ARB® UTILITY MANAGEMENT SYSTEMS™

NEPTUNE TECHNOLOGY GROUP

E-CODER™

FREQUENTLY ASKED QUESTIONS

Does the E-Coder (ARB VII) 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 a patent-pending, advanced Application Specific Integrated Circuit (ASIC) design using nonvolatile memory technology for a self-powered digital odometer. The solar panel only powers the LCD read-out for local direct reading and the E-Coder PLUS features are activated and performed by an advanced ASIC which is powered by the R900 MIU.

Will the E-Coder work with a receptacle and handheld w/ probe?

- Yes. The E-Coder functions just like a ProRead™ (ARB VI) encoder.

Can you extract E-Coder PLUS data using a handheld w/ probe?

- No. The E-Coder must be connected to an R900 to activate and retrieve PLUS-feature data.

Will the E-Coder reduce the battery life of the R900?

- No. The power requirement is so minimal there will be no noticeable effect on the battery life of the R900.

Is it possible to read the E-Coder through an MIU if the LCD read-out 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 a patent-pending, advanced ASIC design using nonvolatile memory technology for a self-powered digital odometer. The digital registration odometer in the ASIC and the LCD read-out 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 9 digits on the LCD read-out and I receive only 8 digits on my reading device?

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

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

- The 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 read-out, and it will not stop flashing. What is the problem?

- This indicates a very slight flow. Watch the 9th digit in the LCD read-out 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 read-out. What does this mean?

- 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 pre-wired and potted to R900s, the plus features are activated and the 35-day window is in effect. As long as there is no through put 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 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 fifteen-minute intervals. If all 96 fifteen-minute intervals show water usage, this constitutes a continuous leak. If 50 to 95 of the fifteen-minute intervals show water usage, this constitutes an intermittent leak. Typically 15-20% of a water utility's customer base has undetected leaks.

What is the flashing faucet icon on the LCD read-out?

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

What is the solid faucet icon on the LCD read-out?

- The solid faucet indicates a continuous leak occurrence over the last 24 hrs. Check the 9th digit in your LCD readout to see if it is incrementing. If so, check your interior and exterior faucets, the valves in your toilets, and look around the exterior of your 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, it automatically detects this and begins communicating in E-Coder PLUS format.

Is the E-Coder auto-detect?

- Yes. The E-Coder will work with a pad with a 2-wire connection or a radio MIU with a 3-wire connection.

Are E-Coders networkable…can two E-Coders be networked to one R900?

- The E-Coder is networkable just like ProRead.

Will the E-Coder work with the R900 version 1 or ProRead receptacles?

- Yes, but in BASIC mode only (i.e. the E-Coder will function like a ProRead, no PLUS feature data will be communicated or displayed).

Will the E-Coder work with iTron, Sensus, and other 3rd party radio MIUs?

- E-Coder should function with any ProRead-compatible system in BASIC mode. Only the R900 can activate/interrogate the PLUS features of the E-Coder.

What are the solid and striped lines around the six most significant digits on the dial face of the E-Coder?

- These lines were added to assist meter readers in identifying the 4 or 6 most significant digits for visual meter reading based on 100 or 1000 billing units.

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

- Yes.

Does the E-Coder provide rate of flow information?

- The E-coder provides a localized read out of average flow rate every 6 seconds on the LCD display. Every 6 seconds the word "RATE" will flash and the flow rate will be displayed for 2 seconds on 5/8 - 2" meters. For 3" meter sizes and larger, the flow rate will be averaged over 30 seconds and displayed every 30 seconds.

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

- Handheld with handheld receiver unit, CE5320X, MRX920, MTX950, and EZNet with the appropriate E-Coder compatible version of software. Compatible software versions are EZRouteMAPS™ host software version 1.6 (build code 120203), EZPortaMAPS handheld software (build code 140204), RouteMAPS® host software version 1.9.1210 (build code 101203), RouteMAPS® handheld version 1.9.0805, EZDrivePLUS™ 2.6 and EZNet™ 1.0 or later version Equinox host software.

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