



Avery Weigh-Tronix

SCALES FOR AGRIBUSINESS



Model 715 User's Manual

UNITED STATES

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CANADA

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le present appareil numerique n'emet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de la Class A prescrites dans le Reglement sur le brouillage radioelectrique que edicte par le ministere des Communications du Canada.



CAUTION

Risk of electrical shock. Do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

Weigh-Tronix reserves the right to change specifications at any time.

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Model 715 Indicator

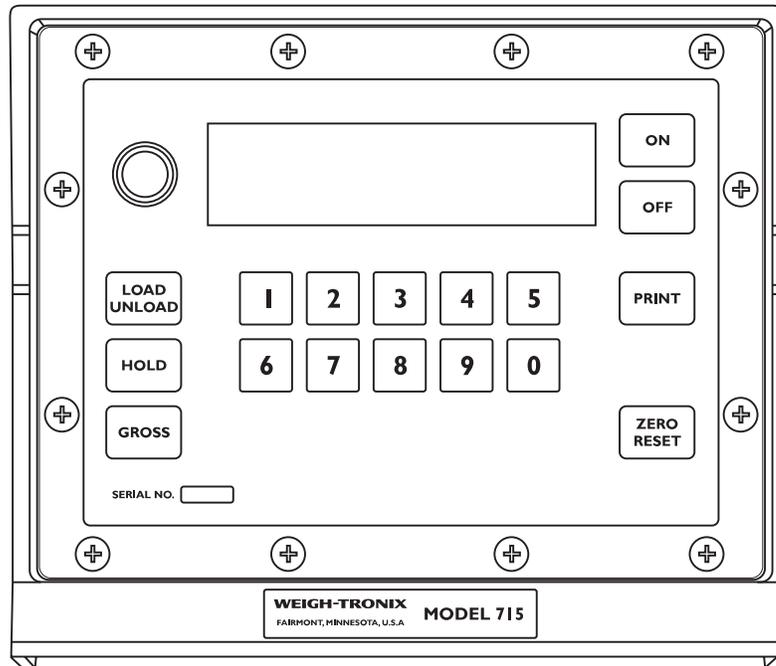


Figure 1
Front Panel of Model 715 Indicator

Key Functions

ON	<ol style="list-style-type: none">1. Press to power-on the indicator to mode last displayed before removal of power;2. Press in conjunction with ZERO/RESET to reinitialize Indicator.
OFF	Press to remove power.
HOLD	Press to access Manual Hold Mode, which protects the scale against display shift so you can move the scale.
GROSS	<ol style="list-style-type: none">1. Press to access Gross Mode and view live gross weight;2. Press to correct display shift in Gross Mode after keying in correct previous gross weight.
PRINT	Press to transmit displayed value for printing.
LOAD/UNLOAD	<ol style="list-style-type: none">1. Press to access Load/Unload Mode;2. Press for mixer wagon and platform scale weighing, to access Load/Unload Mode (See operating instructions).
ZERO/RESET	<ol style="list-style-type: none">1. Press to zero-balance the scale;2. Press to reset net load/unload value back to last-entered load/unload value—for loading or unloading a series of equal quantities;3. Press to tare out displayed weight and return net display to zero;4. Press to delete a keyed in value, if pressed immediately after keying-in.
Numeric Keys	Ten keys, 0 - 9, used to key in values.

Operational Overview

The Model 715 Indicator is ideal for interfacing with a portable/ stationary feed mixer for use in weight-based batching operations.

Additionally, the Model 715 can function in mixer wagon applications, for loading and unloading, and in platform scale applications, to display and print gross, tare, and net weight values.

Operational Modes

The Model 715 Indicator has two operational modes: Gross Mode and Load/Unload Mode. The **GROSS** key selects Gross Mode, and the **LOAD/UNLOAD** key selects Load/Unload Mode.

Value displayed in **Gross Mode** represents total live scale weight.

In a portable feed mixer application, the indicator performs loading and unloading procedures the same way, by loading or unloading net Target Quantities of a gross total.

- For **ingredient-loading**, value displayed in **Load/Unload Mode** represents the **Target Load Quantity** of ingredient remaining to be loaded.
- For **ration-unloading**, value displayed in **Load/Unload Mode** represents the **Target Unload Quantity** of ration remaining to be unloaded.

The two operational modes of the Model 715 can also be used for **mixer wagon loading** and for **platform scale weighing**. One platform scale application allows you to load a container positioned on a platform while the indicator displays decreasing net weight of material remaining to be loaded into the container. Additional platform scale applications use Load/Unload Mode as a Net Weighing Mode, allowing you to weigh empty containers or full containers with gross-tare-net weighing sequences typical for platform scales.

Pressing the Keys

When you press a key correctly, the display blinks; the single blink always means that the key has made proper internal contact for activating your intended function.

Because extreme cold tends to inhibit the reaction of liquid crystal, you can expect that in very cold weather the display may take longer than usual to respond to keyed requests. To obtain the display blink as a guarantee that you have accessed Gross Mode or Load/Unload Mode in very cold weather, you may need to press and hold the key longer than usual.

Indicator ZERO/RESET Key

The Indicator's ZERO/RESET key serves several functions. It is used to

- **Reset** the display, following a single load or unload cycle, back to the Target Quantity of the load just concluded—a convenience when handling a series of equal quantities.
- **Tare Out** the displayed value, resetting the display to zero.
- **Delete** a keying error from the display, if pressed immediately after the error's occurrence.
- **Zero** the scale.

