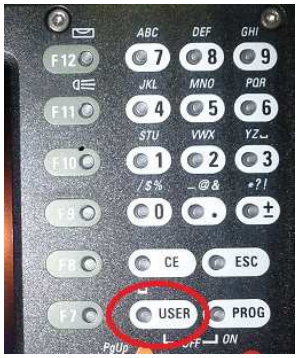
Leica RX1250 & TPS 1200 Robot

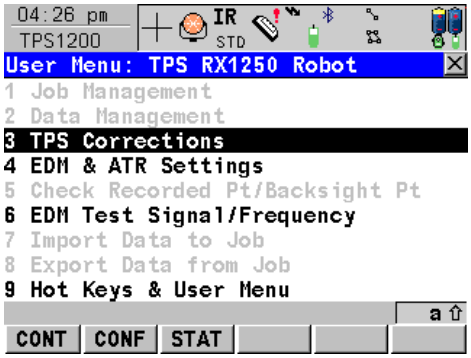
Total Station Extended GeoCOM & Firmware Check

For FieldGenius to work correctly with your Total Station, Smart Rover and RX1250, Extended GeoCOM must be enabled. This mode will usually have been turned on by your dealer. You can confirm if it is enabled on your Total Station by using the following steps:

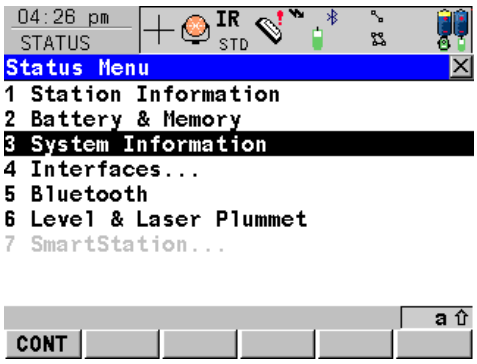
1. From the Main Keyboard press the USER key.



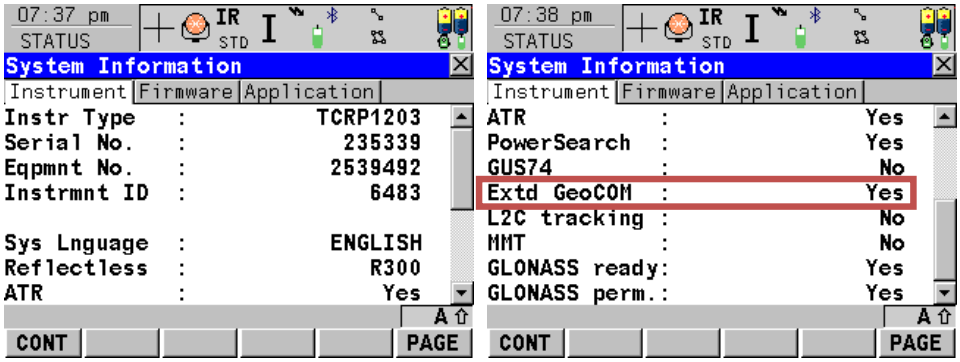
2. On the User Menu, press the F3 (STAT)



