

GTS-815A Setup for use with Radios or Direct Connect

Use the following instructions to connect to the Satel Radios that come with your instrument. Our radios during testing were set to **COM1:9600 N 8 1**. Note you can use the following settings and instructions if you want to connect directly to the instrument via cable connection.

The following instructions assume you have your instrument configured correctly. If you are unsure about this, please follow the instructions on page 2 before proceeding with the following.

1. Setup Instrument
2. Level Instrument
3. Let it compensate (Self Check Steps 1 through 6)
4. From the Main Screen, press **F1** which will open the Programs Screen.
5. From the Programs screen, press **F6** for screen 2 of 2
6. From screen 2 of 2 press **F3** to open the External Link page.
7. Press **F1** to put the instrument in the External Link (Cable) mode.
8. Power on your RC-2 unit.
9. Connect FieldGenius.

Once you enter the External Link (Cable) mode you will see the following screen:



RC-2 Setup

In the battery compartment on the RC-2 unit, you will find four dip switches. We suggest you keep these set to the OFF position for use with radios or RC-2 communication.

How to Confirm Instrument Settings

When you power on the instrument and go through the setup and calibration you will get to the Main Screen. To check the settings and put the instrument in the **External Link** mode do the following.

1. From the Main Screen, Press **F1**.



Figure 1 (Main Page)

2. From the Programs Menu, press **F6** (More) to show more options.



Figure 2 (Programs Screen 1 of 2)



Figure 3 (Programs Screen 2 of 2)

3. From screen 2 of Programs, press **F3** to open the **External Link** screen.
4. From the External Link screen, press **F2** to confirm the settings.



Figure 4 (External Link Screen)



Figure 5 (External Link Settings Screen)

Cable/Radio/Modem/RC Settings

Press **F1** on the External Link Settings Screen.

Cable/Radio Modem/RC = **Cable**

Parameter(Cable) Settings

Press **F2** on the External Link Settings Screen.

Speed = **9600**

Bit Format = **D8 S1 NONE**

Terminate = **ETX**

RTS = **Hi**

Rec Type = **REC-B**

Parameter(RC) Settings

Press **F3** on the External Link Settings Screen.

Channel = **1**

Terminate = **ETX**

Retry = **Standard**

Rec Type = **REC-B**

Parameter (Radio Modem) Settings

If you decide to use the following to help you select a frequency for your radios, you need to make sure you connect both radios to your instrument so they are both programmed with the same frequency. You have to do this because FieldGenius currently doesn't have any capabilities to define the frequency that the radio should use.

If you need to change the frequency we suggest you use the **F2** option because it allows you to pick from a list of pre defined channels. All you need to do is make sure you repeat the same setup on each radio.

Press **F1** for Select parameters

Rec Type = **REC-B**

Press **F2** for Set Frequency (3ASd)

FRQ: Choose a frequency that you want to use.

Press **F3** for Set Channel (3ASd)

Channel: Use the **F3** and **F4** keys to select different channels. The different channels have preset frequencies that the instrument will program the radio with.

FieldGenius Settings

The following screen shots are from FieldGenius 2006 2.0.4.

To configure FieldGenius go to the **Main Menu | Settings | Instrument Settings | Total Station.**

Model and Communication

Model and Communication Help

Total Station

Make: Topcon Model: Robotic

Connect to Instrument

Port: COM1 Data Bits: 8

Baud Rate: 9600 Stop Bits: 1

Parity: None

OK Cancel

Search Settings

Search Settings Help

Search Mode: RC-2 Fast Track

Search Window Range

Horizontal: 30°00'00" Measure

Vertical: 30°00'00"

Search Window Center

Horizontal: 0°00'00" Measure

Vertical: 90°00'00"

OK Cancel

*** Direct Connect ***

If you are connecting FieldGenius directly to the instrument via a cable, you need to set the search mode to **Relative Window**.

Radio Configuration

Even though you are connecting to radio modems for communication, use the **Direct** setting in FieldGenius. The Radio option is not available when using the Topcon Robotic driver.

Radio Configuration Help

Connection

Direct RC-2

Radio

Settings

Channel: [Dropdown]

Station Address: [Dropdown]

Remote Address: [Dropdown]

OK Cancel