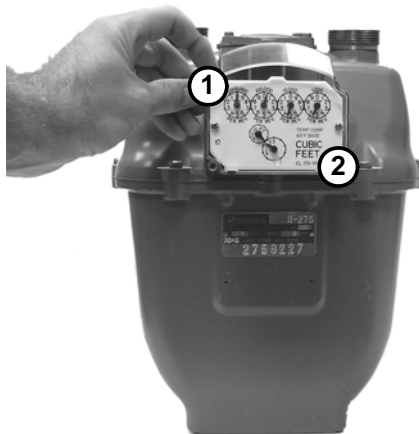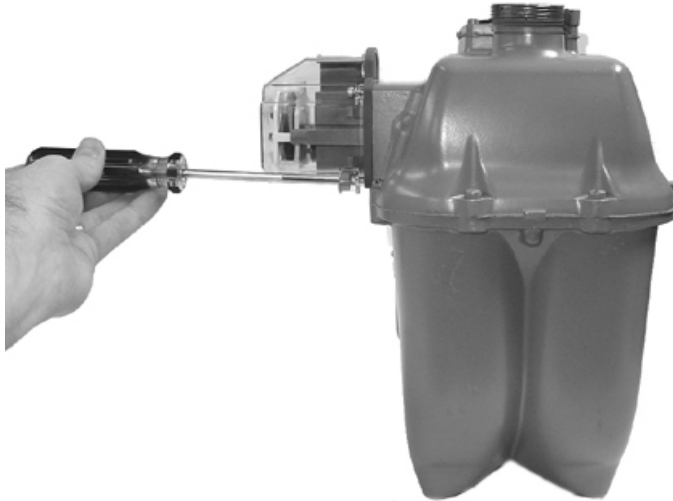**4.** Place a new tamper seal over two of the mounting screws as shown below.

5. Press the new tamper seals into place using the 11/32-inch nut driver (or another similar blunt tool).

6. Complete any necessary paperwork. Make sure no excess material is left on the customer premises.

The OpenWay Gas Module is now installed on the meter.

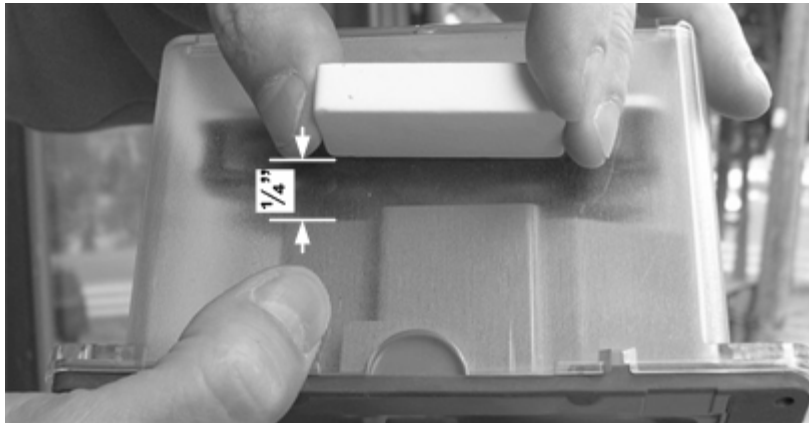# Waking Up the 2.4GZ OpenWay Gas Module

You can use an Itron magnet (part number MSE-0159-003) to wake up the 2.4GZ OpenWay Gas Module.

To wake up the 2.4GZ OpenWay Gas Module

1. Place the magnet under the index cover with the arrow on the magnet pointing up toward the cover.

2. Slide the magnet back toward the 2.4GZ OpenWay Gas Module backplate until it is within a 1/4-inch of the backplate.

3. Hold the magnet there for five seconds to wake up the 2.4GZ OpenWay Gas Module.

C H A P T E R   4

Actaris Meter Installation

This chapter shows you how to install a 2.4GZ OpenWay Gas Module on an Actaris meter.

> **Actaris** meters are also known by the names: **Sprague,** and **Schlumberger**. For consistency, all of these meter types will be referred to as Actaris meters for this installation procedure.