3. From the Status Menu, highlight “System Information” then press F1 (CONT)

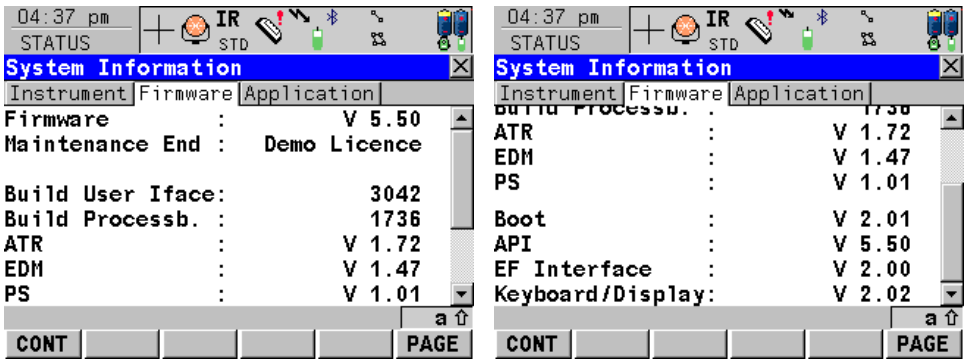


4. On the System Information Menu, on the Instrument page scroll down until you see Extd GeoCOM. This must be enabled (YES) for FieldGenius to work correctly.



5. To check the firmware on the Total Station, press F6 (Page)

6. On the Firmware page you will see the firmware versions currently installed on the Total Station.



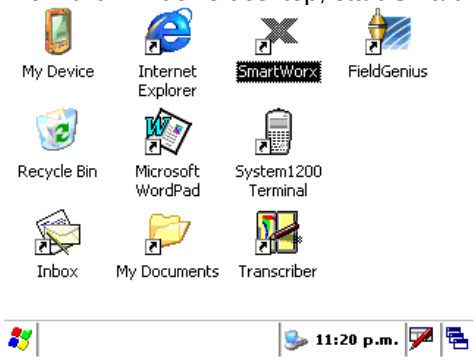
Press F1 (Cont) to return back to the Main Menu.

RX1250 – Extended OWI & Firmware Check

****Please Note: This check is only necessary if you also plan to work with GPS.**

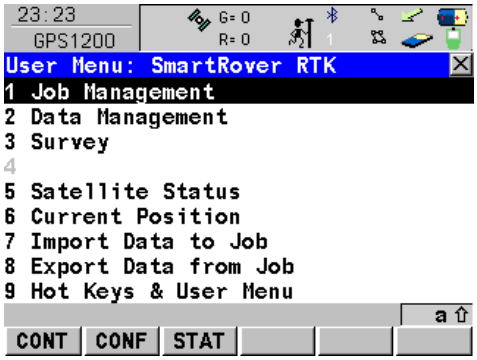
For FieldGenius to work correctly with your Total Station, Smart Rover and RX1250, Extended GeoCOM must be enabled. This mode will usually have been turned on by your dealer. You can confirm if it is enabled on your RX1250 by using the following steps:

1. From the Windows desktop, start SmartWorxs

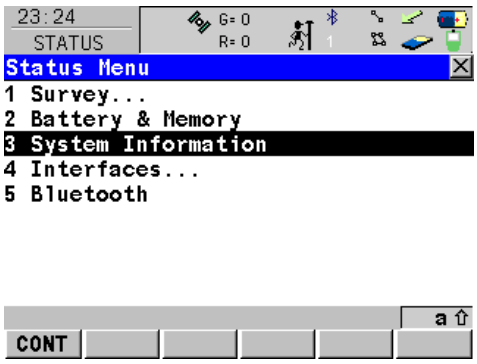


2. From the Main Menu press the USER key.

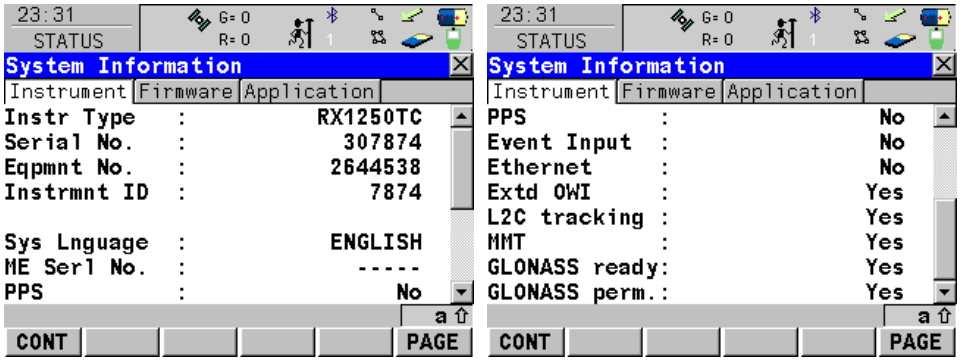
3. On the User Menu, press the F3 (STAT)



