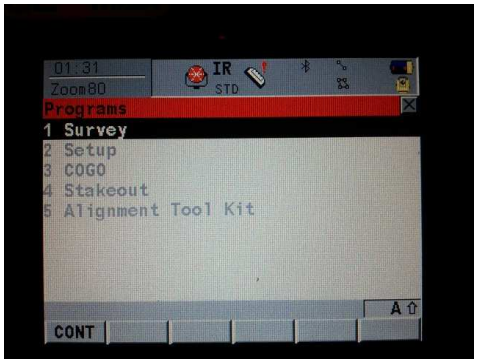
Geomax Zoom 80 Robotic Connection

Total Station Extended Geo COM Check

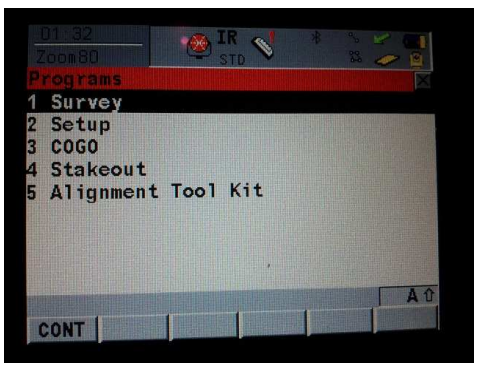
For FieldGenius to work correctly with your Total Station, extended GeoCOM must be enabled. This mode will usually have been turned on by your dealer by adding a license. You can confirm if a license has been added to your Total Station by using the following steps. (Note that this won't necessarily confirm that it is a Geocom license, just that there is a license)

1. While displaying the Main Menu press the **Programs** icon:

- If there is no license all menu items except "Survey" will be grayed out:



- If there is a license all menu items will be selectable:



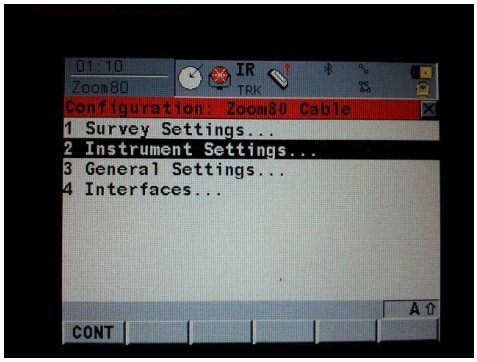
Configure the Total Station AIM 360 Settings

This Guide was written using FieldGenius version 6.0.1.6

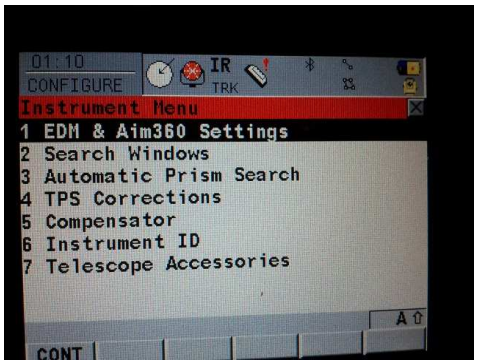
The ATR mode set on the instrument should be confirmed.

1. From the Main Menu, highlight "**Config…"** and press F1 (**CONT**)

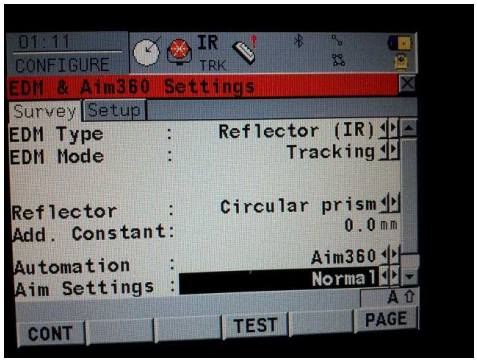
2. On the Configuration Menu, highlight "**Instrument Settings …."**, then press F1 (**CONT**)



