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1.0 INTRODUCTION

Thank you for your purchase of a Digi-Star TMR3610 scale indicator. Your TMR3610 is the culmination of more than 30 years of agricultural weighing engineering and expertise. With proper operation and preventative maintenance, the TMR3610 will last for many years.

The Digi-Star TMR3610 is primarily designed for weighing agricultural animal feed products during the loading and unloading of mobile and stationary feed mixers. The TMR3610 can also be used on feed delivery boxes, forage wagons, grain carts, and animal scales.

The TMR3610 is not for use with applications for which the TMR3610 is not intended, or as outlined in this manual.

Use of the TMR3610 outside of its intended purposes may result in inaccurate weight measurement or damage to instrument.
2.0 TMR3610 SPECIAL FEATURES

Preset Weight

The TMR3610 indicator provides simple to use and very useful Preset Weight feature. Using the numeric keypad the operator can enter the desired weight of product that the operator wants to load or unload. Once loading or unloading begins the TMR3610 will count down to 0 (zero). As the weight approaches 0 the audio and visual alarms will begin to pulse with the frequency of the pulses increasing the closer the preset weight gets to 0. At 0 the alarm light and buzzer will sound continuously.

See section 10.3 for details.

Rotation Counter / Timer

The Rotation Counter / Timer provides the useful benefit of monitoring mix revolutions or mix time and a warning light, buzzer, or external signal will indicate when the desired mix revolutions or time has been achieved. For this the TMR3610 uses an optional Rotation Counter Sensor (See Option Equipment Section: 17.0) which is fitted to the drive line of the feed mixer. See section 11.7 for details.

Maintenance Message

The Maintenance Message is available with the Machine Hour Meter function noted above and provides the ability for the equipment manufacturer or equipment owner to utilize the TMR3610 to display a specific Service or Maintenance message after a predetermined period of operation similar to a Change Oil message in an automobile.

See section 11.9 for details.

Machine Hour Meter

The TMR3610 when fitted with the Rotation Counter Sensor can be configured to record hours of operation. The Machine Hour Meter can provide valuable information to aid the user in determining when maintenance and upkeep is required.

See section 11.6 for details.
3.0 ACCURACY STATEMENT

READ THIS SECTION BEFORE USING THE SCALE SYSTEM

Digi-Star Scale Systems are designed and manufactured to provide the greatest accuracy possible. However, proper installation and use are required in order to obtain the highest level of accuracy.

When using the scale system, the following must be considered in order to realize the best possible performance and accuracy.

- Load cells must be installed with the proper orientation. Most Digi-Star load cells have a label indicating either the “TOP” or bending direction of the load cell. Inspect load cells to determine if the load cells are installed correctly. Incorrect installation of load cells will result in inaccurate measurement.
- Load cells should not be subjected to any strains or loads other than the weight of the load. Stress or strain caused by misalignment or other factors when accurate weight readings are desired will negatively affect the accuracy.
- The weighing unit should be stationary with minimum movement, and on a level surface, to insure that weight readings are as accurate as possible.
  - The effect of movement on accuracy depends on the speed and roughness of the ground and application. Rougher terrain and faster and/or greater movement increases the degradation of accuracy.
  - A level surface is defined as being less than a 5” (13cm) change in rise over 10' (3.0m) of run. As the slope of the terrain increases, degradation of accuracy will also increase.
## 4.0 TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIZE</td>
<td>10.25&quot; long x 8.0&quot; high x 4&quot; wide (260mm x 190mm x 105mm)</td>
</tr>
<tr>
<td>WEIGHT</td>
<td>4.5 lbs. (2.04 Kg)</td>
</tr>
<tr>
<td>HELP MESSAGES</td>
<td>Context sensitive help messages in 10 languages, Long messages are scrolled</td>
</tr>
<tr>
<td>LOAD CELL EXCITATION</td>
<td>8 volts D.C. Nominal, Capable of driving ten 350 Ohms transducers, Short circuit proof</td>
</tr>
<tr>
<td>AUTO TEMPERATURE COMPENSATION</td>
<td>Of internal circuitry for high accuracy weighing measurements</td>
</tr>
<tr>
<td>LOAD CELL SIGNAL</td>
<td>Compatible with Load Cells with greater than 0.25 mv/v</td>
</tr>
<tr>
<td>CONNECTORS</td>
<td>AMP plastic weather resistant circular connector. Gold plated contacts.</td>
</tr>
<tr>
<td>POWER REQUIREMENTS</td>
<td>10.5 to 16.0 V.D.C. 160 mA nominal with four 350Ω L.C.</td>
</tr>
<tr>
<td>SET UP AND CALIBRATION</td>
<td>Via front panel or saved when downloading the setting files.</td>
</tr>
<tr>
<td>GROSS RANGE</td>
<td>999,999 max-display</td>
</tr>
<tr>
<td>LOW BATTERY WARNING POUND/KILOGRAM</td>
<td>Enabled at 10.5V nominal</td>
</tr>
<tr>
<td></td>
<td>Selectable</td>
</tr>
<tr>
<td>DISPLAY</td>
<td>6 Digit Chip On Glass LCD 1.7&quot; high</td>
</tr>
<tr>
<td>DISPLAY RESOLUTION</td>
<td>.01, .02, .05, .1, .2, .5, 1, 2, 5, 10, 20, 50, 100</td>
</tr>
<tr>
<td>DISPLAY UPDATE RATE</td>
<td>Selectable: 1, 2, 3, 4 times/sec.</td>
</tr>
<tr>
<td>MAX. DISPLAY RESOLUTION</td>
<td>Adjustable to 40,000 counts max.</td>
</tr>
<tr>
<td>ZERO TRACKING</td>
<td>Selectable, On/Off</td>
</tr>
<tr>
<td>SPAN ACCURACY</td>
<td>±(.1% + .005%/ °F) or (.1% + 0.009% °C) full scale ± 1 output count</td>
</tr>
<tr>
<td>MOTION DETECTION</td>
<td>Selectable, On/Off</td>
</tr>
<tr>
<td>ZERO ACCURACY</td>
<td>(.005%/ °F) or (0.009% °C) full scale ±1 output count for 0.5 mv/v transducer</td>
</tr>
<tr>
<td>ENVIRONMENTAL ENCLOSURE</td>
<td>IP65, IEC 529</td>
</tr>
<tr>
<td>WEIGH ALGORITHM</td>
<td>3 internally selectable digital filters to optimize performance (General, Slow, and Fast)</td>
</tr>
<tr>
<td>HOLD MODE</td>
<td>Used in mobile applications to stabilize displayed weight while moving the scale</td>
</tr>
<tr>
<td>NON-VOLATILE MEMORY</td>
<td>Standard</td>
</tr>
<tr>
<td>OPERATING TEMP</td>
<td>-29°C to 60°C  -20°F to 140°F</td>
</tr>
<tr>
<td>2 REMOTE INPUTS (Power/Remote ports)</td>
<td>Tare /Print / Hold / Net Gross / M+ / Zero / TR Hold / Re-enter Preset / Switch/ INGRED</td>
</tr>
</tbody>
</table>
5.0 SAFETY DURING USE

**Danger:** Indicates an imminently hazardous situation that, if not avoided, could result in death or very serious injury.

**Warning:** Indicates a potential hazardous situation that, if not avoided, may result in death or very serious injury.

**Caution:** Indicates a potential hazardous situation that, if not avoided, may result in a minor injury.

**NOTE!**

**Cleaning:** Do not use running water, pressure washer or hoses to clean the indicator or touch screen.

**Charging Battery:** Disconnect all cables from the indicator and touch screen before charging the battery or welding on the machine. If cables are left connected, the indicator, touch screen and connected load cells could be damaged.
6.0 FEED MANAGEMENT SOFTWARE

TMR Tracker is a full-featured Windows based feed management system. TMR tracker also offers operators additional management tools including: Operator control, pen review, on line feed data exchange with nutritionists, ingredient tracking and numerous reports. TMR Tracker is an indispensable management tool for forward thinking operations.

For additional information go to www.tmrtracker.com
7.0 INDICATOR OVERVIEW

1. **ZERO** - Press and hold for three seconds to zero balance.

2. **Re-Alarm Light** - Starts flashing and alarm sounds when weight is within preset limit.

3. **Hold** – Holds displayed weight when moving machine

4. **Mixing timer** – Mixing timer runs down, alarm sounds / Rotation counter is added to count shaft rotations, alarm sounds.

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

6. **OFF** – Turns scale indicator off.

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

8. **TARE** – Press TARE button for temporary zero when adding more weight.

9. **Print** – Records to memory or prints displayed weight.

10. **NET/GROSS** – Toggles between NET and GROSS weights.

11. **Recipe** – Selects recipes in memory
Enter user’s ID number and feeding ID number when using the keypad.

Clear the characters on LCD (backspace)

Press in list mode to begin pen unloading.

Accepts change or proceeds to next item.

Directional Arrows – Moves through list of information. Left arrow (-) and right arrow (+)

Keypad – Input numbers or letters

Performs tasks displayed when using the select button

Display additional tasks for the user.

Shows additional information for last key pressed.

Indicator Connections Overview

Serial/Printer Port – Communicate with computer and other digital input/output devices.

Remote Port – Optional remote display.

Load Cell Port – For J-Box Cord.

Power Port – For Power Cord.

Serial Number Plate – Serial Number of Indicator.

USB Drive Port – Insert USB Drive to upload/download data
8.0 OPERATION

8.1 Turn on Scale

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

8.2 Zero Balance Indicator

1. Enter User ID Number if required.
2. Press \( \text{ZERO} \).

1. Press and hold \( \text{ZERO} \) for three seconds to zero balance scale.
2. Flashing arrow on side of display points to gross next to the display window, scale is ready to weigh.
8.3 Tare and Net Gross

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

1. Weight displayed, Press \( \text{TARE} \) sets zero weight.

2. Display reads \( \text{ZERO} \) and flashing arrow on side of display points to NET.

3. Add more weight and display reads added weight value.
4. To show total of original weight of 4000 pounds plus added 300 pounds, press \text{flashing arrow on side of display points to GROSS.}

5. Display reads \text{ZERO} and flashing arrow on side of display points to \text{NET.}

8.4 Print Key

1. Press \text{Indicator sends data to printer or PC. Flashing arrow on side of display points to DATA.}

\begin{itemize}
  \item \text{Date in ddmmyy format}
  \item \text{Time}
  \item \text{Weight}
  \item \text{Gross (GR) or Net (NET)}
\end{itemize}
9.0 DATA TRANSFER

9.1 USB Drive Mode

To upload data:
Insert USB Drive.

