



# MR430-1

## ZapFree<sup>®</sup> Controller

### Firmware Update/Flash Procedure

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## Revision History

Date	REV	Description
4/30/2018	A	Initial Release
6/21/2018	A1	Product Release
4/3/2019	A2	Removed Fax Number

## Reprogramming MR430 Firmware

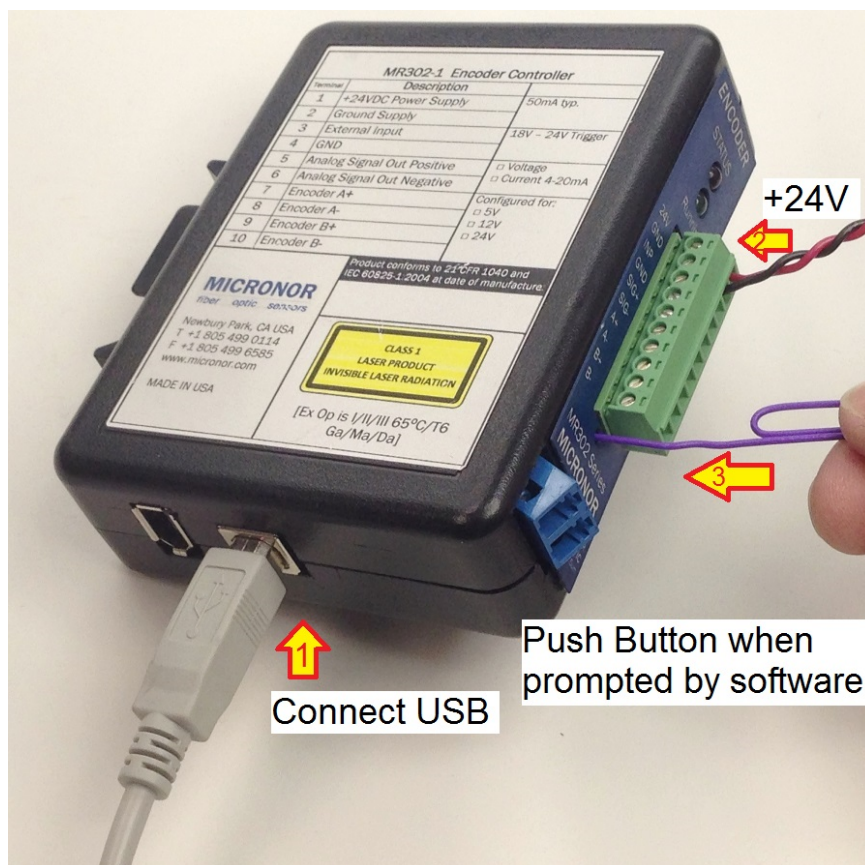
Over time as the firmware functionality is expanded, it may become necessary to reprogram the firmware. The firmware resides in permanent flash memory which can be re-programmed with the appropriate software.

Download from the Micronor web site:

- FLASH\_MR430.zip  
Extract the \*.msi file and install this software on your PC.

Request from Micronor or the authorized Service representative the new Firmware:

- MR430-1\_V1pxpx.hex (for DIN Rail version)

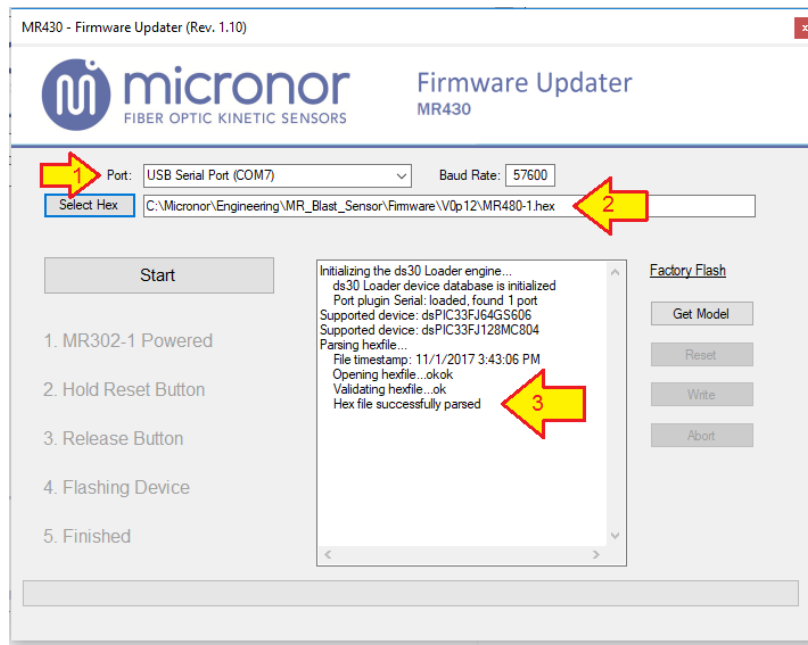


Setup the MR430-1 as shown to the left.