3. On the Instrument Menu, highlight "**EDM and Aim360 Settings**", the press F1 (**CONT**)



4. On the EDM & Aim360 Settings Menu, scroll down and check that **Aim Settings** are set to **Normal.**



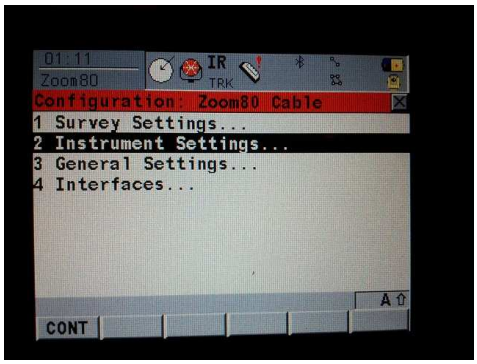
5. Press F1 (**CONT**) to save the settings.

Configure the Total Station Search Settings

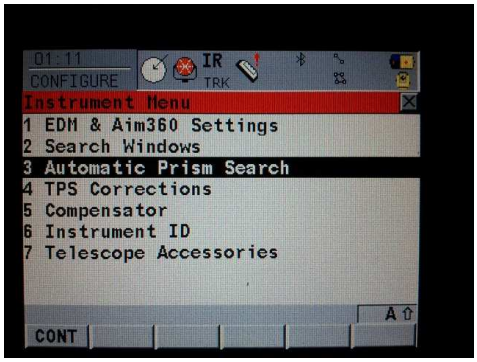
The Search mode set on the instrument should be confirmed.

1. From the Main Menu, highlight "**Config…"** and press F1 (**CONT**)

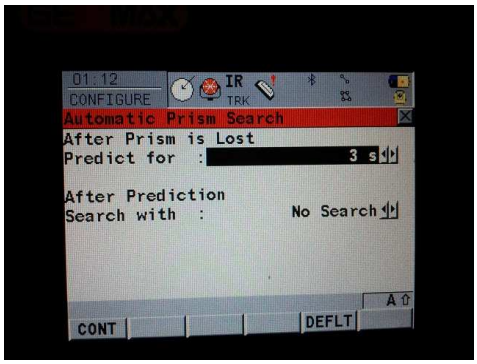
2. On the Configuration Menu, highlight "**Instrument Settings …."**, then press F1 (**CONT**)



3. On the Instrument Menu, highlight "**Automatic Prism Search**", the press F1 (**CONT**)



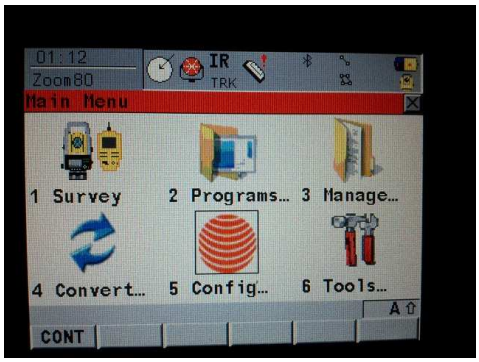
4. On the Automatic Prism Search Menu, make sure "**After Prediction Search with**" is set to **No Search**.



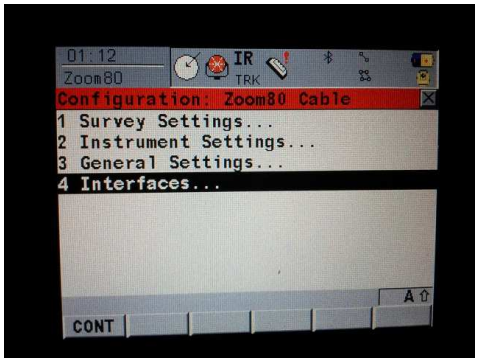
5. Press F1 (**CONT**) to save the settings.

