



Support Bulletin

Trimble Positioning Services
OCTOBER 2016
TAP201607-0041-SuppB

CONFIGURING TRIMBLE R9s FOR NEW FREQUENCY AND BAUD RATE

The following instructions will instruct you how to change the frequency and baud on your Trimble R9s. To determine what new frequency and baud rate should be used in your region, please refer to www.trimble.com/sat.

Changing the Frequency and Baud Rate for Trimble RTX on the Trimble R9s

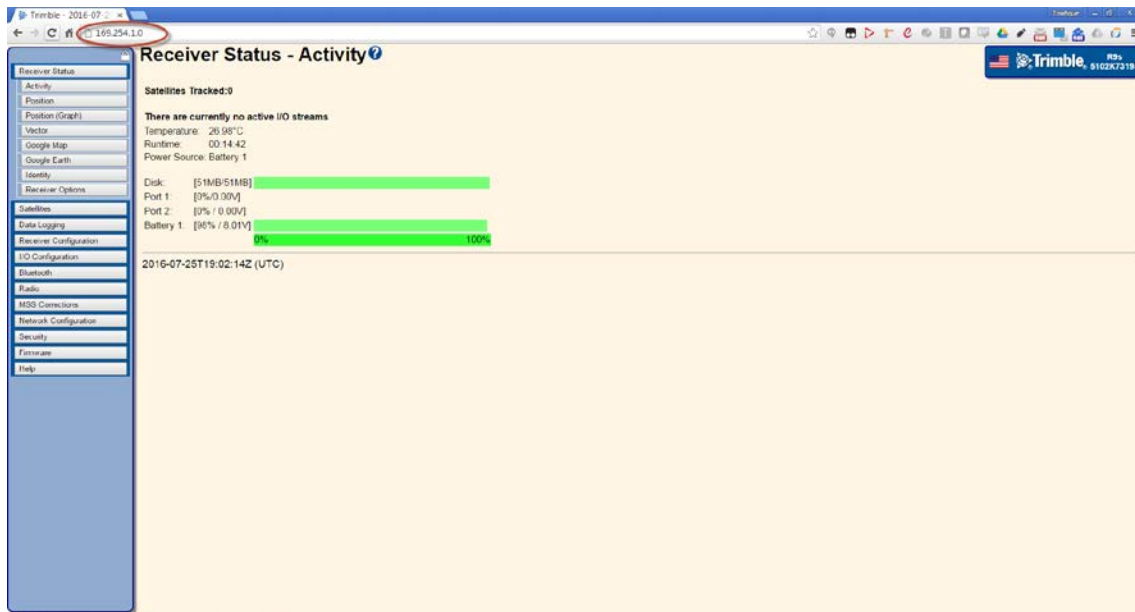
The following set of instructions will instruct you how to change the frequency on your Trimble R9s.

You can change the frequency and baud rate for tracking the Trimble RTX™ satellite by using the web user interface (WebUI).

Connecting to the web user interface (WebUI) of the receiver

1. Connect the Trimble R9s to a PC using an Ethernet cable.
2. Once the receiver is connected to the computer via Ethernet, an IP address will appear on the front panel of the receiver. If the front panel is displaying other information, press either the up or down arrows on the front panel to scroll through different options until an IP address is displayed.
3. On the computer, open up any web browser and type in the IP address from step (2).
4. If the Web UI asks for credentials, the default username is “admin” and the default password is “password”.

Note: If there are any issues with step (3), make sure all other network connections are turned off or disconnected; this includes disconnecting or turning off WiFi.



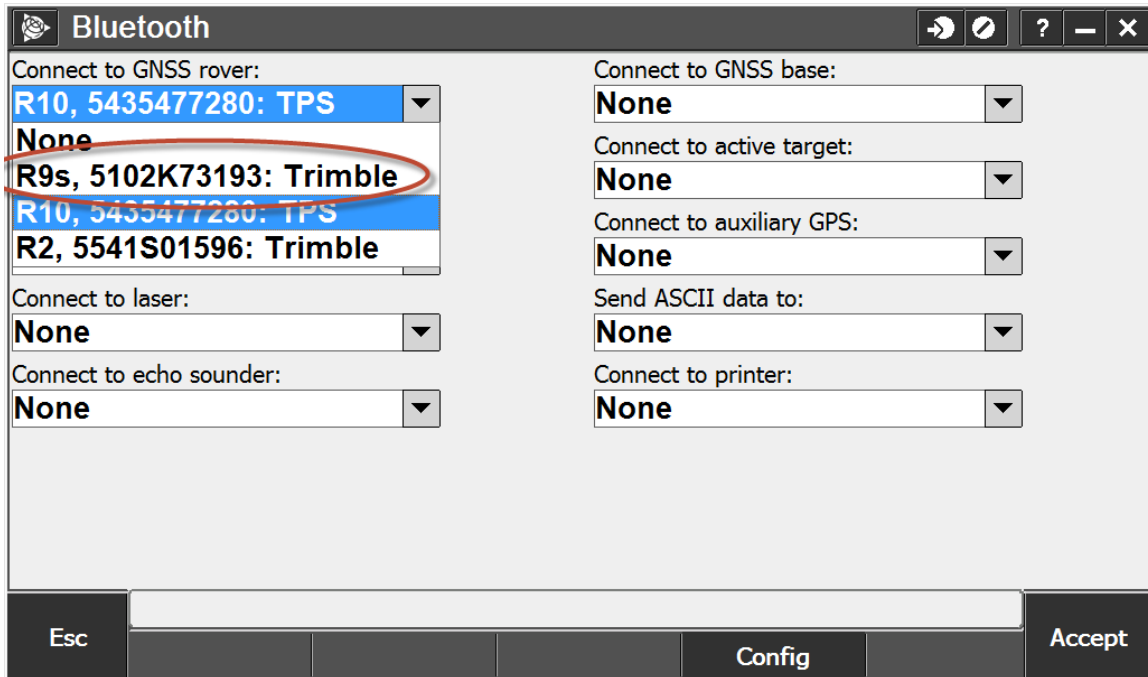
Changing the frequency and baud rate

1. Connect to the WebUI
2. Navigate to the **MSS Corrections**→**Configuration** page
 - a. Confirm that **RTX/xFill** is selected
 - b. Set **SV name** to **Custom**
3. Enter the new satellites settings for your region
 - a. Enter the new frequency in the **Frequency [Mhz]** field
 - b. Enter the new baud rate in the **Bit Rate [Hz]** field
4. Click OK

