Topcon AP-L1A Robotic Connection

Confirm Settings

Communication Parameters (Bit Format)

1. Select Menu
2. Select F1:Parameters
3. Select F3:COM
4. Select F1:COM1
5. Select F1:BIT FORMAT
6. On the BIT FORMAT screen, make sure it is set to: **D8 S1 NONE**.
7. Press F4 “ENT” to exit.

Communication Parameters (Transfer Speed)

1. Select Menu
2. Select F1:Parameters
3. Select F3:COM
4. Select F1:COM1
5. Select F2:TRANS SPEED
6. On the TRANSMIT SPEED screen, make sure it is set to: **9600**.
7. Press F4 “ENT” to exit.

Communication Parameters (Terminate)

1. Select Menu
2. Select F1:Parameters
3. Select F3:COM
4. Select F1:COM1
5. Select F3:TERMINATE
6. On the TERMINATE screen, make sure it is set to: **ETX**.
7. Press F4 “ENT” to exit.

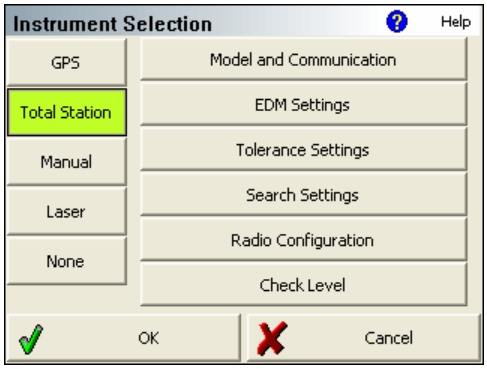
Radio Channel Parameters

1. Select Menu
2. Select F1:Parameters
3. Select F3:COM
4. Select F2:COM2(CHANNEL)
5. On the CHANNEL screen, make note of what channel the instrument is set to. This is important, because you will need to match this in FieldGenius.
6. Press F4 “ENT” to exit.

Checking Settings in FieldGenius

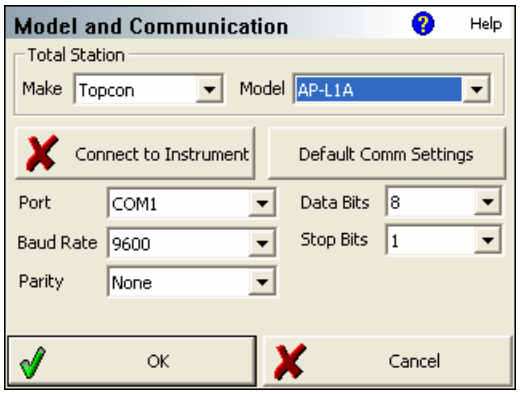
Please ensure you have FieldGenius 2005 Version 1.2 installed.

Go to the Main Menu → Settings → Instrument Settings → Total Station



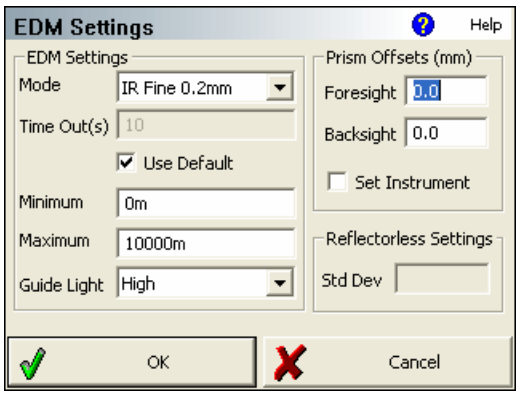
Model and Communication

Make certain you set FieldGenius to equal the following:



EDM Settings

Make certain you set FieldGenius to equal the following:

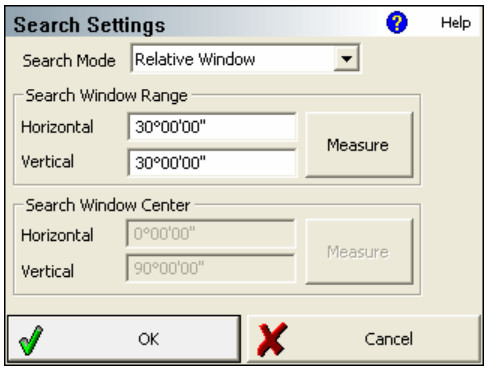


Tolerance Settings

These are tolerances used during multisets, please confirm that the values meet your desired specifications.

