



Department of Public Works
Water Billing Division
365 Boston Road, G8
Billerica, MA 01821

Fred Russell, Director

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REQUIREMENTS FOR SECONDARY WATER METER INSTALLATION

General Requirements (All meters)

- 1) All service lines must be metered before water will be turned on by the Water Department. The only exception will be dedicated lines servicing fire sprinkler systems.
- 2) Solder connections are not allowed until after the primary meter effluent tail fitting.
- 3) Backflow devices and pressure regulating equipment will not be allowed before the meter effluent valve.
- 4) All meters must be compatible with the Town's existing meter system.
- 5) All meters must read in cubic feet.
- 6) **All endpoints must be installed outside** (at least 3' high), or if not possible at least in the rafters of the basement. In cases of multiple endpoints, all endpoints will be grouped together on the outside of the building.
- 7) All meters will be installed horizontally.
- 8) The meter will be at least one foot (1') off the floor but not more than four feet (4'). Clearance to the wall will be no less than four inches (4").
- 9) There must be a valve before and after the meter, ball valves may be used.
- 10) All meters must be physically accessible within the building.
- 11) Pit installations and garage installations will **not** be allowed.
- 12) The Water Division will determine the size meter to be used.

Sealing of Meters

When the installation on the meter(s) has been completed, contact the following:

- 1) Plumbing Inspector for the inspection of plumbing: 978-671-0959.
- 2) Water Billing office for seal/inspect/activate of the meter. 978-671-1313 x4

Primary Meter

- 1) Must have an electrical bypass with a minimum gauge of number 6 copper wire.
- 2) Must be located as close as practical to the point where the services lines enters the building

Secondary Meter

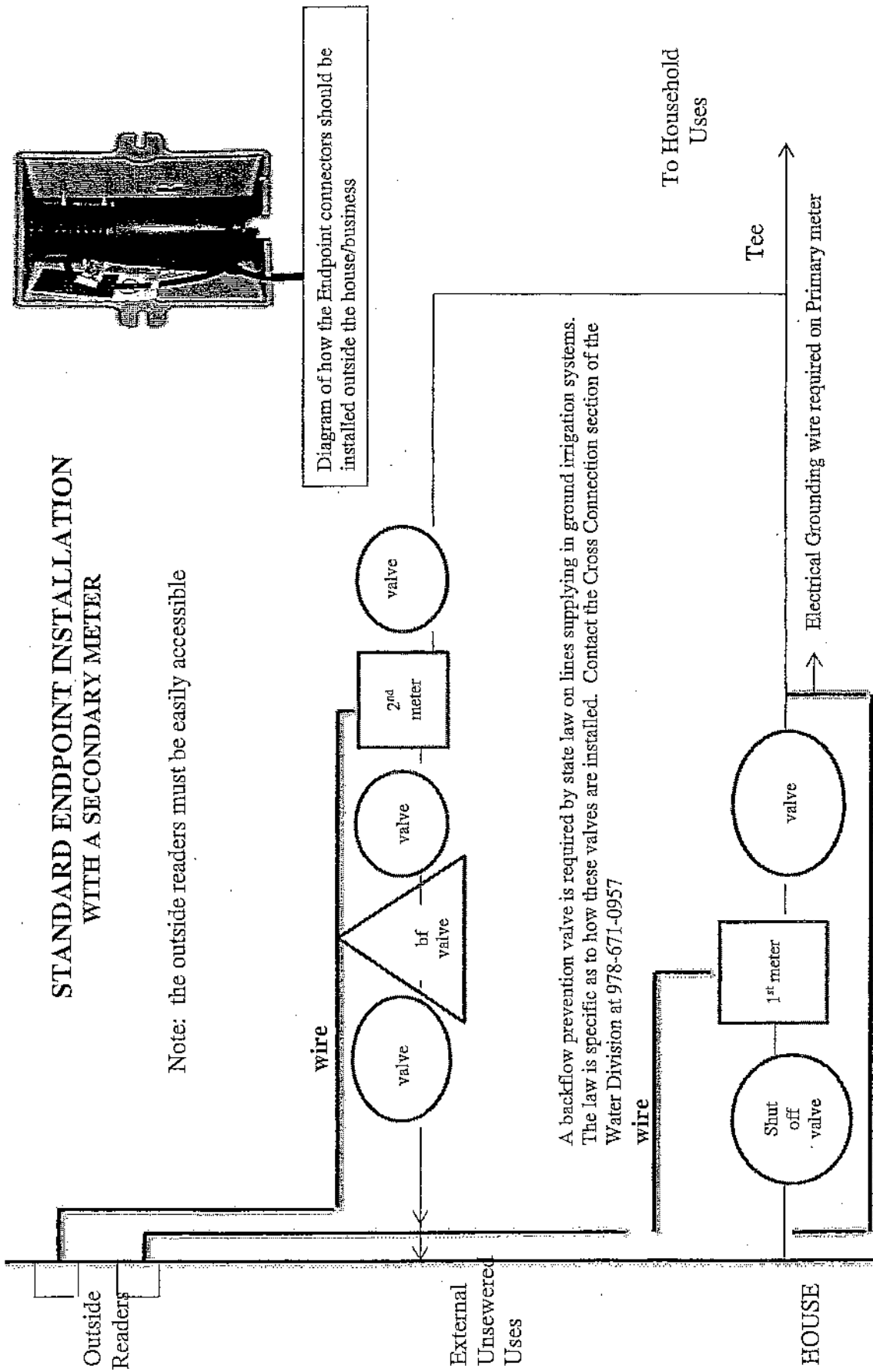
The sewer use charge is based on water consumption as measured by the primary meter. In order to obtain an abatement for non-sewered use of water (lawn sprinklers, etc.) the customer is required to meter at his or her own expense that fraction of water use which is not discharged to the sewer system. All such secondary meters will be installed and maintained at the customer's expense.

