Mi.Net<sup>®</sup> Mueller Infrastructure Network

#### Mi.Node M Installation Tool

# **Mueller** systems

#### **Features**

**APPLICATIONS:** The Mueller Systems **Mi.Node M** Installation Tool is a high performance Diagnostic Tool designed for use with the **Mi.Net Mobile** system. The tool can also read legacy Hot Rod units. It is compatible with all current Mueller Systems meters utilizing encoder registers, Hot Rod AMR transmitters and Mi.Node M transceivers. The primary function of the Mi.Node M installation tool is to interrogate Mi.Node M or Hot Rod transmitters to obtain the serial number from the register, water consumption, leak detection, backflow, no flow, no communication and duration data via radio frequency transmission. Verification of proper installation and trouble shooting are easy with this simple to use diagnostic tool. The Mi.Node M installation tool can also be used in conjunction with the appropriate EZ Export software to provide small scale, close range meter reading solutions. The software provides a standard export to an EXCEL spreadsheet for apartment and condominium complex reading solutions.

**OPERATION:** The Mi.Node M installation tool is easy to use. The device can be utilized with all Mueller Systems encoder registers connected to any Mi.Node M transceiver or any of the Hot Rod transmitter options available; Metal Pit Option (Yellow), or the Standard Option (Gray). Simply input the appropriate serial number into the device via the keyboard to interrogate individual Mi.Node M transceiver or Hot Rod transmitters via RF transmission. The device ID, meter reading and event and duration data associated with the meter is all displayed on the large backlit black on white LCD screen for easy verification of reading information and data transmission. An integral power management system shuts down the Mi.Node M installation tool after five minutes of inactivity to conserve battery power. Integral rechargeable batteries provide power for a full day of meter installation and verification.

The Mi.Node M installation tool can also be used to capture up to 1000 meter readings at close range for small scale system solutions. The device is used in conjunction with EZ Export software to read meters and create a downloadable EXCEL spreadsheet of the data captured by the installation tool in meter reading mode.

**CONFORMANCE TO STANDARDS:** FCC compliance: Part 15 certified. The Mi.Node M installation tool complies with Standard C707 for Encoded Remote Reading Systems. No FCC License is required for operation.

**CONSTRUCTION:** The Mi.Node M installation tool consists of a compact printed circuit board which is encased in a thermoplastic enclosure to provide protection against shock, dust and water intrusion. The replaceable, whip antenna permits communication with nearby AMR/ AMI units. A tactile response, twelve key, overlay membrane provides immediate feedback for operation in colder climates with gloved hands. The rechargeable batteries can be connected to any USB equipped laptop computer for charging in the field. The small size and ergonomic shape permit the tool to be carried in a shirt pocket making it an ideal tool for installation and diagnostic work. There are no customer serviceable parts inside the Mi.Node M installation tool.

**FCC STATEMENT:** 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



### Materials and Specifications

Radio Frequency	Operates on 902 to 928MHz
Model	Mi.Node M Installation Tool
Enclosure	. UV Stable Thermoplastic
LCD Screen	4 Lines X 20 Characters
Keyboard	Raised 12 Key Tactile Response
Power Source	. Integral Rechargeable Batteries
Typical Range	. up to 1200 feet
Temperature Range	. Operating Temperature: 32°F to + 122°F 0°C to + 50°C) Storage Temperature: 14°F to + 140°F (-10°C to + 60°C) Humidity: 0% - 95% noncondensing
Dimensions	. 3" W X 4-1/2" L X 1-1/4" D
Weight	1/2 lb
Compatibility	Mi.Node M and Hot Rod modules

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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, 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 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.

**WARNING:** – Changes or Modifications. Any changes or modifications not expressly approved by the party responsible for Compliance could void the user's authority to operate the equipment.

**CAUTION:** Exposure to Radio Frequency Radiation. The radiated output power of this device is far below the FCC radio frequency exposure limits. Nevertheless, the device shall be used in such that the potential for human contact during normal operation is minimized.