4. From the Status Menu, highlight “System Information” then press F1 (CONT)

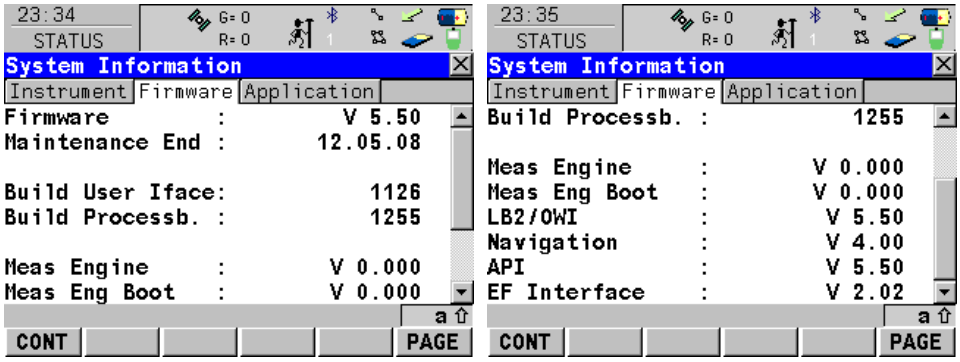


5. On the System Information Menu, on the Instrument page scroll down until you see **Extd OWI**. This must be enabled (**YES**) for FieldGenius to work correctly with GPS equipment. If this setting is not enabled, contact your Leica dealer.



6. To check the firmware on the Total Station, press F6 (Page)

7. On the Firmware page you will see the firmware versions currently installed on the Total Station.



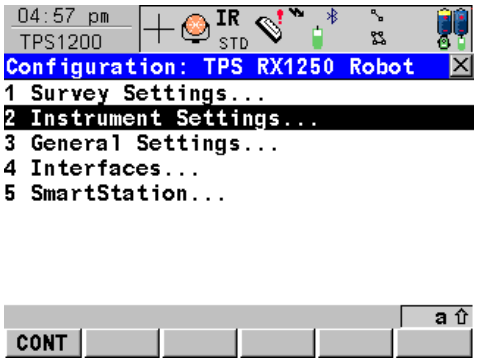
Press F1 (Cont) to return back to the Main Menu.

Configure the Total Station ATR Settings

The ATR mode set on the instrument should be confirmed.

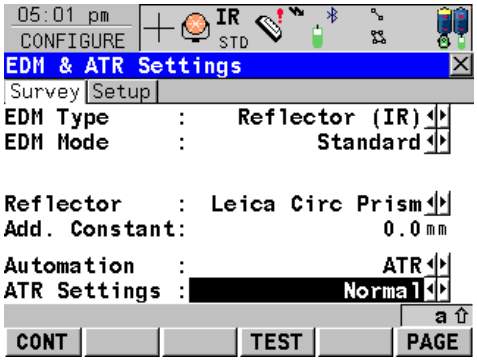
1. From the Main Menu, highlight “Config…” and press F1 (CONT)

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



3. On the Instrument Menu, highlight “EDM and ATR Settings”, the press F1 (CONT)

4. On the EDM & ATR Settings Menu, scroll down and check that the ATR Setting is set to Normal. Depending on the conditions you are surveying in you may need to change this from time to time to one of the other ATR modes, but for most applications leaving this set to Normal will be ok.



