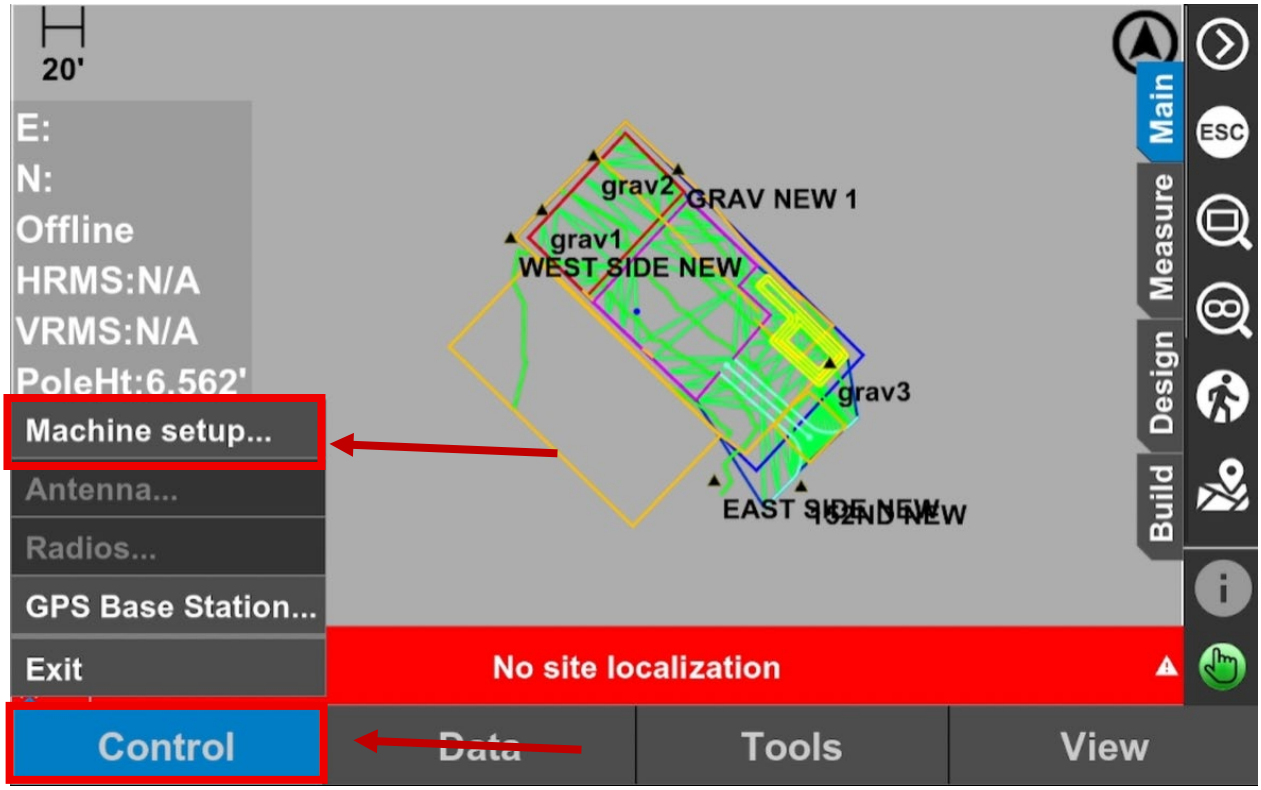
How to Setup Topcon V15 Base & Rover

1. Make sure your Rover is set.

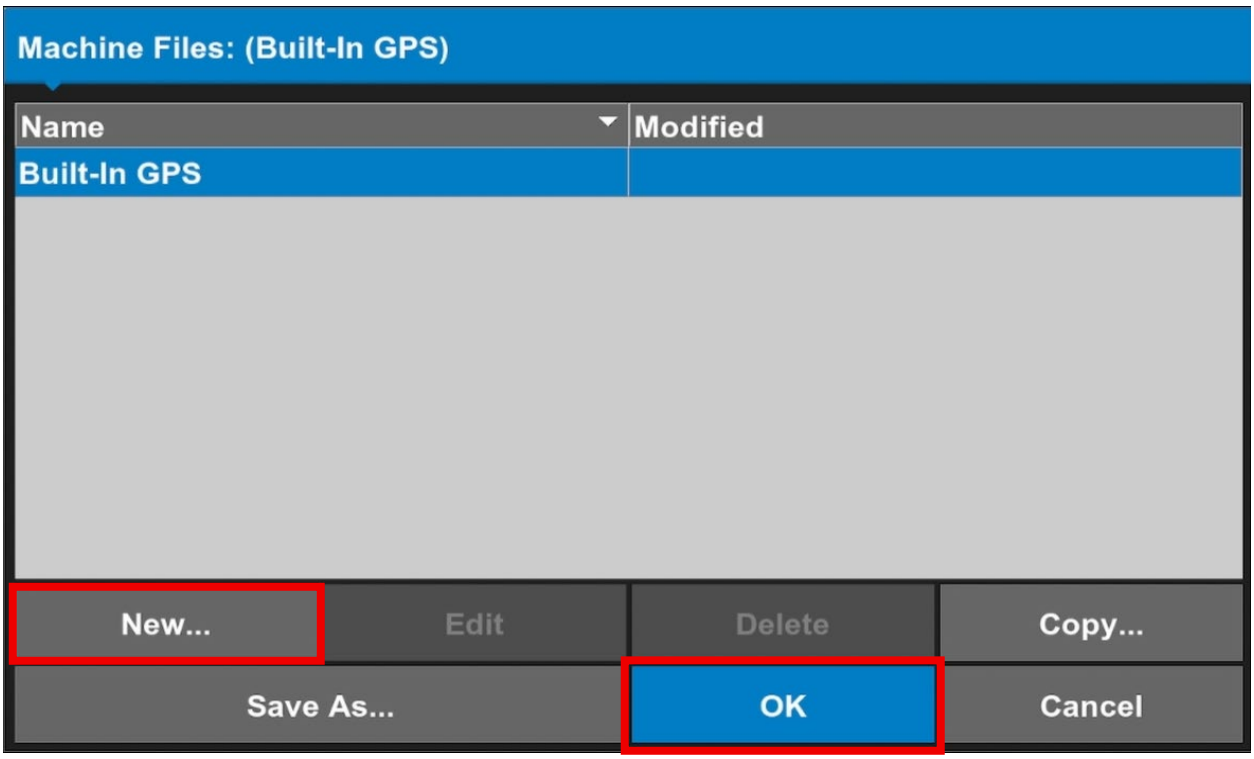
2. Long Press the power button of the Rover to turn on.

3. Make sure that your Base station is on a Base Post concreted to the ground. Turn it on by long pressing the power button.

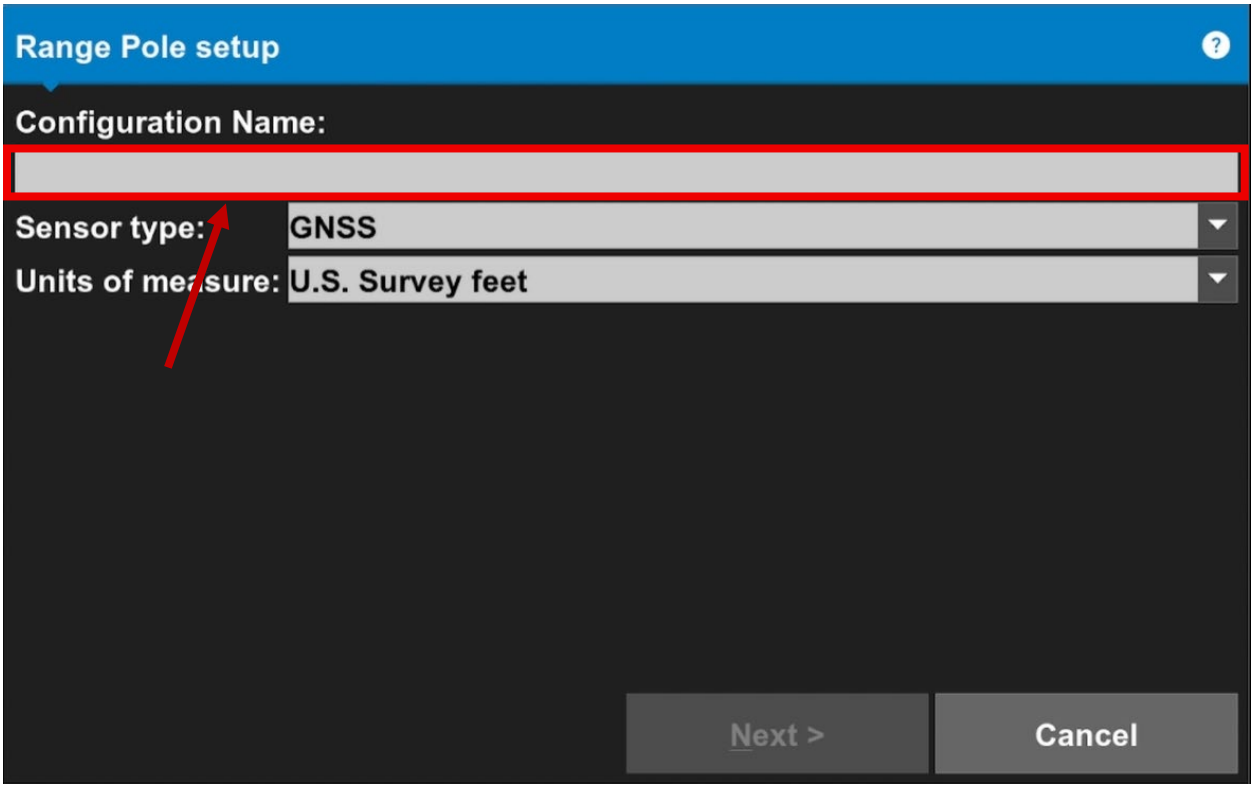
4. To make a receiver profile, click **“Control”** then click **“Machine setup…”**. ***(Note, if you already have a receiver profile, you do not need to create a new one each time you setup your Base & Rover)***



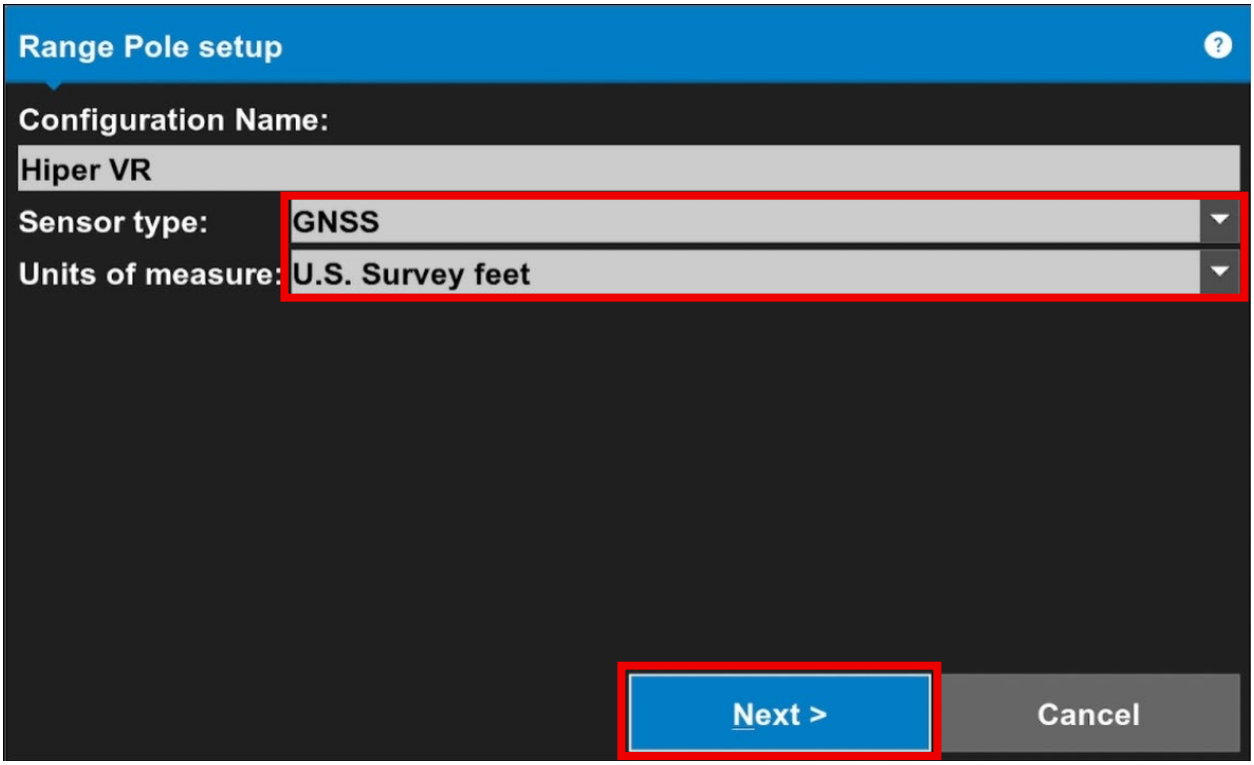
5. Click **“New…”**.



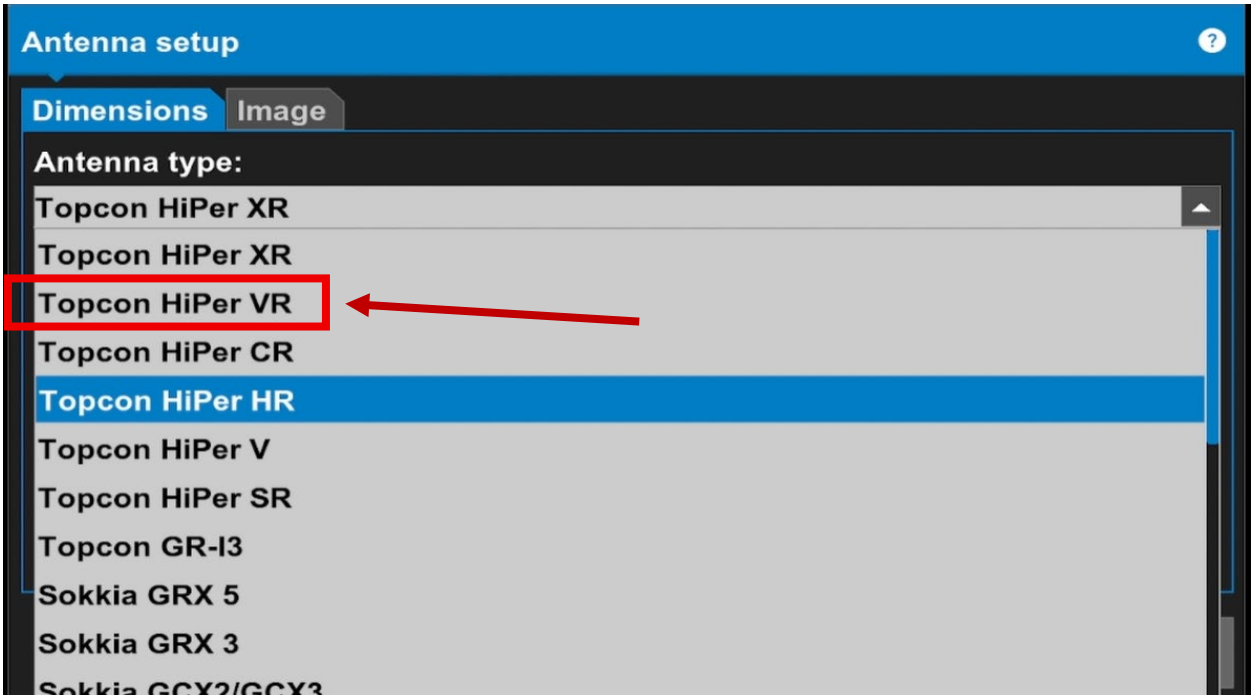
6. Click the long space and set the Configuration Name to **Hiper VR**, or choose a designated name.