Configure the Total Station Communications Settings

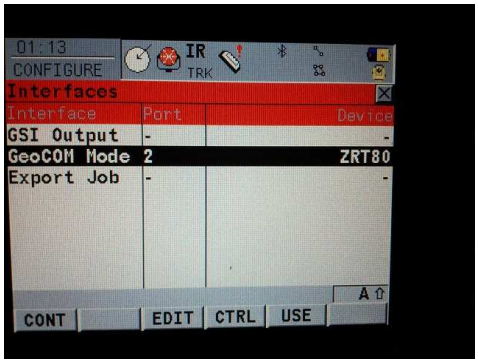
1. Turn on the instrument
2. Level the instrument
3. On your instrument select menu item 5 (**Configuration**)



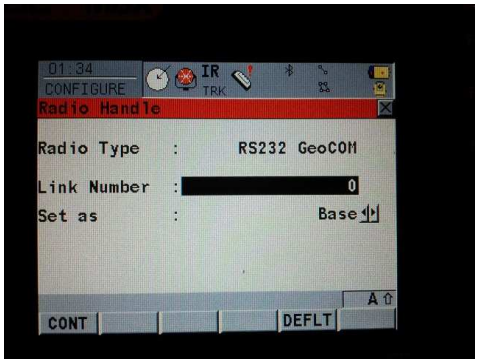
4. Select menu item 4 (**Interfaces**)



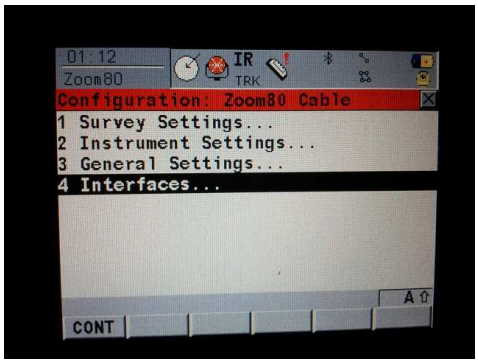
5. Press the down arrow to highlight "**GeoCOM Mode**" then press F4 (**CTRL**)



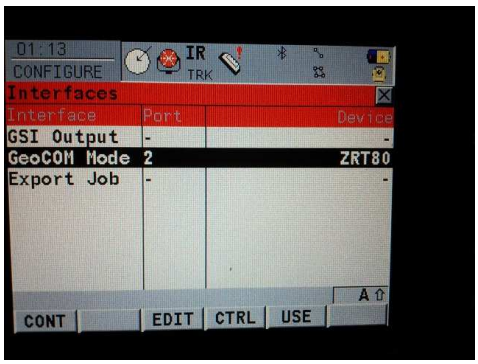
6. *Make a note of the **Link Number*** as you will need to set this in FieldGenius. If you are using an Allegro with a Leica radio module you will need to configure the radio with this number. Leave the instrument setup as "**Base**"



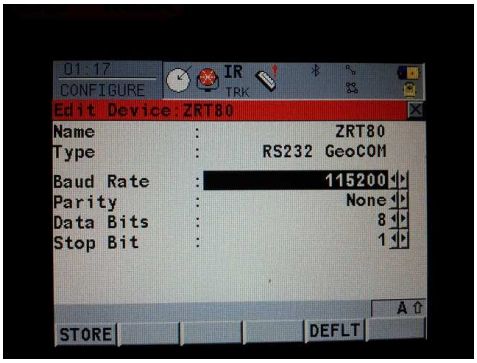
7. Press F1 (**CONT**), highlight **Interfaces** and then (**CONT**)



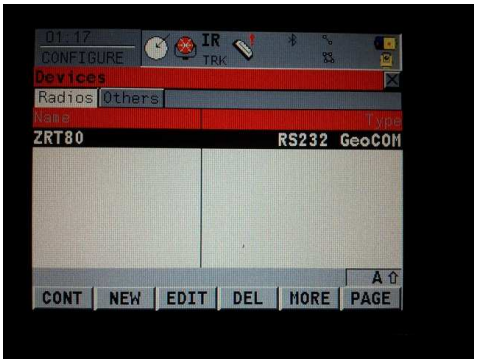
8. Press the down arrow to highlight "**GeoCOM Mode**," then press F5 (**DVECE**), then press F3 (**Edit**)



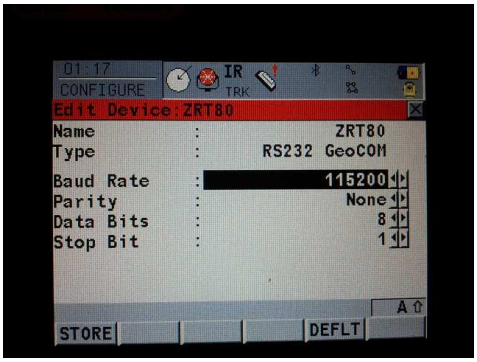
9. Verify that the communication parameters match the following:



