



Spatial FOG Dual Trimble MB-Two Firmware Upgrade

This document outlines the steps involved in upgrading the firmware of the Trimble MB-Two GNSS receiver that is inside the Spatial FOG Dual. Please contact our Application Support Engineers if you have any questions about this procedure **before** you start: support@advancednavigation.com.

Requirements

- Spatial FOG Dual
- Spatial FOG Dual breakout cable
- RS422-to-USB adaptor cable
- RS232-to-USB adaptor cable
- PC with Java JRE v8 installed

Procedure

1. Download the latest version Spatial FOG Manager from our website:
<https://www.advancednavigation.com/product/spatial-fog-dual#software>
2. Download the special Spatial FOG Dual GNSS Update firmware from here:
https://hq.advancednavigation.com.au/fileshare/spatial_fog_dual_gnss_update.anfw
3. Download and unzip the latest standard Spatial FOG Dual firmware from our website:
<https://www.advancednavigation.com/product/spatial-fog-dual>
4. Download, unzip and run the installer for the Trimble MB Loader utility from here:
https://hq.advancednavigation.com.au/fileshare/TrimbleMBLoaderSetupV6_2_0.zip
5. Download the latest Trimble MB-Two firmware from here:
https://hq.advancednavigation.com.au/fileshare/mb2_upgrade_v4.11.tar
6. Attach the RS422-to-USB adaptor cable to the Primary port of the breakout cable and to a USB port on your PC. Connect to the Spatial FOG Dual with Spatial FOG Manager using the correct COM port and baud rate.
7. In Spatial FOG Manager, go to the View menu and choose GNSS Receiver Information to view the current Trimble MB-Two firmware version. If the version is already at v4.11 you can stop here.
8. In Spatial FOG Manager, go to the Tools menu and choose Firmware Update and update the Spatial FOG Dual with the special Spatial FOG Dual GNSS Update firmware from Step #2.
9. Once the firmware update has completed, disconnect and then close Spatial FOG Manager. Unplug the RS422-to-USB adaptor cable from the PC.



10. Attach the RS232-to-USB adaptor cable to the GNSS RS232 connector of the Spatial FOG Dual breakout cable and to a USB port on your PC.
11. Run the Trimble MB Loader utility you installed in Step #4, select the appropriate COM port and then click the Upgrade button. Do not change the baud rate from 115200 bps.



12. When you are prompted for the firmware file select the mb2_upgrade_v4.11.tar file from Step #5 and then press the Update button.
13. **Once the upgrade starts do not stop it!** Wait for the upgrade to complete. This may take 40 to 50 minutes.
14. After the upgrade is completed, close the Trimble MB Loader utility and disconnect the RS232-to-USB adaptor cable. Reconnect the RS422-to-USB adaptor cable to the Primary port of the breakout cable and to a USB port on your PC.
15. Restart Spatial FOG Manager and connect to the Spatial FOG Dual. Using the Firmware Update function in Spatial FOG Manager, load the latest Spatial FOG Dual firmware previously downloaded at Step #3.
16. Please power cycle the Spatial FOG Dual. You are now finished the upgrade procedure. To confirm success, in Spatial FOG Manager, go to the View menu and choose GNSS Receiver Information and Device Information to check the installed firmware versions are as expected.