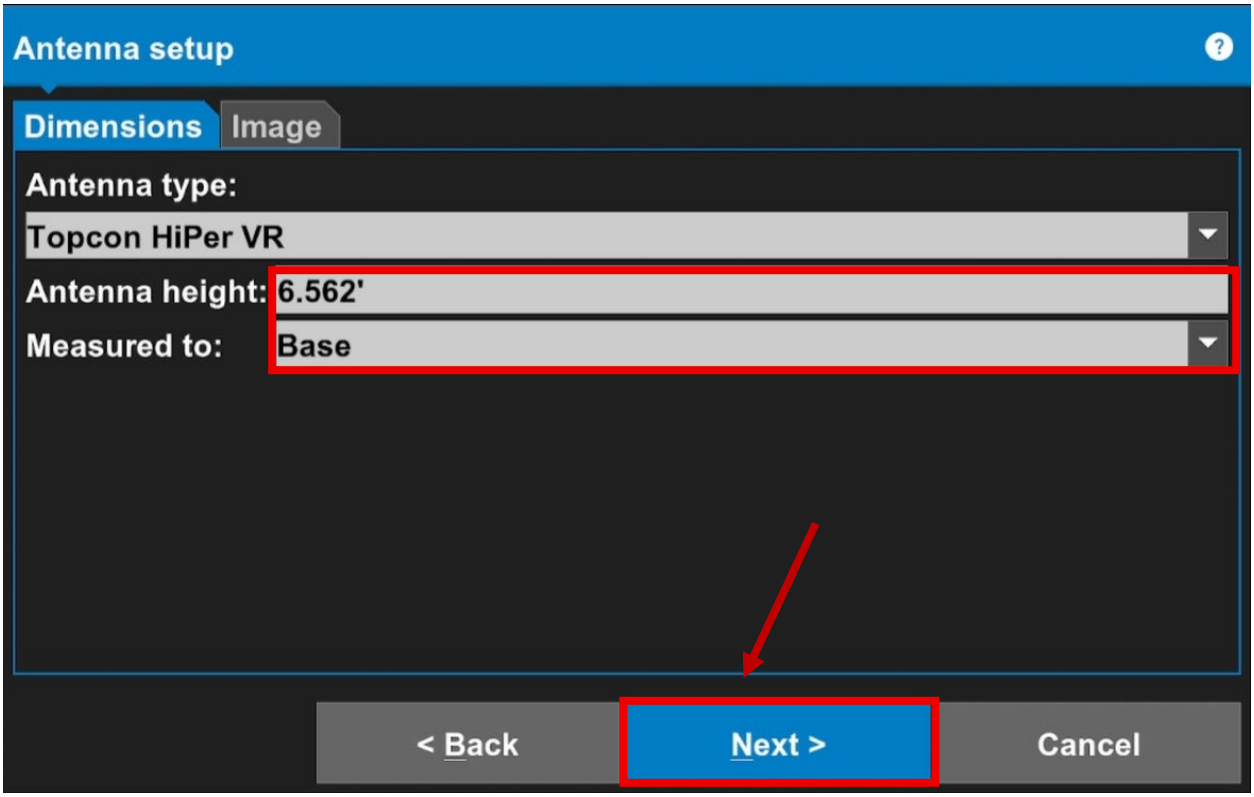
7. Set the Sensor type to **"GNSS"** and Units of measure to **"U.S. Survey feet".** Once done, click **"Next"**



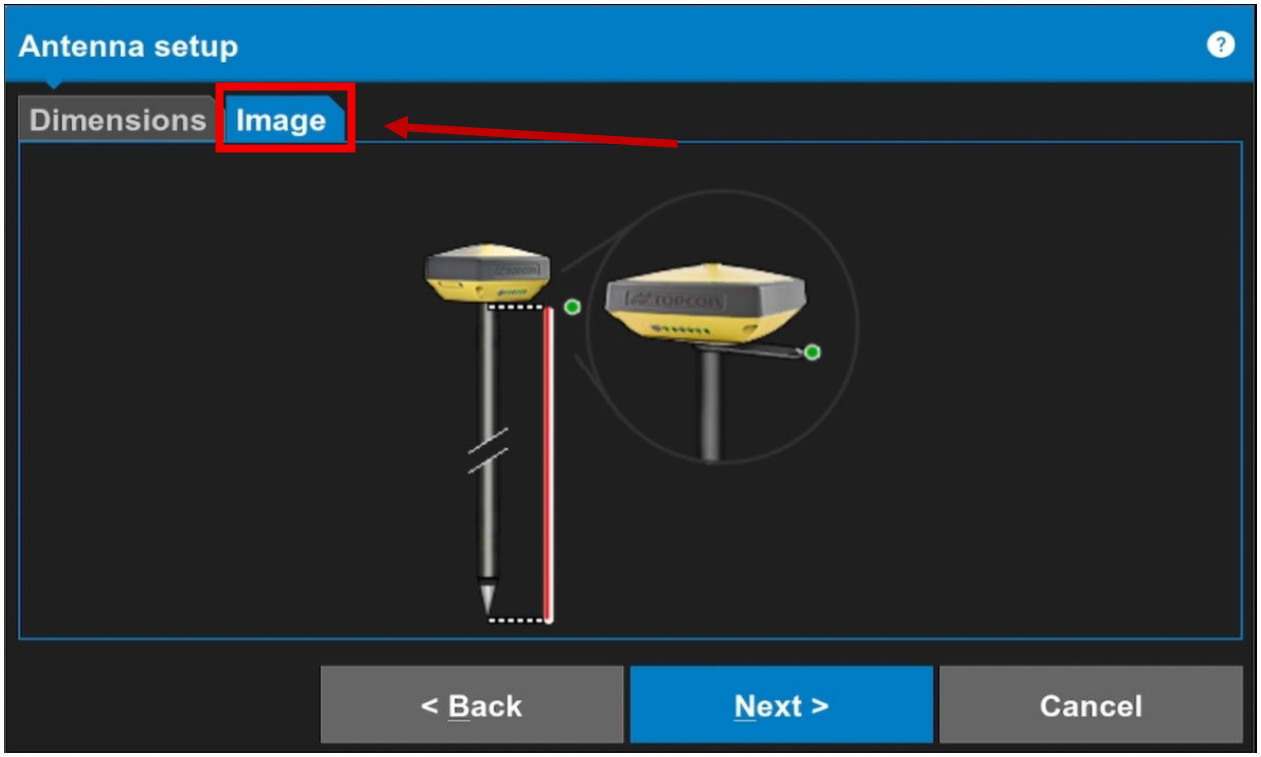
8. For Antenna type, select **“Topcon HiPer VR”.** ***(Note: if you are using a different unit, select that unit instead).***



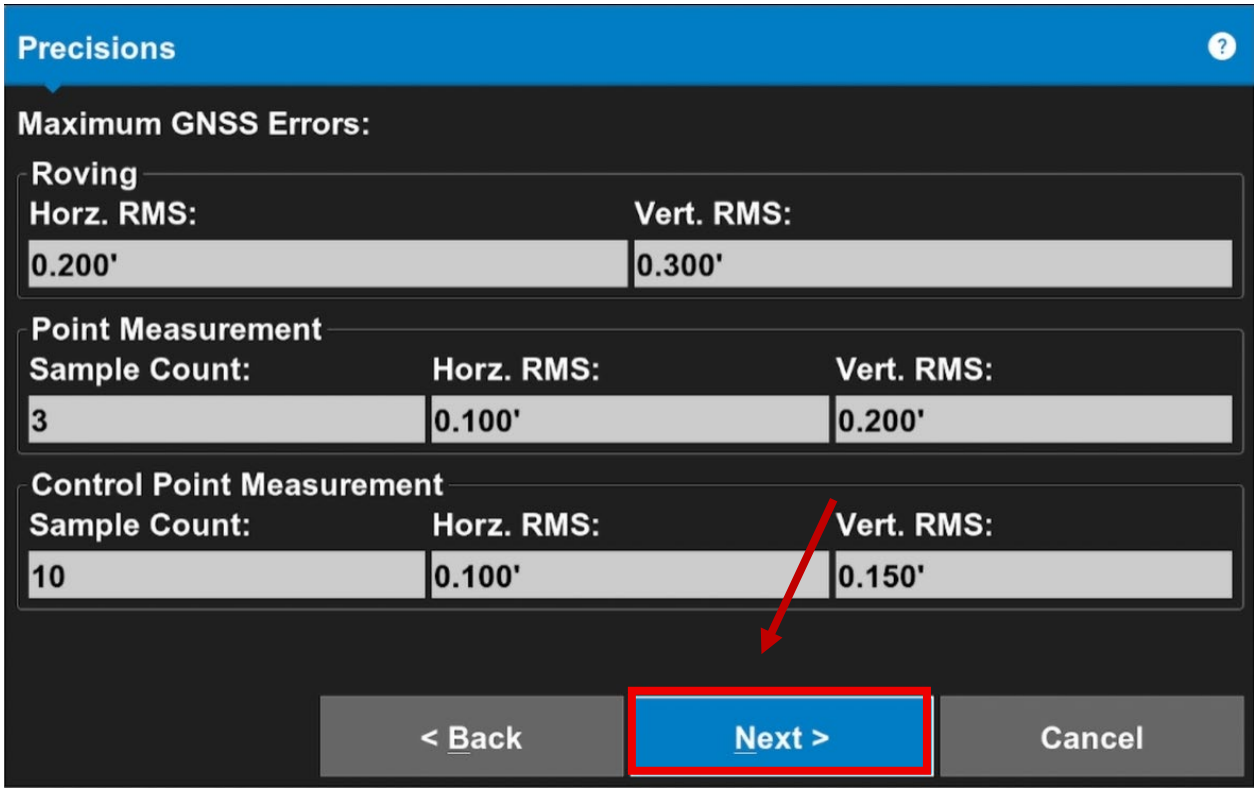
9. Keep the antenna height to **6.562’** and make sure it is Measured to **“Base”**. Click **“Next”.** ***(Note: If you have a different atenna height, you need to enter it manually)***



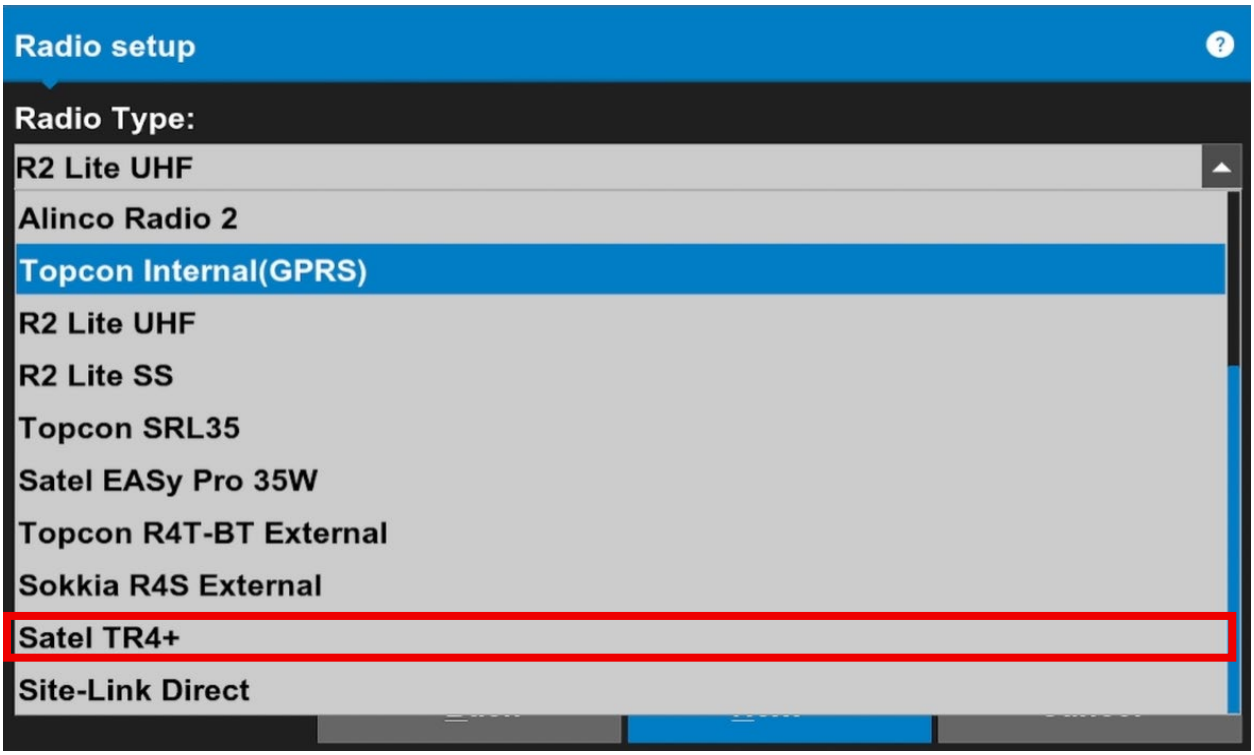
10. Setting the **“Measured to”** to **“Base”** means you will be measuring from the Base of the Rover to the Tip of the Rod as seen in the **“Image”** section.



