



EFIX F8 GNSS

USER GUIDE



Survey & Engineering | June 2023

Stronger signal, easy to fix

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Preface

Copyright

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Trademarks

All product and brand names mentioned in this publication are trademarks of their respective holders.

Safety Warnings

The Global Navigation Satellite System (GNSS) comprises several distinct satellite constellations, each of which is under the jurisdiction of a specific government entity. These entities bear the sole responsibility for ensuring the accuracy of their respective systems and for maintaining the integrity of their satellite networks.

Do not rely solely on the device for critical navigation decisions. The GNSS signals may be affected by atmospheric conditions, satellite availability, signal blockage, etc.

Be aware of the limitations of GNSS accuracy. It provides positioning information with a certain level of accuracy, but errors (including manual error) and deviations can occur.

Avoid prolonged exposure to strong magnetic fields, as they may interfere with the operation of the device and affect its accuracy.

Do not dismantle or modify the device. Any unauthorized modification may result in malfunction or damage and void the warranty.

Follow all instructions provided in the user manual for proper handling, charging, and maintenance.

1 Introduction

The F8 GNSS receiver removes barriers to portability without sacrificing performance. Featuring full GNSS technology, it offers best-in-class GNSS signal tracking even in a harsh environment, enabling GNSS surveying beyond usual constraints. The F8 GNSS incorporates the latest innovations such as an inertial module (IMU) providing automatic pole-tilt compensation in a very compact design.

1.1 Safety Information

1.1.1 Warnings and Cautions

An absence of specific alerts does not mean that there are no safety risks involved.

A Warning or Caution information is intended to minimize the risk of personal injury and/or damage to the equipment.



WARNING - A Warning alerts you to a potential misuse or wrong setting of the equipment.



CAUTION - A Caution alerts you to a possible risk of serious injury to your person and/or damage to the equipment.

1.2 Regulations and Safety

The receivers contain a built-in wireless modem for signal communication through Bluetooth® wireless technology or through external communication datalink. Regulations regarding the use of the wireless modem vary greatly from country to country. In some countries, the unit can be used without obtaining an end-user license. However, in some countries, the administrative permissions are required. For license information, consult your local dealer. Bluetooth® operates in license-free bands.

Before operating a F8 GNSS receiver, determine if authorization or a license to operate the unit is required in your country. It is the responsibility of the end-user to obtain an operator's permit or license for the receiver for the location or country of use.

1.2.1 Use and Care

This receiver is designed to withstand the rough environment that typically occurs in the field. However, the receiver is high-precision electronic equipment and should be treated with reasonable care.



CAUTION - Operating or storing the receiver outside the specified temperature range will cause irreversible damage.

1.3 Technical Support

If you have a problem and cannot find the information you need in this manual or EFIX website (www.efix-geo.com), contact your local EFIX dealer from which you purchased the receiver(s).

If you need to contact EFIX technical support, please contact us by email (support@efix-geo.com) or Skype ([support@efix-geo.com](https://www.skype.com/people/support/efix-geo.com)).

1.4 Disclaimer

Before using the receiver, please make sure that you have read and understood this User Guide, as well as the safety information. EFIX holds no responsibility for the wrong operation by users and for the losses incurred by the wrong understanding about this User Guide. However, EFIX reserves the rights to update and optimize the contents in this guide regularly. Please contact your local EFIX dealer for new information.

1.5 Your Comments

Your feedback about this user guide will help us to improve it in future revision. Please email your comments to support@efix-geo.com.

2 Getting Started with F8

2.1 About the Receiver

The new F8 GNSS receiver offers integrated IMU-RTK technology to provide a robust and accurate GNSS positioning in any circumstances. Unlike the standard MEMS based GNSS receivers, the F8 GNSS IMU-RTK combines state-of-the-art GNSS RTK engine, calibration-free professional IMU sensor and advanced GNSS tracking capabilities. Survey projects are achieved with high productivity and reliability pushing the boundaries of conventional GNSS RTK survey.

The receiver can be used as the part of an RTK GNSS system with EFIX eField software. Moreover, user can download the GNSS data that recorded in the internal memory of receiver to a computer.

To configure the receiver for performing a wide variety of functions, you can use the web interface by connecting the receiver with PC or smartphone through Wi-Fi.

2.2 Parts of the Receiver

The operating control is located on the front panel. The main camera is located on the rear panel. The lower camera, serial ports and connectors are located on the bottom of the unit.

2.2.1 Front Panel

The following figure shows a front view of the receiver. The front panel contains one Power Led button.

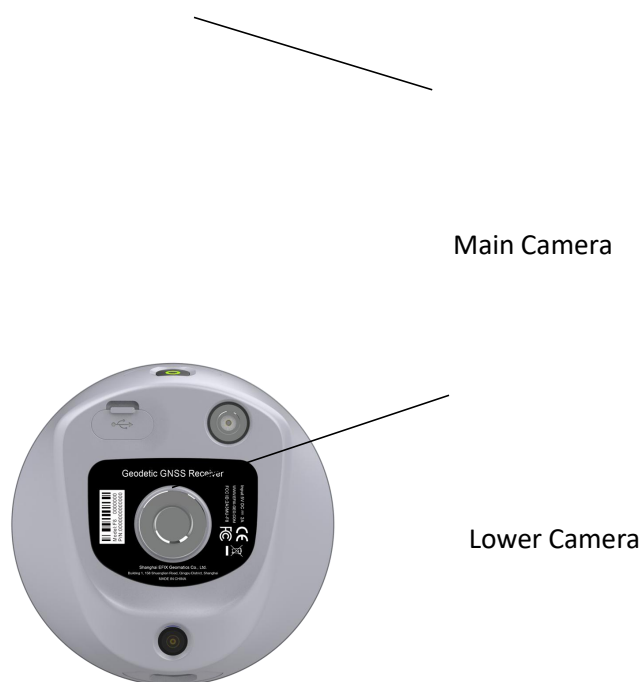


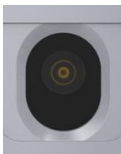
Name	Description
Power LED Button (Red-Green-Orange) 	● Works as a Power button: Press and hold this button for 3 seconds to turn on or turn off the receiver. ● Works as an indicator light: ● Power indicator light: Shutdown, charging flash rules: During the charging process (including connecting to a power bank), the orange light is always on, and the green light is always on when fully charged; Boot up, Charging flash rules: Charging alternates between green and orange. ● Battery-powered: when the battery level is low (less than 10%), the red light flashes once every 5 seconds, and continues to flash for 2 seconds. When the red light is flashing, the green light is off. ● RTK working process: The red light is always on when turned on, and the orange light flashes at 1Hz when receiving differential data; after being fixed, the green light flashes at 1Hz; ● Firmware upgrade: During the upgrade, the red and green lights flash alternately at a frequency of 1Hz. After the upgrade is successful, all lights are on for 1 second and then restarted.

2.2.2 Front Camera and Lower Camera

The following two figures show the rear view and bottom view of the receiver:





Name	Description
Front Camera 	Used for visual survey and visual stakeout image acquisition.
Lower Camera 	Used for visual stakeout image acquisition.

2.2.3 Receiver Ports

The following figure shows a bottom view of the receiver.

The bottom panel contains USB communication and power in port , TNC radio antenna connector, 5/8-11 threaded insert and Lower Camera.



Port	Name	Description
	USB Type-C port	- This port is a USB Type-C connector that supports USB communications. - Users can use USB Type-C Cable supplied with the system to download the logged data to a computer.
	Radio antenna connector	Connect a radio antenna to internal radio of the receiver. And this connector is not used if you are using an external radio.

2.3 Batteries and Power

2.3.1 Built-in batteries

The receiver has two built-in 4900 mAh rechargeable Lithium-ion batteries.

2.3.2 Charging the Battery

The rechargeable Lithium-ion battery is supplied partially charged. Charge the battery completely before using it for the first time. Charge via USB Type-C port.



WARNING – Charge and use the rechargeable Lithium-ion battery only in strict accordance with the instructions. Charging or using the battery in unauthorized equipment can cause an explosion or fire and can result in personal injury and/or equipment damage.

To prevent injury or damage:

- Do not charge or use the battery if it appears to be damaged or leaking.
- Charge the Lithium-ion battery only in a EFIX product that is specified to charge it. Be sure to follow all instructions that are provided with the battery charger.
- Discontinue charging a battery that gives off extreme heat or a burning odor.
- Use the battery only in EFIX equipment that is specified to use it.
- Use the battery only for its intended use and according to the instructions in the product documentation.

2.3.3 Battery Safe



WARNING – Do not damage the rechargeable Lithium-ion battery. A damaged battery can cause an explosion or fire and can result in personal injury and/or property damage.

To prevent injury or damage:

- Do not expose the battery to fire, high temperature, or direct sunlight.
- Do not immerse the battery in water.
- Do not drop or puncture the battery.

2.3.4 External Power Supply

Provide the external power to the receiver by the USB Type-C Cable + Power Adapter.