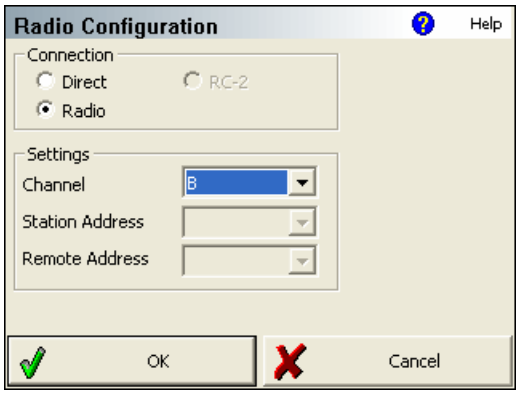
Search Settings

To begin with, set this to Relative Window. Please refer to your FieldGenius manual for more information about the search settings options.



Radio Configuration

Make sure you select Radio, and confirm that the radio channel matches what is set for your instrument.

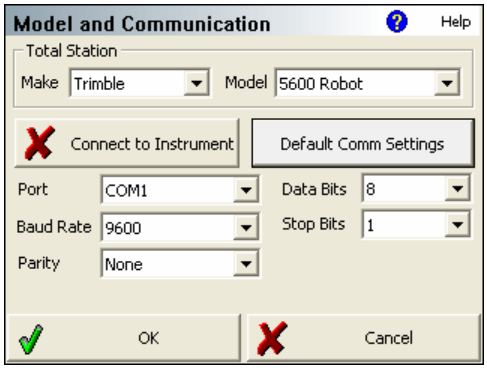


Connecting FieldGenius to your AP-L1A

Once you've confirmed all your settings, and gone through the startup process on your instrument, you can do the following to begin robotic control with FieldGenius.

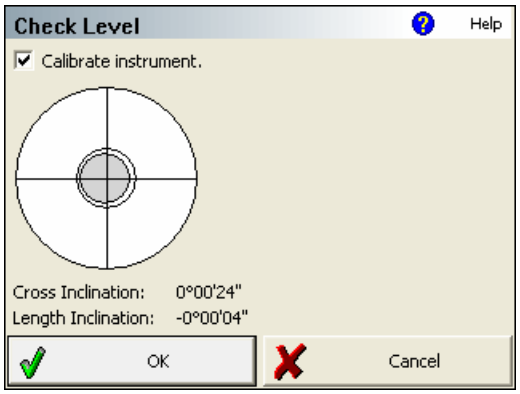
1. Select the MENU button.
2. Select F3: (Remote)
3. Select F1: (REMOTE)
4. The instrument should now be in REMOTE mode.
5. Make sure you have FieldGenius connected to your radio.

6. From the Model and Communication screen, select the Connect to Instrument button.



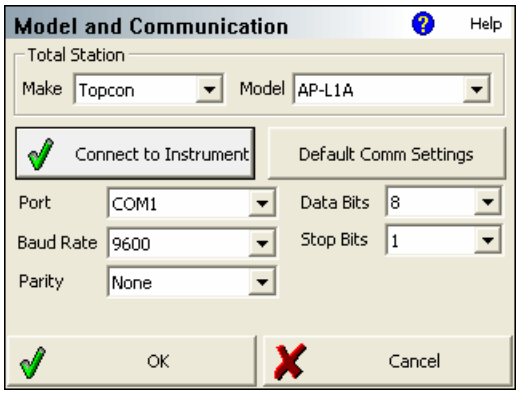
After you press the continue button you will see some reminders of things to check before you move on, press Continue when ready.

You should hear your instrument beep and if a successful connection is made you will see the Check Level screen.



You can calibrate the instrument if you desire by selecting the corresponding checkbox.

Press OK to continue.



You will now see a green check mark on the Connect to Instrument button.

Press Ok to continue. You are now connected and ready to start surveying.