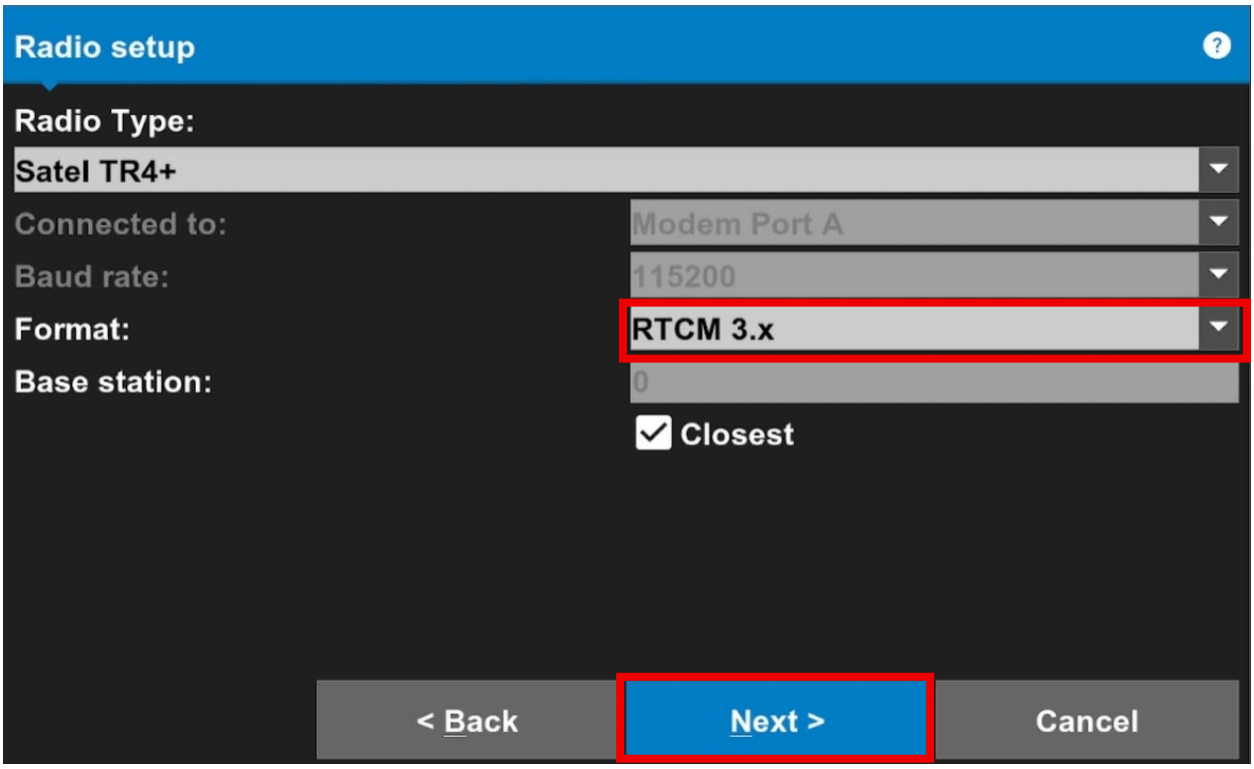
11. Leave the measurements and click **“Next”**.



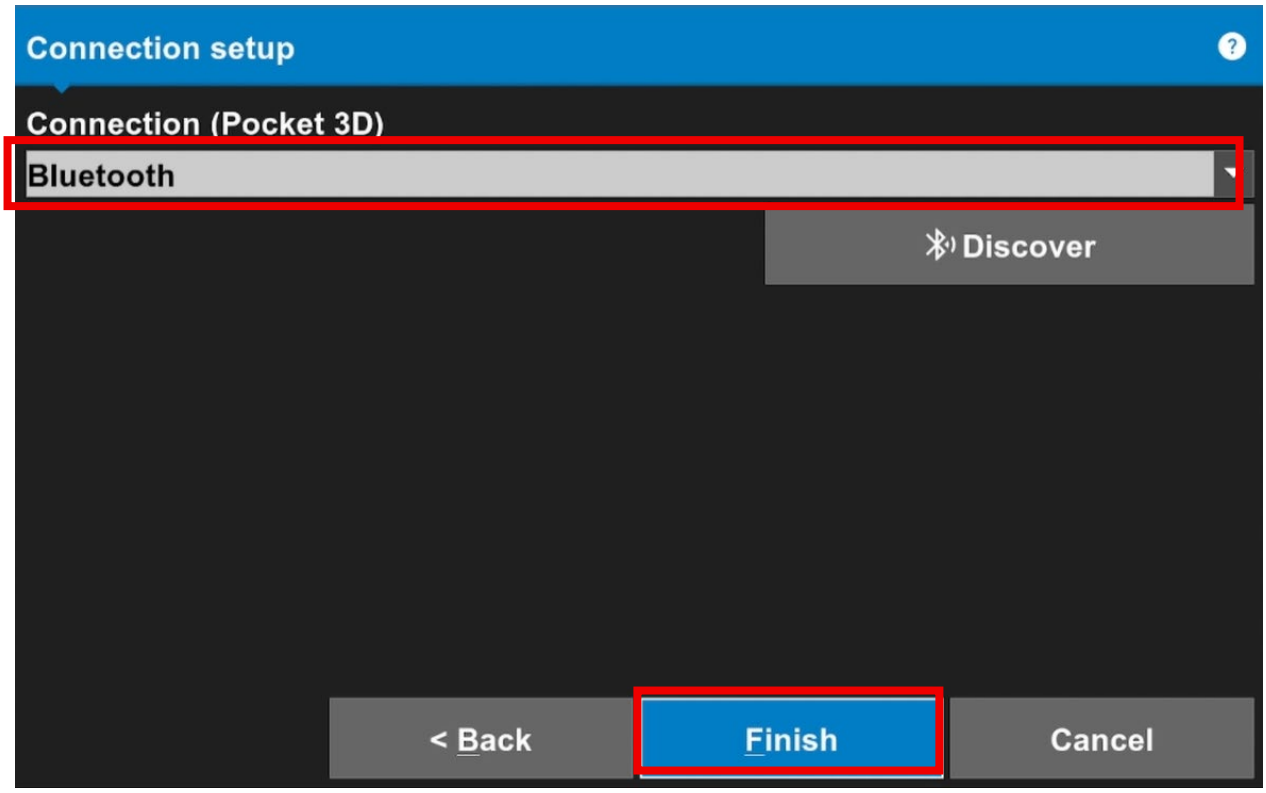
12. Click **“Radio Type”**. Scroll down and look for **“Satel TR4+”** if you are using the Topcon HiPer VR. ***(Note: If you are using a different UHF Radio, select “R2 Lite UHF”. And if you are using 900 MHz, Select “R2 Lite SS”)***



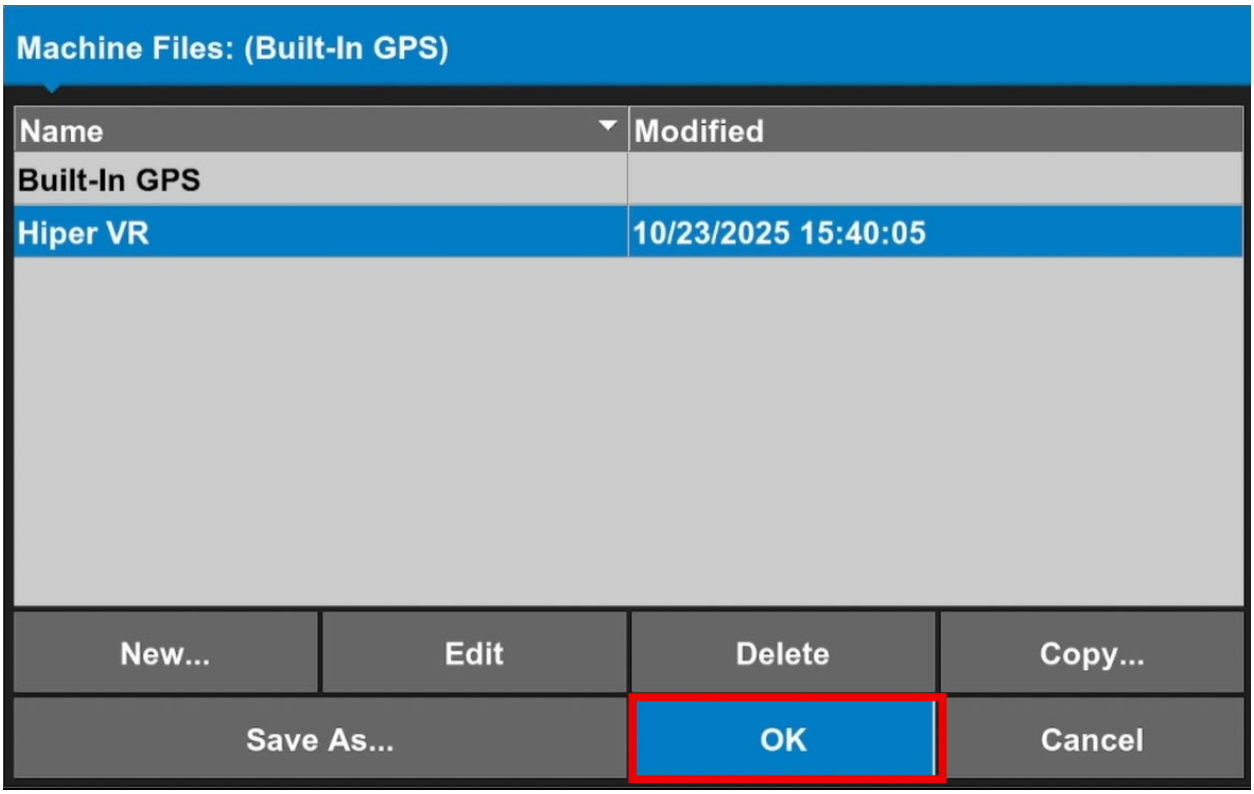
13. Set the Format to **“RTCM 3.x”** then click **“Next”**.



