# Multi-Jet Meter Installation Instructions

1. Thoroughly flush the service line upstream of the meter to remove dirt and debris.

2. Remove meter spud thread protectors.
   NOTE: To protect the meter spud threads, store the meter with thread protectors in place.

3. Set the meter in the line. Install the meter in a horizontal plane, with the register upright, in a location accessible for reading, service and inspection. Arrows on the side of the meter and above the outlet spud indicate the direction of flow. For isolation and removal purposes, it will be necessary to install the water meter with a bypass line going around the meter and isolation valves as shown on diagram 1, below.

FLOW
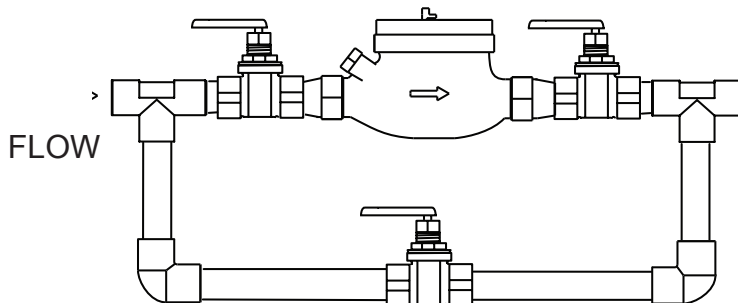
4. Do not overtighten connections; tighten only as required to seal. Do not use pipe sealant or Teflon tape on meter threads.

5. Tie black and red wires on opposite end of reed switch to either black and red water meter wires on controller. Insulate connection with water proof wrapping. Reed switches have no polarity.

6. *With upstream shutoff valve only:*
   Open shutoff valve slowly, to remove air from the meter and service line. Open a faucet slowly to allow entrapped air to escape. Close the faucet.

   With both upstream and downstream shutoff valves installed:

   To test the installation for leaks: Close the outlet (downstream) shutoff valve. Open the inlet (upstream) shutoff slowly until meter is full of water.

   Open the outlet (downstream) valve slowly until air is out of meter and service line. Open a faucet slowly to allow entrapped air to escape. Close the faucet.

Calibration

Advantage Controls water meters have been individually tested to meet the AWWA C708 calibration standard at various gpm flow rates. If this turbine style meter is used for revenue-billing purposes where periodic calibration checking is required it is most commonly checked every four years. Testing should be done by a private or municipal meter shop or a local mobile meter service depending on the local municipality's requirements. Changes in calibration should be made at a local municipality's authorized meter shop as Advantage Controls does not provide this service.

Changing Pulse Rates

Setting Your Pulse Rate. The pulse rate is determined by the dial on which the magnet pointer is located. The pointer is set at the factory, but can be changed in the field as follows.

In the table below: 1) Locate your meter size (Column 1); 2) Find your desired pulse rate (Column 2); 3) Note the magnet pointer position (Column 3); 4) Move the magnet pointer to the appropriate dial position (using the detailed instructions below the table).

Col. 1	Col. 2	Col. 3
Meter Size	Pulse Rate	Magnet Pointer Dial Position
3/4"	1 P/G	x0.1
	10 G/P	x1
	100 G/P	x10
1"	1 P/G	x0.1
	10 G/P	x1
	100 G/P	x10
1-1/2"	1 P/G	x0.1
	10 G/P	x1
	100 G/P	x10
2"	1 P/G	x0.1
	10 G/P	x1
	100 G/P	x10

Moving the Magnetic Pointer. Remove meter top and lens, taking care not to lose the sealing ring. With fingers, lift the magnet pointer off its shaft and remove the plain pointer from the target dial. Reverse their positions and press them firmly into place. Securely seat the sealing ring and replace the lens, matching the tab on the lens to the notch on the meter to align the sensor with the magnetic pointer dial. Thread the meter top on and tighten.

Sample Set-Up. A 1" meter is shown with the magnet pointer set at the x10 dial, with a pulse rate of 100 Gallons per Pulse (that is, 10 increments on the x10 dial, or 10x10=100 Gal/Pulse).
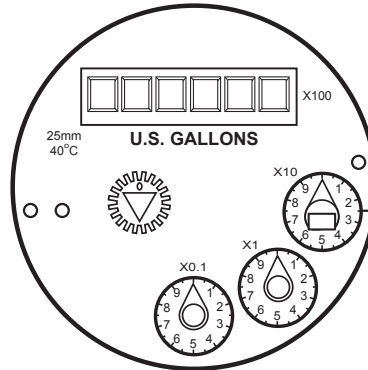
1" Meter
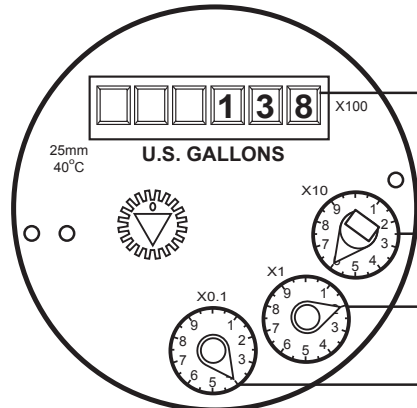### 100 Gal/Pulse

**Magnet Pointer
x10 Dial
(10 x 10=100 G/P)**

[With the magnet pointer on the x1 dial, the pulse rate would be 10x1=10 Gal/Pulse.
With the magnet pointer on the x0.1 dial, the pulse rate would be 10x.1=1 Gal/Pulse.]

Reading Your Meter. The Total Flow that has passed through your meter is read by starting at the top of the register with the Six-Digit Totalizer, and then reading clockwise around the small dials. In the example below, the Six-Digit Totalizer reads 13,800 (138 x 100), and the dials read 60 (6 x 10), 2 (2 x 1), and .4 (4 x .1) respectively. The Total Flow is 13,862.4 gallons.

3/4" has 5-digit totalizer
1", 1.5" & 2" have 6-digit

1" Meter
100 Gal/Pulse

**Six Digit Totalizer
(reads 138x100)**

**x10 Gal Dial
(reads 6x10)**

**x1 Gal Dial
(reads 2x1)**

**x0.1 Gal Dial
(reads 4x0.1)**

*(NOTE: Disregard the **color** of the numbers on the totalizer when reading your total.)* The "ones" digit is significant but the fact that it is red is not significant.

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