

CHC[®] i80 GNSS Receiver

QuickTour with FieldGenius

(Internal GSM Rover Mode)





1.Prerequisites

Hardware: CHC i80 rover , Controller Kit, SIM card ,Lithium Battery, Pole

Software: FieldGenius8

2.Steps to set i80 working as rover in internal GSM mode with FieldGenius

2.1 Rover installation

Insert the SIM card to i80, screw the rover receiver on the pole, and put the Controller Kit in the right place like the figure.

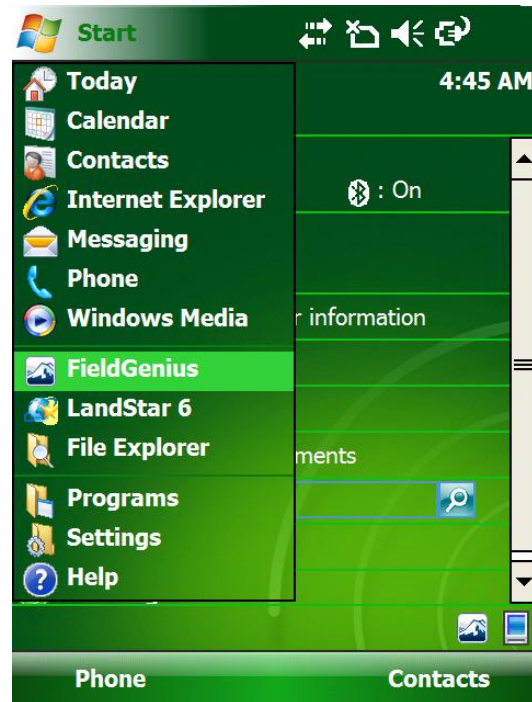


Note: The recommend firmware version of i80 is 1.3.36 or higher. If not, please contact local dealer or CHC Support for latest firmware.

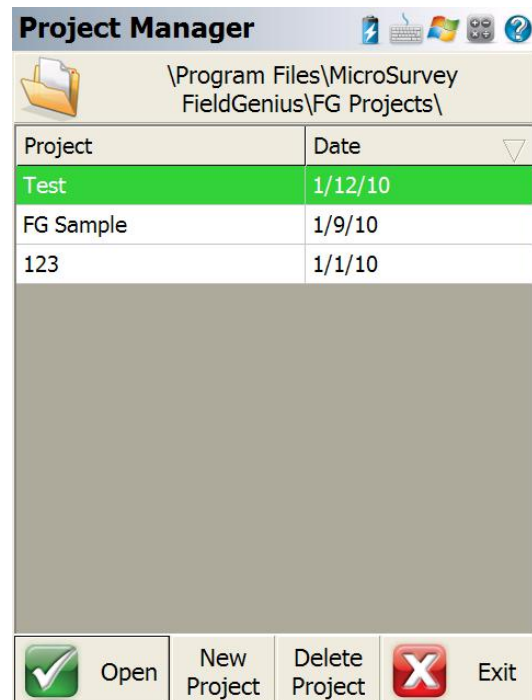
2.2 Rover setting in FieldGenius

1. 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

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]

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

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

Model and Communi...

Make **CHC**

Model **i80**

Status: **Not Connected**

Port **Bluetooth**

Device **GNSS-1004401**

Bluetooth Device List

Connect 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



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

The **Link Configure** dialog box has three main sections. The **Link Device** section has a dropdown menu set to **GSM Module** and a **Setup** button. The **Link Communication** section includes dropdowns for **GNSS** (set to **Internal Device**), **Baud**, **Data Bits**, **Parity**, **Stop Bits**, and **Flow**. The **Data Format** section has a dropdown menu set to **Auto Detect** and a **Station ID** dropdown set to **Any**. At the bottom are **Connect** and **Close** buttons.

15. Please type in the **APN info** in the **Network Options** according to the SIM card, then select the **Source Type** as **NTRIP**. Click **[Press to modify]** button to create a NTRIP account information.

The **Mobile Settings** dialog box has three expandable sections. **Network Options** contains fields for **Internet APN**, **Internet Username**, and **Internet Password**. **Data Source** has a **Source Type** dropdown set to **NTRIP**. **NTRIP Settings** contains a **Press to Modify** button and a table with the following data:

Description	CHC CORS
Address	211.144.118.5
Port	2102
Username	xzx
Password	xzx

At the bottom is an **OK** button.

16. Please click the **[Add]** button

The **NTRIP Casters** dialog box shows a table with the following data:

Description	Address	Port	Username
CHC CORS	211.144.118.5	2102	xzx

Below the table are buttons for **Select**, **Add**, **Edit**, **Delete**, and a close button.

Type in your CORS information in the blank. Then click the **[Ok]** button

The **NTRIP Casters Settings** dialog box shows a table with the following data:

Description	Test
Address	211.144.118.5
Port	2102
Username	xzx
Password	xzx

At the bottom are **OK** and **Cancel** buttons.



After that the new CORS can be selected in the list, please select the CORS you want to use then click **[Select]**

NTRIP Casters

Description	Address	Port	Username
CHC CORS	211.144.118.5	2102	xzx
Test	211.144.118.5	2102	xzx

Select
Add
Edit
Delete
X

Then click **[Ok]** button to finish setting

Mobile Settings

Network Options

Internet APN:

Internet Username:

Internet Password:

Data Source

Source Type: NTRIP

NTRIP Settings: Press to Modify

Description	Test
Address	211.144.118.5
Port	2102
Username	xzx
Password	xzx

✓
OK

17. Click **[Connect]** to finish starting rover

Link Configure

Link Device: GSM Module Setup

Link Communication

GNSS: Internal Device

Baud:

Data Bits: Parity:

Stop Bits: Flow:

Data Format

Auto Detect

Station ID: Any

(())
Connect
X
Close

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

PDOP 1.8

Antenna 0.000m

Standard Measure

(())

RTK Fixed

<
>

Next ID

34

<No Line>

<No Desc>

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

34

Description

List

Northing

3450144.504m

Easting

622824.005m

Elevation

35.621m

Antenna

0.000m

Store As

GNSS Point

Review Measurement

Advanced

GIS Attributes

Enter Note

Store Pnt

Cancel

19. The survey work can be done with the i80