# **WEIGH-TRONIX**



Model 400 Digital Scale User's Manual

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# GENERAL

#### SCOPE OF MANUAL

This manual describes the Model 400 agricultural weight indicator, its connections, and its operation. Because of the variety of applications, each feature is discussed separately. The user should study the sections that apply to his particular scale configuration. If your scale requirements change, consult your WEIGHTRONIX® dealer to determine how your scale system can be adapted to your new requirements.

#### DESCRIPTION

The Model 400 agricultural scale consists of the electronic weight indicator and Weigh Bar<sup>®</sup> weight sensors that support the load being weighed.

The weight indicator is enclosed in a weather-tight case that can be conveniently mounted at the machine operating location or scale sight. It operates from a 12 volt battery DC power source, usually the tractor battery or an auxiliary battery source. An AC to DC converter is available to provide operation from normal 117V AC power. Weight readings are displayed directly in pounds or kilograms (as determined by weight indicator programming) on a bold, bright digital display.

The weight indicator also includes a built in alarm that indicates when a preset weight is reached. An optional external alarm light or horn can be connected to the alarm output connector.

The Weigh Bars are fully electronic weight sensors that have no moving parts and are sealed against moisture. As weight is applied to the scale, the Weigh Bars bend slightly and a weight signal is sent to the weight indicator. The Weigh Bars are relatively immune to forces applied to the side or ends of the weight sensor.

There are two basic types of farm scales, the 3-point system and the 4-point system. The 3-point system is usually used for 2-wheeled towed machinery, such as grinder mixers. The 4-point system is used for platform scales, truck mounted scales, or scales built into 4-wheeled equipment.

The 3-point system usually uses two wheel spindle Weigh Bars and a hitch Weigh Bar to support the complete machine, such as a feeder mixer, and its load. Because the weight indicator has 4 connectors for weigh bars, an adapter plug is connected to the unused connector in 3-point systems.

The 4-point system uses 4 Weigh Bars (one under each corner) to support a scale platform, grain box, etc.

An optional remote alarm indicator (light or horn) can be added to the scale system. It could be located to signal when a particular weight is reached when the user must be working out of sight of the weight indicator.

One weight indicator can be used for two different scales if the Weigh Bars of both scales are of the same electronic diameter (calibration size). Consult your dealer for details.

# SPECIFICATIONS\*

#### SYSTEM ACCURACY

 $\pm$  1% of displayed weight from 10% to 100% of scale capacity or 0.1% of scale capacity for weight less than 10% of capacity.

## CAPACITY AND INCREMENT SIZE

As shown on capacity plate.

#### DIGITAL DISPLAY

Size: 0.6" high, 7-segment, filament type. Display Rate: I time per second.

#### **MEASUREMENTS**

Indicator dimensions: 27.9 cm W x 16.5 cm H x 18.4 cm D (11" W x 6½" H x 7¼" D).

Indicator Weight: 3.6 Kilograms (8 lbs.).

#### POWER REQUIREMENT

12 VDC @ 1 ampere

#### CIRCUIT PROTECTION

3AG, 5 ampere fuse.

#### **OPERATING ENVIRONMENT**

Temperature Range:  $-40^{\circ}$ C to  $+60^{\circ}$ C ( $-40^{\circ}$ F to  $+140^{\circ}$ F)

Humidity: up to 95% relative humidity, no condensation.

Filtering: Rejects moderate electromagnetic interference.

<sup>\*</sup>WEIGH-TRONIX® reserves the right to change specifications without notice and without obligation.

# INSTALLATION AND OPERATIONAL CHECK

#### **GENERAL**

The Model 400 Farm Scale can be installed in a variety of ways, each dependent upon the specific application and machinery involved. This section describes the basic principles that are necessary to insure a sound, trouble-free installation. The operational check in this section should be performed on a system after it is installed.

To avoid damage to the scale components, observe the following precautions:

- Handle all Weigh Bars carefully so that their cables are not cut, pinched or pulled loose from the Weigh Bar. Damage to a Weigh Bar cable cannot easily be repaired and may require replacement of the entire assembly.
- Do not weld near a Weigh Bar as excessive heat or high currents may cause internal damage.
- Make sure that all mounting bolts are tightened properly. Loose bolts can cause part failures.