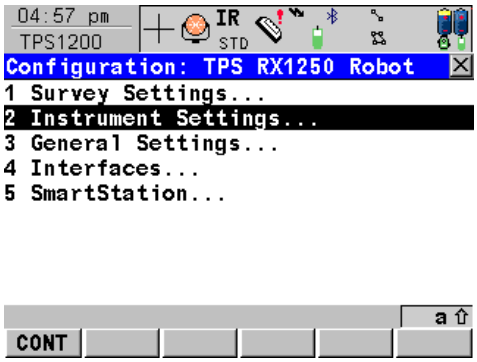
5. Press F1 (CONT) to save the settings.

Configure the Total Station Search Settings

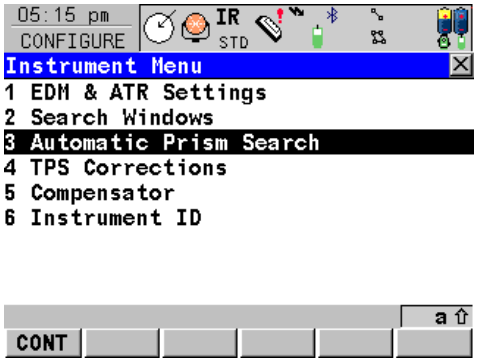
The Search mode set on the instrument should be confirmed.

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

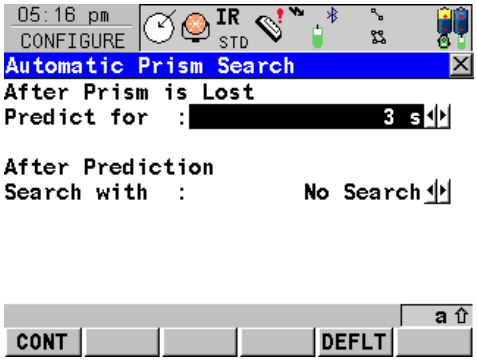
2. On the Configuration Menu, highlight “Instrument Settings ….”, then press F1 (CONT)



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.

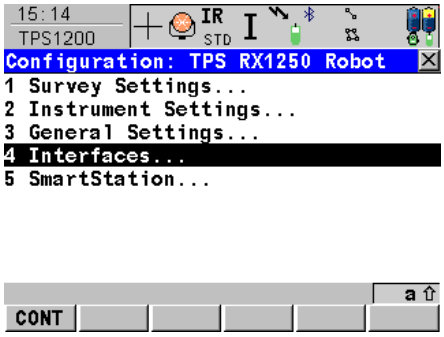


5. Press F1 (CONT) to save the settings.

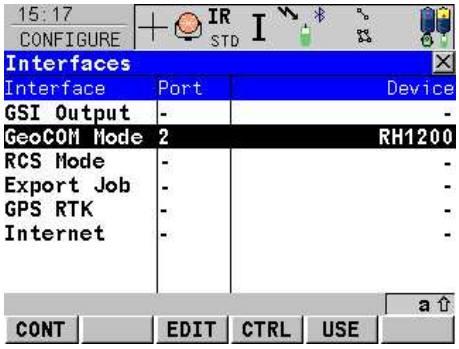
Configure the Total Station Communications Settings

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

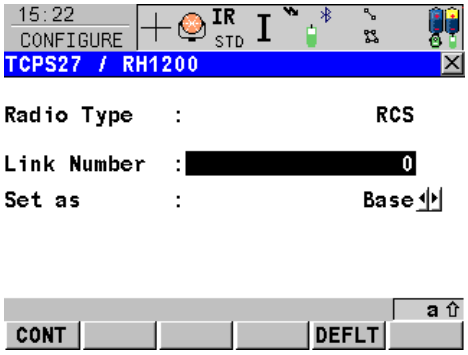
4. Select menu item 4 (Interfaces)



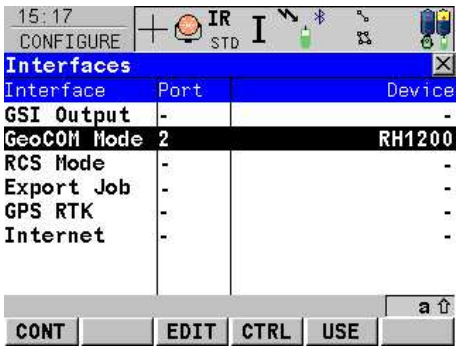
5. Press the down arrow to highlight “GeoCOM Mode” then press F4 (CTRL)