1. Press or .

Note: If indicator displays, Warning—unused recipes found in EZ—Press to load new recipes from USB drive –Press to exit.

Remove USB drive when complete.

To download data:
Insert USB Drive, indicator automatically sends data to USB Drive. Remove USB Drive.

9.2 RF Datalink Modes

<table>
<thead>
<tr>
<th>Operation</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>DataLink connects with indicator</td>
<td>←PC→</td>
</tr>
<tr>
<td>DataLink sends data to indicator</td>
<td>DL←IN</td>
</tr>
<tr>
<td>Indicator receives data</td>
<td>ALL FEED LINES RECEIVED - PRESS RECIPE KEY TO CONTINUE</td>
</tr>
<tr>
<td>Data complete, indicator sends data to DataLink</td>
<td>←PC→</td>
</tr>
<tr>
<td>Data sending</td>
<td>DL→OUT</td>
</tr>
<tr>
<td>To send data to PC if operator does not complete all feeding at end of feeding schedule. Press until display shows message (right column), press to perform transfer.</td>
<td>EZ→PC</td>
</tr>
</tbody>
</table>

The indicator marks uncompleted data as completed and sends feeding data to DataLink.

NOTE: Indicator may also be manually programmed.
10.0 INDICATOR DATA FORMATS

Data sent to indicator sent in two formats:

**Complete Loads Mode:** Each load built by PC software. It assigns pens to recipe and builds exact load for pens.

**Recipe and Pen List Mode:** PC software sends recipe data and pen data in two different fields. Operator selects recipe to build and pen deliveries.

10.1 Loading And Feeding Complete Loads Mode

Starting a Recipe

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

2. Scrolls feeding number, first recipe and pen number.

3. Press UP and DOWN arrows to find desired recipe.

4. Desired recipe in display line, press \( \).
10.2 Resize Recipe Weight

Indicator gives option to resize pen load weight.

1. Enter new weight or keep original weight.

2. Press ![button]

**Note:** Press ![button] to accept pen values without resizing.

**Note:** If indicator warns resized amount is over capacity, this may damage the mixer. To continue, press ![button] to override.
10.3 Loading Recipe

1. First ingredient weight flashes in display. Load ingredient.

2. Weight approaches zero, alarm will flash and sound.

3. **Manual Advance**: Weight reached, press \[ \to \] again to start next ingredient.

**OR**

**Auto Advance**: When preset weight reached, indicator advances to next ingredient.

---

Ingredients loaded, indicator displays first pen to unload.

1. **Manual Advance**: Press \[ \to \] to go to pen. When weight reached, press \[ \to \] to accept. Press \[ \to \] again to start next pen.

**OR**

**Auto Advance**: When preset weight reached, indicator advances to next pen. Last pen completed, indicator displays `RECIPE COMPLETE`.

---

10.4 Unloading to Pens

**Note**: Do Not Press \[ \to \] (List Mode Only).

**Note**: If different pen needed press UP or DOWN arrows to find desired pen.

Press \[ \to \] for pen delivery.
10.5 Recipe and Pen List Mode

Starting a Recipe

1. Press \( \text{\( 
\end{equation}

2. Display reads: \( \text{\( 
\end{equation}

Example: \( \text{\( 
\end{equation}

3. Press UP and DOWN arrows to select recipe, \( \text{\( 
\end{equation}

to start.

Resize Recipe Weight

Indicator will display: \( \text{\( 
\end{equation}

then resize weight.

1. Enter desired recipe weight using key pad.

2. Press \( \text{\( 
\end{equation}

, indicator resizes ingredients to recipe’s total weight and displays first Ingredient to load.

Note: Indicator warns resized amount over capacity, press \( \text{\( 
\end{equation}

to override.
10.6 Loading Recipe

1. First ingredient weight flashes in display. Begin loading ingredient.

2. Weight reached, alarm will flash and sound.

3. **Manual Advance:** Weight reached, press \( \text{[P]} \). Press \( \text{[P]} \) again to start next ingredient.

   **OR**

   **Auto Advance:** When preset weight reached, indicator advances to next ingredient.

10.7 Unloading Pens

1. When ingredient loading complete, display reads **RECIPE COMPLETE**. Then press the \( \text{[]]} \) key (or use D.A.N. 6217 to enable AUTOPEN).

2. Press UP or DOWN arrows to select desired pen.

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

4. Pen and weight displayed, begin unloading to the pens.

5. **Manual Advance:** Weight reached, press \( \text{[P]} \). Press \( \text{[P]} \) again to start next pen.

   **OR**

   **Auto Advance:** When preset weight reached, indicator advances to next pen.

6. When unloading is complete press \( \text{[]]} \) to start next recipe.
11.0 ADVANCE COMMANDS

11.1 Unload Partial Pens

1. Press DOWN arrow to advance to next pen without finishing current pen.

**Note:** If pen tolerance is set and feeding stopped before preset weight reached, alarm sounds, Indicator displays: **PEN UNDERFED - PRESS PRINT TO REMOVE PEN FROM LIST - PRESS ON TO KEEP PEN**.

For Pen Tolerance; D.A.N. 6223 PENCHK

11.2 Go Back to Skipped Ingredient

1. Press UP or DOWN arrows to move back.

2. Press  

**Note:** Ingredient weight changed more than 4 display counts cannot restart that ingredient. For feature used to control skipped ingredient, use D.A.N. 6011 ISTART.

**Example:** If minimum display change is 10 lbs./kg---More than 40 lbs. Cannot restart that ingredient. One count is equal To 10 lbs./Kg.
11.3 Change Feeding Number

1. Press ID .
2. Enter user number.
3. Press ．
4. Enter feeding number (1-9).
5. Press ．

11.4 Clear Scale Memory

1. To clear scale memory enter D.A.N. 8201
2. Press . Message will be displayed; 
   ON=CLEAR, CLEAR=REUSE, NET=EXIT
3. Press to erase feeding memory.
4. Press to reuse feeding.
5. Press to exit
11.5 Re-Use Recipe/Pen Data

Note: When re-using data stored in indicator, it takes recipe and pen information and removes completed weights loaded or unloaded and marks them undone. It will accumulate data day to day.

Download data to USB Drive before re-using recipe and pen data stored. D.A.N. 6214, ERASFD Feature will erase the DONE feed-lines, when info is downloaded to the USB.

Note: For continuous re-use, set D.A.N. 6205 to on.

11.6 Mixer Time

The mix timer allows the operator to set a timer to alert the operator when the mixing is completed. This can be manually entered or entered as part of the recipe using the TMR TRACKER or other software package.

1. Press .
2. Use the numeric keypad to enter the amount of time.
3. Press .
4. The MixTimer will begin to count down. When it reaches zero the alarm light and buzzer will turn on.
5. Press to enter the weighing mode.
6. Press the or key to re-enter the batching mode.
11.7 Rotation Counter

The rotational counter is used much like the timer. It allows the indicator to count the number of revolutions of a mixer shaft and notifies the operator when a set count is reached.

**Note:** First enter D.A.N. 4301, Press . Choose TIMER or COUNTER, by pressing .

Then press .

1. Press .
2. Use the numeric keypad to enter the number of rotations.
3. Press .
4. The Rotation Counter will begin to count down. When the counter reaches zero the alarm light and buzzer will turn on.
5. Press **CLEAR** to enter the weighing mode.
6. Press the or key to re-enter the batching mode.

11.8 Drive Ratio

**Drive ratio value is:** number of turns seen by the sensor divided by the number of Mixer rotations.

1. Enter D.A.N. 4302
2. Press to enter the drive ratio value. .
3. Press .
11.9 Maintenance Message

Message can be used to alert the user of maintenance needed to be done on the equipment. Rotation Counter Sensor Kit--(p/n: 408088) needed for this feature. For proper maintenance Schedule, refer to equipment operators manual(s).

1. Enter D.A.N. 8011
2. Press . The user may edit the maintenance message using keypad or upload via USB.
3. is displayed on LCD, then edit maintenance message by using keypad.

Example: Pressing key pad “1” one time will show 1, pressing two times will show “A”, pressing three times will show “B”, pressing four times will show “C”.

Advance Commands
11.10 Add a Pen to Pen List

(List Mode Only)

1. Enter pen name or number

2. Press

3. Press

1. Press UP or DOWN arrows to find desired recipe.

2. Press

1. Enter amount to unload to pen.

2. Press

1. Enter number of animals/pen.

2. Press

1. If zones are active display reads:

   \textit{ENTER ZONE 0-9}

2. Press
12.0 COMMONLY USED DIRECT ACCESS NUMBERS (D.A.N.)

12.1 Pre-Alarm
Select weight or percentage method, enter value to activate early warning indicator reaching preset.

1. Enter 4001
2. Press .
3. Press again to change between WEIGHT and PERCENT.
4. Press .
5. Enter Pre-Alarm value.
6. Press .

12.2 Manual Pen Advance
Ingredients automatically advance, Pens manually advance.

1. Enter 6009
2. Press .
3. Press , choose on/off.
4. Press .

12.3 Auto Ingredient Advance
Allows hands free operation of programmed recipes. When auto advance feature activated, indicator automatically advances to next ingredient once tolerance, and delay time requirements met.
12.4 Tolerance
Sets weight “window” to accept loaded weight before auto advance.

1. Enter 6003
2. Press . Press again to choose desired percentage off, or any entered using the keypad.
3. Press

Note: OFF setting always advances after ingredient amount reached.