Before installing the 2.4GZ OpenWay Gas Module, verify that you have:

- A compatible meter shown in the Meter Compatibility List.
- A compatible index. Itron 2.4GZ OpenWay Gas Modules can be used with standard dial and direct read (odometer) indexes.
- The list of materials defined under Installation Prerequisites in this chapter.

Installation Prerequisites

The following items are required to install the Itron 2.4GZ OpenWay Gas Module.

Materials Supplied By Itron

The following items are supplied by Itron:

- 2.4GZ OpenWay Gas Modules
- New tamper seals

Materials Supplied By You

You must supply the following items to install, initialize, and check the 2.4GZ OpenWay Gas Module on the meter.

- **Small and medium flat-blade or Phillips screwdrivers**   Used to remove and tighten index and index-cover screws.

- **Side-cutting plier/wire snips**   Used for cutting wire seals, if necessary.

- **Small putty knife**   Used to remove all traces of old gaskets from the meter.

- **Meter seals, wire seals, and seal press**   Used to secure the meter from tampering, if necessary.

- **11/32-inch nut driver or other blunt tool**   Used to securely seat new tamper plugs over screw holes.

- **Replacement screws**   Used to mount 2.4GZ OpenWay Gas Module assembly to meter and index to module assembly backplates.

- **FC200SR with EndPoint-Link or EndPoint-Link Pro software**   Used to program and check ERT assembly.

Replacement Screws

Replacement screws used in this procedure are shown below.

For mounting 2.4GZ OpenWay Gas Module assemblies on meters:

- Use 10 - 24 x5/8-inch slotted, Fillister head screws.

For mounting indexes on 2.4GZ OpenWay Gas Module backplates:

- Use 10 - 24 x 1/4-inch slotted, round head screws.

Preinstallation Preparations

Before installing the 2.4GZ OpenWay Gas Module on a meter, verify that:

- All Itron gas modules are 2.4GZ OpenWay Gas Modules for your brand of gas meters.

- The model numbers of all meters on which the 2.4GZ OpenWay Gas Modules will be installed are included in the Meter Compatibility List.

Installing the 2.4GZ OpenWay Gas Module

There are four major steps to installing the 2.4GZ OpenWay Gas Module on a meter:

- Remove the index

- Assemble the 2.4GZ OpenWay Gas Module

- Program the 2.4GZ OpenWay Gas Module

- Attach the 2.4GZ OpenWay Gas Module to the meter.

> **NOTE**   Properly dispose of all unused screws, old index covers, gaskets, tamper seals, and other left-over materials. Do not leave any materials on customer premises.

Remove the Index

The first major step when installing a 2.4GZ OpenWay Gas Module on a meter is to remove the index from the meter.

To remove the index

1. Remove tamper seals from the meter.

2. Remove and keep the cover screws.

3. Remove the index cover from the meter.

4. Check the screws for length and corrosion. If they are 5/8 inches long and not corroded, you can use them to attach the 2.4GZ OpenWay Gas Module to the meter.

   If the screws are not the correct length, or are corroded, dispose of them properly. Replace them with the screws listed in Replacement Screws on page 38.

5. Use the index cover just removed as a temporary storage location for screws.
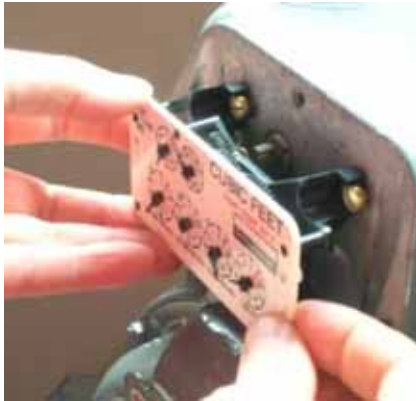
   > **NOTE** Dispose of the index cover properly when finished with the installation procedure. Do not leave it on customer premises.

6. Loosen the index mounting screws one-half turn.

7. Slide the index up off its mounting screws and remove it from the meter. Set the index where it won't get damaged or dirty.

