



UNPACKING

Please open and inspect your package upon receipt. Your package was packed with great care and all the necessary packing materials to arrive to you undamaged. If you do find an item that is broken or damaged, you must contact the delivering carrier to report the claim.

JET METER INSTRUCTIONS

GETTING TECHNICAL ASSISTANCE

The H.E. Anderson Company is dedicated to assisting our customers with installation and use of our products. Our technical staff are available each weekday from 8:30am to 4:30pm central time. You may call us toll free at **1-800-331-9620** from anywhere in the U.S.A. and Canada. If no one is available, we will promptly return your call.

Before you call, we suggest that you review this manual. You may find the answer to your question here. But even if you do not, reviewing the manual will help us to help you.

There is some information you should have available when you call. You should know the model and serial number of your control unit. Also, you should note the number of pumpers of each type, and their model numbers (found under the adjustment knob, stamped into the casting). We may not need all this information, but having it available at the start can sometimes save a lot of time and trouble for you.

If you need an additional owners manual for **any** H.E. Anderson Company product, please visit our website at <http://heanderson.com/manuals.php>



Jet Meter

Your jet meter should provide many years of dependable service. Jet meters offer superior tolerance to sand and debris. They provide excellent low flow performance and reliability over a wide flow range.

TABLE 1

Connection Size	Flow Range (GPM)	K Factor Pulses/Gal
3/4"	1/4 to 20	79.06
1"	3/4 to 50	48.06
1-1/2"	1-1/2 to 100	23.40
2"	2 to 160	14.00



Warning! Exceeding the maximum rated flow can damage your meter.

LOCATION AND ACCESS

- Locate for easy and safe access.
- Protect the meter from direct water spray. The upper section contains delicate electronic circuits. The enclosure is water resistant, but not waterproof.
- Avoid extreme temperatures.



Warning! Do not allow the meter to freeze. Meters are not warranted against freezing.

- Water temperatures through the meter should be within the range of 33° to 140°F (.5° to 60°C).

INSTALLATION

Before installing this meter check local city, state, or government codes to ensure that the proper, required devices (i.e. backflow preventer) are used.

- Locate on the discharge side of any pump, with the directional arrow pointed downstream.

- If there is a pump on the upstream side of the meter, there should be a minimum of ten (10) pipe diameters of straight pipe between the pump and meter to ensure accurate measurement.
- Install the meter in a horizontal and upright position.
- Install shut-off valves on the inlet and outlet sides of the meter to allow removal for servicing.
- If flow cannot be interrupted for maintenance, a bypass should be installed around the meter.
- Before placing the meter in service, the upstream water line should be thoroughly flushed to remove all debris.

Before turning on the water shut both the upstream and downstream isolation valves. Turn on the water and slowly open the upstream valve to fill the meter. Then, slowly open the downstream valve. This will protect the meter from breakage due to hydraulic shock which can occur when water suddenly enters a dry meter.

OPERATION & MAINTENANCE



Caution! Do not exceed the maximum flows in Table 1. or allow peak flows for long periods.

Under normal conditions, the following intervals are recommended for inspection and proper functioning.

TABLE 2

Connection Size	Flow Range (GPM)	Service Interval
3/4"	1/4 to 20	15 years
1"	3/4 to 50	15 years
1-1/2"	1-1/2 to 100	10 years
2"	2 to 160	10 years



Caution! Relieve all pressure from the water line before servicing or removing the meter

STORAGE

- Drain all water from the meter before storing.
- Do not allow the meter to freeze.
- Do not subject the meter to temperatures over 140° F.

TROUBLESHOOTING

Observe what the two LEDs on top of the meter are doing. The power indicator should be on constantly when there is power to the injector controller. The other should flash when water is flowing.

NOTE: The LED may appear to be on constantly at high water flows.

If the power light is on and the flow light is flashing, there could be a problem with the circuit board.

To determine if the problem is with the circuit board you must verify that the injector controller is working correctly. To do this:

- Disconnect power to the injector controller.
- Remove the lid which is secured by four screws.
- Disconnect the three wires from circuit board. There is a black wire, #1, white wire #2, and a red wire, #3.
- Spread the wires apart so that they are not touching each other or anything else.
- Power up the controller.
- Tap the black and the white wires together repetitively. As you are tapping the wires watch the controller display to see if it is indicating flow.
- If it is, then the problem is with

the circuit board on top of the water meter. Order a replacement board, P/N 14109.

- If the display does not register flow, the problem is most likely in the cable or the injector controller. (See the controller manual.)
- Re-connect the wires to the terminal block, black to #1, white to #2, and red to #3.