10. Press **STORE** or the “esc” button
11. Press F5 (**DEVCE**)
12. Highlight the “Radios” tab and select “**ZRT80**” and then press F3 (**Edit**)



13. Verify that the communication parameters match the following:



14. Press F1 (**Store**) to set the parameters and go back to the Devices screen.
15. Press F1 (**Cont**) to continue back to the GeoCOM Mode screen.
16. Press F1 (**Cont**) to continue back to the Interfaces screen.
17. Press F1 (**Cont**) to continue back to the Main Menu.
18. On the instrument handle, you should see a green power light.

Configure an Allegro Controller with a Leica Radio

Configuring the Allegro MX Radio

Steps to perform on your PC

1. You must run a separate radio configuration utility before connection can occur. Download it from the link below:

http://downloads.microsurvey.com/Knowledgebase/AllegroMXRadio/CE_RM_TOOL.zip

2. unzip the file and then look inside the folder that results for the file: CE_RM_TOOL.exe
3. Connect your Allegro to the desktop computer and wait until Windows Mobile Device Center (for Windows Vista, 7 or newer) or Microsoft Activesync (for Windows XP or older) launch. If you don't see these utilities you may need to download one or the other from the Microsoft website.
4. Once connected copy CE_RM_TOOL.exe into the Allegro MX Program Files folder

Configuring the Allegro MX Radio

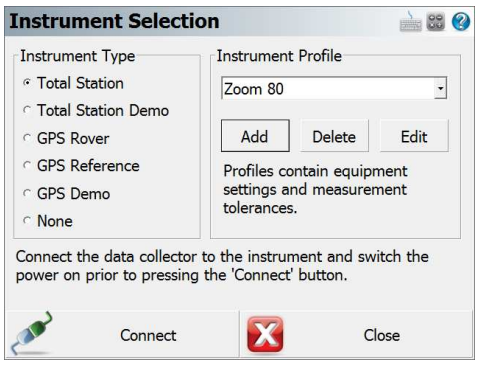
Steps to perform on your Allegro:

1. Run "File Explorer" from Start | Programs
2. Navigate to the Program Files folder, find CE_RM_TOOL.exe and double tap to launch it.
3. Set the options:

Port: port 3
Baud: 115200

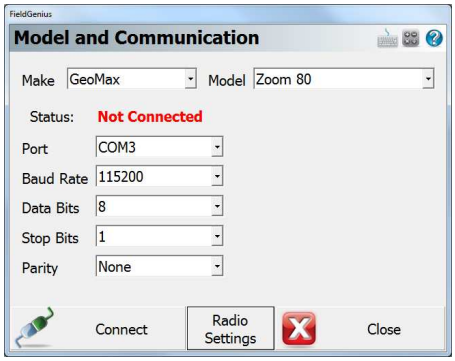
4. pick Connect
5. select appropriate device from the range of choices that follows (in this case; TPS 1200 and Allegro)
6. In the dialog that follows choose a Link ID (0 to 7) that matches the one you set in step 6 of the Total Station Communication Settings section of this guide
7. set the Mode = Remote.
8. Save
9. Close

Configuring FieldGenius on the Allegro



Instrument Profile

Create a profile for your Zoom 80, and Edit it to access the instrument settings.