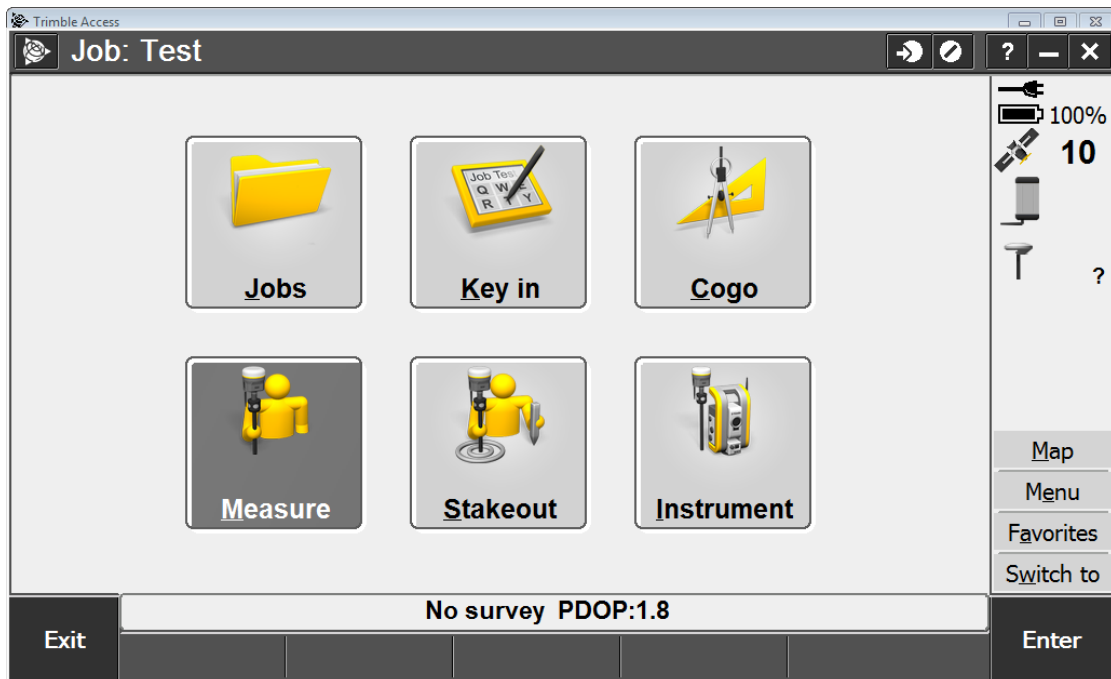


Changing the frequency and baud rate through the Trimble Access field software

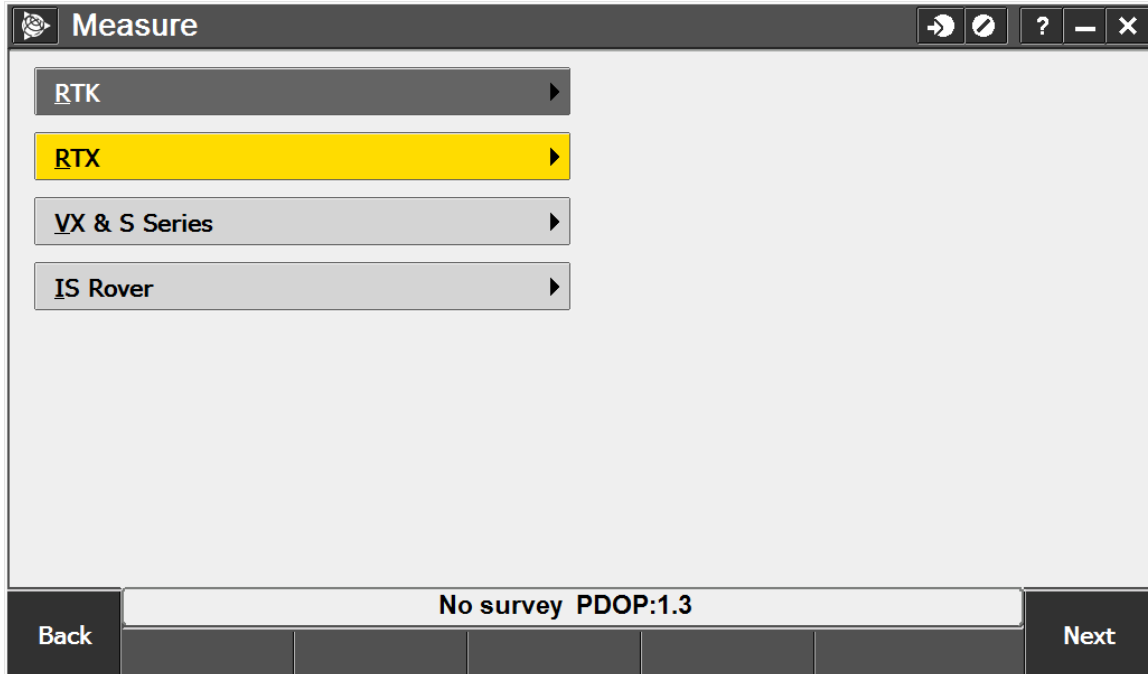
1. Connect to the receiver
 - a. Navigate to **Settings**→**Bluetooth** and select the appropriate receiver under **Connect to GNSS rover**
 - b. Click Accept



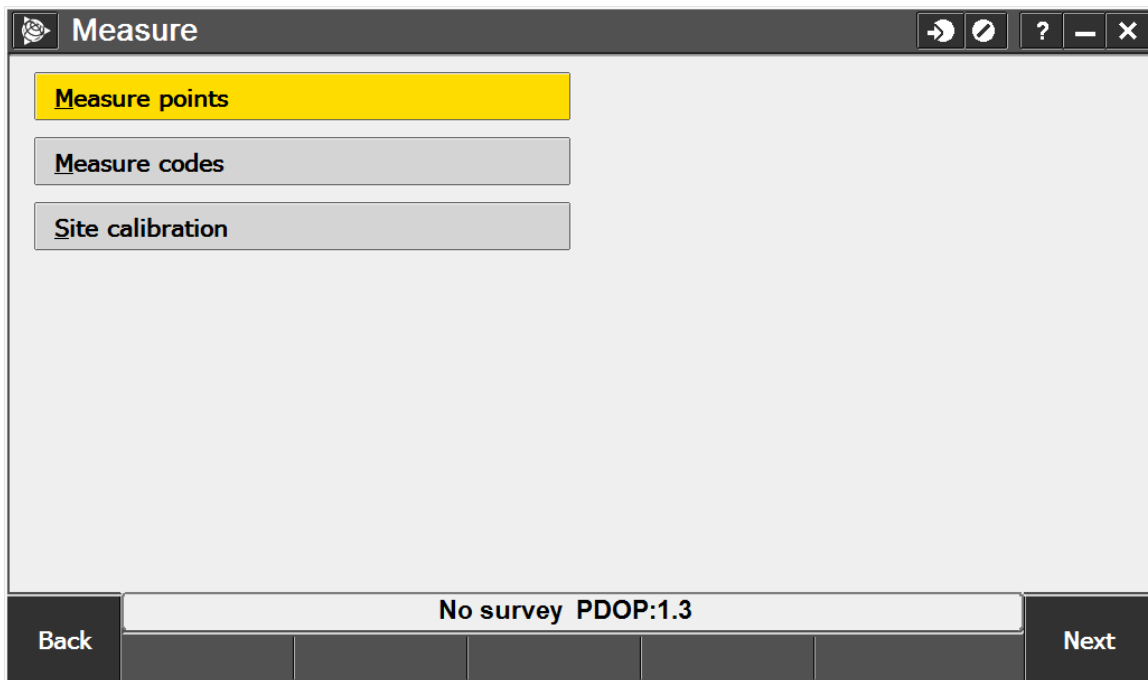
2. Start an RTX survey
 - a. From the **General Survey** main menu, click **Measure**



