



# Avery Weigh-Tronix

SCALES FOR AGRIBUSINESS



## Model 2015—Feed Supervisor Application Program User's Manual

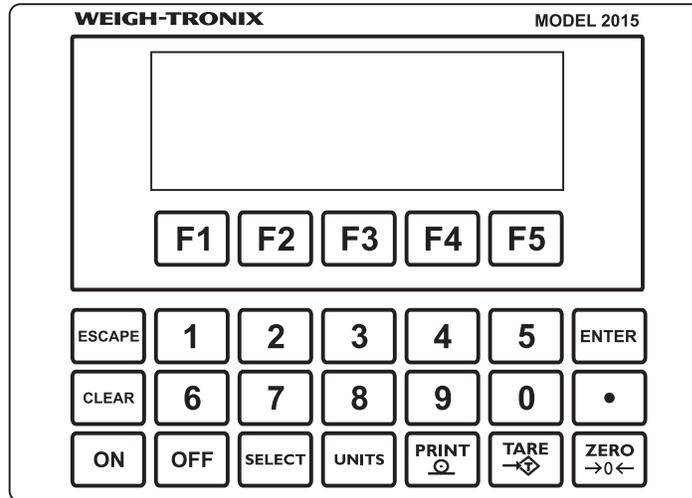


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The Model 2015 indicator is a batch grinding controller for use on TMR mixing systems. It is usually installed inside a truck cab or a tractor. Take care in routing all cables and protect them as much as possible. Make sure that the 2015 has a reliable source of +12VDC power.

## Initial Setup



**Figure 1**  
2015 front panel

The first step is to establish the proper zero on the system. Make sure the mixer is empty and nobody is standing or leaning on the mixer.

Power on the unit and once in the Main menu, press and hold the **ESCAPE** key until SETUP PASSWORD is shown.

Enter in 30456 and press **ENTER**. The CALIBRATE menu is shown.

With the mixer empty, press the **ZERO** (F2) soft key, and “ZERO CALIBRATION, REMOVE LOAD, PRESS ENTER” will be displayed.

Press **ENTER** and “DETERMINING ZERO” will be shown, and then (OK) PRESS ANY KEY TO CONTINUE.

- Press **ENTER** and display will again show the CALIBRATE menu. Press **EXIT (F5)**

- Display will ask to SAVE CHANGES, press **YES (F5)** key

- SAVING CALIBRATION CHANGES, PLEASE WAIT will be shown. Scale will power down and then back on and return to the main menu.

- CHANGES ARE COMPLETE, you are ready to use your new MODEL 2015.

The unit has temperature compensated electronics that automatically adjust the display contrast over temperature to keep the display readable.

To adjust the brightness/contrast, start at the Main menu and press and hold on the **CLEAR** key while also tapping and holding on the following keys:

5 key to adjust contrast higher or brighter

0 key to adjust contrast lower or dimmer.

Normally the default setting from the factory is appropriate and adjustment is not necessary in the field.

## GETTING STARTED

The Main menu will power up with the Function keys labeled as follows:

3000 lb

USER ID: 12345678

04-25-00

10:07:30

**AMT FED      MIX      CLEAN X-FER      SETUP**

1.      AMT FED      (F1)
2.      MIX      (F2)
3.      CLEAN (F3)
4.      X-FER (F4)
5.      SETUP (F5)

With the Main menu being displayed, a user can access five different modes:

## AMT FED (F1)

Accessing AMT FED provides a listing of all Pen Groups with Feed Supervisor Targets, and actual amount fed that day.

DESCRIPTION    ACTUAL    TARGET

1. PEN #1	1000	1000
2. PEN #2	2000	2000
3. PEN #3	3000	3000
4. PEN #4	4000	4000

**DOWN UP(^)**                    **PRINT BACK**

The **DOWN (F1)** and **UP (F2)** soft keys allow paging up and down to see the total listing.