Remote ZERO/RESET Key

Both the RD712/XL Remote Display and the XM710 Hand-Held Transmitter have ZERO/RESET keys that function identically to ZERO/RESET on the indicator. Remote access to functions of ZERO/RESET is a convenience for both portable feed mixer and mixer wagon applications.

- **In a Portable Feed Mixer Application**, the remote ZERO/RESET key returns displayed net value to your keyed-in Target Quantity, allowing you to continue loading or unloading identical quantities—without returning to the Indicator.
- **In a Mixer Wagon Application**, the remote ZERO/RESET key tares out displayed net value, resetting the display to zero, and you avoid returning to the Indicator between each load. Holding in ZERO/RESET for more than two seconds between loads also allows you to view gross weight.
- **In All Applications**, the remote ZERO/RESET key shuts off your alarm and zeroes the scale system.

HOLD Key

Auto Hold Mode and Manual Hold Mode protect scale weight against the effects of display shift, which can occur when you move your portable scale system over uneven terrain. **Auto Hold Mode** is accessed *automatically* in the course of normal loading and unloading. The **HOLD** key accesses **Manual Hold Mode**.

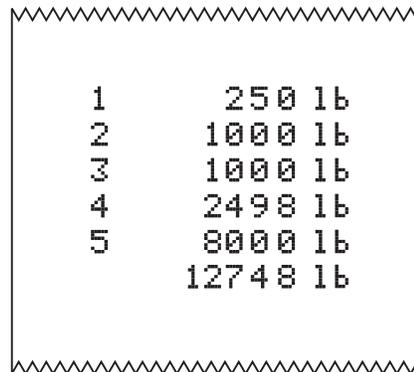
Both the **Auto Hold Mode** and the **Manual Hold Mode** are represented on the display by (1) the word *Hold* alternating with (2) actual net quantity just loaded or unloaded.

After the loading of a **micro ingredient**—an ingredient that is smaller than the preprogrammed warning alarm value—the system does not automatically progress into the Auto Hold Mode. However, the **HOLD** key will get you into the **Manual Hold Mode** following micro-loading.

If **Auto Hold Mode** has been disabled on your indicator by internal programming, the **HOLD** key still accesses Manual Hold Mode.

Using a Printer

If you have a printer, press the **PRINT** key to print the currently displayed value. Printed data includes the displayed value and the correct unit of measure, *lb* or *kg*. In a load or unload procedure, printed data also includes a number reflecting Auto Ingredient Numbering function; the number actually counts load or unload cycles.



```
1      250 lb
2     1000 lb
3     1000 lb
4     2498 lb
5     8000 lb
      12748 lb
```

Figure 2:
WP-233 Printer Output for an Ingredient-Loading Procedure;

five single ingredient quantities and total batch weight represent six separate print transmissions.

Cable Connections and Power Requirements

Make sure all cables are connected as shown in Figure 3.

Voltage to the Model 715 must be 10-18 volts DC, negative ground only. If voltage ever drops to below ten volts, the Model 715 will automatically shut itself off, protecting the battery from being completely drained. Consult the Model 715 Service Manual for instructions on disabling the automatic shut-off.

