

# **CHC<sup>®</sup> i80 GNSS Receiver**

## **QuickTour with FieldGenius**

**(PDA Network 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 DCI mode with FieldGenius

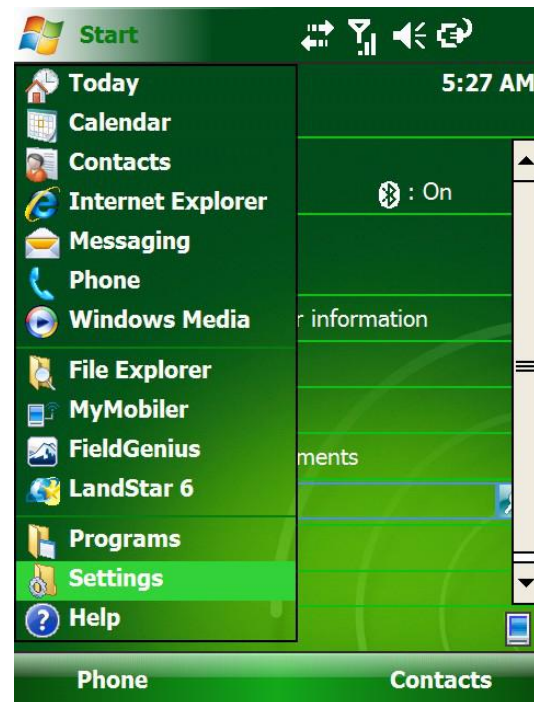
### 2.1 Rover installation

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

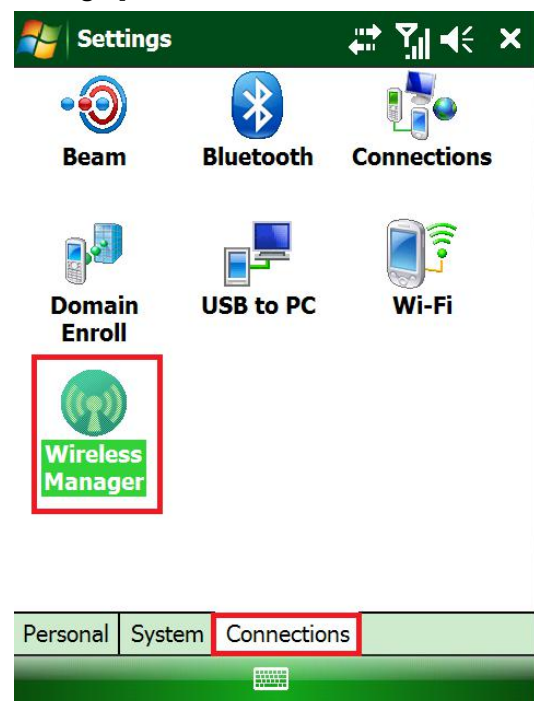


### 2.2 Connect Data collector to Internet via Wifi

1. click on [Start]-[Setting]



