Legacy Hardware Documentation

For hardware which is no longer available, but may still be in use at existing sites.

- (Legacy) Multitech Cell Modem Troubleshooting
- (Legacy): Maestro E206XT cell router configuration
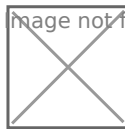- (Legacy) TP-Link access point setup (TL-WA701ND)

(Legacy) Multitech Cell Modem Troubleshooting

The MultiTech cell modem is used with some eGauge installations to provide cellular Internet access in locations where wired Internet is not a viable option. The troubleshooting guide covers aspects of the modem configuration as they pertain to usage with an eGauge. eGauge does not directly support all aspects of the MultiTech cell modem - queries above and beyond what are covered in the document below should be addressed to MultiTech directly.

WARNING: This article covers the older Multitech MTR-H5 3G-only modem. eGauge now uses the 4G LTE MTE-LAT2-B07.

Instructions in this article should not be used with the newer Multitech MTE-LAT2-B07 modems.

Please see the new MTE-LAT2-B07 troubleshooting information if using the MTE-LAT2-B07 cellular modem.

MULTITECH CELL MODEM TROUBLESHOOTING

(Legacy): Maestro E206XT cell router configuration

The Maestro E206XT is a powerful and highly configurable cellular modem and router. This article details configuring the Maestro E206XT to provide Internet access to an eGauge meter using a direct Ethernet connection, as well as other general information. Any advanced configuration questions should be directed to Maestro Wireless Solutions directly.
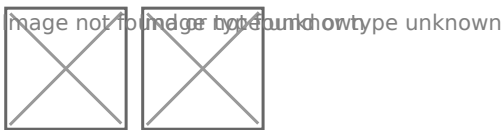
Additional resources:

[Manufacturers product page](#)

SIM Card Installation

The SIM card should come pre-installed if the E206XT is purchased directly from eGauge. However, if this is not the case the SIM card can be installed or replaced as needed.

Using a paperclip or similar instrument, gently push in the small yellow button to the right of the SIM tray. This will cause the tray to partially eject from the E206XT, at which point it can be removed the rest of the way by hand.

To reinstall the SIM tray, gently press it back into the E206XT. The SIM card should have the contact points facing upward. DO NOT force the SIM tray into the E206XT, as damage may result.

Configuration

When purchased from eGauge Systems, the Maestro E206XT is pre-configured for the T-Mobile network, along with both Ethernet ports configured for LAN access. In the event the Maestro is re-configured or factory reset and must have the eGauge configuration applied, follow these instructions.

Reset and connect to Maestro unit

1. Perform a factory reset, if not already done.
2. Power up the E206XT using the included power supply.
3. Using an Ethernet cable, connect a computer to port LAN1 on the E206XT. Make sure all forms of wireless communication are disabled on the computer.
4. Open a web browser and navigate to 192.168.1.1. Log in using "admin" for both username and password.

Verify and update firmware

5. Navigate to **Status** -> **Overview**. Look at **Firmware Version** under the **System** section. If at **2.0.1 RC7**, skip to **Install Configuration File.** (Warning: firmware 2.1.1 RC6 is unstable and must not be used).
6. Download **maestro-e206-v201RC7-15122015.bin** which is found attached to this article. Alternatively, download from Maestro's website.
7. Navigate to **System** -> **Backup/Flash firmware**. In **Flash new firmware image**, choose **maestro-e206-v201RC7-15122015.bin** and press **Flash image**. The checksum should validate to **fc06331a0057750b716044757ed470ab.**
8. When finished the device will reboot. Restart at step 4 to ensure new firmware took effect.

Install configuration file

9. Download **backup-Maestro-2017-02-24.tar.gz** from this article.
10. Navigate to **System** -> **Backup/Flash firmware**.
11. In the **Backup / Restore** section, choose **backup-Maestro-2017-02-24.tar.gz** and press **Upload archive.**
12. The unit will reboot after installing the configuration. You can ensure the settings took affect by logging into the Maestro, clicking **Next** on the Quick Setup wizard, and ensuring under the **Cellular** section that APN is set to **fast.t-mobile.com**
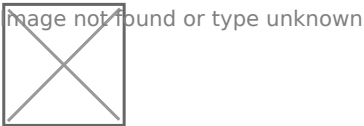
Factory Reset

If settings are entered incorrectly or if the device password is changed and lost, a factory reset can be performed. To do this, use a paperclip to hold down the reset button (located on the opposite side of the E206XT from the SIM card slot) for at least five seconds.
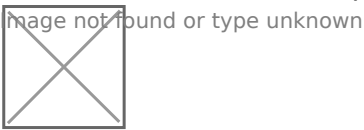
Testing Connection

1. Login to the Maestro as described in step 2 to step 4 of the Configuration section.
2. Highlight the "Status" tab at the top of the page and select "Overview" from the dropdown menu.

Image not found or type unknown

3. Check to ensure that the "Network Status", "Operator Name", "Operator Number", and "SIM Status" fields all display values.

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4. Next, open a new tab or window in your browser. Navigate to a website of your choice to check Internet functionality. At this point in time you may wish to run a speed test to verify speed and connectivity.

Basic Troubleshooting

When it is functioning properly, the E206XT should have a minimum of four LEDs lit. The **Power** LED should be lit solid green, the **Signal** and **Network** LEDs should be lit solid yellow, and the **Activity** LED should be blinking yellow if a network device is connected.

If the WiFi interface was left enabled, the WiFi LED will be lit solid blue. The WiFi interface is disabled by default by eGauge.

If the exclamation LED (!) is lit red for over 5 minutes, it indicates a configuration or hardware problem. Contact Maestro Wireless Solutions for assistance resolving this issue.

It may take the E206XT up to five minutes to obtain a connection after the last configuration setting has been applied. If the E206XT has been configured as described but cannot find a connection after five minutes, there are some common hardware issues that need to be checked.

First, make sure the SIM is correctly seated and oriented properly (contact points facing up). Mini and Micro SIMs will not work with the X206XT.

Second, ensure that the external cell antenna is properly connected. It should be connected to the "**Cell. Main**" port and all connections should be finger tight.

If settings are entered incorrectly or if the device password is changed and lost, a factory reset can be performed. To do this, follow instructions detailed in the Factory Reset section.

(Legacy) TP-Link access point setup (TL-WA701ND)

NOTICE: The TP-Link TL-WA701ND has been discontinued and replaced with the TP-Link TL-WA801ND. If using the TL-WA801ND, please refer to this article.

eGauge offers limited support for the TP-Link TL-WA701ND when configured for use as a WiFi bridge. This allows the eGauge to connect to the WiFi network at a location where wired Ethernet or PLC options are not practical.

Other usage scenarios are possible, but not officially supported. Support queries above and beyond those covered in the documentation below should be directly to TP-Link technical support.

The TL-WA701ND is ideal for use with the EG30xx eGauge hardware - the eGauge2 does not have an Ethernet port, and the EG4xxx hardware supports USB WiFi dongles which don't require an external power source.

TP-LINK ACCESS POINT SETUP