14. Set the Connection to **“Bluetooth”** then hit **“Finish”**.

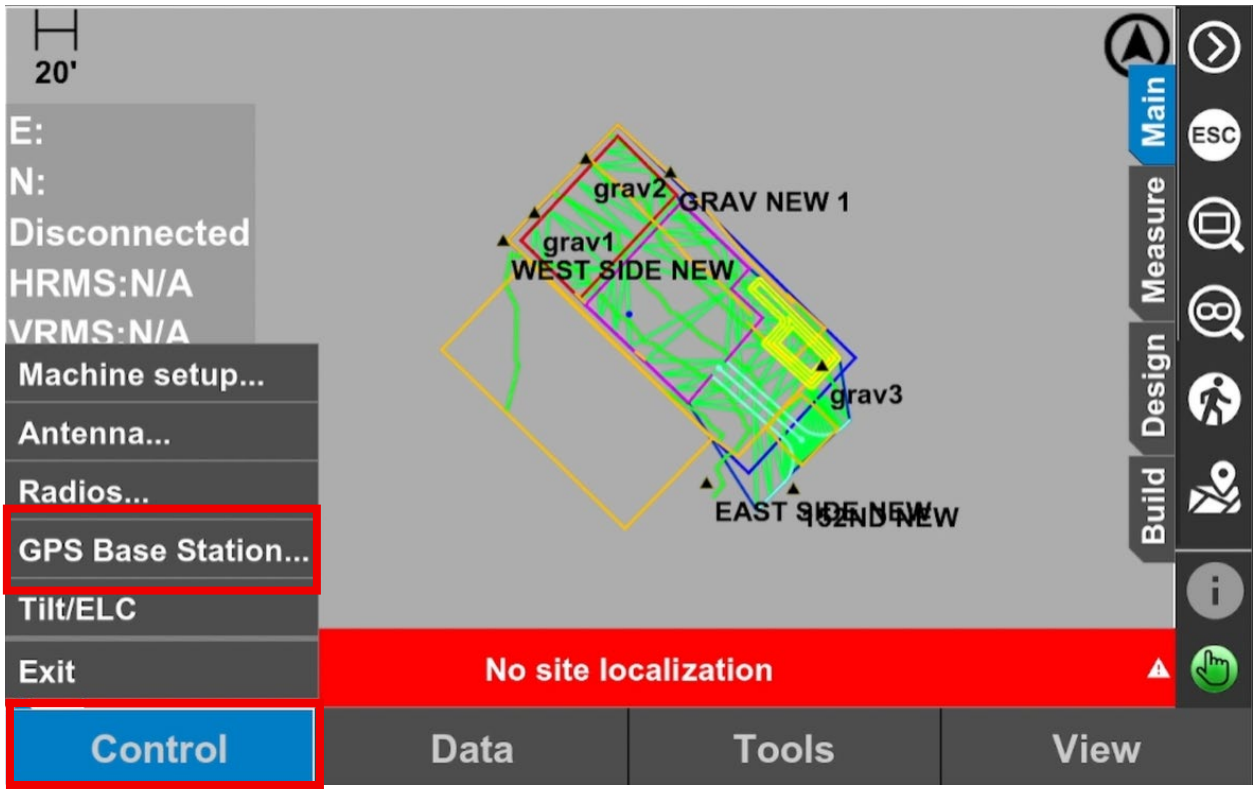


15. Once Profile is made, tap **“OK”**

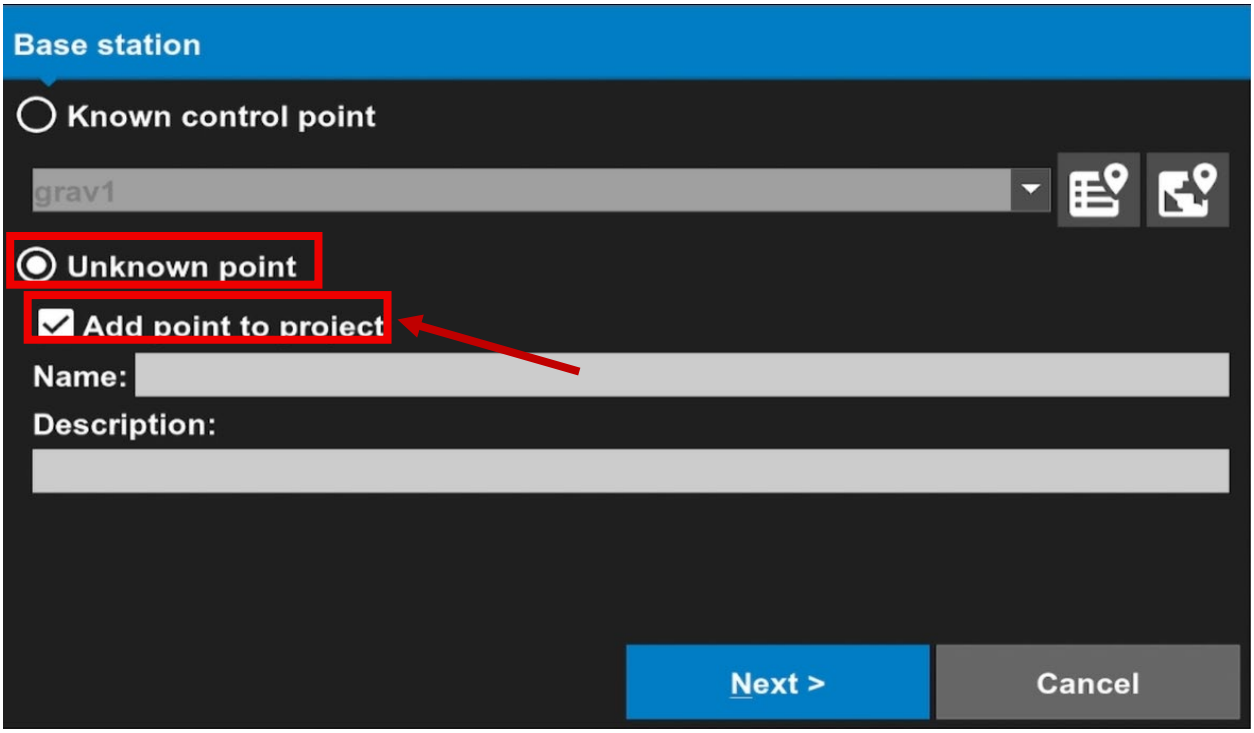


16. Rover Profile is now set. ***(Note: You only need to do this once per set of receivers)***

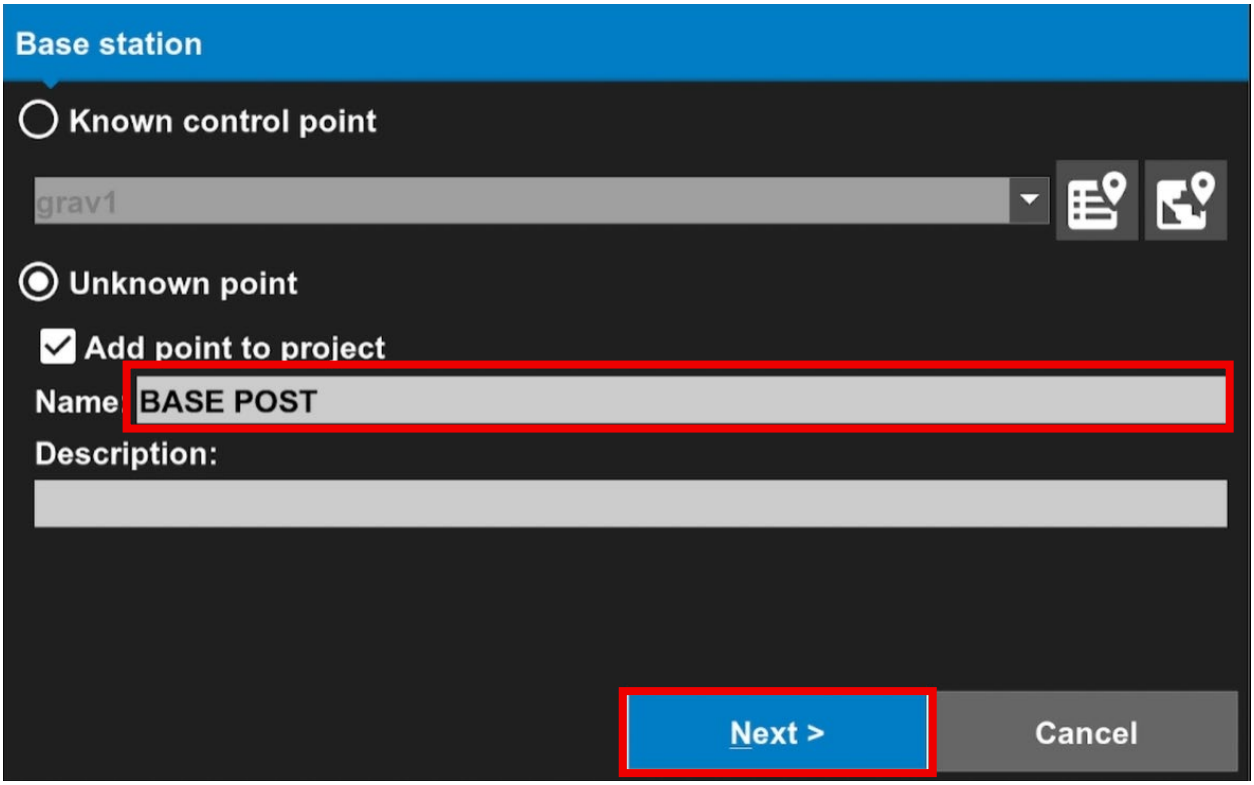
17. For Base setup, click **"Control",** then click **"GPS Base Station…"**.



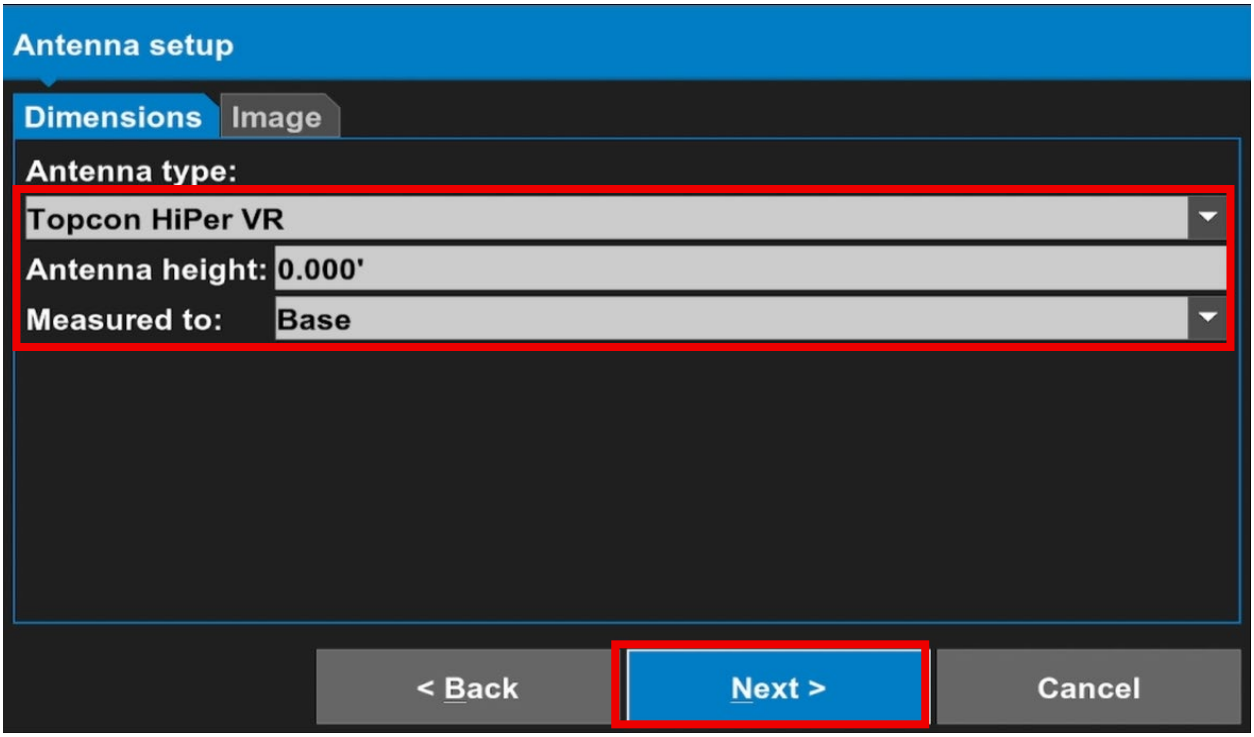
18. Select **“Unknown Point”** and click the box beside **“Add point to project”.** ***(Note: If you are setting up on a Known Control Point with your Base, you need to have a fixed tripod, levelled out, setup on a control point, measured the height and enter the value to the equipment.)***



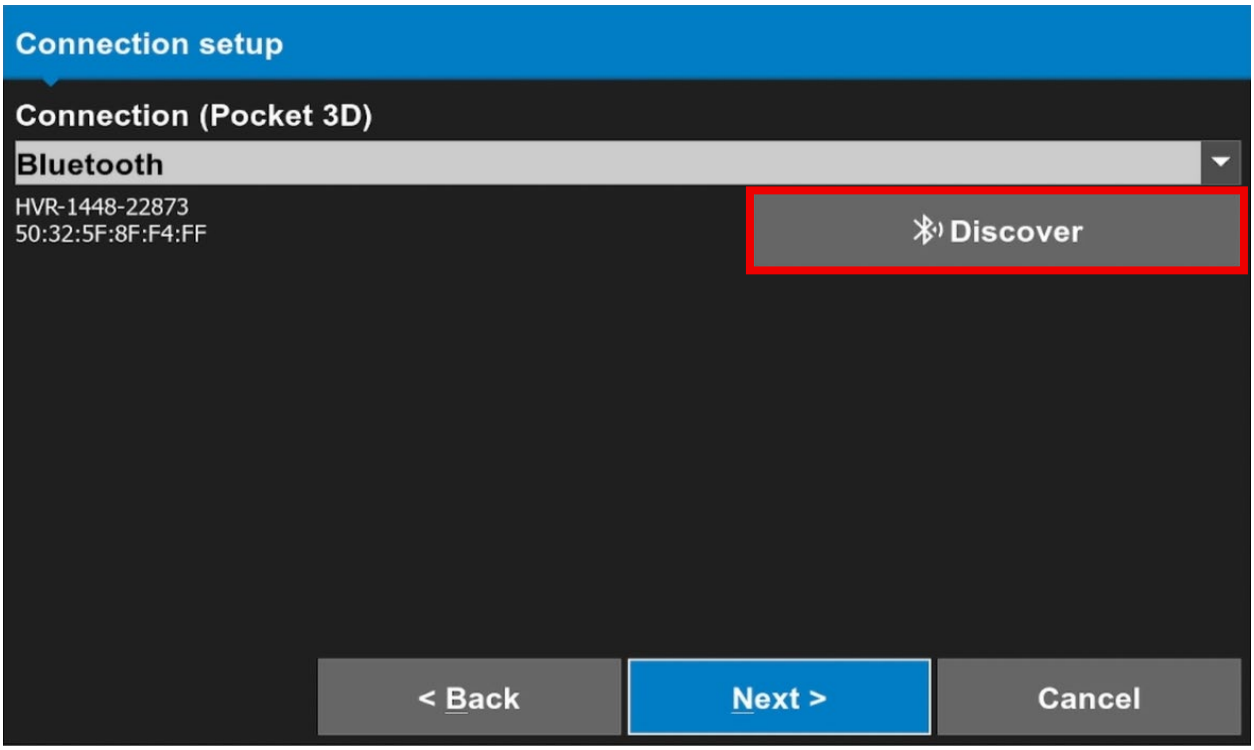
19. Name the point **“BASE POST”** then click **“Next”**



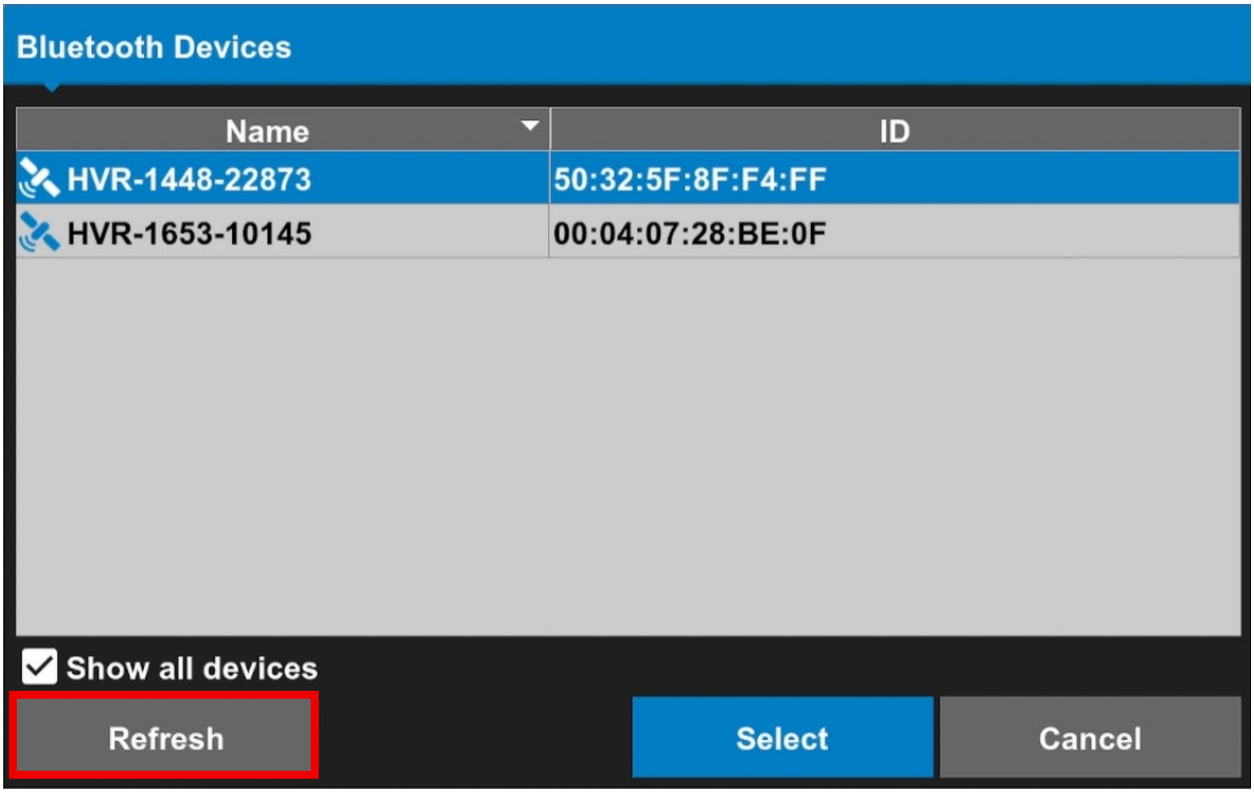
20. Set the values as seen below and click **“Next”**. ***(Note: If you chose “Known Control Point” in Step #18, you need to change the antenna height to the actual value).***



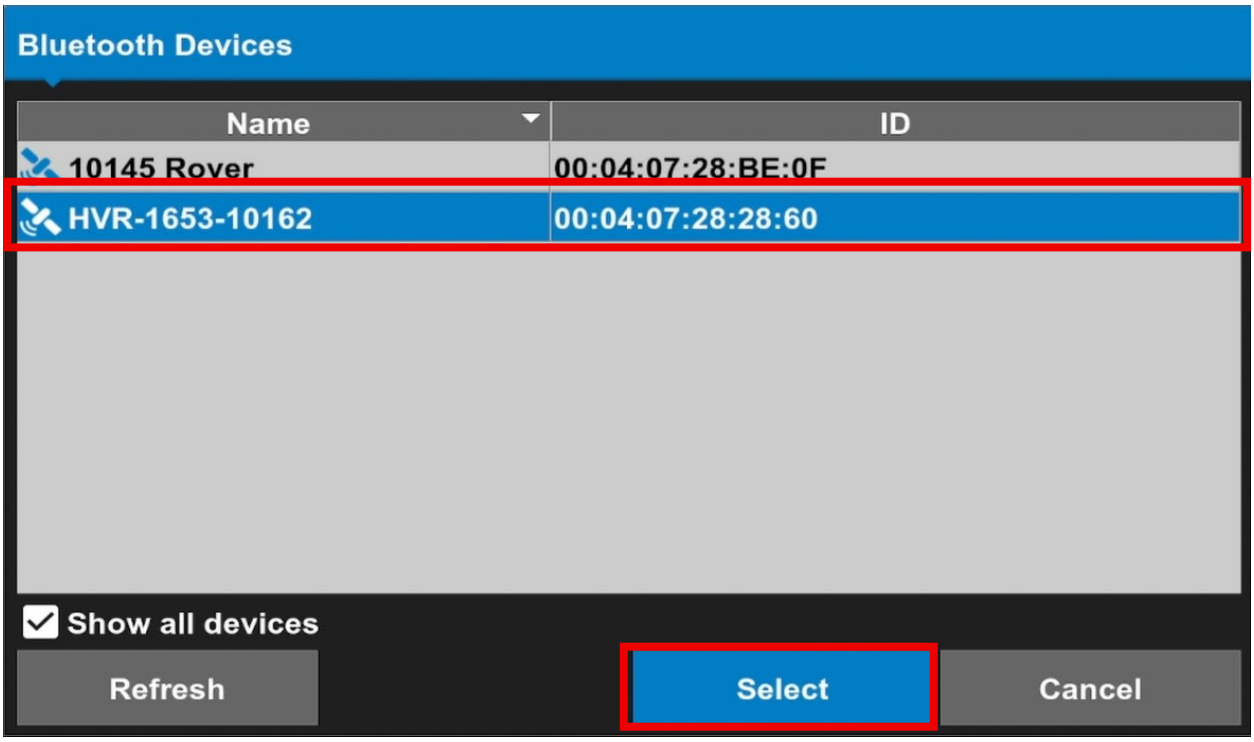
21. Click **“Discover”**.



