# EAST GOSHEN TOWNSHIP
# WATER MEASURING DEVICE APPLICATION
### 1580 PAOLI PIKE, WEST CHESTER, PA 19380-6199
PHONE (610)-692-7171    FAX (610)-692-8950    www.eastgoshen.org

## (PLEASE PRINT)
### PERMIT FEES ARE REQUIRED AT TIME OF ISSUANCE (FEE $60.00)

Date Submitted: _____

**1. PROPERTY INFORMATION:**  ☐ Residential  or  ☐ Commercial

Tax Parcel Number (TPN):  53 - __ __ __ - __ __ __ __ - __ __ __ __     Zoning District: _____

Property Address: _____

Property Owner: _____

Property Owner's Address: _____
*(If different than property address above)*

Owner's Phone Number: _____    Fax Number: _____

**2. APPLICANT INFORMATION:**

Applicant: _____

Address: _____ City: _____ State: ____ Zip Code: _____

Applicant's Phone Number: _____    Fax Number: _____

**3. CONTRACTOR INFORMATION:**

Name or Business Name: _____    Phone Number: _____

PA State Reg #:  PA __ __ __ __ __ __ __        EGT Contractor #: _____

*The undersigned hereby makes application for permission to install a water measuring device in accordance with §188-5. of the Township Code at the above referenced property for the purpose of measuring volumes of water usage in order to determine sewer fees. In consideration of the granting of this application the undersigned agrees to install the meter in accordance with the specifications and installation guidelines provided, to have said installation inspected by the Township, to pay the Township inspection fee, to maintain said metering device, and to abide by all the rules and regulations of the Authority or the Township and the applicable ordinances, resolutions, rules and regulations which may be adopted in the future concerning the sewer system by said Township or said Authority. The undersigned also agrees to the $8.00 per/quarter meter reading charge to be added to the quarterly sewer bill. The Township reserves the right to inspect the meter if we believe the meter has been tampered with. In the event that tampering is evident, average volumes will be used to calculate sewer fees.*

Signed: _____    Date: _____
   Property Owner

********** **OFFICIAL USE ONLY BELOW** ***********

**Inspection**   _____

**Notes:**    _____

**Meter Test:** ☐ Pass ☐ Fail    **Initial Meter Reading:**_____    **Date of reading:**_____

**Meter Type:** Sensus (5/8 X ¾) Model SRII, 6 Wheel Gallon meter (configured to read hundreds of gallons) with wall mount remote reader. Meter available at theTownship building for $120.00 (actual meter cost).

Meter SN: _____    Meter ID: _____    CONFIG: ☐, ☐☐☐,☐☐☐.☐

**Location of Remote Meter Reader:** _____

_____

_____

**Pictures Taken of Meter and Remote Reader installation:**  ☐ Yes ☐ No

## Meter Specifications and Installation Guidelines

1) **Meter Types Authorized:**

**Meter Type:** Sensus (5/8 X ¾) Model SRII, 6 Wheel Gallon meter (configured to read hundreds of gallons) with wall mount remote reader and transceiver unit. (Sensus Radio Read) Model # 510R2