# A CAUTION

Follow all safety rules for the equipment on which the scale is being installed and for the tools being used.

- Never work on a scale system while machine is running.
- Wear appropriate eye protection when drilling and welding.
- Perform welding operations only under safe conditions, away from combustible and explosive materials. Do not weld while in possession of a butane cigarette lighter, as it may explode with great force if it comes in contact with welding sparks.
- When raising equipment off the ground, securely block it to eliminate rolling and use safety stands to support the raised equipment.

# UNPACKING INSTRUCTIONS

Unpack the system components and inspect them for shipping damage. It is important to check their operation to determine if there is concealed damage. If damage is present, a written inspection request must be filed with the carrier within 15 days of delivery. The shipping carton and packing material should be retained for damage inspection even though no external evidence of rough handling is apparent. Packing material should be retained for future repacking in the event the equipment is to be shipped or stored.

# MOUNTING THE HITCH AND WHEEL SPINDLE WEIGH BARS (3-POINT SYSTEMS)

Locate the farm implement on a hard, level surface. Adjust the hitch jack or securely block the tongue so it is at the same height as when it is attached to the tractor drawbar.

Remove the existing hitch or hitch plates from the machine. Temporarily assemble the hitch Weigh Bar in the shield and mark the appropriate mounting location. If necessary, drill new mounting holes in the implement tongue. Remove the Weigh Bar and temporarily mount the shield assembly to the tongue. Weld a piece of key stock (to the tongue only) at each side of the shield assembly to hold it straight.

When the welds have cooled, feed the Weigh Bar cable through the hole in the shield assembly, insert the Weigh Bar into the shield and press the cable into the groove in the bottom of the shield. Mount the Weigh Bar and shield to the tongue with shoulder pads and associated hardware.

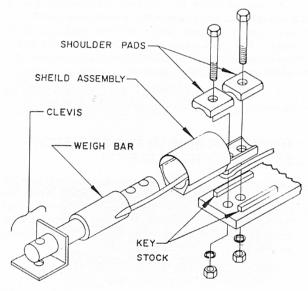


FIGURE 1 HITCH WEIGH BAR

#### NOTE

If a PTO shaft holder is available, install it in a manner that best protects the hitch weigh bar.

Block one wheel to keep from rolling and jack up the opposite wheel. Support the raised side of implement with a safety stand.

# / CAUTION

Before you remove the implement wheel, support the raised side with a safety stand under the main

Remove the hub cap, cotter pin, and slotted wheel nut. Pull the complete wheel assembly with bearings and seals off the axle.

Replace the axle spindle with the Weigh Bar spindle and secure it in place with the hardware that was removed with the axle spindle.

#### NOTE:

Be sure to orient the weigh bar spindle so the side marked "TOP" is up. Avoid cutting the cable or pulling it loose from the Weigh Bar spindle.

Route the Weigh Bar cable to the weight indicator (refer to Routing Cables Section). If available, install a cable protector or secure the cable in the wheel well to keep it from being snagged.

Grease the Weigh Bar spindle and re-install the seals, bearings, and wheel assembly. Tighten the spindle nut until there is no slack in the bearings, back the nut off until its first slot lines up with the hole in the spindle, and insert the cotter pin. Install the hub cap, and lower the raised implement to the ground.

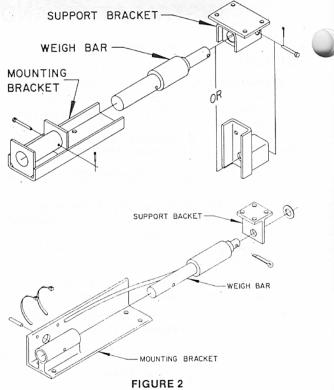
To install the other Weigh Bar spindle, repeat the entire sequence on the other side of the machine.

