

CHC[®] i80 GNSS Receiver

QuickTour with FieldGenius

(UHF Rover Mode)





1.Prerequisites

Hardware: CHC i80 Base with internal radio Kit, Controller Kit,UHF Bar Antenna (450-470 MHz), Lithium Battery, pole

Software: FieldGenius8

2.Steps to set i80 working as rover in Internal UHF mode with FieldGenius

2.1 Rover installation

Fix the bar antenna onto the antenna port, screw the rover receiver on the pole, and put the Controller adapter in the right place like the figure.

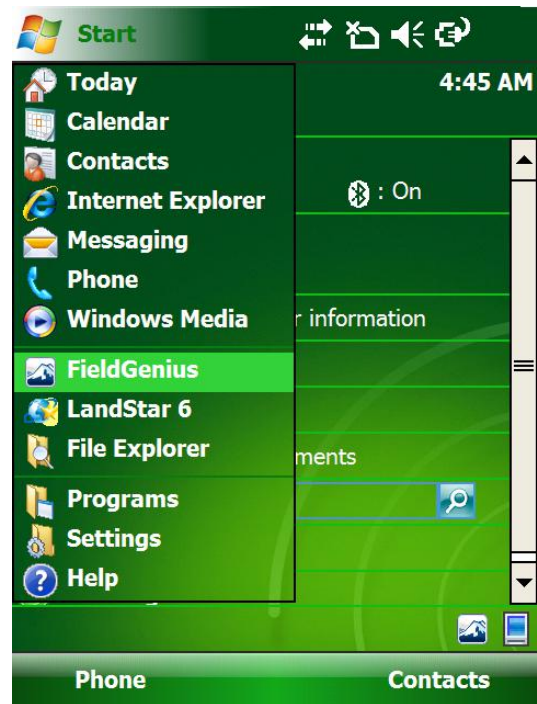


2.2 Rover setting in SurvCE

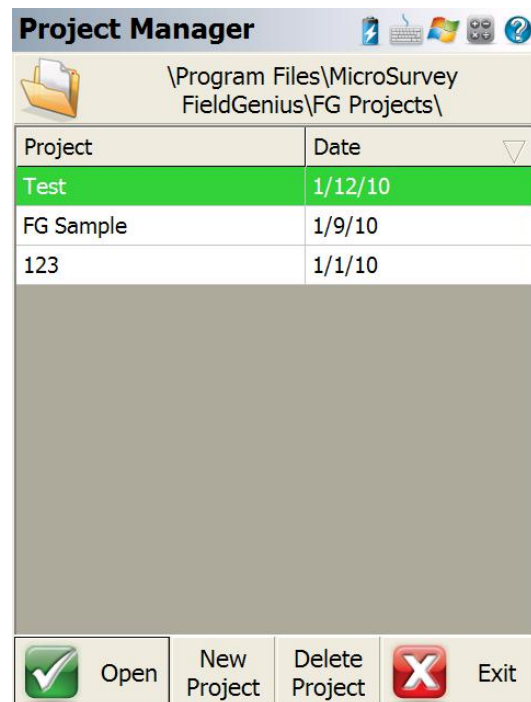
Power on the receiver

Long press the i80 power button until the green and blue LED lights are on.

2. Click on **[start]** and then FieldGenius.



3. Click **[New Project]** to create a project or Click **[Open]** to open one exist project.





4. A project file should be selected then click **[Continue]** for next step

Open Project Files: T...

Generate New Name

Active Raw File:

☐ Encrypted

☐ Copy Existing: ...

Project Automap:

☐ Use Template: ...

Feature File: ...

Continue Cancel

6. Select **[GNSS Rover]** option then click **[Edit]** to select device and linking method

Instrument Selection

Instrument Type

☐ Total Station ☒ **GNSS Rover**

☐ Total Station Demo ☐ GNSS Reference

☐ None ☐ GNSS Demo

Instrument Profile

Edit

Profiles contain equipment settings and measurement tolerances.

☐ Always Auto-Reconnect

Connect Close

5. Click on **[Select Instrument]**

Reconnect

Select Instrument...