2) **Installation Guideline:**

- **Backflow preventer required if the property has a swimming pool.**
- **Install meter after water softener. (if installed)**
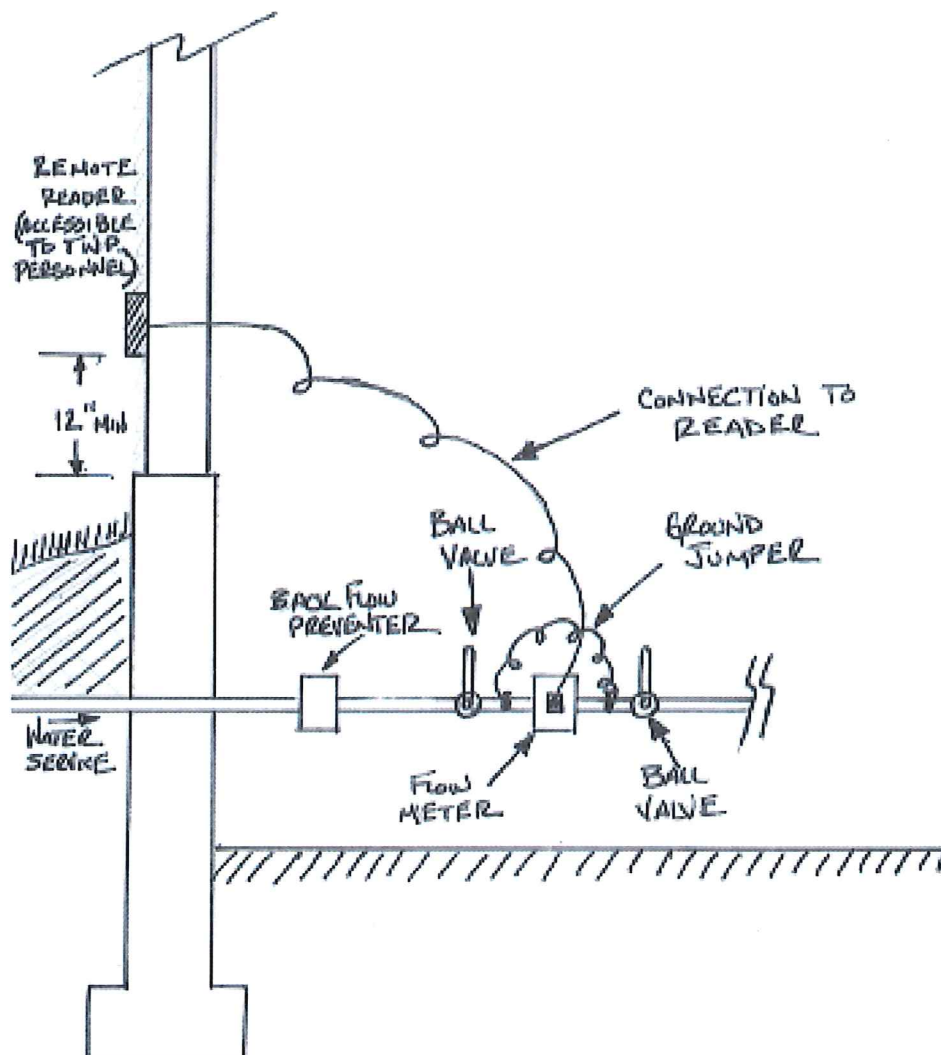
## INTRODUCTION

These instructions are for the TouchRead® Electronic Communications Register (ECR) and the TouchRead® Electronic Communications Register/Weatherproof (ECR/WP) with Remote Touchpad Module. For ease of installation, follow these instructions step-by-step. Be sure that the meter is the right size and the register is in the desired units of measurement. Install the Water Meter in the line as prescribed by local code and in the proper direction as indicated by the arrow on the meter.
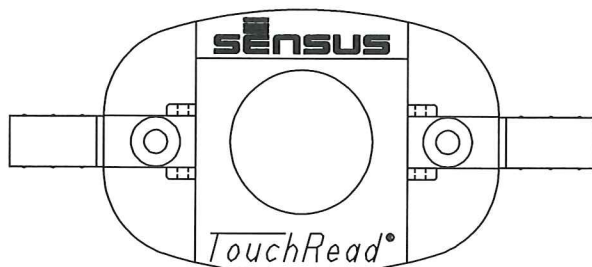


## RECOMMENDED TOOLS AND MATERIALS

- The register comes with a three-conductor, 22 gauge cable pre-attached and sealed (potted) at the factory. All three conductors are connected to individual terminals on the register; all would be active when used for Automatic Meter Reading (AMR) service. The conductors are solid copper wires with color-coded insulation, encapsulated in a solidfill vinyl jacket. The cable must not be subjected to sharp bends or creases.

- Sensus provides a three conductor, 22 gauge, solid conductor vinyl-covered cable for distances up to 100 feet.

- Electric drill and bit (1/4")

- Screwdriver

- Wire Stripper

- Stapler with 3/8" non-corrosive staples (electrical noninterference wire type)

- #10 flat-head or oval countersunk head wood screws at least one inch long

- Plastic anchor plugs for masonry wall installations

- Lead seals and seal wire

- Visual Reader for system test and ID check
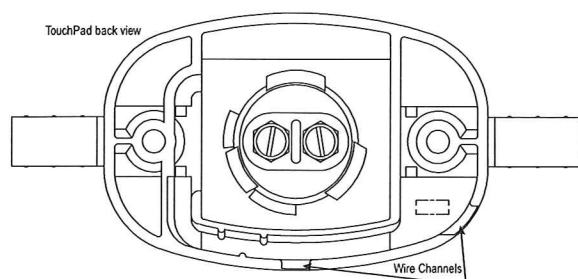


## INSTALLATION INSTRUCTIONS

### TOUCHPAD AND CABLES

1. Select the TouchPad location on the wall. Drill a 1/4" diameter cable entry hole in a location convenient to the TouchPad. (The hole should be located behind the TouchPad for maximum protection and to discourage tampering.)