SERVICING

Do not disassemble any jet meter unless one of our qualified technicians instructs you to do so!

Many times the meter does not need to be dis-assembled and can be re-assembled incorrectly if instructions are not properly followed.

There are only two items that may need to be replaced. The electronic circuit board, P/N 14109, and the measuring chamber.

CIRCUIT BOARD REPLACEMENT

- Disconnect power to the unit.
- Loosen the black colored strain relief so the wire cable moves freely.
- Remove the lid which is secured by four screws.
- Disconnect the three wires from the board terminal block.
- Remove the two screws that hold the circuit board and replace it.
- Re-connect the wires to the terminal block, black to #1, white to #2, and red to #3.
- Tighten the strain relief.
- Replace the lid.
- You are now ready to apply power. And resume normal operation.

MEASURING CHAMBER

REPLACEMENT

Only replace the measuring chamber when instructed to do so by one of our technicians. Refer to the parts drawing on the next page.

- Turn off the water and relieve the pressure in your water line.
- Loosen the meter couplings and turn the meter upside down. (If you cannot turn the meter upside down, remove it from the water line and take it to a workbench.)
- Remove the four bolts.
- Gently remove the plate seal O-ring and then the plastic seal retainer.

NOTE: There is another large chamber seal O-ring inside the meter. Be sure to keep the O-rings separate as they are different in size.

- The basket strainer and impeller should come right out.



Caution! Do not twist the regulator which protrudes from the top of the chamber. Doing so can

affect the accuracy of the meter.

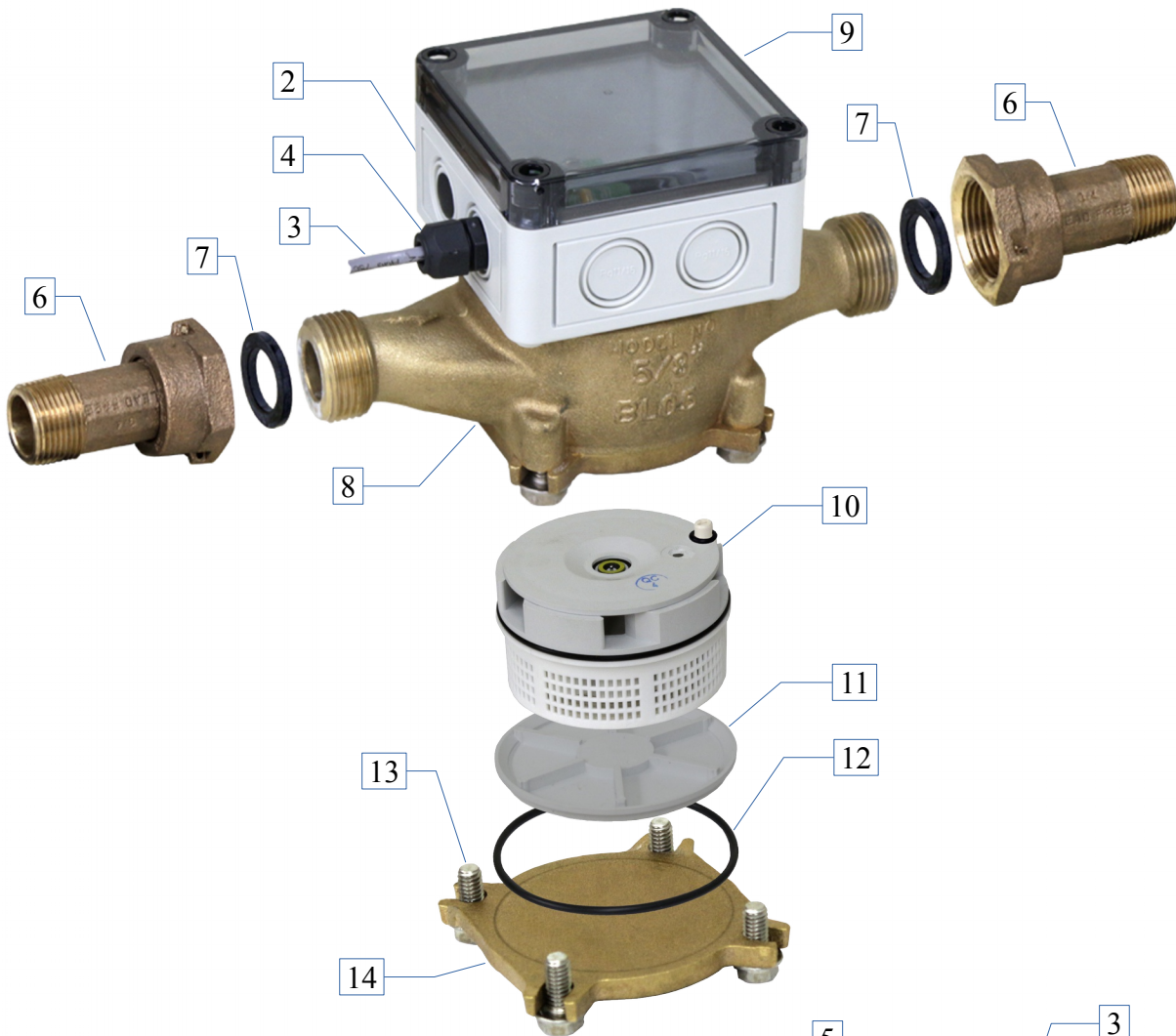
Refer to the parts drawing for parts identification. Special care is needed to properly install the measuring chamber.