Model and Communication

Make: GeoMax

Model: Zoom 80

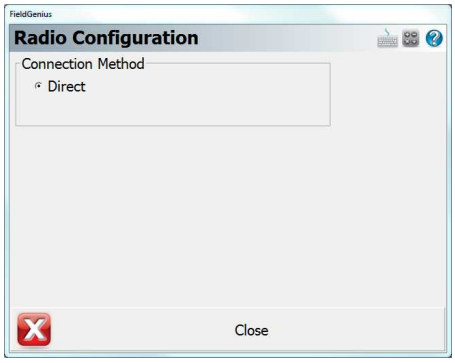
Port: COM3

Baud Rate: 115200

Data Bits: 8

Stop Bits: 1

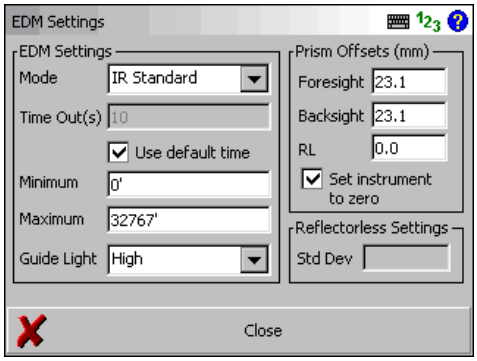
Parity: None



Radio Settings

Select Internal Radio.

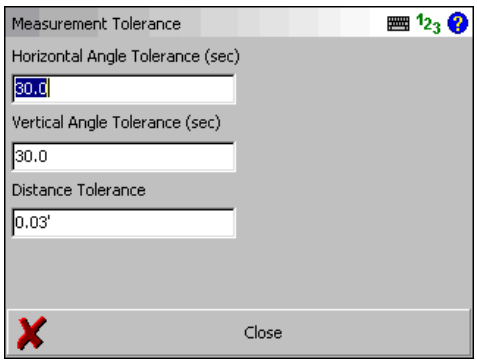
Set the controller to Remote mode (since the instrument is in Base mode).



EDM Settings

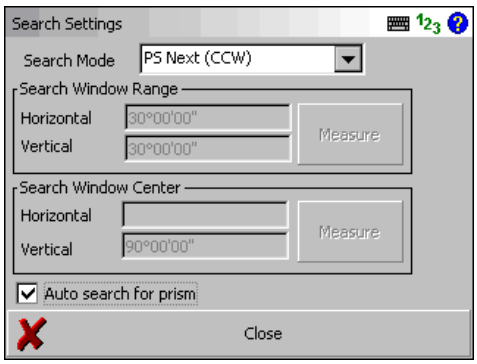
Enable the “Set Instrument to Zero” option, and enter the Prism Offsets as follows: if you are using a Leica 360° prism you would put a +23.1mm offset in FieldGenius; a Leica Circular prism offset would be 0mm in FieldGenius, a Leica mini prism would be +17.5mm in FieldGenius, and for the RL reflectorless offset leave it set to 0mm.

For more information, please refer to our “Leica RX-1250 & TPS 1200 Prism Offsets” document in MicroSurvey Helpdesk.



Tolerance Settings

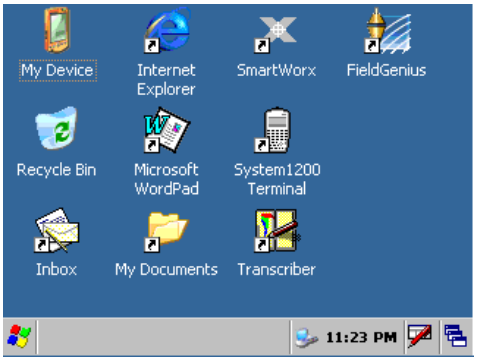
Specify your desired multiset tolerances, or leave the default values.



Search Settings

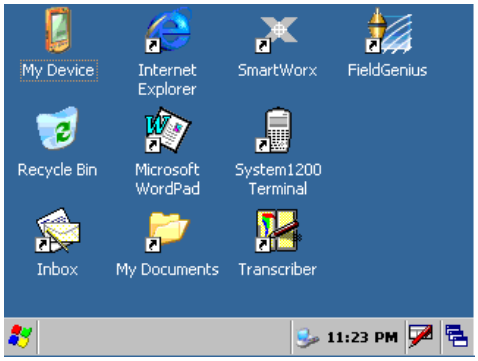
Search Mode: PS Next (CCW or CW)

Enable the Auto search for prism option.



