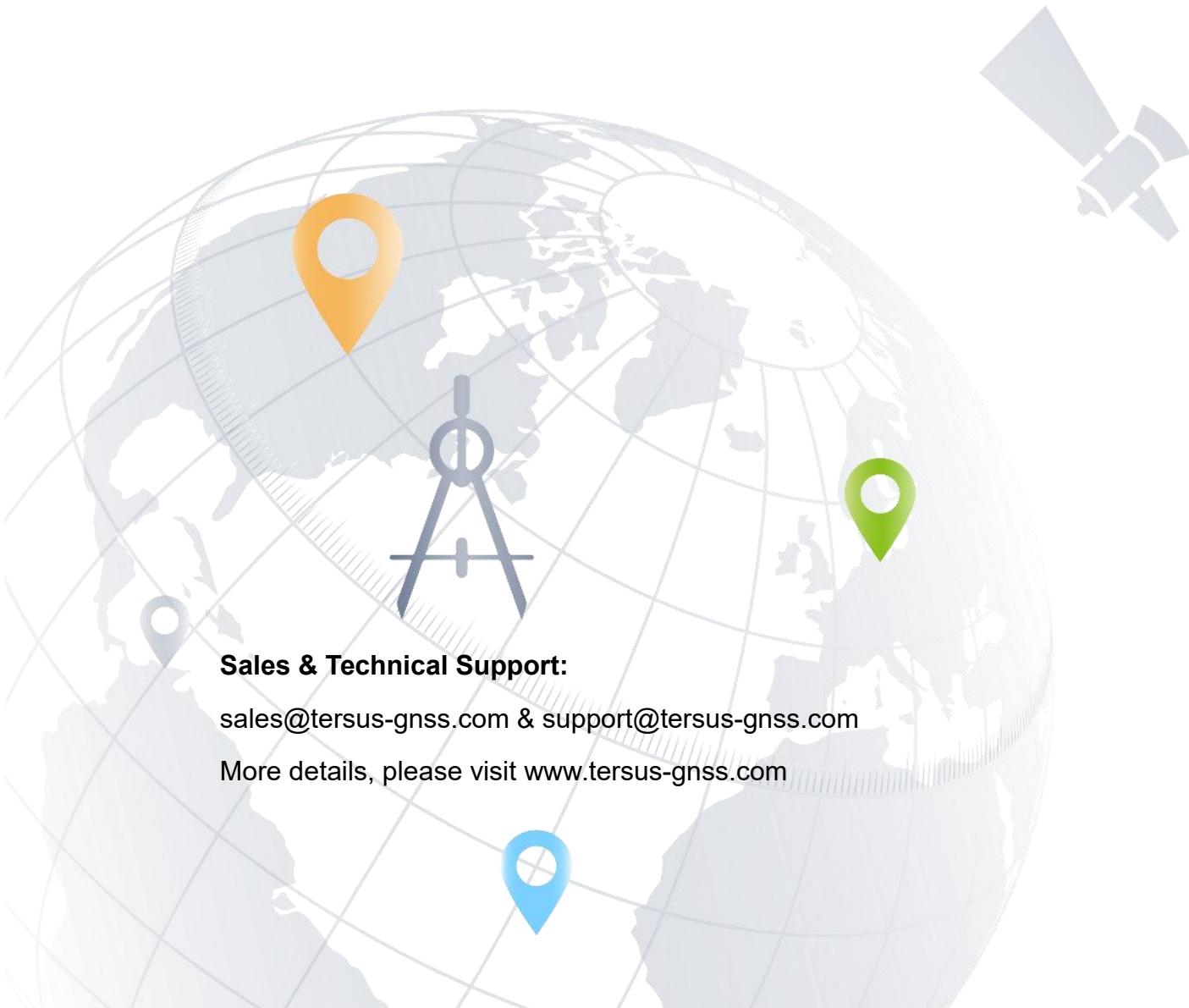


# Oscar Trek GNSS Receiver Firmware Upgrade Guide

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## Table of Content

Table of Content .....	- 1 -
List of Tables .....	- 1 -
List of Figures .....	- 1 -
1. Interfaces of Oscar Trek .....	- 2 -
2. Firmware Upgrade .....	- 3 -
2.1 View Oscar Trek firmware version .....	- 3 -
2.2 Upgrade the firmware through the built-in storage of the host .....	- 4 -

## List of Tables

Table 1    Interfaces on the bottom side .....	- 2 -
--	-------

## List of Figures

Figure 1    Bottom of Oscar Trek .....	- 2 -
--	-------

## 1. Interfaces of Oscar Trek

The bottom of Oscar Trek receiver is shown as below.