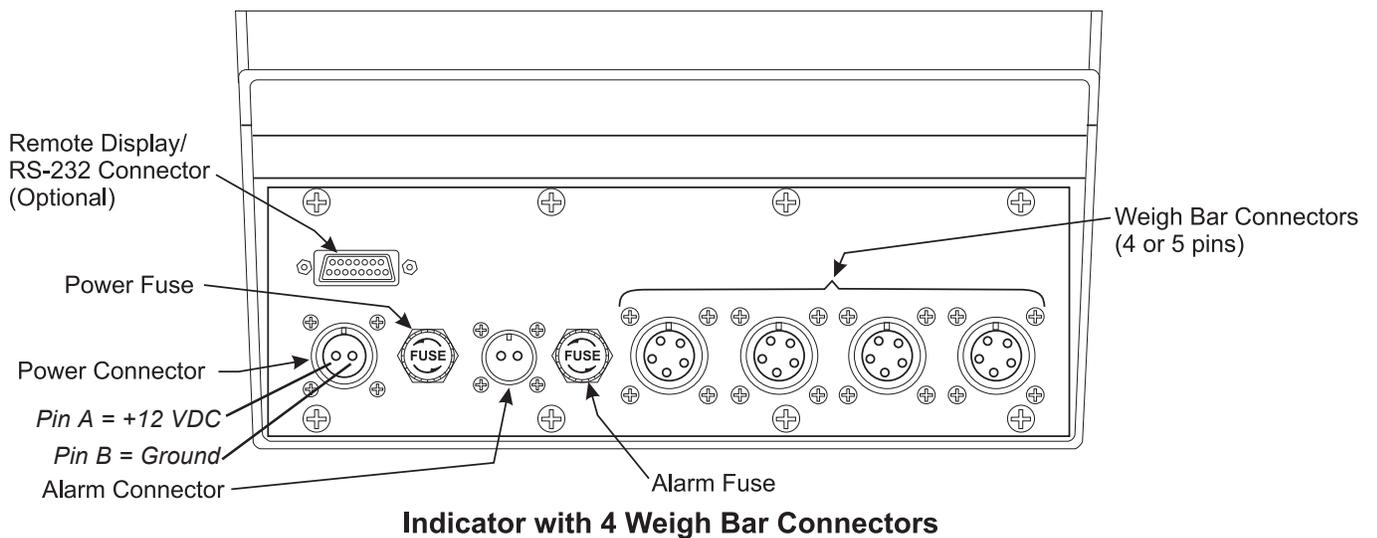
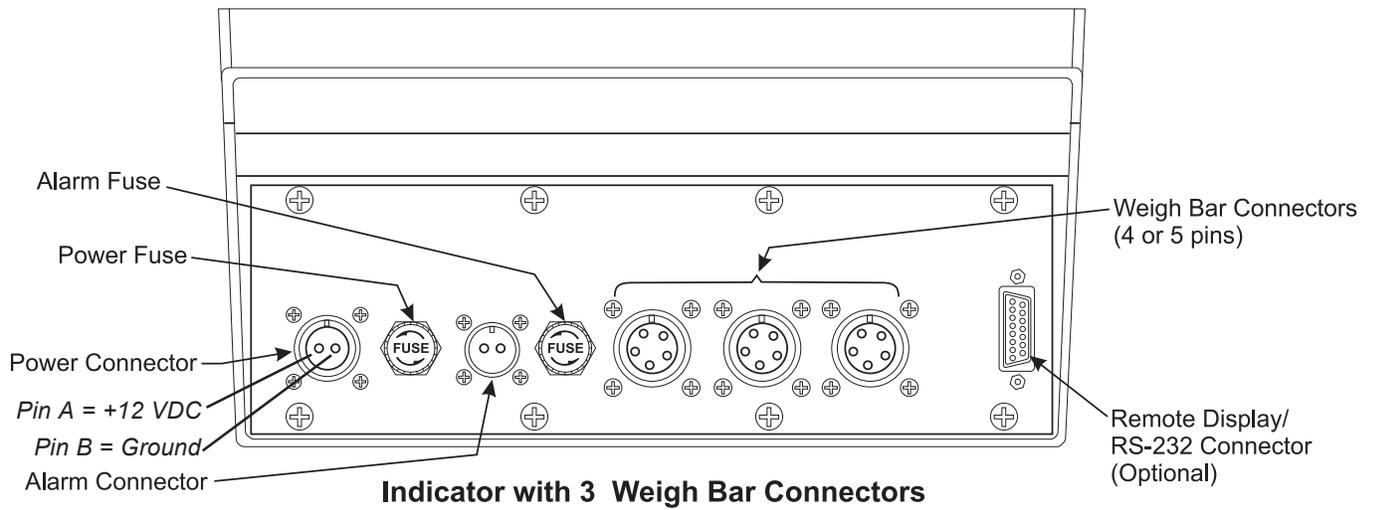
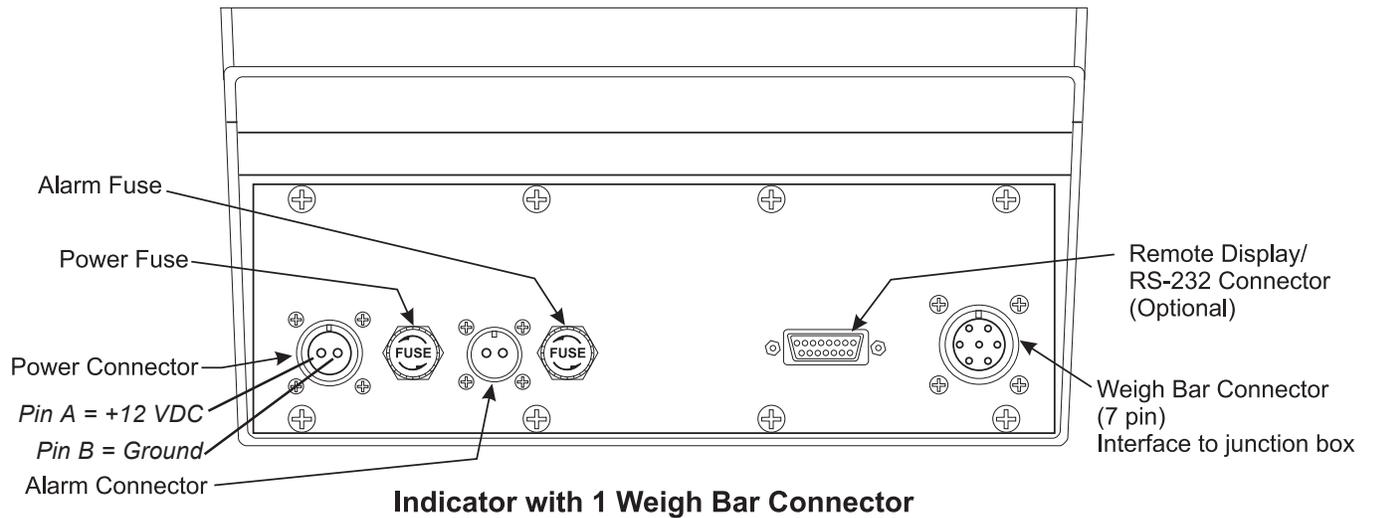


Figure 3
Cable Connections

Weighing

GROSS MODE is required for zeroing. Your indicator must be zeroed before weighing begins.

1. Press **ON** . . . Display says *HELLO*, then value is displayed in mode last used before removal of power.
2. Press **GROSS** . . . Live scale weight is displayed in Gross Mode.
3. Press **ZERO/RESET** . . . Zero value is displayed. Weighing system is zeroed.
4. Place weight on the scale . . . Live gross weight of material is displayed.

Loading Ingredients

*If you miskey Target Load Quantity, simply press **ZERO/RESET** to delete, then rekey.*

1. Zero indicator before loading first ingredient.
2. Key in Target Load Quantity . . . Quantity you intend to load is displayed.
3. Press **LOAD/UNLOAD** . . . Target Load Quantity blinks and remains displayed.
4. Load ingredient into portable feed mixer, viewing display as you do so . . .

Displayed value, showing net amount of your keyed-in Target Quantity remaining to be loaded, decreases from Target Load Quantity toward zero.