Configure a Zoom 80 C Controller

Configure FieldGenius on the Zoom 80 C Controller



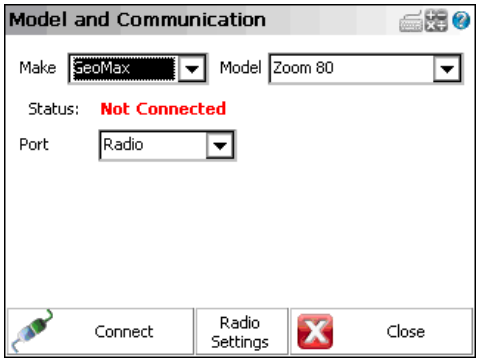
Aside from installing the FieldGenius software, nothing needs to be configured on the data collector's operating system.

Run FieldGenius by double-tapping on the desktop icon.

If you do not see the FieldGenius icon, then turn the Zoom 80 C off then back on again.

Instrument Profile

Start a new project and then create a profile for your Geomax and Edit it to access the instrument settings.



Pick the radio Settings button and see below:

Model and Communication

Make: GeoMax

Model: ZOOM 80

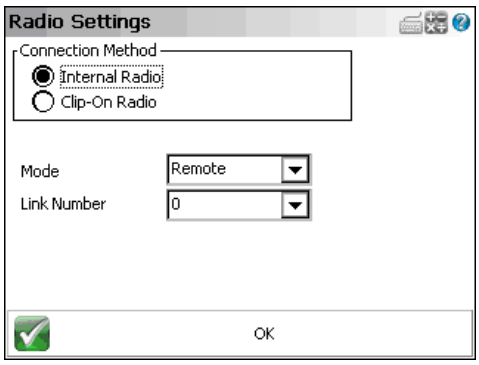
Port: Radio

Baud Rate: 115200

Data Bits: 8

Stop Bits: 1

Parity: None



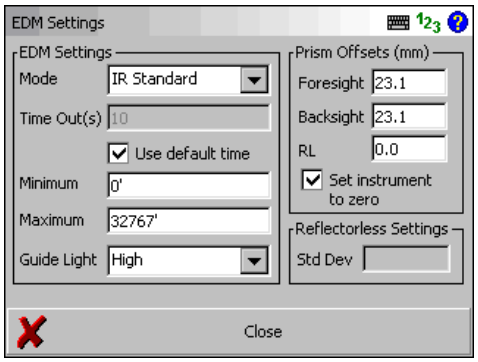
Radio Settings

Select Internal Radio.

Set the controller to Remote mode (since the instrument is in Base mode).

Set the same Link Number as specified in the instrument

The default Link Number is zero



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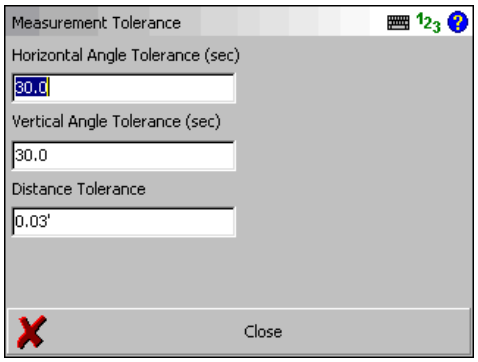
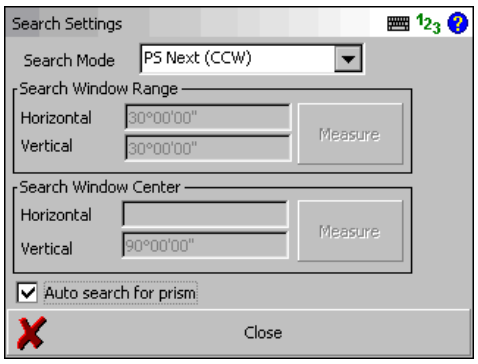
For more information, please refer to our "Leica RX-1250 & TPS 1200 Prism Offsets" document.



Tolerance Settings

Specify your desired multiset tolerances, or leave the default values.



Search Settings

Search Mode: PS Next (CCW or CW)

Enable the Auto search for prism option.

Close out of theprofile editing dialogs and pick "**Connect**." If you are successful you will see the light pattern: Green – Red – flashing Green on the radio handle. If you see a different pattern or are unable to trigger a search when using FiedGenius you must confirm with your Geomax dealer that the extended geocom license has been enabled on the Zoom 80.