



Where Intelligence Meets Infrastructure™

MiNet Mobile Collector / Transceiver Installation Guide

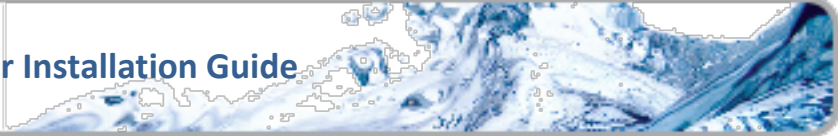
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Introduction

This document describes the components and installation of the Mi.Net Mobile Collector/Transceiver. In an AMR system, the receiver captures water meter data via radio frequency while driving a meter route at posted speed limits. When used in conjunction with the Mi.Net AMI system, the Mobile Receiver can be used as a disaster recovery device to obtain meter data from stranded assets.

Hardware Components

The Mi.Net Mobile Collector/Transceiver ships with the following components shown in Figure 1 below (rear of unit shown):

1. Mi.Net Mobile Collector/Transceiver
2. Power cord
3. USB communication cable



Figure 1 Mi.Net Mobile Collector/Transceiver kit components

Antenna

The Mi.Net Mobile Collector/Transceiver is intended to connect to a vehicle-mounted antenna. The antenna port is located at the back of the unit between the power cord and USB cable ports.

Setup

The receiver should be placed in a safe place within the vehicle, typically on the dashboard or under it. Straps are available to secure the receiver to the passenger seat of the vehicle.

Vehicle Installation

1. Mount the antenna on top of the vehicle

Using the Street Machine 2 antenna

Place the entire antenna assembly on the roof of the vehicle. Make sure that the antenna base is installed so that two antenna whips are aligned with the direction of travel as shown in Figure 2 and Figure 3. Route the cable through a door or window. Make sure that there is enough slack in the cable so that opening or closing the door does not pull on either end of the cable.

Do not place the antenna assembly within 12" of any other antennas on the vehicle. If there are other antennas on the vehicle, orient the antenna assembly (if possible) such that all the antennas are in a straight line along the direction of travel.



Figure 2 Cable routed through door



Figure 3 Antenna base

2. Make power and cable connections

- Using the supplied power cord/adaptor, plug the adapter into the vehicle's 12-volt power supply and connect the other end to the port labeled POWER at the back of the receiver.
- Using the supplied USB cable, connect the USB 2.0 Type B to the jack labeled COMPUTER in the rear of the receiver and the USB Type A plug into the laptop computer.
- Attach the antenna's connector into the Mobile receiver's port labeled RF.



Figure 4 Rear of receiver showing connections

Notes:

- After connecting to 12V power, startup may take up to two minutes while the receiver performs boot-up processing.
- The receiver operates only when both the 12-volt power is connected *and* the power/data USB cable is connected to a powered laptop computer.
- If the data USB is disconnected, the receiver shuts down in about four minutes.

COM Port Configuration

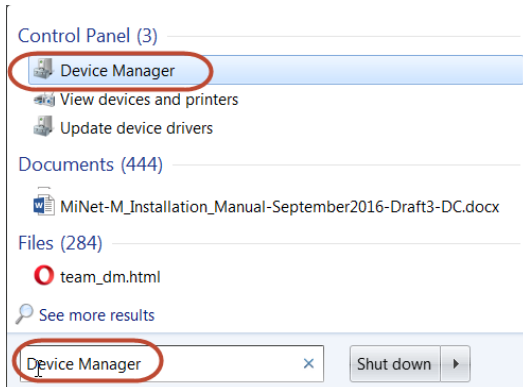
You will need to determine the receiver's COM port and then identify the port in the EZMobile software.

Be sure the Mi.Net Mobile Collector/Transceiver is connected to a power source before you begin.

When you initially connect the Mi.Net Mobile Collector/Transceiver to the laptop, drivers are automatically installed. This may take a few moments.

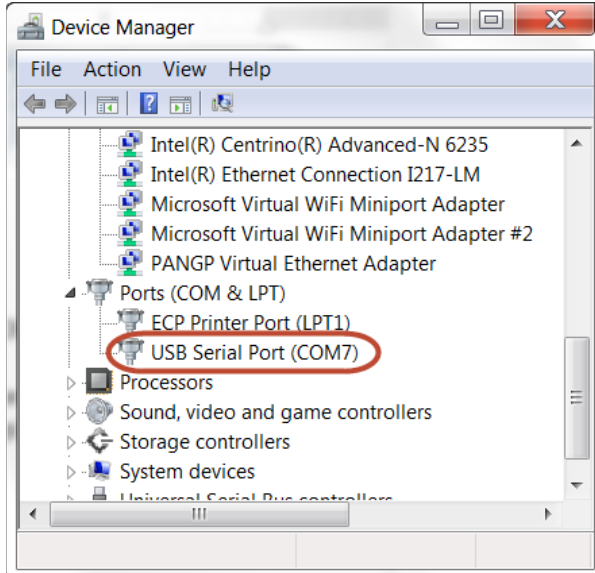
1. Using the provided USB cable, connect the Mi.Net M Receiver to the laptop computer. The computer indicates that Driver Software Installation is in progress.
2. To open Windows Device Manager, click the Windows Start button and type "device manager" in the *Search programs and files* field. In the results pane, click **Device Manager**.