- 1) You must make your own arrangements with a licensed plumber for the installation of a town approved meter. Both your primary and secondary meter must be up to code and equipped with an endpoint device. The water passing through the secondary meter must have previously passed through the primary meter. The secondary meter may not be soldered to its fittings. The pipe from the secondary meter to the un-sewered use may not be obscured by walls, etc. (Must be able to see all the plumbing after the secondary meter).
- 2) A plumbing permit must be pulled prior to installation and may be obtained at the Town of Billerica Building Department; 978-671-0959.
- 3) There will be only one secondary meter allowed per each primary meter.

Meter system currently in use Badger HRE-LCD with a cellular endpoint.

STANDARD ENDPOINT INSTALLATION WITH A SECONDARY METER

Note: the outside readers must be easily accessible



A backflow prevention valve is required by state law on lines supplying in ground irrigation systems. The law is specific as to how these valves are installed. Contact the Cross Connection section of the Water Division at 978-671-0957

NOTE: The meter must be located in a warm, dry, accessible location as close as practical to where the service enters the building



Badger Meter

Twist Tight In-line Connector Assembly

The Twist Tight in-line connector is waterproof and submersible. To make sure it is assembled correctly, follow the instructions in this document.

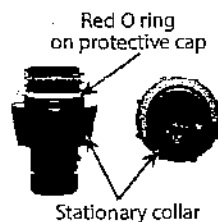
REMOVING THE PROTECTIVE CAPS

ENDPOINT side connector

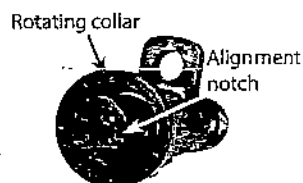
Holding the endpoint side connector as shown, twist the rotating collar *on the connector* counter clockwise (left) to loosen and remove the protective cap. When it is sufficiently loosened, the cap pulls off easily.