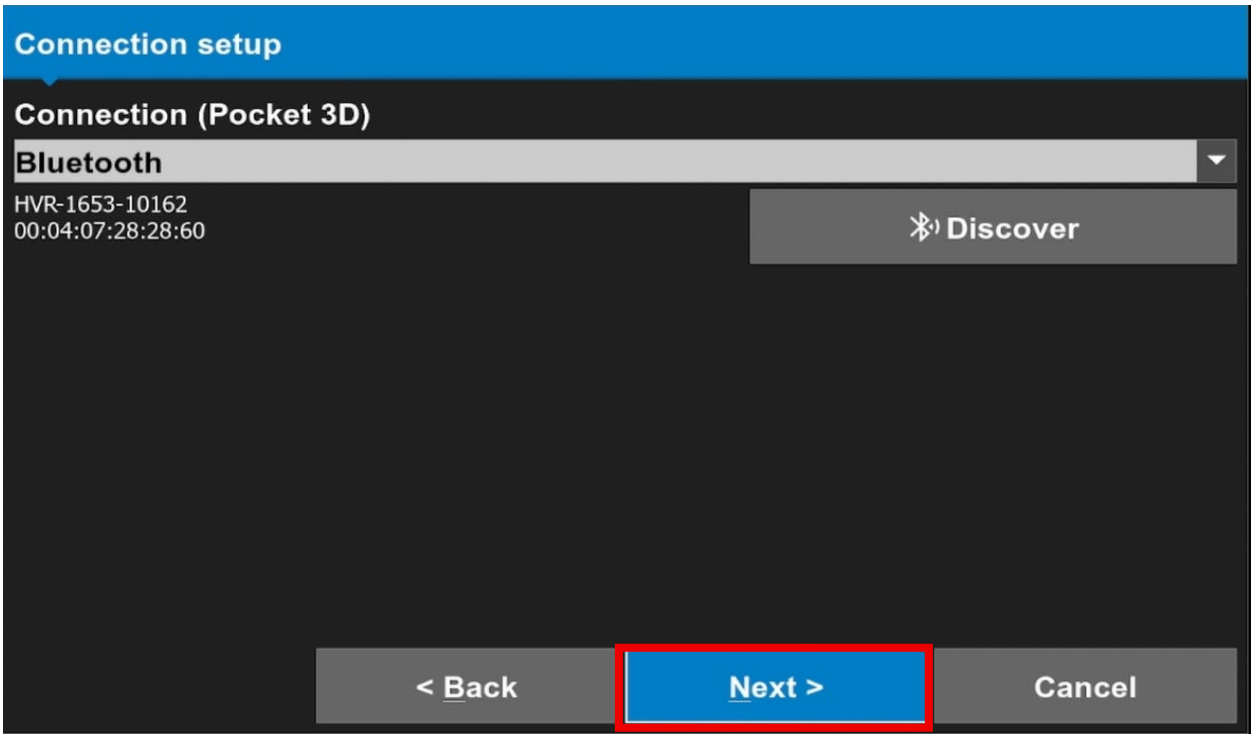
22. Click **“Refresh”** to find the Base and Rover. ***(Note: To identify your device, look underneath and find “SN” or Serial Number. Take note of the last four digits)***



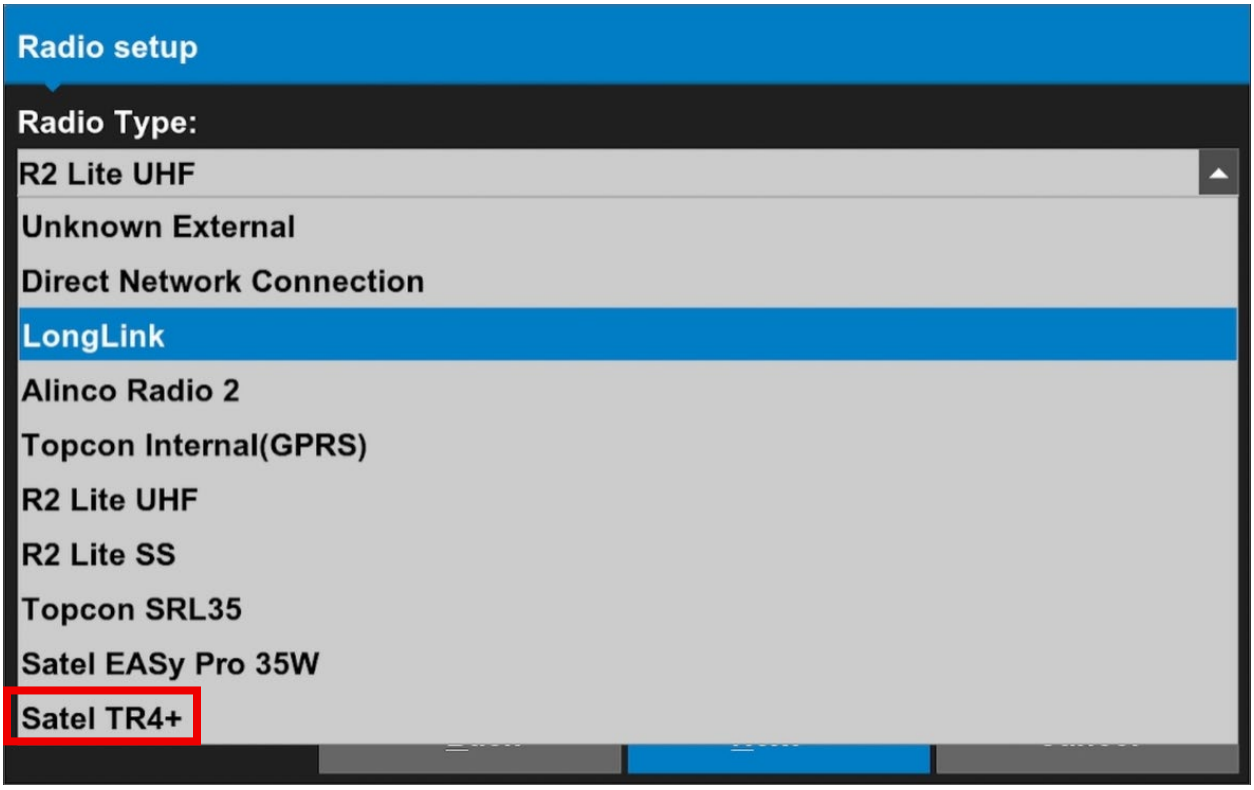
23. Once you have the last four digits of your SN, take a look at the refreshed device list and click the one that matches your last four digits then hit **"Select"**. ***(In this example, our device has "0162" in the last four digits of the SN)***



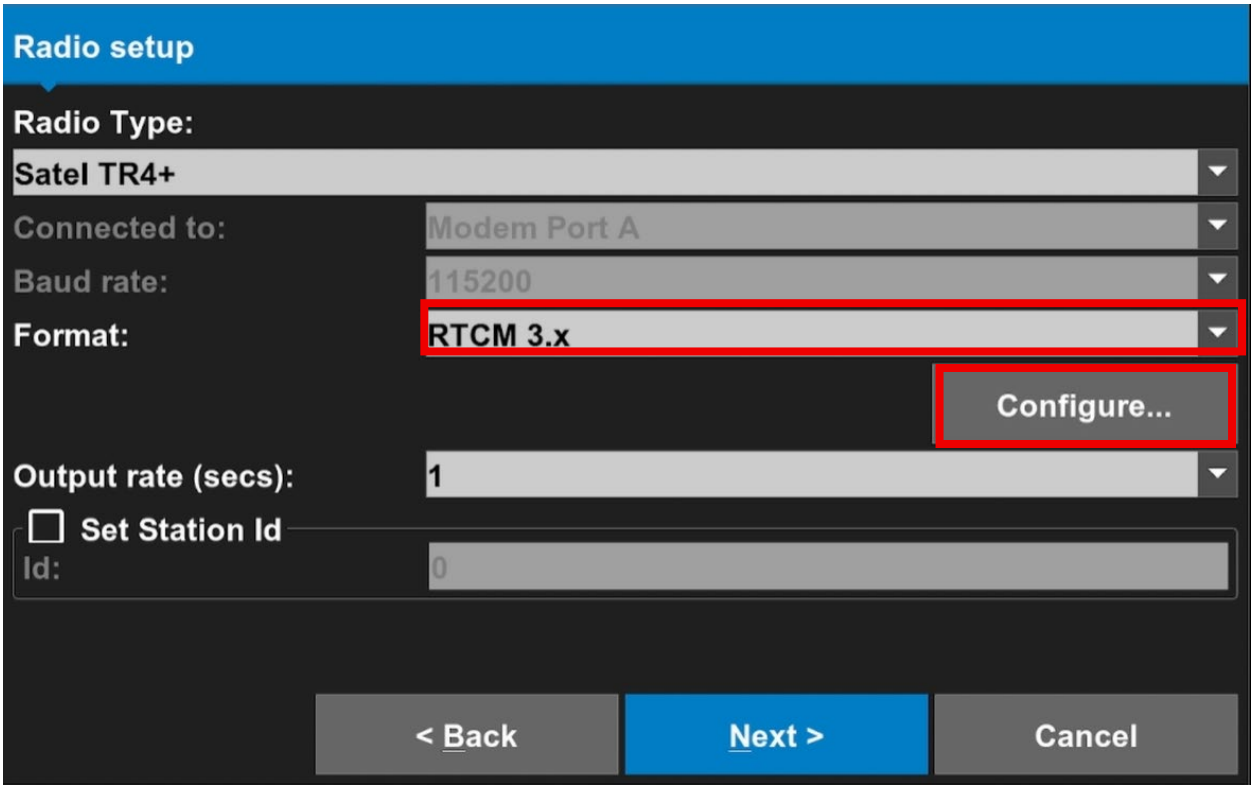
24. Click **"Next".**



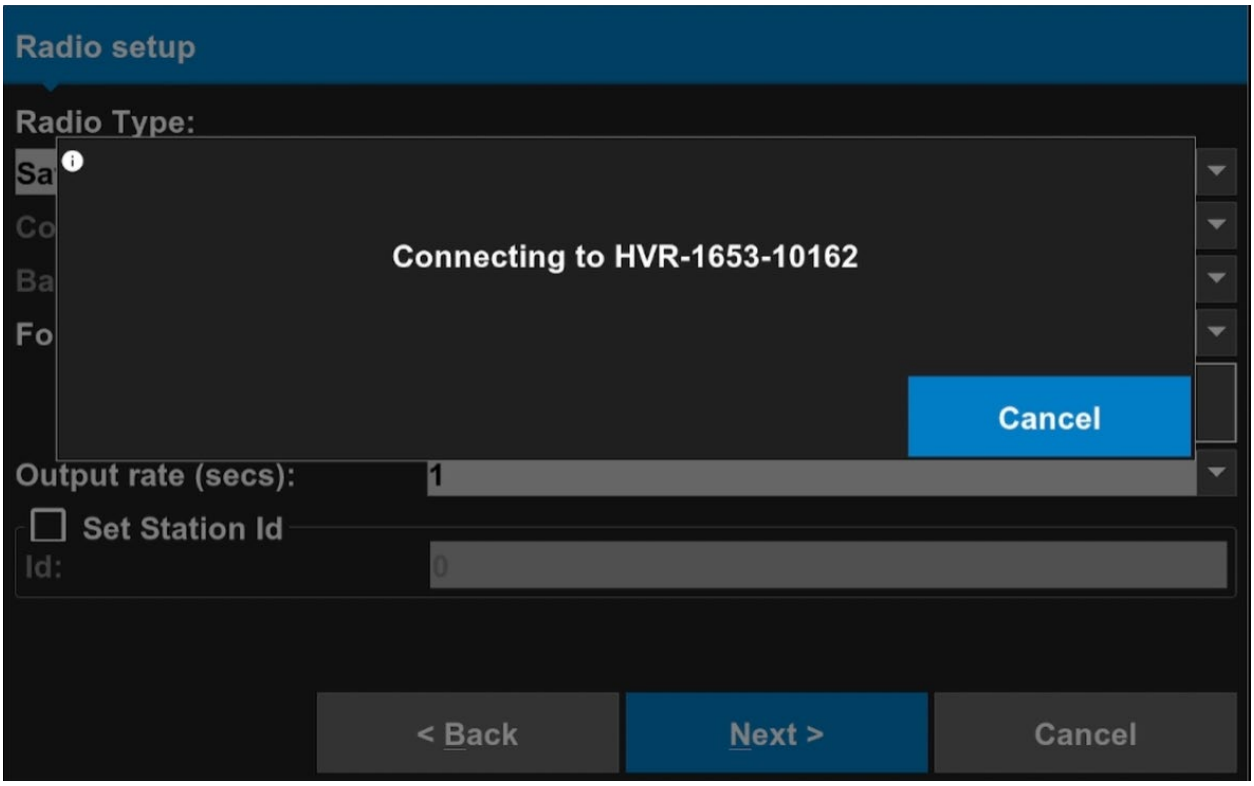
25. Click the Radio Type selection, scroll down and click **“Satel TR4+”**



