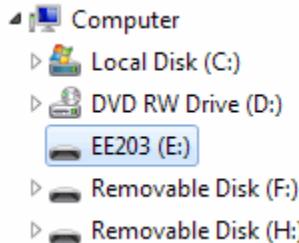


## EE203 RTCM USB BOOTLOADER

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The ee203 contains an integral bootloader built into the flash drive named EE203 that mounts when the unit is plugged into a PC USB port. The drive is always present, but will only reprogram the unit when it is in bootloader mode. When in bootloader mode the ee203 application code is updated when a firmware image is written to the drive.



To enter bootloader mode, disconnect the SUPPLY terminal from any supply and connect it to the ground terminal. Unplug the USB cable from the unit, allow the PC to recognize that the unit has been detached, then plug the USB cable back in. The unit will reboot, connect to the PC as a USB peripheral, detect that the SUPPLY terminal is grounded and enter bootloader mode.

To update the firmware, simply drag a firmware image file with a .srec suffix into the flash drive EE203. Programming should take less than 5 seconds.

Disconnect the SUPPLY terminal from ground and then disconnect/reconnect the USB cable and allow the unit to boot up again in normal operation mode.

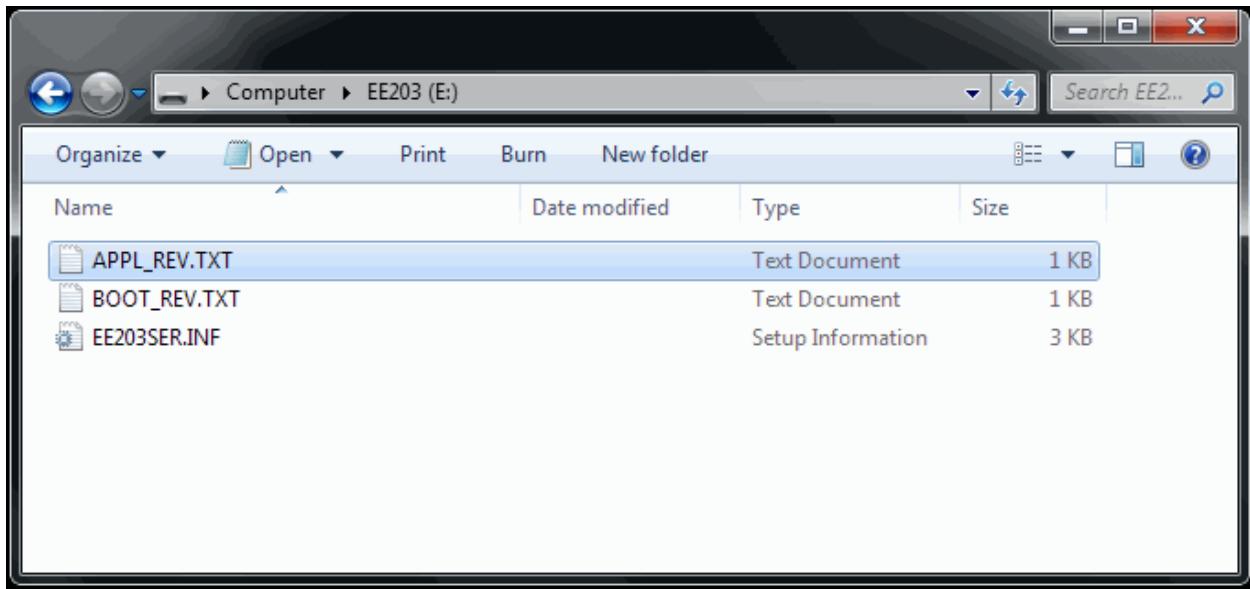
Reprogramming will overwrite the calibration constants retained in the flash memory. Be sure to run a calibration operation on the unit before using it.

Normally, only the application firmware is updated. Application firmware revision codes begin with "ee203-app-...". It should not be possible to brick the unit when reprogramming the application. At worst, the application image will not write to flash correctly causing the application to not load or not run properly. The bootloader will still be operational and so the image can be loaded again, or a previous known-good image can be reloaded.

The bootloader itself can also be updated. Bootloader firmware revision codes begin with "ee203-bl-...". It is possible but unlikely to brick the unit when reprogramming the bootloader.

On the EE203 volume there are three files:

APPL\_REV.TXT – A text file containing the name and revision number of the application.  
BOOT\_REV.TXT – A text file containing the name and revision number of the bootloader.  
EE203SER.INF – The usb serial driver.



To verify that a programming operation has been successful, detach and reattach the USB cable after programming to allow the PC to re-enumerate the ee203. Then check the appropriate text file to confirm that the desired firmware revision has loaded.

Rev. 1.2