2. For ease of reading operation, the TouchPad should be mounted approximately 48" above ground level. Use the TouchPad as a template to locate the mounting holes.

3. If the drilled cable hole is not located directly behind the TouchPad, it will be necessary to break-out one of the thin side wall panels to gain access to the wire channel. See illustrations on this page.

4. Feed the remote cable through the hole in the wall and extend the cable to the meter. The cable is supplied on a spool and should be cut to length at the site. Leave several inches of excess cable at the TouchPad and two (2) feet or more at the meter for ease of handling.

5. Attach the cable to the TouchPad as follows:

   a. Tie a single overhand knot in the cable, 2-1/2" from the end.

   b. Prepare the cable end by cutting off 1-1/2" of the outer jacket.

   c. Strip 3/4" of insulation from the two conductors.

   d. Bend a loop in each bare wire and fasten the cable to the terminal screws. (It isn't necessary to observe polarity or color coding when using 2-conductor wire; however, make certain that there is no bare wire-to-wire contact.)

   e. To improve moisture and strain resistance when conditions will NOT allow the hole for the cable to be covered by the TouchPad, be sure to push the cable into the underside channel until no unjacketed cable protrudes.

6. Feed any excess wire that will not fit in the cavity behind the TouchPad back into the hole, and caulk up the hole.

7. Mount the TouchPad by using the proper wood screws, and anchor plugs, if necessary.

8. Staple the cable to floor joists or beams.
   **CAUTION**: STAPLES MUST NOT CUT OR DEFORM THE CABLE INSULATION.
   **Note**: If installing ECR\WP, proceed to Step B5.

## CONNECTION TO THE ECR REGISTER

1. Prepare the cable for installation at the meter:
   a. Remove approximately 1-1/2" of the outer jacket.
   b. Strip 3/4" of insulation from the two connectors.
   c. Bend a loop in each bare wire.

2. Remove the terminal cover on the meter register by rotating the cover counterclockwise.

3. Beneath the cover, three terminals are visible, labeled "R," "B," and "G" (Illustration 2). If three-conductor cable is used, connect the same color wires as were connected to the TouchPad's terminals to the register terminals "R" and "B." If two-conductor cable is being used, make a connection to the register terminals "R" and "B," (it isn't necessary to observe polarity or color coding for 2 conductor cable). However, using the green register terminal for two-wire connection may cause damage to the register.

   **Note:** If you anticipate future connection to Automatic Meter Reading, you may want to make the TouchRead Register installation compatible with connection to a Meter Interface Unit. For future compatibility, observe the color coding when making wire connections: black wire to terminal "B," red wire to terminal "R" and green wire to terminal "G." In either installation, make certain there is no bare wire-to-wire contact.

4. Replace the cover, turning clockwise to lock in place.

5. Coil and secure excess cable to the body of the meter or service line in a presentable manner.

6. Use the TouchReader+ (Model 3096) to verify the register reading and identification number by touching the TouchPad, which should be wall-mounted by this time. The reading that appears first on the Reader's screen should correspond to the meter's odometer reading. Depress the reading button to view the eight-digit register ID number. Record the reading and ID number for the proper customer location (address) along with the meter's serial number.

7. After you have successfully read the meter from the TouchPad and thus verified correct installation, seal wire the register top through the seal wires holes provided in the terminal cover. At the TouchPad, fold the hinged screw covers into place and seal wire to secure.

## TROUBLESHOOTING

The following can be used as a guideline.

*If the display shows "E-1" for meter reading and "E-2" for ID number:*

1. Check to see if all connections are secure at the terminals on the register and on the back of the TouchPad (make certain that bare wires are not touching each other at the terminals).

2. Check to see if there is a broken or shorted wire between the register and the TouchPad. Check the staples to make sure they have not cut into the cable and shorted the wires.

   a. Disconnect the wires from the installed register terminals and connect to another test register. If a reading cannot be obtained through the TouchPad, the problem most likely is in the cable.

   **Special Note:** However, as an additional check, a different TouchPad should be utilized in an attempt to secure a reading before time is spent on checking the cable. ECR\WP wires are potted and cannot be disconnected from the terminals.

   b. Following the above procedure will verify a broken or shorted cable, a faulty ECR Register or a faulty

   c. TouchPad. (Since the critical components are electronic and tested prior to shipment, it is unlikely that a faulty register or TouchPad will be found.)

*If the display shows "E-1" for meter reading and "E-2" for ID number:*

1. Take another test reading after a quantity of water has been run through the meter (200 gal./30 cu. ft. or more preferred).

   a. Proper reading - system is satisfactory.

   b. If the display still shows "E-1" for register reading - replace register or meter assembly.

   c. If the register reading is correct, but the display shows "E-2" for the ID number, replace the register or meter assembly.

   d. If no response shows on the display, the visual reader's battery must be charged.