## MOUNTING SINGLE ENDED WEIGH BARS (4-POINT SYSTEMS)

In 4-point systems, the load to be weighed is supported by four Weigh Bars, one at each corner. Each Weigh Bar cable is connected to the weight indicator and a Weigh Bar adapter plug is not used. The four Weigh Bars can be used to support a scale platform, the four corners of a bin or hopper, a truck or wagon box, etc.

Figure 2 shows an exploded view of single-ended Weigh Bars, mounting brackets, types of support brackets that can be used, and associated hardware. One end of the Weigh Bar is held stationary in the mounting bracket. The mounting bracket is bolted to a baseplate embedded in a concrete support pier (for platform scales) or to the equipment frame (in the case of equipment mounted scales). Support brackets are fastened onto the scale platform or equipment box, etc. and fit over the other end of the Weigh Bar. The support brackets are allowed to slide a small distance on the Weigh Bar so they will not bind as the bars flex.

In custom installations, such as truck mounted scales, some care should be taken to mount the Weigh Bars so



SINGLE ENDED WEIGH BARS

they can easily be removed for replacement. If brackets are to be welded in place, Weigh Bars should be removed during the welding operation and only the mounting bracket or support bracket should be welded, not both.

## MOUNTING DOUBLE-ENDED WEIGH **BARS (4-POINT SYSTEMS)**

Figure 3 shows an exploded view of a double-ended Weigh Bar, its support bracket, mounting brackets, and associated hardware. Note that the support bracket is fastened to the middle of the Weigh Bar and that the Weigh Bar ends are supported in mounting brackets.

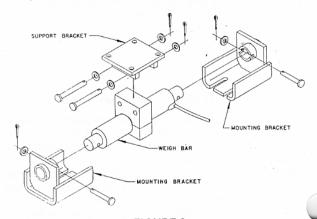


FIGURE 3 DOUBLE-ENDED WEIGH BAR

Double-ended weigh bars are used in platform scales where the support bracket is fastened to the main supporting beam of the platform and the mounting brackets are bolted to a base plate. The base plate is embedded in a concrete support pier.

## MOUNTING THE WEIGHT INDICATOR

The weight indicator mounts on a quick detach bracket which is bolted or welded in place. The mounting location should be carefully selected for convenient scale operation as well as other operations that must be performed while weighing. The weight indicator should not interfere with other operations and should be in a protected location (not protruding where it will get torn off).

Hold the weight indicator at the proposed mounting location. Open the cover and verify that the display can be easily read and the controls operated. Mark the location for the mounting bracket. Using the mounting bracket for a template, mark and drill holes. Mount the bracket with the wider end at the top. If bolts are used to mount the bracket to machinery, double nuts or self locking nuts should be used to prevent hardware from working loose and falling into the machinery.

Insert the indicator bracket into the mounting bracket and press down. If the indicator is used on mobile machinery, tie a wire around the indicator bracket and the mounting bracket to keep the indicator in place (refer to Figure 4).

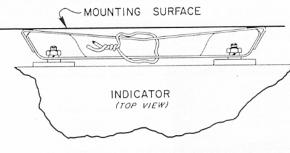


FIGURE 4
SAFETY WIRE INSTALLATION

#### **ROUTING CABLES**

It is important to route all cables so they are out of the way, do not interfere with machinery operation, and are securely fastened to the machinery. Running cables through hollow frame members, fastening the cable to the frame at 18" intervals, and securing all excess cable out of the way will limit the possibility of the cable being snagged and broken. The cable should not touch any moving parts of the machine and enough slack should be left where the machine may twist or flex. The cables should be secured to the machine within a foot of the weight indicator. Refer to Figure 5 for suggested methods of securing the cables.

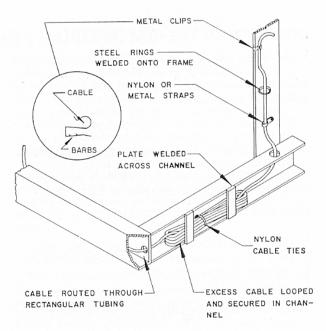


FIGURE 5
CABLE SECURING METHODS

## WEIGHT INDICATOR CONNECTIONS

Cables should be routed to the weight indicator with excess cable secured out of the way. Plug the signal cables (from the Weigh Bars) into J1, J2, J3, and J4 on the bottom of the indicator (refer to Figure 6). In three point systems, a weigh bar adapter plug is connected to J4. Hand tighten the locking collars. Connect the power cable to the POWER jack on the left. If an alarm horn or light is used, connect it to the ALARM jack on the right.