The Power Adapter is connecting with AC power of 100-240V, the output port of the Power Adapter connects with the USB Type-C Cable.



2.4 Product Basic Supply Accessories

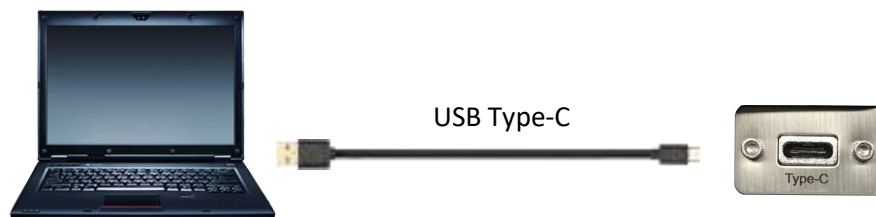
2.4.1 Rover Kit Basic Supply

Item	Picture
F8 GNSS Receiver	
UHF Bar Antenna (410-470 MHz)	
eField USB Type-C	
Tribrach adaptor	
2M Range Pole w/bag	
Auxiliary H.I. Tool	
Power Adapter.	
Transport Hard Case	

2.5 Connecting to an Office Computer

The receiver can be connected to an office computer via a eField USB Type-C. Before you connect to the office computer, ensure that the receiver is powered on.

The following figure shows how to connect to the computer for serial data transfer or settings:

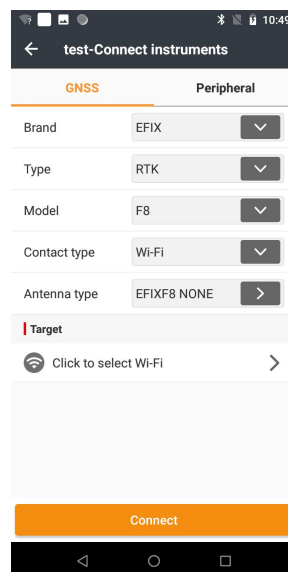


2.6 Connecting to a Controller

2.6.1 Connecting via Wi-Fi with eField Software

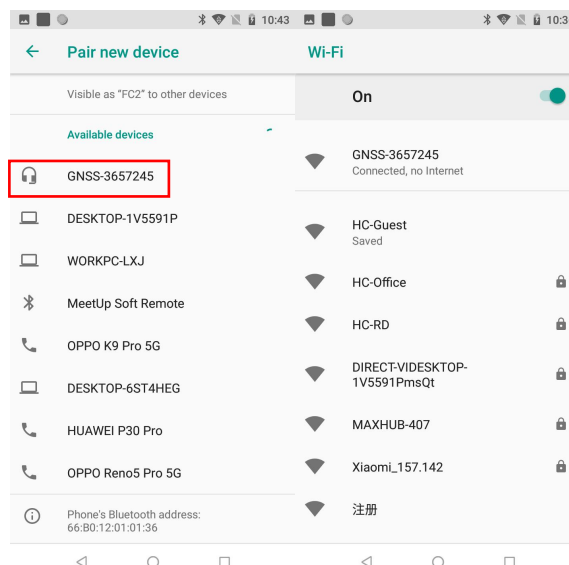
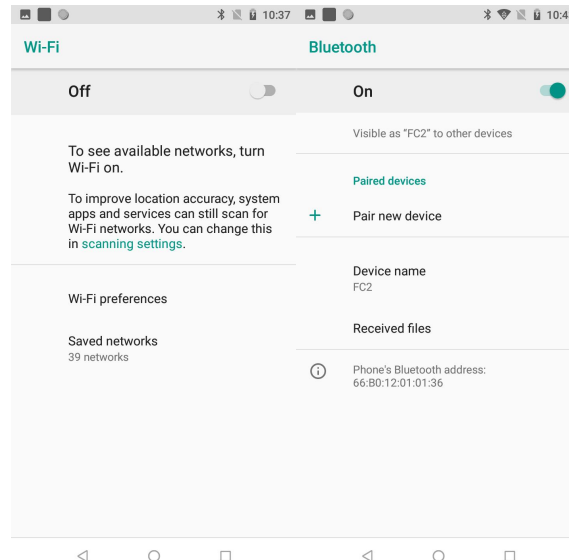
Turn on the controller → run eField → go to **Config** main menu → tap **Connect**.

In the *Connect* screen, select **EFIX** for the *Brand* field, **F8** for *Device Type* field, **WIFI** for *Connection Type* field.

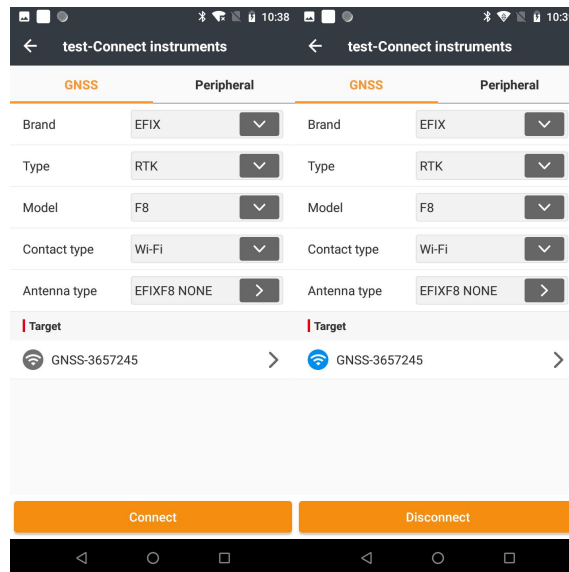


Tap the Click to select Wi-Fi to select the hot spot → Switch on the WiFi module by the top

switch → Tap Pair new device → select the target device in the list → Tap back button → select the target device in the WIFI target list → Tap the **Connect** button to build the connection.



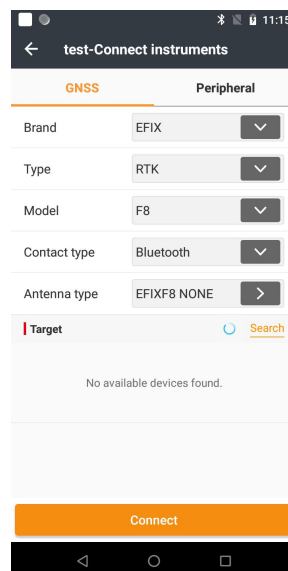
Tip –Tap **Connect** to link to the hot spot. If the first-time connection to this hot spot, user may type in the password. The Wi-Fi key of the receiver is **12345678** by default.



2.6.2 Connecting via Bluetooth with eField Software

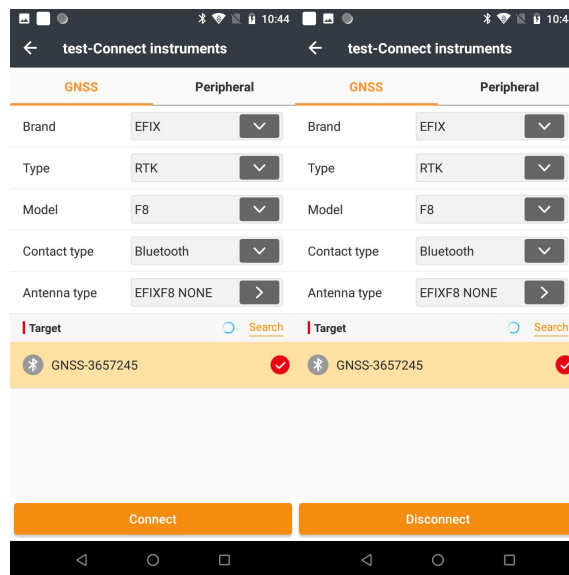
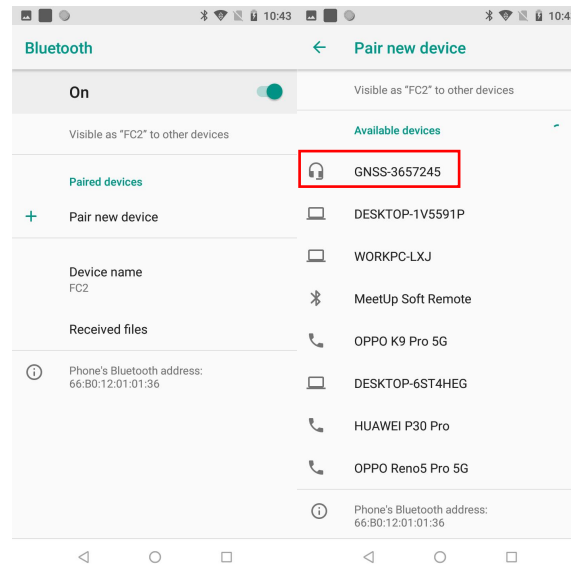
Turn on the controller → run eField → go to **Config** main menu → tap **Connect**.

In the *Connect* screen, select EFIX for the **Brand** field, **F8** for *Device Type* field, **Bluetooth** for *Connection Type* field.



