ModMAG®
M-Series® | Electromagnetic Flow Meters

Electromagnetic Flow Meters

M5000 Firmware Upgrade

PREPARING FOR THE FIRMWARE UPGRADE

Meters that currently have version 1.x firmware can be upgraded only to the latest 1.x firmware. Meters that currently have version 2.x firmware can be upgraded to the latest 2.x firmware. If you have 1.x firmware and wish to upgrade to 2.x firmware, you will need to upgrade the board.

Download the latest firmware version from our website at *www.badgermeter.com* to your hard drive. With the *Flow Meter Tool* software installed, connect the laptop to the meter using either the supplied RS232 cable or an IrDA adapter.

NOTE: The M5000 Data Logging kit (p/n 67354-008) is needed to perform the firmware upgrade. See the *M5000 Data Logging Installation Manual.*

RS232 Connection

1. Identify / Configure the meter's communication settings:
    a. Navigate to *Communications* > *Interface*.
    b. Set the interface to **SERIAL**.

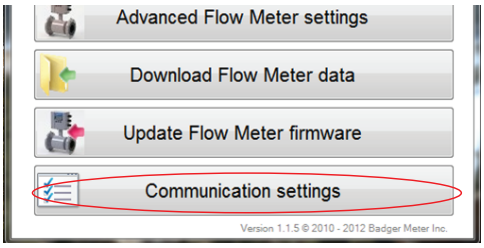
NOTE: The interface must be set to **SERIAL**. All other settings can be set as desired by the operator and must match those settings of the software tool.

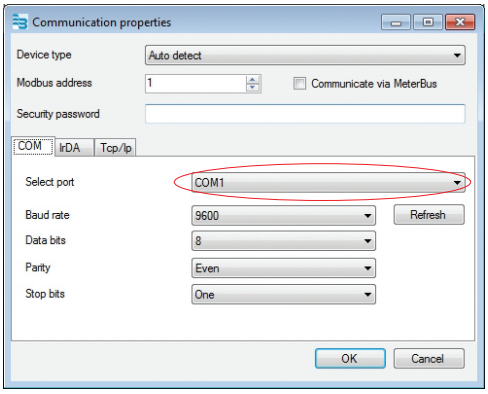
    c. Record or change other interface parameters (parity and baud rate).

2. Connect the supplied RS232 cable into the RS232 connector of the meter. Either connect the serial connector to a COM port or connect it to the USB adapter.

3. Open the Flow Meter Tool installed on the laptop or PC. Go to *Start* > *All Programs* > *Badger Meter* to open the flow meter tool application.

4. To configure the flow meter tool software communication settings:
    a. Select **Communication Settings**.





    b. Change the following parameters as necessary to align with the meter settings:

- MODBUS ADDRESS (Node Address)
    - BAUD RATE (9600)
    - DATA BITS (default is 8)
    - PARITY
    - STOP BITS (default is 1)

    c. Select **OK** to confirm the configuration of the communication port. Make sure you select the correct COM port.

NOTE: The M5000 communicates via the COM port and IrDA. TCP/IP is not supported.

IrDA Connection

1. Identify / Configure the meter's communication settings:
    a. Navigate to *Communications* > *Interface.*
    b. Set the interface to **IrDA**.

NOTE: The interface must be set to **IrDA**. All other settings can be set as desired by the operator and must match those settings of the software tool.

3. On the M5000 enclosure, install the IrDA bracket. Then install the IrDA cable.

4. Connect the IrDA cable from the M5000 to the laptop.

5. If necessary, install the rDA link drivers from the CD. The IrDA link uses a USB/IrDA converter and drivers. You may have to restart your computer after installing the drivers.

When the IrDA communication is activated, an icon appears on the lower part of your screen.

The Wireless Link icon in the taskbar is a function of Windows®, not the Flow Meter Tool.

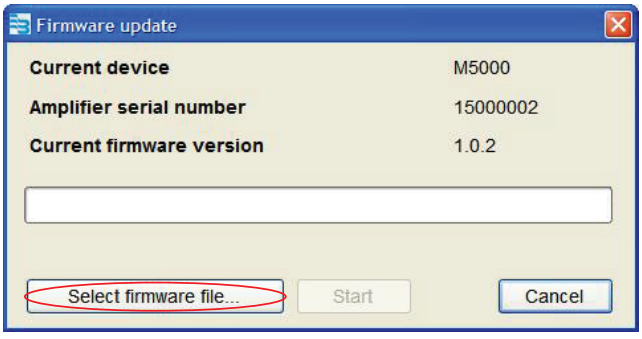
6. In the Flow Meter Tool, select **IrDA** from the *Communication Settings* menu. If there are multiple IrDA interfaces, make sure you select the right one.

UPGRADING THE FIRMWARE

1. Make sure you have downloaded the latest firmware version from *http://www.badgermeter.com/Industrial/Industrial-Municipal-Products/Electromagnetic-Flow-Meters/M-5000-Mag-Meter.aspx* to your hard drive.

