Animal Weighing w/640M/640/640XL Indicators Quick User Guide

The following sections will give you a quick reference for common questions that arise when weighing animals with the 640M/640/640XL model indicators from Avery Weigh-Tronix.

Words in **ALL CAPS & BOLD** represent buttons or keys on the indicator.
Words in ***Bold & Italic*** represent what is displayed on the 640M screen.

1 Basic Animal Weighing

1. Press **ON**...

   Display shows ***HELLO*** then the current weight value is displayed.

2. Press **G/N** and access gross mode...

   Live scale weight is displayed in the G/N weighing mode.

3. Remove all material from the scale and press **ZERO/CLEAR.**

   0 is displayed, and the system is zeroed.

Establishing zero here is the same as doing the calibration zero.

If unit is in AUTO-LOC mode and ***L*** *is displayed, to zero the scale, press and hold the* **ZERO/CLEAR** *key for two seconds. L will only display once the weight has reached the parameters the auto-loc were set for.*

2 Alphanumeric Entry Procedure

Use the keys described below to enter alpha or numeric values.

RM ▲	Use this key to scroll up through the alphanumeric menu
M+ ▼	Use this key to scroll down through the alphanumeric menu
HOLD / MENU	Use this key to move the cursor one position right
TARE	Use this key to move the cursor left one position to delete entry

3 Defining Options

Auto-LOC — Once the Indicator determines the animal's weight it locks that weight on the display even with the animal moving around.

Auto Accumulate — The 640M can be set to accumulate the total weight of a group of animals weighed. The 640M has up to 100 Memory Channels that can be setup to accumulate a designated group of animal's weights.

Minimum Weight (MIN.WT) — This sets the minimum weight you want to activate the Auto-LOC feature. This prevents lower weights from Auto-LOCing.

Example: *If you are weighing a group of feeder cattle that weigh in the range of 600 pounds, you can set the minimum weight at 400. Then, if a person or lighter animal, like a dog, walks on the scale, that weight is not recorded.*

4 Animal Weighing Using AUTO-LOC Feature

The Model 640 has a feature called AUTO-LOC. It is specifically designed for use in weighing livestock. Once the indicator has determined the animal's weight, the indicator display automatically locks on that weight if the AUTO-LOC feature is turned on. The weight reading will not change as long as the animal is on the scale. This makes the weight easy to record since the numbers are not rapidly changing as the animal moves on the scale

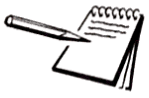
There are two modes in the AUTO–LOC feature:

Standard LOC Mode

In standard mode, an animal's weight is locked on the display until the animal leaves the scale.

Advanced LOC Mode

In advanced mode, an animal's weight is locked on the display until the next animal comes onto the scale..



AUTO accumulate feature can be turned on or off to work with AUTO-LOC. Refer to Table 3: for 5th CCN Digit on page 3 to choose a 5th digit of the CCN which will turn on the accumulator.

The Model 640 indicator is pre-calibrated at Avery Weigh-tronix with appropriate code number specified by the OEM, or leaves with a factory calibration number of 18033.

The following tables show how to establish a configuration code number to configure the Model 640 indicator. Find the specs which match your system to find the appropriate code number. Find the first and second digits of the CCN in Table 1.

The third digit will come from the bottom row of Table 1. For example if you are calibrating to the Chute Weight the first two numbers are 15 and if you want to weigh in 1 lb increments with max capaxity of 20,000 lbs you the third digit will be 0. Thus the first three numbers of the cal code is 150. The 4th digit comes from Table 2 and will always be 8 for animal weighign applications. The fifth and last digit comes from table 3. This sets whether you weigh in lbs or kgs and whether you have AUTO-LOC and AUTO-ACC on or off. In this case we want to weigh in lbs and have both on so our 5th digit is 3. The final cal code is 15083

Table 1: Table for 1st and 2nd CCN Digits

1st and 2nd Digits	Calibration Size	Capacity x Increment Size				
04	2	20K x 1	20K x 2	20K x 5	--	--
05	2-1/8	20K x 1	20K x 2	20K x 5	--	--
13	Alley Weigh	2K x 0.1	2K x 0.2	2K x 0.5	20K x 1	20K x 2
15	Chute Weigh	20K x 1	20K x 2	20K x 5	--	--
97	Custom Setting	200 x 0.01	200 x 0.02	200 x 0.05	--	--
98	Custom Setting	20K x 1	20K x 2	20K x 5	--	--
	3rd Digit	0	1	2	3	4