12.5 Pen Tolerance

1. Enter 6005
2. Press . Press again to choose weight or percent
3. Press , screen will display PENTOL.
4. Enter weight or percentage desired.
5. Press

12.6 Batch Advance Delay
Changes time indicator, waits before automatically advancing to next ingredient.

1. Enter 6008
2. Press . Press again to select delay time or enter delay time using key pad.
3. Press

Note: Set to Manual prevents automatic advance.
12.7 Scale ID or Truck ID
Each indicator has scale ID.

1. Enter 1003
2. Press
3. Press and hold for three seconds to erase old ID, enter the new ID.
4. Press

Note: TMR Tracker or other 3rd party Software ID must match.

12.8 Scale Number
Used with cab control option.

1. Enter 2002
2. Press. Press again to move up the list
3. Press to move down the list.
4. Press

Note: Do not use same number for two different Indictors.

12.9 Resize Option
Make weight changes to pens, unload weight or recipe load size.

1. Enter 6014
2. Press. Press again to change to ON/OFF.
3. Press
12.10 Change Time

1. Enter **1202**
2. Press **select**
3. Press LEFT arrow to move cursor
4. Press UP arrow to set time.
5. Press **ON**.

12.11 Change Date

1. Enter **1204** and press **select**.
2. Press LEFT arrow to move cursor. Format DDMMYY, Press UP arrow to set date.
3. Press **ON**.
13.0 MANUAL PROGRAMMING OF RECIPES

Three different Entry Methods for entering ingredients:

**Amount per Animal (this is the default setting)**

Allows entry of ingredient amounts required for feeding one animal. Indicator calculates preset amounts required for each ingredient.

**Percent (%) Per Load**

Enter ingredient amounts in (%). Indicator calculates amounts for each ingredient. Total of all ingredients must equal 100% in this mode.

**Amount per Load**

Allows entry of ingredient amounts required per load.

### 13.1 Switch to Manual Programming

1. Enter 6054
2. Press
3. Press again to switch from PC to SCALE.

Select PC to program recipes with computer.

Select SCALE to manually program recipes with scale indicator.

4. Press

### 13.2 Change Entry Method

1. Enter 6101
2. Press
3. Repeatedly press scrolls

Select one of the following entry methods:

1 = Amount per Animal
2 = Percent (%) per Load
3 = Amount per Load

4. Press .
13.3 Ingredient Re-name

Ingredient names are listed in a standard table and can be changed using the following steps:

1. Repeatedly press \[\text{SELECT}\] until \text{RENAME}\ displays.
2. Press \[\text{FUNCTION}\] quickly and hold for three seconds.
3. Then first ingredient is shown. Use UP or DOWN arrows to select ingredients to edit. (Press RIGHT arrow to display pens. Press LEFT arrow to display ingredients)
4. Press \[\text{CLEAR}\] again to edit ingredient.
   Display briefly shows \text{EDIT} and flashing cursor is displayed.
5. Press and hold \[\text{CLEAR}\], erases ingredient
6. Press “1” key once enters 1, twice enters A, three times for B, other numbers on keypads work the same.
7. Pause for one second after entering a number/letter and they shift to the left.
8. Press \[\text{CSILAGE}\]
9. When done entering ingredients, press \[\text{UP}\] to exit.

13.4 Print Ingredients Names

1. Repeatedly press \[\text{SELECT}\] until \text{RENAME}\ is displayed.
2. Press \[\text{FUNCTION}\] quickly and hold for three seconds.
3. Press \[\text{CSILAGE}\] prints total accumulations for ingredient displayed.
4. Press \[\text{CSILAGE}\] again prints accumulations for all currently used recipes.
5. Press \[\text{CSILAGE}\] again, prints names for all ingredients. Ingredients not used by recipe and shows unused.
6. When being printed, DATA will have a flashing arrow.
13.5 Enter New Recipe

1. Press and hold \( \text{REC} \) until indicator beeps and displays \( \text{PROGRAM} \) then displays either first recipe programmed or \( \text{REC}_. \).

2. This indicates recipe number can be entered using keypad.
   Example; \( \text{REC-01, REC-02, REC-03} \)

3. Press \( \text{REC} \) to add recipe.

4. Press UP and DOWN arrows to scroll ingredients.

5. Press \( \text{INGRED} \) to select ingredient shown on display.

6. Enter amount of ingredient required.
   (See note below)

7. Press \( \text{INGRED} \) to store amount.
   Repeat steps 4-7 for each ingredient Required.

NOTE: In percent/load entry mode a 75% ingredient, for example, should be entered as 75.00 on display. 5.75% ingredient entered as 5.75.
8. Press \[ \text{ID} \] to change pens.

9. Press \[ \text{ID} \] to scroll available pens.

10. Press \[ \text{ID} \] to select pen on screen.

11. Enter amount for pen.

12. Press \[ \text{ID} \] to store amount.

13. Press \[ \text{ID} \] completes recipe.

14. Indicator calculates and displays \text{TOTAL} amount of recipe.

Repeat steps 1-14 until all recipes programmed.

15. Press \[ \text{ID} \] to exit.
13.6 Edit Recipe

1. Press and hold until indicator beeps and displays PROGRAM.

2. Press UP or DOWN arrows until recipe number is displayed.

3. Press to edit this recipe.

4. First ingredient name displayed followed by AMOUNT.

5. Enter new amount using keypad.

6. Press , stores and advances to next ingredient.

Repeat steps 5 and 6 for new amounts

7. Press DOWN or UP arrow until DONE is displayed

8. Press to exit recipe being edited.

NOTE: Ingredients / Pens can now be added and removed from a programmed recipe.

9. Press UP arrow to return to previous ingredient.

10. Press and hold RIGHT arrow for three seconds to insert a new ingredient.

NOTE: This will insert the ingredient just before the current ingredient shown on display.
13.7 Erase a Recipe

11. Press RIGHT arrow to display pens. Press LEFT arrow to display ingredients

12. Press UP or DOWN arrow to scroll available ingredients or pens.

13. Press to select ingredient or pen.

14. Enter amount required.

15. Press to store amount.

To erase ingredient /pen:

16. Press and hold LEFT arrow to erase a feed-line. Message will ask to press the LEFT arrow to erase.

17. Press LEFT arrow to erase the current ingredient or pen displayed on the screen.

18. Repeatedly press to finish editing.

19. Indicator calculates and displays $TOTAL$ amount of recipe.

1. Press and hold until indicator beeps and displays $PROGRAM$ followed by first recipe number.

2. Repeatedly press until desired recipe number displayed or keypad in recipe number and press .

3. Press and hold LEFT arrow, message scrolls: $PRESS\ PRINT\ TO\ PRINT\ RECIPE-$ $PRESS\ MINUS\ TO\ ERASE\ RECIPE-$ $PRESS\ NET/GROSS\ TO\ EXIT$

4. Press LEFT arrow to erase recipe.

5. Press to exit.
13.8 Review a Recipe

1. Press \[ \text{REC} \].
2. Press UP and DOWN arrows to select recipe number.
3. Press LEFT or RIGHT arrow and scale indicator will automatically step through ingredients, then return to recipe number.
4. Press \[ \text{SET GROSS} \] or \[ \text{CLEAR} \] to exit.

13.9 Printing Single Recipe

Note: Optional serial port must be installed for printing.

1. Press \[ \text{REC} \] displays first recipe.
   Repeatedly press \[ \text{REC} \] displays other recipes.
2. Press \[ \text{SET GROSS} \] prints recipe.
3. Press \[ \text{SET GROSS} \].
13.10 Printing All Recipes

1. Press $\text{REC}$ displays first recipe.
2. Press $\text{REC}$ recipe.
3. Press $\text{REC}$ again prints all recipes in memory.

13.11 Loading a Recipe

1. Repeatedly press $\text{REC}$ until recipe displayed.
2. Press $\text{REC}$ to accept recipe.

13.12 Unloading to Pens

1. Scale indicator displays recipe weight.
2. Begin unloading into a pen. As recipe unloads indicator displays recipe weight remaining.
3. Press $\text{TARE}$ sets temporary zero if more than one pen gets same recipe.
14.0 OTHER FUNCTIONS

14.1 Hold

Hold mode prevents displayed weight from changing while moving mixer around.

1. Press \( \text{HOLD} \).
2. Press \( \text{HOLD} \) again, to return indicator to normal.
3. If weight is added while in hold mode press \( \text{ON} \) to cancel hold.

**Note:** This feature is disabled on all legal for trade systems.

14.2 Using Dimmer Option

1. Repeatedly press \( \text{SELECT} \) until dimmer is displayed.
2. Quickly press \( \text{FUNCTION} \). Display back-light will dim.
3. Press \( \text{FUNCTION} \) again to brighten display back-light.
15.0 DIRECT ACCESS NUMBERS (D.A.N.)

15.1 Options Changed by User

To display menus 1, 2, 3, 4, 5, 6 and Calibrate:

1. Repeatedly press until MENU is displayed.
2. Press and hold .
3. Repeatedly press to select Menus1, 2, 3, 4, 5, 6 or Calibrate.
4. Press displays setting name and allows value changes.
5. Press either or to scroll through options for each setting/display.
6. Press to save setting and next option for menu displays.

