

## Leica TCA 1100 (GSI)

Firmware: GSI Version 2.28a  
FieldGenius: FieldGenius 2007 v3.0.1

### Procedure

1. Turn on the instrument
2. Level the instrument
3. On your instrument's main menu screen press **F3 (CONF)**
4. Select menu item **3, GSI Communication param**
5. Verify that the communication parameters match the following:

Baud Rate: 9600  
Protocol: GSI  
Parity: No  
Terminator: CR LF  
Data Bits: 8  
Stop Bits: 1

Then press **CONT** to return to the Main Menu.

6. In FieldGenius start or open an existing project. Press the Main Menu button > Settings > Instrument Selection. On the Instrument Selection screen, select **Total Station**.
7. Match the following on the **Model and Communication** screen.

**Model and Communication**

Total Station

Make: Leica Model: TPS Series (GSI)

Connect to Instrument Default Comm Settings

Port: COM1 Data Bits: 8

Baud Rate: 9600 Stop Bits: 1

Parity: None

OK  Cancel

8. Specify your **EDM Settings** and Prism Offsets as desired.

**EDM Settings**

EDM Settings

Mode: Manual Setting

Time Out(s): 10

Use default time

Minimum: 0m

Maximum: 10000m

Guide Light: High

Prism Offsets (mm)

Foresight: 0.0

Backsight: 0.0

RL: 0.0

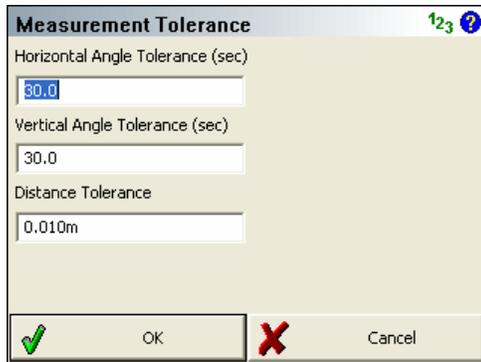
Set instrument to zero

Reflectorless Settings

Std Dev:

OK  Cancel

9. Specify the multiset tolerances you want to use on the **Tolerance Settings** screen.



**Measurement Tolerance** 123 ?

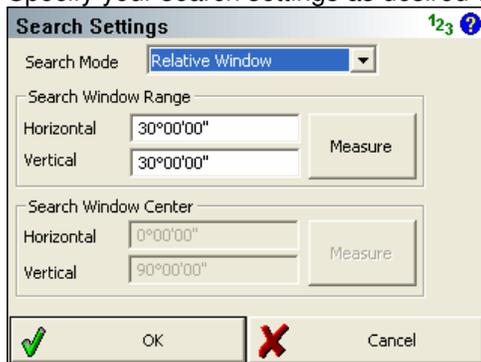
Horizontal Angle Tolerance (sec)

Vertical Angle Tolerance (sec)

Distance Tolerance

OK  Cancel

10. Specify your search settings as desired on the **Search Settings** screen.



**Search Settings** 123 ?

Search Mode:

Search Window Range

Horizontal:

Vertical:

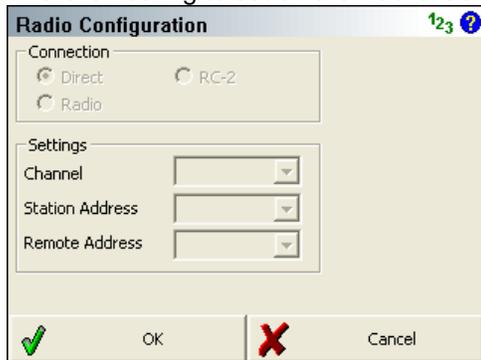
Search Window Center

Horizontal:

Vertical:

OK  Cancel

11. There is nothing to set on the **Radio Configuration** screen.



**Radio Configuration** 123 ?

Connection

Direct  R.C-2

Radio

Settings

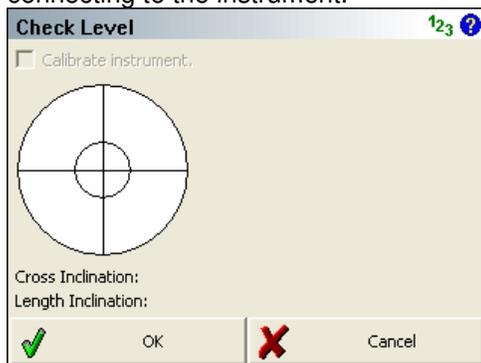
Channel:

Station Address:

Remote Address:

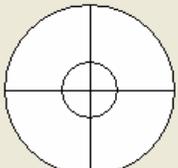
OK  Cancel

12. There is nothing to set on the **Check Level** screen. You will see this screen when you try connecting to the instrument.



**Check Level** 123 ?

Calibrate instrument.



Cross Inclination:  
Length Inclination:

OK  Cancel

13. Switch back to the **Model and Communication** screen. Press the **Connect to Instrument** button and if you successfully connect you will see a green check mark on the Connect to Instrument button, and the Check Level screen will appear. Have fun!

**General Notes:**

When connected in GSI mode you can set the instrument to the “measure” screen. In GSI mode, FieldGenius can set a plate reading on the instrument and trigger measurements. It can not control ATR or the servo motors. However, if ATR is enabled on the instrument, ATR will be used when measurements are done with FieldGenius.