Pressing **PRINT (F4)** prints the total pen listings with actual vs. target for the day.

Pressing **BACK (F5)** escapes back to the Main menu.

## MIX (F2)

Press **MIX (F2)** when wanting to mix a ration for a pen group or mix a commodity blend and the following will be displayed:

SELECT THE FOLLOWING:

RATION: BATCH RATION AND FEED

C-BLEND: MIX A COMMODITY INGREDIENT

USER ID: ENTER IN USER ID

**RATION            C-BLEND            USER ID            BACK**

Pressing **USER ID (F3)** shows the following:

This allows users to enter their own alpha-numeric user ID number (maximum of 15 characters). This ID number will be saved with each feeding performed. ID number only needs to be entered when a new user is using the system. Use the numeric keypad to enter numbers, and the Chr<sup>^</sup>, Chr<sup>v</sup>, and Adv<sup>+</sup> to enter alpha characters.

ENTER USER ID NUMBER:



3.HEIFERS 24

4.CALVES PEN 9

**BKSP -NEG**

Press **ENTER**...and the following will be displayed:

RATION: HIGH COWS 16

PEN GROUPS BATCH BALANCE

1. PEN #1 6000 12000

BATCH TOTAL = 0 LB

ENTER #OF PEN OR 0 FOR CUSTOM WEIGHT

**DOWN UP(^) FULL MIX BACK**

There are now three options to choose from:

A. CUSTOM

The first option is to choose CUSTOM, which allows the operator to enter a different batch amount.

B. FULL

To load the mixer Full, press **FULL (F3)**, and then press **MIX (F4)**. This starts the batching process. (This process sets the batch size to the maximum batch size the TMR mixer can hold, see SETUP Paramters Section on how to enter this amount).

C. PEN GROUP SELECTION

Scroll through the list, find the number that corresponds to the desired Pen Group, press **ENTER**. Press **MIX (F4)** and this starts the batching process. If more than one pen needs to be fed, select another number. Press **ENTER** until batch size equals the proper amount. If the batch size is larger than the programmed batch size of the mixer, an error will be displayed indicating batch is too large. Edit size accordingly.

A. CUSTOM BATCH AMOUNT ENTRY

To enter a CUSTOM batch weight amount press "0" and the following display is shown:

RATION: HIGH COWS 16  
PEN GROUPS BATCH BALANCE  
1. PEN #1 6000 12000

BATCH TOTAL = 0 LB  
GROUP SELECTED: 0  
**BKSP**

Now press **ENTER** ...  
ENTER CUSTOM BATCH SIZE

BATCH SIZE: 0

**BKSP**

Enter in appropriate batch size (example: 10000 lb), then press **ENTER**. This will access display entitled START BATCHING PROCESS.

B. FULL BATCH

To fill up the TMR mixer with the maximum programmed batch size amount, press **FULL**. It will automatically make a batch of the programmed maximum batch size. (See Setup Section). Once FULL is pressed it will go to the START BATCHING PROCESS display.

C. PEN GROUP SELECTION

Use the **DOWN** and **UP** keys to view pen groups. Press "1", and the following will be displayed.

RATION: HIGH COWS 16  
PEN GROUPS BATCH BALANCE  
1. PEN #1 6000 12000

BATCH TOTAL = 0 LB  
GROUP SELECTED: 1  
**BKSP**

Then press **ENTER**...

RATION: HIGH COWS 16  
PEN GROUPS BATCH BALANCE  
X 1. PEN #1 6000 12000

BATCH TOTAL = 6000 LB  
ENTER # OF PEN OR 0 FOR CUSTOM  
**DOWN UP^ FULL MIX BACK**

If a Pen Group has been selected, and already added into the Batch Total, it will show (x) next to the Pen Group.

Press **BACK** to return to previous menu if necessary, otherwise continue...