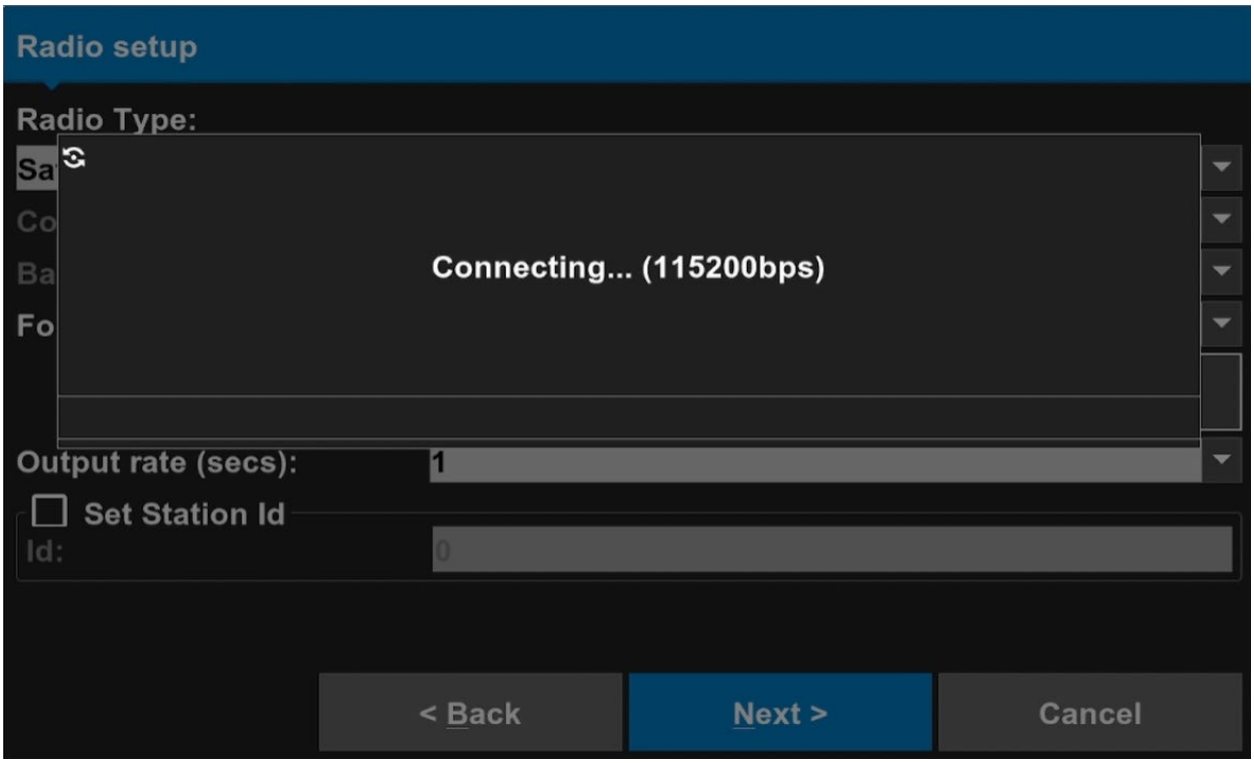
26. Keep the Format to **“RTCM 3.x”** then click **“Configure…”**



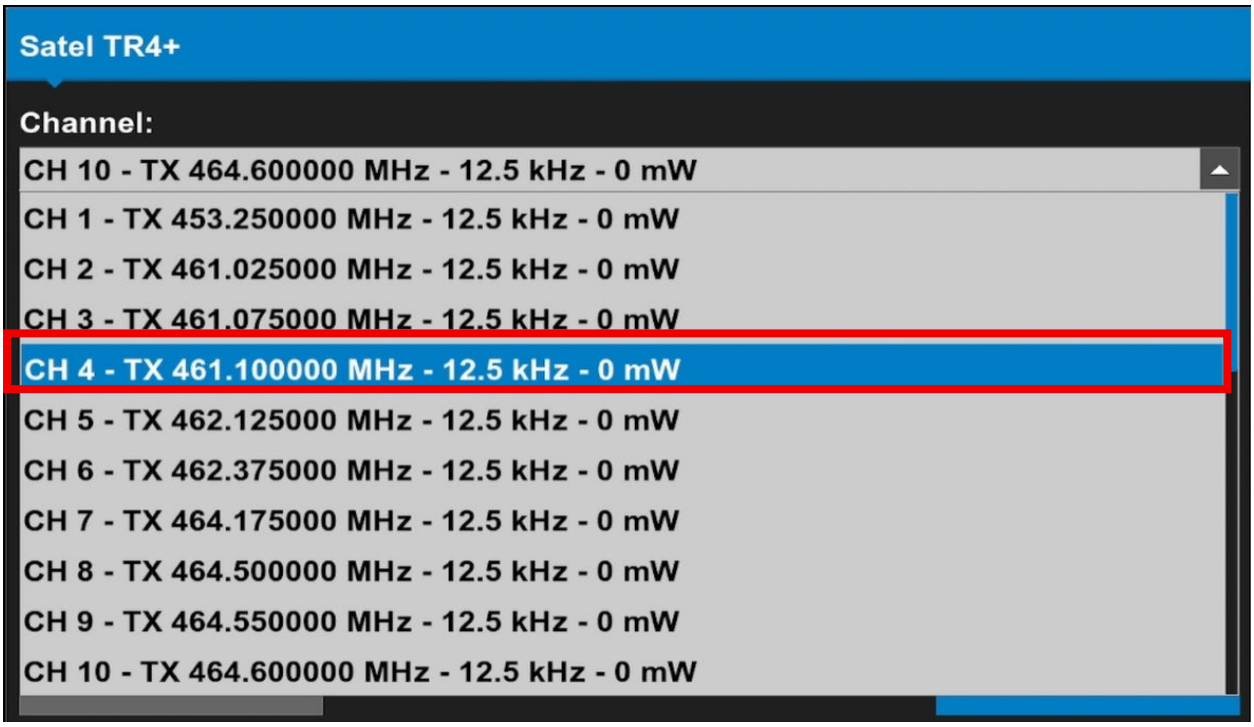
27. Wait for the loading screen to finish.



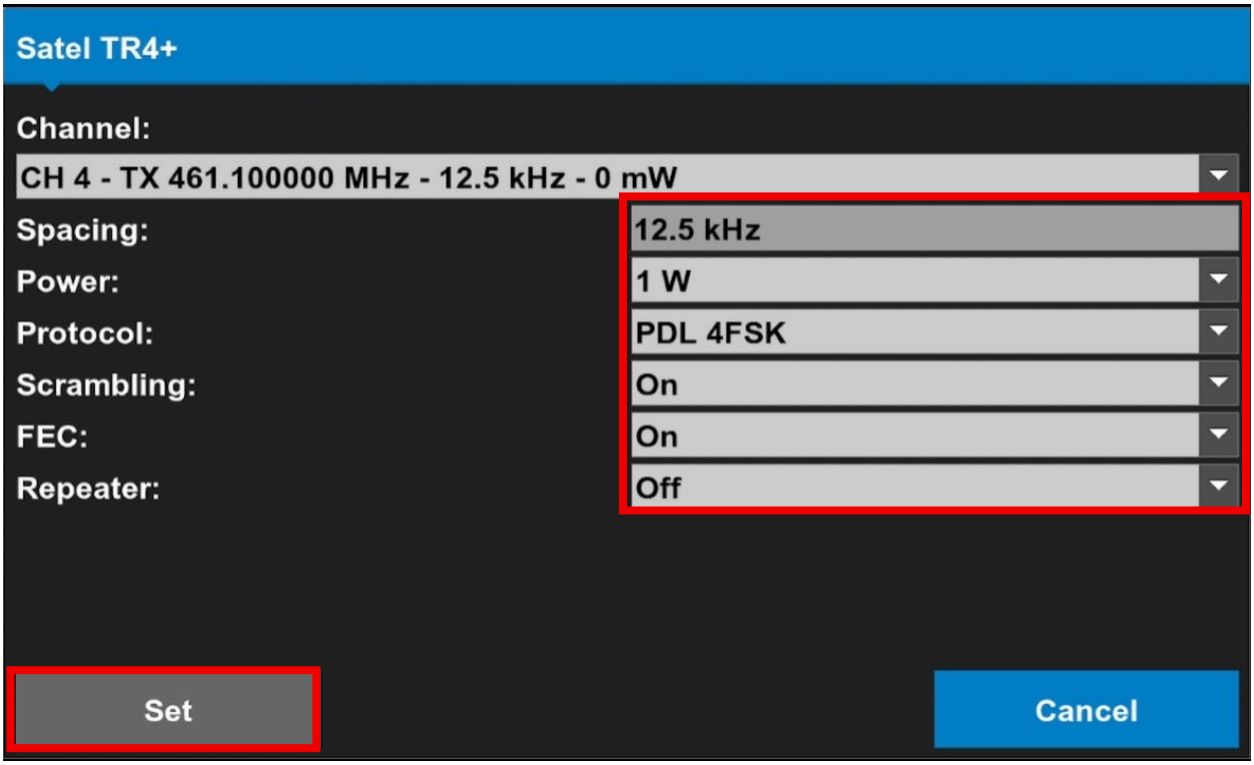
28. Wait for it to connect.



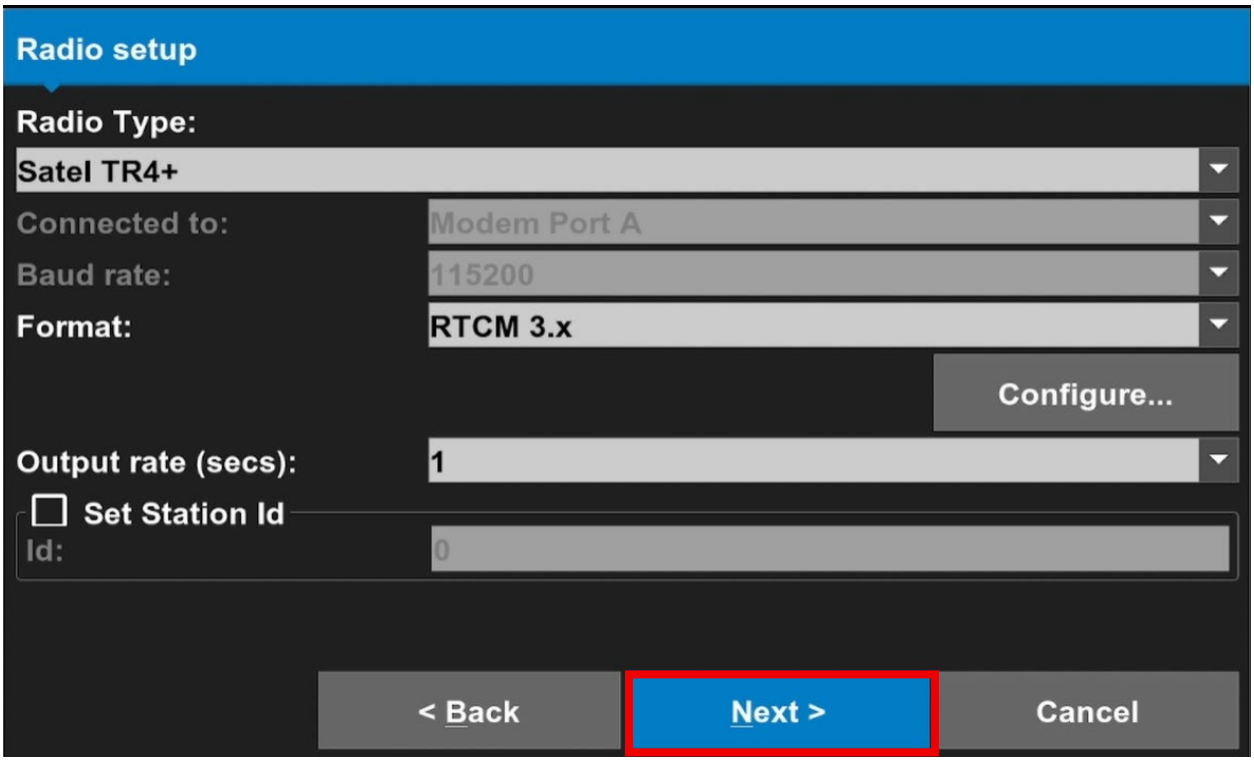
29. Once Radio list pops up, change the channel to **“461.100000 MHz -12.5 kHz – 0 mW”** ***(Note: You can choose any channel from the list as long as your Base and Rover are on the same channel)***



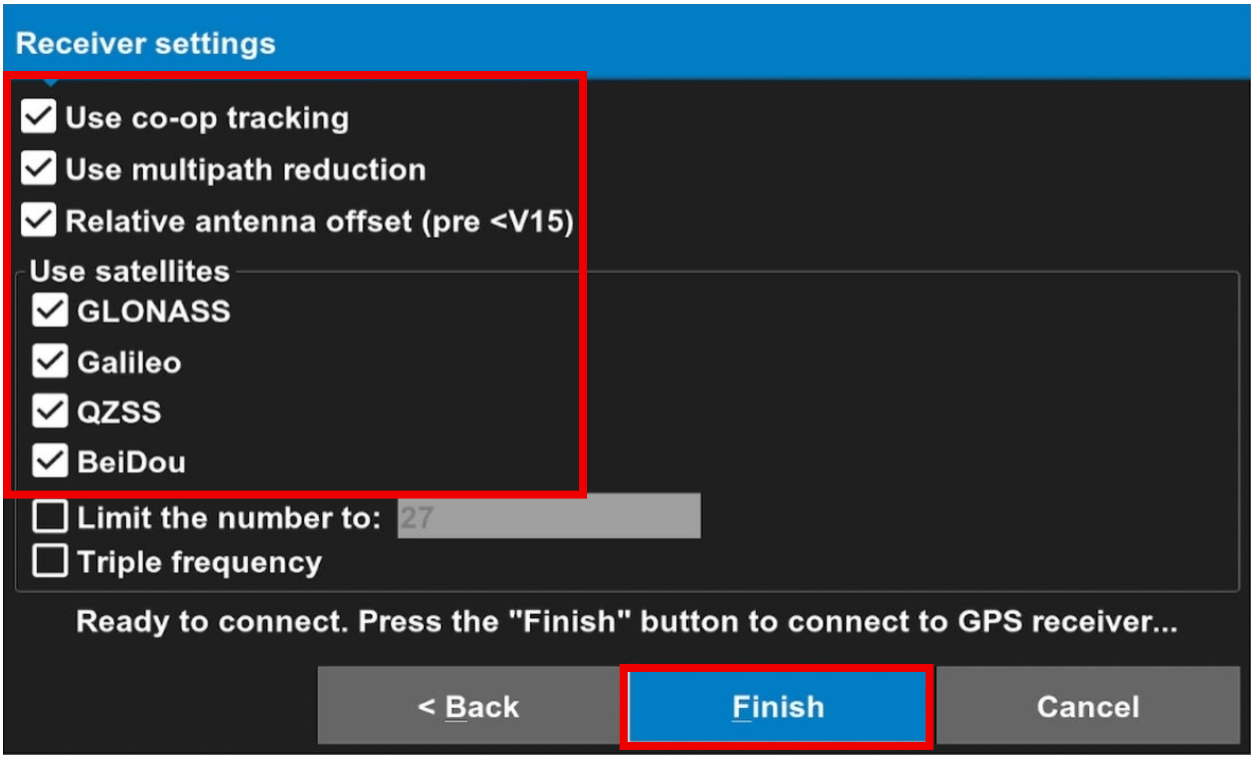
30. We recommend using the settings as seen below. But you can change them depending on the requirement of the project. Once satisfied, click **“Set”**