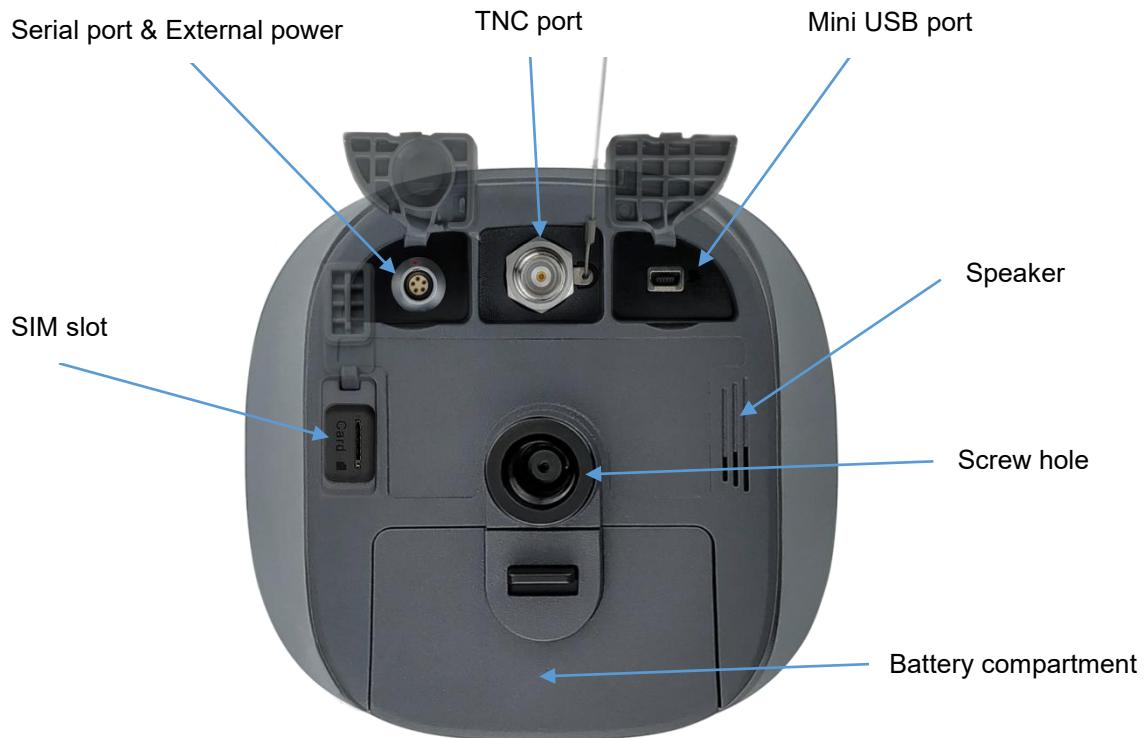
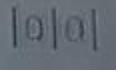


Figure 1 Bottom of Oscar Trek

Table 1 Interfaces on the bottom side

Icon	Connector	Name	Connections
		Serial port & External power	External power, RS-232 communication, external radio
		Mini USB port	Device, computer, USB drive
SIM		SIM slot	Nano SIM card
-		TNC port	410-470MHz Radio Antenna
		Screw hole	It is a 5/8" x 11 UNC female connector for corresponding connector and pole.

## 2. Firmware Upgrade

### 2.1 View Oscar Trek firmware version

When Oscar Trek GNSS receiver is powered on, go to [Device] -> [Connect] in Nuwa App, and select [Oscar Trek] as the Device Type. Tap [Connect Config] to search for and connect to the Oscar Trek's WiFi. Then click [Connect] to enable the communication between controller and Oscar Trek.