<table>
<thead>
<tr>
<th>SETTING</th>
<th>D.A.N.</th>
<th>OPTIONS [displayed]</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>LANGUAGE</td>
<td>1001</td>
<td>[ENGLISH]</td>
<td>Select language to be displayed.</td>
</tr>
<tr>
<td>(LANGAG)</td>
<td></td>
<td>[DEUTSH]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>[FRANCS]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>[ITAL]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>[PORT]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>[ESPA]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>[NEDERL]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>[MAGYAR]</td>
<td></td>
</tr>
<tr>
<td>DISPLAY RATE</td>
<td>1002</td>
<td>1,2,3,4,6,7,8,9,10</td>
<td>Update display times per second.</td>
</tr>
<tr>
<td>(DRATE)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCALE ID SETUP</td>
<td>1003</td>
<td>NEW EZ</td>
<td>Identity of scale location (truck id or Mixer number).</td>
</tr>
<tr>
<td>(SCALID)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZERO TRACK</td>
<td>1004</td>
<td>ON/OFF</td>
<td>If ON -zero track adjust balance for buildup of snow &amp; mud.</td>
</tr>
<tr>
<td>(ZTRACK)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SETTING [display]</td>
<td>D.A.N. NO.</td>
<td>OPTIONS [displayed]</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------</td>
<td>---------------------</td>
<td>-------------</td>
</tr>
<tr>
<td><strong>WEIGH METHOD</strong> <em>(W MTHD)</em></td>
<td>1005</td>
<td>1=General 2=Fast 3=Slow</td>
<td>Select weigh method. The speed the weight changes as shown on the LCD.</td>
</tr>
<tr>
<td><strong>1 PRESS ZERO</strong> <em>(1 ZERO)</em></td>
<td>1006</td>
<td>ON/OFF</td>
<td>If ON -press and hold Zero key to Zero/Balance scale.</td>
</tr>
<tr>
<td><strong>AUTO OFF</strong> <em>(AUTOFF)</em></td>
<td>1007</td>
<td>OFF, 15, 30, 45, 60</td>
<td>Indicator turns off after selected minutes of stable weight.</td>
</tr>
<tr>
<td><strong>DISPLAY UNIT</strong> <em>(LB-KG)</em></td>
<td>1008</td>
<td>LB/KG</td>
<td>Display pounds – LB or Kilograms - KG</td>
</tr>
<tr>
<td><strong>SCROLL DELAY</strong> <em>(SCROLL)</em></td>
<td>1101</td>
<td>0,1,2,3,4, 5, 6, 7, 8, 9</td>
<td>Scroll rate for cold temperatures 0=normal 9=slowest</td>
</tr>
<tr>
<td><strong>SAVE TARE</strong> <em>(SAVTAR)</em></td>
<td>1102</td>
<td>ON/OFF</td>
<td>Saves tare weight to non-volatile memory.</td>
</tr>
<tr>
<td><strong>PRELOAD TARE</strong> <em>(PRETAR)</em></td>
<td>1103</td>
<td>ON/OFF</td>
<td>Tare weights can be entered using the numeric keypad.</td>
</tr>
<tr>
<td><strong>TIME FORMAT</strong> <em>(TIME F)</em></td>
<td>1201</td>
<td>24 HR AM/PM</td>
<td>Select time format -AM/PM or 24 hours</td>
</tr>
<tr>
<td><strong>TIME</strong> <em>(TIME)</em></td>
<td>1202</td>
<td>HH:MM:SS, AM/PM</td>
<td>Enter changes HH:MM:SS (use numeric keypad) use function key to change between HH:MM:SS then choose AM/PM.</td>
</tr>
<tr>
<td><strong>DATE FORMAT</strong> <em>(DATE F)</em></td>
<td>1203</td>
<td>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</td>
<td>Select date format</td>
</tr>
<tr>
<td><strong>DATE</strong> <em>(DATE)</em></td>
<td>1204</td>
<td>Enter ddmmyy</td>
<td>Select key changes date or numerical keys -function key chooses DD/MM/YY.</td>
</tr>
<tr>
<td><strong>DATE CHECK</strong> <em>(DT CHK)</em></td>
<td>1205</td>
<td>ON/OFF</td>
<td>Verifies the real time clock has a valid date at power up.</td>
</tr>
<tr>
<td><strong>REMOTE INPUT 1</strong> <em>(RMINP1)</em></td>
<td>1401</td>
<td>MIXCTR, INGRED, OFF, PRESET, SWITCH, TARE, PRINT, HOLD, NETGRS, M+, ZERO</td>
<td>Sets function of remote input line on the power cord.</td>
</tr>
<tr>
<td>SETTING</td>
<td>D.A.N. NO.</td>
<td>OPTIONS [displayed]</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------------</td>
<td>--------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>REMOTE SWITCH MESSAGE (RI IMSG)</td>
<td>1402</td>
<td></td>
<td>Message that is displayed for remote input switch condition.</td>
</tr>
<tr>
<td>REMOTE 1 SWITCH STATE (R1STAT)</td>
<td>1403</td>
<td>OPEN/CLOSED</td>
<td>Set remote input line state that displays message and/or illuminates alarm lamp. D.A.N. 1401 set to “switch”.</td>
</tr>
<tr>
<td>REMOTE 1 SWITCH MESSAGE TIME (R1TIME)</td>
<td>1404</td>
<td>1...2-9</td>
<td>Set how often the remote switch message is displayed. Once every 1-9 seconds. D.A.N. 1401 set to “switch”.</td>
</tr>
<tr>
<td>REMOTE INPUT 2 2 (RMINP2)</td>
<td>1411</td>
<td>TARE, PRINT, HOLD, NETGRS, M+, ZERO, TR HLD, OFF, PRESET, SWITCH</td>
<td>Sets function of remote input line on the remote port.</td>
</tr>
<tr>
<td>REMOTE 2 SWITCH MESSAGE (RI2MSG)</td>
<td>1412</td>
<td>OPEN,--,+,*0,1,2,3, 4,5,6,7,8,9,A,B,C, D,E,F,G,H,I,J,K,L, M,N,O,P,Q,R,S,T,U, -V,-W,-X,-Y,-Z</td>
<td>Message that is displayed for remote input condition. D.A.N. 1411 set to “switch”.</td>
</tr>
<tr>
<td>REMOTE 2 SWITCH STATE (R2STAT)</td>
<td>1413</td>
<td>OPEN/CLOSED</td>
<td>Set remote input line state that displays message and/or illuminates alarm lamp. D.A.N. 1411 set to “switch”.</td>
</tr>
<tr>
<td>REMOTE 2 SWITCH MESSAGE TIME (R2TIME)</td>
<td>1414</td>
<td>0...2-9</td>
<td>Set how often the remote switch message is displayed. Once every 1-9 seconds. D.A.N. 1411 set to “switch”.</td>
</tr>
<tr>
<td>PROGRAM ID (PRG ID)</td>
<td>1998</td>
<td>Example: 15FE16</td>
<td>Displays current software version</td>
</tr>
<tr>
<td>ESTIMATED WEIGHT (EST WT)</td>
<td>1999</td>
<td></td>
<td>Manually adjust Gross weight of scale by changing zero/balance. Press “on” to continue.</td>
</tr>
</tbody>
</table>

**MENU 2 – COMMUNICATIONS FEATURES**

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>REMOTE (REMOTE)</td>
<td>2001</td>
<td>ON/OFF</td>
<td>If ON indicator communicates with Cab Control Display</td>
</tr>
<tr>
<td>SCALE NUMBER (SCL NO)</td>
<td>2002</td>
<td>1,2,3,4,5,6,7,8,9,10,11,12, 13,14,15,16,17,18,19,20, 21,22,23,24</td>
<td>Select scale number for cab control communication</td>
</tr>
<tr>
<td>SETTING</td>
<td>D.A.N. NO.</td>
<td>OPTIONS [displayed]</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------------</td>
<td>---------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>EXTERNAL RADIO (EXTRAD)</td>
<td>2003</td>
<td>ON/OFF</td>
<td>Enables external radio to be connected to the J905 port.</td>
</tr>
<tr>
<td>DDL ATTACHED (DDL)</td>
<td>2004</td>
<td>YES/NO</td>
<td>Enables connection of a DDL (Data Down-Loader)</td>
</tr>
<tr>
<td>SCOREBOARD MODE (SCOREM)</td>
<td>2101</td>
<td>0,1,2,3,4,5,6,7,8,11,12,15,27,37,38,39</td>
<td>Select scoreboard output</td>
</tr>
<tr>
<td>ZERO OUTPUT (ZEROUT)</td>
<td>2102</td>
<td></td>
<td>Weight displayed= Then press ZERO key and hold for three seconds.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Allows zero/balance for SCOREM #11 serial gross weight.</td>
</tr>
<tr>
<td>FRONT PANEL ZEROUT (ZEROFP)</td>
<td>2103</td>
<td>OFF/ON</td>
<td>Allows use of the zero key to zero/balance the serial gross weight.</td>
</tr>
<tr>
<td>OPERATION STATUS (OPSTAT)</td>
<td>2111</td>
<td>0, 2</td>
<td>Select operating data to be sent to a Remote Terminal</td>
</tr>
<tr>
<td>COM 1 BAUD RATE (C1 BD)</td>
<td>2201</td>
<td>1200,2400, 4800, 9600, 14400, 19200, 38400, 57600, 115200</td>
<td>Sets baud rate for com port #1</td>
</tr>
<tr>
<td>COM 1 PARITY (C1 PR)</td>
<td>2202</td>
<td>NONE, ODD, EVEN</td>
<td>Sets parity for com port #1</td>
</tr>
<tr>
<td>COM 1 DATA BITS (C1DATA)</td>
<td>2203</td>
<td>7, 8</td>
<td>Sets data bits for com port #1</td>
</tr>
<tr>
<td>COM 1 DELAY (C1 DLY)</td>
<td>2204</td>
<td>0, .10, .25, .50, .75, 1-5</td>
<td>Selects seconds to delay before advancing to next line.</td>
</tr>
<tr>
<td>COM 2 BAUD RATE (C2 BD)</td>
<td>2211</td>
<td>1200,2400, 4800, 9600, 14400, 19200, 38400, 57600, 115200</td>
<td>Sets baud rate for com port #2</td>
</tr>
<tr>
<td>COM 2 PARITY (C2 PR)</td>
<td>2212</td>
<td>NONE, ODD, EVEN</td>
<td>Sets parity for com port #2</td>
</tr>
<tr>
<td>COM 2 DATA BITS (C2DATA)</td>
<td>2213</td>
<td>7, 8</td>
<td>Sets data bits for com port #2</td>
</tr>
<tr>
<td>COM 2 DELAY (C2 DLY)</td>
<td>2214</td>
<td>0, .10, .25, .50, .75, 1-5</td>
<td>Selects seconds to delay before advancing to next line.</td>
</tr>
<tr>
<td>TARE AUTO PRINT (TAREAP)</td>
<td>2301</td>
<td>ON/OFF</td>
<td>If ON -tare auto-prints displayed weight.</td>
</tr>
<tr>
<td>ONE LINE PRINT (1L PRT)</td>
<td>2302</td>
<td>ON/OFF</td>
<td>If ON -indicator data prints on one line.</td>
</tr>
<tr>
<td>Setting</td>
<td>D.A.N. No.</td>
<td>Options [displayed] BOLD=DEFAULT</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------</td>
<td>------------</td>
<td>----------------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>AUTO PRINT (APRINT)</td>
<td>2303</td>
<td>ON/OFF</td>
<td>If ON - pressing keys auto-prints weight values.</td>
</tr>
<tr>
<td>PRINT FORMAT (PRTFMT)</td>
<td>2304</td>
<td>AUTO, WONLY, DOWNLD,</td>
<td>Select alternate &amp; comma (CSV) formats.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DT+TM, ID+TM, IDWTM, BATCH1, PRTAC1, PRTAC2, PRTAC3, PRWTRC, WTRCTM, 3200-A, 3200-B, SCLABC, 32-TMR, FDINFO, FEED-1</td>
<td></td>
</tr>
<tr>
<td>PRINT ACCUMULATION (PRTACC)</td>
<td>2305</td>
<td>0</td>
<td>Shows a running total of weights printed.</td>
</tr>
<tr>
<td>REMOTE DISPLAY (RMDISP)</td>
<td>2401</td>
<td>EZ2, EZ3MUX, COG, NONE</td>
<td>Select type of remote display</td>
</tr>
<tr>
<td>REMOTE TERMINAL (RMTERM)</td>
<td>2402</td>
<td>ON/OFF</td>
<td>Sends display data to serial remote terminal interface</td>
</tr>
<tr>
<td>BAR GRAPH MODE (BARGRP)</td>
<td>2411</td>
<td>OFF, RIGHT, LEFT, MIDOUT, MID IN</td>
<td>Selects output for a bar graph display when used with an RD4000 Remote Display.</td>
</tr>
<tr>
<td>WEIGHT GRAPH (WTGRPH)</td>
<td>2412</td>
<td>ON/OFF</td>
<td>Enables graph to be used with weight when used with a RD4000 Remote Display.</td>
</tr>
<tr>
<td>BAR WEIGHT (BAR WT)</td>
<td>2413</td>
<td>12000</td>
<td>Enter the full scale gross weight for the bar graph display.</td>
</tr>
<tr>
<td>PRESET GRAPH (PRGRPH)</td>
<td>2414</td>
<td>ON/OFF</td>
<td>Enables graph to be used with presets when used with an RD4000 Remote Display.</td>
</tr>
<tr>
<td>TIMER GRAPH (TMGRPH)</td>
<td>2415</td>
<td>ON/OFF</td>
<td>Enables graph to be used with timers when used with an RD4000 Remote Display.</td>
</tr>
</tbody>
</table>