**8.** Remove the index mounting screws from the meter. Check the screws for length and corrosion. If they are 1/4 inches long and not corroded, you can use them to attach the index to the 2.4GZ OpenWay Gas Module.
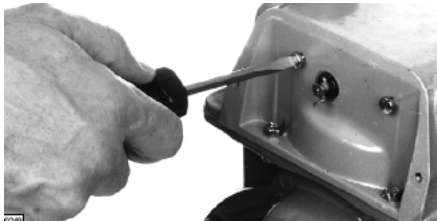
If the screws are not the correct length, or are corroded, dispose of them properly. Replace them with the screws listed in Replacement Screws on page 38.

9. Remove all traces of the old index gasket from the meter. The new 2.4GZ OpenWay Gas Module has its own gasket.
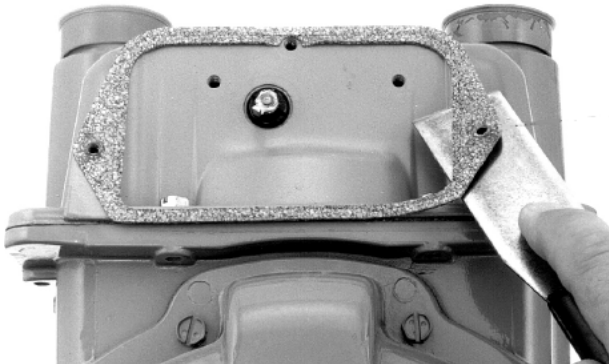
10. Dispose of the old gasket properly and do not leave it on the customer premises.

Assemble the 2.4GZ OpenWay Gas Module

When installing a 2.4GZ OpenWay Gas Module, the next major step is to create the endpoint module assembly by combining the endpoint backplate and cover with the meter index.

To separate the cover from the backplate

1. Obtain a new 2.4GZ OpenWay Gas Module.

2. Place your thumb in the notch on the bottom of the endpoint to hold the backplate and pull the cover away from the backplate.
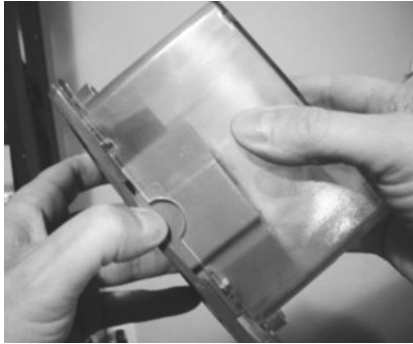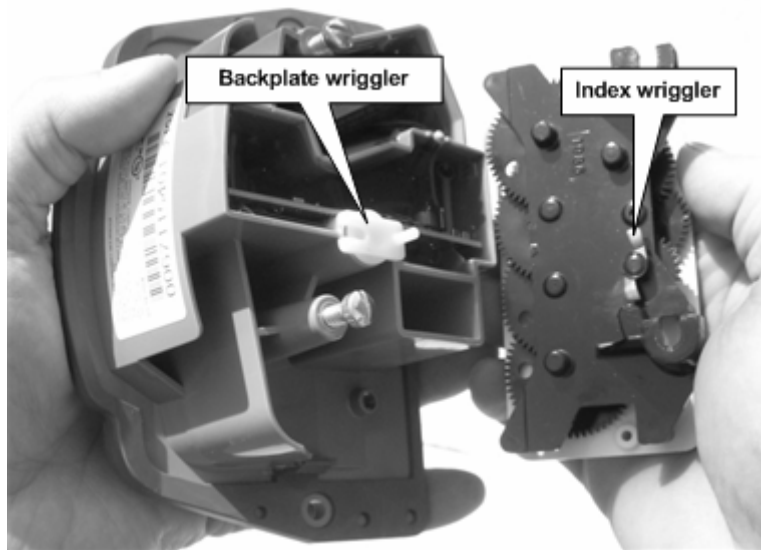

    You can also separate the cover from the backplate by gently pulling on the wriggler until the backplate comes free.