Connect the USB cable to the PC.

Power the unit with a suitable 24V DC supply.

Prepare a paper clip or a small pin able to reach the Home/Reset button on the MR430-1 unit.

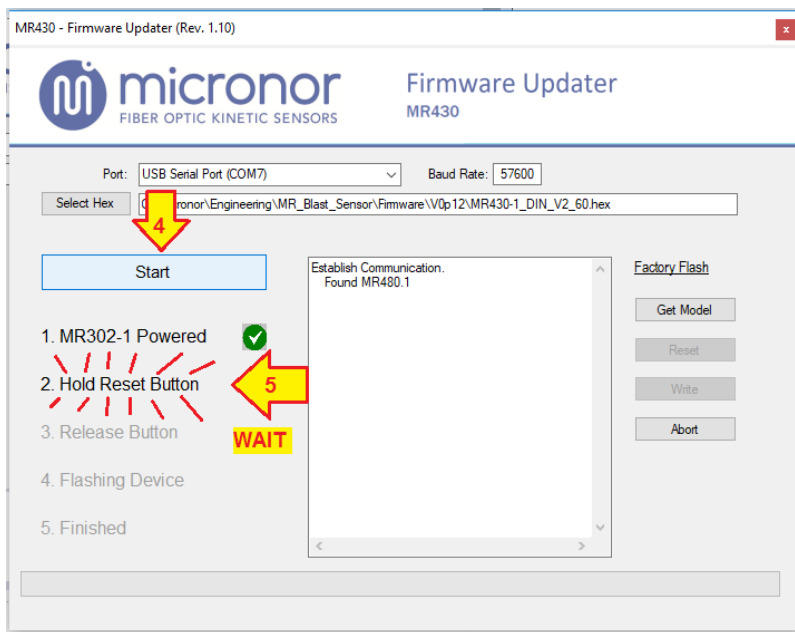


After starting the software define the Virtual Com Port (VCP) that the PC assigns when the USB is connected.

Select the firmware hex-file that previously was stored on your PCB.

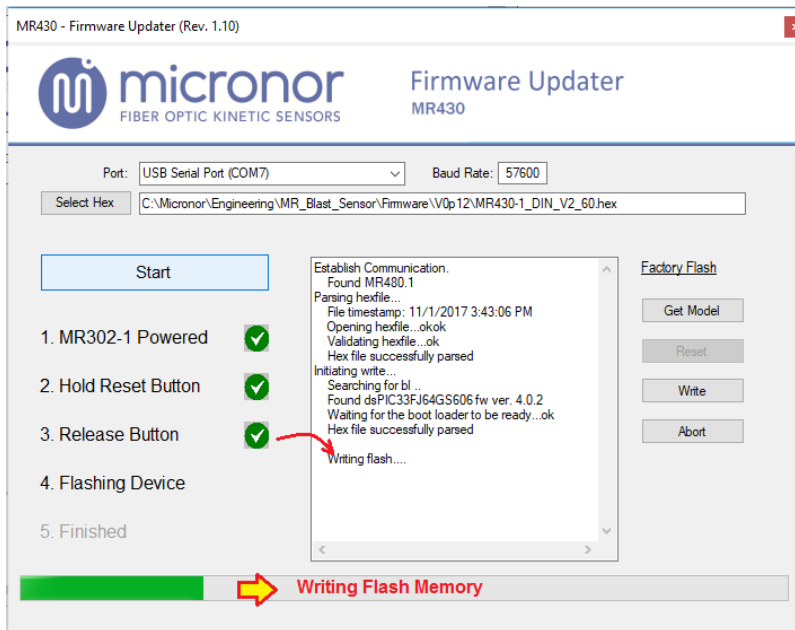
The software validates the integrity of the hex file.