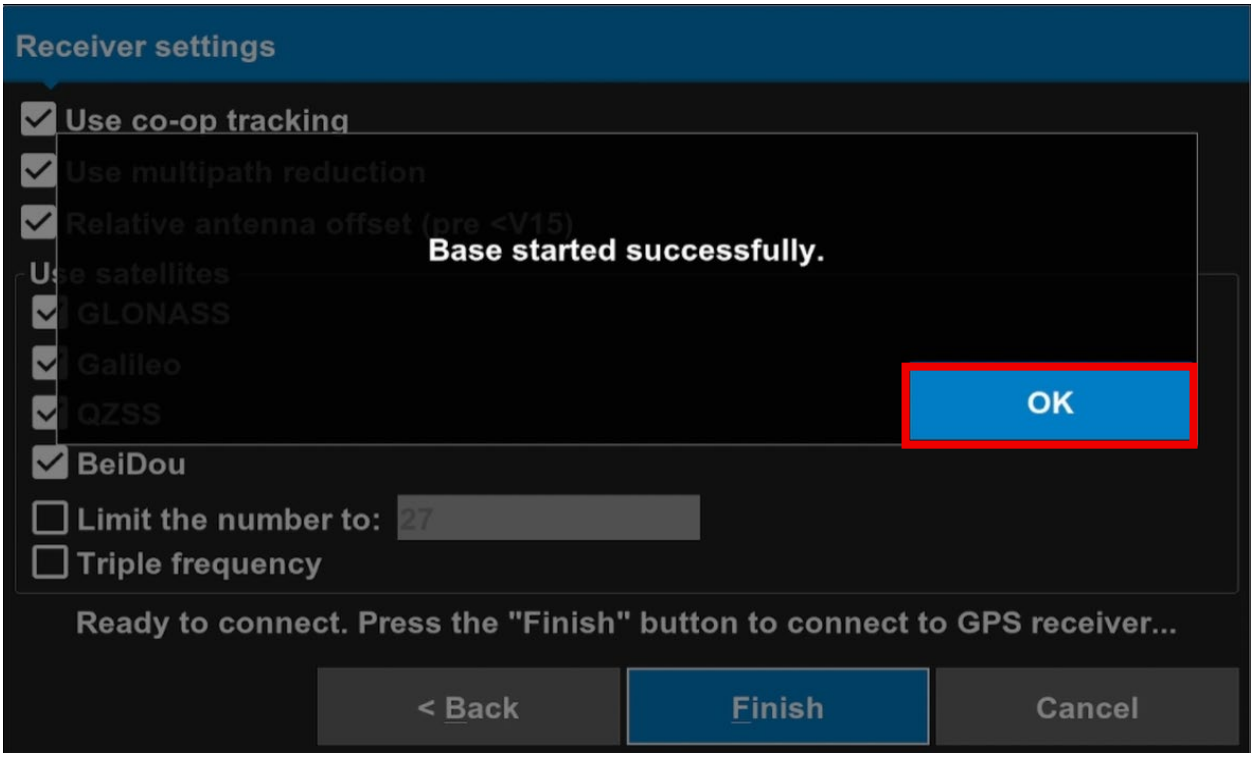
31. Click **“Next”**.



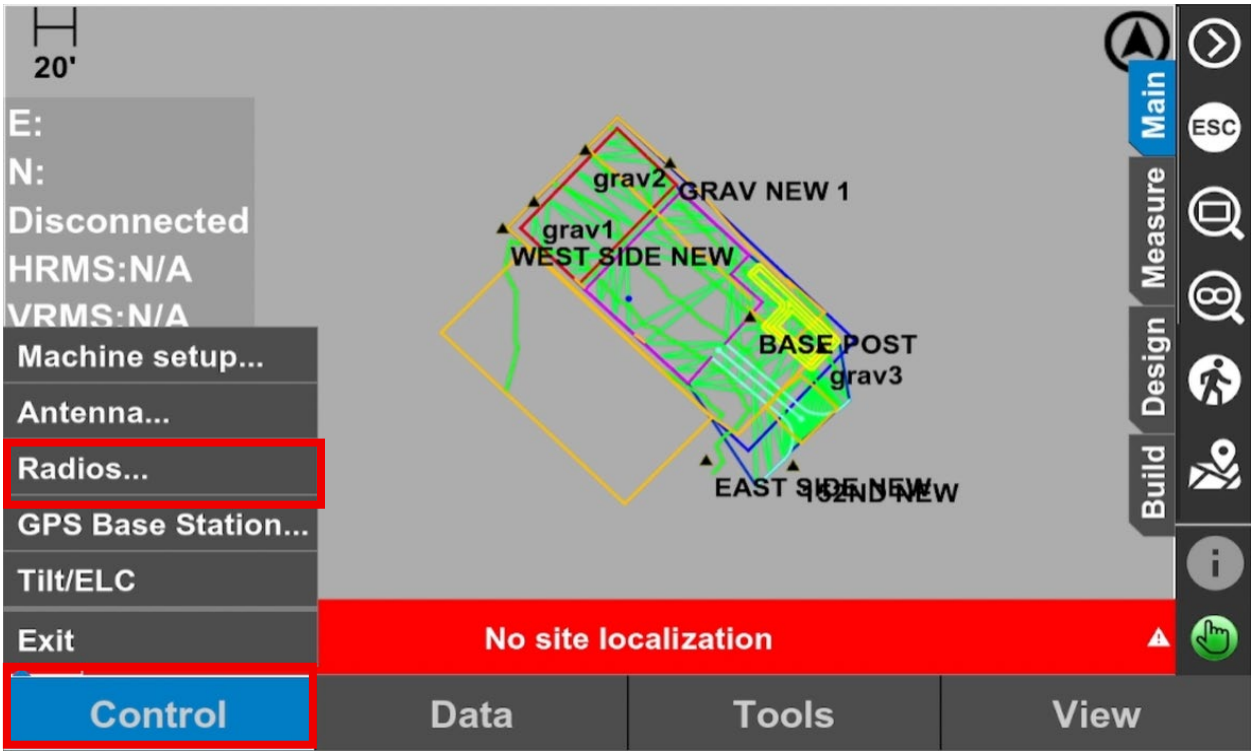
32. Make sure these settings have check marks. Once done, click **“Finish”**.



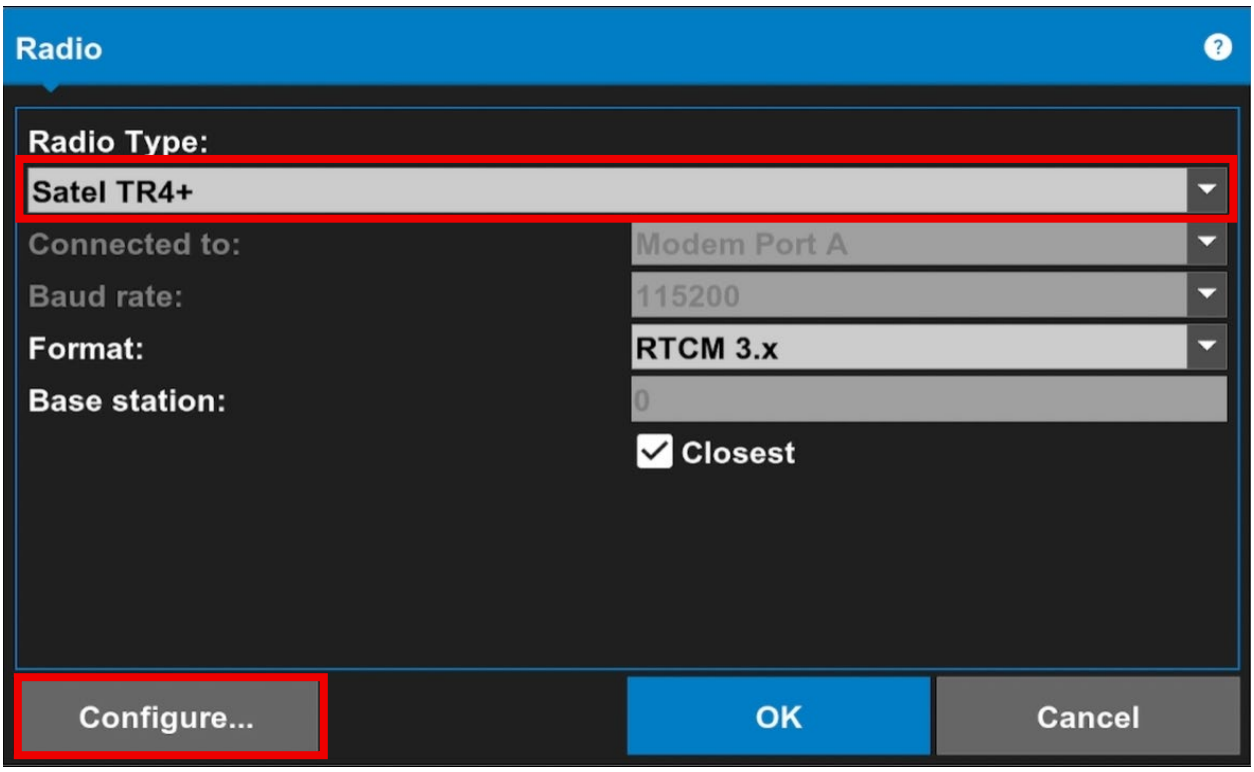
33. Wait for multiple loading screens to finish, and when it says **“Base started successfully”**, click **“OK”**.



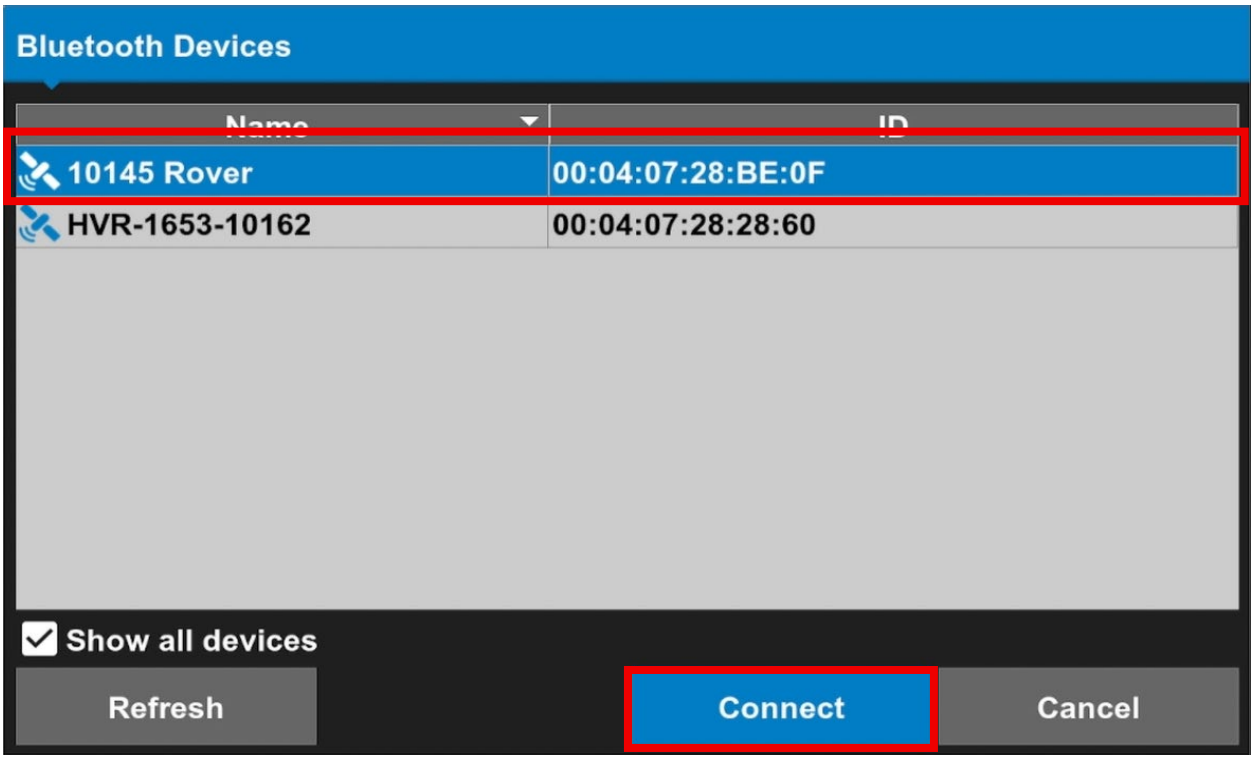
34. To setup the rover, click **“Control”** and select **“Radios…”**



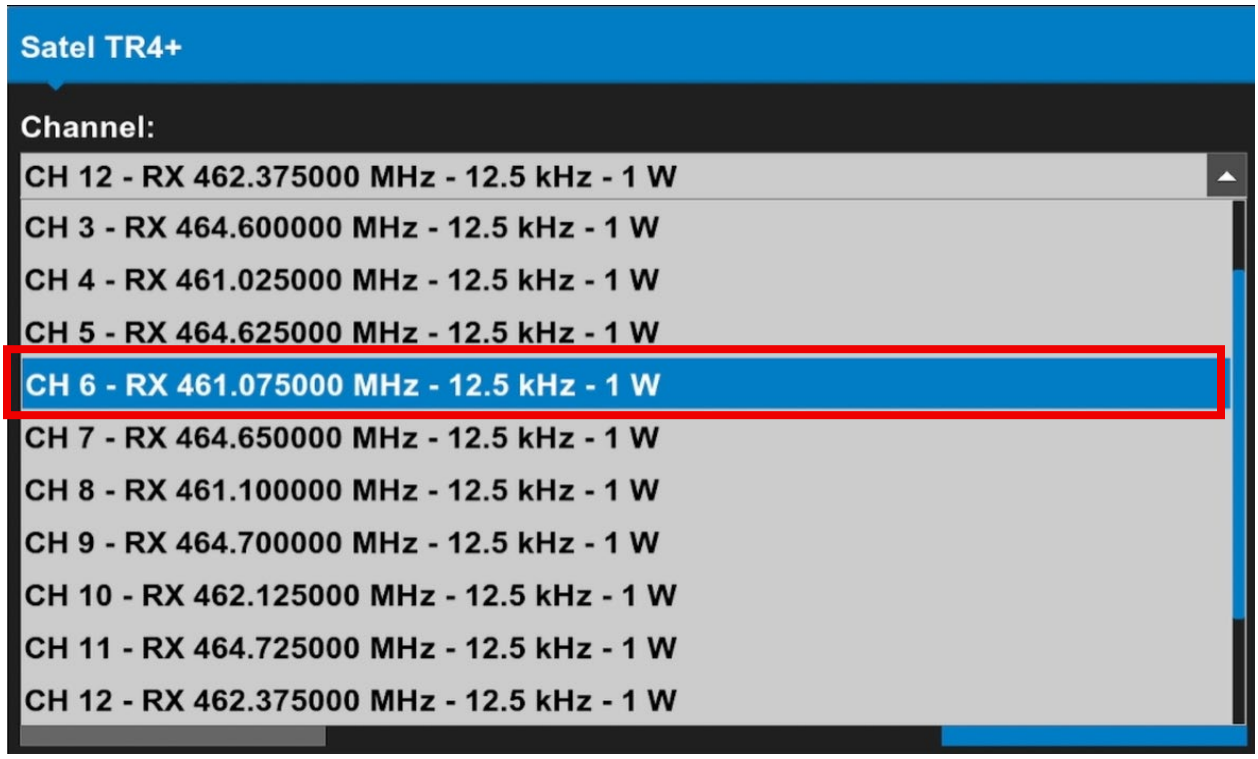
35. Set the Radio Type to the one used in the Rover, then click **“Configure…”**



