

Application Note

Dec 2020

Author: Edison Ni, OEM Application Engineer at Tersus GNSS

David Yan, North America Regional Sales Manager at Tersus GNSS

Tersus Oscar GNSS Receiver: Configuring the receiver as an Internet Base for any NTRIP capable Rover



Sales Enquiry: sales@tersus-gnss.com

Technical Support: support@tersus-gnss.com

More details, please visit www.tersus-gnss.com

Contents

Contents	2
1. Configuring the Oscar Receiver	3
1.1 Connecting the receiver to the cellular network Internet	3
1.2 Setting the receiver to broadcast correction over TCS.....	4
1.3 Checking the correction status on the OLED display	5
2. Configuring Ntrip client connection on the Rover	6
3. Support.....	7

1. Configuring the Oscar Receiver

1.1 Connecting the receiver to the cellular network Internet

- 1) Insert a SIM card into the receiver. The sim card could be from any one of your local telecom operators. There is nothing special you need to worry about, e.g. a public or static IP address. Just be sure you have a data plan.



- 2) Turn on the cellular network connection over the Configuration Panel on the receiver. Use the two buttons on the panel to operate the menu shown on the OLED display. (For details of the operation over the Configuration Panel, please refer to the Oscar User Manual.)

Main Menu → Device Info → Cellular: ON



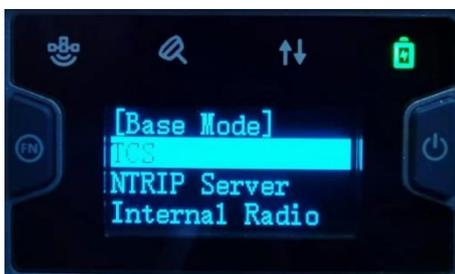


Note: the cellular network is turned on by default.

1.2 Setting the receiver to broadcast correction over TCS

- 1) Enter the TCS configuration page on the OLED display. Use the two buttons on the panel to operate the menu shown on the OLED display.

Main Menu → Mode Config → Base Mode → TCS



- 2) On the TCS page, you have options to change the data format. The formats includes RTCMv3.2, RTCMv2.3, CMR, etc. You also have options to change the server. Typically it is recommended to choose the nearby one according to your location. For example, North American users would choose usacaster1.

Once you have made the proper changes for your application, just scroll

down to 'Confirm'. Then go back to the main menu.



1.3 Checking the correction status on the OLED display

- 1) Set up the receiver in the proper location. (For details of how to set up a base station physically, please refer to the Oscar User Manual.)

Leave the highlight on the first entry of Main Menu. You could monitor the number of SV (Satellites Visible) and battery power.

- 2) Scroll the highlight the second entry. Confirm that you are see the printing 'Mode: Base Network Connected'. You may also refer to the third (from left) LED indicator on the panel. If is LED is flashing GREEN, the correction data stream is fine.



2. Configuring NTRIP client connection on the Rover

Literally the NTRIP correction from Oscar receiver could be used with any third party rover receivers whichever support NTRIP client corrections. These include survey rover receivers, auto-steering system on tractors, machine control systems, RTK UAVs, etc. The supported data formats include RTCM3.2, RTCM3.0, RTCM2.3, CMR, RTD, etc.

Enter the NTRIP client login info as below.

NTRIP Host: `usacaster1.tersus-gnss.com` (or other servers corresponding to your chosen option in previous steps)

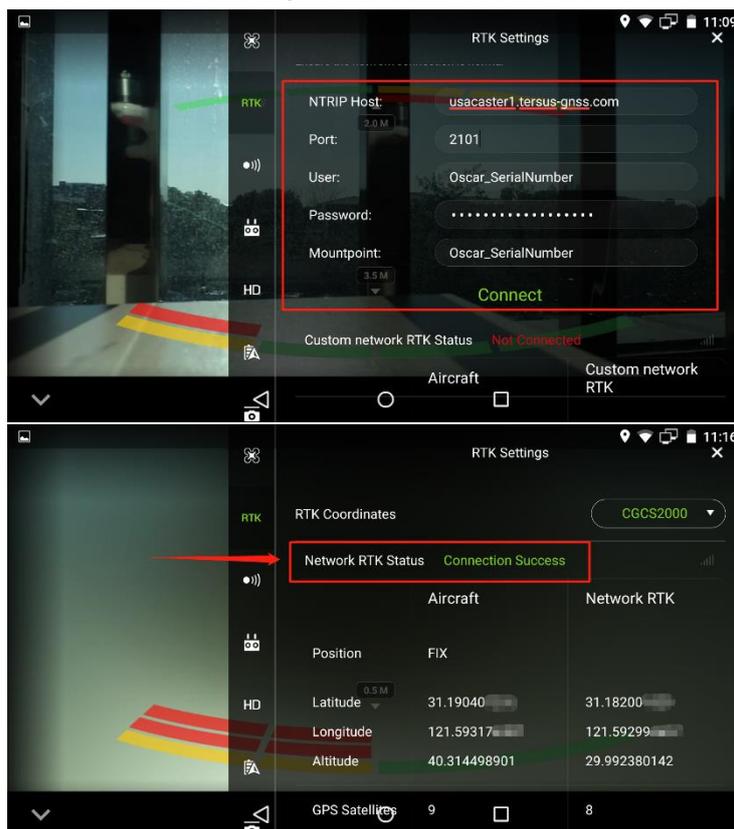
Port: `2101`

User: `OSCAR_SerialNumber`

Password: `OSCAR_SerialNumber`

Mountpoint: `OSCAR_SerialNumber`

Here we take the DJI Phantom 4 RTK drone as an example.



Note: find the Serial Number on the bottom of your Oscar receiver. You may find a string like 'S/N:1234567890'. In this example, your user name, password and mountpoint is OSCAR_1234567890.

3. Support

Should you need any technical support, please contact your local Tersus dealers or your sales representatives at Tersus GNSS.