Table 2: Table for 4th CCN Digit

4th Digit	Print Format
8	Displayed Weight

Table 3: Table for 5th CCN Digit

5th Digit	Units	Auto-Loc	Auto-Acc
0	Lb	Off	Off
1	Lb	Off	On
2	Lb	On	Off
3	Lb	On	On
4	Kg	Off	Off
5	Kg	Off	On
6	Kg	On	Off
7	Kg	On	On

4.1 How to Set Up AUTO-LOC

Follow these steps to set up the AUTO-LOC feature:

1. Access the Setup menu from the G/N mode. Press and hold the **HOLD/MENU** key for three beeps (3 seconds), then release...

   SET.PAS is displayed.

2. Use the numeric entry procedure, described below, to enter the password ***640***. Press **PRINT/SELECT** to accept it...

   640 is shown.

3. Press **PRINT/SELECT** once more...

   CONFIG is displayed. Change your current configuration code number to one that turns AUTO-LOC on. Refer to *Table 3: Table for 5th CCN Digit on page 3*. Once you have your five digit number, enter it as follows:

4. From ***CONFIG***, press **PRINT/SELECT**...

   Current code number is shown.

5. If attempting to enter an invalid number display will show CAN't and return to CONFIG.

6. Use the numeric entry procedure to enter the new number and press the **PRINT/SELECT** key when finished.

   CONFIG is shown.

7. Press the **HOLD/MENU** key several times until...

   AUT.LOC appears. The ***AUTO-LOC*** menu selection only shows up when a configuration code number turns on this feature.

   This menu item is where you choose standard or advanced LOCK, minimum weight (***MIN.WT***), and release tolerance (***REL.TOL***) appropriate for the livestock application.

8. Press the **PRINT/SELECT** key...

   MODE is displayed.

9. Press the **PRINT/SELECT** key...

   STD.LOC is displayed. This is the standard LOCK. Toggle between this and the ***ADV.LOC*** by pressing the **HOLD/MENU** key.

10. When your choice is displayed, press the **PRINT/SELECT** key...

    Your choice is selected and ***MODE*** is displayed.

11. Press the **HOLD/MENU** key...

    MIN.WT is displayed. This is where you set the minimum weight that must be on the scale to activate the AUTO-LOC feature. This prevents smaller weights from locking on the display. See the example below.

***EXAMPLE**: If you are weighing 1200 pound cattle, you may set the minimum weight at 800 pounds and a release tolerance of 25%. Anything thing that goes on the scale that weighs less than 800 pounds (like a person or the neighborhood dog) will not cause the weight to lock. When an animal steps off the scale and the weight drops by at least 300 pounds (25% of 1,200 pounds), the system will reset to lock on the next weight above 800 pounds.*

12. To set the minimum weight, press the **PRINT/SELECT** key...

    Use the numeric entry procedure to enter the minimum weight value.

13. When the value is entered, press the **PRINT/SELECT** key to accept it and...

    MIN.WT is displayed.

14. Press the **HOLD/MENU** key...

    REL.TOL is displayed. This is the release tolerance. This is set in steps 12 and 13 which must be removed from the scale before the AUTO-LOC resets. Refer to the example above to decide on a release tolerance percentage.

15. Press the **PRINT/SELECT** key...

    Use the numeric entry procedure to enter the release tolerance in percentage of the minimum weight.

16. When the value is entered, press the **PRINT/SELECT** key to accept it and...

    Your choice is selected and ***REL.TOL*** is displayed.

You can exit the menu and return to normal weighing mode by repeatedly pressing the **G/N** key. If, during operation the AUTO-LOC feature seems very slow, this can be due to excessive weight fluctuations. In this case you can access the Setup menu and increase the FILTER-CONSTANT parameter until it works properly. Reference *How to Configure Filtering* on page 60 of the M640 User Manual for instructions on adjusting the filtering.