Tap the **Search** to search Bluetooth device around → Switch on the Bluetooth module by the top switch → Tap Pair new device → select the target device in the list → Tap back button → select the target device in the Bluetooth target list → Tap the **Connect** button to build the

connection.



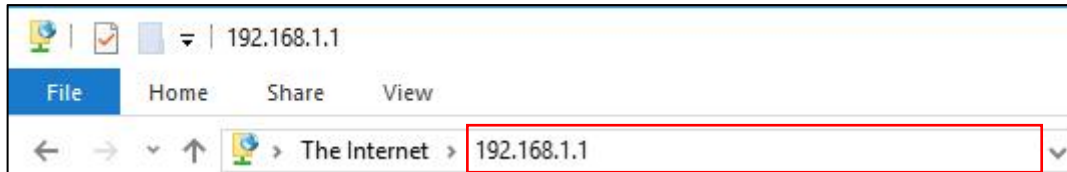
2.7 Downloading Logged Data

Data logging involves the collection of GNSS measurement data over a period at a static point or points, and subsequent post-processing of the information to accurately compute baseline information. Data logging using receivers requires access to suitable GNSS post-processing software such as the eOffice Software.

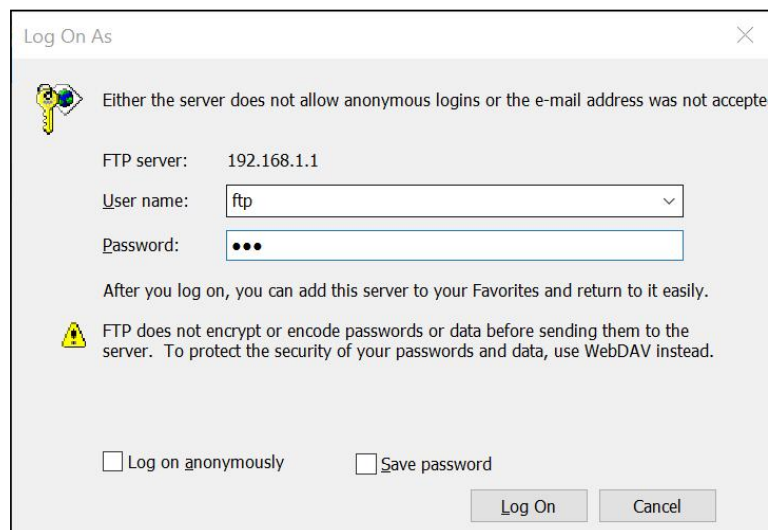
2.7.1 FTP Download

The procedures of downloading logged data through FTP are as follows:

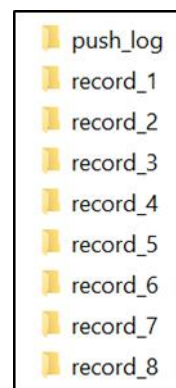
- (1) Switch on the receiver, search its Wi-Fi in the computer and connect.
- (2) After the successful connection, open the file manager in the computer and input “ftp:\\192.168.1.1” in the address box.



- (3) Input user name and password, the default user name and password are “ftp”.



- (4) Double click the folder “repo_receiver SN” (take 3225804 as example), you will see 9 folders. The “push_log” folder is used to save the log files, and the other 8 folders represent different logging sessions and are used for store static data.

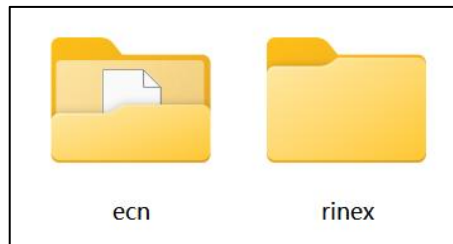


- (5) Double click the folder that you have configured to store the static data, you will see the folder(s) created by the F8 system automatically and named by the date which is decide by

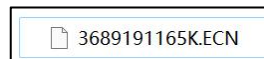
GPS time when you start to log data.

20200817

(6) Select the destination folder and double click it, two folders named as different data format (ecn and rinex) will be displayed.



(7) Select the data format that you configured to save the static data, you will find the static raw data.



Notes: For ecn files, the name of the file is represented as XXXXXDDNN, where XXXXX is the SN of the receiver, DDD is day of year, and NN is the recording session.



WARNING – The static data will be saved in the first logging session, the “record_1” folder, by default. Old files will be deleted if the storage space is full. If you configure not to auto delete old files when the memory is low, the receiver will stop data logging.

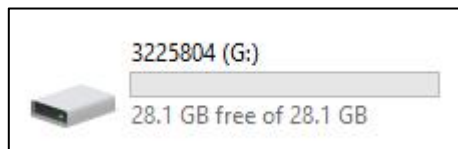
2.7.2 Web Server Download

The procedures of downloading logged data through web server refer to 5.4.4 Data Download Submenu.

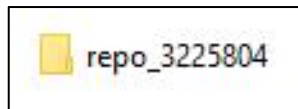
2.7.3 USB Download

The procedures of downloading logged data in the receiver are as follows:

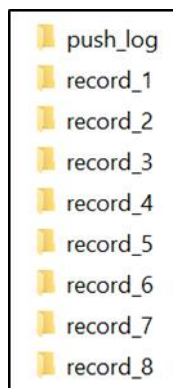
(1) Switch on the receiver and connect it with a computer by eField Type-C. After the successful connection, a removable disk named as the Serial Number (SN) of the receiver will appear on the computer.



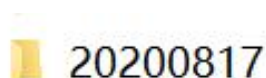
(2) Double click the removable disk and you will see the folder named as “repo”.



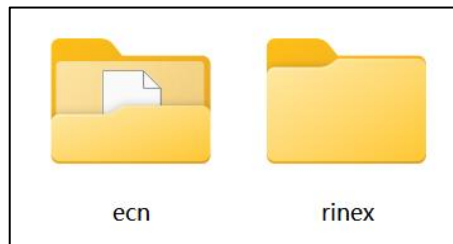
(3) Double click this folder, you will see 9 folders. The “push_log” folder is used to save the log files, and the other 8 folders represent different logging session and are used for store static data.



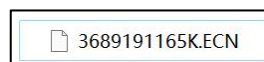
(4) Double click the folder that you have configured to store the static data, you will see the folder(s) created by the F8 system automatically and named by the date which is decide by GPS time when you start to log data.



(5) Select the destination folder and double click it, and then two folders named as different data format (ecn and rinex) will be displayed.



(6) Select the data format that you have configured to save the static data, you will find the static raw data.



Tip – For ecn files, the name of the file is represented as XXXXXXDDDNN, where XXXXXX is the SN of the receiver, DDD is day of year, and NN is the recording session.



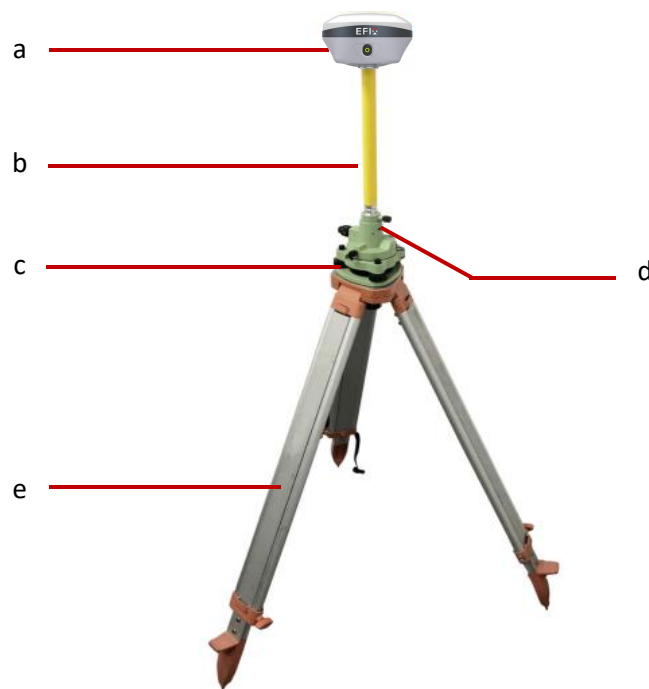
WARNING – The static data will be saved in the first logging session, the “record_1” folder, by default. Old files will be deleted if the storage space is full. If you configure not to auto delete old files when the memory is low, the receiver will stop data logging.

3 Equipment Setup and Operation

3.1 Post-processing Base Station Setup

For good performance, the following base station setup guidelines are recommended:

Components:



No.	Name
a	F8 GNSS receiver
b	Extension pole (30 cm)
c	Tribrach adaptor
d	Tribrach w/ Opti
e	Aluminum tripod

Steps:

- (1) Put tripod in the target position, center and level it roughly.
- (2) Place and lock the tribrach in the tripod.
- (3) Screw the receiver onto the tribrach.

- (4) Center and level the receiver more precisely.
- (5) Connect the receiver to external battery by using USB Type-C cable if necessary.
- (6) Turn on the receiver by pressing the power button for 3 s.
- (7) Measure the antenna height by using H.I. tape and auxiliary H.I. tool.
- (8) Press the function button to select Data to start recording static raw.

