredient, the total amount TOTAMT will be displayed.

5. A flashing number will be displayed. Change this number into the number of animals to be fed.
6. Press \[ \text{ENTER} \].

7. The weighing indicator displays the name and amount of the ingredient to be loaded. As soon as the ingredient is loaded, the weighing indicator will count down to zero.
8. Press \[ \text{ENTER} \] to advance to the next ingredient.

(To set automatic advance, see page 33).
9. After the final ingredient has been loaded, **RECIPE COMPLETE** and **TOTAL LOADED XXX KG** will be displayed.

Dosing out recipe

1. The display shows the total amount of loaded recipe.
2. As soon as dosing out starts the weighing indicator will count down to zero.
3. Press to temporarily set the weighing indicator to 0. This function can be used to see how much has been dosed out per group, if several groups are being fed.
4. Press to read out the remaining weight at any time.
ADDITIONAL FUNCTIONS

Holding the displayed amount

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

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

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

Printing

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


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.
Deleting accumulative ingredient amounts

1. Repeatedly press \( \Delta \), until \( \text{INGRNM} \) is displayed.

2. Press \( \text{PRGRAM} \). \( \text{PRGRAM} \) will briefly flash on the display, followed by the first ingredient.

3. Press \( \text{shift} \) or \( \text{down} \) to select the required recipe.

4. Press and hold \( \text{print} \). Press \( \text{zero} \). The following text is displayed: \text{PRESS PRINT TO REPRINT- PRESS ZERO TO DELETE ACCUMULATION – PRESS NET/GROSS TO QUIT.}

5. Press \( \text{zero} \) to delete the total amount for corn.

6. Press \( \text{NET/GROSS} \).
COMMONLY USED DIRECT ACCESS NUMBERS

Pre-alarm

\[ P-ALM \]
Message when the preset amount to be loaded is almost reached.

1. Enter 401.
2. Press \( \text{SELECT} \).
3. Press \( \text{SELECT} \) again to select \( \text{WEIGHT} \) or \( \text{PERCNT} \).
4. Press \( \text{ON} \).
5. Enter the pre-alarm value in weight or percent.
6. Press \( \text{ON} \).

Automatically advancing ingredients

When automatically advancing to next ingredient, the weighing indicator will automatically advance to the next ingredient as soon as the current ingredient has been loaded, taking the set tolerance and delay time into account.

Tolerance

\[ \text{TOLER} \]
Tolerance is a percentage of the desired ingredient amount. When reaching the \( \text{Desired amount} \) minus \( \text{Tolerance} \), the weighing indicator will accept the loaded amount and automatically advance to the next ingredient, depending on the delay time.

1. Enter 442.
2. Press \( \text{SELECT} \).
3. Press \( \text{SELECT} \) until the desired percentage (tolerance) appears on the display:
   
   \( \text{OFF, 0.5, 1 - 5, 7, or 10} \).
4. Press \( \text{ON} \).
Group tolerance

[T ATHD] & [PENTOL]
Only available in group list mode.

1. Enter 462.
2. Press \( \triangle \). \( \textit{Select} \)
3. Press \( \triangle \) again to select \textit{WEIGHT} or \textit{PERCENT}.
4. Press \( \textit{ON} \). On the display appears: \textit{PENTOL}.
5. Enter the required value in weight or percent.
6. Press \( \textit{ON} \).

Delay time

[DELAY]
Enter the time that the weighing indicator should wait before advancing to the next ingredient to be loaded.

1. Enter 443.
2. Press \( \triangle \). \( \textit{Select} \)
3. Press \( \triangle \), until the required delay time (seconds) appears on the display: \textit{MANUAL, 1, 2, 3, 5, 7, 10, 20, 30, OR 60}.
4. Press \( \textit{ON} \).

Note: If automatically advancing to the next ingredient is not required, set this setting to \textit{MANUAL}. 
Automatically advancing to next ingredient / Manually advancing to next group

[MANPET]
Automatically advancing to next ingredient; manually advancing to next group.