4.2 Weighing Individual Animals with Standard Mode AUTO-LOC

The following describes how a Model 640 can be used for weighing and recording an animal's weight automatically on a single animal livestock scale with standard mode AUTO-LOC. Unit must be setup for AUTO-LOC and set for standard (STD.LOC) mode.

1. Turn indicator on, press the **G/N** key to access the gross mode and press the **ZERO** key...

   0 is displayed.

2. Move animal onto the scale...

   L WWWW is shown.

   WWWW = animals auto-locked weight.

   If a false locked weight occurred, press **ZERO/CLEAR** to recheck the animals weight. This will also delete from the accumulators the last locked-on weight and replace it with the new locked-on weight.

   If auto-accumulate is on, once the weight is locked-on, the Model 640 will automatically accumulate to the last selected memory channel.

   Weight stays locked until the weight on the scale drops by the programmed release tolerance. (Example: weighing a 2000 lb animal with a 25% release tolerance, means the lock will release when weight drops below 1500 lb).

   If the animal is released and the weight falls below the tolerance it may be possible to lock on another weighment. We recommend putting in a high release tolerance like 75% to insure reliable operation.

   Also to prevent an inadvertent AUTO-LOC if someone leans/steps on the scale, we recommend putting in a large amount for the MIN.WT parameter to prevent this from occurring. (EX: 300 lb)

3. Remove the animal from the scale...

   Scale returns to live weighing mode.

4. Repeat steps 2 and 3.

4.3 Weighing Individual Animals with Advanced Mode AUTO-LOC

The following describes how a Model 640 can be used for weighing and recording animal's weight automatically on a single animal livestock scale using the advanced AUTO-LOC mode. The indicator must be setup for AUTO-LOC and set for advanced (ADV.LOC) mode. In addition, the auto-accumulate feature can be turned on or off.

The M640 will lock on an animals weight and stay locked even after the animal is off the scale. A new AUTO-LOC weight will only be retriggered upon placing the next animal on the scale.

1. Turn indicator on use the **G/N** key to access the gross mode, and press the **ZERO/CLEAR** key...

   Display shows ***0***

2. Move animal onto the scale...

   L WWWW is shown. ***WWWW*** = animals auto-locked weight

   If a false locked weight occurred, press **ZERO/CLEAR** to recheck the animals weight. This will also delete from the accumulators the last locked-on weight and replace it with the new locked-on weight.

   If autoaccumulate is on, once the weight is locked-on, the Model 640 will automatically accumulate to the last selected memory channel.

   Weight stays locked until the next animal is on the scale.

   Also to prevent an inadvertent AUTO-LOC if someone leans/steps on the scale, we recommend putting in a large amount for the MIN.WT parameter to prevent this from occurring. (EX: 300 lb)

3. Remove the animal...

   L WWWW is shown

4. Repeat steps 2 and 3...

   After weight starts rising and goes beyond the MIN.WT the scale will briefly show actual weight before triggering a new auto-locked weight.

5 Memory Channels

The Model 640 has 100 memory channels available for accumulating weights. This can be helpful in accumulating groups/pens of livestock. Each channel will also have the total number of accumulations obtained, total weight and the average weight of all weights accumulated, both total and for each individual channels.

Accumulators can go as far as 99,000,000.

5.1 Accessing or Changing Memory Channels

1. From the weighing mode use the **RM** and **HOLD/MENU** keys to enter which memory channel you want. (**RM** will increase the digit, **HOLD/MENU** will move the number over to allow you to enter another digit.)

*An alternate way to select memory channel is to press **RM** then each time you press **MENU** you move to the next memory channel.*

2. Press the **PRINT/SELECT** key once the desired memory channel has been entered ...

   The memory channel is briefly displayed, then the indicator returns to weighing mode automatically.

5.2 Rename a Memory Channel

If the application requires alphanumeric channel names, go through the memory channel list and edit their descriptions accordingly. For example, if you want to record groups of cattle from five different pens, then create a list of PEN1, PEN2, ...PEN3. Now the custom names of the memory channels can be used, otherwise all memory channels will be the default descriptions of MEM.001, MEM.002, etc.

1. Press and hold the **HOLD/MENU** key for two beeps (the one that occurs when you push the key and one more) then release it ...

   A-LIST is displayed and all the arrows are lit around the edge.