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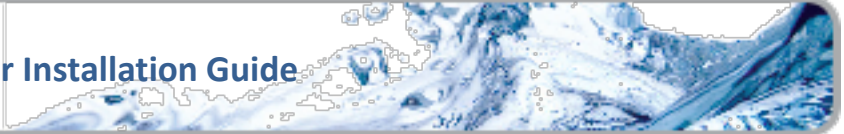


Alternatively, click Control Panel, then Device Manager.

3. After the drivers have installed, the device named “USB Serial Port (COMx)” will appear in the Ports (COM & LPT) section.



4. In the EZMobile software, click on the Mi.Net Mobile Collector/Transceiver button in the System tab and specify the correct COM Port (the other settings are defaulted to the correct settings).
5. Click **Save**.



Laptop USB power



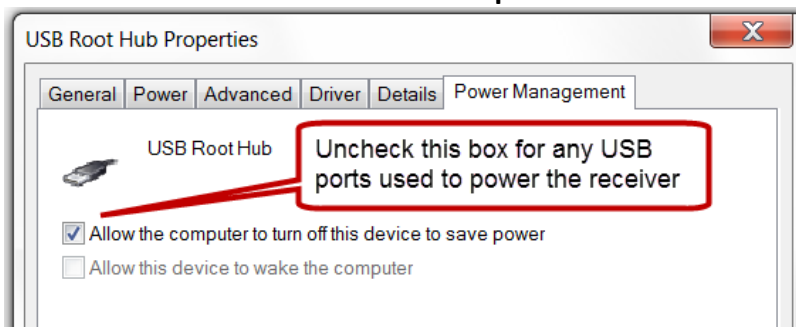
CAUTION: Some laptop computers are configured to supply power to USB port(s) even when the laptop is turned off. If the mobile receiver is connected to such a USB port, the receiver will continue to draw power from the laptop's battery or the vehicle's accessory power outlet, presenting the risk of draining the battery over time. To prevent this, do either of these options:

- Ensure the Mi.Net M receiver is unplugged from the laptop at the end of the day.
- Configure the USB not to supply power after laptop shutdown. See [USB Configuration](#).

USB Configuration

To configure a laptop to cease power to USB ports:

1. Click Windows Start button > **Control Panel** > **Device Manager**.
2. Right-click **USB Root Hub** and select **Properties**.
3. Click the Power Management tab.
4. Clear the checkbox for **Allow the computer to turn off this device to save power**.



With the checkbox cleared, the computer will not supply charging power to the USB port.

LED indicators

Three LEDs on the front of the receiver indicate by color the status of the receiver and its operation.



TEMP - Receiver's operating temperature

- Green – normal
- Red – temperature is too high for normal operation. Receiver powers down its internal RF board and ceases operation until acceptable operating temperature is reached

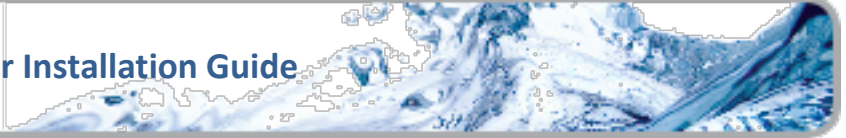
RF - RF signal receiving status

- Blinking red - valid message received
- Solid red – RF failure

STATUS - Power Status

- Solid Green – operational, fully booted
- Solid Amber – booting
- Solid RED – unit is powering down, also when updating firmware. After update, light blinks red to prompt user to remove USB stick and allow reset

Note: the USB port on the front of the receiver (labeled “Maintenance”) is for updating firmware and is for Mueller Systems use only.



About Mueller Systems

Where Intelligence Meets Infrastructure®

Mueller Systems provides Smart Metering solutions to optimize the delivery and use of water and energy. Municipalities that supply water, electricity or gas — or any combination of the three services — need innovative ways to increase efficiencies, reduce costs, conserve water and energy, and improve customer service. The Mi.Net® Mueller Infrastructure Network for Utilities from Mueller Systems meets that need.

Mueller Systems develops meters and metering systems that are a Smart Move™ for the most demanding applications including residential, commercial and fire-line meters, advanced metering infrastructure (AMI)/automated meter reading (AMR) systems and related products. We provide utilities with infrastructure technology—including the water industry's first AMI system with 2-way network configuration—that enables them to access the intelligent, actionable data needed to increase efficiencies, reduce costs, conserve water and energy, and improve customer service.

Mueller Systems is part of Mueller Water Products, Inc., a leading manufacturer and marketer of products and services used in the transmission, distribution and measurement of water.

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