Alarm light flashes on and off when display has decreased to preprogrammed warning value, warning you to watch the display and giving you time to coordinate stoppage of material flow with display of zero net value.
5. When appropriate, stop loading . . . When net weight of ingredient remaining to be loaded has decreased to zero value or less, alarm light quits flashing and stays on.
6. Press any key on the front panel . . . Steady alarm light shuts off, and indicator advances **into Auto-Hold Mode**, a holding mode that protects gross weight and displayed weight so you can move the scale.

Micro-ingredients weighing less than the preprogrammed warning alarm value will not activate alarm function.

*If you exit Auto Hold Mode to view gross weight or overshoot/undershot value prior to moving your scale, you may re-enable the holding capability by pressing **HOLD**, for **Manual Hold Mode**.*

*MICRO-INGREDIENT loadings will not advance into Auto Hold Mode. From micro-loading you may access Manual Hold Mode with **HOLD** key.*

*IF YOU HAVE A PRINTER, you may print actual net weight of just-loaded ingredient by pressing **PRINT** from either Hold Mode.*

7. Move feed mixer to its next ingredient-loading station while system is in either Auto or Manual Hold Mode, **Hold** alternating with net weight display.

8. Do either A or B:
OR

9. Repeat Steps 4 through 8 for each ingredient you want to load, stopping with final ingredient after Step 6.

In Auto-Hold Mode, the display alternates between (1) *Hold*, and (2) actual weight of ingredient just loaded.

A. Key in a new Target Load Quantity, then press **LOAD/UNLOAD** . .

B. Press **ZERO/RESET**, (with no depression of **LOAD/UNLOAD**), to restore last-loaded Target Quantity as the next Target Load Quantity—a convenient technique for loading a series of equal quantities . . . Indicator is ready for another ingredient-loading cycle.

Unloading Batched Ration

*If you miskey the Target Unload Quantity, press **ZERO/RESET** to delete, then rekey.*

*IF YOU EXIT AUTO-HOLD MODE to view gross weight or overshot/undershot value prior to moving your scale, you may re-enable holding capability by pressing **HOLD**, for **Manual Hold Mode**.*

*IF YOU HAVE A PRINTER, you can print actual net value of last quantity unloaded by pressing **PRINT** from either hold mode.*

1. Move feed mixer to ration-unloading site when loading is completed, while *Hold* alternates with weight display.
2. Key in Target Unload Quantity . . . Quantity you intend to unload is displayed.
3. Press **LOAD/UNLOAD** . . . Target Unload Quantity blinks and remains displayed.
4. Unload batched ration from portable feed mixer, viewing display as you do so . . .

Displayed value, showing net amount of your keyed-in Target Quantity remaining to be unloaded, decreases from Target Unload Quantity toward zero.

Alarm light flashes on and off when display has decreased to preprogrammed warning value, warning you to watch the display and giving you time to coordinate stoppage of material flow with display of zero net value.
5. When appropriate, stop unloading . . .

When net weight of ration remaining to be unloaded has decreased to zero value or less, alarm light quits flashing and stays on.
6. Press any key on the front panel . . .

Steady alarm light shuts off, and indicator advances into **Auto-Hold Mode**, a holding mode that protects gross weight and displayed weight so you can move the scale.

In Auto-Hold Mode, the display alternates between (1) *Hold*, and (2) actual weight of ration just unloaded, preceded by a minus sign.
7. Continue unloading by moving feed mixer to its next ration-unloading station while system is in either Auto or Manual Hold Mode, *Hold* alternating with net weight display.

8. Do either A or B:
- OR
- A. Key in new Target Unload Quantity, then press **LOAD/UNLOAD** . . .
- B. Press **ZERO/RESET**, (with no depression of **LOAD/UNLOAD**), to restore last-unloaded Target Quantity as next Target Unload Quantity—a convenient technique for unloading a series of equal quantities . . . Indicator is ready for another ration-unloading cycle.
9. Repeat Steps 4 through 8 for each quantity of batched ration to be unloaded, stopping with your final unloading after Step 6.

Loading or Unloading a Mixer Wagon

Increasing Net Weight

*GROSS WEIGHT The Indicator accumulates gross weight value of successive load or unload quantities. You may press **GROSS** to view the gross weight at any time, and **LOAD/UNLOAD** to return to net display.*

To Continue Loading or Unloading Successive Quantities:

- The warning alarm (alarm light) is nonfunctional in this loading/unloading procedure.
- Use this procedure **to load** a series of quantities onto the weighing system by watching the net weight of each additional load increase from zero. This procedure also allows you **to unload** a series of quantities from the weighing system by watching the net weight of each unload quantity increase from zero.
1. Zero the Indicator, but do this only before loading the first in a series of loadings.
 2. Press the numeric **0** key . . . Display blinks and zero value remains displayed.
 3. Press **LOAD/UNLOAD** . . . Display blinks again and zero value remains, the display now reflecting Net Weighing Mode.
 4. Load or unload material and observe the display, as . . . Net weight value increases.
 5. Stop loading or unloading material at desired net value.
 6. Press **ZERO/RESET** . . . Displayed net value of material last loaded or unloaded is reset to zero.
 7. You may now view gross weight. Just press and hold in the **ZERO/RESET** key on your 715 Indicator or your XM710 Hand-held Transmitter . . . Display blinks, zero value is displayed for two more seconds, then gross weight is displayed.

8. Release the **ZERO/RESET** key . . . Zero is again displayed in net weighing mode.
9. **Load or unload** additional quantities by repeating Steps 4 through 9 as many times as required for this loading/unloading operation.