2. Click on the [connections]-[Wireless Manager]

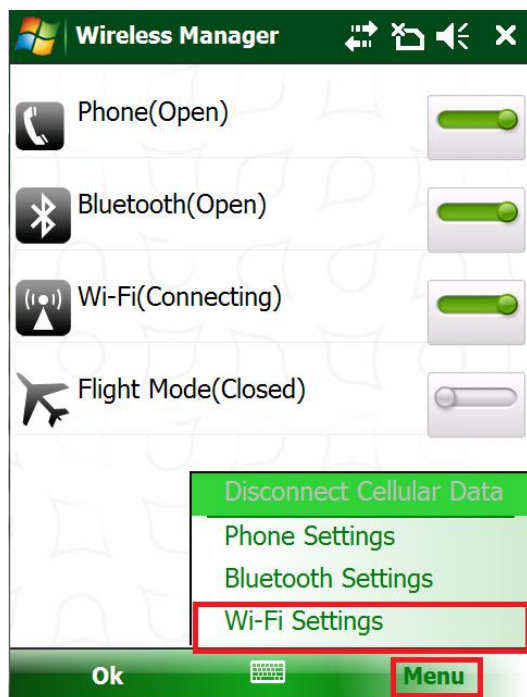




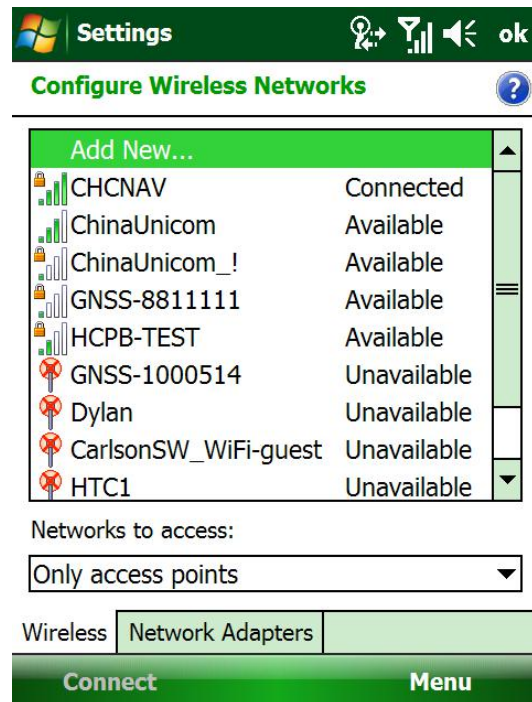
3. Click on Wifi if it is closed which means off



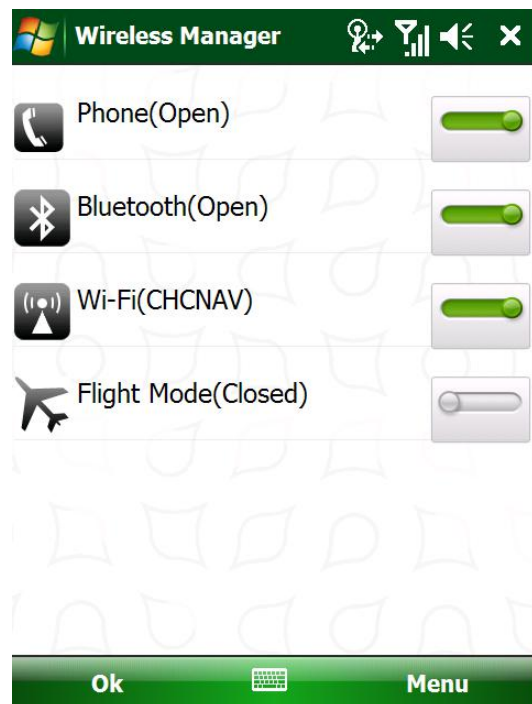
4. Click on [Menu]-[Wifi setting] to connect to Wifi hotspot



5. Then choose a Wifi to connect



Once [Connected], click [OK] (upper right hand corner)



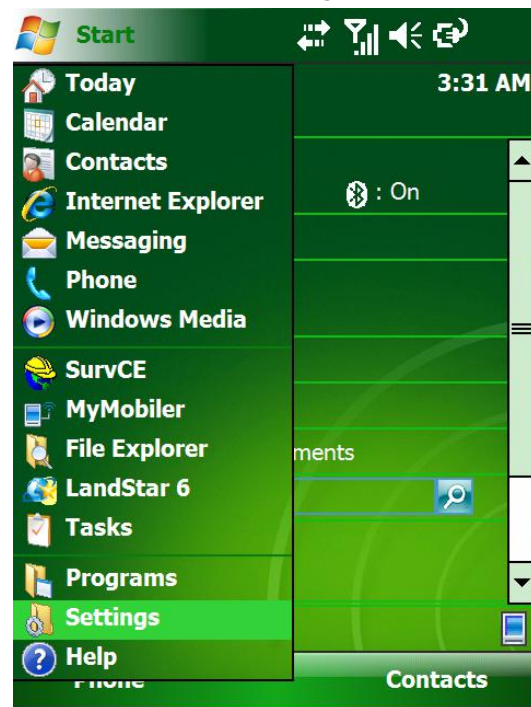
6. Finally click on [OK] on lower left corner. Then the connection will be created and you can open your browser to access any website to check.