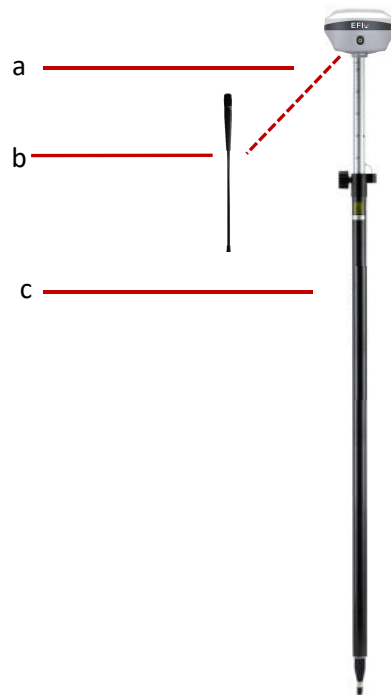
If work with a data controller:

- (9) Switch on the data controller and connect it to the receiver.
- (10) Use software to configure the receiver as static mode.

3.2 Real-Time Rover Station Setup

For good performance, the following rover station setup guidelines are recommended:

Components



No.	Name
a	F8 GNSS receiver
b	UHF whip antenna
c	2M range pole w/bag

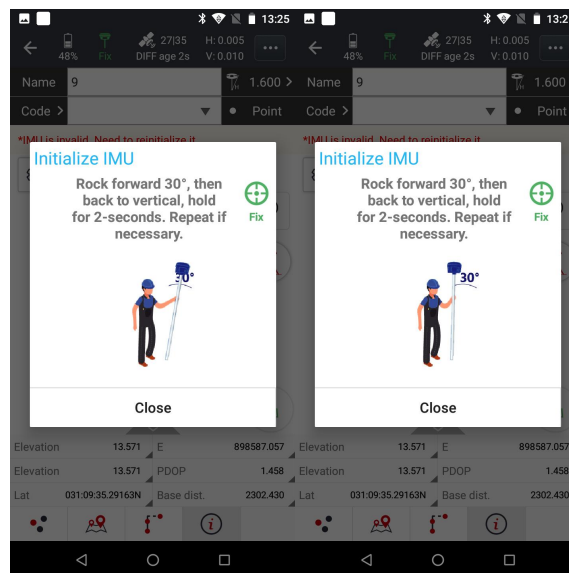
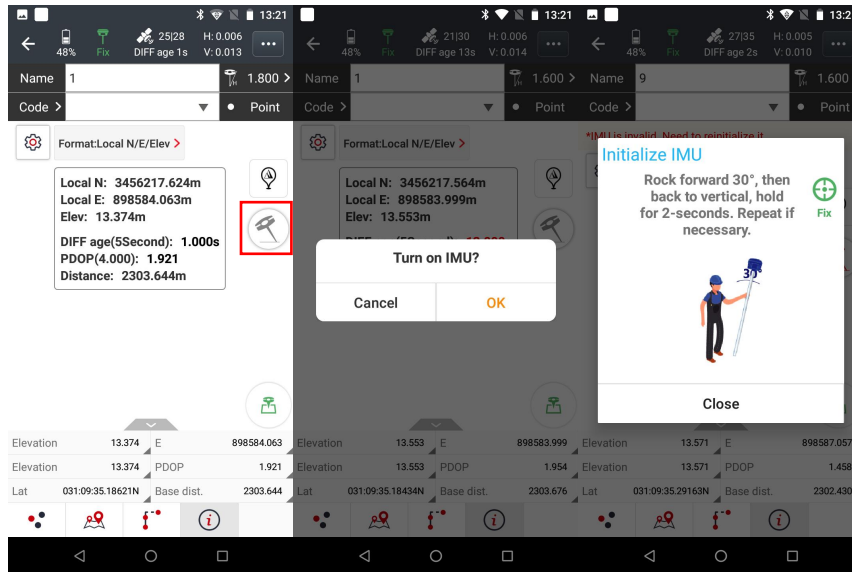
Steps:

- (1) Connect the UHF whip antenna to the receiver.
- (2) Screw the receiver onto the pole.
- (3) Turn on the receiver by pressing the power button for 3 s.
- (4) Switch on the data controller and connect it to the receiver.
- (5) Use software to configure the receiver as rover mode.
- (6) Center and level the receiver more precisely.
- (7) Use software to start survey.

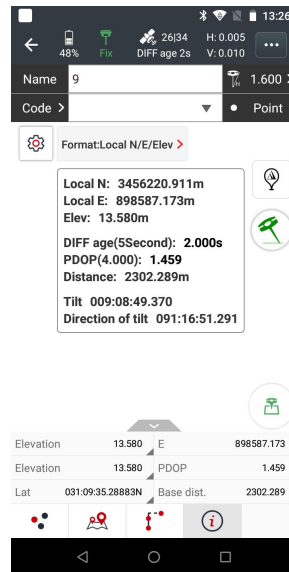
3.3 Working with the Tilt Compensation

3.3.1 Operation Steps

- (1) Open eField-> Tap PT Survey-> Tap  to activate tilt measurement.
- (2) Shake around according to the procedures in the interface to do initialization.

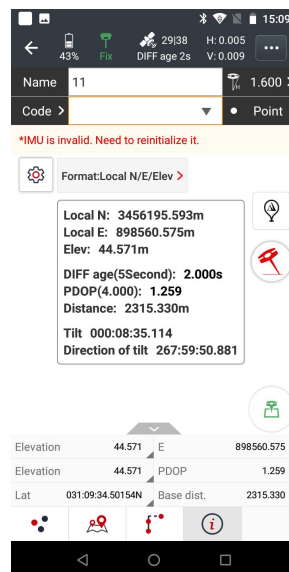


- (3) This icon  will appear when the initialization is successful.



(4) Enter the Name and Antenna, then tap  point will be collected and store to Points automatically.

(5) When this icon  appears, the text will show “*IMU is invalid. Need to reinitialize it.” at the top of interface.



(6) Tap  to close tilt compensation.

3.3.2 Notes of using tilt measurement

1. At the beginning of initialization, the pole height of the instrument should be the same as that antenna height in the software.

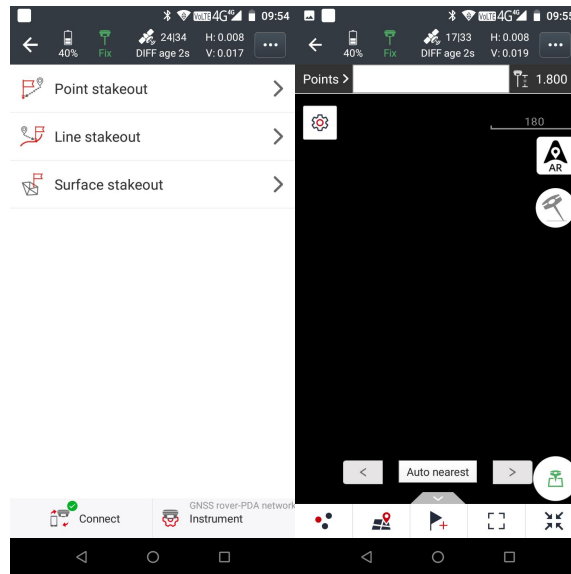
2. In the process of tilt measurement, if the controller shows that “Tilt is not available, please measure in alignment” (red), please shake RTK slightly from left to right or back to front until the reminder disappears.
3. The controller will prompt “Tilt is not available, please measure in alignment” when the receiver is stationary over 30 seconds or the pole hit the ground toughly.
4. The pole cannot be shaken when point is collected.
5. The receiver cannot be moved in a circle in one direction for more than 360 degrees. if the receiver has been rotated 360 degrees, it must be rotated in the opposite direction to recover again.
6. Initialization is required:
 - when the RTK is turned on every time;
 - when IMU module is turned on every time;
 - when receiver drops at working;
 - when the pole is tilted more than 65 degree;
 - when the receiver is stationary more than 10 minutes;
 - when the RTK rotates too fast on the matching pole (2 rounds per second);
 - when the pole hit the ground toughly.