Maintaining Displayed Weight

In a typical moving procedure the scale is protected from display shift by Auto-Hold Mode.

Micro-ingredient loading does not advance into Auto Hold Mode.

After micro-ingredient loading, access Manual Hold Mode before moving the scale.

Hold Mode Voids Effects of Moving

The Model 715 Indicator provides a Hold Mode that can stabilize the weighing function so that moving-induced effects are not measured or registered; weighing capability is re-engaged when you relocate the system and exit the Hold Mode to continue weighing. By using Hold Mode, you can be certain that the scale measures only what you want it to measure.

The Model 715 provides both automatic and manual access to the Hold Mode.

Auto Hold Mode

Auto Hold allows the Model 715 to stabilize gross and net weight so you can move the scale, following the typical operating procedure of moving the scale after you finish one load or unload cycle, and before you enter another Target Quantity.

Auto-Hold Mode is enabled, and you may move the scale, while the display alternates between

(1) *Hold*, and

(2) actual weight of material just loaded or unloaded.

You may press **PRINT** from Auto Hold Mode to transmit to a printer the just-loaded or unloaded quantity.

Manual Hold Mode

Manual Hold allows you to re-enable the Hold Mode in case you have exited Auto Hold prior to moving the scale. This means you can check the gross weight and/or the overshoot/undershot quantity right after loading or unloading, and restore the holding capability before moving.

Press **HOLD** . . .

Manual Hold Mode is enabled; the scale is protected against display shift and it is safe to move the scale while you see the display alternate between

(1) *Hold*, and

(2) actual weight of material just loaded or unloaded.

You may press **PRINT** from Manual Hold Mode to transmit to a printer the just-loaded or unloaded quantity.

Correcting for Display Shift

NOT TYPICAL

*Although the last sequence described is not the intended order of operation, it can easily happen. Normally, you would first move the system, and then key in a Target Quantity, pressing **LOAD/UNLOAD** immediately before loading or unloading.*

For circumstances when you move the scale without the protection of Hold Mode, resulting in display shift, the Model 715 allows correction of the display in both Gross Mode and Load/Unload Mode.

In Gross Mode:

Key in correct gross weight, and press **GROSS** . .

Former correct gross weight is displayed, and Load/Unload Mode is corrected as well.

In Load/Unload Mode:

If you observe display shift following this sequence:

- key in a Target Quantity,
- press **LOAD/UNLOAD**,
- then you move the weighing system;

before depressing any other keys, press **ZERO/RESET** . . .

Display will now show Target Quantity as you keyed it in. This method of correction allows accurate weighing of net Target Quantity but does not correct gross weight; the gross weight reading will still be off by a value equal to the amount of the display shift.

Platform Scale Applications: Vehicle Weighing

- #1. Loading a Vehicle
- #2. Weighing a Vehicle for Net Weight and Gross Weight
Tare → *Net* → *Gross Weighing*
- #3. Weighing a Vehicle for Net Weight and Tare Weight
Gross → *Net* → *Tare Weighing*
- #4. Weighing a Loaded Vehicle Using Known Tare Weight

Your dealer or distributor can internally reconfigure the Model 715 Indicator for these platform scale / vehicle weighing applications. For optimum ease of use, Auto Hold Mode should be disabled for Application #1 and #4, and the warning alarm value should be set to zero for Application #4.

Platform Scale Application #1

Loading a Vehicle

AUTO-HOLD MODE should be disabled for this procedure.

DECREASING NET VALUE on the display shows you at any given moment how much material remains to be loaded.

Use this procedure to load a vehicle and observe net weight counting back from your keyed-in Target Load Quantity to zero.

1. Empty and zero the scale.
2. Drive empty vehicle onto scale platform.
3. Key in your Target Load Quantity (the net weight of material you intend to load) . . .
Net Target Load Quantity is displayed.
4. Press **LOAD/UNLOAD** . . .
Display blinks; Target Load Quantity remains displayed.
5. Load material onto vehicle, viewing display as you do so . . .
Displayed net value decreases from Target Load Quantity toward zero.

Alarm light flashes when display has reached preprogrammed alarm value, warning you to watch display so you can coordinate stoppage of material flow with zero net value.
6. When appropriate, stop loading material . . .
When net display of quantity remaining to be loaded has decreased to zero or less, alarm light quits flashing and stays on.
7. Press any key to shut off alarm.
8. Execute appropriate keying sequence:
HOLD displays net quantity loaded.
LOAD/UNLOAD displays quantity overshot.
GROSS displays gross weight of vehicle plus total quantity of material on vehicle.

Platform Scale Application #2

Weighing a Vehicle for Net Weight and Gross Weight

TARE WEIGHT of empty vehicle is printable: when displayed, press PRINT.

NET WEIGHT of material is printable: when displayed, press PRINT.

GROSS WEIGHT of material and vehicle is printable: when displayed, press PRINT.

Tare → Net → Gross Weighing

In this procedure you first weigh an empty vehicle to get the tare weight, then you load the vehicle and use the Indicator to obtain net and gross weights.

1. Empty and zero the scale.
2. Drive empty vehicle onto scale platform . . .
Gross scale weight of empty vehicle, the *tare weight*, is displayed.
3. **Press** numeric 0 key . . .
Zero value is displayed.
4. Press **LOAD/UNLOAD** . . .
Zero display blinks. Gross weight of vehicle is tared out and Indicator is prepared to display net weight.
5. **Load** material onto vehicle, viewing display as you do so . . .
Displayed net value increases from zero.
6. When appropriate, stop loading . . .
Net value of total material loaded is displayed.
7. Press **GROSS** . . .
Gross value of both material and vehicle is displayed.