3. Set the cover aside where it won't be damaged.

4. Put the index mounting screws about two turns into the backplate index mounting posts.
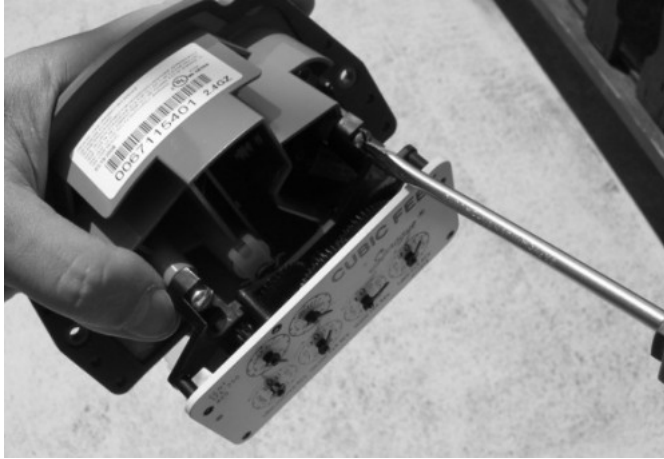
5. Position the backplate and index wrigglers as shown below.

6. Slide the index mounting brackets onto the mounting screws.

7. Make sure the backplate wriggler post is below the index wriggler when lowering the index mounting brackets onto the index mounting screws.
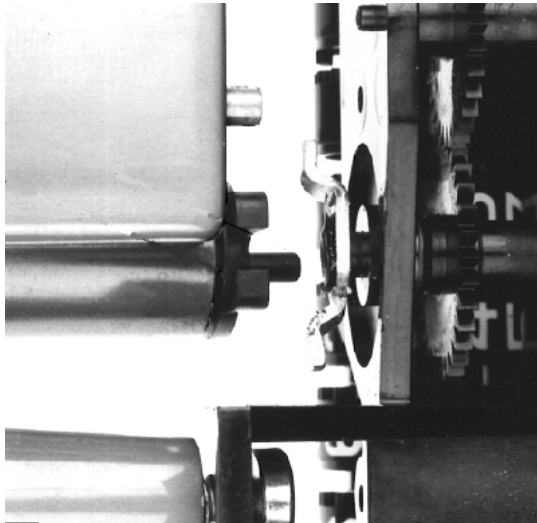
8. Hold the index in place with your thumb and tighten the index mounting screws.

9. Slide the cover over the index and onto the backplate until it is against the gasket.

Program the OpenWay Gas Module

Once the OpenWay Gas Module has been assembled, the module must be programmed using FieldPro on a laptop with a ZigBee dongle. Refer to FieldPro documentation for programming information.

> **ℹ** **IMPORTANT** You must perform the following programming procedure for the OpenWay Gas Module to function properly.

When programming the OpenWay Gas Module, you must take note of the drive rate shown on the index of Actaris meters.

To Program the OpenWay Gas Module

1. Make sure the 2.4GZ OpenWay Gas Module is within 10 feet of the programming device.

2. Verify that the programming software is running.

3. Verify that red LED on ZigBee dongle is on.

4. Hold the magnet under the 2.4GZ OpenWay Gas Module for 5 seconds and then remove it. You will see three red blinks from the LED. This signifies that the 2.4GZ OpenWay Gas Module is searching for a programming device. Within a few seconds the red LED will blink five more times. The programming device will indicate programming success or failure.

    a) If five red LED blinks are not seen on the 2.4GZ OpenWay Gas Module, hold the magnet under 2.4GZ OpenWay Gas Module for 5 seconds.

    b) If 5 red LED blinks are seen on the 2.4GZ OpenWay Gas Module, but the programming device indicates that programming failed, verify the following (1) 2.4GZ is within 10 foot range of programming device and (2) programming software is using correct security key. Repeat holding magnet under 2.4GZ for 5 seconds.

When the 2.4GZ OpenWay Gas Module has been programmed to normal mode, it is ready to commission to an OpenWay CENTRON meter. If an OpenWay CENTRON meter is within range of the 2.4GZ OpenWay Gas Module, the red LED on the 2.4GZ OpenWay Gas Module will blink three times, indicating that it is looking for all available OpenWay CENTRON meters.