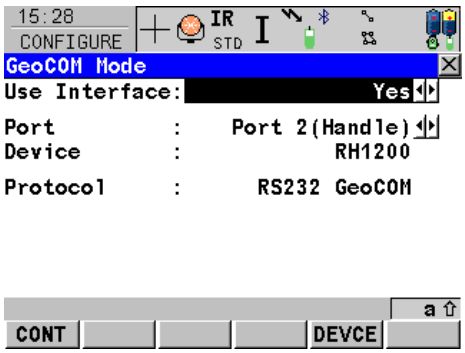
6. Make a note of the Link Number as you will need to set this in FieldGenius. Leave the instrument setup as “Base”



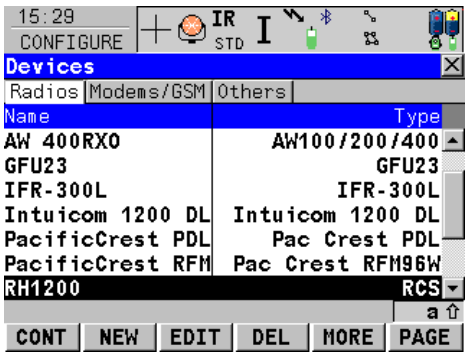
7. Press F1 (CONT) which will take you back to the Interfaces Screen.
8. Press the down arrow to highlight “GeoCOM Mode” then press F3 (Edit)



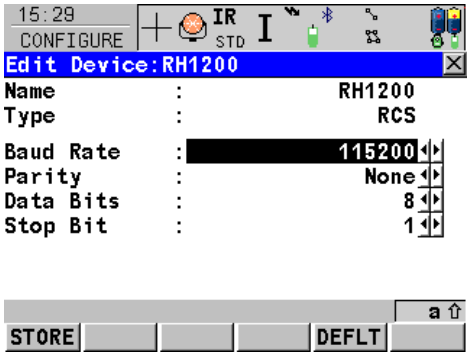
9. Verify that the communication parameters match the following:



10. Press F5 (Device)
11. Use the up/down arrows to highlight RH 1200 then press F3 (Edit)

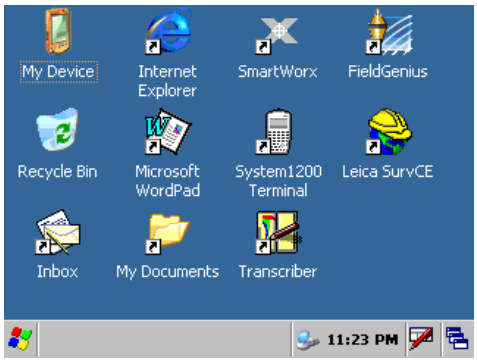


12. Verify that the communication parameters match the following:



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

Configure the Leica RX1250 Controller

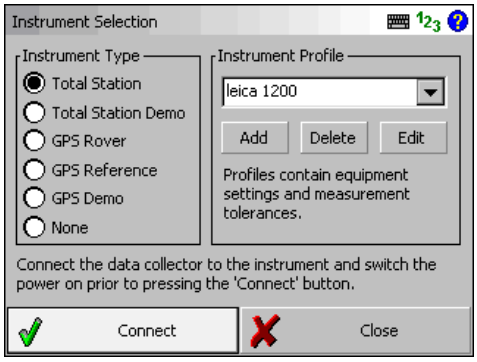


Aside from installing the FieldGenius software, nothing needs to be configured on the data collector's operating system.

Run FieldGenius by double-tapping on the desktop icon.