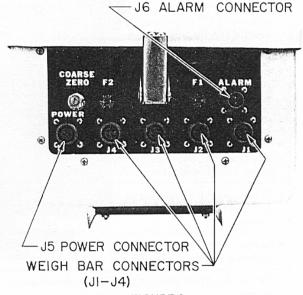


FIGURE 6
WEIGHT INDICATOR CONNECTIONS

#### CONNECTING THE POWER CABLE

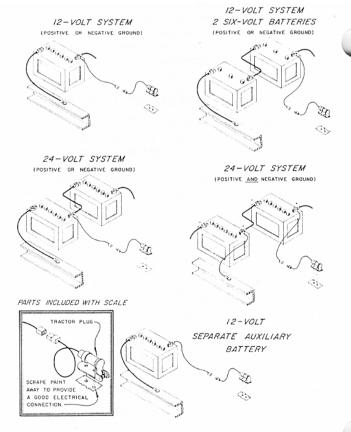
The Model 400 scale operates from 12V DC, positive or negative ground. A power converter, part number 14570-0027, can be used to provide 12V DC when the system is to be connected to 117 VAC.

When power is to be obtained from a tractor or truck, a single wire tractor plug is connected to the vehicle battery (refer to Figure 7). Mount the tractor connector so it points toward the rear of the tractor. If the vehicle has a 6-volt battery, a separate 12 volt battery mounted in a battery box should be used to provide scale power.

#### NOTE:

Do not plug the scale into factory installed tractor plugs that are intended for optional lighting. Install a separate scale power connector.

On John Deere diesel tractors with a 24 volt electrical system, make sure that the battery ground wire is connected and that the electrical system is operating properly. Check for 12 volts DC between the chassis and the ungrounded positive battery terminal with the tractor starter running. Connect the tractor plug wire to this battery terminal.



# FIGURE 7 BATTERY CONNECTION DETAILS

#### OPERATIONAL CHECK

• Set and hold the POWER switch to TEST.	On scales with a capacity of 25,000 lb. or less the display will read 88888. On scales with a capacity of over 25,000 lb. the display with read 888880.
<ul> <li>Set the POWER switch to ON, set the ALARM selector to OFF, and adjust the COARSE ZERO control (on the bottom panel) and ZERO ADJUST for a zero display reading.</li> </ul>	
<ul> <li>Set the ALARM selector to SET, and turn the ALARM ADJUST control through its entire range.</li> </ul>	The display reading should change from near zero to a full capacity reading.
• Set the ALARM selector to OFF.	3
• Have someone stand over each weigh bar, one at a time (i.e., over one wheel spindle, then the other, then the implement hitch).	All readings should be approximately the same.
• Set the ALARM selector to SET and the ALARM ADJUST for a weight slightly less than that in the previous step.	
• Set the ALARM selector to LOAD and have the person stand on the implement or scale.	The ALARM light should come on, and the ALARM (if used) should become activated.
• Set the ALARM selector to OFF, set the display to zero.	
• If possible weigh a known weight.	The weight should be displayed accurately.

# OPERATING INSTRUCTIONS

#### INDICATOR COVER

The cover over the front of the weight indicator protects the unit from dirt and moisture when the scale is not in use. When it is latched open, it shades the display for easier visability on sunny days. The cover should always be latched closed when the scale is not in use.

### DISPLAY, MARKINGS, AND INDICATOR

(Refer to Figure 8).

#### CAPACITY PLATE

The capacity and increment size are marked on a capacity plate attached to the weight indicator front panel. The capacity is the number in front of the X and the increment size (smallest resolution of weight that can be read) is after the X. The capacity plate also shows if the weight indicator displays weight in pounds or kilograms. The capacity plate shown in Figure 8, shows a capacity of 10,000 pounds and that the weight is displayed to the nearest 2 pounds.