2. Press the **PRINT/SELECT** key ...

   EDIT is displayed.

3. Press the **PRINT/SELECT** key ...

   The display will show what memory channel you are in.

4. If you want a different channel, use the **RM** and **HOLD/MENU** keys to enter which channel you want, then press the **PRINT/SELECT** key ...

   The correct memory channel is displayed.

5. Press the **PRINT/SELECT** key ...

   The arrows will begin flashing.

6. You can now use the **RM**, **M+**, and **HOLD/MENU** keys to enter an alphanumeric name for the memory channel. (**RM** and **M+** will step you through the characters and **HOLD/MENU** shifts over to enter the next digit.) You will have six characters you can use. Refer to Section 2 for more details on alphanumeric entry.

7. Press the **PRINT/SELECT** key once you have entered in the new memory channel name ...

   The arrows will stop flashing and the memory channel's new name will still be displayed.

8. Press the **G/N** key three times to exit to the weighing mode if you are done. If you have more memory channel names to enter press the **G/N** key once which will take you to ***Edit*** in step 2. From here you can proceed with the process of entering a new memory channel name.

Regardless of what you name each memory channel you will need to know what the original number was to enter that memory channel. For example: If you renamed memory channel 2 and called it FIELD1, you will still need to enter memory channel 2 to access it.

5.3 Clearing the Accumulators

1. From the G/N mode, press and hold on the **HOLD/MENU** key for two beeps (2 sec) and release...

   A-LIST is shown.

2. Press **HOLD/MENU** twice...

   CLR.ACC is shown

3. Press **PRINT/SELECT**...

   NO is displayed.

4. Press **HOLD/MENU**...

   YES is displayed.

5. Press **PRINT/SELECT**...

   WAIT is displayed, then ***MEM.CLR***. Once the unit is done clearing accumulators ***CLR.ACC*** is displayed again.

6. After the accumulators are cleared press **G/N** to return to the G/N weighing mode.

5.4 View the Accumulated Totals of all Memory Channels

This is especially helpful if you want the total weight of a group of animals that you just weighed.

1. Press and hold the **HOLD/MENU** key for 2 beeps ...

   A-LIST is displayed.

2. Press the **HOLD/MENU** key ...

   A-STAT is displayed.

3. Press the **PRINT/SELECT** key ...

   WT.TOT is displayed.

4. Press the **PRINT/SELECT** key ...

   The indicator displays the total of all memory channels.

5. Press the **PRINT/SELECT** key ...

   WT.TOT is displayed.

6. Press the **G/N** key two times to exit to the weighing mode.

5.5 View One Specific Memory Channel

1. Press and hold the **HOLD/MENU** key for 2 beeps ...

   A-LIST is displayed.

2. Press the **PRINT/SELECT** key ...

   EDIT is displayed.

3. Press the **HOLD/MENU** key ...

   ACC.WT is displayed.

4. Press the **PRINT/SELECT** key ...

   The current memory channel is displayed.

5. You can change the memory channel. Enter the number with the **RM** and **HOLD/MENU** keys then press the **PRINT/SELECT** key. (**RM** and **M+** will step you through the characters and **HOLD/MENU** shifts over to enter the next digit.)

6. Press the **PRINT/SELECT** key ...

   The weight that has been accumulated in this memory channel will be displayed.

7. Press the **G/N** key four times to exit to the weighing mode.

5.6 Delete Contents of all Memory Channels

1. Press and hold the **HOLD/MENU** key for 2 beeps ...

   A-LIST is displayed.

2. Press the **HOLD/MENU** key ...

   A-STAT is displayed.

3. Press the **HOLD/MENU** key ...

   CLR.ACC is displayed.

4. Press the **PRINT/SELECT** key ...

   NO is displayed.

5. Press the **HOLD/MENU** key ...

   YES is displayed.

6. Press the **PRINT/SELECT** key ...

   The display will read ***WAIT*** for a couple of seconds, then **MEM.CLR** for a couple of seconds, and then it will return to ***CLR.ACC***.

7. Press the **G/N** key to exit to the weighing mode.

5.7 Clear a Specific Memory Channel

1. Access the proper memory channel.
2. From the G/N mode, press and hold **ZERO/CLEAR** key until the second beep...

   MEM.XXX is displayed then ***MEM.CLR*** is displayed. MEM.XXX is now cleared.