After choosing the OpenWay CENTRON meter with the best signal, the 2.4GZ OpenWay Gas Module will blink five times to indicate successful commissioning to the meter. The timing for this could be as quick as one second after being programmed. If within two minutes of successful programming, the five blinks are not seen, make note of the installation for further investigation.

> **NOTE** Itron will be moving to this programming solution in 2008

1. Using the FC200 and Belt Clip radio, program the reading of the index that was on the meter into the OpenWay Gas Module assembly.

    During programming, the OpenWay Gas Module is programmed to the *nearest 100 cubic feet*; the last two digits (the tens and units) are programmed as zeros (0). Once programming is complete, however, the OpenWay Gas Module assembly can be read to the nearest cubic foot.

2. Slowly turn the OpenWay Gas Module drive wriggler two turns in the direction indicated on the index drive rate. This lets you verify the module is counting properly after assembly.

IMPORTANT Do not turn the drive wriggler faster than *one turn per second*.

3. Read the OpenWay Gas Module assembly using the FC200 and Belt Clip radio. Consult the *EndPoint-Link Programming Guide* or other applicable instructions for details on how to read an OpenWay Gas Module.

    - If this reading is higher than the one you programmed in step 1 above, the module assembly is counting correctly.
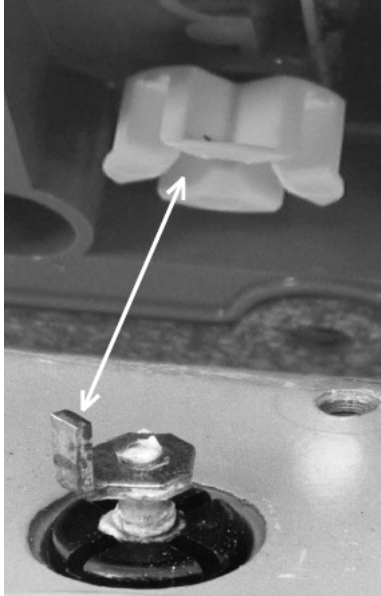
If the OpenWay Gas Module assembly reading is *not* higher than what was programmed in step 1, replace the module with a new one.

Attach the 2.4GZ OpenWay Gas Module to the Meter

After the endpoint has been programmed and is reading correctly, it must be attached to the meter. Follow the steps below to do this.

To attach the 2.4GZ OpenWay Gas Module to the meter

1. Turn the white wriggler so one of its four drive slots lines up with the drive dog.

2. Gently place the 2.4GZ OpenWay Gas Module on the meter.

If there is a gap between the gasket and the meter, it is probably because the drive slot of the ERT module assembly's wriggler is not properly aligned with the meter wriggler drive dog. To correct this, remove the assembly and repeat the alignment procedure in step one.

WARNING! If there is a gap between the gasket and the meter, it is probably because the drive slot of the ERT module assembly's wriggler is not properly aligned with the meter wriggler drive dog. To correct this, remove the assembly and repeat the alignment procedure in step one. Failure to place the drive post into the drive slot can cause binding and lead to poor registration or meter failure.

3. Turn each screw 1/4 to 1/2 turn after it contacts the cover.

IMPORTANT Meter manufacturers should torque the mounting screws 15 to 20 inch-pounds.

Only two screws are required to mount the 2.4GZ OpenWay Gas Module. Dispose of the extra screw properly. Do not leave it on the customer premises.

4. Press new tamper seals into place with an 11/32 nut driver, or other blunt tool.

Attaching the 2.4GZ OpenWay Gas Module to Flat-faced Model 1A Meters

If you want to install a 2.4GZ OpenWay Gas Module on a flat-faced model 1A meter you will have to use the CFG-0015-001 adapter kit. Obtain the kit from Itron then use the following procedure to install the kit and the 2.4GZ OpenWay Gas Module.

