

How to Upgrade Firmware Version using Software Mode.

Note: While the firmware programming is similar, there are significant hardware differences between different models of the gauges. DO NOT try and put firmware for one model gauge into another model gauge. It will not hurt the hardware, but it will not work properly and you may end up scrambling calibration constants in the gauge which will require factory recalibration. Also, while normally no data or settings are lost when upgrading firmware, it is a very good idea to make a backup of any important data before upgrading.

Required Items: You need a gauge with fresh batteries, a serial cable, a computer with a serial port or USB to serial adapter, running Windows 98/XP/2000. You also need the latest ZIP archive for the gauge you wish to program. You will also need a way to extract the ZIP archive like WinZip. (XP has this built in to the operating system.)

Unzip the ZIP Archive. You will need a copy of WinZip or it's equivalent to do this. It doesn't much matter where you choose to extract this to, but be sure to extract it with the "Use folder names" set. You may want to put it on the Desktop to make it easy to find. In any event be sure you do take note of where you extract this so you can find it in the next step.

Run the uFlash batch file: Double click the extracted folder to open it. You will see 16 files in the archive. Double click the file named UFLASH.BAT (maybe just UFLASH depending on your Windows settings.) You should see a window labeled Flash Programmer appear with a prompt asking for the COM port number. Connect your serial cable from the Lemo connector on the bottom of the gauge to the computer and note what communications port. Type the COM port number (it must be a 1, 2, 3, or 4) and press ENTER on your PC's keyboard. A new screen will appear that tells you to HOLD THE MENU BUTTON DOWN AND POWER THE GAUGE ON. Do this and when the gauge displays "UPGRADING FIRMWARE" press the space bar on the PC. A message should appear that "Kernel Downloaded OK" and after a few seconds you should see the numbers changing as blocks of the flash are being programmed. DO NOT TURN OFF THE GAUGE OR INTERRUPT POWER until the process is complete!!! When the process is complete unplug the serial cable. Turn on the power and confirm that the software version is updated. (See the XFER menu).

This completes the upgrade process. You can delete the entire extracted folder from your computer to save space. Simply drag the folder to the trash can.

If your batteries fail during upgrade and the gauge will not turn on, you will need to perform the HARDWARE mode upgrade procedure which requires removing the bottom end cap.