

ZENNER VL-9M Remote Reader for Water Meters with Encoded Output Installation Data Sheet

Suggested Tools:
 Electric Drill
 3/16" Carbide Masonry Drill
 Screw Driver
 Wire Stripper
 Cable Stripper
 Wire Cutters
 Scotchlok Crimping Tool
 9/64 Allen Wrench

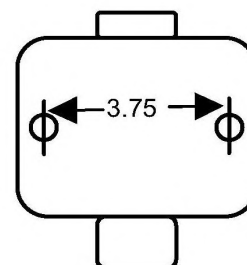
Materials Required:
 Masonry Fasteners
 Caulking Compound

Misc. parts provided:
 3 Wire Terminals



The VL-9M electronics and battery are environmentally sealed and suitable for outdoor installation, the wire terminals are not sealed for moisture. The unit should not be installed in locations below grade or in a submersible environment.

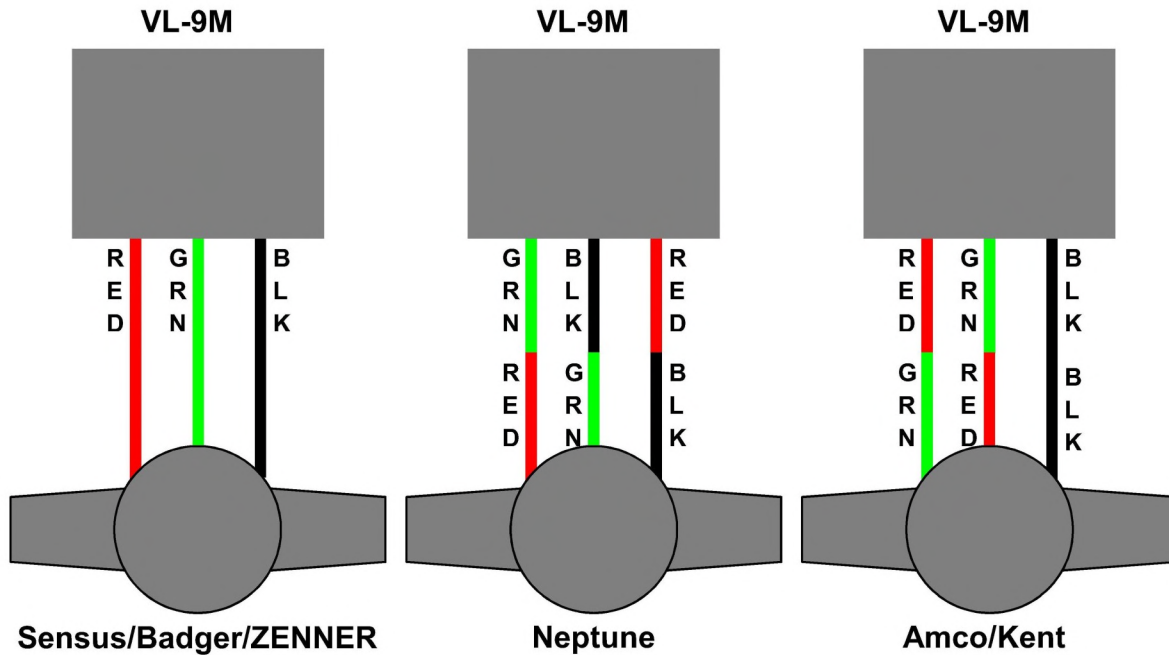
- Using the VL-9M base as a template, locate and mark mounting holes on outside wall of building. For best results the VL-9M should be located at eye level in an easily accessible location.
- Remove VL-9M cover using the 9/64 Allen Wrench.
- Secure VL-9M base to wall using the mounting dimensions in the drawing shown to drill the locating holes.
- Run the 3 conductor cable from the meter to the VL-9M. Maximum distance between the meter and remote reader is 1000 ft. Recommended cable is a 3 conductor 22 gauge solid core wire. Note: Never place the cable in a conduit with conductors carrying A/C.
- Attach cable to meter and to VL-9M, be sure to follow the connecting schematic. Be sure connections are secure and protected.
- Tap VL-9M to test installation, the meter reading and serial number will be displayed. You may also see one of the following error messages:



Message	Description
CHECK WIRING	No meter register appears to be connected--verify that the register wires are all connected correctly.
UNKNOWN REGISTER	Some type of response was obtained, but not from a supported register type. Verify that the connected meter is a supported type.
FRAMING ERROR	The data was corrupted: a STOP bit did not occur where it should have. Check the integrity of cable connections.
PARITY ERROR	An incorrect parity error check bit was received. Check the integrity of cable connections.

- Comply with all the necessary ordinances and codes.
- Caution when drilling holes in walls, there may be electricals inside. Wear safety glasses. Secure and clean all debris from the install.

WIRING DIAGRAM:



OPERATION:

The VL-9M is activated by striking the gold disc, making an acoustic vibration. You can use your fingernail, coin, key, or even the tip of your screwdriver. The VL-9M has an 8-digit 14-segment alphanumeric display capable of displaying both letters and numbers. More than 8 digits can be displayed by showing part of a value, then the rest of it. Characters may be alphanumeric (letters or numbers). All letters will be shown as capital letters. Other displayable characters include the decimal point, the space, and the dash ("-"). Any un-displayable character or error character (such as a question mark) will be shown as a dash.

When displaying a meter reading, the letters "RD" will appear at the far left taking 2 display digits. Meter readings of 6 digits or less will appear at the same time, right-justified, and will be displayed for 10 seconds. For a meter reading of more than 6 digits, the "RD" label will appear by itself for 2 seconds, the complete meter reading (up to 8 digits) will appear for 10 seconds. The meter/register ID will appear next. For an ID of 8 or fewer characters, the label "ID" will appear for 2 seconds, then the ID will appear for 10 seconds. For an ID of more than 8 (up to 12) characters, the label "ID" and the most significant characters (up to 4) will appear for 5 seconds, then the rest of the ID will appear for 10 seconds.