



FREQUENTLY ASKED QUESTIONS

Does the R900® require any programming?

- NO. The R900® auto-detects the type of encoder register it is connected to and shifts automatically to the appropriate mode.

Why is Frequency Hopping Spread Spectrum (FHSS) better than Direct Sequence Spread Spectrum?

- FHSS offers less chance for signal saturation/collision and improves the read rate and overall performance of the RF AMR system.

Does the R900® transmission intervals or connecting to two networked registers negatively affect the battery life and read success rate?

- NO. The R900® transmits the meter reading data continuously at a predetermined transmission interval for a single encoder register configuration and alternate transmission for two networked Neptune encoder registers to maximize both battery life and read success rate.

The Pit R900® is said to be fully potted. Can I still replace the battery?

- YES. The box is divided into two compartments. The battery and HLC is fully potted in a separate package and compartment independent from the circuit board.

With what encoder registers will the R900® function?

- Neptune ARB® III, IV, V, ProRead (ARB VI), E-Coder™ (ARB VII) and Invensys ECR® II & ECR III*.

Is the color code the same when you attach a Neptune or an Invensys encoder register to a R900®?

Encoder type	MIU Wire Color / Encoder terminal		
ARB V	Black / B	Green / G	Red / R
ProRead & E-Coder	Black / B	Green / G	Red / R
Invensys ECR II & ECR III	Black / R	Green / B	Red / G

If I change the register attached to the MIU, do I need to wait up to an hour to get an updated reading?

- NO. Reactivating the MIU by swiping it with a magnet will force an immediate transmission of the MIU number and meter reading.

Does the R900® wake up periodically to see if it is attached to an encoder register?

- YES. The R900® wakes up every 8 hours to check to see if it is connected to an encoder register. This is a safeguard mode in case a meter installer fails to activate the MIU with a magnet during installation.

What are the meter reading intervals for the R900®?

- If the R900® is connected to a Neptune ARB, ProRead or Invensys ECR II or ECR III encoder, the MIU will read the encoder once an hour. If the second generation R900 or later is connected to a Neptune E-Coder, the MIU will read the E-Coder once every 15 minutes.

Can a R900® be connected to 2 separate encoder registers?

- YES. The encoder registers must be programmed in network mode.

The R900® has two MIU ID numbers, bar codes and pull tags. Which one do I use for a single meter application?

- Always use the MIU ID number identified by the “HI side” label and larger bold-faced font. This is the primary MIU ID number and will always end in an even decimal. The “LO side” MIU ID number is the secondary number and is intended for use with dual meter or compound meter configurations where two registers in network mode are wired to a single MIU.

Can the R900® Pit or Wall MIU be installed under the lid?

- The Pit MIU has been designed to give consistent range as long as the antenna is above the lid. Mounting below the lid will dramatically decrease range. The Wall MIU is not potted and should not be mounted in a pit setting where possible submersion could occur.

If I can not drill a 1-3/4" hole in the pit lid of a commercial vault, what can I do to install the R900® antenna above the pit lid?

- You can install a small valve box next to the meter vault, position the R900 in the valve box with the antenna mounted in the valve box lid, and feed the 3-wire cable through the vault to the register.

Why is my R900® transmitting all colons (::::)?

- The MIU is not detecting an encoder register. Check all wiring connections, re-activate the MIU with a magnet, and check for a transmission using a handheld reading device in RF test mode.

Neptune engages in ongoing research and development to improve and enhance its products. Therefore, Neptune reserves the right to change product or system specifications without notice.

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