Topcon GPT-9003A & FC-2200 (Robotic)

Requires FieldGenius 2008 v4.0.0 or newer.

Configure the GPT-9003A for a Robotic connection

Confirm the Settings

1. From the Desktop screen, double tap the "Standard Meas" icon to start the Topcon instrument software.
2. Press SETUP
3. Press COMMUNICATION
4. Press COMMON PARAMATER.
    RECKey Data Out = RS232C (does not apply for FieldGenius.)
    NEZ REC FORM = STANDARD (does not apply for FieldGenius.)
    REC TYPE = REC-B
    TRK STATE = OFF (does not apply for FieldGenius.)
    REC KEY (Automatic Collimation) = ON (does not apply for FieldGenius.)
    Press SET to save changes
5. Press RC.
    CHANNEL = 1 (Ensure your RC-3R unit is set to the same channel)
    V SEARCH = 15
    RC = S
    CR,LF = OFF
    Press SET to save changes.
6. Press SS WIRELESS.
    ACK MODE = OFF
    CR.LF = OFF
    Press CHANNEL SET.
        CHANNEL = 2 (Note what the Channel is set to, you will need this again later.)
        Press SET to save changes.
    Press SET to save changes.
7. Press EXIT twice to return to the screen in Step 1.

Start External Link Mode

1. Press PROG
2. Press EXT Link
3. Press SS WIRELESS   ---OR---   3. Press RC
        SS Wireless = Enable   RC = Enable
        REC TYPE = REC-B   REC TYPE = REC-B
        TERMINATE = ETX   TERMINATE = ETX
        Press SET to save changes.   Press SET to save changes.
4. Press Execute.
5. You will see a message "Remote control is being done from the controller." You must leave the instrument in External Link mode while using FieldGenius.
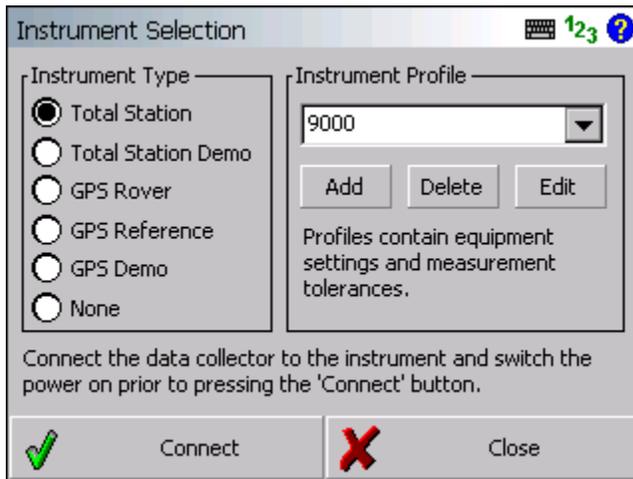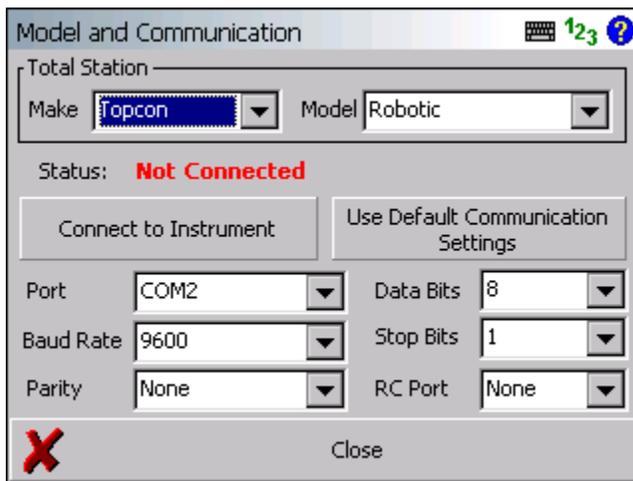
Configure FieldGenius on the FC-2200 Controller

Instrument Profile
Add a profile for your Topcon 9000A, then Edit it to access the instrument settings.

Model and Communication
Make = Topcon
Model = Robotic
Baud Rate = 9600
Parity = None
Data Bits = 8
Stop Bits = 1
If using the built-in RS-3 Radio…
Port = COM2
RC Port = COM8/COM9 (for Bluetooth)
        or COM1 (for cable connection)
If using RC-3R for communications…
Port = COM8/COM9 (for Bluetooth)
     or COM1 (for cable connection)
RC Port = None
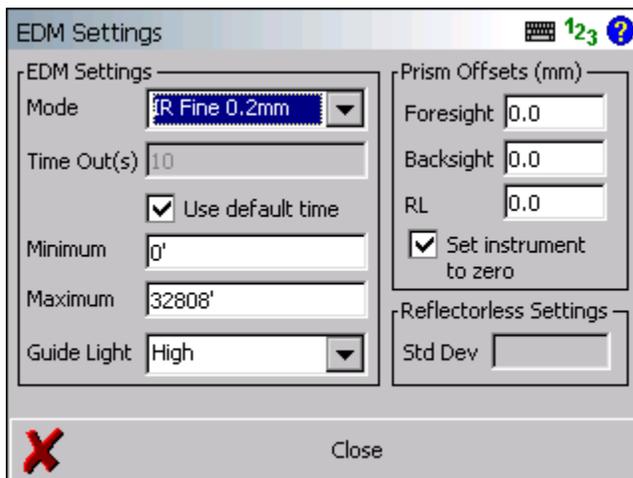
EDM Settings
Select your desired default EDM Mode and other EDM Settings.