**SENSUS**

# SENSUS

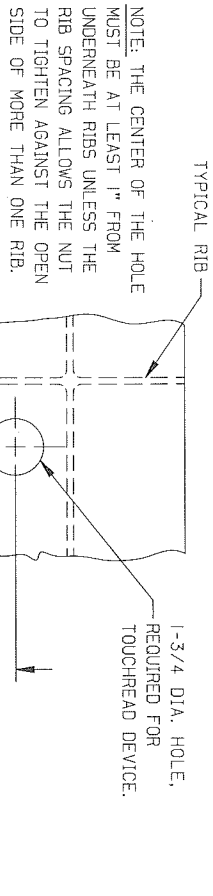# SR® AND SR II® WATER METERS
# INSTALLATION GUIDELINES

1. Meter is intended for measuring potable, cold water in one direction only.

2. Meter is to be installed in a horizontal pipeline with the register facing upward and readily accessible for reading.

3. Suitable shut-off valves should be installed adjacent to both the inlet and outlet of the meter so service may be shut off without undue inconvenience to the customer whenever the meter must be removed.

4. Clean and flush the service line thoroughly on the inlet side of the meter before installing the meter.

5. Remove the spud thread protectors and set the meter with the arrow on the meter pointed toward the outlet (customer's side).

6. To insure unrestricted flow of water through the meter, use the proper size and type of gaskets. Connections should only be sufficiently tightened to seal; *do not over-tighten.* Do not use pipe sealant, tape or putty on the meter spud threads.

7. After the meter is installed, shut the *outlet* shut-off valve. Open the inlet shut-off valve *slowly* until the meter is full of water and there are no leaks.

8. Open the outlet valve *slowly* until air is out of the meter and service line. Open a valve downstream of the meter *slowly* and insure that no foreign debris in the water obstructs the operation of the meter.

   **CAUTION:** Introducing water too quickly into the meter will damage the meter's internal components. The meter and service line must be free of air before operating the meter at normal flow rates.
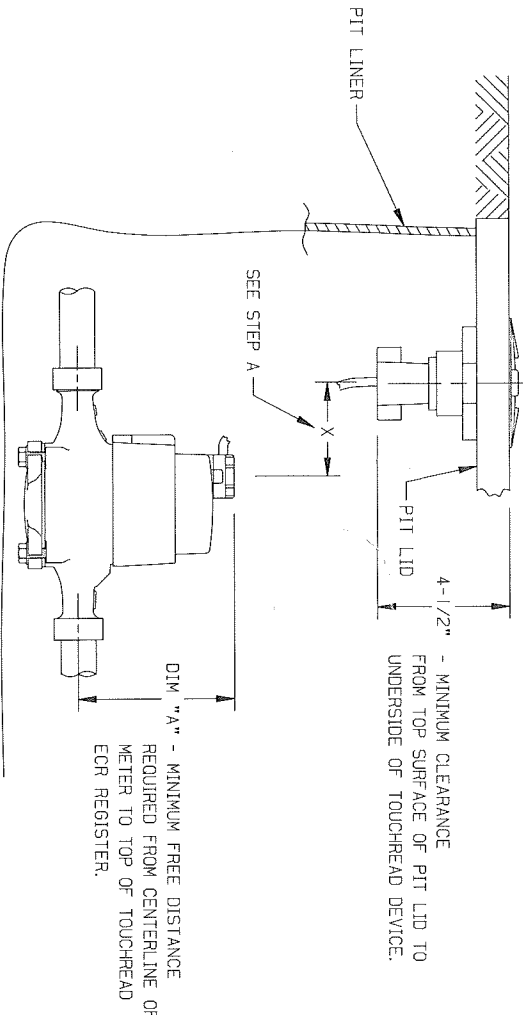
9. Install an electrical grounding strap around the meter for maintenance safety while repairing or removing meter.

**NOTE:** For additional details, refer to the Sensus Water Meter Installation & Operating Instructions or the American Water Works Association (AWWA) Manual M6.

   If the meter to be installed requires the installation of a remote, follow the applicable installation guide.

NOTE: THE CENTER OF THE HOLE MUST BE AT LEAST 1" FROM UNDERNEATH RIBS UNLESS THE RIB SPACING ALLOWS THE NUT TO TIGHTEN AGAINST THE OPEN SIDE OF MORE THAN ONE RIB.