1. Enter 461.
2. Press \( \text{SELECT} \).
3. Press \( \text{SELECT} \) to select \( \text{ON} \) or \( \text{OFF} \).
4. Press \( \text{ON} \).

Drive ratio

[DRRATIO]
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 in the feed mixer.

1. Enter 422.
2. Press \( \text{SELECT} \).
3. Enter the required drive ratio.
4. Press \( \text{ON} \).

Weighing indicator ID / feed mixer ID

[SCALEID]
Each weighing indicator has a unique ID number.

1. Enter 108.
2. Press \( \text{SELECT} \).
3. Press \( \text{CLEAR} \) to delete the old ID number. Enter the new ID number.
4. Press \( \text{ON} \).

Note: The TMR Tracker software ID number must correspond with the ID number of the feed mixer.
Radio number

[SCL NO]
The radio number is used in combination with the Cab control option.

1. Enter 231.
2. Press (SELECT).
3. Press (CLEAR) to delete the number and enter the new number.
4. Press (ON).

Note: Do not use the same number for two different weighing indicators.

Changing the recipe amount on the weighing indicator

[RESIZE]
When starting a recipe the total recipe weight can be changed or the number of animals in a group can be adjusted.

1. Enter 448.
2. Press (SELECT).
3. Press (SELECT) again to select ON or OFF.
4. Press (ON).

Setting the time

[TIME]

1. Enter 202.
2. Press (SELECT).
3. Press (to move the cursor.
4. Press (to set the time.
5. Press (ON).
Setting the date

[DATE]

1. Enter 204.
2. Press SELECT.
3. Press to move the cursor.
4. Press to set the date.
5. Press ON.

TMR Tracker or Front Panel programming

[PROGRM]

1. Enter 439.
2. Press SELECT.
3. Press again to select PC (Programming using TMR Tracker software) or SCALE (Front panel programming).
4. Press ON.
# List with Direct Access Numbers

1. Enter the direct access number and press \( \text{\textbullet} \) to go directly to the setting concerned.
2. Press \( \text{\textbullet} \) to change the setting.
3. Press \( \text{\textbullet} \) to store the setting.

## Setting [display] | Access Nº | Options [displayed] | Description
--- | --- | --- | ---
### MENU 1. Basic Functions in Most Weighing Indicators

| LANGUAGE [LANGAG] | 101 | English, Dutch, French, German, Italian, Portuguese, Spanish, Danish, Hungarian, Vesta | Settings and texts will appear in this language on the display. |

| WEIGHING INDICATOR ID SETUP [SCLID] | 108 | NEW EZ | Identity number of the weighing indicator [feed mixer number]. |