**MENU 3 - MOTION & WEIGHT**

<table>
<thead>
<tr>
<th>Setting</th>
<th>D.A.N. No.</th>
<th>Options [displayed] BOLD=DEFAULT</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISPLAY COUNT (COUNT)</td>
<td>3001</td>
<td>.01,.02,.05,.1,.2,.5,1,2,5,10,20, 50,100</td>
<td>Select display count size of weigh values.</td>
</tr>
<tr>
<td>CAPACITY (CAP)</td>
<td>3002</td>
<td>40,000</td>
<td>Enter MAXIMUM weight measurable on scale.</td>
</tr>
<tr>
<td>WM1 ADJUST 1 (WM1A1-1)</td>
<td>3003</td>
<td>10</td>
<td>Increase this number to smooth weighing.</td>
</tr>
<tr>
<td>WM1 ADJUST 2 (WM1A1-2)</td>
<td>3004</td>
<td>4</td>
<td>0-off. Use value less than WM1A1-1 for quick response weight.</td>
</tr>
<tr>
<td>SETTING [display]</td>
<td>D.A.N. NO.</td>
<td>OPTIONS [displayed]</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>-------------------</td>
<td>-----------</td>
<td>--------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>WM1 ADJUST 3 (WMA1-3)</td>
<td>3005</td>
<td><strong>4000</strong></td>
<td>Enter the weight to activate quick response weight Default-10% of scale capacity</td>
</tr>
<tr>
<td>WM2 ADJUST 1 (WMA2-1)</td>
<td>3006</td>
<td><strong>30</strong>, value must be less than 100 and more than 2.</td>
<td>Increase this number to smooth weighing</td>
</tr>
<tr>
<td>WM2 ADJUST 2 (WMA2-2)</td>
<td>3007</td>
<td><strong>10</strong>, value must be less than 100 and more than 0.</td>
<td>10=off. Use value less than WMA2-1 for quick response weight.</td>
</tr>
<tr>
<td>WM2 ADJUST 3 (WMA2-3)</td>
<td>3008</td>
<td><strong>4000</strong></td>
<td>Enter the weight to active quick response weight Default-10% of scale capacity</td>
</tr>
<tr>
<td>MOTION (MOTION)</td>
<td>3101</td>
<td><strong>ON/OFF</strong></td>
<td>ON = Motion arrow flashes with unstable weight. Prevents: Print, Zero, Tare, Advance</td>
</tr>
<tr>
<td>MOTION WEIGHT (MOT WT)</td>
<td>3102</td>
<td><strong>0</strong></td>
<td>Enter weight used to detect motion. 0=Standard detection</td>
</tr>
</tbody>
</table>

**MENU 4 - PRESET, ALARM, and TIMER**

<table>
<thead>
<tr>
<th>SETTING</th>
<th>D.A.N. NO.</th>
<th>OPTIONS [displayed]</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRE ALARM METHOD (P MTHD)</td>
<td>4001</td>
<td><strong>WEIGHT, PERCENT</strong></td>
<td>Select weight or percentage method for pre-alarm</td>
</tr>
<tr>
<td>PRE-ALARM (P-Alm)</td>
<td>4002</td>
<td><strong>100</strong></td>
<td>Enter a value to activate an early warning that indicator is reaching the preset.</td>
</tr>
<tr>
<td>ALARM OUTPUT (AL OUT)</td>
<td>4003</td>
<td><strong>OFF, PRESET, TR</strong></td>
<td>Select preset or TR to control relay, horn &amp; lamp.</td>
</tr>
<tr>
<td>BUZZER (BUZZER)</td>
<td>4004</td>
<td><strong>OFF, ON, 1-10</strong></td>
<td>ALARM BUZZER - allows user to turn off alarm horn when loading/unloading</td>
</tr>
<tr>
<td>RELAY (RELAY)</td>
<td>4005</td>
<td><strong>OFF, PRESET, SETPNT</strong></td>
<td>Selects the behavior of the +12VDC alarm output</td>
</tr>
<tr>
<td>PRESET DELAY (PRTDLY)</td>
<td>4006</td>
<td><strong>10</strong></td>
<td>Set time to automatically advance/print entered preset</td>
</tr>
<tr>
<td>GROSS SET PNT OUTPUT (SETOUT)</td>
<td>4101</td>
<td><strong>OVER/UNDER</strong></td>
<td>Select when the +12VDC Alarm Output becomes active.</td>
</tr>
<tr>
<td>GROSS SET POINT CHNG (SECHG)</td>
<td>4102</td>
<td><strong>500</strong></td>
<td>Set required weight change to turn off +12VDC Alarm Output.</td>
</tr>
<tr>
<td>SETTING [display]</td>
<td>D.A.N. NO.</td>
<td>OPTIONS [displayed]</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------</td>
<td>---------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>GROSS SET POINT DELAY (SETDEL)</td>
<td>4103</td>
<td>0</td>
<td>Set time delay before the +12VDC Alarm Output can Turn On/Off.</td>
</tr>
<tr>
<td>GROSS SET POINT (SETPINT)</td>
<td>4104</td>
<td>5000</td>
<td>Set a gross weight in long form that will activate +12VDC Alarm Output on Power cord.</td>
</tr>
<tr>
<td>SET POINT COUNT (SETCTR)</td>
<td>4105</td>
<td>0</td>
<td>Counts how many times set point is activated.</td>
</tr>
<tr>
<td>SET POINT WEIGHT SOURCE (STWTSC)</td>
<td>4106</td>
<td>SERIAL/NORMAL</td>
<td>Sets weight source for use with set point feature.</td>
</tr>
<tr>
<td>TOLERANCE METHOD (TMTHD)</td>
<td>4201</td>
<td>WEIGHT, PERCENT</td>
<td>Select weight or percentage method for preset tolerance</td>
</tr>
<tr>
<td>TOLERANCE (TOLER)</td>
<td>4202</td>
<td>0</td>
<td>Select tolerance weight percentage to accept preset.</td>
</tr>
<tr>
<td>TOLERANCE OVERLOCK (OVERLK)</td>
<td>4203</td>
<td>OFF/ON</td>
<td>Prevents auto-advancing if preset exceeds tolerance</td>
</tr>
<tr>
<td>TIMER, COUNTER (TMRCTR)</td>
<td>4301</td>
<td>TIMER, COUNTER</td>
<td>Select time or mixer revolutions to decrement mix timer/counter.</td>
</tr>
<tr>
<td>DRIVE RATIO (DRATIO)</td>
<td>4302</td>
<td>1.00</td>
<td>Enter the number of input pulses that equal 1 mixer revolution. REVCTR needs to be enabled in the setup options. <strong>D.A.N. 4301 set to COUNTER.</strong></td>
</tr>
</tbody>
</table>

**MENU 5 - COM PORT SETUP**

| REMOTE DISPLAY PORT (RMDPRT) | 5001 | OFF, COM1, **COM2**, COM3 | Sets serial remote display output |
| RADIO PORT (RADPRT) | 5002 | OFF, COM1, COM2, **COM3** | Sets internal radio port |
| EXTERNAL RADIO PORT (EXRPRT) | 5003 | OFF, COM1, **COM2**, COM3 | Sets external radio port |
## Direct Access Numbers (D.A.N.)