TYPICAL RIB

## LOOKING DOWN
## ON TYPICAL METER PIT LID

1-3/4 DIA. HOLE, REQUIRED FOR TOUCHREAD DEVICE.

2-1/2 MIN. FROM NEAREST EDGE OF PIT LID.

PIT LINER

SEE STEP A

X

PIT LID

4-1/2" - MINIMUM CLEARANCE FROM TOP SURFACE OF PIT LID TO UNDERSIDE OF TOUCHREAD DEVICE.

## SIDE VIEW OF TYPICAL METER
## PIT INSTALLATION

DIM "A" - MINIMUM FREE DISTANCE REQUIRED FROM CENTERLINE OF METER TO TOP OF TOUCHREAD METER TO TOP OF TOUCHREAD ECR REGISTER.

### SR METERS

| METER SIZE | DIM "A" |
|---|---|
| 5/8" | 4-1/2 |
| 3/4" | 5 |
| 1" | 5-1/2 |
| 1-1/2" | 6 |
| 2" | 7 |

### SR II METERS

| METER SIZE | DIM "A" |
|---|---|
| 5/8" | 5 |
| 3/4" | 5-1/2 |
| 1" | 6-1/2 |

## INSTALLATION INSTRUCTIONS

STEP A : LOCATING AND DRILLING HOLE -
DRILL 1-3/4" DIA. HOLE THROUGH PIT LID - CLEARING UNDERSIDE RIBBING.
1. WHEN LOCATING THE HOLE, DETERMINE THE REQUIRED VERTICAL CLEARANCE TO AVOID INTERFERENCE OF THE TOUCHREAD DEVICE AND THE METER (DIM X).
2. THE HOLE CENTER MUST BE 2-1/2" MINIMUM FROM THE OUTSIDE EDGE OF THE PIT LID FOR CLEARANCE OF THE DEVICE'S TOP FLANGE. SEE THE NOTE ON RIB CLEARANCE.

STEP B : INSTALLING DEVICE -
1. INSERT SENSOR HOUSING (A) THROUGH PIT LID HOLE (FROM ABOVE) AND TIGHTEN SECURELY IN PLACE WITH PLASTIC NUT (B).
2. INSERT SENSOR ASSEMBLY (C)-CONNECTED TO METER'S REGISTER- INTO HOUSING AND SECURE IN PLACE WITH SCREW PLUG (D).
3. EXCESS WIRE SHOULD BE COILED LOOSELY (NOT TIED) IN METER PIT, ALLOWING SLACK FOR PIT LID REMOVAL.

PIT LID

ACTUAL SIZE

NOTE: NUT CAN BE INSTALLED EITHER WAY, DEPENDING ON PROXIMITY OF RIBBING.

TOUCHREAD DEVICE FITS PIT LIDS FROM 3/16" TO 1-3/4" THICK. (INCLUDING RIBBING)

A
B
C
D
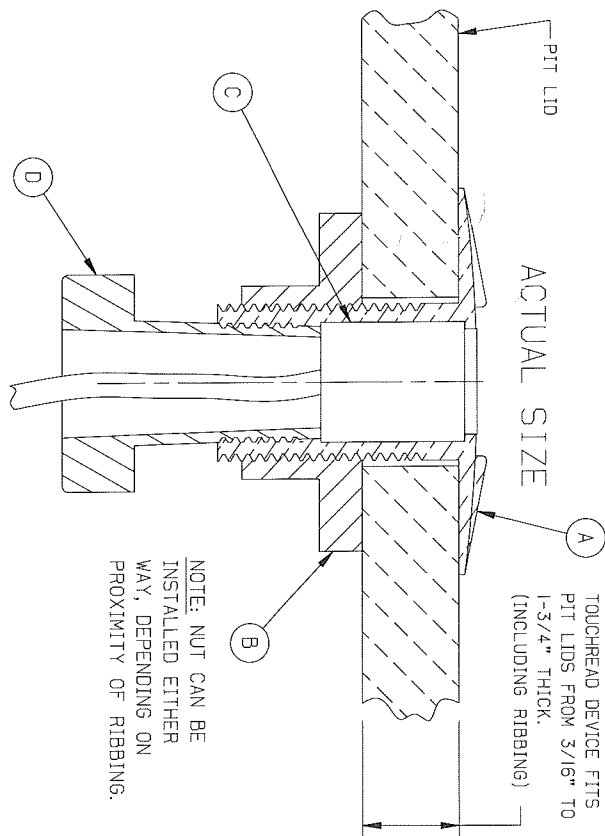
## INSTALLATION DETAILS OF
## TOUCHREAD DEVICE