3.4 Working with the Visual Camera

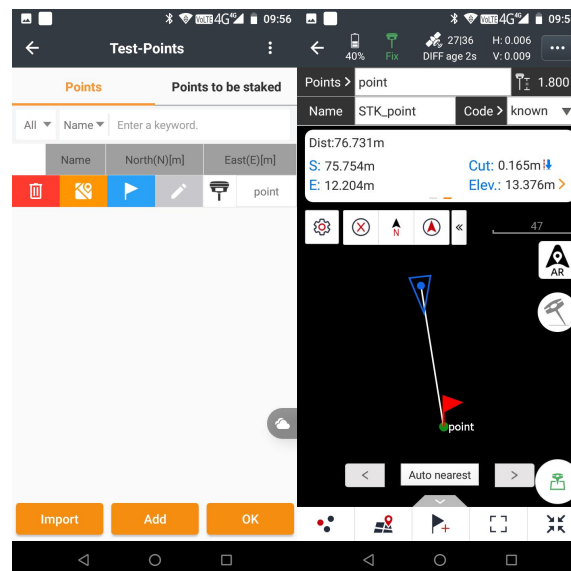
3.4.1 Operation Steps

3.4.1.1 Visual Stakeout

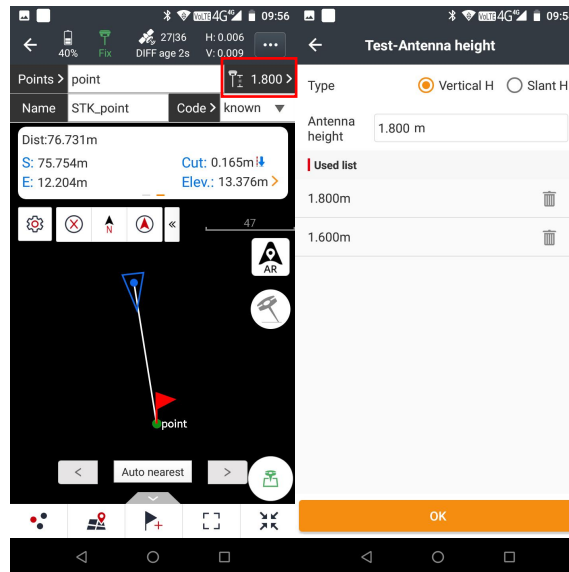
- (1) Open eField-> Tap Stakeout-> Tap Point stakeout (Here take point stakeout as an example, currently also supports Line stakeout, Cad stakeout)



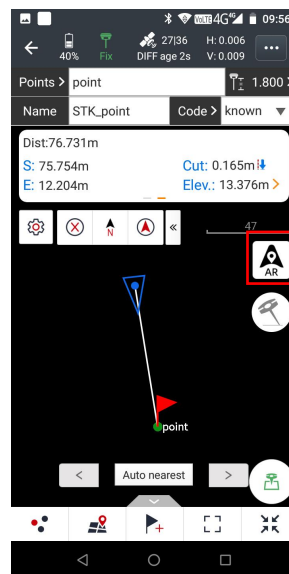
(2) Tap points, select a stakeout point, slide right and tap stakeout



(3) Check whether the height of the antenna is consistent with the height of the 2M Range Pole w/ Bag

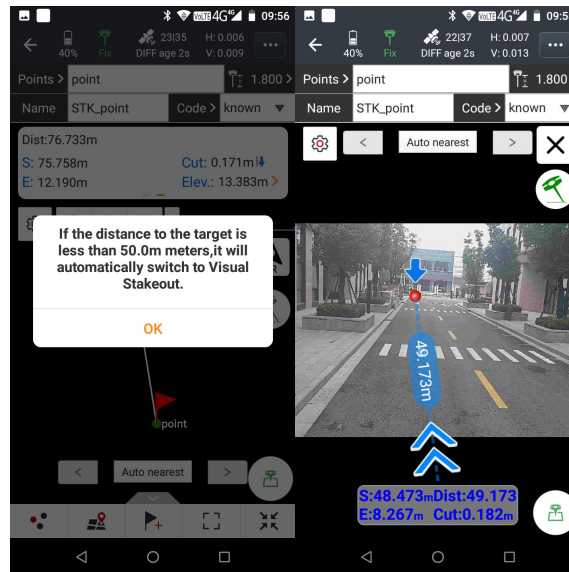


(4) Tap AR, the software will prompt you to activate tilt measurement

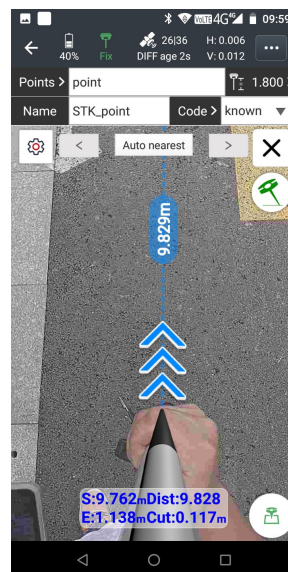


(5) This icon  will appear when the initialization is successful.

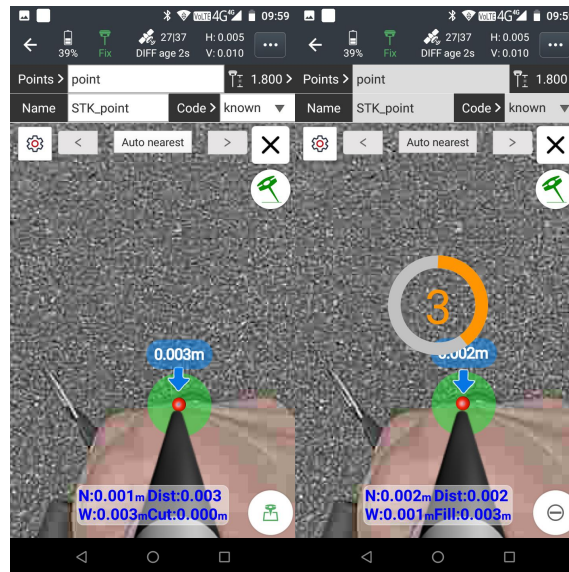
(6) If the distance to the target is less than 50.0m meters, it will automatically switch to Visual Stakeout. (with Front Camera)



- (7) If the distance to the target is less than 10.0m meters, it will automatically switch to Visual Stakeout. (with Front Camera)
- (8) If the distance to the target is less than 10.0m meters, it will automatically switch to Visual Stakeout. (with Lower Camera)



- (9) After we are within 1cm from the target point, we can click the measurement icon to collect

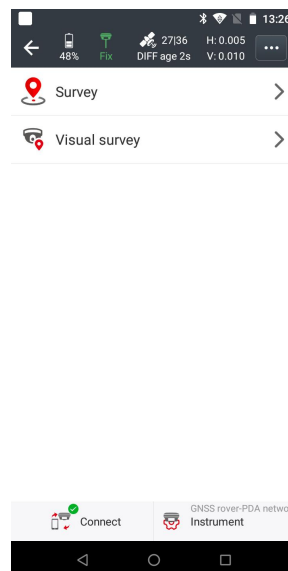


Note:

When the stakeout target point has a height, it is necessary to input the height of the target point as 0 or the actual height

3.4.1.2 Visual Survey

(1) Open eField-> Tap Survey-> Tap Visual Survey

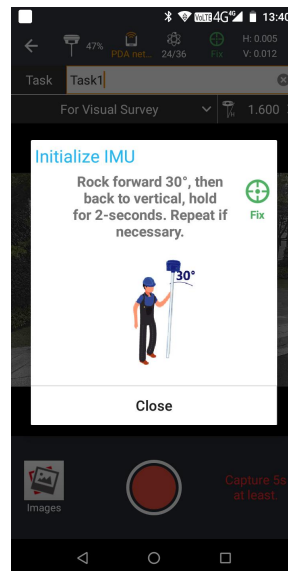


(2) Click the red dot, the software will prompt you to activate tilt measurement

Note:

modify the height of the antenna to be the same as the height of the 2M Range Pole w/ Bag before initialization.

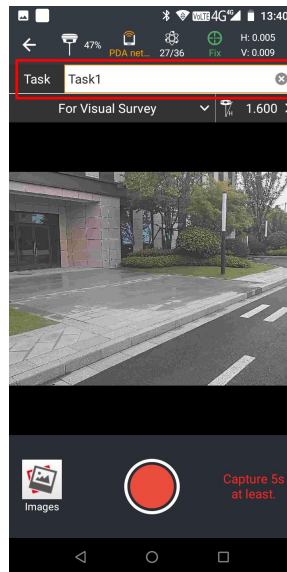
At present, the non-inductive inertial navigation is used, and the initialization can be completed by simply shaking it or walking around; after the initialization is completed, try to walk about 5m so Initialization remains stable.)