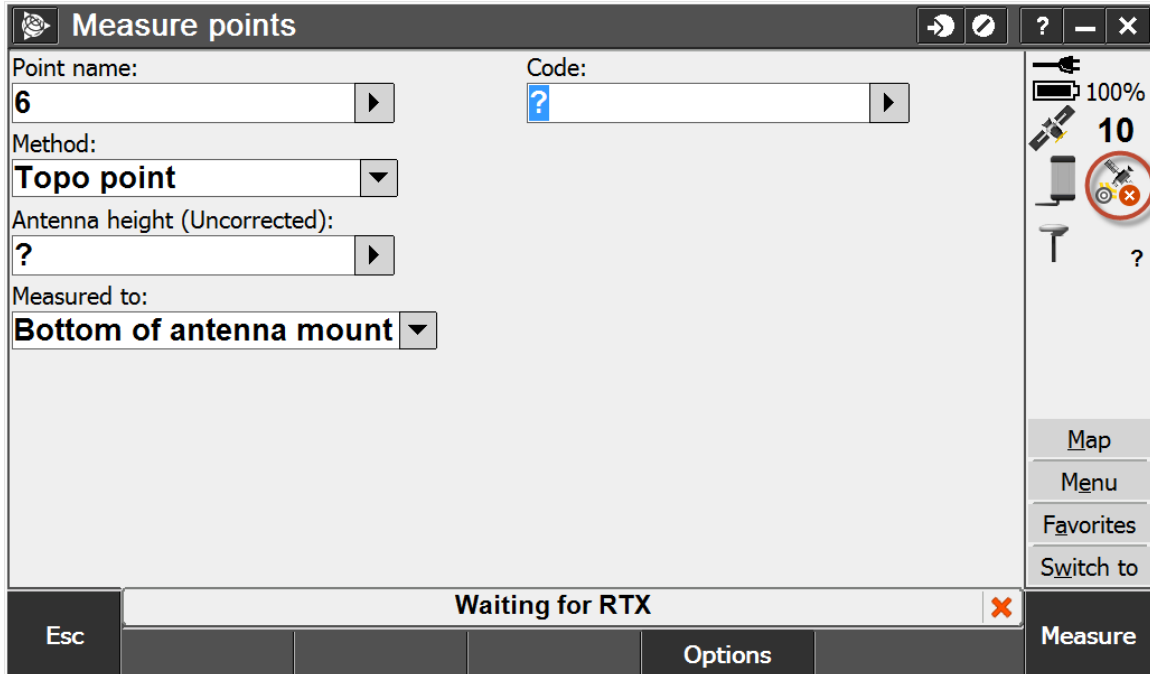
b. Select an RTX Survey Style



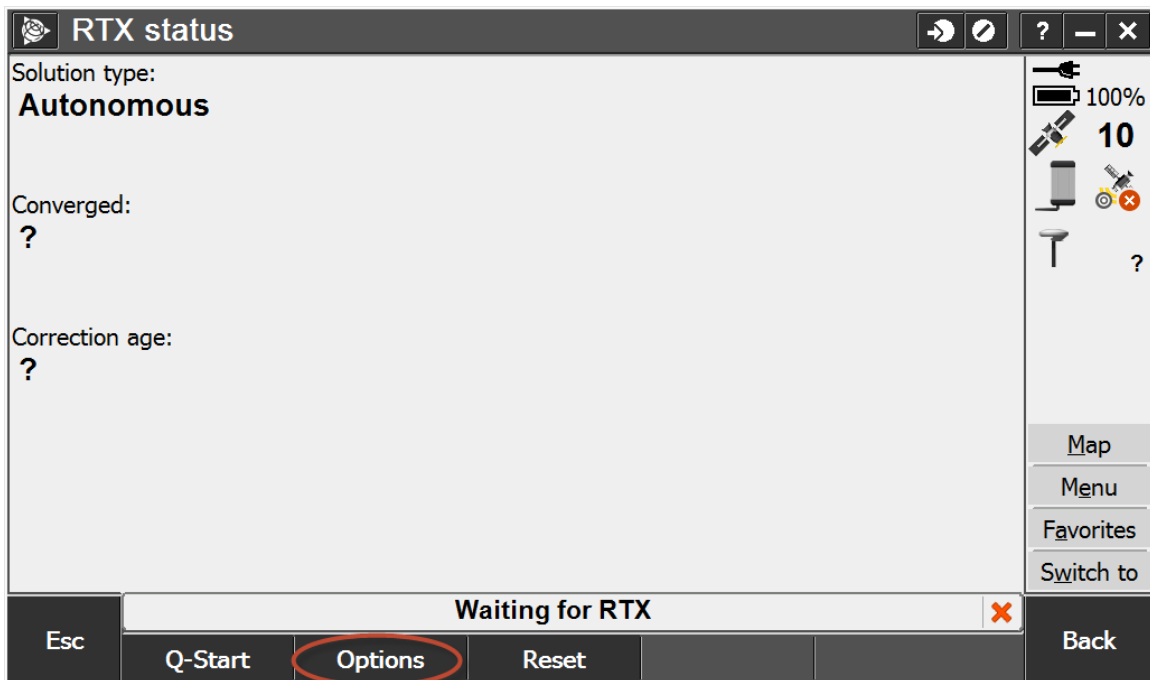
c. Click Measure points



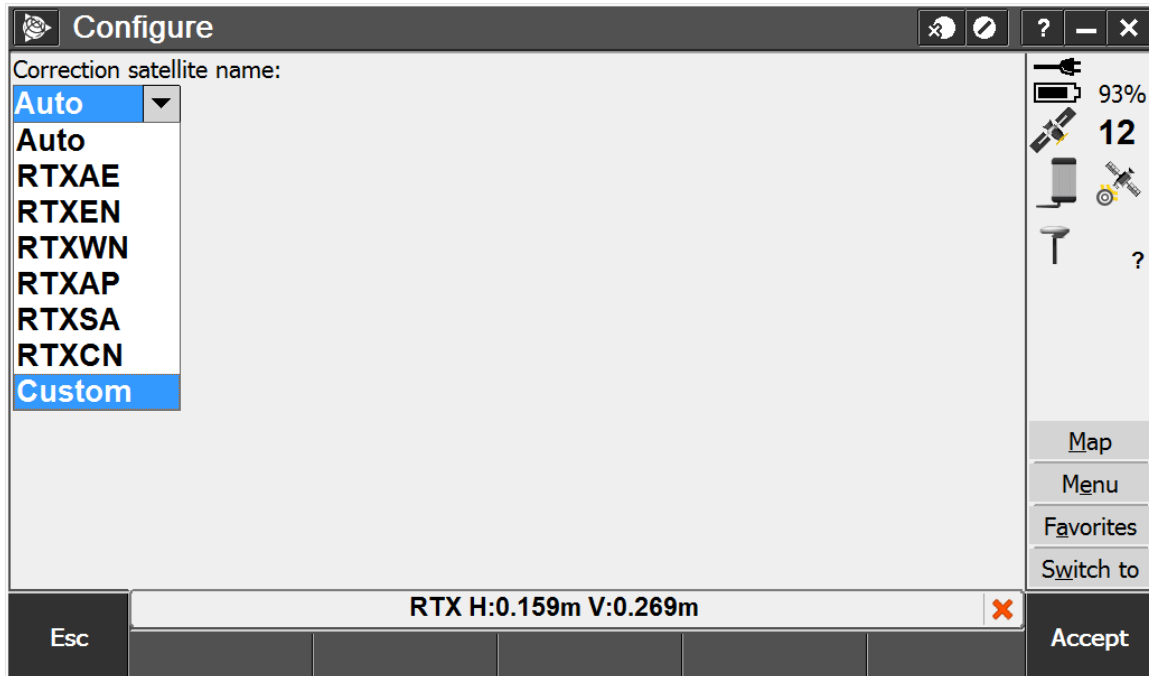
3. Select the Satellite icon



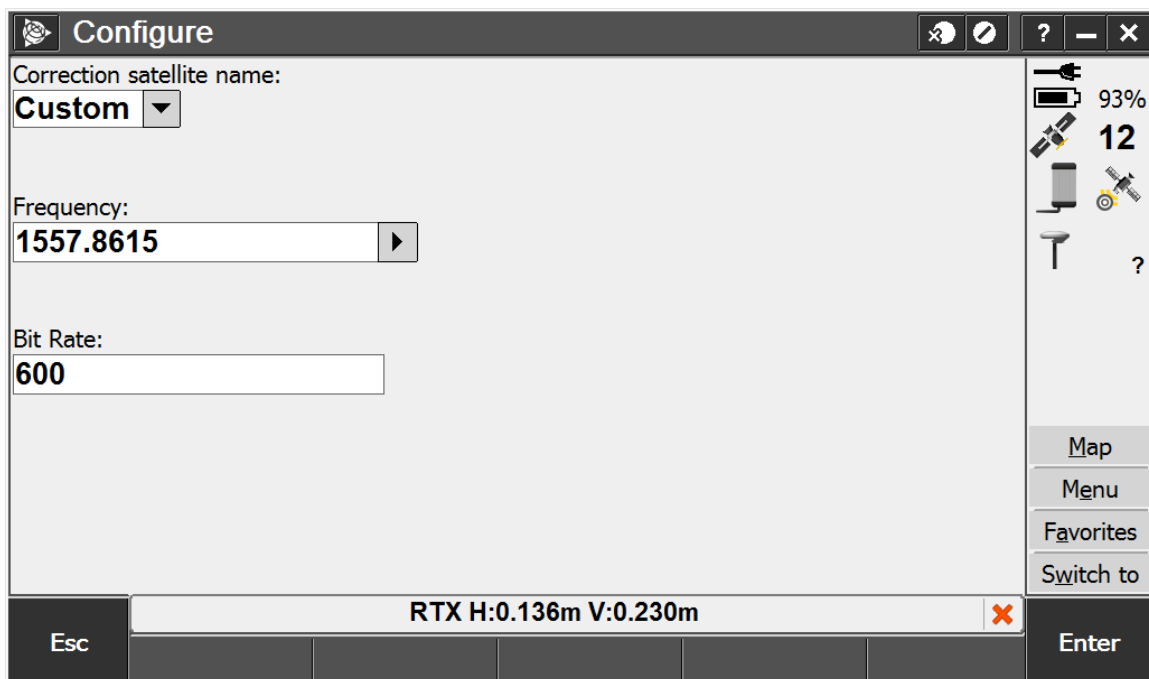
4. Select **Options**



5. Select **Custom** from the dropdown menu



6. Enter the new satellites settings for your region
 - a. Enter the new frequency in the **Frequency** field
 - b. Enter the new baud rate in the **Bit Rate** field



7. Click Enter, and then Accept

Changing the Frequency and Baud Rate for OmniSTAR on the Trimble R9s

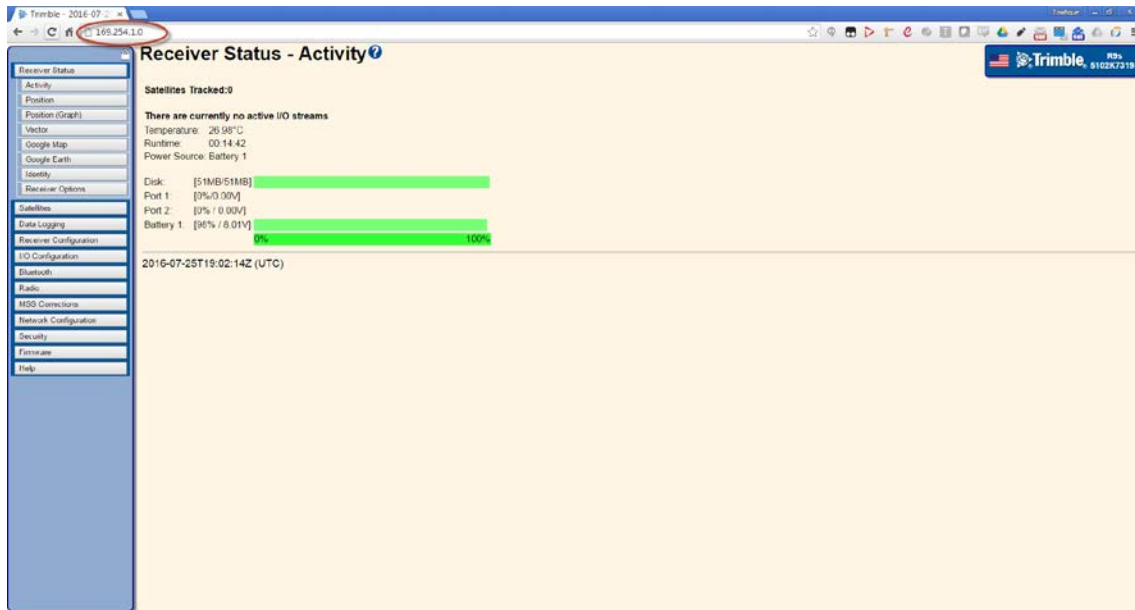
The following set of instructions will instruct you how to change the frequency on your Trimble R9s.

