

# VR1 PULSER

## 12 VDC INSTALLATION INSTRUCTIONS For VR1 Models VR1-12-SO-B and VR1-12-DO-B

The VR1 Pulser was designed to operate with the Veeder Root® 7886 and 7887 meter registers. It will generate an output of 1, 10, or 100 pulses per gallon. The VR1 automatically compensates for pump vibration or meter backlash to give the most accurate pulse output possible.

1. Remove the Cover of the 7886 or 7887 meter register by removing the 4 bolts under the register at the corners. If the register has the printer attachment, remove it as well.
2. Remove the 3 register mounting bolts under the register. These bolts are recessed into the bottom of the housing.
3. Remove the reset knob on the right of the meter register by turning it counterclockwise.
3. Now remove the register from the housing and place it onto a stable surface.
4. Determine the number of pulses per gallon required by the console or card system, and set the jumper on the head of the VR1 pulser accordingly. With the head of the VR1 pulser oriented as shown in Fig. 1, placing the jumper on the left 2 pins will generate 1 pulse per gallon. Placing it on the center 2 pins will generate 10 pulses per gallon, and placing it on the right 2 pins will generate 100 pulses per gallon. The pulser in Fig. 1 is shown in the 100 pulses per gallon position.

**\*\* Note: If you change the jumper setting, the pulser will not recognize the change until the next time it is powered off and on. \*\***

5. Use an 0.050" Allen wrench to loosen the set screw in the side of the VR1 pulser shaft so that it will slide onto the register shaft.
6. Looking at the left side of the meter register, you will notice 2 shafts protruding. Carefully slide the VR1 pulser onto these shafts until the pulser head is almost against the frame of the register. Refer to Fig. 2.
7. Use an 0.050" Allen wrench to tighten the set screw in the pulser shaft. Do not over tighten.
8. Slide the assembly back into the register housing. Make sure that the pulser head clears the housing and that the register shafts do not bind. The pulser head should look like the one in Fig. 3.
9. Use a drill or round file to make a slot in the register housing for the VR1 pulser's head wire.
10. Replace the register mounting bolts and cover bolts. Reattach the reset knob and printer assembly if equipped.
11. Mount the VR1 barrier and connect the wires as shown in Fig. 4. The pulser should be wired so that power is applied only when the handle switch is on. Note that the pulse output is a contact closure type, and the red wires (and blue wires for dual output models) are not polarity sensitive.

**\*\* Note: See important notice on the back of this page. \*\***

12. Installation of the VR1 pulser is now complete. Run a test transaction and make sure that the pulser output is correct. If there is no output, make sure that sunlight is not shining directly on the pulser's optical sensor.

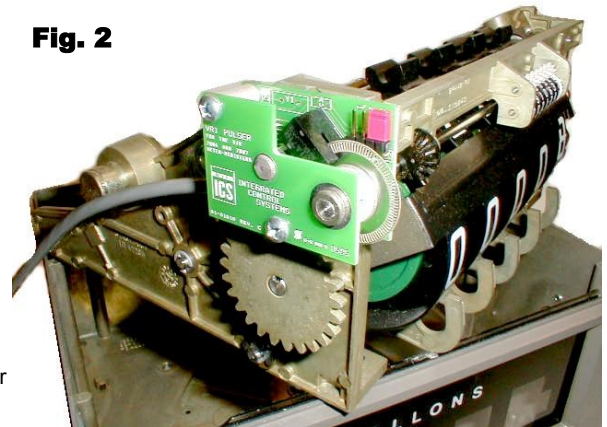
### Specifications:

Operating Temperature Range: -40 to 150 degrees F.  
 Input Voltage Range: 10 to 15 Volts DC  
 Pulser Output Voltage Range: 5 to 350 Volts AC or DC  
 Maximum Speed: 250 RPM

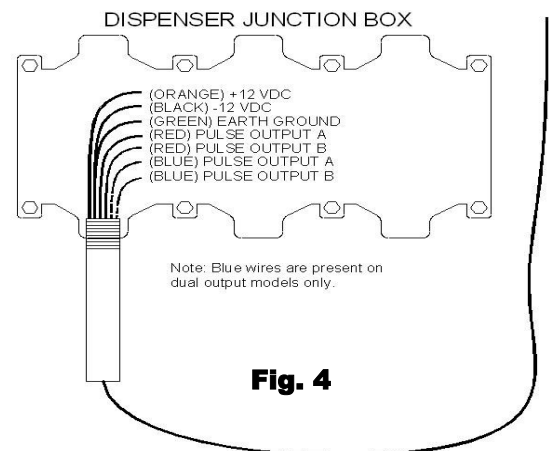
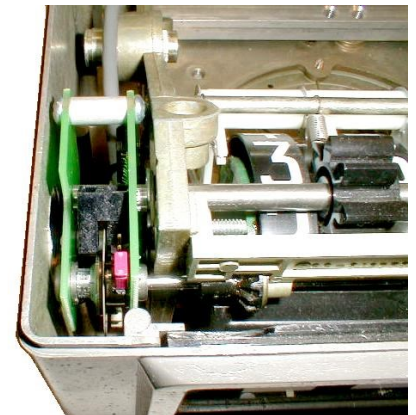
**Fig. 1**



**Fig. 2**



**Fig. 3**



**Fig. 4**

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# VR1 PULSER INSTALLATION IMPORTANT NOTICE

When installing the VR1 pulser barrier in the open (outside of a pump or dispenser cabinet), be sure to mount the barrier with the head wire facing downward as shown in the diagram at right.

Make a small loop in the head wire as shown, and tie-wrap the head wire to the barrier.

This configuration will prevent water from running down the head wire and collecting on the barrier seal.

