TOPCON GR-3 w/CDMA MODEMS using Carlson SurvCE on Verizon

Setup for Reference Networks and switching unit to UHF mode
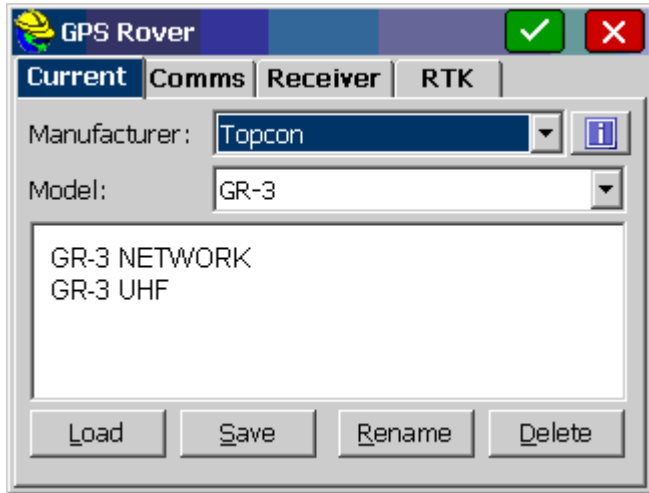
SurvCE Version 2.08 or higher
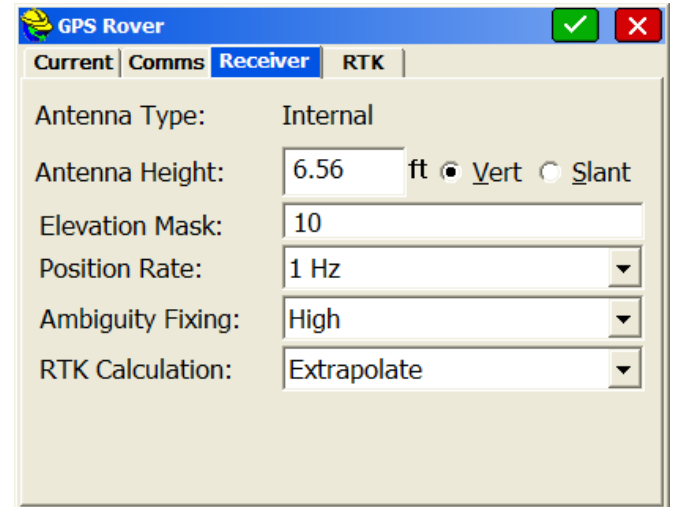**Topcon GPS firmware 3.3p4**
Modem Firmware Ver 1.6 Rev G
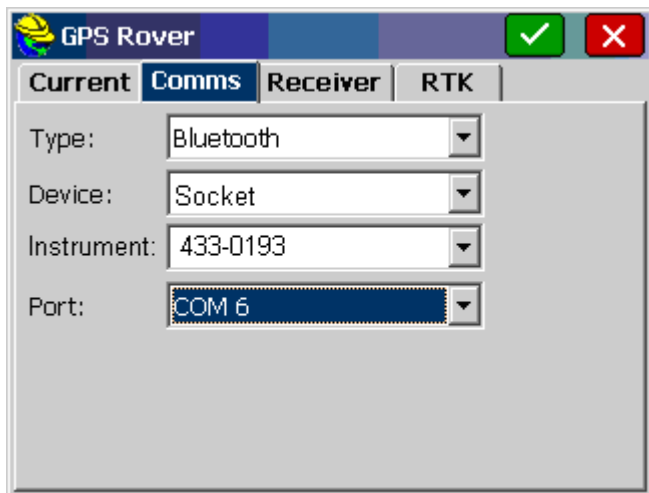**Serial Interface Baud of 115200**