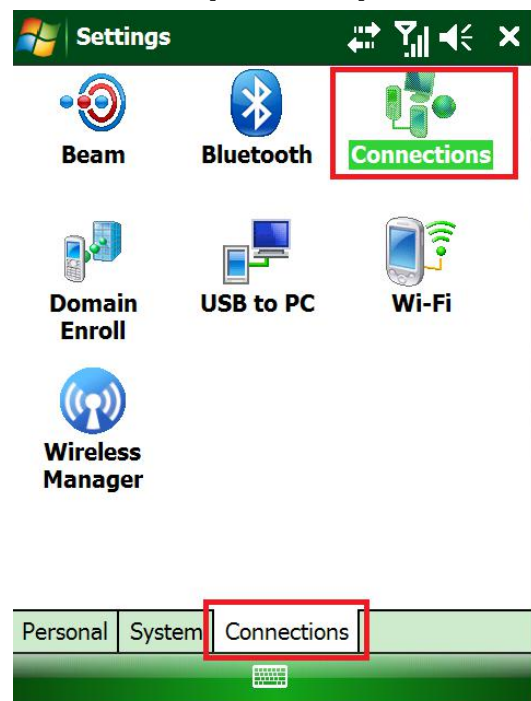
## 2.3 Connect Data collector to Internet via SIM card

If cannot connect to Wifi, you can work with mobile network in your data collector.

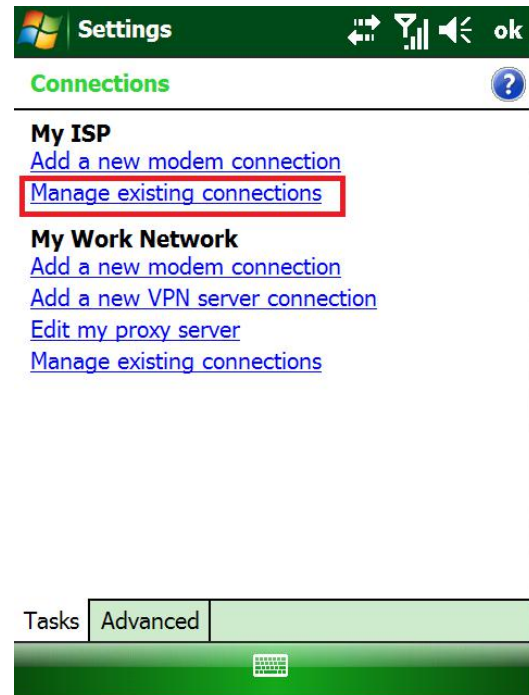
1. click on [Start]-[Setting]



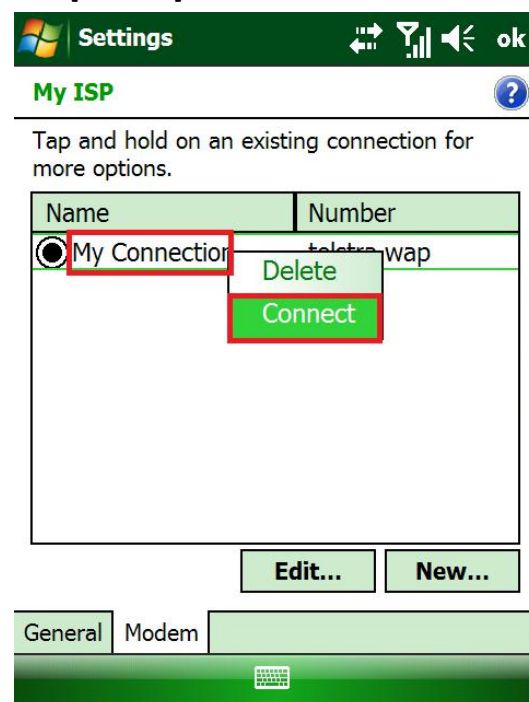
2. Click on the [connections]