You can change the frequency and baud rate for tracking the OmniSTAR® satellite by using either the web user interface (WebUI) or the front panel of the receiver.

Connecting to the web user interface (WebUI) of the receiver

1. Connect the Trimble R9s to a PC using an Ethernet cable. You will need to use the Serial to Ethernet dongle.
2. Once the receiver is connected to the computer via Ethernet, an IP address will appear on the front panel of the receiver. If the front panel is displaying other information, press either the up or down arrows on the front panel to scroll through different options until an IP address is displayed.
3. On the computer, open up any web browser and type in the IP address from step (2).
4. If the Web UI asks for credentials, the default username is “admin” and the default password is “password”.

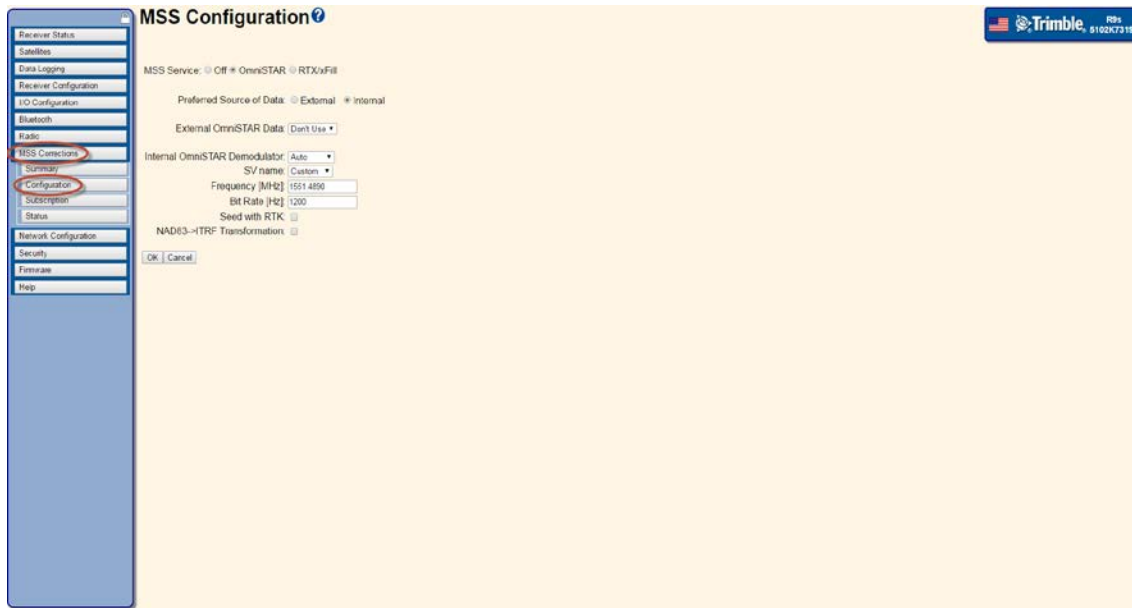
Note: If there are any issues with step (3), make sure all other network connections are turned off or disconnected; this includes disconnecting or turning off WiFi.



Changing the frequency and baud rate through the webUI

1. Connect to the WebUI
2. Navigate to the **MMS Corrections**→**Configuration** page
 - a. Confirm that **RTX/xFill** is selected
3. Confirm the following settings
 - a. **Preferred Source of Data:** Internal
 - b. **External OmniSTAR Data:** Don't Use
 - c. **Internal OmniSTAR Demodulator:** Auto
 - d. **SV name:** Custom
 - e. **Max Data Outage:** 90 Sec

4. Enter the new satellites settings for your region
 - a. Enter the new frequency in the **Frequency [Mhz]** field
 - b. Enter the new baud rate in the **Bit Rate [Hz]** field
5. Click OK



Changing the frequency and baud rate through the front panel of the receiver

1. From the main screen press the **Enter** key once to access the **Operation Mode** screen
2. Press the **Down Arrow** key until **MSS Config** is selected
3. Press the **Enter** key to enter the **MSS Config** screen
4. Press the **Down Arrow** key until **Omni* Auto** is selected
5. Press the **Enter** key until the **Satellite** screen is shown
6. Press the **Down Arrow** key until **Manual/XXXX** is shown, where **XXXX** can be any satellite name
7. Press the **Enter** key to enter the **Manual Sv** screen
8. Press the **Down Arrow** key until **Custom** is shown
9. Press the **Enter** key until the **Freq** screen is shown
10. Use the **Right Arrow** and **Left Arrow** keys to move the cursor and select a digit. Use the **Up Arrow** and **Down Arrow** keys to change the digits to the correct **Frequency** for your area
11. Press **Enter** key once to set the **Frequency**, and once more to get to the **Bit Rate** screen
12. Use the **Right Arrow** and **Left Arrow** keys to move the cursor and select a digit. Use the **Up Arrow** and **Down Arrow** keys to change the digits to the correct baud rate (**bit rate**) for your area
13. Press **Enter** until you return to the main screen

Changing the Frequency and Baud Rate for xFill on the NetR9 Geospatial


Trimble xFill utilizes the same satellite beams as Trimble RTX; you can follow the same directions presented in [Changing the Frequency and Baud Rate for RTX](#) and xFill will automatically use the new satellite beam settings.

Verifying Correct Operation for Trimble RTX

Once you have reconfigured your receiver to the correct new satellite settings for your region, you can confirm that you are receiving the signal by following the steps below.

Verification through the webUI

1. Make sure the antenna connected to the receiver is outside with a clear and open view of the sky
2. Connect to the WebUI
3. Navigate to the **MSS Corrections**→**Summary** page
4. The **Mode** field should display **Tracking**



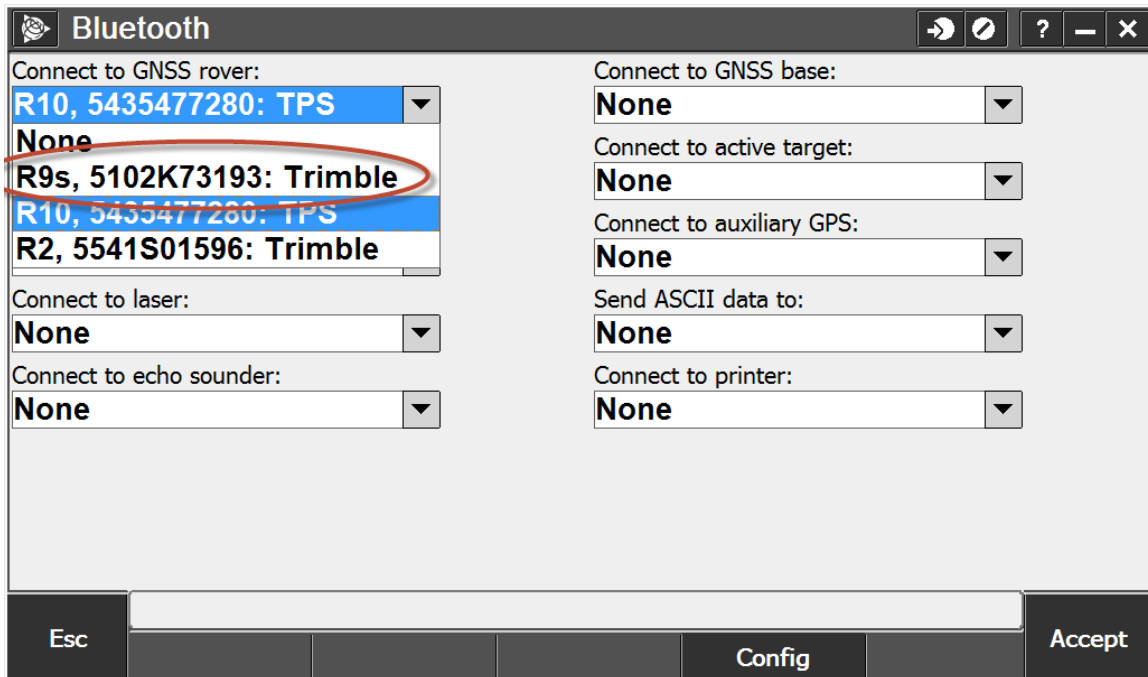
MSS Summary	
Service	RTX/xFill
Setting	RTX
SV name	Custom
Frequency [MHz]	1557.8615
Bit Rate [Hz]	600
Mode	Tracking
SNR [dBHz]	41.57
Link %	100.0
Age of Correction[sec]	0.0