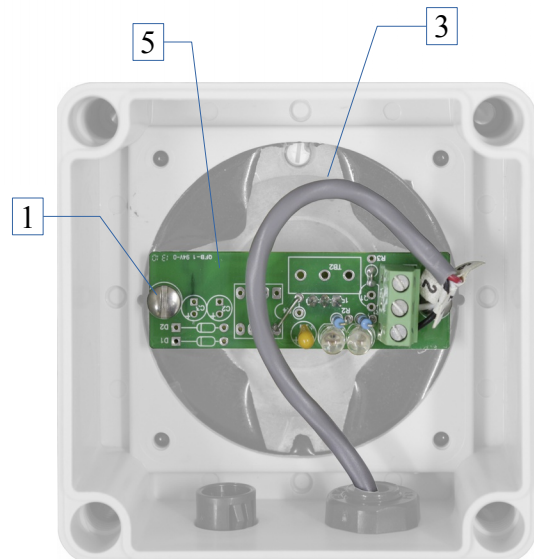
NOTE: Some of the items are “keyed”. This means that the parts can only be installed in one position.

- Remove the strainer basket and O-ring from the chamber assembly.
- Place the main part of the chamber assembly into the meter body and rotate it so that the plastic tab drops into the keyway in the body and prevents rotation.
- Place the O-ring and strainer basket in the meter body.
- Install the sealing plate.
- Check your work for correct assembly.
- Re-install the plate seal O-ring and the four(4) bolts.
- Install or reposition the meter back into the water line.