**Caution:** Make sure it is the hex-file provided to you by Micronor. It is possible to flash any valid hex-file. However at that point the MR430-1 unit will no longer be functional and may have caused internal damage.



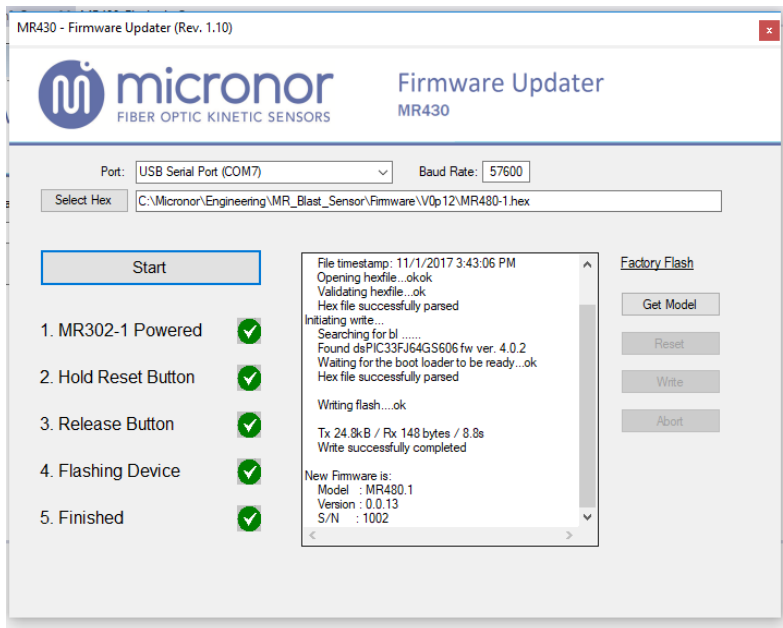
Click Start.

If connection to the MR430-1 unit has been successfully established, then the software prompts to push & hold the Home/Reset button on the MR430-1 unit. Push the button and hold until the "Release Button" prompts you to release the button.



Upon release of the button the firmware is being transmitted and written to the flash memory of the MR430-1 controller.

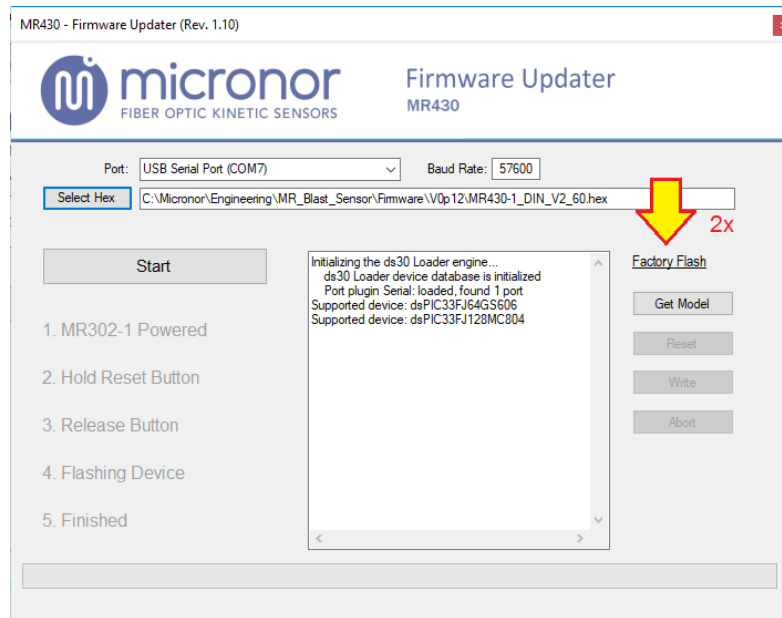
The green progress bar indicates the writing progress.



When the write is successfully completed, disconnected the controller from the PC.

## Damaged Firmware Recovery

If for some reason the firmware is damaged then the recovery is as follows:



Select appropriate Virtual Com Port.

Select Hex File with valid Firmware.

Double Click the "Factory Flash" label.

Turn 24V power OFF.

Push the MR430-1 Reset button and hold.

Turn 24V Power ON (keep button pressed).

Wait for 5 seconds and observe the red and green LED blink in alternating fashion.

Release the Home/Reset button.

Within 3 seconds, click the "Write" button on the software.

The software will start transmitting and writing the new firmware. Wait until process is completed.