

## Five Pin Systems

If your indicator will not zero with the Weigh Bars disconnected, then the problem is in the indicator; refer to the indicator service manual or contact your Weigh Tronix dealer.

If you are able to zero the indicator with the Weigh Bars disconnected the problem is probably in the Weigh Bars. Reconnect the Weigh Bars one at a time and attempt to zero the indicator. If, after connecting a Weigh Bar, you are unable to zero the indicator, that Weigh Bar may have a broken, cut, or pinched cable. If the cable appears to be in good condition, the Weigh Bar may have failed.

Indicators with (4) five pin Weigh Bar connectors should display the following weigh readings depending upon the number of Weigh Bars connected to the indicator. With only one Weigh Bar connected the displayed weight should be about 4 times the weight applied directly over the connected Weigh Bar. With only two Weigh Bars connected, the displayed weight should be about twice the applied weight. With only three Weigh Bars connected, the displayed weight should be approximately the applied weight + 50% of the applied weight's value. With all four Weigh Bars connected the displayed weight should be very close to 100% of the applied weight. (If adjustment at 100% is needed, refer to the indicator service manual for calibration procedures.)

**Note:** An Adapter Plug electronically represents a Weigh Bar with no weigh applied.

Indicators with (3) five pin Weigh Bar connectors, or an indicator with (4) five pin Weigh Bar connectors and using one Adapter Plug will give the following weight readings. On (3) Weigh Bar connector indicators, the Adapter Plug is internally part of the indicator base assembly. With one Weigh Bar connected the displayed weight should be about twice the applied weight. With only two Weigh Bars connected the displayed weight should be approximately the applied weight +50% of the applied weight's value. With all three Weigh Bars connected, the displayed weight should be very close to 100% of the applied weight. (If adjustment at 100% is needed, refer to the indicator service manual for calibration procedures.)

### Testing The Five Pin Weigh Bar

With an ohmmeter check for the following readings:

<u>Readings</u>	<u>Tolerances</u>	<u>Pins</u>	<u>Wires</u>
_____	350 ohms $\pm$ 5%	A to C	Red to White
_____	350 ohms $\pm$ 5%	B to D	Green to Black
_____	OPEN	E to All	Shield (White/Orange) to all
_____	262 ohms $\pm$ 5%	A to B	Red to Green
_____	262 ohms $\pm$ 5%	B to C	Green to White
_____	262 ohms $\pm$ 5%	C to D	White to Black
_____	262 ohms $\pm$ 5%	A to D	Red to Black



For Service, Please Contact:

2403 26<sup>th</sup> Avenue, P.O. Box 197  
Central City NE 68826  
308-946-3591

Fax 308-946-2972  
Email: [ccscale@hamilton.net](mailto:ccscale@hamilton.net)  
[www.ccscales.com](http://www.ccscales.com)

Enclose the following information with the indicator:

Your name, address, and telephone number  
Type of implement on which the system is installed  
Symptoms of the problem

Please provide the following types of information:

Is the indicator affected by the cold? Heat? Moisture?  
Is the indicator sensitive to vibration?  
Is the problem constant or intermittent?

**An accurate description of the problem helps to ensure a prompt and reliable repair.**

## Troubleshooting The System

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.

If a problem appears, recheck the indicator's operating controls to make sure they're properly set for the desired operation.

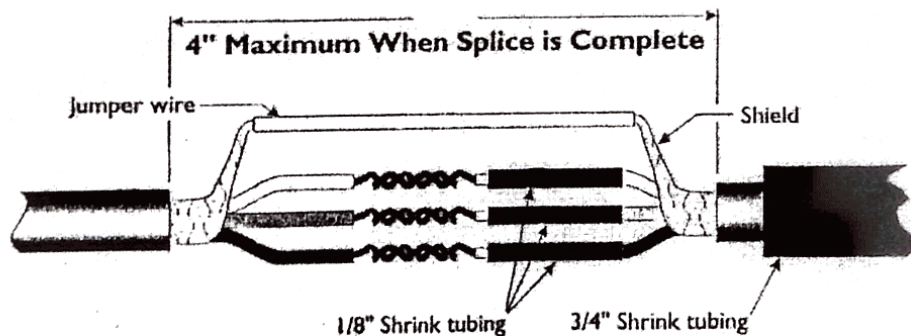
There are several ways to determine if a Weigh Bar has failed. On any system, position a weight (person or heavy object) on the scale above each Weigh Bar on at a time, and compare the weight readings. With the weight directly over on Weigh Bar, the displayed reading may not be exact, but the weight readings obtained with the same weight over each Weigh Bar should be very close to each other. A Weigh Bar reading that differs significantly from the other Weigh Bars may have a broken, cut, or pinched cable. If the cable appears to be in good condition, the Weigh Bar may have failed.

If a cable is damaged, repair it with a splice kit, to prevent shorting and prevent moisture from getting into the cable.

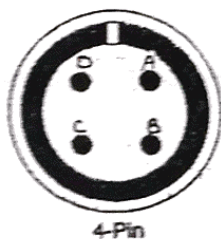
If the connector on the cable is damaged, a pre-potted replacement (pigtail) connector assembly is available. The four pin (pigtail) connector assembly is P/N 16662-0013 and the five pin (pigtail) connector assembly P/N 23581-0017.

### Repair Procedure For Splicing Cables

1. Cut away the damaged section of the cable to leave the cut ends clean.
2. Strip approximately 3" of the cable jacket from one cable end and 1.5" from the other cable and exposing the braided shield wire.
3. Cut the shield wire leaving it exposed 1" beyond the cable jacket.
4. Using a scribe or small screwdriver to unbraid the 1" lengths of exposed shield wires, twist the wire strands together to form a wire on each cable.
5. Strip approximately 5/8" of insulation from the remaining wires on each cable.
6. Slide the 6" length of 3/4" shrink tubing down one section of cable.

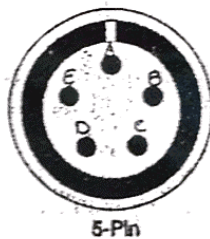


7. Cut the 1/8" shrink tubing into 1 1/2" lengths and slide one piece onto each of the stripped insulated wires on one section of cable.
8. Align the two sections of cable together and twist the same color wires together as shown below.
9. Solder each wire junction with the resin core solder provided. Be sure that all the wire junctions are smooth with no bumps or sharp edges. A good solder connection will look shiny and not have a dull or cracked surface.
10. After the junctions are soldered and cooled, slide the pieces of 1/8" shrink tubing over each junction. Be sure that only the wire insulation is visible out of each end of the tubing. Use a match, lighter, or electric hair dryer to heat the shrink tubing causing it to shrink and seal the junctions on the insulated wires.
11. Couple the wire shields together using the length of copper wire provided. This is necessary so both sections of cable will be guarded against radio frequency interference which can affect weigh bar operation.
12. Use a torch or heat gun to shrink the 3/4" tubing so it forms a watertight seal across the repaired area. The 3/4" tubing is very thick so heat must be applied long enough to ensure adequate shrinkage. Apply the heat evenly to avoid scorching or burning the tubing.



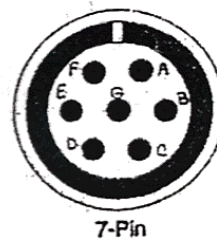
4-Pin

A-Shield  
B-Red  
C-Black  
D-White



5-Pin

A-Red  
B-Green  
C-White  
E-Shield  
D-Black



7-Pin

A-Red  
B-Green  
C-White  
F-Yellow  
G-Shield  
D-Black  
E-Blue