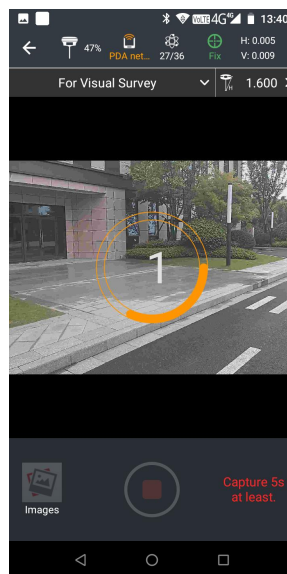
(3) After the initialization is successful, you can see the image captured by the front camera of the receiver on the screen of the controller



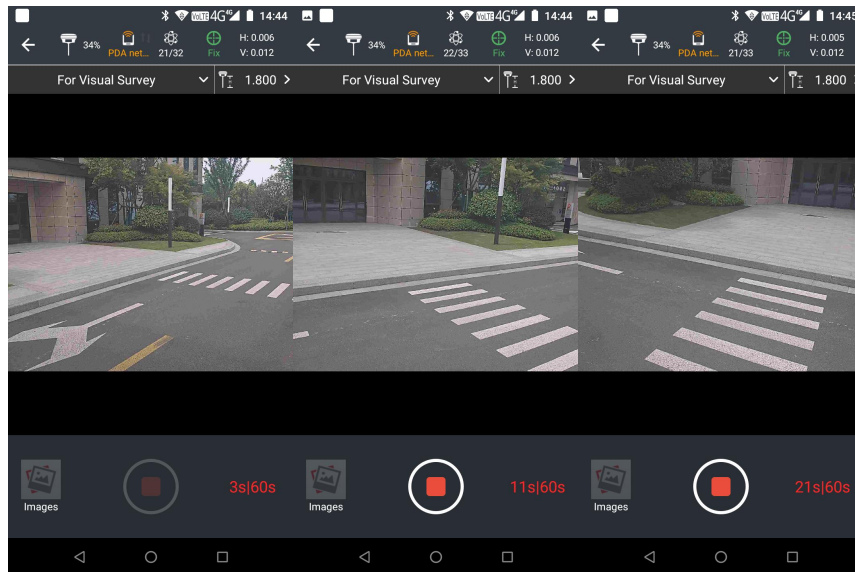
(4) Enter task name



- (5) Aim the camera of the receiver at the target to be tested, click the video recording icon, and there will be three seconds of preparation time

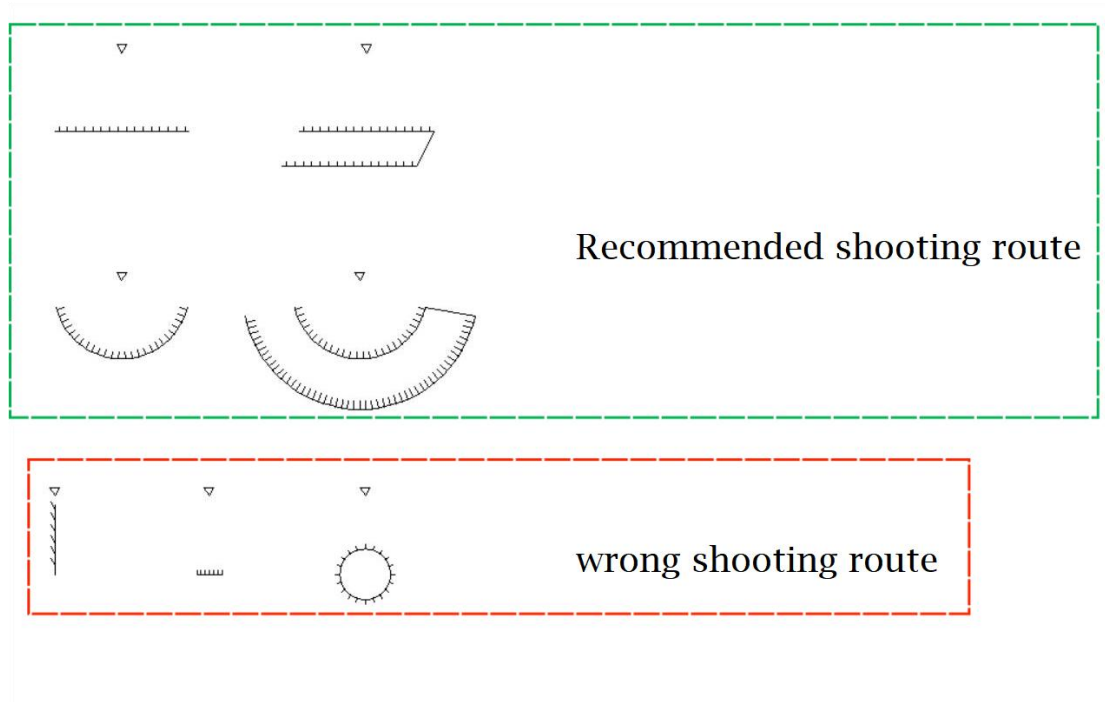


- (6) In three seconds, the video recording will begin. While circling around the target point, capture footage of the object being tested.

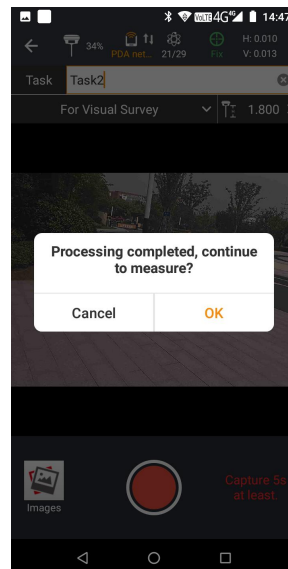


(Note:

Maintain a constant speed while filming, and the video must not be less than 5 seconds long. The horizontal (walking direction) distance must be greater than 4 meters, and the vertical (target direction) distance must be greater than 2 meters. It is best to ensure that the vertical distance is within 15 meters.)



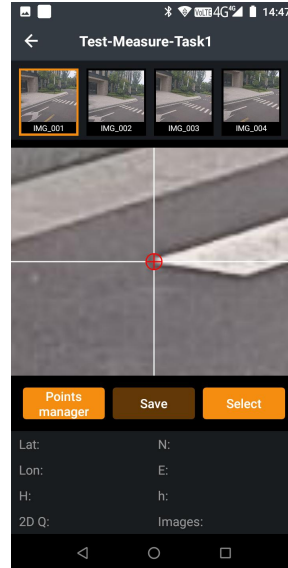
- (7) After finishing the shooting, click on the icon to end the recording and confirm the data processing. The software will automatically process the data.



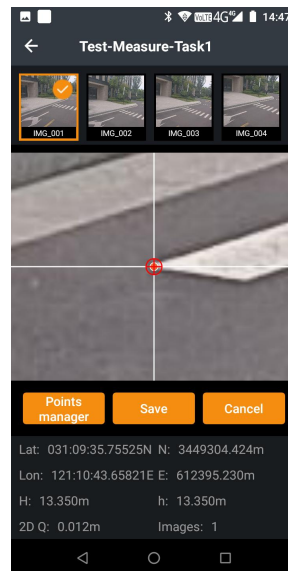
(Note:

local calculation is slower, with approximately 1 minute of calculation time for every 10 seconds of data, and about 5 minutes for every 60 seconds of data.)

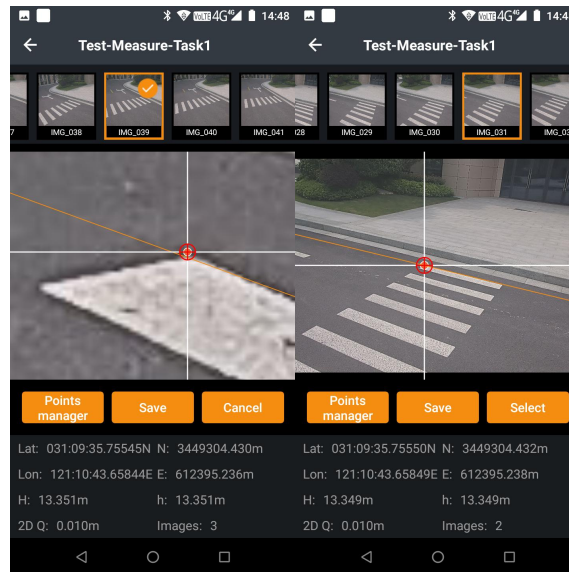
- (8) After the calculation is completed, select the photo where the target point is located, zoom in/out the photo, and capture the corresponding point (preferably the image facing the target being tested).



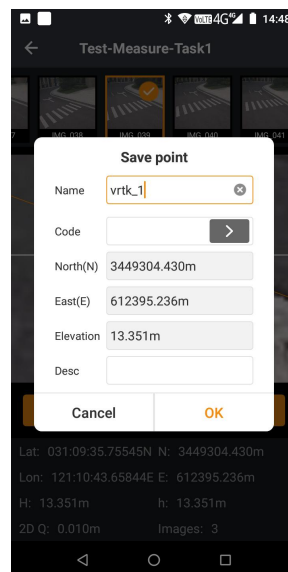
- (9) After moving the target point to the arrow and clicking 'Select', the latitude, longitude, and plane coordinates of the point will be displayed below. The 2D quality represents the accuracy of the target point calculation.