Now press "2 ENTER" to make a 10000 lb mix and display shows the following:

RATION: HIGH COWS 16  
PEN GROUPS BATCH BALANCE  
X 1. PEN #1 6000 12000  
X 2. PEN #2 4000 8000  
BATCH TOTAL = 10000 LB  
ENTER # OF PEN OR 0 FOR CUSTOM  
**DOWN UP(^) FULL MIX BACK**

Once going through the steps when BATCH TOTAL is made up of proper selections and amounts of pen groups, press **MIX (F4)**.

Go to display entitled START BATCHING PROCESS.

#### **START BATCHING PROCESS:**

If you press **MIX** and the batch amount is larger than your programmed mixer size, the following message will be

displayed for a few seconds, and then automatically return to previous screen.

AMOUNT SELECTED IS LARGER THAN  
THE MIXER SIZE ...

PLEASE CHANGE YOUR SELECTION OR  
PRESS FULL TO HAVE A FULL MIXER  
**DOWN UP^ FULL MIX BACK**

RATION: HIGH COWS 16  
BATCH AMOUNT = 10000 LB

MOVE MIXER TO THE FIRST FEED TYPE, THEN PRESS LOAD TO START BATCHING  
**LOAD VIEW BACK**

Press **BACK** to return to previous MENU.

If you want to review the selected recipe before batching, press **VIEW**. The following display is shown:

RATION : HIGH COWS 16  
BATCH AMOUNT: 10000 LB  
SEQ # FEED TYPE TARGET AMOUNT  
1 CORN 1590  
2 CORN GLUTEN 360  
3 COTTONSEED 400  
**DOWN UP(^) PRINT BACK**

Pressing **BACK**, returns back to previous MENU.

Pressing **PRINT** it prints the recipe.

Pressing **LOAD** , goes to the following display.

ORIGINAL FEED TYPE LOADING SCREEN:

RATION : HIGH COWS 16

BATCH AMOUNT: 10000 LB

FEED TYPE : CORN TARGET: 1590 LB

AMOUNT TO LOAD: 1590 LB

**ADV+ ACCEPT+ S-TYPE RESET BACK**

NEW FEED TYPE LOADING SCREEN

1590 lb

AMOUNT TO LOAD OF CORN

**ADV+ ACCEPT+ S-TYPE RESET BACK**

Pressing ACCEPT+ moves to the next feed type and records the gross live weight as actual amount loaded. Only available on the very first feed type of any ration.

If moving to the next ingredient, and the amount to load shifts because of movement of the system, press RESET to reset the amount back to its original amount to load before loading.

Now load the first feed type, until reaching the target, or amount to load is 0 LB.

Pressing ADV+ stores actual amount loaded and advances to the next feed type.

360 lb

AMOUNT TO LOAD OF CORN GLUTEN

**ADV+ S-TYPE RESET BACK**

Assume the user only had enough CORN GLUTEN to add 160 lb of material. The following would be shown:

200 lb

AMOUNT TO LOAD OF CORN GLUTEN

**ADV+ S-TYPE RESET BACK**

If unable to reach a target because of running out of a feed type, press S-TYPE to substitute a feed type with the remaining target amount. If pressing S-TYPE the following display will be shown, and the amount fed of the previous feed type will be saved with times.

#### SUBSTITUTION FEED TYPES

SELECT FEED TYPE #, PRESS ENTER

1. CORN
2. CORN GLUTEN
3. COTTONSEED
4. DISTILLERS

**DOWN UP(^)            PRINT BACK**

Pressing PRINT prints feed type list, and pressing BACK returns to previous MENU.

To substitute a feed type (example : 1 ENTER, substitutes corn for corn gluten) select appropriate ingredient number, and press ENTER. Use down and up keys to scroll through feed type selections. The following will be shown:

200 lb  
AMOUNT TO LOAD OF CORN  
**ADV+            S-TYPE            RESET BACK**

When substituting it will automatically put in the proper target amount based off what is left to feed of that ingredient.