#### DISPLAY

The display consists of 5 active display digits (and a fixed zero, for capacities of 40,000 or more). The display shows the weight or alarm reading in pounds or kilograms as marked on the front panel. When the load

on the scale is less than the load that was on the scale when the weight indicator was set to zero, the display digit farthest to the left will be a negative sign (—), indicating a "negative weight".

#### ALARM INDICATOR

The ALARM indicator is a light that shows when the weight of a load reaches the preset alarm value while loading or unloading the scale. It lights only when the ALARM SELECTOR is in the LOAD or UNLOAD position.

#### CALIBRATION SIZE

The calibration size (electronic diameter) of the weight indicator is marked on a decal near the front edge on the bottom panel. The calibration size of the weight indicator and the Weigh Bars should be the same.

#### OPERATING CONTROLS

(Refer to Figure 8)

#### POWER SWITCH

The POWER switch should be set to OFF when the scale is not being used or when charging the battery that supplies power to the scale. It is held in the TEST position to verify that the display tubes work properly. It is set to ON for scale operation.

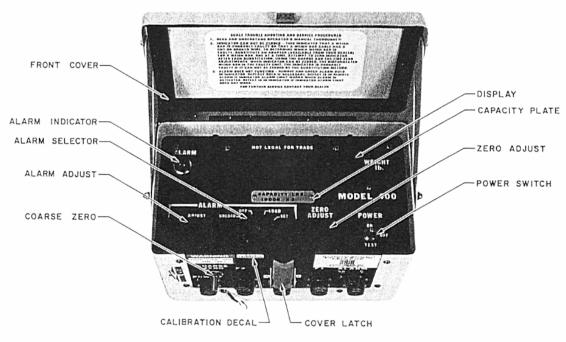


FIGURE 8
INDICATORS AND CONTROLS

#### COARSE ZERO CONTROL

The COARSE ZERO control is used to set the display near zero when the scale is empty. Ten full turns are required to adjust the COARSE ZERO control from one end of its range to the other. It is turned clockwise to increase the displayed reading and counterclockwise to decrease the weight reading.

#### NOTE

If the COARSE ZERO control is turned too far counterclockwise the display may become locked up (fixed steadily on a particular negative number). Turn the COARSE ZERO control clockwise to correct this.

#### ZERO ADJUST CONTROL

The ZERO ADJUST control requires 10 full turns to adjust it through its entire range. It is set to the center of its range by turning it all the way in either direction until additional drag is felt, then turning it a full 5 turns in the other direction. The ZERO ADJUST control is a "fine zero" control and is used to adjust the display to zero.

#### ALARM ADJUST CONTROL

The ALARM ADJUST control is used to set the alarm setting to the desired weight value. The alarm value is displayed only when the ALARM SELECTOR switch is in the SET position. The ALARM ADJUST control requires 10 full turns to adjust the alarm setting from zero to full capacity.

#### ALARM SELECTOR SWITCH

The ALARM SELECTOR switch is set to OFF to disable the alarm. When it is in the SET position, the display shows the weight at which the alarm will activate. When the ALARM SELECTOR is in the LOAD position, the ALARM will activate (and the ALARM light will light) when the weight on the scale increases to the alarm setting value. The alarm will stay on at weights above the alarm value.

When the ALARM SELECTOR switch is in the UNLOAD position, the alarm will activate at weights below the alarm setting.

#### LAMP TEST

To verify that all display segments are operational, hold the POWER switch in the TEST position and verify that the display reads 88888 (for capacities of 25,000 or less) or 888880 (for capacities of 40,000 or larger.)

#### INITIAL ADJUSTMENT

Set the ALARM SELECTOR switch to OFF and the POWER switch to ON; the display should light. Adjust the ZERO ADJUST control all the way to one end of its range (until it is harder to turn), then turn it back 5 complete revolutions to set it to the center of its range.



With the scale empty, adjust the COARSE ZERO control (on the bottom panel) until the display reads near zero. Set the display for a zero reading using the ZERO ADJUST control.

The scale is now ready to weigh.