Verification through the Trimble Access field software

1. Make sure the antenna connected to the receiver is outside with a clear and open view of the sky

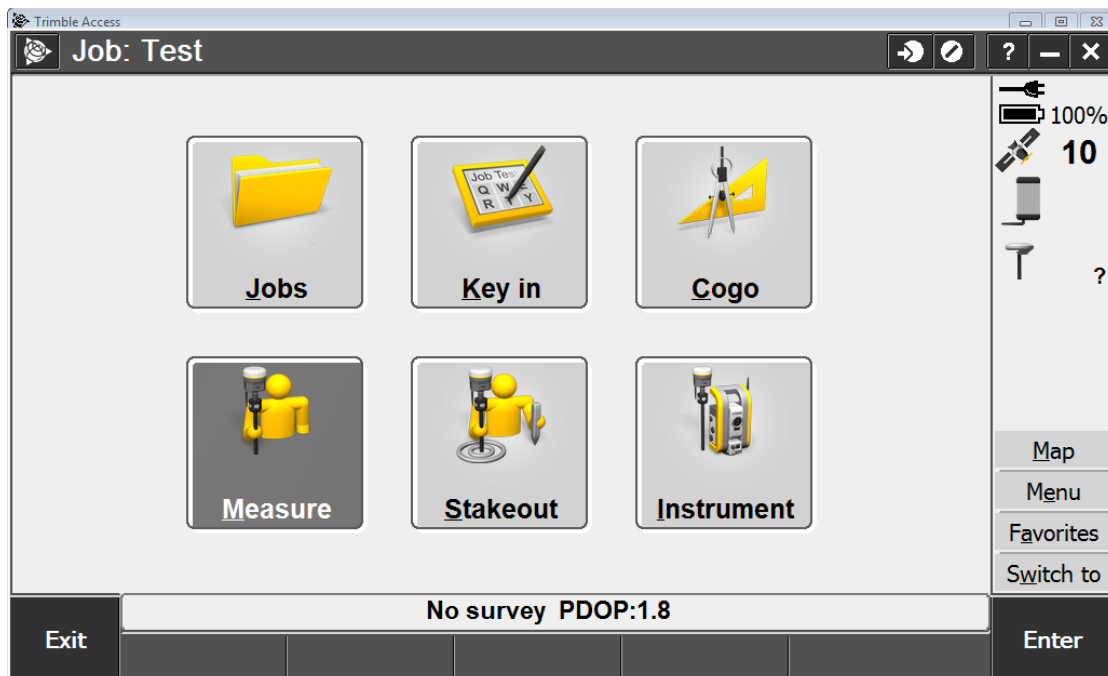
2. Connect to the receiver

- a. Navigate to **Settings**→**Bluetooth** and select the appropriate receiver under **Connect to GNSS rover**
- b. Click Accept

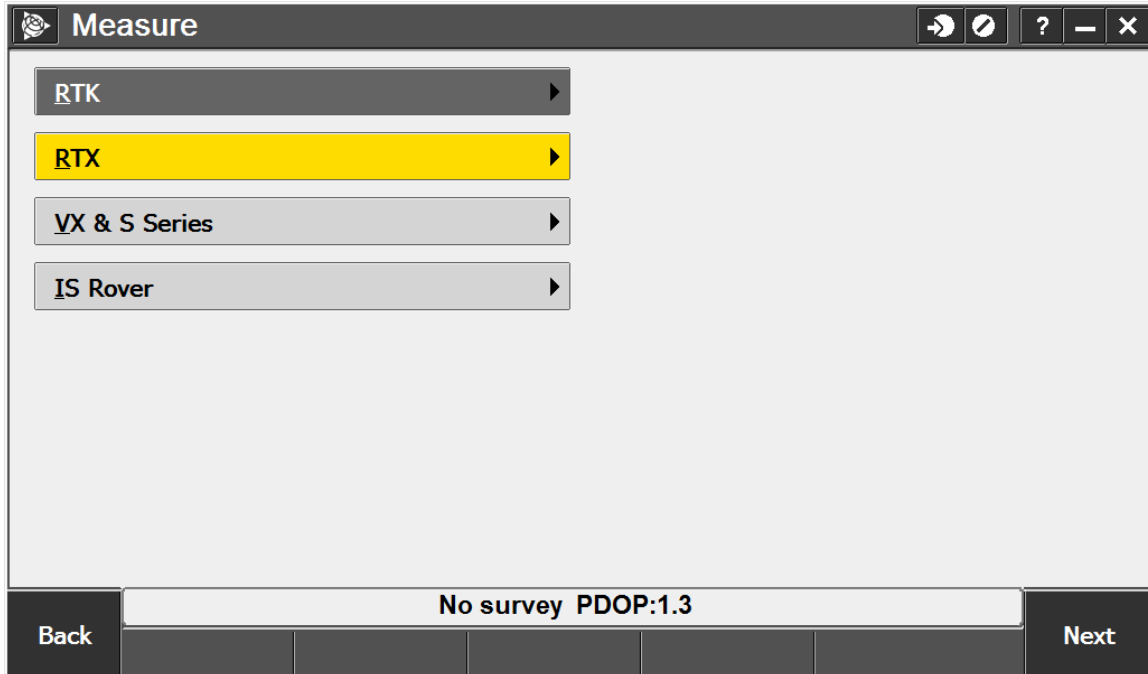


3. Start an RTX survey

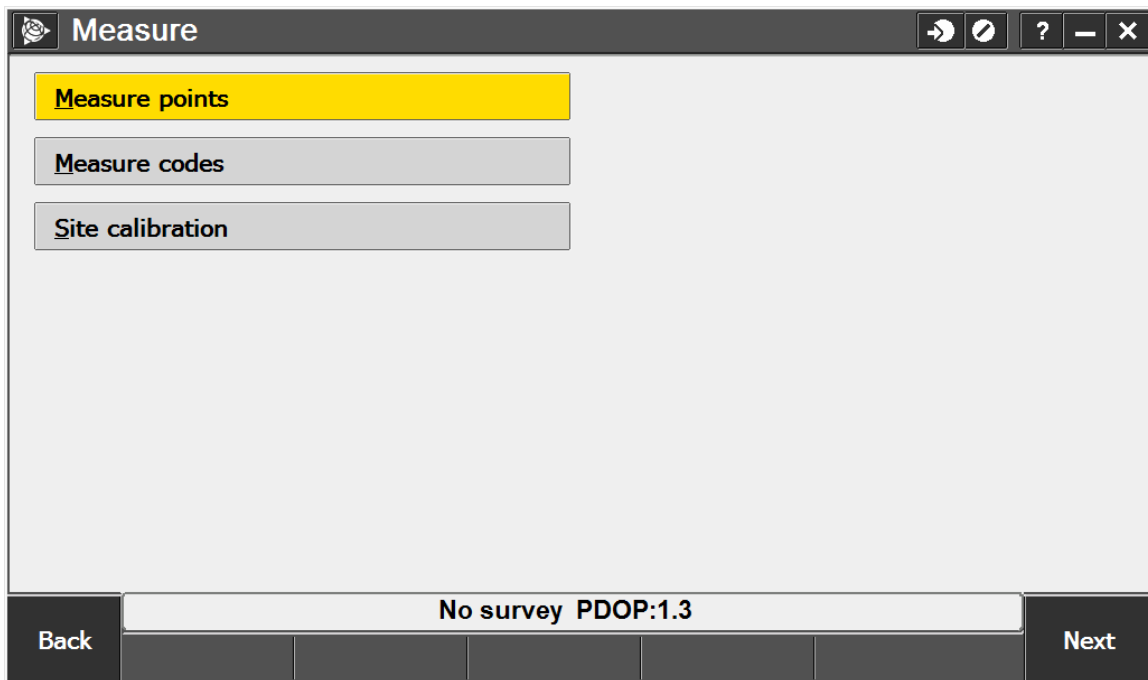
- a. From the **General Survey** main menu, click **Measure**