P/N 14043 5/8" 20 GPM JET METER PARTS

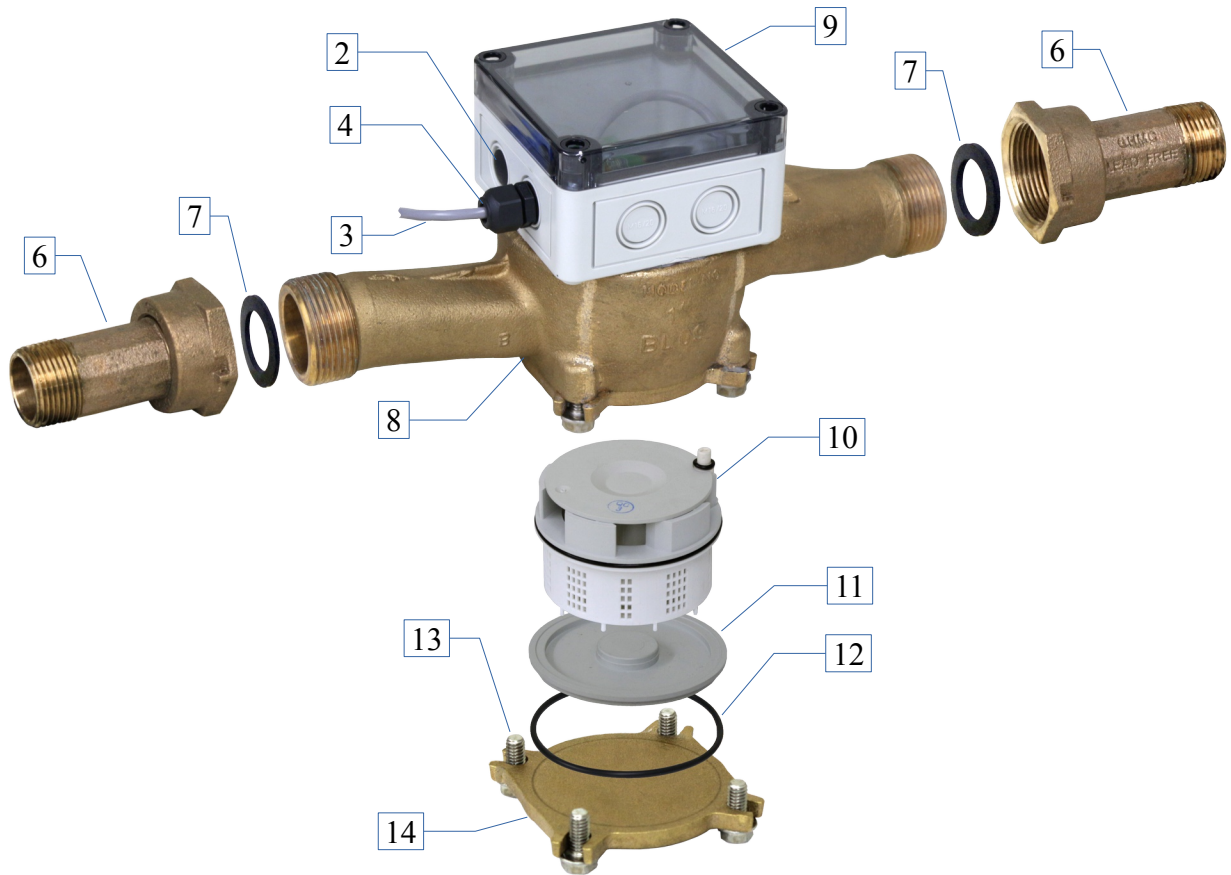


P/N	Description	Qty.	
1	03559 Screw 6-32x1/4	2	EA
2	06031 Hole Plug 1/2	1	EA
3	08243 3 Cond. Cable w/o Shield	10	FT
4	11479 Strain Bushing For 1/2 Hole	1	EA
5	14109 Pickup Board Complete 8-07-12	1	EA
6	15356 Meter Coupling 3/4 Inch	2	EA
7	15364 Coupling Gasket 5/8	2	EA
8	15744 Meter Only-M Jet 20	1	EA
9	75425 Master Jet Meter Lid	1	EA
10	21402 Meter-M 20 Chamber	1	EA
11	21444 Meter-M 20 Seal Plate	1	EA
12	21460 Meter-M 20 Seal Plt O-Ring	1	EA
13	21486 Meter-M 20 & 50 Bolt	1	EA
14	21494 Meter-M 20 Bottom	1	EA

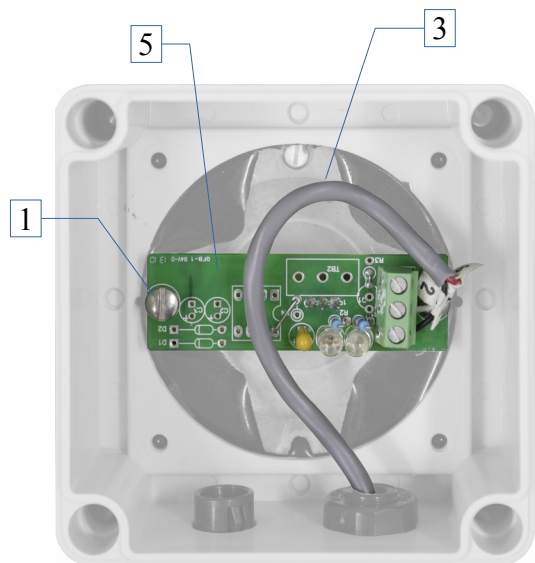


Shown with lid removed

P/N 14069 1" 50 GPM JET METER PARTS



P/N	Description	Qty.
1	03559 Screw 6-32x1/4	2 EA
2	06031 Hole Plug 1/2	1 EA
3	08243 3 Cond. Cable w/o Shield	10 FT
4	11479 Strain Bushing For 1/2 Hole	1 EA
5	14109 Pickup Board Complete 8-07-12	1 EA
6	15372 Meter Coupling 1 Inch	2 EA
7	09738 Coupling Gasket 1"	2 EA
8	15760 Meter Only-M Jet 50	1 EA
9	75425 Master Jet Meter Lid	1 EA
10	21410 Meter-M 50 Chamber	1 EA
11	21452 Meter-M 50 Seal Plate	1 EA
12	21478 Meter-M 50 Seal Plt O-Ring	1 EA
13	21486 Meter-M 20 & 50 Bolt	1 EA
14	21501 Meter-M 50 Bottom	1 EA



Shown with lid removed