1. Make sure you have all of the following items in the kit.

Drive Dog
(FAB-0026-001)

Index Mounting Screws
(SCR-0065-001)

Clear Cover Mounting Screws
(SCR-0066-001)

Adapter Shim Plate
(MLD-0003-029)

2. Remove the drive dog from the meter and replace it with the one from the kit.

IMPORTANT Do not use a tool to install or tighten the new drive dog, hand tighten only.
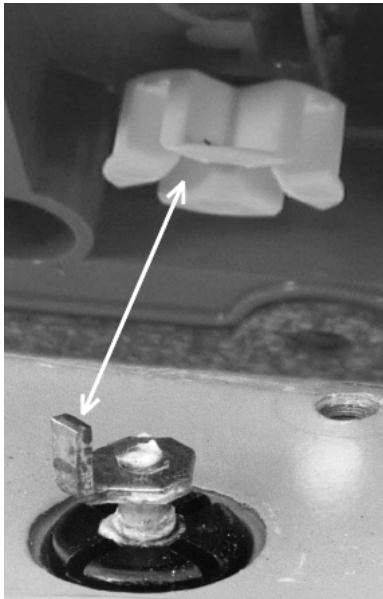
3. Attach Adapter Shim Plate to the meter, as shown, using the two index mounting screws from the kit. Apply 15 to 20 inch-pounds of torque to the screws to provide a tight seal between the shim plate and the meter.

4. Turn the white wriggler so one of its four drive slots lines up with the drive dog.

5. Gently place the 2.4GZ OpenWay Gas Module on the meter.

If there is a gap between the gasket and the meter, it is probably because the drive slot of the ERT module assembly's wriggler is not properly aligned with the meter wriggler drive dog. To correct this, remove the assembly and repeat the alignment procedure in step one.

⚠️ **WARNING!** If there is a gap between the gasket and the meter, it is probably because the drive slot of the ERT module assembly's wriggler is not properly aligned with the meter wriggler drive dog. To correct this, remove the assembly and repeat the alignment procedure in step one. Failure to place the drive post into the drive slot can cause binding and lead to poor registration or meter failure.

6. Turn each screw 1/4 to 1/2 turn after it contacts the cover.

ℹ️ **IMPORTANT** Meter manufacturers should torque the mounting screws 15 to 20 inch-pounds.

ℹ️ Only two screws are required to mount the 2.4GZ OpenWay Gas Module. Dispose of the extra screw properly. Do not leave it on the customer premises.

7. Press new tamper seals into place with an 11/32 nut driver, or other blunt tool.
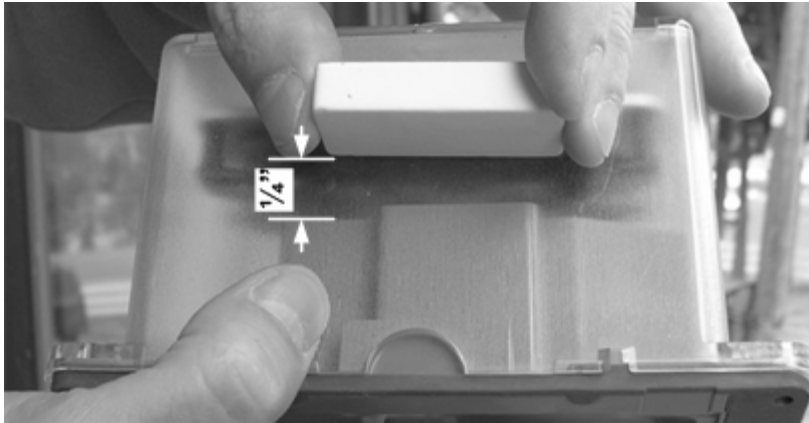

Waking Up the 2.4GZ OpenWay Gas Module

You can use an Itron magnet (part number MSE-0159-003) to wake up the 2.4GZ OpenWay Gas Module.

To wake up the 2.4GZ OpenWay Gas Module

1. Place the magnet under the index cover with the arrow on the magnet pointing up toward the cover.

2. Slide the magnet back toward the 2.4GZ OpenWay Gas Module backplate until it is within a 1/4-inch of the backplate.

3. Hold the magnet there for five seconds to wake up the 2.4GZ OpenWay Gas Module.