1. Click on the **Equip** tab on the main screen, choose option **3: GPS Rover**, select Topcon and GR-3 (A good Rep will have 2 setups already in the bottom menu). If you are currently not in Network, click on it and hit **LOAD.**
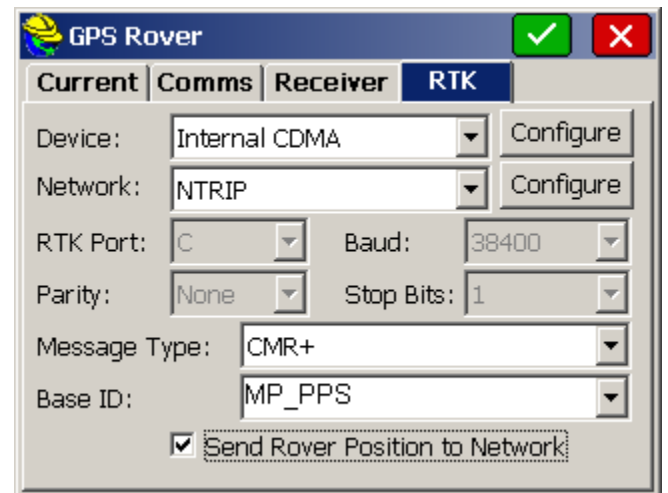
GPS Rover

| Current | Comms | Receiver | RTK |

Manufacturer: Topcon

Model: GR-3

GR-3 NETWORK
GR-3 UHF

Load   Save   Rename   Delete

3. Set Receiver options, set Height and Mask to your specifications

GPS Rover

| Current | Comms | Receiver | RTK |

Antenna Type: Internal

Antenna Height: 6.56   ft ⦿ Vert ○ Slant

Elevation Mask: 10

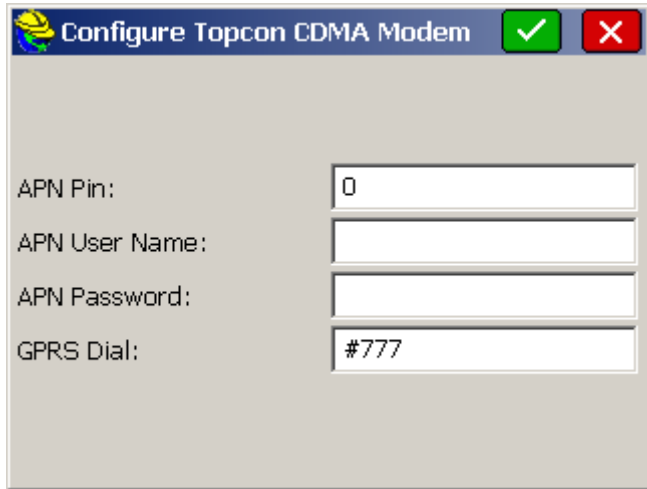Position Rate: 1 Hz

Ambiguity Fixing: High

RTK Calculation: Extrapolate

2. Select Type, either Bluetooth or Serial Cable, then select the instrument for Bluetooth, use defaults for the Serial Cable

GPS Rover

| Current | Comms | Receiver | RTK |

Type: Bluetooth

Device: Socket

Instrument: 433-0193

Port: COM 6

4. Under the RTK tab, you may initially not have the Base ID option, Step 6 will cover this

GPS Rover

| Current | Comms | Receiver | RTK |

Device: Internal CDMA   Configure

Network: NTRIP   Configure

RTK Port: C   Baud: 38400

Parity: None   Stop Bits: 1

Message Type: CMR+

Base ID: MP_PPS

☑ Send Rover Position to Network

5. Click on the Configure tab to the right of the Device dropdown menu, follow the settings below. Click the green check to accept the options
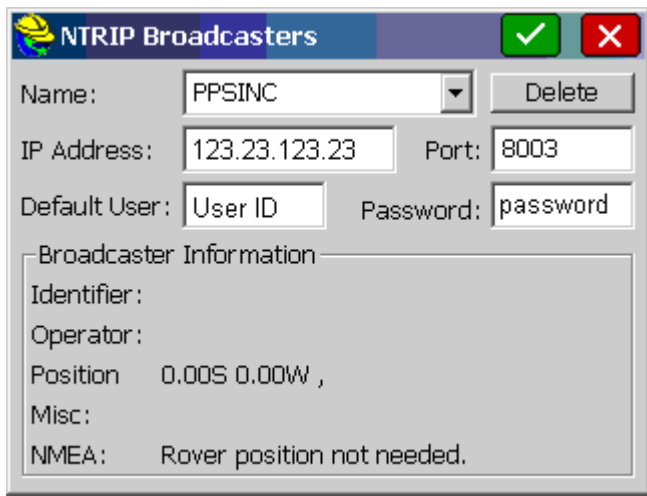

NOTES: It takes about 2 minutes for it to go through each of the configuration screens.

In Modem TPS, the serial baud rate has to be set to 115200.