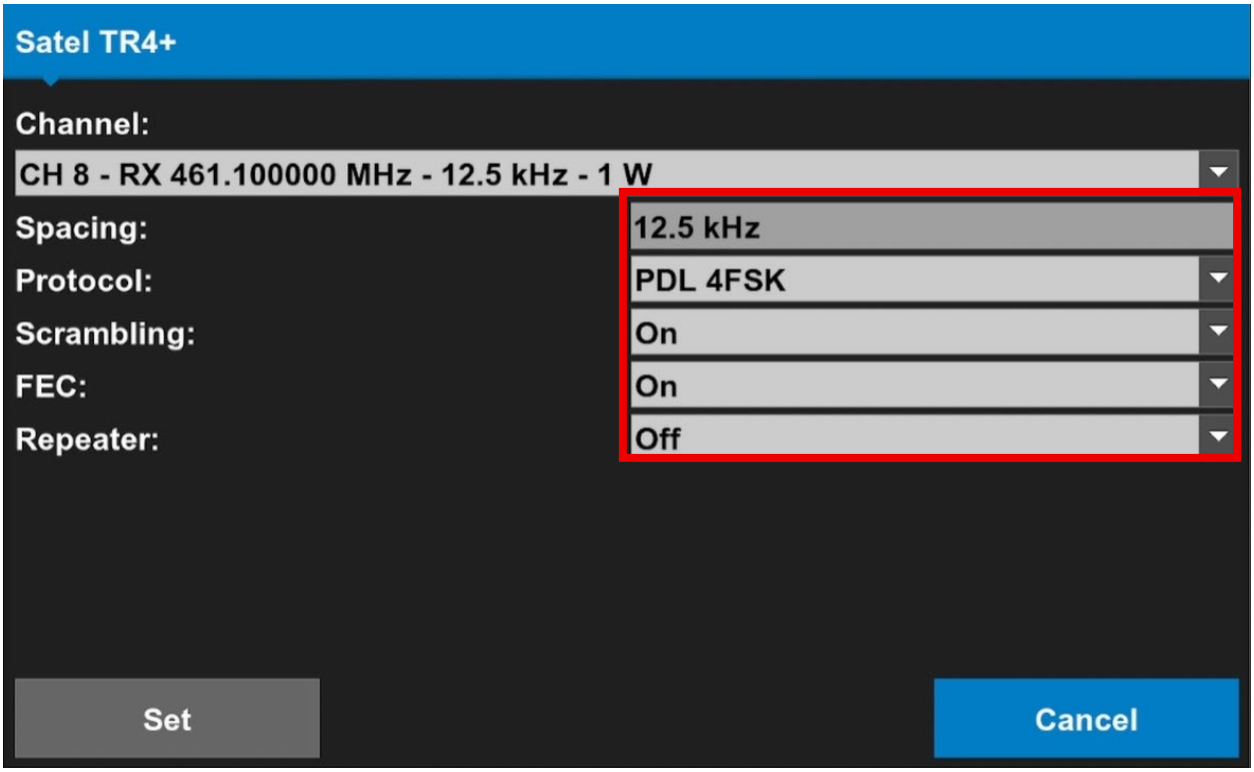
36. Select your Rover and click **“Connect”**. **(Note: Again, take note of the last for digits of the SN of your Rover. In this example, we have “0145” as the last four digits.)**



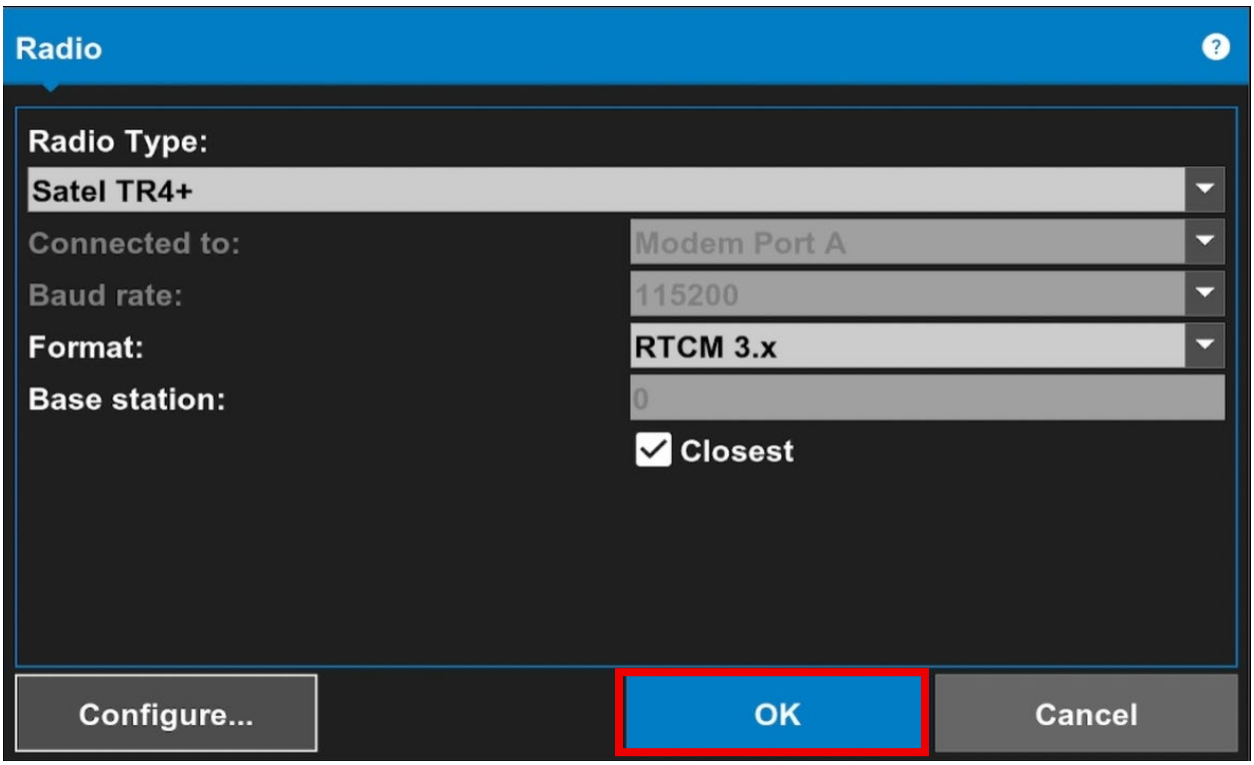
37. Once Channel list is available, match the channel to your Base station by setting it to **“461.100000 MHz -12.5 kHz – 0 mW”** or whichever you selected.



38. Match the settings of the Base station.

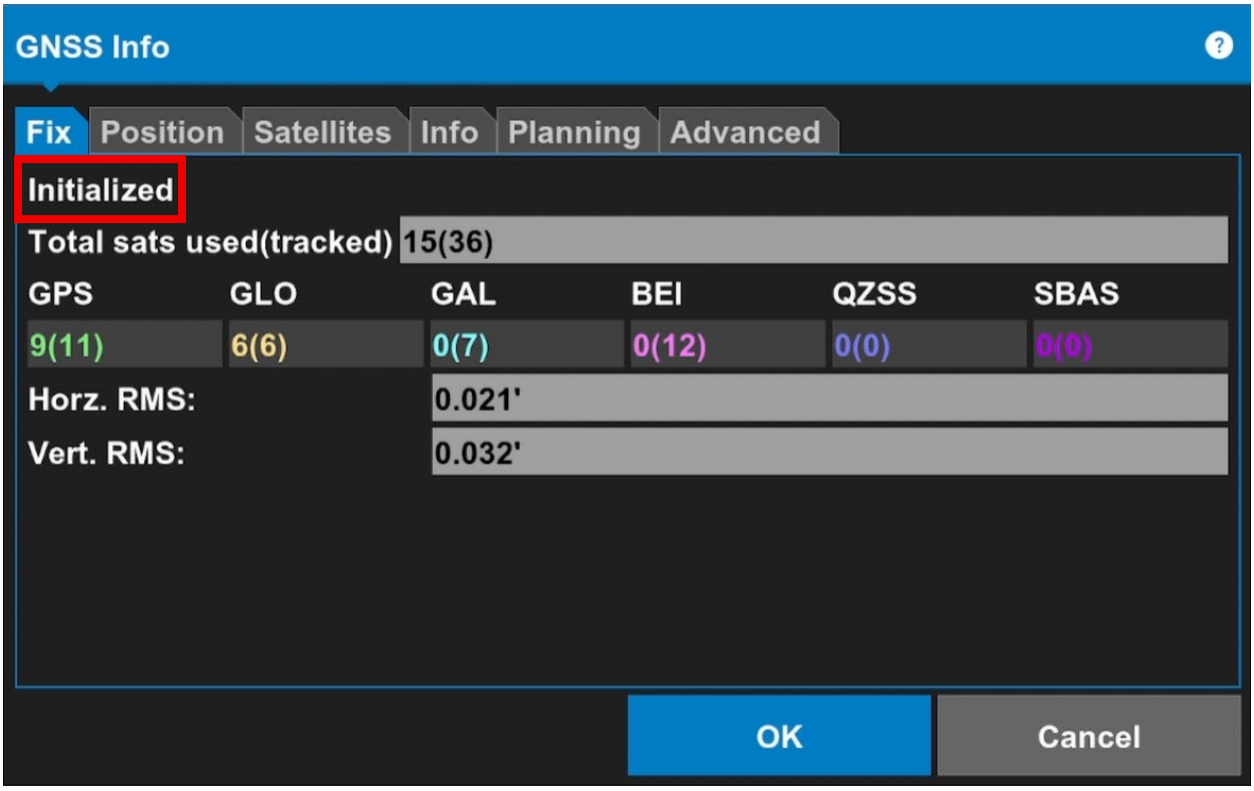


39. Tap **“OK”** once loading is completed.

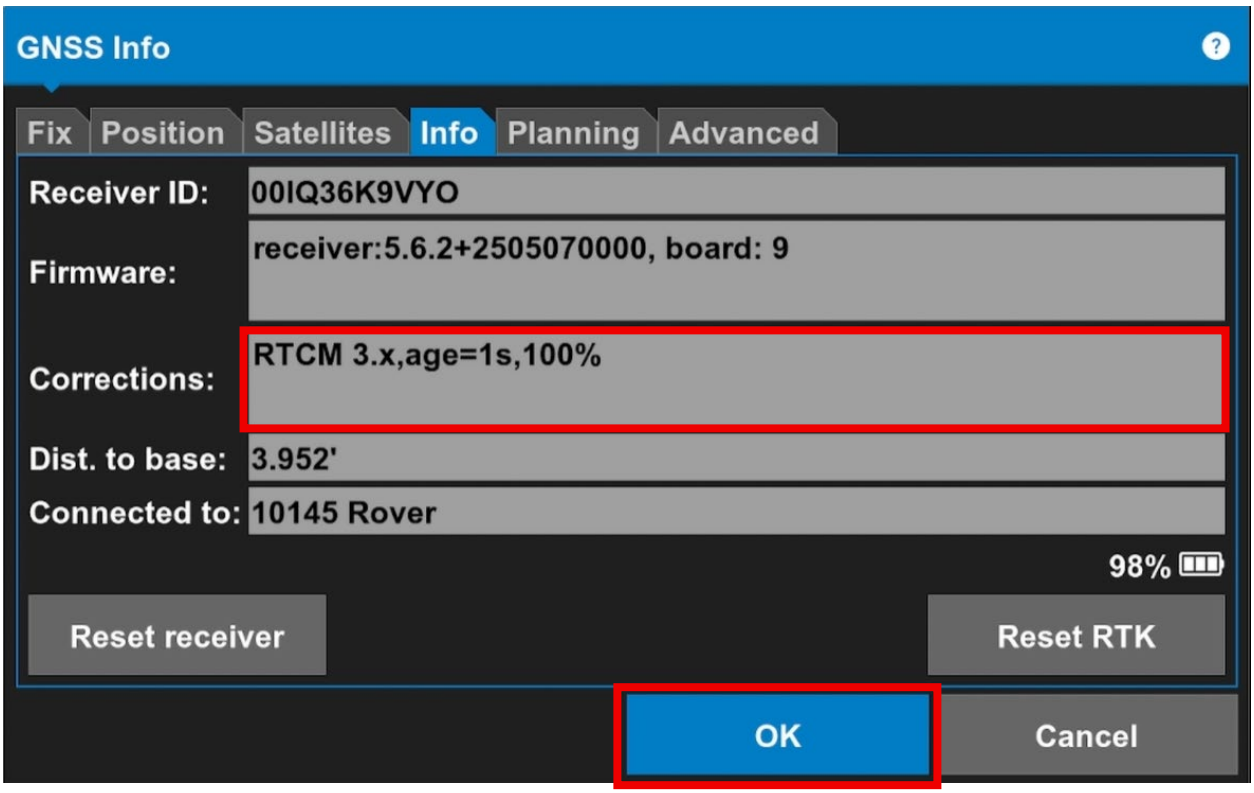


40. Once the Satellite icon on the bottom left turns from **orange** to **green**, your Base & Rover is successfully initialized. Tap on the **“satellite icon”.**

41. Make sure that is **“Initialized”**. You could also click **“Info”.**



42. Check if the Correction values is equal to **1s, 100%.** If the radio is not corrected right, your percentage might be at 99.99% or 0% or you could also get other second values so always double check these values. If all are verified, you can click **"OK"** and start your project.



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