Reconnect <GNSS Rover> Rover Sample

☐ Always Auto-Reconnect

Continue without Connecting

7. Click **[Antenna Height]** tab to set the antenna height of the receiver

GNSS Profile

Model and Communication

Active Tolerance: [Autonomous]

Antenna Height


Tolerance Setting: [Autonomous]

Tolerance Setting: [RTK Float]

Tolerance Setting: [RTK Fixed]

Auto Recording

Close



Antenna Height

Model
i80

Measured Height
2.000m

Measure Point
Bottom of antenna mount

Offsets—

Measure Point to ARP - Horz 0.0mm

Measure Point to ARP - Vert 0.0mm

ARP to APC (L1) - Vert 131.0mm

OK

Model and Communi...

Make CHC

Model i80

Status: **Not Connected**

Port Bluetooth

Device GNSS-1004401

Bluetooth Device List

Connect Close

9. Click **[Model and Communication]** tab→select **Make** as **[CHC]**, **Model** as **[i80]**, **Port** as **[Bluetooth]** → click **[Bluetooth Device List]** to add bluetooth device

GNSS Profile

Model and Communication

Active Tolerance: [Autonomous]

Tolerance Setting: [Autonomous]

Antenna Height

Tolerance Setting: [RTK Float]

Auto Recording

Tolerance Setting: [RTK Fixed]

Close

10. Click **[Search]** to search the around Bluetooth device.

Bluetooth Device List

Name	Bluetooth ID	PIN
GNSS-1004448	GNSS-1004448	1234
GNSS-1002771	GNSS-1002771	1234
GNSS-1002521	GNSS-1002521	1234

Search Edit Delete

Close



11. Click on the device that matches your device serial number, then click it

Select Bluetooth Device

GNSS-2001410 (84EB181A9C9B)
Pocket_PC (0013EFD629E5)
GNSS-1004851 (0017E99B03BC)
GNSS-1003174 (0017E99FC2E3)
GNSS-1004401 (0017E9A2FB53)

Refresh List Cancel

12. Type in the **PIN Code** of the bluetooth then click **[OK]** button to finish the device edit.

New Bluetooth Device

Name: GNSS-1004401

Bluetooth ID: GNSS-1004401

PIN Code: **1234**

Leave PIN Code blank if not required

OK Cancel

13. Then our target device can be selected in the bluetooth device list. Click **[OK]** button back to **[Model and Communication]** interface.

Bluetooth Device List

Name	Bluetooth ID	PIN
GNSS-1004448	GNSS-1004448	1234
GNSS-1002771	GNSS-1002771	1234
GNSS-1002521	GNSS-1002521	1234
GNSS-1004401	GNSS-1004401	1234

Search Edit Delete

Close

14. The target device can be selected in the drop-down box then click **[Connect]** button. The software will build the connection to your device

Model and Communi...

Make: CHC

Model: i80

Status: **Not Connected**

Port: Bluetooth

Device: **GNSS-1004401**

Bluetooth Device List

Connect Close



15. Select the **Link Device** as **[UHF Radio Module]** from the drop-down box, select the **Data Format** as **[Auto Detect]** then click the **[Setup]** button.

16. Select the Protocol and Frequency in the drop-down box then click **[Ok]** button

17. Please click **[Connect]** button to finish rover setting

18. Then the green LED will flash and the states will become **[Autonomous]** to **[float]** then to **[fix]**, which means the rover is getting the correction data from base.

Then please click the **[RTK Fixed]** to start the measurement



Only if the i80 states meets the tolerance, the measurement can be done.

GNSS Measurement

Solution: **RTK Fixed**

Satellites: **12**

PDOP: **1.59**

Real Time

Status: **Accepted**

Horz StdDev: **0.002m**

Vert StdDev: **0.003m**

Post Process

Status:

Total Time:

☒ Store Position ☐ Cancel

Store Point

Point ID

Description

Northing

Easting

Elevation

Antenna

Store As

☒ Store Pnt ☐ Cancel

19. The survey work can be done with the i80