Platform Scale Application #3

Weighing a Vehicle for Net Weight and Tare Weight

*GROSS WEIGHT is printable:
when displayed, press PRINT.*

*NET WEIGHT is printable:
when displayed, press PRINT.*

**TARE WEIGHT of empty
vehicle is printable: when
displayed, press PRINT.*

Gross → Net → Tare Weighing

With this procedure, you first weigh a loaded vehicle to obtain gross weight, then you unload the vehicle and use the Indicator to obtain net and tare weights.

1. Empty and zero the scale.
2. Drive loaded vehicle onto scale platform. Gross weight of loaded vehicle is displayed.
3. Press numeric 0 key . . . Zero value is displayed.
4. Press **LOAD/UNLOAD** . . . Zero display blinks. Indicator is prepared to display net weight.
5. Unload material from vehicle, viewing display as you do so. . . Net value increases. Displayed value at a given moment tells you how much material you have unloaded so far.
6. When appropriate, stop unloading . . . Net weight of unloaded material is displayed.
7. Press **GROSS** . . . Tare weight of empty vehicle is displayed.

Platform Scale Application #4

Weighing a Loaded Vehicle Using a Known Tare Weight

AUTO HOLD MODE should be disabled for this procedure.

*TARE WEIGHT is printable: when displayed, press **PRINT**.*

*NET WEIGHT of material only is printable: when displayed, press **PRINT**.*

*GROSS WEIGHT of vehicle and material is printable: when displayed, press **PRINT**.*

If you know the tare weight of a container vehicle, this procedure allows you to obtain the net weight of the material in the vehicle, as well as the gross weight of both material and vehicle.

1. Empty and zero the scale.
2. Key in known weight of the container vehicle, also known as the *tare weight*.

Vehicle tare weight is displayed.

3. Press **LOAD/UNLOAD . . .**

Display blinks; tare weight of empty vehicle remains displayed.

4. **TO VIEW NET WEIGHT:** drive vehicle, loaded with material of unknown weight, onto platform . . .

Display drops rapidly from your keyed-in tare value to zero, then through zero, to a negative value representing the positive net weight of the material.

Alarm comes on.

For Net Weight of material, simply read the display without the minus sign.

5. Press any key to shut off alarm.

6. Press **GROSS . . .**

Gross weight—vehicle plus total quantity of material on vehicle—is displayed.

Troubleshooting

If you experience problems in the operation of your system, read through these troubleshooting steps and perform those which are appropriate. This information may help you to correct the following operational difficulties without calling your supplier or sending your equipment in for repair:

- POWER-ON FAILURE
- STALLED DISPLAY FOLLOWING POWER-ON
- INDICATOR LOCK UP
- INACCURATE WEIGHT READINGS
- ALARM LIGHT MALFUNCTION

Instructions for sending an Indicator in for repair are provided in the last section under *Service Repairs*.

Power-On Failure

If your indicator fails to power-on, check the following possible problem sources in the order given. Attempt to power-on after trying each of these four troubleshooting steps:

1. **Check Battery Voltage.** Required voltage is 10-18 volts DC negative ground. The Indicator will automatically turn off if supply voltage drops below 10 volts or rises above 18 volts.
2. **Disconnect and Check Power Cable Connector** at the vehicle or AC to DC converter, clean if necessary, and reconnect.
3. **Replace Fuses.** Sometimes, a bad fuse can be recognized by an obvious break in the wire filament. Such a break is not always observable, however, and getting a successful power-on after changing a fuse is often the only way of knowing that fuse was indeed defective.

Make sure new fuses are the proper size and have a current rating of five amperes. Using a fuse with too high a current rating can cause costly damage to the Indicator and will void your warranty. The same is true for substituting wire, or a nail, or any other object in place of a fuse.

Place nothing in the fuse connector except a proper fuse.

Change one fuse at a time (see instructions below). Try to power-on after changing the first fuse; if unsuccessful, change the second fuse and try to power on again. If changing the second fuse fails to allow successful power-on, proceed to the next trouble shooting step.

To replace a Fuse, first locate fuse caps on the bottom panel of the indicator. Then:

1. Turn cap counterclockwise and lift out fuse & cap assembly.
2. Remove old fuse from cap and insert new fuse.
3. Replace fuse & cap assembly in fuse connector.

Stalled Display Following Power-On

4. **Test Indicator and Cables** to isolate the source of the problem.
 - 4a. Disconnect all cables on bottom panel of Indicator except for power cable. Do disconnect Weigh Bar cables, and, if present, alarm cable and printer/ remote display cable.
 - 4b. Now try powering-on. If this is not successful, your problem is in the Indicator and you should contact your supplier.
 - 4c. If you are able to power-on with only the power cable connected, your problem is probably not in the Indicator; continue troubleshooting.
 - 4d. With power still on, plug in cables, one at a time—Weigh bar cables first, then alarm cable, then printer/remote display cable—until plugging in one of the cables causes the Indicator to shut off. That cable is the bad one and needs to be repaired or replaced.

This category of problems can exhibit any one of the following symptoms:

- An **illegible display** that cannot be zeroed and from which you cannot escape;
- A **legible display**, such as *HELLO*, that cannot be zeroed and from which you cannot escape;
- An **illuminated backlight** with no characters displayed and allowing no escape.
- **No escape?** If the red illumination on the display is visible, telling you the Indicator has power (on a sunny day you may have to shade the display), you can possibly make the display function by doing a **Reinitialization** (explained below).

To Reinitialize a Stalled Indicator:

1. Press OFF.
2. Press ZERO/RESET and hold in, while you
3. Press and release ON.
4. Then release ZERO/RESET.

If the display says *HI* instead of *HELLO* following a reinitialization power-on, your indicator has a potential problem and should be repaired. Contact your supplier.

