

## M850 Firmware Update Procedure

To update the firmware, the M850 must be connected to a PC running a Windows™ operating system.

Down load “M850 Firmware Update” (“M850fwUpdate-Vx-yyyymmdd.exe”) from the Software page of our website.

Items required:

The file “M850fwUpdate-Vx-yyyymmdd.exe”

A PC running a Windows™ operating system with one of the following ports installed:

USB, RS232, RS485

An RS485 pod to insert into the port of the meter if not already installed (see below)

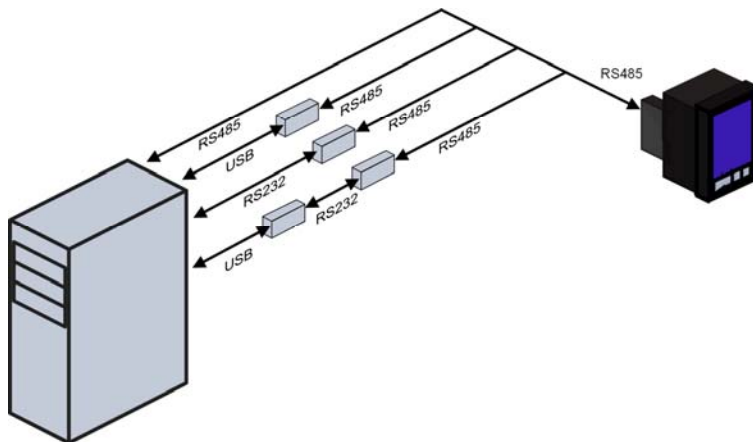
An RS485 to either RS232 or USB converter, depending on the installed port (see below)

The following applications (extracted from “M850fwUpdate-Vx-yyyymmdd.exe”)

Multiview.exe, ADuC.exe

The following installation firmware files (extracted from “M850fwUpdate-Vx-yyyymmdd.exe”)

basedin.hex, calloader.hex, loader.hex, bootstrap.hex



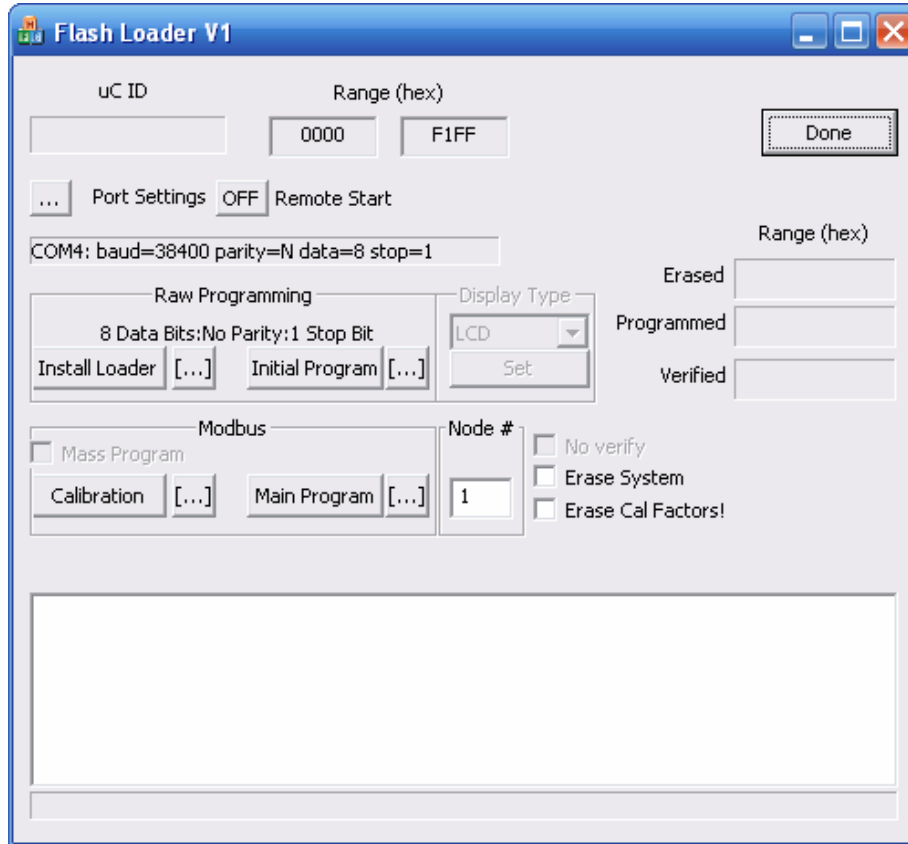
Connect the meter to the PC using one of the above converter configurations.

Switch the meter on.

Start the MultiView application and establish communication with the meter.

Click on the [**Flash**] button.

The Flash Loader will open (below)



Set the address (Node #) of the meter to be updated.

Click on [**Main Program**]

Progress of the installation will be displayed.

Important: when the programmer has gained control of the meter, the meter's display will blank. This isn't an indication that the power is turned off.

