## **UBLOX GNSS Firmware Update Mesa 2 (Windows)**

## **Update UBLOX GNSS Firmware**

- 1. Open 'u-center' on your Mesa 2 (if not installed, you can download it <u>here</u>). It is easier to view in landscape mode.
- 2. Connect to COM 4 (depends on the GNSS port on your Mesa 2. Usual port is COM 4) by clicking the **Down Arrow** to the right of the green (or clear) cable icon shown below to connect. It will turn green once connected.



3. Set Baud Rate to **9600** by clicking the **Down Arrow** to the right of the baud rate icon shown below to connect. You must choose this baud rate to update.



- Put the Mesa 2 in a location where satellites can be seen. Note: If you are outdoors with the Mesa 2 it will reliably find satellites, but it may have difficulty seeing satellites while indoors.
- 5. Verify communications are working correctly between the Mesa 2 and the GNSS Receiver. You should see a green COM link in the bottom right of the screen and should see satellite data update every second. In the top right of 'u-center' you can see if you have a fixed solution "Fix

Mode = 3D". If communications are not working correctly, review the previous steps to identify what was missed. It maybe you chose the wrong COM Port.

Image below is of a working system:



6. Check your firmware version by doing the following:

On the PC, Click View -> Messages View (F9) - > Expand UBX -> Expand MON -> Click on VER (Version)

You will see a label Titled Software Version showing 2.01 (75350) (or similar)

NOTE: When updating the NEO-M8P or NEO-M8N you should use the Firmware 3.01 HPG 1.40 File

(107900) See example below:

NOTE: When updating the NEO-M8T you should use the Firmware 3.01 TIM 1.10 File

P COM4 - u-center 18.10	COM4 - u-center 18.10 - [Messages - UBX - MON (Monitor) - VER (Version)]
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Messages - UBX - MON (Monitor) - VER (Version)	B- ESF (External Sensor Fusion)     B- HNR (High Navigation Rate)     UBX - MON (Monitor) - VER (Version)
- MSGPP (Mess. A PATCH (Instal	- INF (Information) B- LOG (Data Logger) FXT COBE 3 01 (107900)
RF (RF Informa RXBUF (RX But 2 01 (7550)	B- MGA (Multiple GNSS Assista - MON (Monitor)  Bardware Version  Construction  Bardware Version  Dotsolog  00080000  Dotsolog  Dotsolo
	EXCEPT (Exception Dum)     GNSS (Default System Se     HW (Hardware Status)     FWVER=SPG 3.01
UVER (Version)         ⊕ NAV (Navigation)         ⊕ SEC (Security)         ⊕ TIM (Timing)         ⊕ UPD (Firmware Ur *	<ul> <li>HW2 (Extended Hardwar</li> <li>HW3 (Extended Hardwar</li> <li>IO (IO System)</li> <li>HW2 (Extended Hardwar</li> <li>HW3 (Exten</li></ul>
	MSGPP (Message Parse & PATCH (Installed Patche RF (RF Information)
	- RXBUF (RX Buffer) - RXR (RX Ready) SMCR (Swe Reagens)
	- SMUR (Sync Manager) - TXBUF (TX Buffer) - VER (Version)

Version 2.01 – Needs to be updated

Version 3.01 – After Update

7. Navigate to the ublox.com website to get the latest firmware. https://www.u-blox.com/en/product/neo-m8-series

The latest version (as of this publication) is downloaded from this link: <u>https://www.u-</u> blox.com/sites/default/files/UBX\_M8\_301\_SPG.911f2b77b649eb90f4be14ce56717b49.bin

The latest release notes are downloaded from this link: <u>https://www.u-blox.com/sites/default/files/GNSS-FW3.01\_ReleaseNotes\_%28UBX-16000319%29\_Public.pdf</u>

- 8. Click Tools -> Legacy Firmware Update...
- 9. Choose the .bin file downloaded from the ublox website.
- 10. Leave the Flash definition file blank
- 11. Fill the Flash Information Structure (FIS) field by clicking the 3 dots to the right of the window and choosing the .xml file found at this location. C:\Program Files (x86)\u-blox\u-center\_vxx.xx\flash.xml (where xx.xx = Ublox version number used)
- 12. Check the checkbox "Use this Baudrate for update" and select 9600.
- 13. Leave "Program FIS" only unchecked
- 14. Leave "USB alternative update method" unchecked
- 15. Check "Enter Safeboot before update"
- 16. Check "Send Training" sequenceHere is an example of the correct settings:

u-blox 5 - 8 Flash Firmware Upd	ate X
Firmware image	
Flash definition file (needed for generations 5 / 6)	
	▼ …
Flash Information Structure (FIS) file (needed for generations 7 / 8 / M8)	
C:\Program Files (x86)\u-blox\u-center_v18.10\flash.xml 🗨	
☑ Use this Baudrate for update	USB alternative update method
9600 💌	Enter Safeboot before update
🔽 Clear BBR before update	Send Training sequence
Program FIS only	OK Cancel

- 17. Click "OK" The programming should be completed in approximately 30 seconds.
- 18. Repeat Step #6 and verify the Firmware has been updated to the version desired.
- 19. If you are unsuccessful, try closing U-Center and restarting the process to try again.
- 20. You should now be updated to the latest version of firmware on the ublox GNSS device.