Endpoint side connector with protective cap



Endpoint side protective cap
PN: 68307-007
side & top views



Endpoint side connector,
cap removed



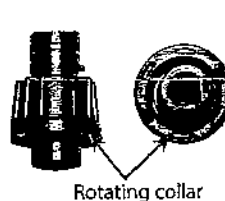
Figure 1: Twist the collar on the connector

ENCODER side connector

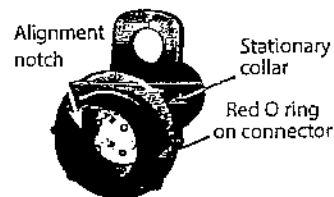
Holding the encoder side connector as shown, twist the rotating collar *on the protective cap* counter clockwise (left) to loosen and remove the cap. When it is sufficiently loosened, the cap pulls off easily.



Encoder side connector with protective cap



Encoder side protective cap
PN: 68307-008
side & top views



Encoder side connector,
cap removed

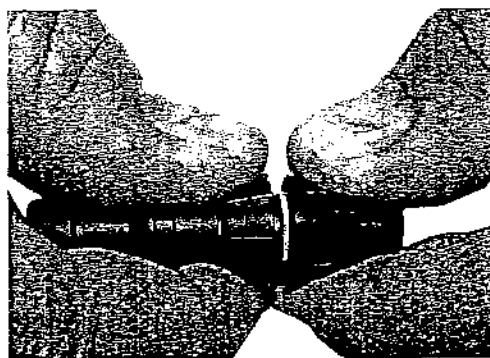


Figure 2: Twist the collar on the cap

JOINING THE CONNECTORS

IMPORTANT

BEFORE JOINING THE CONNECTOR ENDS, MAKE SURE ALL SURFACES, INCLUDING THE THREADS, ARE CLEAN, DRY, AND FREE OF ANY DEBRIS OR DIRT. THIS STEP IS IMPORTANT TO MAKE SURE THE CONNECTOR REMAINS WATER TIGHT AND SUBMERSIBLE.

1. Align the keyed notches inside each connector and gently push the ends together until the endpoint side is fully seated in the encoder side.

NOTE: You will feel when the notches are aligned. When aligned, the connector ends go together easily.

2. Holding one connector end in each hand, twist the rotating collar on the endpoint side connector clockwise (right) until the ends are tightly connected.

IMPORTANT

Do not use tools to tighten the connector ends. Hand tighten only.

When tightly connected, the tabs at the top of the connectors are aligned, and the red O ring on the encoder side is not visible. See Figure 3.



Figure 3: Connector ends joined

3. Place the connector assembly inside the security cover (PN: 68319-001). Make sure the tabs rest in the slots as shown in Figure 4.

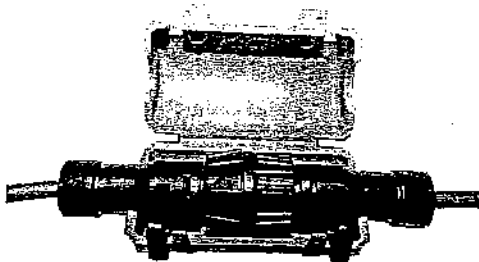


Figure 4: Connector correctly placed inside security cover

4. Snap the security cover top and bottom together to close it.

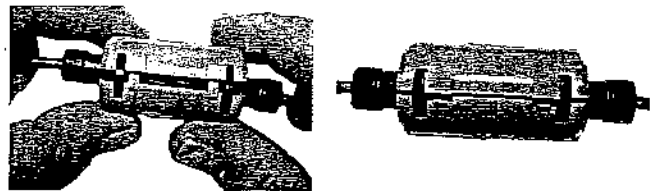


Figure 5: Security cover closed

Assembly is now complete.

REMOVING THE SECURITY COVER

1. To remove the security cover, insert the blade of a flat head screwdriver into the security cover as shown in Figure 6 and twist the blade right and left to pop open each side of the cover.



Figure 6: Removing the security cover

2. After opening, discard the security cover. The cover is intended for single use only.

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