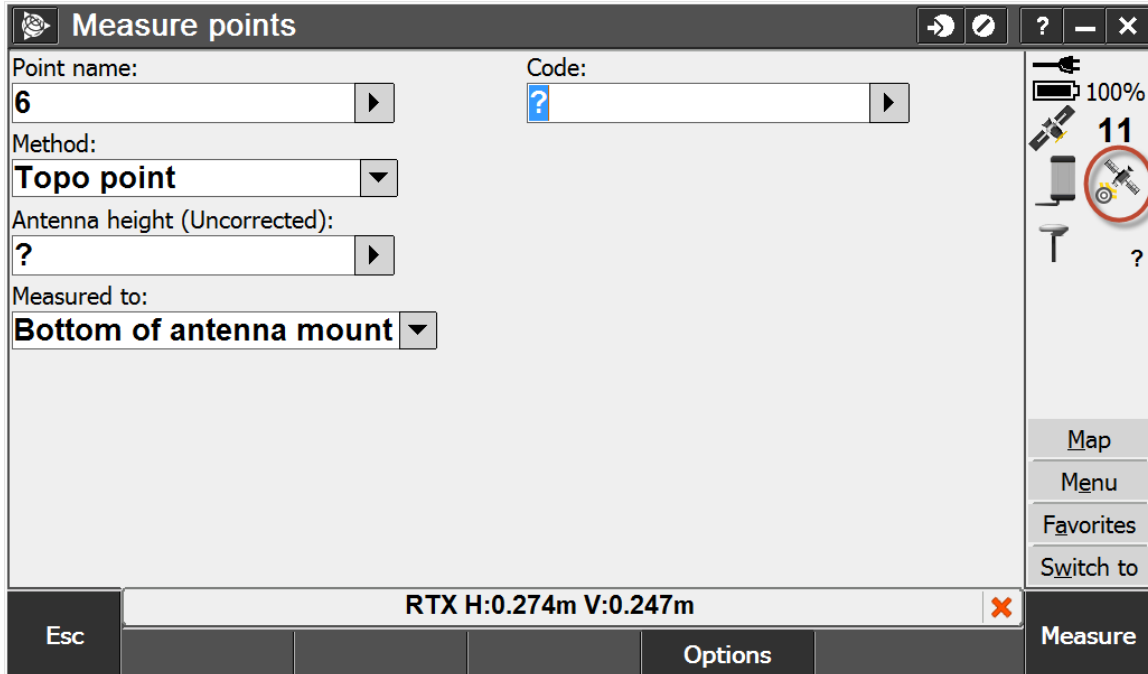
b. Select an **RTX** Survey Style



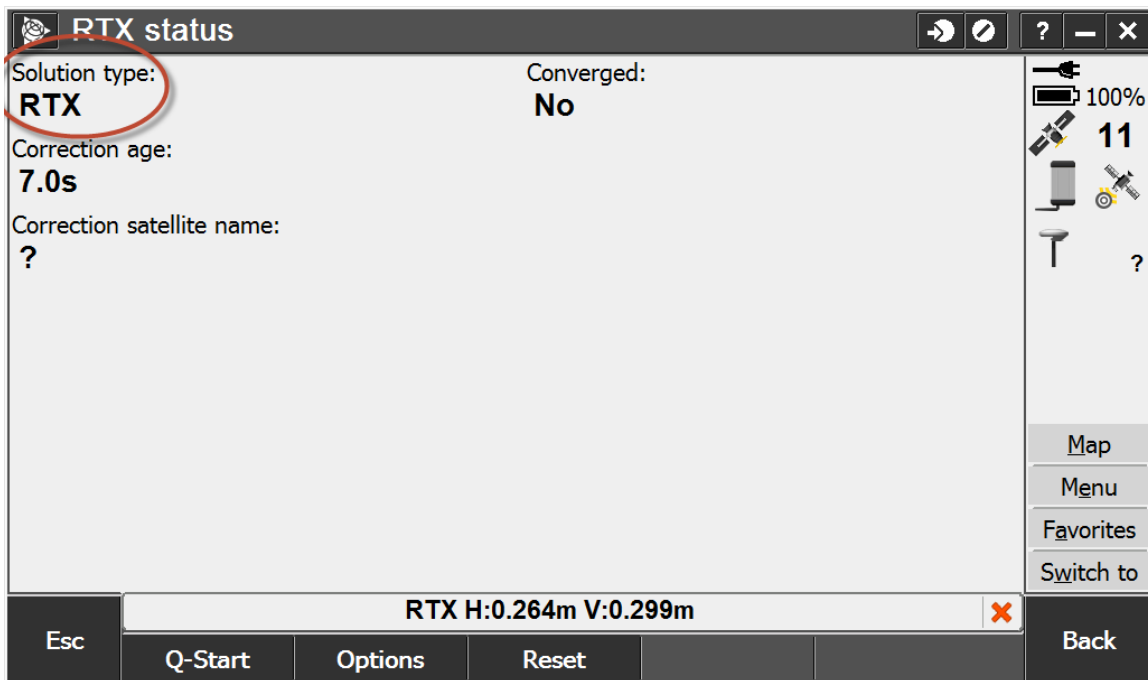
c. Click **Measure points**



4. Select the **Satellite** icon



5. The **Solution type** will display RTX



Verifying Correct Operation for OmniSTAR

Once you have reconfigured your receiver to the correct new satellite settings for your region, you can confirm that you are receiving the signal by following the steps below.

Verification through the webUI

1. Make sure the antenna connected to the receiver is outside with a clear and open view of the sky
2. Connect to the WebUI
3. Navigate to the **MSS Corrections**→**Summary** page
4. The **Mode** field should display **Tracking**



The screenshot shows the 'MSS Summary' page in the Trimble webUI. The left sidebar contains a navigation menu with 'MSS Corrections' selected. The main content area displays a table of MSS parameters. The 'Mode' field is circled in red and shows 'Tracking'. Other parameters include Service (OmniSTAR), Setting (Auto), SV name (Custom), Frequency (1557.8350 MHz), Bit Rate (1200 Hz), SNR (36.66 dBHz), Link % (100.0), and Age of Correction (4.0 sec). The Trimble logo and model number R9s 5102K73193 are visible in the top right corner.

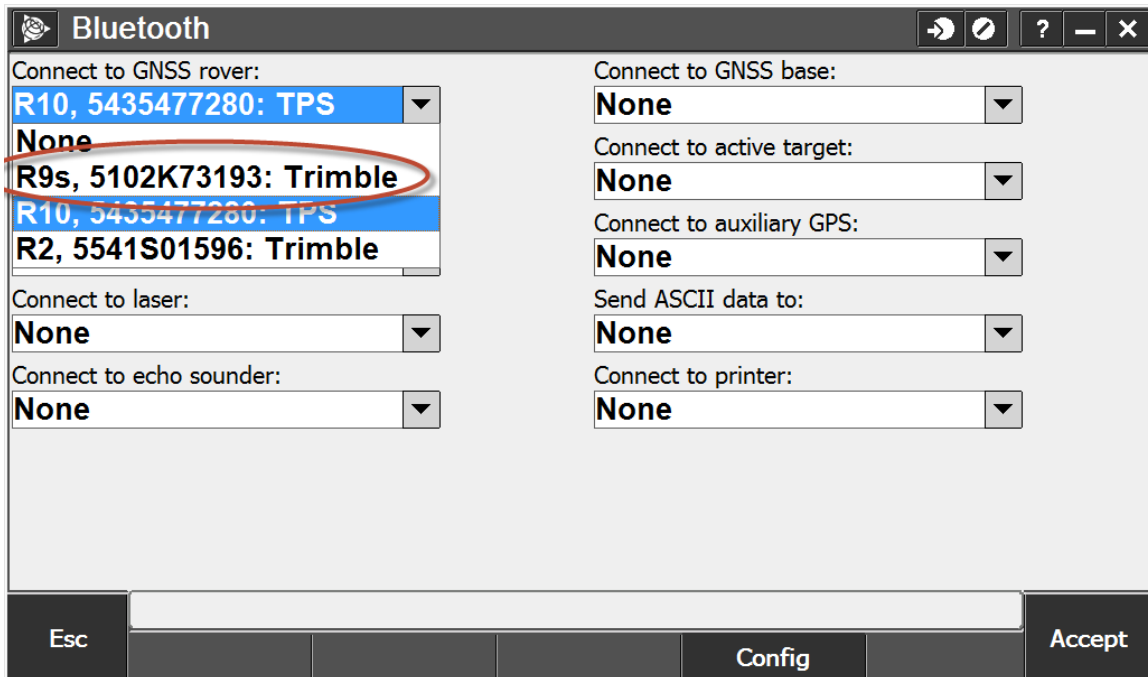
Parameter	Value
Service	OmniSTAR
Setting	Auto
SV name	Custom
Frequency [MHz]	1557.8350
Bit Rate [Hz]	1200
Mode	Tracking
SNR [dBHz]	36.66
Link %	100.0
Age of Correction[sec]	4.0

