E-CODER®

How is this new E-CODER® different from the original?

Fundamentally, the E-CODER is unchanged. We have added a new, easier-to-read LCD with larger numbers, comma separators, and a decimal point. The display time of the consumption reading value has been increased to further facilitate the reading of the display.

Does the new E-CODER have a battery inside to power the register?

No. The E-CODER registers water consumption using no external power supply and no internal battery. The E-CODER features an advanced application specific integrated circuit (ASIC) design using nonvolatile memory technology for a self-powered digital odometer. The solar panel only powers the LCD readout for local direct reading and the E-CoderPLUS features are activated and performed by an advanced ASIC which is powered by the R900®, L900™, or R450® MIU.

Will the new E-CODER work with a receptacle and handheld with probe?

Yes. The E-CODER can be read with a probe. It can be programmed to output a 4-, 5-, or 6-digit reading, just like a ProRead™ encoder. A 10-digit register ID can also be programmed.

Is it possible to read the E-CODER through an MIU if the LCD readout is not activated or failed?

Yes. The absolute odometer reading is stored in nonvolatile memory in the ASIC.

Since the E-CODER does not have a mechanical odometer wheel bank, how are the digits encoded and what makes the E-CODER absolute?

The E-CODER features an advanced ASIC design using nonvolatile memory technology for a self-powered digital odometer. The digital registration odometer in the ASIC and the LCD readout are guaranteed to be absolutely the same. The visual registration and the remote reading are provided by the same source, making the E-CODER an absolute encoder.

Why are there nine (9) digits on the LCD readout and I receive only eight (8) digits on my reading device?

The E-CODER features nine (9) digits for a visual read only for high-resolution meter testing and leak indication. Only eight (8) digits are passed through the route management software, which is more than adequate for billing purposes.

I only bill in 100s/1000s. What happens to the additional digits?

The meter reading/route management software will truncate the unnecessary digits for billing if desired.

One of the E-CODERs I installed has a forward arrow with a plus sign (+) flashing very slowly in the LCD readout and it will not stop flashing. What is the problem?

This indicates a very low flow. Watch the 9th digit in the LCD readout and you will see it increment over time.

One of the E-CODERs I installed has a reverse arrow with a negative (-) sign in the LCD readout, and it will not stop flashing. What is the problem?

This icon indicates reverse flow. You either have backflow occurring at the site or the water meter has been installed backwards.

Why are all of my E-CODERs showing days of no flow following installation?

When E-CODERs are shipped prewired and potted to R900, L900, or R450 MIUs, the PLUS features are activated and the 35-day window is in effect. As long as there is no throughput, the E-CODERs will log days of no flow. The E-CODERs will also show backflow due to factory testing for backflow functionality. Current leak data will clear after 24 hours following testing at factory, but days of no flow and backflow data will not clear for 35 days following activation in the water system.

What constitutes a leak? Will our customer service department be inundated with leak flags?

All algorithms are set to factor out typical day-to-day water usage such as ice makers, sprinklers, etc. A day is divided into 96 15-minute intervals. If all 96 15-minute intervals show water usage, this constitutes a continuous leak. If 50 to 95 of the 15-minute intervals show water usage, this constitutes an intermittent leak. Typically 15-20 percent of a water utility's customer base has undetected leaks.

What is the flashing faucet icon on the LCD readout?

The flashing faucet indicates an intermittent leak occurrence over the last 24 hours. Check interior and exterior faucets and valves in toilets to see if leakage is occurring.

What is the solid faucet icon on the LCD readout?

The solid faucet indicates a continuous leak occurrence over the last 24 hours. Check the 9th digit in your LCD readout to see if it is incrementing. If so, check interior and exterior faucets, valves in toilets, and look around the exterior of the home for signs of surface water.

Is the E-CODER field programmable like the ProRead? If so, can you use the standard field programmer and the same programming functions that are used for ProRead?

The E-CODER is programmable like the ProRead for ID and reading digits; however, when the E-CODER is attached to an R900, L900, or R450 MIU, it automatically detects this and begins communicating in E-CoderPLUS format.

Is the E-CODER auto-detect?

Yes. The E-CODER will work with an inductive pad with a two-wire connection or a radio MIU with a three-wire connection.

Are E-CODERs networkable? Can two E-CODERs be networked to one MIU?

The E-CODER is networkable just like the ProRead.

Will the E-CODER work with Itron, Sensus, and other third-party radio MIUs?

E-CODER is compatible in 8-digit mode with Itron 100W, Sensus RadioRead and FlexNet, Aclara MTUs, and Elster Energy Axis (as long as these companies continue to follow the published E-CODER specifications).

Any other third-party radio MIUs that have ProRead compatibility will also read the E-CODER; however, this is limited to a 6-digit reading.

Only Neptune R900, L900, or R450 MIUs can activate/interrogate the PLUS features of the E-CODER.

Does the E-CODER have the same warranty as the ProRead register?

Yes. E-CODER has a full 10-year warranty. Please refer to the encoder warranty statement for details.

Does the E-CODER provide rate-of-flow information?

The E-CODER provides a localized read out of average flow rate every twelve (12) seconds on the LCD display. Every twelve (12) seconds the word "RATE" will flash and the flow rate will be displayed for four (4) seconds. Flow rate is indicated in gpm for US gallons or cubic feet registration encoders and in lpm (liters per minute) for metric registers.

What reading equipment will interrogate the PLUS feature data from the E-CODER when connected to the R900 MIU?

When used in conjunction with Neptune® 360™ host software and handheld software, the following devices can be used to extract E-CoderPLUS data: the Trimble Nomad with R900® Belt Clip Transceiver, MRX920™ mobile data collector, or the R900® Gateway data collector.