Continue the loading until all feed types are loaded, than after the last feed type either manually advance or it will advance to the following:

RATION:            HIGH COWS 16  
PEN GROUPS    ACTUAL    TARGET  
X 1. PEN #1    6000    12000  
X 2. PEN #2    4000    8000  
ENTER # OF PEN TO FEED, PRESS ENTER  
GROSS AMOUNT = 10000 LB  
**DOWN UP(^)    HOLD    PRINT BACK**

Pressing HOLD locks, or freezes the current gross amount on the mixer, and prevents the shifting of weight when moving to the Pen Groups. Displays the following:

HOLDING WEIGHT!!!

GROSS WEIGHT = 10000

### **UNLOAD**

If pressing UNLOAD, it simply returns to the previous unload pen screen.

If pressing the PRINT key it prints all the PEN GROUPS currently loaded. Use the DOWN and UP keys to page down or up to view all possible Pen Group selections. Once user finds the appropriate Pen Group that needs to be fed, simply enter the number to the left of the pen name, and the following will be displayed . . .

FEED OUT PEN: 1

### **BKSP**

Then press ENTER and notice the Pen Group List will display all Pen Groups, but only show targets with Groups associated with ration selected.

PEN GROUP : PEN #1

UNLOAD AMOUNT: 6000 LB

GROSS AMOUNT: 10000 LB

PRESS UNLOAD TO ACCEPT, OTHERWISE CHANGE UNLOAD SIZE AND PRESS ENTER

**UNLOAD**

**BACK**

Pressing BACK returns to previous menu. Pressing UNLOAD goes to the following:

Now actually start unloading...

#### ORIGINAL UNLOAD MENU SCREEN

PEN GROUP: PEN #1

GROSS WEIGHT : 10000

UNLOAD AMOUNT: 6000

ACTUAL AMOUNT TO UNLOAD: 6000

PRESS ACCEPT WHEN MIXER IS EMPTY OR SPLIT TO CHOOSE ANOTHER PEN GROUP

ACCEPT      SPLIT

#### NEW UNLOAD MENU SCREEN

6000 lb

AMOUNT TO UNLOAD INTO PEN #1

GROSS WEIGHT : 10000

**ACCEPT      SPLIT**

If choosing SPLIT after unloading to the first pen, it will again ask to choose a Group Pen, and repeat through the above process. Once choosing either SPLIT or ACCEPT, it will store the actual amount unloaded with time it was completed, and its target amount. If pressing ACCEPT it stores the information and returns to the main menu.

If unit was configured for Auto-Print it would then printout the following. See SETUP (F5) for Auto-Print configuration.

The following would be a WP-233 printout configured for 40 column wide

Ration : High Cows 16

Batch # : 1

User ID : 123456

Start Time: 09:41 04/29/99

Stop Time: 09:45 04/29/99

Time Ingredient Target Actual

09:41	Corn	1590	1600
09:41	Corn gluten	360	370
09:42	Cottonseed	400	410
09:42	Distillers	100	90
09:42	Fat	50	50

09:42	Meat & Bone	110	110
09:43	Mineral	120	120
09:43	Soybean Meal	550	550
09:44	Corn Silage	3740	3740
09:44	Haylage	2980	2970
09:45	TOTAL	10000	9990

Pen Group Unload Amounts

04/29/99

Time	Description	Target	Actual
------	-------------	--------	--------

09:50	Pen #1	6000	5900
-------	--------	------	------

09:55	Pen #6	4000	4100
-------	--------	------	------

C-BLEND (F2)

Pressing the C-BLEND(F2) key to mix a commodity displays the following:

ENTER # OF COMMODITY TO MIX, THEN PRESS ENTER

1.COMMODITY-1

2.COMMODITY-2

3.COMMODITY-3

4.COMMODITY-4

**DOWN UP(^)**

**BACK**

Pressing 1, then ENTER shows the following display:

COMMODITY MIX : COMMODITY-1

BATCH AMOUNT: 10000 LB

PRESS LOAD TO ACCEPT, OR CHANGE BATCH AMOUNT AND PRESS ENTER.