5.8 Print an Individual Memory Channel

1. From the G/N mode, press the **RM^** key...

   MEM.001 is displayed or the last accessed memory channels.

   This will now access the MEM.001 channel. If you want any other channel either use the **HOLD/MENU** key to scroll to the proper channel, or use the **RM^** and the **HOLD/MENU** key to access directly to channel ***XX***, then press **PRINT/SELECT**.

2. Once the proper channel is displayed, press **PRINT/SELECT** and the following report will be printed to the printer or TDM module.

   Before printing ***PR-RM*** is shown on the display...

```
04-11-2013
11:12:17
CHANNEL:            1
NAME:               Pen 1

ACCUM. WEIGHT:      25250 lb
ACCUM. COUNT:       30
ACCUM. AVERAGE:     842 lb
```

3. The indicator automatically returns to the gross weighing mode.

If the CHNAME parameter is set to ON, the current memory channel name will be added to the start of each print format. To enable this, see *Adding Channel Name to Printout on page 9.*

EXAMPLES:

```
PEN 1
G: 754  lb
```

OR

```
PEN 3
05-10-2013
02:14:47
G: 632
```

5.9 Print All Memory Channels

1. Press ***RM^***...

   Latest memory channel is displayed.

2. Press **PRINT/SELECT** for 2 secs...

   PR-ALL is momentarily displayed and information is transmitted.

The indicator will only print out memory channels that have accumulated weight amounts.

3. Indicator returns to gross weighing mode.

   Memory channel printout example:

```
04-25-2013
14:17:19

MEM CH    COUNT     AVG WT        TOTAL

Pen 1      30       842 lb       25250 lb
Pen 2      45       920 lb       41380 lb
Pen 3      33       930 lb       30689 lb

 TOTAL    108       897 lb      97,319 lb
```

