



IDENTIFICATION

The Badger® pit ERT® is a totally assembled product consisting of Badger Meter's encoded register (Recordall® Transmitter Register – RTR® or Absolute Digital Encoder – ADE™) and Itron's 50W-2 ERT. As assembled by Badger Meter, the encoded register and pit ERT are tested and offer optional connection and programming with Itron's ERT install program that includes:

- Register reading
- Wake up tone
- Utility Identification
- Security Code

The 50W-2 is identified by the characters "W2" at the front of the serial number (figure 1). Note the 50W-2 can be utilized in either Wake Up or Bubble Up Mode.

Wake Up Mode. In this mode, a wake up signal is sent to the meter to wake up the ERT and receive the reading. This mode requires an FCC license.

Bubble Up Mode. In this mode, the ERT module broadcasts data at predetermined times without a wake up signal. No FCC license is required.

WIRE CONNECTIONS

The Badger Meter encoder is available factory pre-wired with either a 5' or 20' connector cable for connection to the 50W-2 pit ERT.



INSTALLATION OPTIONS

Important: improper installation of this equipment will render the warranty null and void.

The pit ERT works best with a clear line of site and that performance will vary by installation and lid type.

⚠ WARNING

Through lid installation CANNOT be located in areas of vehicular traffic due to potential damage to the ERT module. If the ERT is dropped, do not install it.

1. Note that a through lid mounting kit is required for each ERT. Mounting kit can be ordered through Badger Meter part number 63623-003.
2. Drill a 2" hole in the lid. NOTE: Be sure to deburr the hole after drilling or cutting.



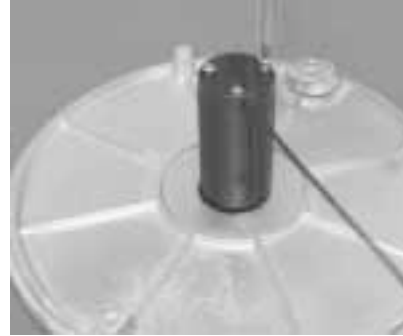
3. Insert the ERT module through the pit lid hole, cable first as shown. Inspect the cable to make sure it isn't damaged.



4. With the lid turned upside down, align the sleeve slot to cable and press down into place.



5. Using either a hand screwdriver or power tool, mount the sleeve to the ERT module with the two self-tapping screws provided. Tighten until snug. Do not over tighten. If a power tool is used, do not exceed 15 inch pounds of torque.



6. Fit the lock collar halves to the threads of the sleeve and mate as shown. NOTE: The collar halves are not identical.



7. If the pit ERT[®] and the register are not installed at the same time, the protective cover on the unit to be installed in the pit must be secured using cable tie.



As an alternative, the pit ERT can also be installed under the lid either using a composite lid or with an Itron below lid installation bracket.

⚠ WARNING

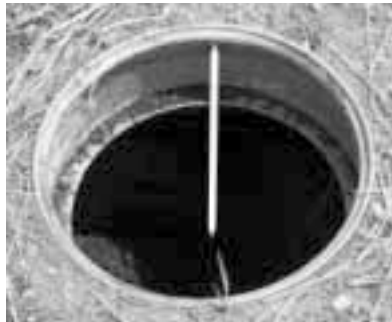
The installer is responsible for ensuring that the area where the rod will be installed is free from other pipes, wires or facilities that may be damaged by driving a rod into the ground. Local codes must be followed.

1. Note that a below lid mounting kit is required for each ERT. Mounting kit with rod mount adapter can be ordered through Badger Meter part number 63623-010.

- Remove the pit lid. Inspect the area to make sure there are no cables, pipes or other obstructions.



- Measure the depth of the pit from the top lip (that the lid rests on) to the bottom of the pit.



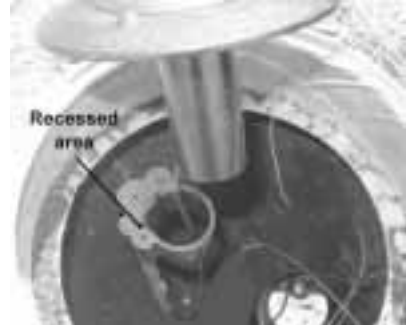
- Without touching the meter body or adjacent pipes, position the rod as close to the center as possible and drive into the ground at least 12 inches. The rod must be vertical. **NOTE: For best RF performance, the top of the pit module must be parallel with the pit lid and within 1 – 3 inches below the pit lid when installation is complete.**



- Before connecting to the register, route the cable through the adapter as shown. Note the orientation of the adapter. Connect the in-line adapter.



- Install the rod mount adapter in proper hole of the adapter. Install ERT module as shown, routing the cable along the recessed area on the adapter.



- Dome of the ERT module should be parallel and 1 – 3 inches below the underside of the lid. The module must not touch the pit lid or pit walls.



As a final option, the pit ERT may also be installed in a slotted lid. An example is shown below. Due to the many variations in slotted lids, it is recommended that the lid manufacturer be contacted for proper installation instructions.



REQUIRED MATERIAL

63623-026 Cable Tie
63623-024 Security Seal

If the pit ERT® and register are not installed at the same time, the protective cover on the unit to be installed in the pit must be sealed using cable tie provided in installation kit. These can be ordered from Itron (they are not shipped with ERTs).



Cable Tie on ERT Connector



Cable Tie on Register or Reed Switch Connector

To install cable tie, thread it through the holes in connector and protective cover, then through the eye of the cable tie and pull tight, as shown above. To remove cable tie, cut with a pair of side cutters.

To remove protective cover from the connector, twist the two halves in opposite directions and pull apart, as shown below.



Register or Reed Switch Connector



Install security seal as shown. Push until it snaps into place.

NOTE: For future service of meter or ERT® module, break seal by pulling apart. Original protective covers can be reused if kept clean and dry. Install a new security tag after servicing.

NOTE: For through lid installations, ERT must be installed through lid prior to assembling connector.

⚠ CAUTION

Be sure to protect connectors with protective covers. Do not leave an exposed connector in the field. When assembling connectors in the field, ensure that the connector remains free from moisture and debris.

Troubleshooting a 50W with in-line connector

The 50W-1 with in-line connector allows quick and easy troubleshooting. Perform the following procedures:

1. If the ERT module is not reading register, disconnect the in-line connector.
2. Plug in an ERT module that is known to be good and properly programmed. If ERT now reads the register correctly, the problem is in the ERT.
3. If an ERT module that is known to be good cannot read the register, plug in a register that is known to be good. If the ERT now reads the register correctly, the problem is in the register.

NOTE: Water must flow through register to cause ERT to increment.



Please see our website at
www.badgermeter.com
for specific contacts.

Due to continuous research, product improvements and enhancements, Badger Meter reserves the right to change product or system specifications without notice, except to the extent an outstanding bid obligation exists.



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