Carlson®

Carlson Software Inc.
33 East 2nd Street
Maysville, KY 41056

www.carlsonsw.com
Phone: (606) 564-5028
Fax: (606) 564-6422

This is in regards to using SurvCE 6.08 or higher to configure a BRx7 base / rover for RTK using the UHF radios while at the same time **logging raw static** to your BRx7 base for post-processing.
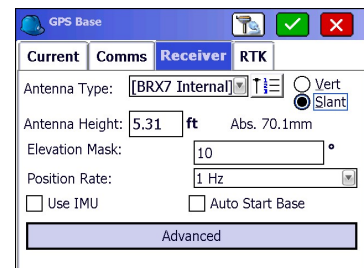
<u>Here is the instructions for connecting a BRx7 base and rover using the internal UHF radios:</u>

1) Power on your BRx7 base and then tap Equip / GPS Base and set it for Manufacturer: Carlson and Model: BRx7
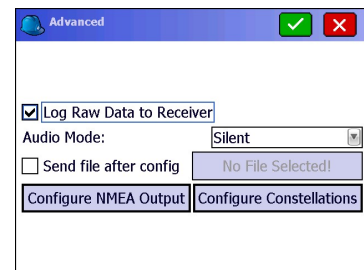
2) Tap the "Comms" tab and set it for "Type: Bluetooth" and "BT Type: Windows Mobile" and tap the "wrenches" icon to the right. Tap "Find Device" and follow the prompts to select the serial number of your BRx7 base then tap the Bluetooth plug icon in the top middle

3) Then tap the Receiver tab and tap next to "**Slant**" and measure up to the line where the top Blue cap meets the bottom Grey housing as shown in the image to the right with the Arrow symbol to use for your Antenna height
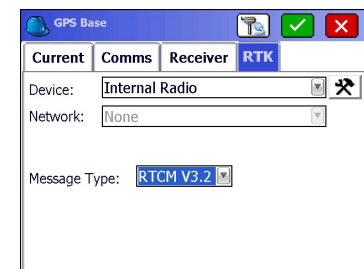
4) **To log raw data at your Base** while you are using your GPS Rover tap the "Advanced" button while in the Receiver tab of the GPS Base dialogue then check the box for "**Log Raw Data to Receiver**" and tap the green check to save your changes

5) Attach the silver metal bracket to the bottom of the BRx7 base then attach the short cable to the UHF port. Then connect the **UHF antenna** to the bracket so it points straight up in the air.
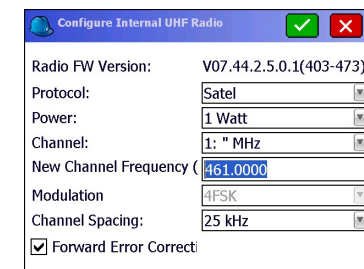
6) Tap the RTK tab and set it for "Device: Internal Radio" and "Message Type: **RTCM V3.2**"

7) Tap the "wrenches" next to "Device: Internal Radio" and fill out the radio using the settings below then tap the Green Check:
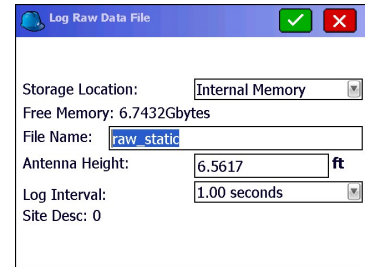 Protocol: **Satel**
  Power: **1 watt**
  Channel: 1: 0 Mhz
  New Channel Frequency: **461.0000**
  Channel Spacing: **25khz**
  Forward Error Correction: **Checked on**

***If you have an FCC licensed frequency or a custom frequency you want to use you can type this into the "New Channel Frequency" box and it will program Channel #1 to the new frequency.*

8) Tap the Green Check and use one of the options in the "From New Position" or the "From Known position" to start the GPS base
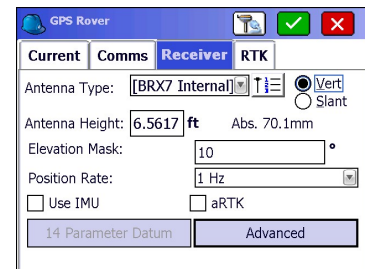
9) After the RTK base setup is complete the "Log Raw Data File" screen will be displayed where you can set it to "Storage Location: Internal Memory" then **tap the green check** to accept the settings and begin recording raw static to your BRx7 base.
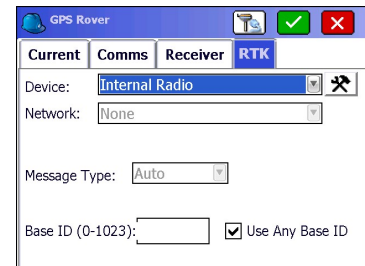
10) Power on the BRx7 Rover and connect the UHF antenna to port on the bottom of the receiver

11) Tap Equip / GPS Rover and repeat Step #2 above to connect to the Rover by Bluetooth

12) In the Receiver tab = type in the Antenna height of 6.5617 feet with it set to "Vert" for vertical if you are using the 2 meter pole that comes with the standard kit

13) Tap the RTK tab and set it for "Device: Internal Radio" and make sure to check the box next to "Use any Base ID"

14) Tap the "wrenches" next to "Device: Internal Radio" and fill it out using the exact same settings as the ones you used for the base setup above then tap the Green Check to save your changes
Protocol: **Satel /** Power: **1 watt** / Channel: 1: 0 Mhz
New Channel Frequency: **461.0000 /** Channel Spacing: **25khz** Forward Error Correction: **Checked on**

If you used a custom frequency for the base other than 461.0000 you will need to type in the same exact frequency you used for your Base Radio in the "New Channel Frequency" box below "1: 0MHz"

15) Now you can tap the Green Check to initialize the Rover and go into Equip / Monitor Skyplot and check to see if you are getting a FIXED solution

16) *After your BRx7 base has recorded the static data* for the length of time required (*such as 30 minutes or 2 hours*) you can walk back over next to your BRx7 and tap Equip / **GPS Raw Only** and set it for "Manufacturer: **Carlson**" and "Model: **BRx7**" then tap the "Comms" tab and set it for "Type: Bluetooth" and set the "Device:" to the serial number of your BRx7 base and tap the Green Check.
You will be prompted "Receiver is currently logging… Do you want to close this file and start a new one?"
17) Tap "**Yes**" to close the file and stop recording static then **tap the red "X"** to return to the main menu.