

# Survey Technical Support Notes

# December 2015

## GNSS/GPS- Trimble TSC3 and Trimble Access Changing telemetry radio frequency

**Overview:** This document explains the basic functions on the TSC3 data collector and how to change the radio frequency of the UHF radio in a GNSS or GPS receiver

**Equipment:** TSC3 data collector running Trimble Access and a GNSS or GPS receiver with an internal radio

Results: User will have basic ability to do the following

- 1. Check Bluetooth settings
- 2. Connect to the GNSS receiver
- 3. View and change radio settings
- 4. Save and exit

### Procedure:

Turn on TSC3 (Green button Lower left hand corner)



If Access is not running push the **Trimble Key** on the keyboard to start it

Some of the specialized keys





### Trimble Access Main Screen

Use the **Trimble Icon** on the screen or on the keyboard to switch between screens if there are multiple screens opened. It is much faster than shutting down the current screen and opening a new screen.

This is also the best way to switch between TA Modules like General Survey, Roads or Powerline. Then you do not have to restart your survey with every module.

### Verify Bluetooth Devices

#### Bluetooth

- 1. From Main Trimble Access screen, select Settings
- 2. Select Connect
- 3. Select Bluetooth devices



4. Select the correct Rover and Base receivers

Note: If cable is being used, it must be set to "None"

5. Tap Accept to store settings then tap ESC to return to the Main Screen

#### **Connecting to Internal Radios**

From the Trimble Access Main Screen, select General Survey

Select which receiver to connect to, the **Base** or the **Rover** GNSS receiver

**Note**: Both the Base and Rover receivers have to be programmed individually to the same radio frequency with the same over the air baud rate and broadcast mode.



- 1. Select Instrument
- 2. Select GNSS functions
- 3. Select **Base Mode**; this will connect the controller to the GNSS base receiver as set in the Bluetooth setting.
- 4. Select Data Link



**Note:** If the Data link icon is grayed out, wait for the Bluetooth connection to activate then it will be available. Check to be sure the Base receiver is powered on.

- 5. Radio type should be set to Receiver internal
- 6. Tap **Connect** at the bottom of the screen





5. Tap **Enter** when finished



- 1. Radio operating mode needs to be set to Base
- 2. Select the frequency that you are broadcasting on and make note of it (you will need it for the Rover setup)
- 3. Make a note of the Base radio mode (you will need it for the Rover setup)
- 4. If you have a repeater set to **One**, if you do not have a repeater set to **None**

**Note:** Not all receivers can transmit. If your receiver does not have **Base** as an option, it does not have the ability to broadcast. If you think you should have that ability, swap the Base and Rover receivers in the Bluetooth settings and try this Data Link connection again.

Radio configuration	— ×	👺 Base data link 🛛 🔊 😲	? – X
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Receiver internal Base	2 89%	Radio	4 12
Frequency:		Radio:	
461.01 Please wait		Receiver internal	-
Base ra TRIM	?		7
Percet			
One	Map		Map
<u>Cancel</u>	1 <u>e</u> nu		M <u>e</u> nu
1/2 F	avorites		F <u>a</u> vorites
S S	witch to		Switch to
No survey PDOP:1.6		No survey PDOP:1.7	
Esc	Enter	Esc	Accept

- 6. Tap Accept
- 7. The base radio setup is complete, press Accept to go back to the GNSS function screen

- 8. Select Rover Mode
- 9. Select Data Link



- 10. Radio type should be set to Receiver internal
- 11. Tap Connect at the bottom of the screen

**Note**: If the **Connect** softkey is not there, wait for the Bluetooth connection to the receiver first then it will appear. The status bar will show when the connection is made.



- 12. Radio operating mode needs to be set to Rover
- 13. Select the frequency that you are receiving on (see your note from step 2 of setting the base)



14. f the Base radio mode (see your note from step 3 of setting the base)

FCC regulations limit you to broadcasting on the frequencies you are licensed for. Users can listen on any frequency. If the frequency you want to listen on is not in the list tap **Add Frq** at the bottom of the screen.

📚 Radio configuration 🛛 🕣 🕕	? <b>—</b> ×	📚 Add new receive frequency \Rightarrow 👥 🤉 -	- <b>x</b>
Connected to: Radio operating mode:		New frequency:	77%
Receiver internal Rover	12		04% 11
Frequency:			
[461.02500 MHZ] ▼	T	Τ	
Base radio mode:	Ϋ?	Ĩ	?
	Map	<u></u>	ар
	Menu	M	enu
	F <u>a</u> vorites	Favo	orites
	Switch to	Swit	ch to
No survey PDOP:1.5		No survey PDOP:1.7	
Esc Add Frq	Enter	Esc Acc	cept

- 1. Enter the frequency you want to receive on. Note: This is only for receiving frequencies not transmitting.
- 2. Tap Accept when finished, this will take you back to Radio Configuration
- 3. Tap Enter when finished





- 4. Tap Accept
- 5. The **Rover** radio setup is complete, press **Accept** to go back to the **GNSS function** screen and
- 6. Tap **ESC** to return to the General Survey menu