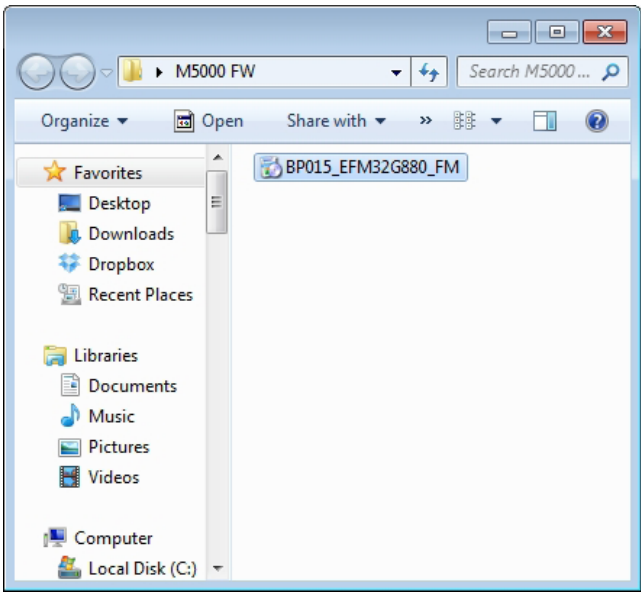
2. From the Flow Meter Tool, click on **Update Flow Meter firmware**.

3. Click on **Select firmware file…**

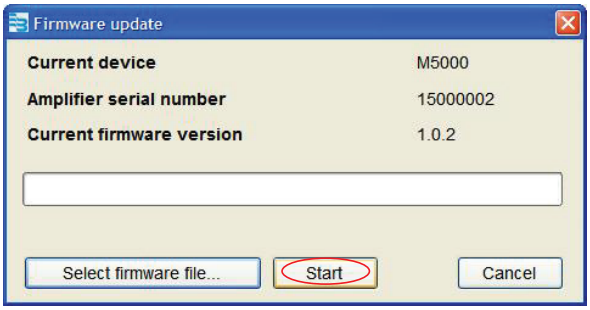


4. Navigate to the location where you saved the firmware file.

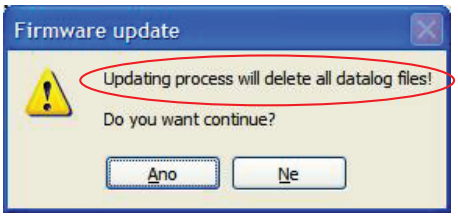
5. Select the new M5000 firmware file.



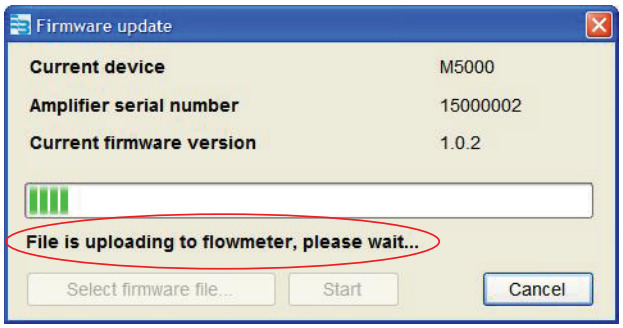
6. Click on **Start**.



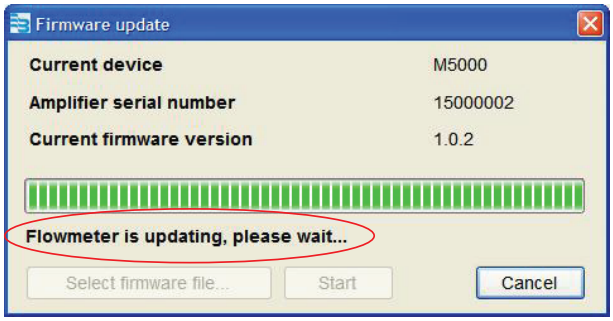
7. The firmware update will delete all data logging files to free space on the flash drive for the upload firmware file. You must confirm the deletion (or interrupt it and download data logs).



8. The *Flow Meter Tool* starts uploading the firmware file to the flow meter.



9. After the upload is finished, the M5000 is restarted to start the firmware update on it.

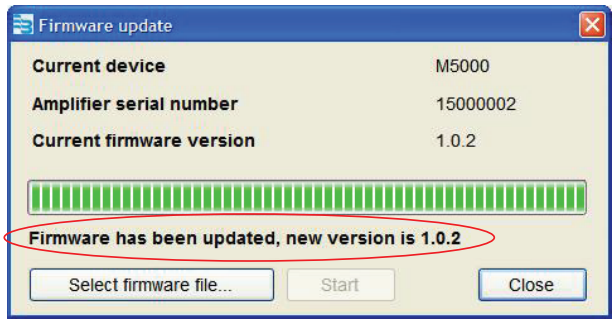


During the update, the M5000 displays this informational message.

10. When the update is complete, the M5000 displays the firmware date.

11. You are prompted to reset the connected Flow Meter to finish the firmware update. Click **Yes**.

12. After reset, the Flow Meter Tool shows the new firmware version.



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