#### OPERATING THE ALARM

The alarm can be used to indicate when the weight on the scale increases to a set amount (LOAD) or when it decreases to a set amount (UNLOAD). To disable the alarm, set the ALARM SELECTOR switch to OFF.

To set the weight at which the alarm will activate, switch the ALARM SELECTOR to the SET position and adjust the ALARM ADJUST control to the desired weight.

If the alarm is to indicate when the weight on the scale increases to the alarm value, set the ALARM SELECTOR switch to LOAD. If the alarm is to indicate when the weight drops to the alarm setting, set the ALARM SELECTOR switch to UNLOAD.

#### WEIGHING PROCEDURES

With the scale empty, zero the display using the ZERO ADJUST control. Load the scale with material and read the weight on the display.

#### NOTE

On machinery mounted scales (such as those on a grinder/mixer) where the power take-off shaft will be used during loading, the PTO should be engaged and running when the display is adjusted to zero.

The scale can be loaded until the desired weight is reached (using the alarm if desired) or it can be loaded with gross weight of material and the weight determined after loading. Additional materials can be added to the load by determining the proportion of additive to the first quantity and calculating the sum weight of both materials.

The second material can then be added until the display reads the proper weight or the alarm could be set to signal when this weight is reached.

#### Example

To combine 2500 lb. of material A, 1100 lb. of material B, and 400 lb. of material C, proceed as follows:



- 1. Zero the display with the ZERO ADJUST control.
- Switch the ALARM SELECTOR to SET and set the ALARM ADJUST control for a display of 2500.
- Switch the ALARM SELECTOR to LOAD and load the scale with material A until the ALARM light lights or until the display reads 2500 lb.
- 4. Switch the ALARM SELECTOR to SET and set the ALARM ADJUST control for a display of 3600 (2500 + 1100).
- Switch the ALARM SELECTOR to LOAD and load the scale with material B until the alarm light lights or until the display reads 3600 lb.
- Switch the ALARM SELECTOR to SET and set the ALARM ADJUST for a display of 4000 (2500 + 1100 + 400).
- Switch the ALARM SELECTOR to LOAD and load the scale with material C until the ALARM light lights or until the display reads 4000 lb.

#### NOTE

Use of the alarm is optional, not necessary.

Measured quantities can be unloaded from the scale in a manner similar to the loading method. The alarm may be used, if desired, to indicate when a particular weight reading is reached.

To unload a certain amount of material from the scale, subtract the desired amount from the weight displayed. Then, unload the scale until the display reads this calculated value.

# COMPENSATING FOR CHANGES IN DISPLAYED WEIGHT

The zero reference of a scale may change as a result of outside temperature changes or from moving a machinery mounted scale from one location to another. If the scale is empty, it can be easily rezeroed using the ZERO ADJUST control.

If material is left on the scale during a wide temperature shift or when the machine mounted scale is moved from one location to another, more accurate measurements will be obtained if the display is reset to the original reading by adjusting the ZERO ADJUST control.

### EXAMPLE:

1500 pounds of material is loaded into a grinder/mixer and the weight display reads 1550 pounds after the machine is moved to a different location, such as a feeding yard. To compensate for the zero shift, adjust the ZERO ADJUST control until the display again reads 1500 pounds.

# MAINTENANCE AND TROUBLESHOOTING

#### PREVENTIVE MAINTENANCE

If properly cared for, the Model 400 Agricultural Scale will provide you with years of satisfactory and trouble-free service. A few minutes of preventive maintenance each week will avoid costly shutdowns for repair.

The following preventive maintenance procedures should be performed each week:

- Check the hitch Weigh Bar bolts and tighten them if loose. Loose hitch bolts result in inaccurate weighing.
- 2. Check and hand tighten the connectors on the bottom of the weight indicator.
- 3. Inspect all cables to verify that they are not cut, nicked, pinched, or broken. Tape broken insulation to prevent shorting.
- 4. Check all cables to verify that none are dangling from the frame where they might snag or break.
- 5. If an auxiliary battery is used as a power source for the scale, keep it fully charged betwen uses.
- 6. Carefully clean the display window with a soft, clean cloth dampened with water.