Indicator Lock-Up

A locked up Indicator is represented by an illuminated alarm light and a display of *Err*.

1. Shut off the alarm by pressing any key.
2. **Test the Weigh Bar Cables** to isolate the source of the lock up problem, as follows:
 - 2a. Disconnect all Weigh Bars.
 - 2b. Try to zero Indicator by pressing **GROSS** and **RESET**.
 - If you are **unable** to zero the indicator with the Weigh Bars disconnected, the problem is in the Indicator and you should contact your supplier.
 - If you are **able** to zero your indicator with the Weigh Bars disconnected, then the problem is probably in the Weigh Bars and you should continue troubleshooting.
3. Reconnect all Weigh Bars. You will see *Err* displayed again.
4. If your Weigh Bar connectors have the four-pin configuration, disconnect one Weigh Bar and connect an adapter plug in its place.

If your Weigh Bar connectors have the five-pin configuration, disconnect one Weigh Bar. No adapter plug is necessary.
5. Try to zero the Indicator.

Repeat Steps 4 and 5 with each Weigh Bar cable, making sure each time that all cables are connected except the one you removed (for five-pin connector) or replaced with an adapter plug (for four-pin connector).

A defective Weigh Bar may be easily recognized with this method—when a defective bar is replaced with an adapter plug (for four-pin connector), or removed (for five-pin connector), the Indicator will zero properly.

Inaccurate Weight Readings

First: Visually Inspect The Scale System for apparent problems and improper installation:

1. Check each cable, from source to Indicator, for stress, cuts, breaks, or abrasions.
2. Unplug and reconnect each connector at the Indicator to verify that it is tight and making good contact.
3. Check the hitch Weigh Bar and verify that mounting bolts are tight and the hitch is not binding.
4. Check between the wheels and frame of the implement for mud and debris that might restrict Weigh Bar movement.
5. Check between supporting structure and weighing structure for debris that might restrict Weigh Bar movement.
6. Make sure the supporting structure and weighing structure do not touch each other at any point except at the Weigh Bars.

Next: Compare Weight Readings for All Weigh Bars:

Position a person or heavy object on the platform above each Weigh Bar, one bar at a time, and compare weight readings for the same person or same object.

For each weighing, the weight itself will be off-center, favoring a single Weigh Bar; therefore, none of the readings will be accurate.

However, your readings obtained by weighing the same person or object above each Weigh Bar should be nearly identical *to each other*. A single Weigh Bar reading that is significantly different from the others is probably defective.

Service Repairs

If you find the indicator or one or more of the Weigh Bars to be defective, contact your supplier, or send your equipment back to the factory for repair, postage prepaid.

Include the following information:

1. Your name and address
2. Supplier name and address
3. Date of purchase
4. **Important:** An informal note describing symptoms of the problem.

Display Messages

Err

Indicator is being reinitialized. Message is displayed briefly at time of power-on.

Indicator is in state of over-capacity.

Indicator is in state of under-capacity.

Err

System is not functioning properly. Weight is not being calculated because scale weight is too high or too low. (Refer to information on "Indicator Lockup" in *Troubleshooting* section of manual.)

Pr

Indicator is transmitting data. Appears after pressing the **PRINT** key.

Mounting the Model 715

The Model 715 mounts on a quick-detach bracket. Bolt the quick-detach bracket into place, as follows:

1. Choose a mounting location that is
 - (A) convenient for operation of the Indicator, and
 - (B) protected from moving parts or from other moving machinery.
2. Hold the Indicator at the proposed mounting location, and verify that the display is legible and the controls accessible.
3. Positioning the quick-detach bracket with the wider end at the top, mark the desired mounting location. Use the quick-detach bracket as a template and mark and drill holes.
4. Bolt the quick-detach bracket at the appropriate location. Use double nuts or self-locking nuts to protect both Indicator and machinery.
5. Insert the indicator bracket into the quick-detach bracket and push it down into place.
6. For mobile applications, wrap and twist a strong wire around the Indicator bracket and the quick-detach bracket to stabilize the mounting (See Figure 4).

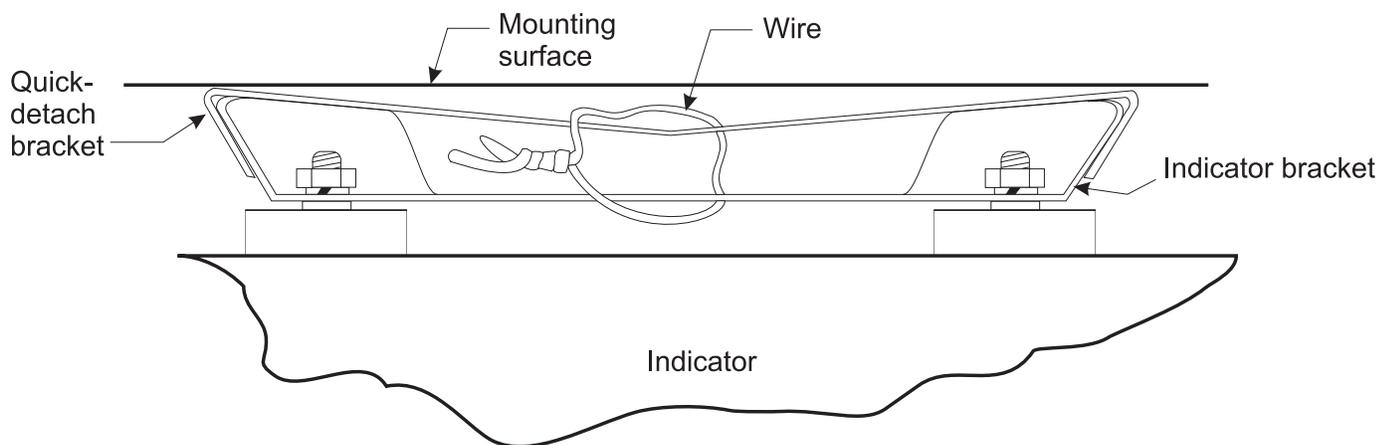
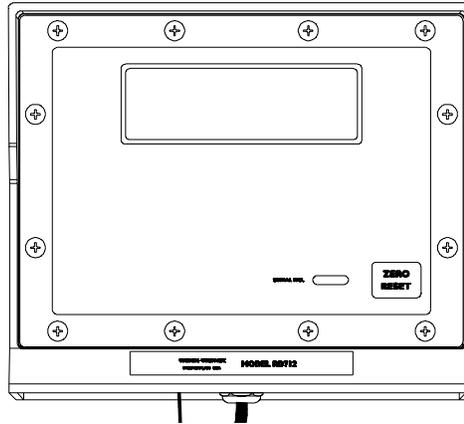