## MENU 2. Time, Print, Communication & Weighing Functions

<p>| 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 [RADISP] | 234 | | Type of remote display. |</p>
<table>
<thead>
<tr>
<th>Setting [display]</th>
<th>Access Nº</th>
<th>Options [displayed] (bold=default)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MENU 3. CALIBRATION SETTINGS WEIGHING INDICATOR</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DISPLAY UNIT [LB-KG]</td>
<td>303</td>
<td>LB/KG</td>
<td>Display in lb or kg.</td>
</tr>
<tr>
<td><strong>MENU 4. PRESET, RECIPE &amp; COUNTER FUNCTIONS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PREALARM [P-MTHD] &amp; [P-ALM]</td>
<td>401</td>
<td>WEIGHT PERCNT</td>
<td>Select WEIGHT or PERCNT and enter a value to activate an early warning indicating that the weighing indicator is reaching the preset amount.</td>
</tr>
<tr>
<td>SIREN (BUZZER)</td>
<td>404</td>
<td>1-4, ON/OFF</td>
<td>Switching the loud alarm signal ON or OFF.</td>
</tr>
<tr>
<td>TIMER/COUNTER [TMRCTR]</td>
<td>421</td>
<td>REV. TIME</td>
<td>Determination of the recipe mixing time based on time or on the number of mixing auger revolutions.</td>
</tr>
<tr>
<td>DRIVE RATIO [DRATIO]</td>
<td>422</td>
<td>0001.00</td>
<td>The number of input impulses (PTO revolutions), which correspond with one single revolution of the mixing auger.</td>
</tr>
<tr>
<td>TOLERANCE [TOLER]</td>
<td>442</td>
<td>OFF, 5,1-5,7,10</td>
<td>The tolerance (percentage of the ingredient amount) to accept the ingredient.</td>
</tr>
<tr>
<td>INGR. ADVANCEDELAY [DELAY]</td>
<td>443</td>
<td>MANUAL, 1-3,5,7,10,20,30,60</td>
<td>The number of seconds the weighing indicator should wait before automatically advancing to the next ingredient.</td>
</tr>
<tr>
<td>USER ID [USERID]</td>
<td>446</td>
<td>ON/OFF</td>
<td>If this setting is ON, the operator should enter the user ID to use the weighing indicator.</td>
</tr>
<tr>
<td>RESIZING RECIPE. [RESIZE]</td>
<td>448</td>
<td>ON/OFF</td>
<td>If this setting is ON, the operator can adjust the recipe amount.</td>
</tr>
<tr>
<td>RECIPE TOTAL [RECTOT]</td>
<td>451</td>
<td>ON/OFF</td>
<td>Displayed total weight of the recipe to be loaded.</td>
</tr>
<tr>
<td>TOLERANCE OVERLOCK [OVERLK]</td>
<td>453</td>
<td>ON/OFF</td>
<td>If this setting is ON, the weighing indicator does not automatically advance to the next ingredient when exceeding the set tolerance.</td>
</tr>
<tr>
<td>FEED ZONE [FDZONE]</td>
<td>454</td>
<td>ALL, 1-9</td>
<td>The feed zone of the groups to be fed.</td>
</tr>
<tr>
<td>Setting [display]</td>
<td>Access Nº</td>
<td>Options [displayed] (bold=default)</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------------------------------</td>
<td>-----------</td>
<td>------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>UNCOMPLETED RECIPES [UNDN I]</td>
<td>455</td>
<td>ON/OFF</td>
<td>If this setting is ON, the weighing indicator displays all uncompleted recipes.</td>
</tr>
<tr>
<td>AUTOSTART GROUPS [AUTPEN]</td>
<td>458</td>
<td>ON/OFF</td>
<td>If this setting is ON, the group list will automatically appear on the display after loading the ingredients.</td>
</tr>
<tr>
<td>MANUALLY ADVANCING TO NEXT GROUP [MANPEN]</td>
<td>461</td>
<td>ON/OFF</td>
<td>If this setting is ON, the operator should manually advance to the next group(s) to be fed.</td>
</tr>
<tr>
<td>GROUP TOLERANCE [T MTHD] &amp; [PENTOL]</td>
<td>462</td>
<td>WEIGHT PERCNT</td>
<td>Select WEIGHT or PERCNT and enter of group tolerance.</td>
</tr>
<tr>
<td>DISPLAYED WEIGHT DURING FEEDING [PEN WT]</td>
<td>463</td>
<td>LOAD GROSS NET</td>
<td>The method of displaying during feeding: net, load or gross weight.</td>
</tr>
<tr>
<td>DOUBLE KEY PRESS PREV [DBLKEY]</td>
<td>465</td>
<td>ON/OFF</td>
<td>Select if a double key press should be ignored during loading and feeding.</td>
</tr>
<tr>
<td>RECIPE REMAINS ACTIVE [RE-USE]</td>
<td>466</td>
<td>ON/OFF</td>
<td>Select ON to re-use recipes.</td>
</tr>
</tbody>
</table>

**CALIBRATION**

<table>
<thead>
<tr>
<th>Setting [display]</th>
<th>Access Nº</th>
<th>Options [displayed] (bold=default)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SETUP NUMBER [SETUP]</td>
<td>871</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>CALIBRATION NUMBER [CAL]</td>
<td>872</td>
<td></td>
<td>Displayed amount at 0.4mV/V for these load cells.</td>
</tr>
</tbody>
</table>
TROUBLE SHOOTING

START

Switch the weighing indicator on?