<table>
<thead>
<tr>
<th>SETTING [display]</th>
<th>D.A.N. NO.</th>
<th>OPTIONS [displayed]</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRINTER PORT <em>(PRPORT)</em></td>
<td>5005</td>
<td>OFF, COM1, COM2, COM3</td>
<td>Sets printer port</td>
</tr>
<tr>
<td>SCOREBOARD PORT <em>(SCPORT)</em></td>
<td>5006</td>
<td>OFF, <strong>COM1</strong>, COM2, COM3</td>
<td>Sets scoreboard port</td>
</tr>
<tr>
<td>OPSTAT PORT <em>(OPSTAT)</em></td>
<td>5007</td>
<td>OFF, <strong>COM1</strong>, COM2, COM3</td>
<td>Sets op-stat port</td>
</tr>
<tr>
<td>DDL PORT <em>(DOLPRT)</em></td>
<td>5009</td>
<td>OFF, COM1, <strong>COM2</strong>, COM3</td>
<td>Sets DDL port</td>
</tr>
<tr>
<td>20MA MIRROR PORT <em>(20MARR)</em></td>
<td>5011</td>
<td>OFF, <strong>COM1</strong>, COM2, COM3</td>
<td>Sets port for 20MA signal to mirror</td>
</tr>
<tr>
<td>RECIPE PORT <em>(RECPRT)</em></td>
<td>5012</td>
<td>OFF, COM1, <strong>COM2</strong>, COM3</td>
<td>Sets recipe output port</td>
</tr>
<tr>
<td>DEBUG PORT <em>(DBGPRT)</em></td>
<td>5999</td>
<td>OFF, COM1, COM2, COM3</td>
<td>Sets debugger port</td>
</tr>
</tbody>
</table>

### MENU 6.0 - APPLICATION SPECIFIC

<table>
<thead>
<tr>
<th>METHOD [display]</th>
<th>NO.</th>
<th>OPTIONS [displayed]</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>BATCH PRE-ALARM METHOD <em>(BPMTHD)</em></td>
<td>6001</td>
<td><strong>WEIGHT</strong>, PERCENT</td>
<td>Select weight or percentage method for batch pre-alarm</td>
</tr>
<tr>
<td>BATCH PRE-ALARM <em>(BP-ALM)</em></td>
<td>6002</td>
<td>100</td>
<td>Enter value to activate an early warning that scale is reaching preset.</td>
</tr>
<tr>
<td>INGREDIENT TOLERANCE METHOD <em>(ITMTHD)</em></td>
<td>6003</td>
<td><strong>WEIGHT</strong>, PERCENT</td>
<td>Select weight or percentage method for ingredient tolerance.</td>
</tr>
<tr>
<td>INGREDIENT TOLERANCE <em>(ITOLER)</em></td>
<td>6004</td>
<td>0</td>
<td>Enter value to accept ingredient for auto advance.</td>
</tr>
<tr>
<td>PEN TOLERANCE METHOD <em>(PTMTHD)</em></td>
<td>6005</td>
<td><strong>WEIGHT</strong>, PERCENT</td>
<td>Select weight or percentage method for pen tolerance.</td>
</tr>
<tr>
<td>SETTING [display]</td>
<td>D.A.N. NO.</td>
<td>OPTIONS [displayed]</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>---------------------------</td>
<td>------------</td>
<td>---------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>PEN TOLERANCE (PTOLER)</td>
<td>6006</td>
<td>0</td>
<td>Enter value to accept pen as completed.</td>
</tr>
<tr>
<td>BATCH TOLERANCE OVERLOCK (BOVRLK)</td>
<td>6007</td>
<td>OFF, ON</td>
<td>If ON – prevents auto-advancing if preset exceeds tolerance</td>
</tr>
<tr>
<td>BATCH ADVANCE DELAY (BDELAY)</td>
<td>6008</td>
<td>0, MANUAL</td>
<td>Select seconds to delay before advancing to next feed-line.</td>
</tr>
<tr>
<td>MANUAL PEN ADVANCE (MANPEN)</td>
<td>6009</td>
<td>OFF, ON</td>
<td>If ON - Overrides Automatic advance for Pens.</td>
</tr>
<tr>
<td>INGREDIENT STARTED WEIGHT (ISTART)</td>
<td>6011</td>
<td>40 lbs.</td>
<td>This weight threshold determines if the ingredient has been started.</td>
</tr>
<tr>
<td>PEN START WEIGHT (PSTART)</td>
<td>6012</td>
<td>40 lbs.</td>
<td>This weight threshold determines if the pen has been started.</td>
</tr>
<tr>
<td>PEN WEIGHT (PEN WT)</td>
<td>6013</td>
<td>LOAD, GROSS, NET</td>
<td>Select method for displaying pen weight - Net, Load, or Gross.</td>
</tr>
<tr>
<td>RESIZE RECIPE (RESIZE)</td>
<td>6014</td>
<td>ON, OFF</td>
<td>If ON - operator can change recipe size.</td>
</tr>
</tbody>
</table>

**DIRECT ACCESS NUMBERS (D.A.N.)**

**RECIPE PRINT FORMAT (RECFMT)**

<table>
<thead>
<tr>
<th>D.A.N. NO.</th>
<th>OPTIONS [displayed]</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>6051</td>
<td>SYSTEM, AUTO, 32-TMR, FDINFO, FEED-1, SERMED</td>
<td>Defines how scale will print when in weighing mode or a batch.</td>
</tr>
</tbody>
</table>

**RECIPE TOTAL (RECTOT)**

<table>
<thead>
<tr>
<th>D.A.N. NO.</th>
<th>OPTIONS [displayed]</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>6052</td>
<td>(SCALE)PROG, LAST, PRGCOR, LSTCOR—ON, OFF(PC)</td>
<td>Selects Total amount to be displayed when starting recipe. D.A.N. 6054 select PC or SCALE</td>
</tr>
</tbody>
</table>
### Direct Access Numbers (D.A.N.)

<table>
<thead>
<tr>
<th>SETTING [display]</th>
<th>D.A.N. NO.</th>
<th>OPTIONS [displayed] BOLD=DEFAULT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>INGREDIENT RE-SIZING</td>
<td>6053</td>
<td>(PC)OFF, 1 ING, 1+2 ING,---- (SCALE) OFF, 1 ING, 1 ING+P</td>
<td>Selects Automatic Ingredient Re-Sizing mode. D.A.N. 6054 select PC or SCALE.</td>
</tr>
<tr>
<td>PROGRAM RECIPE</td>
<td>6054</td>
<td>PC, SCALE</td>
<td>Selects program method, PC or at SCALE.</td>
</tr>
</tbody>
</table>

#### MENU 6.1 - Batching

<table>
<thead>
<tr>
<th>ENTRY METHOD (E MTHD)</th>
<th>6101</th>
<th>1-amount/animal, 2-percent/load, 3-amount/load</th>
<th>Select batching method. D.A.N. 6054 must be set to &quot;SCALE&quot;.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISPLAY SCOOP % (SCOOP %)</td>
<td>6102</td>
<td>OFF, ON</td>
<td>If ON - displays scoop percentage to load. D.A.N. 6054 must be set to &quot;SCALE&quot;.</td>
</tr>
<tr>
<td>INGREDIENT NAMES (INGRNM)</td>
<td>6103</td>
<td>ON, OFF</td>
<td>If ON - displays ingredient names while batching. D.A.N. 6054 must be set to &quot;SCALE&quot;.</td>
</tr>
<tr>
<td>ACCUMULATION (ACCUM)</td>
<td>6104</td>
<td>ON, OFF</td>
<td>If ON – load/unload weights are accumulated while batching. D.A.N. 6054 must be set to &quot;SCALE&quot;.</td>
</tr>
</tbody>
</table>

#### MENU 6.2 - 3610/4610 Batching

<table>
<thead>
<tr>
<th>FORCE USER ID (USERID)</th>
<th>6201</th>
<th>OFF, ON</th>
<th>If ON - operator MUST enter User ID to use scale.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECIPE KEYS (RECKEY)</td>
<td>6202</td>
<td>OFF, ON</td>
<td>If ON - disables certain keys when Loading / Unloading Recipe.</td>
</tr>
<tr>
<td>BATCH NUMBER (BATNUM)</td>
<td>6203</td>
<td>PCCTRL, EZCTRL</td>
<td>Select either PC or EZ to control the batch number.</td>
</tr>
<tr>
<td>SETTING</td>
<td>D.A.N. NO.</td>
<td>OPTIONS [displayed]</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------------</td>
<td>---------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>DOUBLE KEY (DBLKEY)</td>
<td>6204</td>
<td>OFF, ON</td>
<td>Ignore extra INGR ADVANCE keys while feeding.</td>
</tr>
<tr>
<td>RECIPE REMAIN ACTIVE (RE-USE)</td>
<td>6205</td>
<td>OFF, ON</td>
<td>Allows recipes to be RE-USED for another load.</td>
</tr>
<tr>
<td>RECIPE ENTRY METHOD (REENTRY)</td>
<td>6206</td>
<td>RECIPE, BATCH#</td>
<td>Select recipe start method - recipe name or batch number.</td>
</tr>
<tr>
<td>SPLIT LOAD (SPLOAD)</td>
<td>6207</td>
<td>OFF, ON</td>
<td>If ON –Pen presets are re-calculated after each ingredient/pen.</td>
</tr>
<tr>
<td>START PRESET WEIGHT (STPRST)</td>
<td>6208</td>
<td>OFF, ON</td>
<td>If ON –Return the starting preset in the timer/bunk read field of feed-line</td>
</tr>
<tr>
<td>SMALL INGREDIENT DISPLAY (SMINGR)</td>
<td>6209</td>
<td>0</td>
<td>Enter value to display small ingredient message.</td>
</tr>
<tr>
<td>UNDONE RECIPES (UNDON)</td>
<td>6211</td>
<td>OFF, ON</td>
<td>If ON - displays all incomplete recipes.</td>
</tr>
<tr>
<td>DISPLAY RECIPE PENS (RECPEN)</td>
<td>6212</td>
<td>ON, OFF</td>
<td>If ON - pens are displayed when selecting recipes.</td>
</tr>
<tr>
<td>POWER LOSS MESS (PURLOS)</td>
<td>6213</td>
<td></td>
<td>If ON - Display time &amp; date of power loss if preset/recipe active.</td>
</tr>
<tr>
<td>ERASE DONE FEEDLINE (ERASFD)</td>
<td>6214</td>
<td>OFF, ON</td>
<td>If ON -Erases done feed-lines after data transfer.</td>
</tr>
<tr>
<td>MEDIA STORAGE (MSTORE)</td>
<td>6215</td>
<td>QSTART, MANUAL</td>
<td>Select MANUAL, AUTO or Quick START methods for transferring recipe information</td>
</tr>
</tbody>
</table>
## Direct Access Numbers (D.A.N.)

