IMU Installation Instructions

Innovatec IMU Installation Instructions

The IMU is a combination meter register and two-way radio transceiver designed to replace an existing mechanical water meter. The electronics and antenna are completely enclosed in a watertight tamper-proof sealed enclosure suitable for outdoor mounting or installation in a below grade meter pit. Using various adapter plates, it can be mounted on a variety of brands of water meters.

The IMU performs two basic functions:

- It gathers and records usage data from the mechanical meter to which it is attached.
- It sends and receives messages to and from the utility company computer system.

The IMU utilizes a 900 MHz spread sequence radio transceiver. This radio communicates to the Innovatec gateway that passes messages to the utility via a variety of common-carrier wide area networks.

Installation Instructions

Note: Installation and programming of the Innovatec IMU is to be performed by properly trained personnel only.

Note: The Innovatec IMU is designed to operate only with the internal antenna supplied. Do not substitute any other antenna. Violation of FCC regulations may result if the gateway is operated with any other antenna.

The IMU should be located at least 20 cm away from any area where people may be present in order to minimize exposure to radio frequency radiation.

Remove the existing mechanical meter register from the meter base by removing any locking screws or pins and sealing wires. Rotate the register head one quarter revolution counter clockwise, then lift straight up.

Select the proper mounting plate for the corresponding brand of meter. The mounting plate is secured to the IMU with three 6-32 x ½ brass screws.

Install the IMU onto the meter base by rotating the IMU one-quarter turn clockwise. Lock the IMU to the meter base by tightening the security screw in the mounting plate with the appropriate security screwdriver.

The mechanical meter base uses a magnetic drive system to turn the mechanical register head. The Innovatec IMU replaces the mechanical register head and counts the magnetic pulses produced when the magnetic drive rotates. To convert these pulses into

appropriate unit of measure (gallons, cubic feet etc.) the IMU must be programmed with the proper pulse conversion factor.

Programming is accomplished with the Innovatec ENICS software. ENICS is used to select the proper radio channel within the 902-928 MHz band, set serial numbers and to enable other functions such as alarms.

No adjustments to the IMU itself are possible since the IMU is sealed and uses an internal antenna. If the unit to be installed does not communicate with the Innovatec ENICS software or does not configure properly, return it to the Meter Shop for evaluation. Do not attempt to open the IMU enclosure.

FCC WARNING STATEMENTS

NOTE: This equipment has been tested and found to comply with the limits for 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. The 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, which can be determined by turning the equipment off and on, 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.

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.