Em50®G Data Logger

Quick Start Guide

About the Em50G

Thank you for purchasing an Em50G data logger. The Em50G is a data collection device collects and stores data from up to five METER sensors. Collected data are sent to the METER Data Service using cellular/mobile communication up to six times a day. You can access your data from the METER Data Service at any time with DataTrac 3 or by visiting zentracloud.com.

The Em50G is configured using ECH2O® Utility or ZENTRA Cloud. ZENTRA Cloud is the preferred software package for the Em50G data access and will be the primary reference throughout this quick start guide.

Installing the software

Before taking the Em50G into the field, install ECH2O Utility on your designated field computer.

1. Insert the installation USB into a computer or visit metergroup.com/em50-support to install ECH2O Utility on your computer.

2. Click "Run" to start the installer and follow the onscreen instructions.

Installing the Em50G in the field.

1. Before installing your sensors and loggers, check the quality of the cellular communication between the Em50G and local cellular towers at the location you would like to monitor.

    a. Insert the included 5AA batteries into the Em50G and attach the Em50G antenna.

    b. Open ECH2O Utility on your field computer and connect the Em50G to your computer using the included USB cable.

    c. In the "connect via" dropdown menu, select the COM port containing either "Decagon UCA" or "METER UCA".

    d. Click the "Connect" button in ECH2O Utility.

    f. In ECH2O Utility, choose "Cellular Test".

    g. Click the "Test" button. The communication test takes about 30 s, so please be patient. If cellular coverage is low, try moving (even just a few meters) to a new location and repeating the test until you have at least one star of communication.

2. Install your sensors and attach the Em50G in an upright position to a firm post or PVC pipe, using the included zip ties or similar fasteners.

3. Install the data logger in a location that will ensure that the solar panel receives the maximum amount of sunlight. In the northern hemisphere, this will typically mean that the data logger will face the south. In the southern hemisphere, this will typically mean that the data logger will face the north."

NOTE: Em50/Em50G solar data loggers come with batteries preinstalled. Remove battery pull-tab to activate batteries. Use only nickel-metal hydride (NiMH) batteries with the solar Em50/Em50G.

Em50G Logger Configuration

1. Take the brightly colored card containing your Device ID and put it in a safe place. You will need this number and password to download your data from the METER Data Service.

2. If ECH2O Utility is not launched, launch ECH2O Utility.

3. Connect the Em50G to your computer using the included USB cable.

4. In the "Connect via" dropdown menu, select the COM port containing either "Decagon UCA" or "METER UCA".

5. Click the "Connect" button in ECH2O Utility.

7. Pick your measurement interval from the dropdown menu, and choose the sensors plugged into each port.

Downloading Data

1. Visit zentracloud.com and create an account.

2. Create an organization in the top left of the screen.

3. Click "Add new" at the bottom left to create a new site.

4. Click "Add new" again to create a plot within the site.

5. Click "Add new" a third time and select "Device".

6. Click "Setup", then "Create New", then "Em50G subscription".

7. Enter the Device ID and the Password found on the bright orange card that came with the Em50G. Both the ID and password are case sensitive. Click "Subscribe".

8. The next time you would like to see new data, you can launch ZENTRA Cloud, click on the device in the device tree, and select the either "Map", "List", or "Details" to view your data. Download your data by pressing the "Download" icon on any of these pages.

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Test Buttons

The Em50G has a TEST button and two indicator LEDs above the batteries for basic functionality testing.

OK 🟢
ERROR 🔴

• After the TEST button is pushed, both the ERROR (red) and OK (green) lights will slowly blink on and off indicating that the testing is in progress.

OK 🟢
ERROR ⚪

• When the Em50G is sending data to METER's server, the OK (green) light will blink rapidly.
• At the end of the testing, the OK (green) light will remain lit for approximately 20 s if everything is working properly.

OK ⚪
ERROR 🔴

• At the end of the testing, the ERROR (red) light will remains lit, a communication error is occuring. Perform a telemetry test to attempt to diagnose the problem.

If you have any questions about configuring your Em50G or downloading data from the METER server, please contact METER at 509-332-5600 or info@metergroup.com.

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