<table>
<thead>
<tr>
<th>SETTING</th>
<th>D.A.N. NO.</th>
<th>OPTIONS [displayed]</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>RANGE TEST (R-TEST)</td>
<td>6216</td>
<td>OFF, ON</td>
<td>If ON – Feed-lines sent from Data-Link are marked &quot;done&quot;. <strong>Valid when using Data-Link System.</strong></td>
</tr>
<tr>
<td>AUTO START PENS (AUTPEN)</td>
<td>6217</td>
<td>OFF, ON</td>
<td>If ON – Starts Pens List after Recipe is loaded.</td>
</tr>
<tr>
<td>FEED ZONE (FDZONE)</td>
<td>6218</td>
<td>ALL, 1, 2, 3, 4, 5, 6, 7, 8, 9</td>
<td>Select feed zone for recipe deliveries.</td>
</tr>
<tr>
<td>PARTIAL FEEDING (PARTFD)</td>
<td>6219</td>
<td>OFF, ON</td>
<td>If ON – Partial feedings will be Recorded.</td>
</tr>
<tr>
<td>MIMIC TYREL (TC1300)</td>
<td>6221</td>
<td>OFF, ON</td>
<td>If ON - Records preset weights like a Tyrel TCX-1300 Indicator.</td>
</tr>
</tbody>
</table>

## SETUP FEATURES

<table>
<thead>
<tr>
<th>SETTING</th>
<th>D.A.N. NO.</th>
<th>OPTIONS [displayed]</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIGNON SETTING (SIGNON)</td>
<td>8001</td>
<td>OFF, ON</td>
<td>Enables continuous display of sign-on message</td>
</tr>
<tr>
<td>SIGNON MESSAGE (SIGMSG)</td>
<td>8002</td>
<td>SIGMSG 1,2,3</td>
<td>Enables editing of the sign-on message</td>
</tr>
<tr>
<td>MAINTENANCE MESSAGE (MANTMG)</td>
<td>8011</td>
<td>MANTMG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10</td>
<td>Enables editing of the maintenance message</td>
</tr>
<tr>
<td>MAINTENANCE MESS. TIME (MANTTM)</td>
<td>8012</td>
<td>200, Time is entered using key pad.</td>
<td>Time for maintenance message to be triggered.</td>
</tr>
<tr>
<td>DEAD WEIGHT CAL (WT CAL)</td>
<td>8121</td>
<td>Follow instructions shown on LCD</td>
<td>Calibration method using weights</td>
</tr>
<tr>
<td>TEMPERATURE CALIBRATION (T CALB)</td>
<td>8123</td>
<td>OFF/ON</td>
<td>On=Scale adjusts for temperature changes</td>
</tr>
<tr>
<td>INDICATOR SETUP INFO (DS&gt;SER)</td>
<td>8299</td>
<td>DS&gt;SER</td>
<td>Downloads all setup information to the serial port</td>
</tr>
<tr>
<td>KEYTEST</td>
<td>8888</td>
<td></td>
<td>Enables front panel key test</td>
</tr>
<tr>
<td>SETTING (display)</td>
<td>D.A.N. NO.</td>
<td>OPTIONS [displayed]</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------------------</td>
<td>------------</td>
<td>---------------------</td>
<td>-------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>BOLD=DEFAULT</strong></td>
<td></td>
</tr>
<tr>
<td><strong>SETUP &amp; CALIBRATION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SETUP NUMBER (&lt;SETUP&gt;)</td>
<td>8711</td>
<td>146040</td>
<td>Quick entry method selects weigh method 1-4lbs, 5-8 kg, gain 1-9, display counts 1-9 and capacity *1000</td>
</tr>
<tr>
<td>Calibration Number (&lt;Ct&gt;)</td>
<td>8712</td>
<td>32640</td>
<td>Weight displayed at 0.4mV/V</td>
</tr>
</tbody>
</table>

### Enter the service menu is required to use the 9000 series numbers.

<p>| PRESET OPTION ENABLED (&lt;PRESET&gt;) | 90002 | <strong>PRESET, PREOFF</strong> | Allows for entering a target NET weight. |
| RS232 OPTION ENABLED (&lt;RS-232&gt;) | 90003 | <strong>RS OFF, RS-232</strong> | Enables/disables serial port |
| HOLD OPTION ENABLED (&lt;HOLD&gt;) | 90007 | <strong>HOLD, HLDOFF</strong> | Enables the HOLD key functionality |
| MEMORY OPTION ENABLED (&lt;MEMORY&gt;) | 90008 | <strong>MEMERY, MEMOFF</strong> | Enables/disables the M+, RM, CM options in the SELECT/FUNCTION key menu. |
| BLACK-OUT OPTION ENABLED (&lt;BLKOUT&gt;) | 90009 | | Enables functionality to restore the indicator to its previous state before power loss. |
| TIMER OPTION ENABLED (&lt;TIMER&gt;) | 90011 | <strong>TMR MX, TMROFF</strong> | Allows countdown timer to be set using the TIMER key. |
| INTERNAL RADIO ENABLED (&lt;RADIO&gt;) | 90012 | <strong>RA OFF, RADIO</strong> | Enables/disables radio—requires radio hardware |
| ROTATION COUNTER (&lt;REVCTR&gt;) | 90016 | <strong>REVCTR, REVOFF</strong> | Enables/disables rotation counter |</p>
<table>
<thead>
<tr>
<th>SETTING (display)</th>
<th>D.A.N. NO.</th>
<th>OPTIONS (displayed)</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER KEYPAD ENABLED (NUMKEY)</td>
<td>90051</td>
<td>NUMKEY, NUMOFF</td>
<td>If ON—Enables front panel number pad</td>
</tr>
<tr>
<td>QWERTY KEYPAD ENABLED (QWERTY)</td>
<td>90061</td>
<td>QTYPOFF, QWERTY</td>
<td>If ON—Enables QWERTY style keyboard</td>
</tr>
<tr>
<td>MODEL IDENTIFICATION (MODELID)</td>
<td>90201</td>
<td>3610</td>
<td>Allow entry of specific model ID to be display at power up.</td>
</tr>
<tr>
<td>MODEL ID TIME (MODLTM)</td>
<td>90202</td>
<td>1, 2, 3, 4, 5, 6, 7, 8, 9, 0</td>
<td>If ON—Entry amount of time for MODEL ID to be display at power up.</td>
</tr>
<tr>
<td>CLEAR PEAK WEIGHT (CLRPKW)</td>
<td>90302</td>
<td>NO / YES</td>
<td>If ON—Allows clearing of stored Peak weights</td>
</tr>
<tr>
<td>CLEAR ROTATION COUNTER (CLRREV)</td>
<td>90303</td>
<td>NO / YES</td>
<td>Allow clearing of stored rotation counts</td>
</tr>
<tr>
<td>CLEAR HOUR METER (CLRHRS)</td>
<td>90304</td>
<td>NO / YES</td>
<td>Allows clearing of hour meter</td>
</tr>
<tr>
<td>MAINTENANCE MESS. CLEAR (MANCLR)</td>
<td>90305</td>
<td>0</td>
<td>Allows for clearing of maintenance message time or entry of new time.</td>
</tr>
<tr>
<td>REINITIALIZE (REINIT)</td>
<td>99999</td>
<td>NO / YES</td>
<td>Reset indicator to factory default settings. 3</td>
</tr>
<tr>
<td>GAIN CALIBRATION (GN CAL)</td>
<td>100001</td>
<td>Starts Calibration Timer</td>
<td>Enters gain calibration</td>
</tr>
</tbody>
</table>

Enter the service menu is required to use the 9000 series numbers.
16.0 INSTALLATION

16.1 Indicator Mounting

For most applications the equipment manufacturer provides the necessary mounting system and hardware, and mounts the Indicator for the End User.

Digi-Star provides a number of mounting options that allow the end user to customize the location and placement of the Indicator. The following section provides a list of the optional mounts.

In all cases the Digi-Star Indicator must be securely mounted to the equipment. Loose, or unsupported, Indicators can be damaged.