Figure 4:
Model 715 Mounted (Top View).
Mounting brackets are wrapped with a strong stabilizing wire.

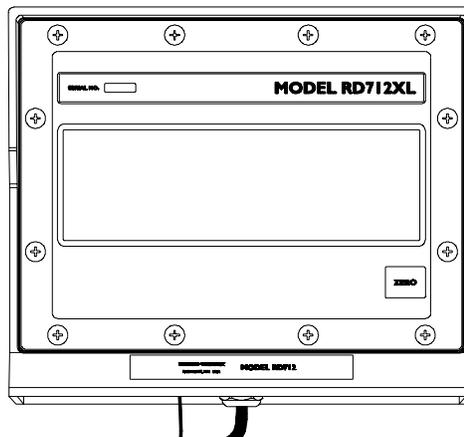
RD 712/XL Remote Display

The RD712/XL is a remote display that is compatible with the Model 715. (An RD712/XL output option is required on the Model 715 for interfacing.) The interface cable plugs directly into the bottom of the Model 712/XL (see Figure 5 below). When using the remote display, any data displayed on the Model 715 is also displayed on the RD712/XL.

The function available on the RD712/XL is **ZERO RESET**. Press this key on the RD712/XL to perform the same function as pressing **ZERO** on the Model 715.



Model RD 712 Remote Display

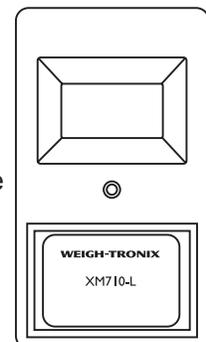


Model RD 712XL Remote Display

Figure 5
Model 712 remote displays

- **Optional radio remote transmitter (XM710-L) and receiver**

An optional radio remote transmitter and receiver can be installed in either the Model 715 or the RD 712/XL. This option lets the user zero the indicator/remote display from up to 100 feet away.



Specifications and Features

Indicator Enclosure:	Water/dust resistant, polycarbonate enclosure; Dimensions: 8.75 " H X 10.5" W X 6.5" D; Standard Weigh-Tronix mounting bracket on back of indicator.
Digital Display:	LCD, five and one-half digits and minus sign, one-inch high digits; fiberoptic backlight. Clear plastic viewing window, 5.2 " X 1.35 " , is protected by 30-degree sun shade.
Display Update Rate:	2 times per second.
Accuracy:	± .1% of applied load + 1 grad
Linearity:	+ 0.01% of capacity
Repeatability:	+ 0.01 % of capacity or + 1 grad, whichever is greater
Load/Unload Range:	Zero to capacity of unit, entered via key board
Alarm:	Built-in red alarm light on front panel and alarm output connector on bottom of unit. For loading and unloading, the alarm light starts flashing when the display has decreased to a preprogrammed weight value, and it stays consistently on when the displayed weight reaches zero.
Power:	10 to 18 volts DC negative ground only, at .09 ampere for 4-pin Weigh Bars, and at .17 ampere for 5-pin Weigh Bars. Current for remote alarm light—typically 2.2 amperes
Environment:	-20°to 140°F, or -29°to60°C, to 95% humidity
Weigh Bar Drive Capacity:	10 - 350 Ohm Weigh Bars
Calibration:	Front panel calibration and spanning for all types of Weigh Bar and load cell applications up to 200,000 lbs
Zero Balance Range:	+1 mV/V, via front panel ZERO key
Analog Span Range:	0.20 mV/V to 1.0 mV/V (full scale)
Capacity/Increment:	200,000 x 200, 100, 50, 20, 10 lb/kg 20,000 x 20, 10, 5, 2, 1 lb/kg 2,000 x 2, 1, .5, .2, or .1 lb/kg 200 x .2, .1, .05, .02, or .01 lb/kg

Options

Remote Junction Box for 7-pin connector unit
Radio Remote - Transmitter/receiver for zero/reset button
Remote Display or Printer Output
External Horn Alarm
External Alarm Light
DC Convertors - 117 VAC to 13.6 VDC
RD712/XL Remote Display
DL-9 Data Logger
Remote Cutoff Assembly

Weigh-Tronix

1000 Armstrong Dr.
Fairmont, MN 56031 USA
Telephone: 507-238-4461
Facsimile: 507-238-8283
e-mail: ag@weigh-tronix.com
www.agscales.com



Avery Weigh-Tronix

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