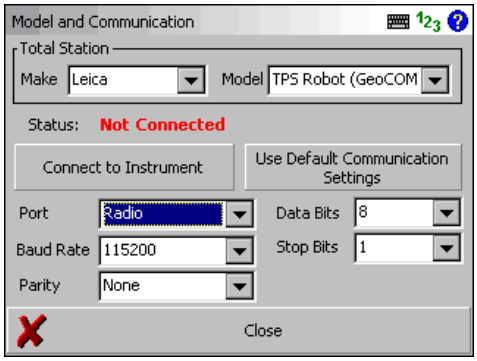
If you do not see the FieldGenius icon, then turn the RX-1250 off then back on again.

Configure FieldGenius on the RX1250 Controller



Instrument Profile

Create a profile for your Leica 1200, and Edit it to access the instrument settings.



Model and Communication

Make: Leica

Model: TPS Robot (GeoCOM)

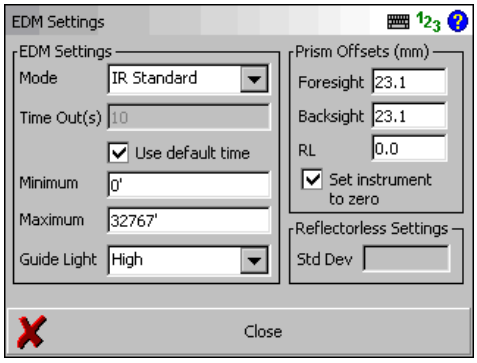
Port: Radio

Baud Rate: 115200

Data Bits: 8

Stop Bits: 1

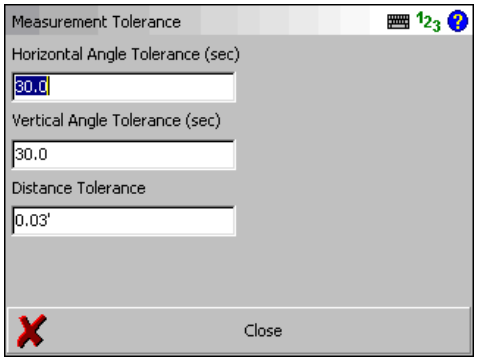
Parity: None



EDM Settings

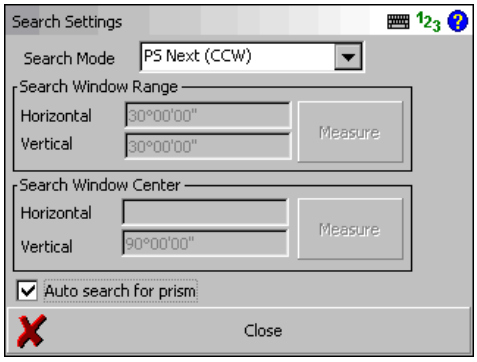
Enable the Set Instrument to Zero option, and enter the Prism Offsets as follows: if you are using a Leica 360° prism you would put a +23.1mm offset in FieldGenius; a Leica Circular prism offset would be 0mm in FieldGenius, a Leica mini prism would be +17.5mm in FieldGenius, and for the RL reflectorless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

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



Tolerance Settings

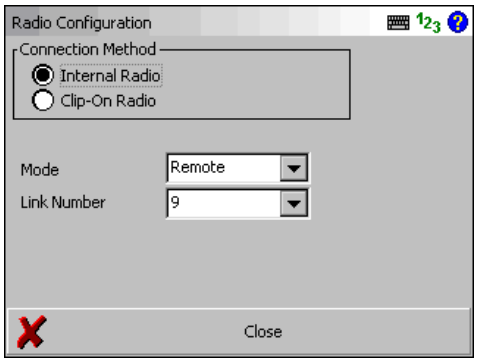
Specify your desired multiset tolerances, or leave the default values.



Search Settings

Search Mode: PS Next (CCW or CW)

Enable the Auto search for prism option.



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 (see step 6 in first section).