YES

If the value is unstable or, \([\pm \text{ RANGE}]\) flashes on the display, disconnect the J-Box cable from the weighing indicator. Is the value still unstable?

Bad connection
Check the power supply cable for bad connections/contacts. Move the power supply cable.

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 -.

BAD WEIGHING INDICATOR
Try another weighing indicator; even a different model or setup should function.

NO

NO

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

YES

Check all J-Box and load cell cables for loose contacts, cuts or pinched, flat spots.

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.

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

NO

YES

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

YES

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

Remove the cover from the J-Box.

Is there moisture inside the J-Box?

YES

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

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.

NO

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

YES

Repair or replace the J-Box.

NO

See next page
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 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 readout, flashing of \([-\text{RANGE}\] on the display, negative value, etc. If the readout appears abnormal with any load cell connected, this load cell is probably bad.

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.

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.

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

Disconnect 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, \([-\text{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.

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.

Note the value displayed on the weighing indicator with the load cell connected.
INSTALLATION

Mounting the indicator

Rail mounting [standard] and wing mount included.
RAM mount (option) included in RAM mount kit.

Load cell direction

BENDING DIRECTION
DIRECTION DE FLEXION
BIEGERICHTUNG

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

Figure 2: Connection diagram of weighing indicator

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Remote display (optional)

Weighing indicator

Power supply cable

See figure 1

See figure 4: J-Box connections

**The wire colours in this table only apply for the standard Digi-Star cable.

<table>
<thead>
<tr>
<th>Pin</th>
<th>to 12Vdc power supply**</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Red</td>
</tr>
<tr>
<td>2</td>
<td>Black</td>
</tr>
<tr>
<td>3</td>
<td>Orange</td>
</tr>
<tr>
<td>4</td>
<td>Blue</td>
</tr>
</tbody>
</table>

** + 12VDC
Earth/Mass
Relay output
Remote input

Figure 3: Bottom panel cable connections

Remote display connection (optional)

Power supply cable connection

USB port

J-Box connection

Digital input/output connection (optional)
Connecting load cells to J-Box

Connection of wires from load cell cable to terminals.

Tighten nuts

J-Box connections

Load cell cable

Connect to bottom panel of weighing indicator. See figure 3.

Connecting load cells to J-Box

Changing setup and calibration numbers

[SETUP] & [CAL]

1. Enter 871.
2. Press .
3. Weighing indicator briefly shows SETUP followed by a six digit number. Enter the new number.
4. Press .

Use 872 and follow the same procedure to change the calibration CAL number.

Wire colours

<table>
<thead>
<tr>
<th>Pin</th>
<th>Colour</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Red</td>
<td>Excitation +</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>Excitation -</td>
</tr>
<tr>
<td>4</td>
<td>Transparent</td>
<td>Shield</td>
</tr>
</tbody>
</table>
OPTIONAL EQUIPMENT

Rotation counter sensor

To be used in combination with the EZ3600 or EZ4600 weighing indicator, which is equipped with a rotation counter port (option). The sensor allows the operator to program the weighing indicator to count the mixing auger or PTO rotations for an accurate mixing of ingredients.

Transmitter/receiver

Transmitter (shown left) with factory installed receiver in weighing indicator. Can be used to manually advance from a distance during loading ingredients and feeding groups. 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 2,5 cm high digits.
RD2400V backlit remote display with 4,3 cm high digits.
RD4000 LED remote display 10 cm high digits.
APPENDIX A1: EC DECLARATION OF CONFORMITY


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 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