LOAD

VIEW

BACK

If Pressing BACK, returns to the MAIN MENU.

If Pressing VIEW, goes to the following Display

COMMODITY MIX : COMMODITY-1

BATCH AMOUNT: 10000 LB

Seq # FEED TYPE TARGET AMOUNT

1 CORN 5000

2 HAY 5000

**DOWN UP(^)**

**PRINT BACK**

If pressing BACK, returns back to previous MENU.

If pressing PRINT it prints the Commodity Mix.

Once accepting the Batch size, and pressing LOAD the following is displayed.

COMMODITY BLEND: COMMODITY-1

BATCH AMOUNT: 10000 LB

FEED TYPE #1: CORN TARGET: 5000 LB

AMOUNT TO LOAD: 5000 LB

ADV+ S-TYPE RESET BACK

5000 lb

AMOUNT TO LOAD OF CORN

**ADV+ S-TYPE RESET BACK**

Pressing ADV+ stores actual amount loaded and advances to the next feed type.

5020 lb

AMOUNT TO LOAD OF HAY

**ADV+ S-TYPE RESET BACK**

COMMODITY BLEND : COMMODITY-1

BATCH AMOUNT: 10000 LB

FEED TYPE # 2: Hay

TARGET: 5000 LB

AMOUNT TO LOAD: 5000 LB

**INGR+            S-TYPE            RESET BACK**

If moving to the next FEED TYPE, and the target shifts, press RESET to reset the amount to load back to its original target before loading.

Continue the loading until all feed types are loaded, than after the last feed type it will advance back to the main menu. User can than unload the commodity.

Again the indicator will retain times, and actual amounts batched.

CLEAN (F3)

Pressing the CLEAN (F3) enables you to record an amount of clean up left in a pen. The following display is shown:

ENTER # OF PEN TO CLEAN, PRESS ENTER

OR PRESS CLN-ALL

1. PEN #1
2. PEN #2
3. PEN #3
4. PEN #4

**DOWN UP(^)    CLN-ALL            PRINT BACK**

If pressing PRINT, it prints out the cleanout listing, with tome and date, and the amount cleaned up from each cleanup sequence.

Again, down and up enable page up and down. Once viewing the correct pen, simply press the number of the pen , the following is displayed...

GROUP SELECTED: 1

**BKSP**

And then press ENTER. The following display appears:

PEN GROUP: PEN #1

PRESS CLEAN TO START THE CLEAN UP LOADING PROCESS

**CLEAN**

**BACK**

Pressing BACK returns to the previous menu.

Pressing CLEAN goes to the following:

ORIGINAL MENU:

PEN GROUP : PEN #1

CLEAN UP AMOUNT: 0

**RESET**

**RECORD**

**BACK**

NEW MENU:

0 lb

CLEAN UP AMOUNT OF PEN #1





- ADVANCE- Auto Feed Type Advance parameters.
- Tol- Auto-Feed Type Advance tolerance.
- Delay- Auto-Advance delay parameter.
- ALARM- Pre-alarm warning when flashing starts.
- PRINT- Auto-Print after load and unloading takes place.

## SETUP PARAMETERS

SELECT THE APPROPRIATE PARAMETER:

TMR-MIX      ADVANCE      ALARM PRINT      BACK

Pressing BACK returns to the main menu.

Pressing TMR-MIX (F2) shows the following display.

### TMR-MIX PARAMETERS

ID: MIXER ID# 1234

TMR-MIX: TMR MIXER BATCH SIZE: 10000

HAND-ADD:HAND-ADD MAX SIZE: 100

ID      TMR-MIX      HND-ADD      BACK

Accessing ID (F1) allows entry of a mixer ID (15 character alpha-numeric). This ID number will be saved and used to identify which mixer is sending batched data, if more than one mixer is being used. ID number only needs to be entered when first setting up a system with multiple TMR mixers in a system.