Prism Offsets
Enable the "Set instrument to zero" option, and enter your prism offsets as appropriate.
Please be sure to measure a known baseline to confirm your prism offsets.
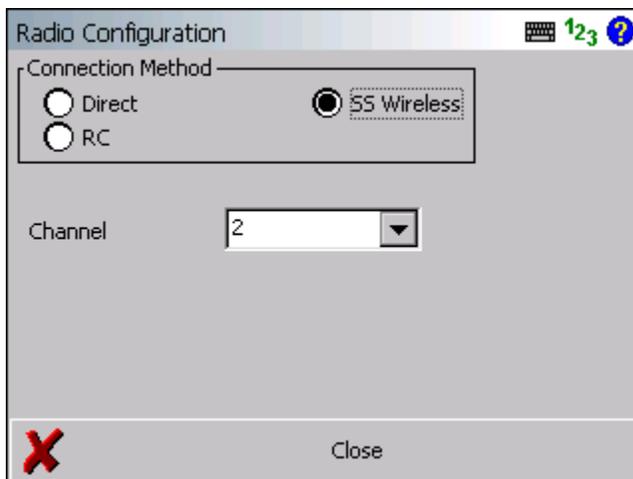
Reflectorless Settings
Not applicable.
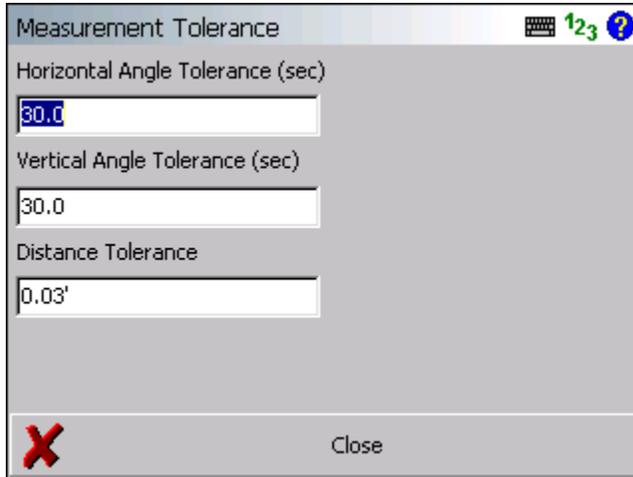
Tolerance Settings
Specify your desired multiset
tolerances, or leave the default values.
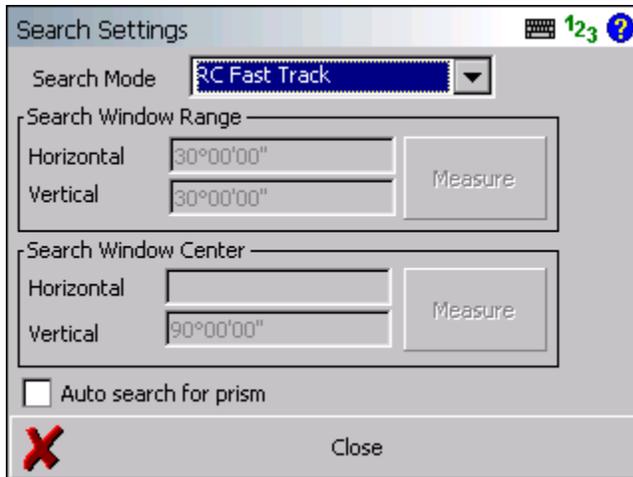
Search Settings
Search Mode = RC Fast Track
Enable the Auto search for prism option
if desired, to force a prism search when
you take a measurement while not
locked onto the prism.

Radio Settings
If using the built-in RS-3 Radio…
Connection Method = SS Wireless
Channel = 2 (match the channel set on
the total station)

If using RC-3R for communications…
Connection Method = RC

Bluetooth Connection Manager on the FC-2200 Controller

If you have specified either COM8 or COM9 as any of your communications ports, then when you press the "Connect" or "Connect to Instrument" buttons in FieldGenius, the FC-2200's Bluetooth Manager will automatically appear.

Depending on settings in the total station, it may discover up to two devices:
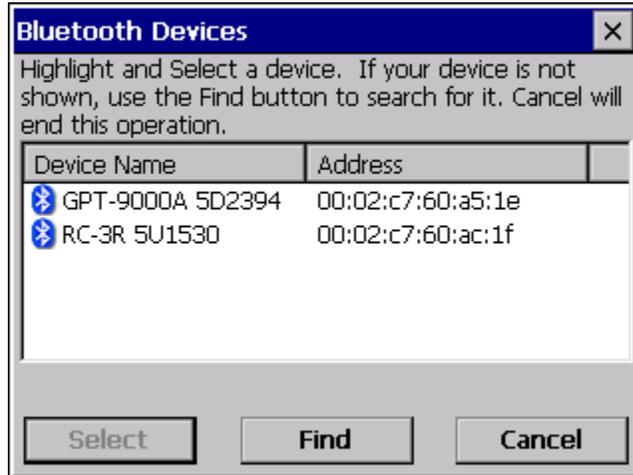
GPT-9000A
This is the total station, and you would want to select it if using a direct (non-robotic) connection.

RC-3R
This is the RC unit, and you would want to select it if using a robotic connection.

If you do not see the required device, press the Find button to discover any nearby Bluetooth devices. You may also see various other devices listed depending on what else is in range of the FC-2200 controller, so just ignore anything else that you don't want to use.

Highlight the name of the device you want to connect to then press the Select button.

Tip: To conserve battery power, disable Bluetooth on any devices that you will not be connecting with via a Bluetooth connection.