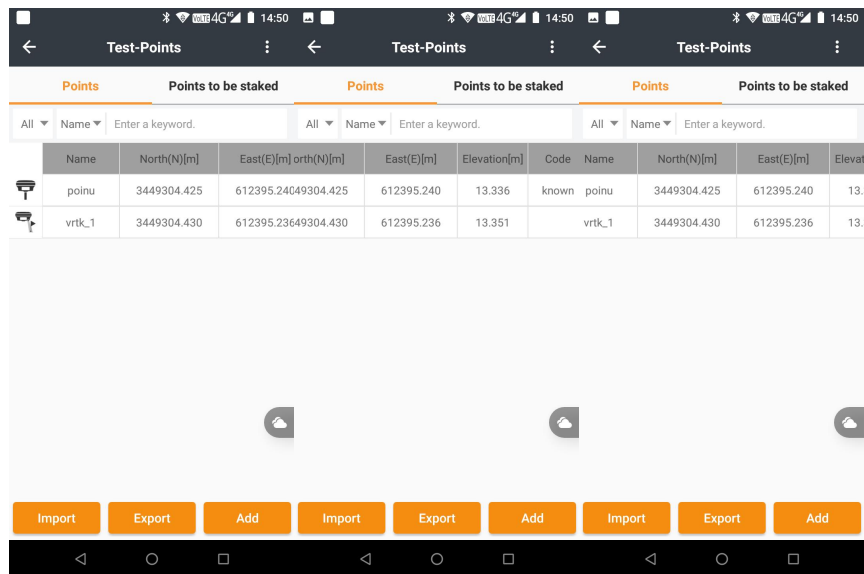


Capturing the same location on multiple photos will improve the accuracy of the target point, and the 2D value will gradually decrease.



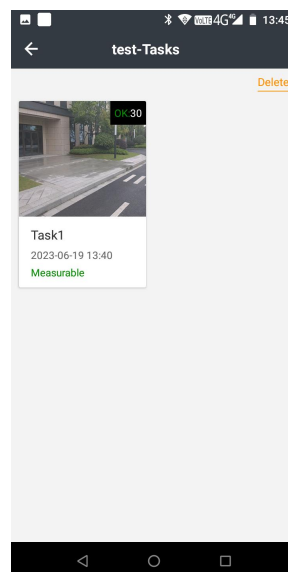
(10) When the accuracy meets the requirements, click 'Save' and enter a name for the point to save the target point in the point management system. After saving, you can click on the point library to enter the point management to view the coordinates that were just saved. If other points are needed, continue to select and save the data.





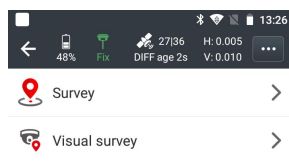
Name	North(N)[m]	East(E)[m]	Elevation[m]	Code
poinu	3449304.425	612395.240	13.336	known
vrtk_1	3449304.430	612395.236	13.351	

(11) Post-calculation can also be performed, and the image library can be opened in the office for post-calculation.

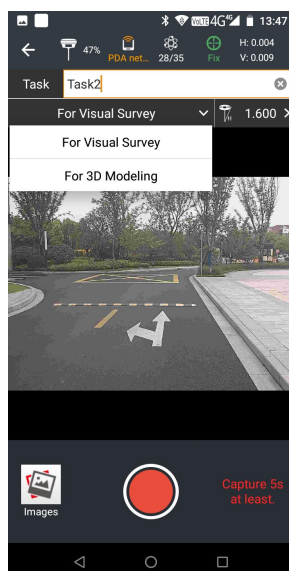


3.4.1.3 3D Modeling

(1) Open eField-> Tap Survey-> Tap Visual Survey



(2) Click for visual survey and change to for 3D modeling



(3) Click the red dot, the software will prompt you to activate tilt measurement

(Note:

modify the height of the antenna to be the same as the height of the 2M Range Pole w/ Bag before initialization.

At present, the non-inductive inertial navigation is used, and the initialization can be completed by simply shaking it or walking around; after the initialization is completed, try to walk about 5m so Initialization remains stable.)

(4) After the initialization is successful, you can see the image captured by the front camera of the receiver on the screen of the controller.

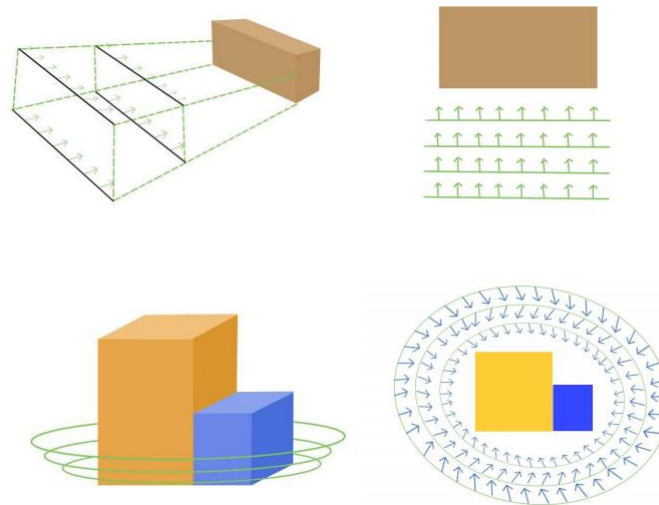
- (5) Enter task name.
- (6) Aim the camera of the receiver at the target to be tested, click the video recording icon, and there will be three seconds of preparation time
- (7) The video recording will start in three seconds, while moving around the target point to shoot the object being measured. The shooting duration should not be less than five seconds. (**Note:** The maximum observation time is 60 minutes)
- (8) After the shooting is over, click the icon to end the recording to complete the recording

Note:

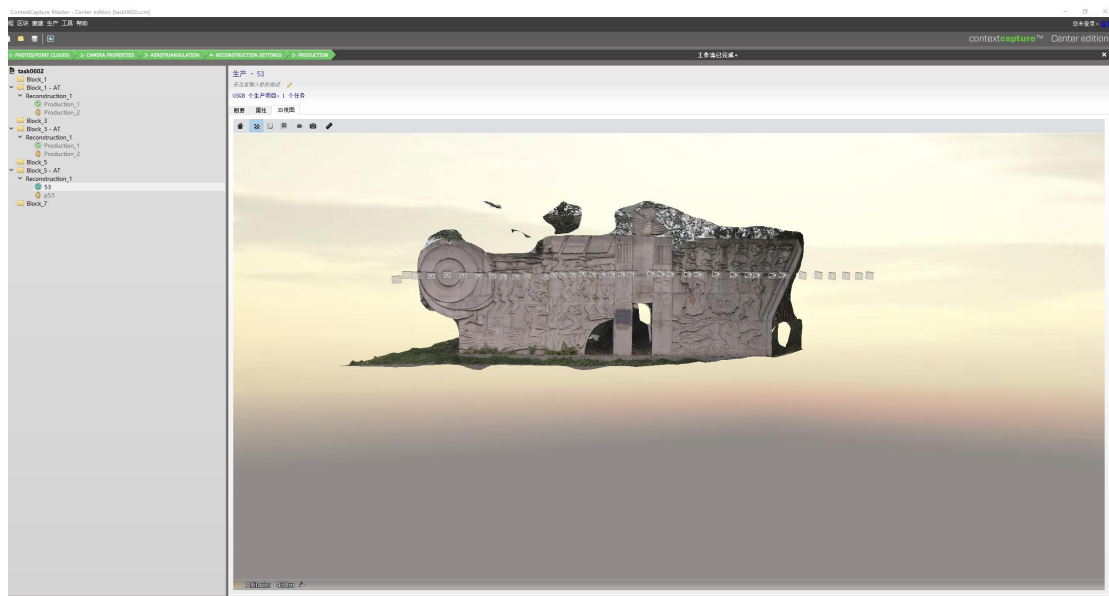
Please maintain a steady speed while filming, with a minimum video length of 5 seconds. The route of travel may follow the example, and it is recommended to film from various heights, angles, and distances to capture the test target.

If the target is single-sided, it is recommended to take a direct shot. If the target is a building panorama, it is recommended to take a panoramic shot, with the camera angled at a certain degree (30° - 45°) from the target.

See the diagram below for reference:



- (9) Data export: Open the "File" section in the controller to find the captured image data in the following file path: "Efield\EF_Projects\ProjectFolder\ImageTask\Task Folder".
The "images" folder under the current folder contains the captured photos, while the "camera.txt" file is the camera parameter file. When exporting data, both of these data files need to be copied and pasted onto the computer.
- (10) Use third-party modeling software for model building.



3.4.2 Notes of using Visual Camera

1. At the beginning of initialization, the pole height of the instrument should be the same as that antenna height in the software.
2. In the process of tilt measurement, if the controller shows that “Tilt is not available, please measure in alignment” (red), please shake RTK slightly from left to right or back to front until the reminder disappears.
3. The controller will prompt “Tilt is not available, please measure in alignment” when the receiver is stationary over 30 seconds or the pole hit the ground toughly.
4. The pole cannot be shaken when point is collected.
5. The receiver cannot be moved in a circle in one direction for more than 360 degrees. if the receiver has been rotated 360 degrees, it must be rotated in the opposite direction to recover again.
6. Initialization is required:
 - when the RTK is turned on every time;
 - when IMU module is turned on every time;
 - when receiver drops at working;
 - when the pole is tilted more than 65 degree;
 - when the receiver is stationary more than 10 minutes;
 - when the RTK rotates too fast on the matching pole (2 rounds per second);
 - when the pole hit the ground toughly.
7. Ensure stable fixed solutions by walking and filming in open areas using Visual RTK.
8. Try to capture visually rich textures and lines by adjusting filming angles and distances to enhance the field of view.
9. Avoid filming dynamic objects that create reflective glare, such as glass surfaces, water reflections, moving objects, cars, or pedestrians.
10. Film under good lighting conditions as much as possible and avoid filming in low light, strong light, or backlights.
11. Increase the line of sight between the target points and the filming route as much as possible while avoiding obstructions in the middle.