For future connections, you should only have to click on the GPS Rover tab, then tap the Green Checkmark to connect.

To get a basic idea of the distance to the Base Station you are connecting to Tap on Equip tab / Monitor Skyplot / then tap the Ref tab

6. Click on the Configure tab to the right of the Network dropdown menu, follow the settings below. Set the User and Passwords to the ones you've been provided. Click the green check to accept the settings. Once the receiver connects to the reference network, a screen will pop up, this is where you set the Mount Point to MP_PPS
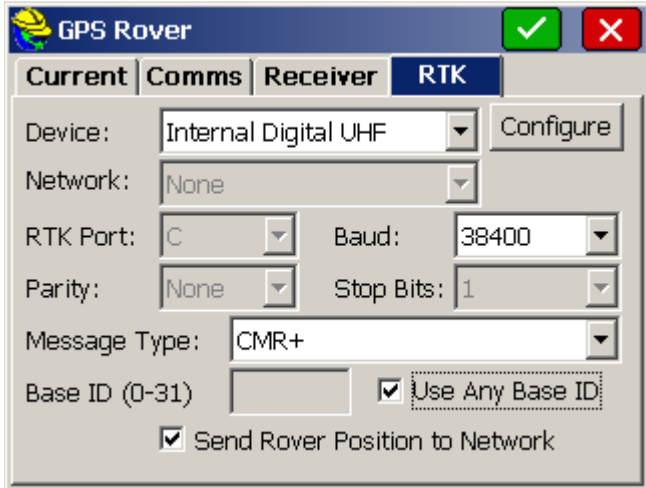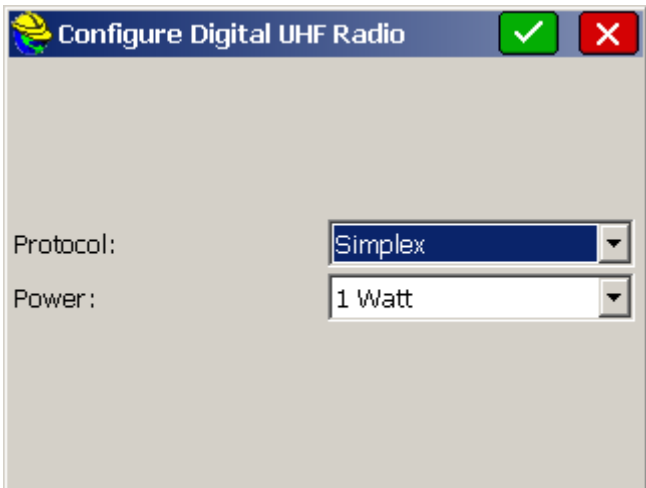

7. You will return to the screen in step 4. Click the green check and it will start connecting to the network.

Setting the Unit to PDL UHF mode

8. Click on the GPS Rover tab (Step1. Click on the UHF setting and hit **Load**) Click on the RTK tab, then click on the Configure to the right of the Device dropdown.

10. This time you should see the Frequency option, confirm your frequency. Click the green check. You will return to the GPS Rover screen, click the green check.

9. Change the Protocol from Simplex to PDL, Click on the green check. It will eventually return to the RTK screen. Click on the Configure button again.
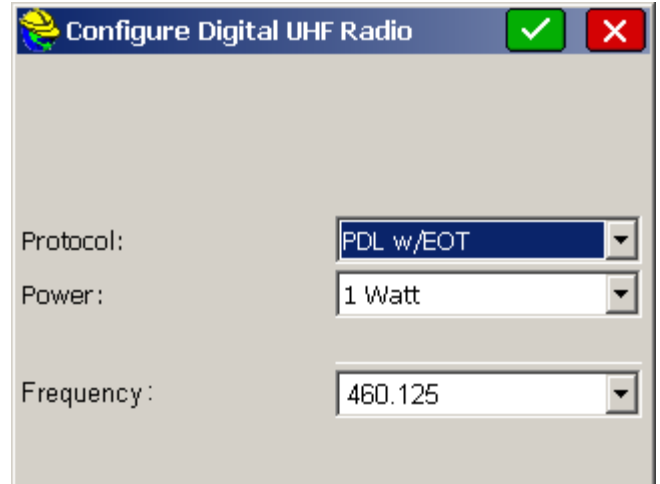
Return to Step 1 to set the modem for a Network connection.