

Topcon FC200 SS Built In Radio Configuration

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Abstract: The following document details the steps necessary to use Carlson SurvCE 1.6 with the Topcon 900/9000 Series instrument including the FC200 built in spread spectrum (SS) radio.

REMOTE OPERATION:

Instrument Configuration:

1. Start the Standard Measure program from the desktop of the Topcon 900/9000.
 2. Select PROG
 3. Select Ext. Link
 4. Select Settings
 5. Select the desired communication method: RS-232C, RC, SS Wireless, or Bluetooth.
 - a. Cable: Set com parameters (9600, 8, None, 1 are default), consult user manual for REC setting (either will work), select ETX for terminate, and RTS set high.
 - b. RC: Verify RC is enabled, consult user manual for REC setting (either will work), choose ETX for termination.
 - c. SS Wireless: Verify that SS Wireless is enabled and that Terminate is set to ETX. Consult your user manual for you preference between REC-A and REC-B. SurvCE will work with either.
 - d. Bluetooth: Verify Bluetooth is enabled, consult user manual for REC setting (either will work), and choose ETX for termination.
 6. Select Exit and then ESC.
 7. Select Execute.
 8. The instrument will display "Remote control is being done from the controller."
- ** If you have been connected in External Link mode via a method such as RC and wish to switch to SS Wireless, you must exit external link, close the program, and power cycle the instrument before you will be able to change connection methods.

Data Collector Configuration:

Note: For SS Wireless on FC200 configuration see next section

1. Start SurvCE by clicking desktop icon.
2. On the Equip tab choose Instrument.
3. Select Topcon 800/8000 Series Remote and press OK.
4. Choose Com Setup.
 - a. Cable: Set to COM1 (unless your data collector uses a different port number). Com parameters must match instrument (see Instrument Configuration section above), press defaults to select default parameters.
 - b. RC2: Com parameters should be 4800, None, 8, 1.
 - c. RC3: Com parameters should be 9600, None, 8, 1.

- If connecting via cable to RC, choose COM1 (or see data collector documentation). If connecting Bluetooth toggle “this is a Bluetooth port”, pick the correct Bluetooth driver for your data collector, press “Find Bluetooth port” or select the Bluetooth COM port per you data collector manufacturer’s documentation.
 - d. Bluetooth: Com parameters should be 9600, None, 8, 1. Toggle “this is a Bluetooth port”, pick the correct Bluetooth driver for your data collector, press “Find Bluetooth port” or select the Bluetooth COM port per you data collector manufacturer’s documentation.
5. Press OK.
 6. Select Settings.
 7. On the More Parameters tab choose your model type:
 - a. Cable: Choose Cable
 - b. RC2 or RC3: Choose RC2
 - c. Bluetooth: Choose Cable
 8. Press OK.
 9. SurvCE will now initialize the instrument.

FC200 Configuration for SurvCE Version 1.6x:

1. Start SurvCE on the FC200 by clicking on the desktop icon.
2. On the Equip tab choose Instrument.
3. Select Topcon 800/8000 Series Remote and press OK.
4. Choose Com Setup
5. Set Port Number to COM3, uncheck “This is a Bluetooth Port”, and use 9600, 8, None, 1 for your Com settings.
6. Press OK.
7. Select Settings.
8. On the More Parameters tab choose FC200-SS or FC200-SS + RC3 from the model drop down list.
9. If using the RC3 select the RC2 Connection method you are using. If not using RC unit press OK and skip to step 13.
10. If using a cable or Bluetooth press the connect button. Set the Baud rate to 9600 for the RC3 unit.
11. If connecting Bluetooth select Port Number COM6 and make sure “This is a Bluetooth port” is checked and that Bluetooth Driver is set to Other.
12. Press OK. If using a Bluetooth connection you will be presented with the Bluetooth manager dialog. Press Search to find the device and then select the RC3 from the list of available devices. When you connect to the device you may be prompted for a pin. The pin is “1111”.
13. Once back on the More Parameters tab, press the Radio On button. If you see Radio Off that means the radio is already on. You can confirm the radio is on via the upper left light on the keyboard blinking.
14. Press OK.
15. SurvCE will now initialize the instrument. You may begin working in SurvCE.

FC200 Shutdown Procedure for SurvCE Version 1.6x:

1. From the Equip tab on the SurvCE main menu select Settings.
2. On the More Parameters tab press Radio Off. The left keyboard light on the FC200 should stop blinking.
3. Press Cancel to exit.
4. You can now exit SurvCE and power down the data collector.

DIRECT OPERATION:

Instrument Configuration:

1. Start the Standard Measure program from the desktop of the Topcon 900/9000.
2. Choose Setup.
3. Choose Communication
4. Choose RS-232C if you are using a cable or Bluetooth for Bluetooth.
 - a. RS-232C: Select 1200, 7, Even, 1. Choose Next. CR,LF should be OFF an ACK mode on.
 - b. Bluetooth: Set CR,LF off. Pin should be set to 1111. Set Pin code check to off.
5. Press Set twice, then Exit twice.
6. Press Measure.

Data Collector Configuration:

1. Start SurvCE by clicking on desktop icon.
2. On the Equip tab choose Instrument.
3. Select Topcon 800/8000 Series Direct and press OK.
4. Choose Com Setup
 - a. Cable: Choose COM1 or COM port on data collector you are using. Press Defaults to choose default COM settings or use settings entered in “Instrument Configuration” section above.
 - b. Bluetooth: Set Port Number to COM6. Press OK. Bluetooth manager will launch and find Bluetooth devices. Select Topcon 900/9000 from list and choose Connect. If prompted enter pin (1111 by default).
5. Select Settings to configure settings.
6. You are ready to begin working.