

EA_Water pit module

Pit mount installation instructions

General

This leaflet contains instructions for Elster's pit mount version of the EA_Water communication module (see Figure 1) for use on water meters to provide readings to the EnergyAxis® System. For proper installation and maximum life of the modules, use the following procedures. Familiarize yourself with the location and identification of the terminals on the water meter register before any installation procedure.

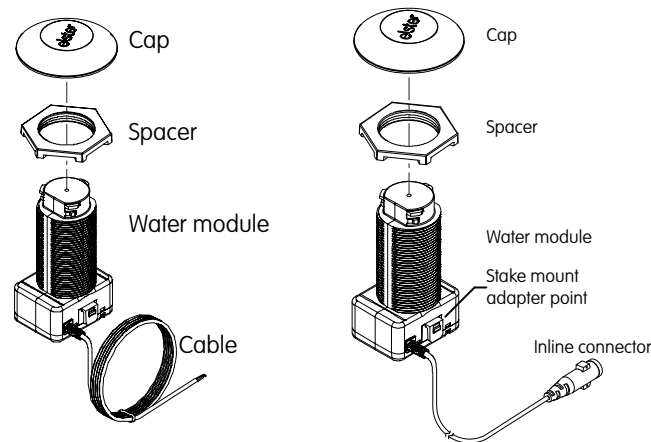


Figure 1. EA_Water communication module (pit mount version)

Installation to a water pit lid

For water pit lid mount configurations, the water pit module is mounted through a hole in the pit lid. The water module is designed to fit a standard (1-7/8 inch diameter) hole in the pit lid. Use the following procedure to attach the module to the pit lid.

1. If attached, unscrew the cap from the water module. The dome-like cap twists and locks onto the top of the module.
2. Thread the spacer nut onto the threaded portion of the water module. The flat surface of the nut should face up (that is, toward the direction where the cap will mount on the cylinder).
3. Adjust the spacer nut as necessary to account for the thickness of the pit lid. The twist lock end of the threaded cylinder must protrude above the pit lid such that the cap can be installed on the module.
4. Insert the water module's threaded cylinder through the pit lid hole from the inside of the lid.
5. Twist the cap until it locks onto the cylinder. This will attach the water module to the pit lid.
6. Tighten the spacer nut to secure the module to the pit lid.

Alternatively, the module may be mounted on a stake (for example, a piece of rebar) using the snap-on adapter available for this purpose.

Installation to a composite lid

If the composite pit lid have a shelf, slide the water module into the shelf. If the composite pit lid does not have a shelf, use the procedure described in "Installation to a water pit lid" on page 1.

Electrical connections

The module either has an inline connector or a length of cable with unterminated wires.

Modules with an in-line connector:

The inline connector mates to a similar inline connector from the water meter register/encoder assembly. To install, align the arrows on both connectors and press firmly to fully mate the connectors. Check to make sure the connectors are fully mated (the two ends of the connectors are flush). If they are not fully connected, press together again until they are fully connected. The connector system is an air and water tight system, and the connectors may need to be pressed together multiple times to remove the air pockets from the connectors. Do not disconnect the two connectors in between the multiple times the two connectors are pressed firmly together.

Modules with unterminated wires:

Modules with unterminated wires are often terminated and sealed by the water meter vendor. If the wires are not pre-terminated and sealed, splice the wires from the water pit module to the wires from the water meter register/encoder using weatherproof gel caps (for example, 3M style 314 IDC). Follow the manufacturer's directions for wire preparation when using gel caps. For proper operation of the module, connect the wires as described in the following table:

Function	Module cable color	Register terminal cover				
		Elster AMCO	Badger	Sensus	Hersey	Neptune
Data	Green	Red	Green	Green	Green	Red
Power (or power/clock)	Red	Green	Red	Red	Red	Black
Common (ground)	Black	Black	Black	Black	Black	Green

For digital operations, use the following:

Function	Module cable color
Common (ground)	Black
Pulse output	Green
Tamper	Red

Program the module

Follow the instructions in the Elster Handhelds 2.1 user guide for instructions to activate EA_Water modules using the EA_Installer.

When prompted to activate the water module, place a magnet in front of the serial number label as illustrated in Figure 2.

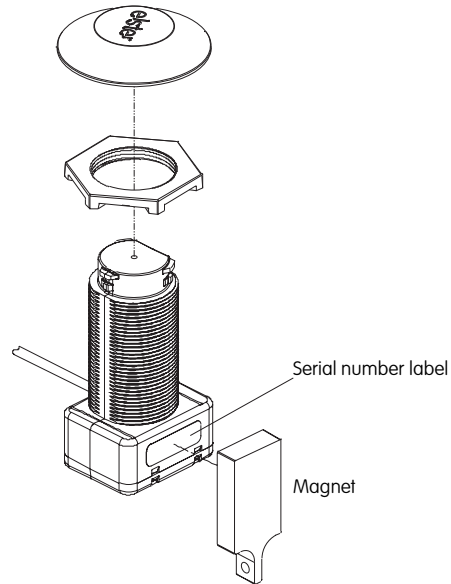


Figure 2. Magnet position to activate module

FCC and Industry Canada Compliance

User Information (Part 15.105): This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, the user is encouraged to try to correct the interference by one or more of the following measures:

- reorient or relocate the receiving antenna
- increase the separation between the equipment and the receiver
- connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- consult the dealer or an experienced radio/TV technician for help

If you experience trouble with this equipment, please use the Return Material Request (RMR) feature available at the Online Customer Services at www.elstersolutions.com. Do not attempt to repair this equipment itself unless you are replacing the entire module.

Compliance Statement (Part 15.19): This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. Operation is subject to the following two conditions: 1) This device may not cause harmful interference, and 2) This device must accept any interference received, including interference that may cause undesired operation.

Compliance Statement (RSS standards): This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Énoncé de conformité: Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Warning (Part 15.21): Changes or modifications not expressly approved by Elster could void the user's authority to operate the equipment.

RF Radiation Safety Guidelines per Part 2 of FCC Rules and Regulations: The meter should be installed in a location where there will be a separation greater than 20 cm from locations occupied by humans.

Industry Canada Statement: The term "IC" before the certification/registration number only signifies that the Industry Canada technical specifications were met.

Collocation Statement: Collocation of simultaneously-transmitting (co-transmitting) antennas within 20 cm of each other in a final product is not allowed. Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada.

Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

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Elster
Raleigh, North Carolina USA



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