![Diagram of different mounting options]

<table>
<thead>
<tr>
<th>KEY</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>404353</td>
<td>BRACKET-EZ3 PLASTIC RAIL *</td>
</tr>
<tr>
<td>B</td>
<td>403780</td>
<td>SCR-#10 X 5/8 FHSTS BLACK ZP</td>
</tr>
<tr>
<td>C</td>
<td>840459</td>
<td>SUPPORT-HAT BRACKET</td>
</tr>
<tr>
<td>D</td>
<td>405069</td>
<td>U-BOLT 1/4-20 X 3.25 ZP</td>
</tr>
<tr>
<td>E</td>
<td>405084</td>
<td>NUT-1/4-20 TOP LOCKING FLANGE</td>
</tr>
<tr>
<td>F</td>
<td>403770</td>
<td>BRACKET- WING MOUNT *</td>
</tr>
<tr>
<td>G</td>
<td>405124</td>
<td>PACK-WEDGE MOUNT BRACKET WITH U-BOLTS &amp; FLANGE NUTS</td>
</tr>
<tr>
<td>H</td>
<td>405244</td>
<td>EZ3 WEDGE MOUNT</td>
</tr>
</tbody>
</table>
## RAM MOUNT

<table>
<thead>
<tr>
<th>KEY</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>404799</td>
<td>KIT-1.5&quot; RAM MOUNT WITH BOLT-ON BASE WITH HARDWARE</td>
</tr>
<tr>
<td>J</td>
<td>407544</td>
<td>KIT-1.5&quot; RAM MOUNT WITH DUAL U-BOLTS (FITS 0.5&quot;-1.5&quot; ROUND)</td>
</tr>
<tr>
<td>K</td>
<td>407434</td>
<td>KIT-1.5&quot; RAM MOUNT WITH TRIPLE SUCTION CUP BASE</td>
</tr>
</tbody>
</table>

## SIDE & UNIVERSAL MOUNTS

<table>
<thead>
<tr>
<th>KEY</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>408880</td>
<td>Mount for Large Indicators with hardware and magnet</td>
</tr>
<tr>
<td>L</td>
<td>408828</td>
<td>Mount for Large Indicators with hardware without magnet</td>
</tr>
<tr>
<td>M</td>
<td>408199</td>
<td>Universal mount short</td>
</tr>
</tbody>
</table>
16.2 Cable Connections

For accurate and reliable operation care should be taken when routing and connecting cables to the Digi-Star Indicator.

- Cables should be secured and protected from damage and abrasion.
- Long cables should not “hang” by the cable connector at the Indicator but should be secured to a structure close to the Indicator leaving a short “tail” to connect to the Indicator.

Special Considerations for Power (+) and Ground (-):

- The Digi-Star Indicator is designed to operate at a continuous voltage ranging from 10.5 to 16.0 volts.
- Intermittent voltage drops to as low as 9.0 volts, such as when starting an engine, will be tolerated. Continuous low voltage will result in a Low Voltage warning on the display or the Indicator will power off.
- Voltage spike above 16 volts will damage the Indicator. Never weld or charge the battery on the equipment that the Indicator is mounted to without disconnecting the Indicator power cord. Never operate an Indicator on equipment with an engine charging circuit when the battery has been removed.

Digi-Star recommends that the red power (+) and black ground (-) are connected as follows:

- Power (+) can be either switched or keyed ON & OFF, or un-switched and always on.
- Power (+) and Ground (-) should come from a dedicated auxiliary power source when provided. When auxiliary power sources are not provided power should come from the main power distribution system.
  - Fuse or circuit protection of at least 5 amps, but no more than 10 amps, should be provided. Although the Indicator is protected internally by an internal fuse a fuse or circuit protection is required to protect the power cable and equipment.
  - Ground (-) connection should be made to a main ground (the battery ground (-) is often connected to this location). Do not use the chassis or frame of the equipment as a ground.
**Indicator Connection Diagram**

<table>
<thead>
<tr>
<th>Pin</th>
<th>To 12VDC Power Supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Red +Terminal</td>
</tr>
<tr>
<td>2</td>
<td>Black -Terminal</td>
</tr>
<tr>
<td>3</td>
<td>Orange Alarm Out</td>
</tr>
<tr>
<td>4</td>
<td>Blue Remote Input</td>
</tr>
</tbody>
</table>

See J-Box Connections

**J-Box Connection**

- Digital Input/Output Connection (Optional)
- Remote Indicator Connection (Optional)
- Power Cord Connection
Bottom Panel Cable Connections

16.3 Connecting Load Cells in Junction Box

Connect load cell wires to terminal blocks.

J-Box Illustrated for 4 Load Cells to be installed.

Load Cell Cable

Connect to Indicator Bottom Panel

Wire Color Key

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

Tighten Nuts

16.4 Load Cell Direction

Observe direction of arrow when installing load cell.
17.0 OPTIONAL EQUIPMENT

17.1 Cab Controls (Wireless)

Features
- Wireless remote with full key control of indicator on mixer
- Mount remote in easy view of loading
- Improves loading accuracy

Functions
- Communicates with multiple mixers

Specification
- Internally mounted 2.4 GHz radios
- Up to 1000 foot range
- 24 channels
- 12 or 24 volt DC system

17.2 Data Transfer Options

Kit Data Down Loader
Allows transfer of data from indicator to PC.
(Optional communication port must already be installed in indicator)

17.3 Transmitter/Receiver

Transmitter (shown) with factory installed receiver in indicator.
Use to zero indicator from a remote location.
Operating range about 90 feet.
17.4 Remote Indicators

RD440 small remote display
RD2400V backlit remote display with 1.7” high numbers
RD2400V backlit remote display w/transmitter and installed receiver
RD2400 backlit remote display with 1” high numbers
RD2400 backlit remote display w/transmitter and installed receiver
RD4000 remote display

17.5 Rotation Counter Sensor (Kit p/n: 408088)

Use with EZ3610 indicator. Sensor allows operator to program indicator to count auger or PTO rotations for accurate mixing of feed. Also used for keeping maintenance log for equipment. Example; At 50 hours of operation time PTO shaft is scheduled for greasing or engine oil is scheduled for changing. For proper equipment maintenance needed, refer to equipment operator manual.
18.0 TROUBLESHOOTING

FLOW CHART

START

Does the indicator come on?

YES

Does the reading on the Indicator stable?

YES

If your display is unstable, or flashes “±RANGE" disconnect the j-box cord from Indicator. Is display still unstable?

YES

Your Indicator is probably defective. Try another Indicator to verify. Note: Be aware of electrical interference that might affect Indicator, such as mobile phones, CB radios, radio towers, electrical motors, etc. Make sure Load Cell cables are not attached to hydraulic lines or reservoir.

NO

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

YES

Are the readings all positive? If not Load Cell is upside down.

NO

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

YES

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

NO

Fix or replace the J-Box

NO

See next Page

NO

Troubleshooting

Poor Connection: Take them apart and clean connections. (Rust or paint should be wire brushed.) Then reconnect and tighten securely.

Bad Battery: Replace battery (weak battery may test good if tested with no load on battery)

Bad Power Cord: Make sure red wire is connected to (+) positive side and black wire is connected to (-) negative side. When using a multimeter to check for voltage, measure between pin 1 (pos) and pin 2 (neg). Meter should read between 10.5 and 14.5 volts DC if using a tractor power cord, black wire is positive and white wire is negative.

NO

Remove the cover from your J-Box

Is there moisture inside the box?

YES

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

NO

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

Did the J-Box have a bad connection or loose wire?

YES
1. Disconnect all the Load Cell wires from the terminal blocks inside the J-Box (leave the indicator on while connecting and disconnecting the wires, it will not damage Load Cells or Indicator if wires are shorted during this step). Is reading on Indicator stable?

   NO

   Replace J-Box (be aware of electrical interference that might affect your scale such as: mobile phones, CB radios, radio towers, electric motors, etc.).

   YES

   2. Zero balance the Indicator. (Press “NET/GROSS” then “ZERO”), Indicator should display “0”.

   Note: Hook up the Load Cells to the J-Box one at a time (only one Load Cell connected at a time). This will get a reading for each Load Cell. While performing this test, watch for any other symptoms such as erratic/unstable display. Indicator flashing “±RANGE”, negative reading, etc. If the Indicator reading should ever appear abnormal with any Load Cell connected then it is probably bad.

3. Connect one Load Cell back into one of the terminals in the J-Box. (The reading you get for each Load Cell is dependent on the size and type of each Load Cell and how much weight is over each Load Cell. In general, the number should be positive and stable.)

   Note: If the scale responded to your weight, that’s verification on the J-Box is OK. If the scale did not respond, either that Load Cell is bad or the J-Box is bad. Try the other Load Cells. If the Indicator still shows no response, the J-Box is bad. (Replace J-Box)

4. Record the Indicator reading with the Load Cell connected.

5. Stand or hang your weight over the connected Load Cell. Record how much the weight increased with your weight over the Load Cell. (A scale with only one Load Cell will weigh heavy.)

   Note: If the scale responded to your weight, that’s verification on the J-Box is OK. If the scale did not respond, either that Load Cell is bad or the J-Box is bad. Try the other Load Cells. If the Indicator still shows no response, the J-Box is bad. (Replace J-Box)

6. Disconnect the first Load Cell and reconnect a second one. Record the Indicator reading. Stand or hang your weight over the connected Load Cell. Record how much the weight increased.

7. Repeat step 6 for the remaining Load Cells. Remember to record your readings.

   Do not expect the Load Cells to give the same reading. It is common for Load Cells to have readings that vary by hundreds, even thousands. Especially when one is carrying more weight.

8. Bad Load Cells will have a reading that is either unstable, makes the indicator flash “±RANGE” or is more than three times greater or less than the average of the others. Also the readings of your weight over each Load Cell should be similar. (Probably 4 times your actual weight). Any differences could be an indication of a bad Load Cell or a structural problem.
19.0 DECLARATION OF CONFORMITY

EMC DECLARATION OF CONFORMITY


Manufacturer’s Name: Digi-Star, LLC
Manufacturer’s Address: W5527 State Hwy 106
Fort Atkinson, WI 53538

European Representative Name: Digi-Star International
European Representative Address: J.F. Kennedylaan 225
5981 WX Panningen
The Netherlands

Model Name: TMR3610_EZ2810
Conformance to: § EN 61326-1 electrical equipment for measurement, control, and laboratory use
° EN 55011, for Class B ISM equipment for industrial, scientific, and medical equipment. (See Report Number 314363)

Equipment Type/Environment: Electronic weighing scale systems; not legal for trade
For agricultural, commercial and industrial use.

Beginning Serial No.: 00001001
Year of Manufacture: 2015

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

Manufacturer

Signature

Full Name: Steven Gorsath
Position: Director of Engineering
Place: Fort Atkinson, WI U.S.A.
Date: Jan 23, 2015

Legal Representative in Europe

Signature

Full Name: Wim de Wit
Position: Managing Director
Place: Panningen, The Netherlands
Date: Jan 23, 2015
20.0 NOTES