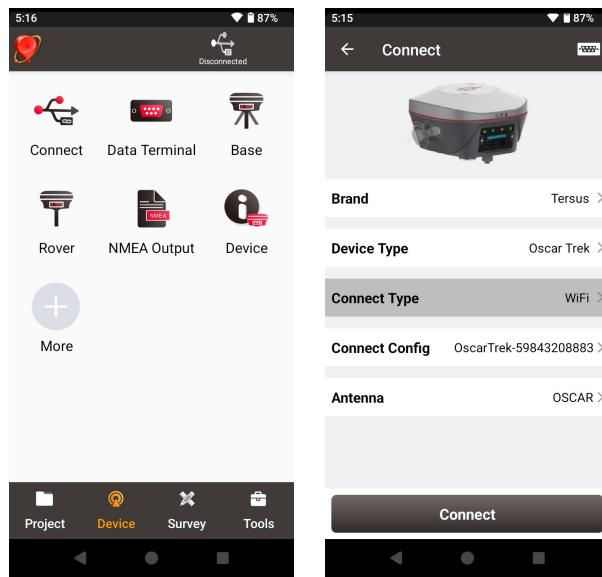


Figure 2 Connect to Oscar Trek via WiFi

Click [Device] -> [Device], the Oscar Trek info is shown as below. You can view Oscar Trek firmware version.

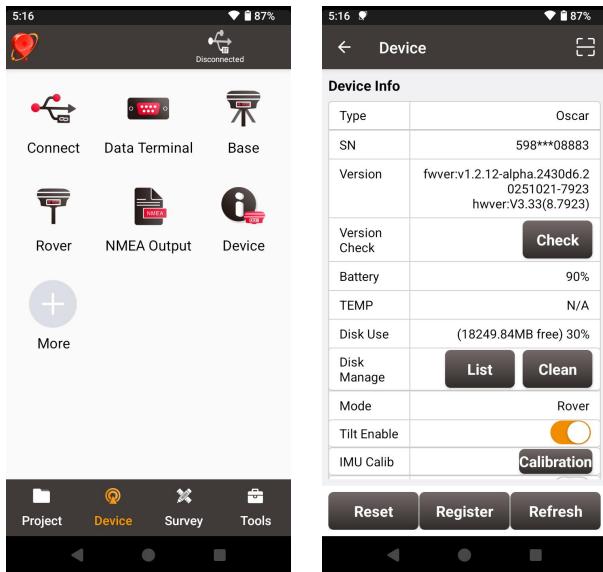


Figure 3 View Oscar Trek firmware version

You can also check the firmware version on the Trek LED panel.

In [Device Info] - [GNSS Info], view the firmware version of internal GNSS board.

In [Device Info] - [FW], view the Oscar Trek firmware version.

## 2.2 Upgrade the firmware through the built-in storage of the host

The detailed steps are as follows.

1) Download the latest firmware file from Tersus website

<https://tersus-gnss.com/software/gnss-smart-antennas>

Please be noted that the downloaded file is a .zip file, unzip this file to find the firmware file of .BIN format.

2) Prepare a Mini USB cable, when Oscar Trek is turned on, connect the Mini USB port of Oscar Trek to the computer with a Mini USB cable.



Figure 4 Mini USB cable connect the computer and Oscar Trek

- 3) The computer interface will automatically pop up two removable disks. As shown in the figure below.



Figure 5 Two Removable Disks

- 4) Choose the OscarUpdate removable disk and put the firmware file in the .BIN format on this removable disk. As shown in the figure below, copy the firmware to the OscarUpdate drive.

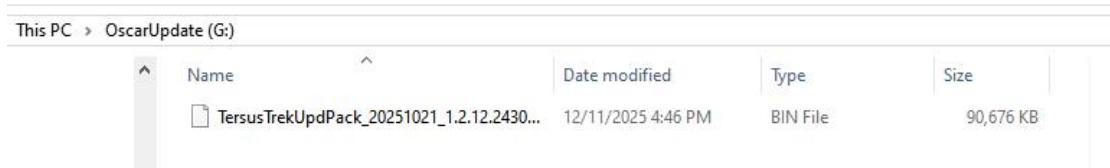


Figure 6 The FW is placed in the OscarUpdate removable disk

- 5) Unplug the Mini USB cable, press and hold the power button for 3 seconds to shut down Oscar Trek .
- 6) Make sure that Oscar Trek is turned off, then press and hold the power button for 2 seconds to turn on Oscar Trek. When the TERSUS icon appears, the boot is successful. Release the button and Oscar Trek will enter upgrade mode. During the upgrade, the device will automatically reboot several times while displaying the TERSUS icon. Please wait until the upgrade is complete.



Figure 7 Upgrading

After the LED panel displays the operation interface, you can check whether the Oscar Trek firmware upgrade is successful. If it is consistent with the latest firmware version in the removable disk, it means the firmware upgrade is successful.

**Note:** Please make sure the battery has enough power for the firmware upgrade. The GNSS board inside Oscar Trek will upgrade when the firmware is upgrading, any forced power failure will cause the system crash.

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