Verification through the Trimble Access field software

1. Make sure the antenna connected to the receiver is outside with a clear and open view of the sky

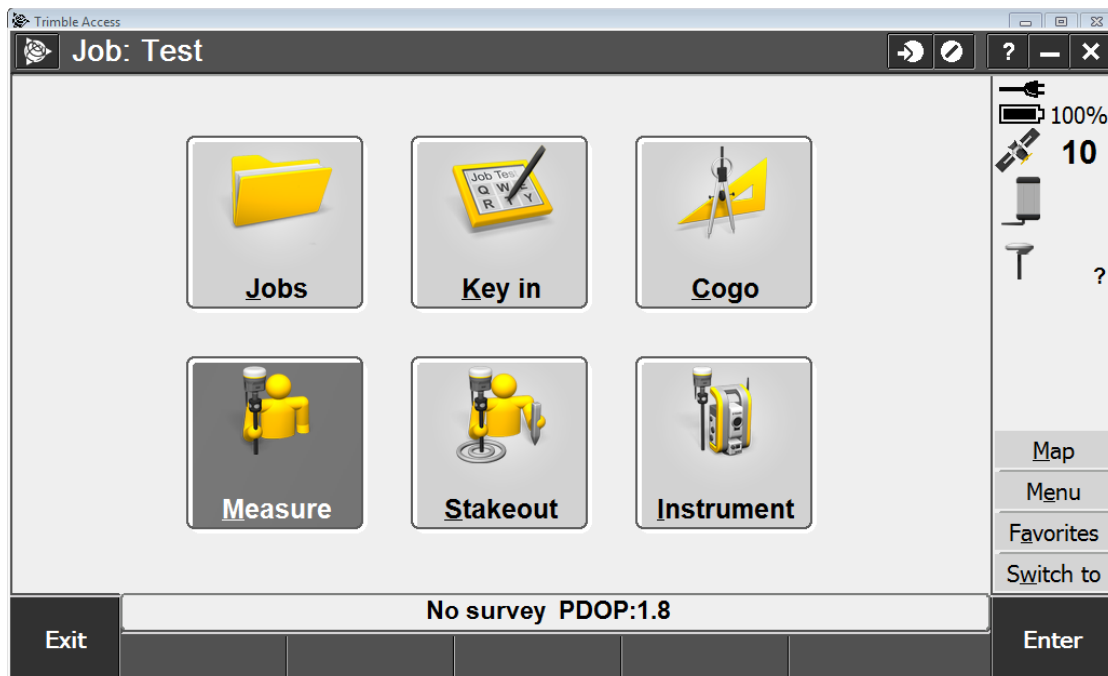
2. Connect to the receiver

- a. Navigate to **Settings**→**Bluetooth** and select the appropriate receiver under **Connect to GNSS rover**
- b. Click Accept

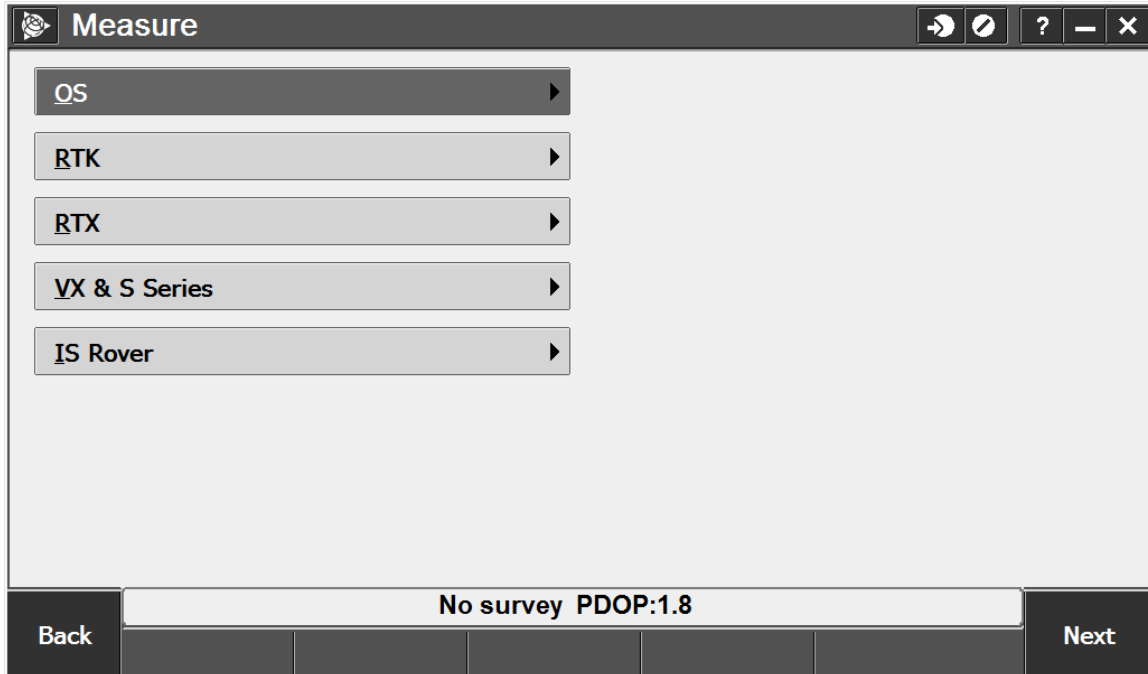


3. Start a OmniSTAR survey

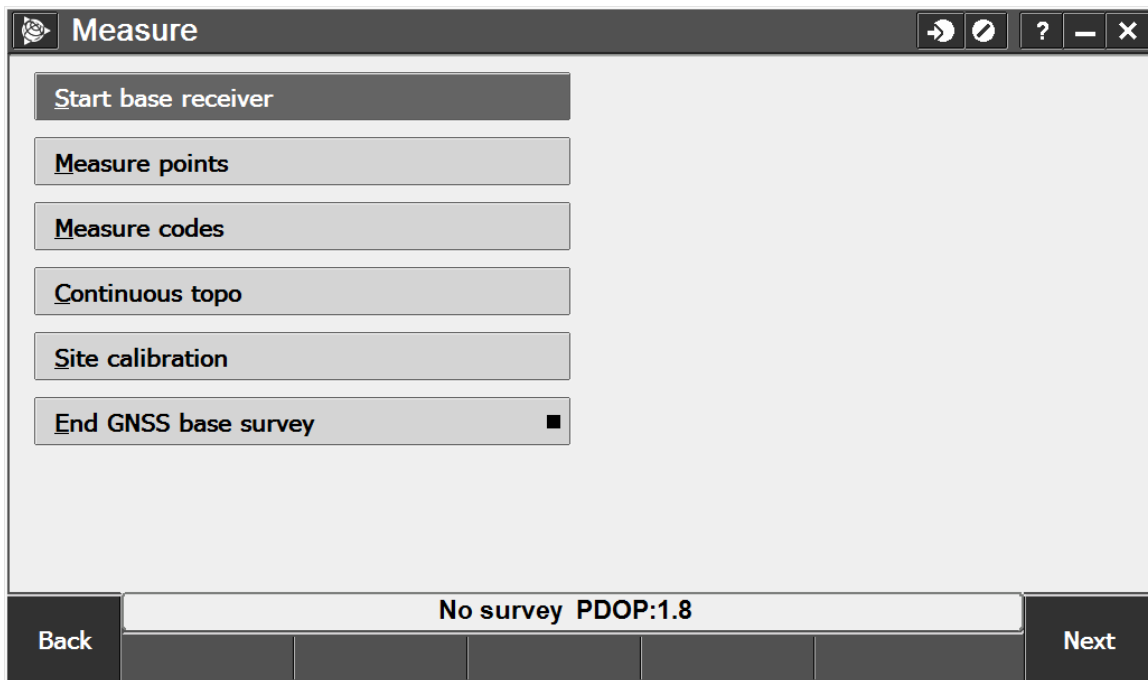
- a. From the **General Survey** main menu, click **Measure**