**Interrupting the programming process, either by disconnecting the meter from the pc or by turning the meter or pc off, will corrupt the meter's internal flash memory and render the meter inoperative.**

**If for any reason the installation fails and the meter does become inoperative, the procedure described below will have to be used to recover the meter:**

There are four stages to recovering a corrupted flash program:

1. The insertion of a link on the pcb of the pod that fits into the rear of the meter.
2. Loading a bootstrap program.
3. Removal of the link
4. Repeat the firmware update procedure

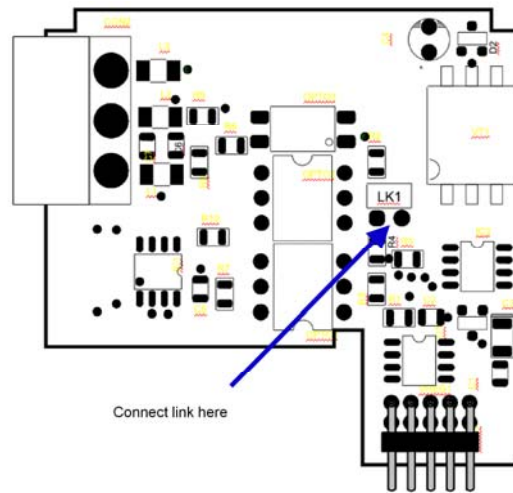
Turn off the power to the Meter.

Disconnect the RS485 cable by pulling the plug from the pod.

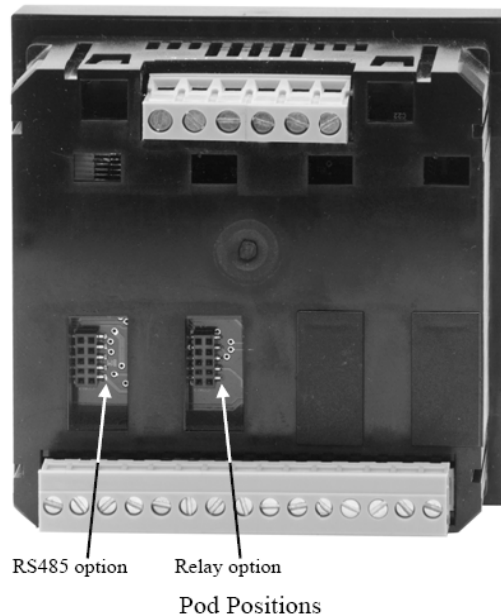
Extract the pod from the back of the meter by easing the clips down with a small screwdriver and pulling away.

Unclip the lid and remove the pcb from inside the pod.

Using a small piece of wire short out and solder the two pads as illustrated below.



Carefully insert the pcb into the back of the meter in the indicated position and reconnect the RS485 cable.

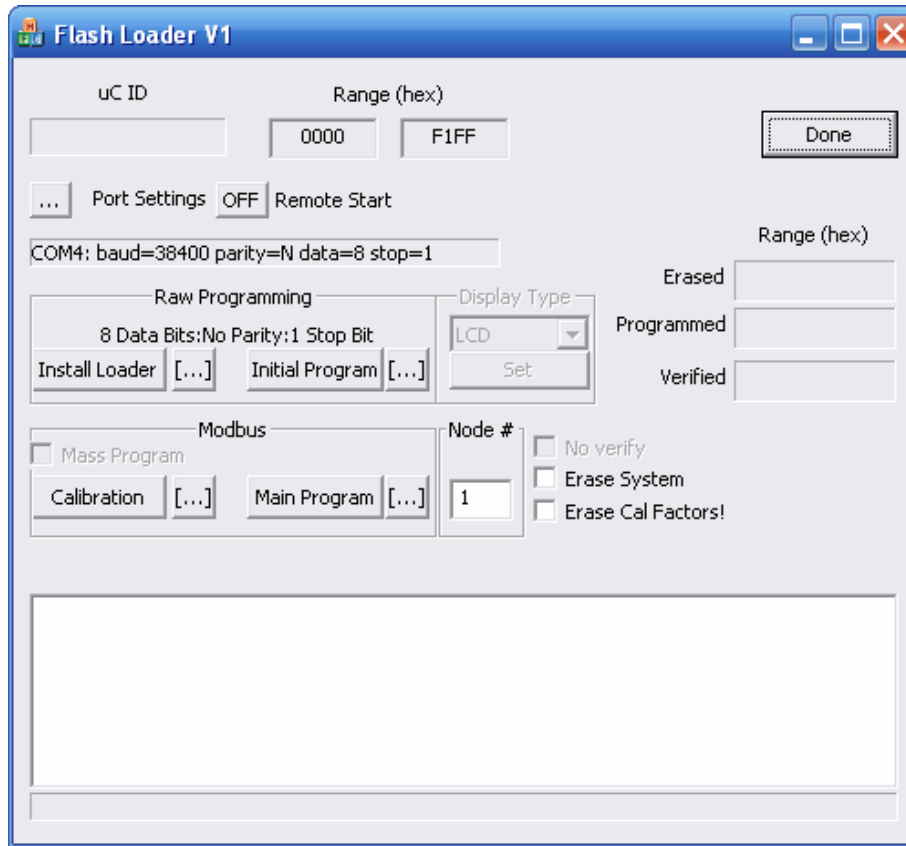


Start the MultiView program and set the port setting to 38400 baud, No Parity, 1 stop bit.

Click on [**Flash**]

The Flash Loader will open (FL)

*N.B. The flash loader must be started before the meter is powered up.*



Power on the meter – some or all of the display segments will light.

Click on [**Install Loader**]

If the unit fails to load, disconnect one auxiliary lead for five seconds then reconnect and try [**Install Loader**] again.

When “loaded ok” is displayed, click on [**Initial Program**] to load the first program.

When that program has finished loading, click [**Done**] to return to MultiView.

Turn off the power to the Meter.

Extract the RS485 pod, remove the link and the reinsert the pcb into the meter as before.

Power on the meter once more.

When communication with MultiView is re-established, click on [**Flash**] to start the Flash Loader (FL) again.

Click on [**Main Program**] to update the meter with the new firmware.

Turn off the power to the Meter.

Reassemble the RS485 pod, reconnect the RS485 cable and reinsert the pod.