3. Click on the [Manage existing connections]



4. Long press the [My connection] then click [Connect]



5. Then the connection will be created and you can open your browser to access any website to check.

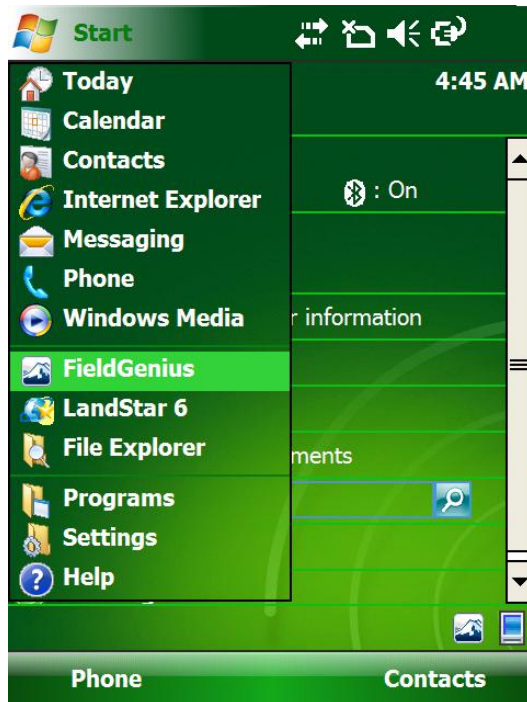




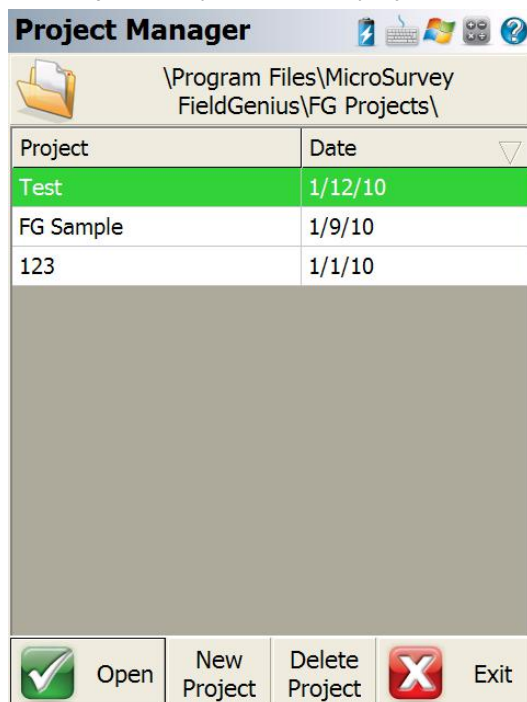
## 2.4 Rover setting in FieldGenius

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

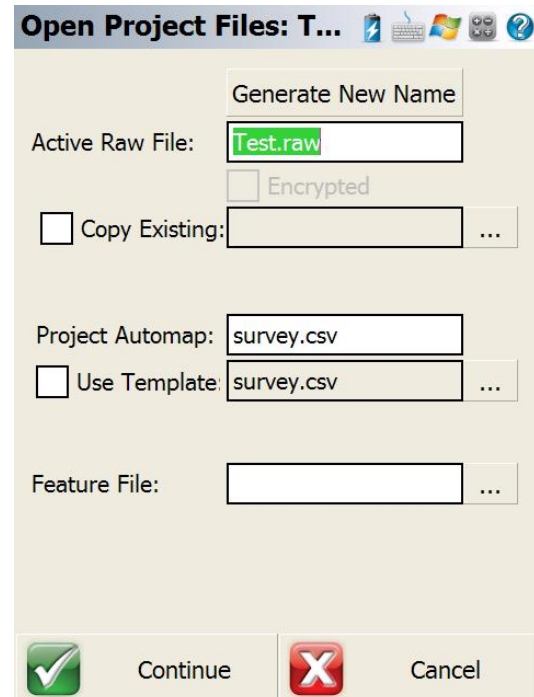
2. Click on **[start]** and then FieldGenius.