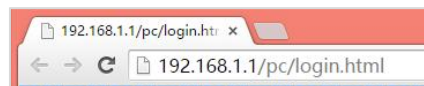
4 Configuring Through a Web Browser

Supported browsers:

- Google Chrome
- Microsoft Internet Explorer® version 10, or higher

To connect to the receiver through a web browser:

1. Turn on the Wi-Fi of the receiver.
2. Search the wireless network named as GNSS-XXXXXXX (the SN of your receiver) on your computer, and then establish the connection.
3. After the successful connection between your computer and the receiver, enter the IP address (192.168.1.1) of the receiver into the address bar of the web browser on your computer:



4. The web browser prompts you to enter a login account and password:

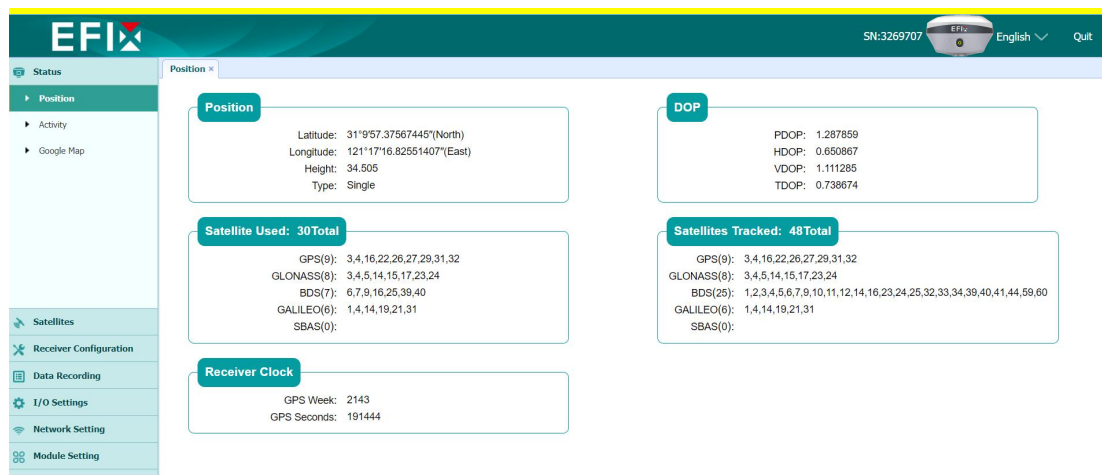


The default login account for the receiver is:

- Login Account: admin
- Password: password

Note – Tick **remember me** option, and then the browser will remember the Login Account and Password you entered.

5. Once you log in, the web page appears as follows:



This web page shows the configuration menus on the left of the browser window, and the setting on the right. Each configuration menu contains the related Submenus to configure the receiver and monitor receiver performance.

This chapter describes each configuration menu.

To view the web page in another language, select the corresponding language name from the dropdown list on the upper right corner of the web page.

Currently, six languages are available:



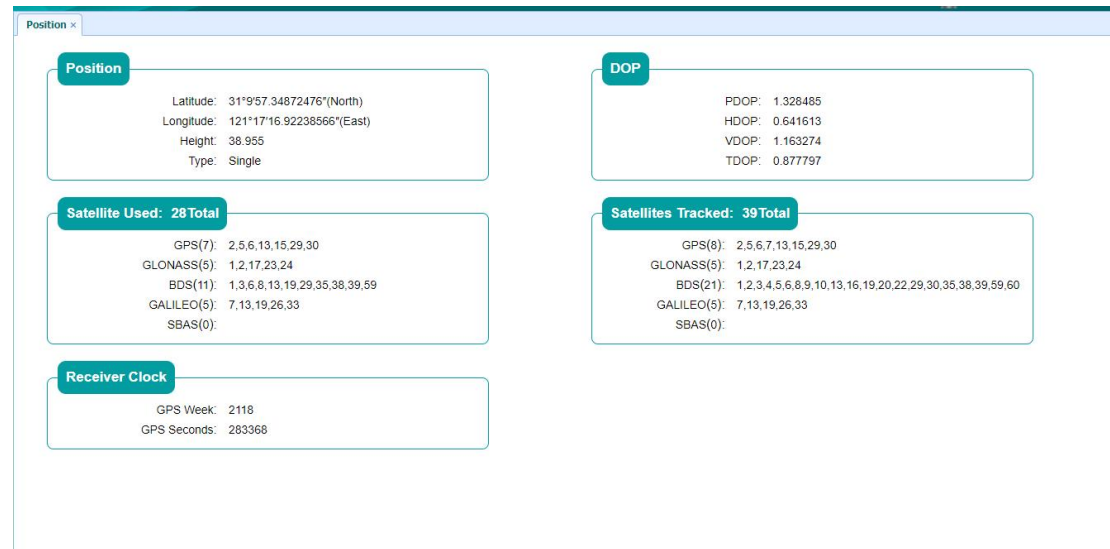
4.1 Status Menu

This menu provides a quick link to review the receiver's position information, satellites

tracked, runtime, current data log status, current outputs, available memory, and more.

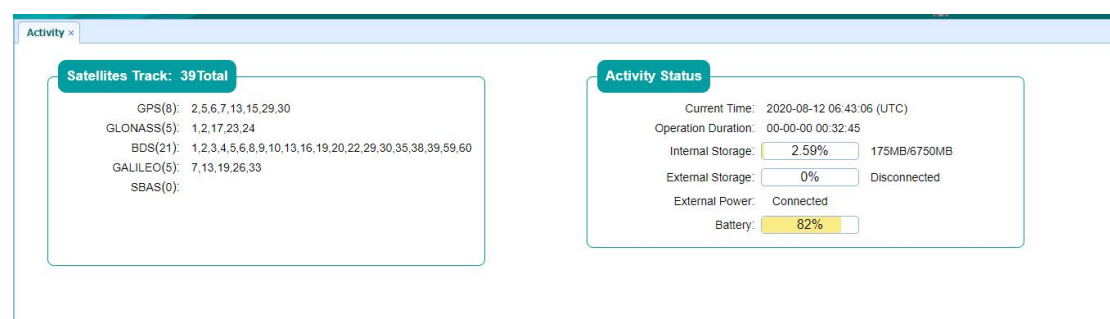
4.1.1 Position Submenu

This page shows the relevant position information about the receiver's position solution which including the position, DOP values, satellites used and tracked, and the receiver clock information.



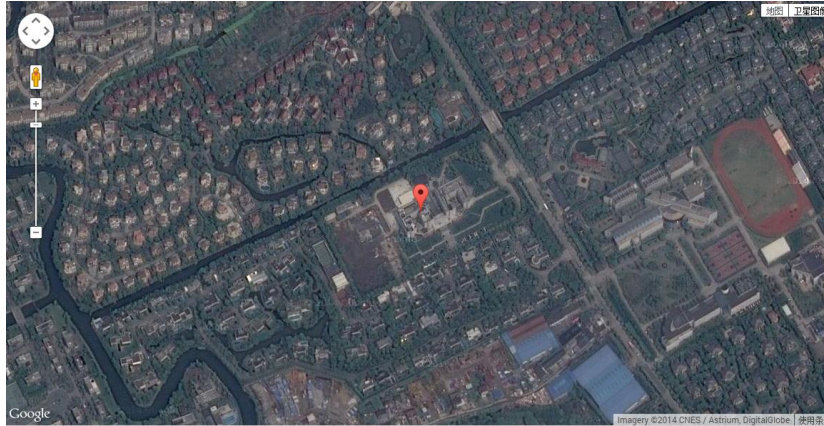
4.1.2 Activity Submenu

Lists several important items to help you understand how the receiver is being used and its current operating condition. Items include the identities of currently tracked satellites, internal and external storage usage rate, how long the receiver has been operational, state of the internal battery, power source state. With this information, it is easy to tell exactly what functions the receiver is performing:



4.1.3 Google Map Submenu

Tap this submenu to show the location of the receiver on Google map.



4.2 Satellites Menu

Use the Satellites menu to view satellite tracking details and enable/disable GPS, GLONASS, BDS and Galileo constellations. These menus include tabular and graphical displays to provide all required information on satellite tracking status.



4.2.1 Tracking Table Submenu

Provides the status of satellites tracked in general, such as the satellite ID, satellite type, attitude angle, azimuth angle, L1 SNR, L2 SNR, L5 SNR and enable/disable status of each one.