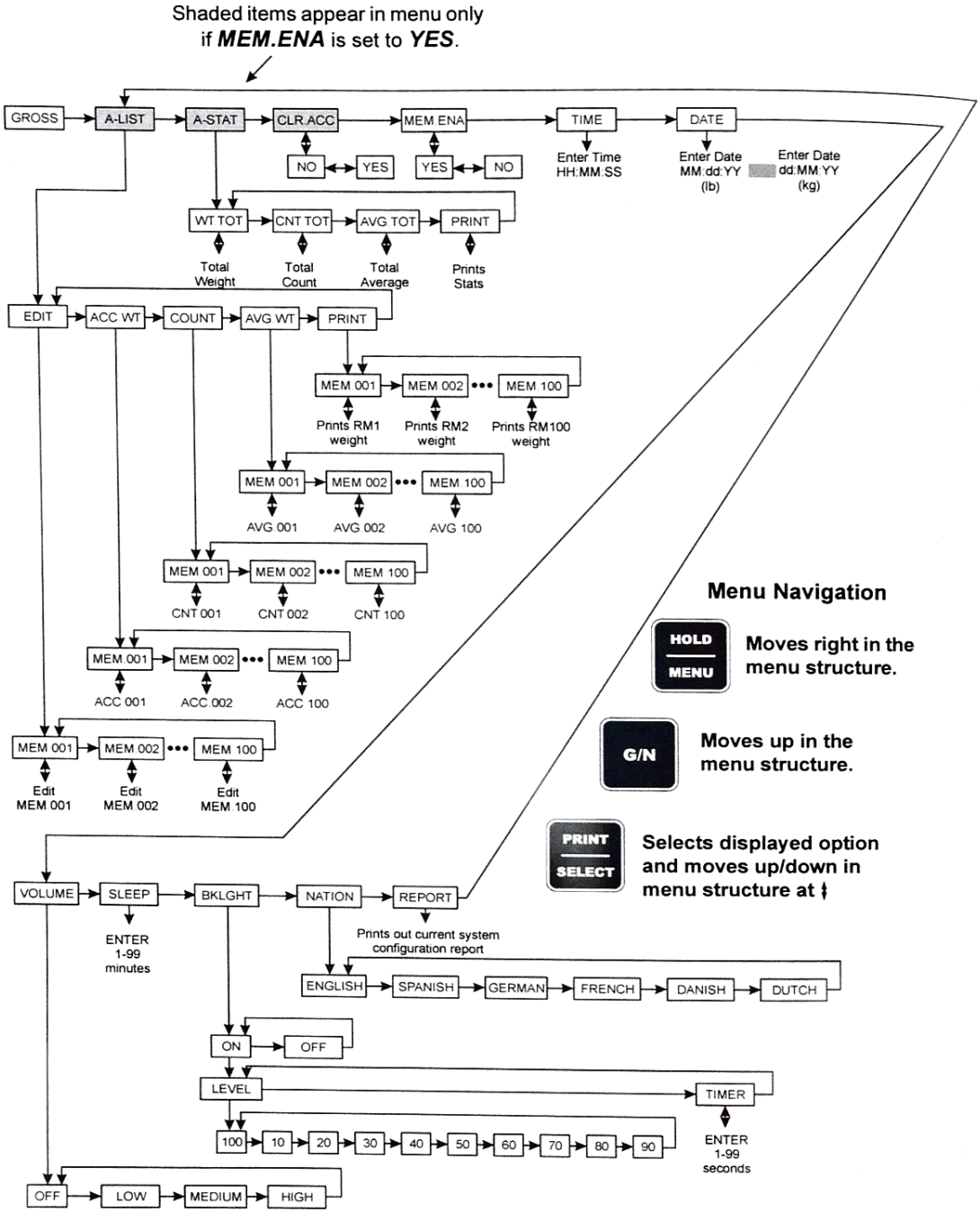


Figure 1 Menu

6 Accessing the Accumulator Statistics

This item is only active if the MEM.ENA menu item is set to YES.

1. From the G/N mode, press and hold the **HOLD/MENU** key for two beeps (2 sec)...

   A-LIST is displayed.

2. Press the **HOLD/MENU** key once...

   A-STAT is displayed. This stands for accumulator statistics.

3. Press the **PRINT/SELECT** key...

   WT.TOT is displayed.

4. Press the **PRINT/SELECT** key...

   Total weight accumulated in all the accumulators is displayed.

5. Press the **PRINT/SELECT** key...

   WT.TOT is displayed.

6. Press the **HOLD/MENU** key once...

   CNT.TOT is displayed.

7. Press the **PRINT/SELECT** key...

   The total number or count of accumulations performed is shown.

8. Press the **PRINT/SELECT** key...

   CNT.TOT is displayed.

9. Press the **HOLD/MENU** key ...

   AVG.TOT is displayed.

10. Press the **PRINT/SELECT** key...

    The average weight of all accumulations is displayed.

11. Press the **PRINT/SELECT** key...

    AVG.TOT is displayed.

12. Press the **HOLD/MENU** key ...

    PRINT is displayed.

13. Press the **PRINT/SELECT** key ...

    The statistics printout is sent to the TDM or printer device. A sample is shown below:

```
04-25-2013
14:20:26
TOTAL WEIGHT: 41380 lb
AVG.  WEIGHT:   920 lb
TOTAL COUNT:  45
```

14. Press the **G/N** key to return to ***A-STAT***. Press the **G/N** key again to return to G/N weighing mode.

7 Using the TDM40 on a M640M

1. When you are ready to enter a weight into the TDM40, press the **PRINT/SELECT** key.

   The 640 will briefly display ***PRINT***.

*The module must be charged up the first time you use it or it will not retain any information. The TD40 must be connected to the 640M at the time the **PRINT/SELECT** key is pressed otherwise the TD40 will not record the weight.*

8 Technical Support

24/7 Customer Support

Avery Weigh-Tronix is dedicated to customer service. We understand downtime is not an option for AG producers and we're ready to help anytime. The technical support team for all Avery Weigh-Tronix agri-business scales is available 24 hours a day 7 days a week.

Ag Technical Support GroupUSA and Canada:
Toll free Phone: (800) 458 - 7062
Outside USA: (507) 238-8261
Tech Support Phone 7:00 am to 5:00 pm CST (800) 458-7062 Ext. 8261
Tech Support Phone/ after hours answering 5:00 pm to 7:00 am CST (800) 458-7062

Service e-mail:
usservice@awtxglobal.com