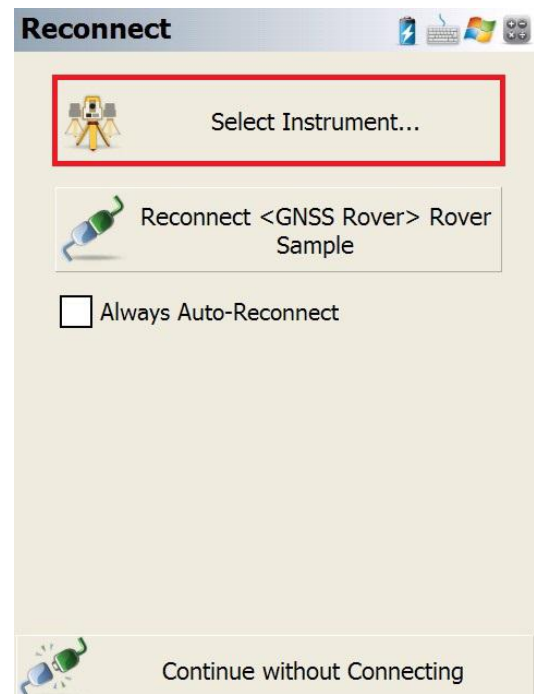
3. Click **[New Project]** to create a project or Click **[Open]** to open one exist project.



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



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





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—

Rover Sample

Add Delete **Edit**

Profiles contain equipment settings and measurement tolerances.

☐ Always Auto-Reconnect

Connect Close

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

**GNSS Profile**

Model and Communication Active Tolerance: [Autonomous]

Tolerance Setting: [Autonomous] **Antenna Height**

Tolerance Setting: [RTK Float] Auto Recording

Tolerance Setting: [RTK Fixed]

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 [Data Collect Internet] from the drop-down box, select the **Data Format** as [Auto Detect] then click the [Setup] button.

**Link Configure**

Link Device: Data Collector Internet Setup

Link Communication:

GNSS:   
Baud:   
Data Bits: Parity:   
Stop Bits: Flow:

Data Format: Auto Detect

Station ID: Any

Connect Close

15. Please select the Source Type as **NTRIP**. Click [Press to modify] button to create a NTRIP account information.

**Mobile Settings**

Data Source

Source Type: NTRIP

NTRIP Settings: Press to Modify

Description: CHC CORS  
Address: 211.144.118.5  
Port: 2102  
Username: xzx  
Password: xzx

OK





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

**NTRIP Casters**

| Description | Address       | Port | Username |
|-------------|---------------|------|----------|
| CHC CORS    | 211.144.118.5 | 2102 | xzx      |

Select Add Edit Delete

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

**NTRIP Casters**

**Settings**

|             |               |
|-------------|---------------|
| Description | Test          |
| Address     | 211.144.118.5 |
| Port        | 2102          |
| Username    | xzx           |
| Password    | xzx           |

OK Cancel

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

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

**Mobile Settings**

**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: **Data Collector Internet** [Setup]

Link Communication:

GNSS: [ ]

Baud: [ ]

Data Bits: [ ] Parity: [ ]

Stop Bits: [ ] Flow: [ ]

Data Format:

Auto Detect [ ]

Station ID: **Any** [ ]

[Connect] [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

Survey point grid with points numbered 1 through 33. A green line connects points 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33. A blue line connects points 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33.

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: [ ]

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