Pressing the ID (F1)key will indicate the following:

### TMR-MIX PARAMETERS

ID: MIXER ID# 1234  
TMR-MIX: TMR MIXER BATCH SIZE: 10000  
HAND-ADD:HAND-ADD MAX SIZE: 100  
ENTER MIXER ID:2345  
BKSP CHR^ CHR ADV

After pressing ENTER, it automatically returns to the previous MENU and changes the ID number accordingly.  
To Escape without changing the ID number and return to the previous menu simply press ENTER.

Pressing TMR-MIX (F2) accesses the following display.

#### TMR-MIX PARAMETERS

ID: MIXER ID# 2345  
TMR-MIX: TMR MIXER BATCH SIZE: 10000  
HAND-ADD:HAND-ADD MAX SIZE: 100  
ENTER TMR SIZE:10000  
BKSP

Pressing the F3 key (Hnd-add) accesses the following display:

#### TMR-MIX PARAMETERS

ID: MIXER ID# 2345  
TMR-MIX: TMR MIXER BATCH SIZE: 10000  
HAND-ADD:HAND-ADD MAX SIZE: 100  
ENTER HAND-ADD SIZE: 100  
BKSP

Using hand-adds as for example of 100 lb, every time when an ingredient calls for an amount less than 100 lb, when pressing the ADV+ key, will store the amount loaded as the target amount instead of actual amount loaded like all the other larger feed types.

Press ADVANCE(F2) to access the following display.

#### SETUP AUTO FEEDTYPE ADVANCE

TOL: AUTO-FEED TYPE TOLERANCE  
DELAY: AUTO-FEED TYPE ADVANCE DELAY

TOL    DELAY                    BACK

Pressing TOL (F1) accesses the following display.

SETUP AUTO FEEDTYPE ADVANCE

TOL: AUTO-FEED TYPE TOLERANCE  
DELAY: AUTO-FEED TYPE ADVANCE DELAY  
ENTER ADVANCE TOLERANCE IN PERCENTAGE TOLERANCE: 5  
BKSP

The tolerance parameter is +/- percentage of the loading/unloading target. EXAMPLE: If target is 1000 lb and tolerance is 5 percent, than before auto-advancing forward the loading of an ingredient must be within 50 lb. If programming in 0% than there is no auto-advance, must be advanced by the user.

Press DELAY(F2)to access the following display.

SETUP AUTO FEEDTYPE ADVANCE

TOL: AUTO-FEED TYPE TOLERANCE  
DELAY: AUTO-FEED TYPE ADVANCE DELAY  
ENTER ADVANCE DELAY IN SECONDS  
DELAY:10  
BKSP

The delay parameter is the time that the target must be within tolerance before advancing to the next ingredient.

Press ALARM(F3) to access the following display:

## ALARM WARNING PARAMETER

ENTER ALARM WARNING AS A PERCENTAGE

ALARM PERCENT: 50

BKSP<

Alarm Warning Parameter determines the point at which the alarm output and the beeper start flashing to warn the user he is approaching his target point. Once reaching the target the alarm and buzzer remain on until turned off by the user. Start flashing at 1/sec and once reaching target weight should be on steady.

Press PRINT(F4) to access the following display:

AUTO-PRINT AFTER LOAD/UNLOAD PARAMETER

AUTO-PRINT : ON

ON/OFF

BACK

Press On/Off to toggle selection between on and off. If on, it will print out the actual recipe batches along with the actual amounts unloaded to the pens.

POWERING DOWN

When completed, press **OFF** and unit will power off. **DO NOT** power down in the middle of batching, as the indicator will return to the main menu. You will then need to select a ration to mix and try to get back to where you left off, or simply finish a batch by watching the gross weight.

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