#### NATURE OF PROBLEMS

Weigh-Tronix scale systems are designed and built to be rugged and dependable. This rugged dependability can only be insured if the system is properly installed and maintained to protect the system components and cables from damage.

Many difficulties are caused by improper adjustment or operation of the weight indicator. When a problem appears, the operator should first recheck the operating controls to make sure they are set for the proper operation.

If there is a problem, the operator should next check the appropriate functions as listed in the "operators troubleshooting guide."

#### NOTE

Fuses must be replaced with a fuse of the proper size and current rating to protect weight indicator circuitry. Replacing the fuse with one of a higher current rating or a piece of wire, nail, etc. will probably cause costly damage to the weight indicator and will void the warranty.

If a Weigh Bar has failed, there are several ways to determine which Weigh Bar is defective.

The first is to have someone stand over each Weigh Bar, one at a time, then compare the weight readings. With a weight directly over one Weigh Bar, the displayed reading will not be accurate, but the weight readings obtained with the same weight over each Weigh Bar should be very close to each other. A Weigh Bar that yields a reading quite different from the others is probably defective.

If the weight indicator cannot be set to zero with the scale empty, obtain an extra adapter plug like the one used on 3-point systems. Disconnect a Weigh Bar cable and connect the extra adapter plug in its place. Then, try to zero the weight indicator. Continue this procedure with each Weigh Bar cable (and the standard adapter plug on 3-point systems). All cables should be connected except the one that is replaced by the extra adapter plug. When the defective Weigh Bar is replaced by the extra adapter plug, the weight indicator can be zeroed.

If the weight indicator is defective, it can be sent back to the factory for repair. Send it prepaid to:

Weigh-Tronix, Inc. 1000 Armstrong Drive Fairmont, MN 56031

Include with the indicator, the following information:

Your name and address. Dealer's name and address.

Date purchased.

Type of machine on which the scale is installed. Symptoms of the problem.

OPERATOR TROUBI	LESHOOTING GUIDE
Symptom of Problem	Suggested Check
DISPLAY BLANK with POWER switch set to ON or TEST.	<ol> <li>Verify that the power cord is connected and the connector is tight.</li> <li>Check for blown fuses.</li> <li>Make sure battery is charged.</li> <li>If an AC power converter is used, verify that the fus or circuit breaker is not blown in the AC fuse box or power panel.</li> </ol>
DISPLAY BLANK — ALARM LIGHT ON (Alarm light stays on with the POWER switch set to OFF).	Check for high voltage (16 volts or more) on power input cable.
NO	OTE
	ve power from the circuitry and light the ALARM light ctor. This sometimes occurs (especially in John Deere® electrical system becomes faulty.
DISPLAY DOES NOT CHANGE as the weight on the scale is changed.	<ol> <li>Verify that the ALARM SELECTOR switch is not in the SET position.</li> <li>With the scale empty, try to zero the scale by adjusting the COARSE ZERO control.</li> <li>Verify that all signal cables are connected and are not cut or smashed.</li> </ol>
DISPLAY CANNOT BE SET TO ZERO.	Verify that all signal cables are connected and are not cut or smashed.
DISPLAY VALUE CHANGES ERRATICALLY or drifts.	<ol> <li>Hand tighten all connectors.</li> <li>Check to see if moisture has gotten into signal connectors and dry them out.</li> <li>If moisture has gotten inside the weight indicator enclosure, remove the unit to a warm dry area to dry it out.</li> </ol>
WEIGHS LIGHT OR HEAVY	<ol> <li>On 3-point systems, make sure hitch bolts are tight and that the hitch is not binding (hitch pins should not be larger than 3/4" in diameter).</li> <li>Make sure the battery is not faulty (it must supply at least 10 volts to the scale).</li> </ol>
ALARM DOES NOT WORK	<ol> <li>A relay inside the weight indicator should make an audible "click" when the alarm value is reached. If a click is heard but the ALARM light doesn't light, tighten or replace the alarm bulb.</li> <li>If the ALARM light lights, but the remote alarm doesn't operate, check the remote alarm cable, connector, and bulb.</li> </ol>