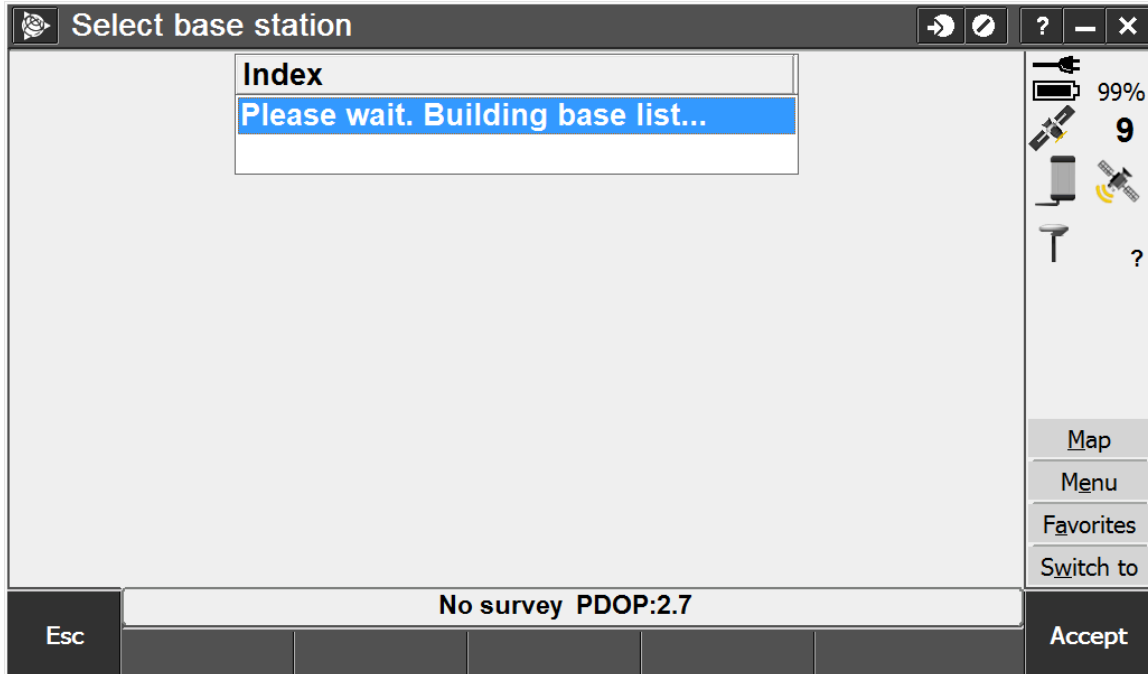
b. Select an OmniSTAR Survey Style



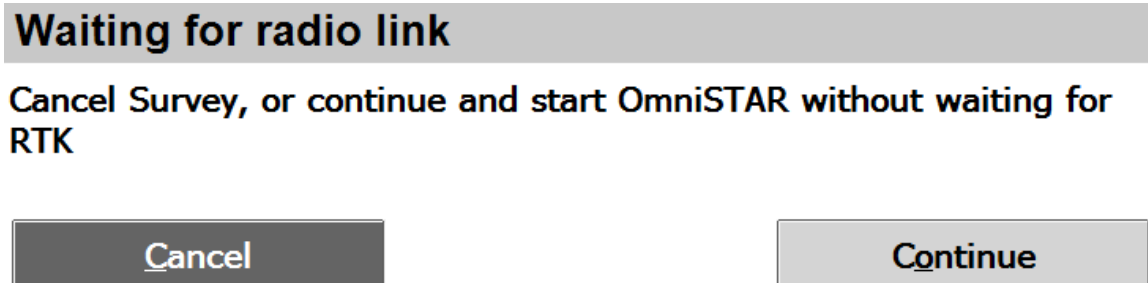
c. Click Measure points



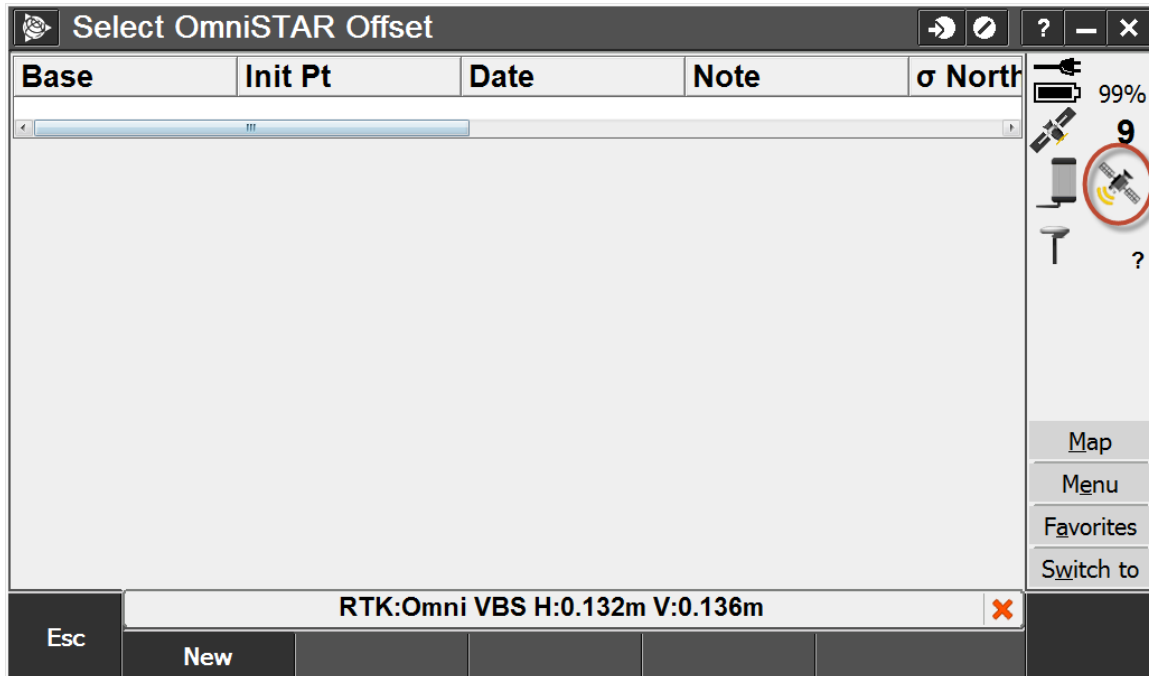
- Click on **Esc**, and click **Continue** to start an OmniSTAR survey



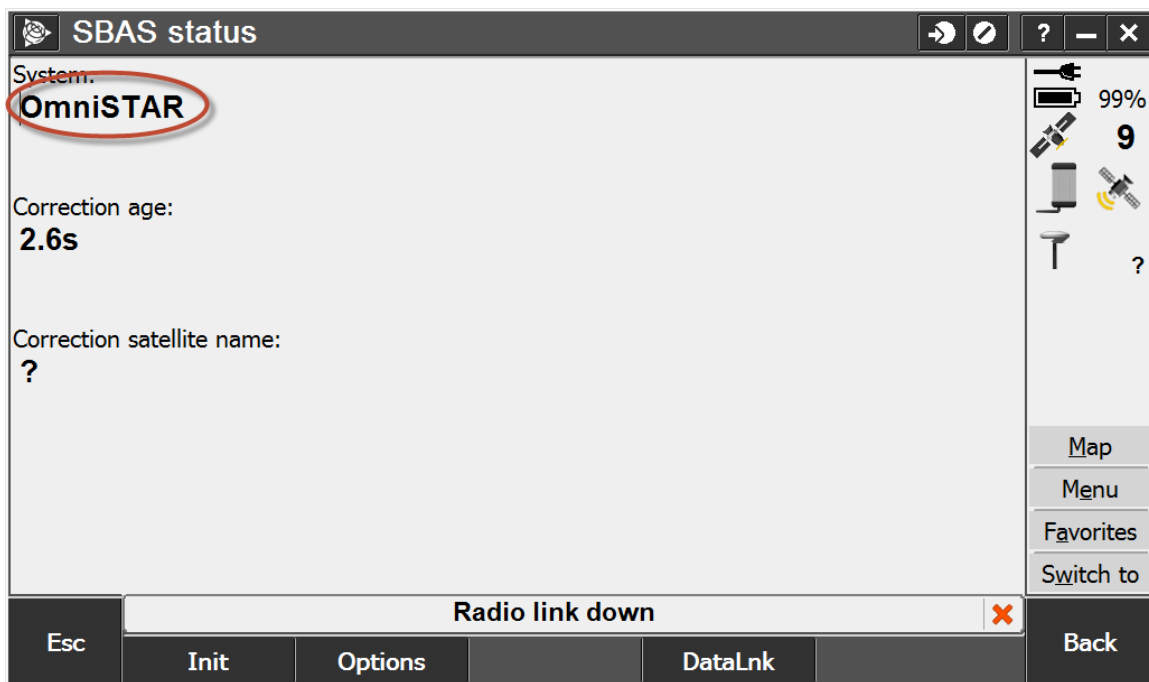
- Click Continue



6. Select the Satellite icon



7. The System will display OmniSTAR



For Additional Assistance

If you need additional assistance, please contact your regional Customer Care team. The most up to date contact information is available on <http://www.trimble.com/Positioning-Services/contact-us.aspx>.

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