

eSA2

Quick Start Guide

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Before You Start

Dear customers,

Thank you for purchasing the eSurvey eSA2. Before starting your work, please carefully read the following:

- This user guide is for your product only. If the actual situation does not match with the situation in the user guide, the actual situation shall prevail.
- Improper use of the product can lead to death or injury to persons, damage to property and/or malfunction of the product. For safety and instructions on how to use this product, please carefully read the precautions for safe operation, disclaimers and instructions in the user guide and at all times comply with the same. Remember that YOU are the key to safety.
- The information in this user guide is subject to change without notice. We reserve the right to change or improve the product as well the content in the user guide without any obligation to notify you. For any questions, please contact us.

■ Precautions for Safe Operation

Precautions can be divided into the following types according to the degree of loss or injury in case of negligence or omission:



CAUTION

Indicates a potentially hazardous situation that, if not avoided, may result in INJURY OR PROPERTY DAMAGE OR IRRETRIEVABLE DATA LOSS.



WARNING

Indicates a potentially hazardous situation that, if not avoided, could result in SERIOUS INJURY OR EVEN DEATH.

■ Caution

The following outlines the cautions that you should avoid when operating the eSA2 and any of its components:

Storage

- To reduce the self-discharge of the battery, please strictly follow the temperature requirements, and keep the instrument dry.
- Please recharge the instrument before use after storage.

Transportation

- When transporting, please make sure the instrument and its accessories are reasonably placed in a professional case to prevent direct damage to the instrument from impact and vibration.
- When transporting, please try your best to lighten libration on the instrument.
- The eSA2 has a built-in lithium-ion battery. When transporting, please comply with relevant national and international regulations.

Clean and Drying

- Please clean the surface of the instrument with a clean, soft and lint-free cloth. If necessary, please wipe the instrument with clean water or alcohol.
- Please always open the instrument box in a warm and dry place in all kinds of weather conditions, after the back of field operation.
- Please make sure that all connectors are clean and dry all the time.

Safety

- Please do not touch the instrument with wet hand. Otherwise, electric shock may occur.
- Please put the instrument firmly on the pole.
- To avoid accidental damage, please only use original supplied parts. Otherwise, damage to the instrument may occur.
- Please do not arbitrarily stand or seat on the carrying case, or turn over it. Otherwise, the instrument may be damaged.

Warning

The following outlines the warnings that you should avoid when operating the eSA2 and any of its components:

- Please do not disassemble the instrument. Otherwise, fire or electric shock may occur. Only e-Survey authorized distributors can disassemble or rebuild the instrument.
- Please do not cover the charger when charging. Otherwise, fire or explosion may occur.

- Please do not use wet charger, defective power cable, socket or plug, and power cable not specified by e-Survey. Otherwise, fire or electric shock may occur.
- Please do not put the instrument close to burning gas or liquid, and do not put it in the fire or high temperature condition. Otherwise explosion may occur.
- Please avoid short circuit of the battery. Otherwise, fire may occur.
- Please avoid disturbance of severe electrostatic discharge. Otherwise, the instrument may have some degradation of performance like switching on/off automatically, etc.

Disclaimer

It is your responsibility to exercise common sense and navigational judgment while using the eSA2.

We assume no responsibility or liability for any damages to property (including direct or indirect damage), personal injuries or death caused by the following conditions:

- A faulty or intentional usage or misuse.
- Any disasters, such as earthquakes, storms, floods etc.
- A change of data, loss of data, an interruption of business etc.
- Wrong transport.
- Use of non-original parts.
- Usage not explained in the user guide.

eSA2 at a Glance

The eSurvey eSA2 is an easy-to-use, wearable, portable smart antenna that provides professional-level positioning data to any Android instruments. And with the designated app support, the eSA2 can be paired with iOS instruments as you wish.

Appearance

The eSA2 main body is as follows:



Indicator Light

Through the color of the indicator light, you can know the following:



Battery status

- Off: powered off.
- Red:
 - Connected with the charger: in charge.
 - Disconnected with the charger: in working.
- Green: full charged when it is connected with the charger.



Bluetooth status

- Off: no Bluetooth.
- Green: Bluetooth connected.
- Flashing green: Bluetooth disconnected.



Datalink status

- Off: no receiving differential signal.
- Flashing green: datalink is transmitting data normally.



Satellite status

- Off: no receiving satellites.
- Green: fixed or float solution.
- Flashing green: single solution.

Power Button

By pressing the power button, you can achieve the following:

- Power on the eSA2: long press the button for 3 seconds and release it. All indicator lights will be on.
- Power off the eSA2: long press the button for 3 seconds and release it. All indicator lights will be off.

Type C Port

Through the Type C port, you can charge your eSA2 and conduct serial debugging.

Quick Start

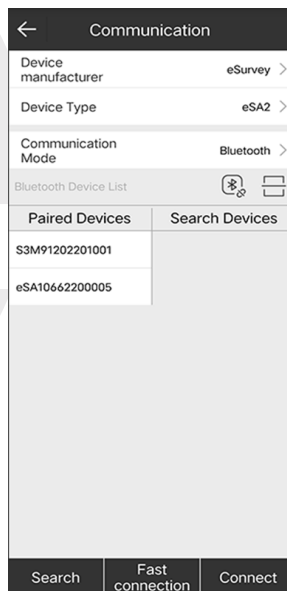
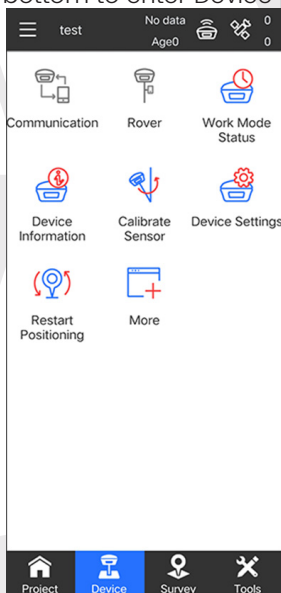
This part focuses on how to help you quickly start your work.

Establish Communication

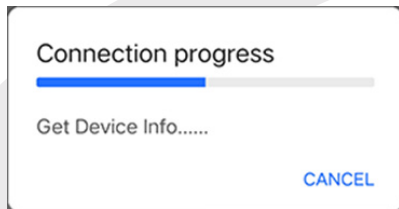
It is recommended to establish communication between your eSA2 and our eSurvey SurPad (an Android App).

To establish communication, do the following:

1. Run app SurPad, tap Device at the bottom to enter Device page:
2. Tap Communication:



3. Set the following:
 - Set Device Manufacturer to eSurvey.
 - Set Device Type to eSA2.
 - Set Communication Mode to Bluetooth.
4. Tap Search, and tap Stop until the S/N of your instrument shows.
5. Tap the target instrument, and tap Connect. The communication is being established:



After establishing communication between your eSA2 and SurPad software, the satellite icon at the top turns green

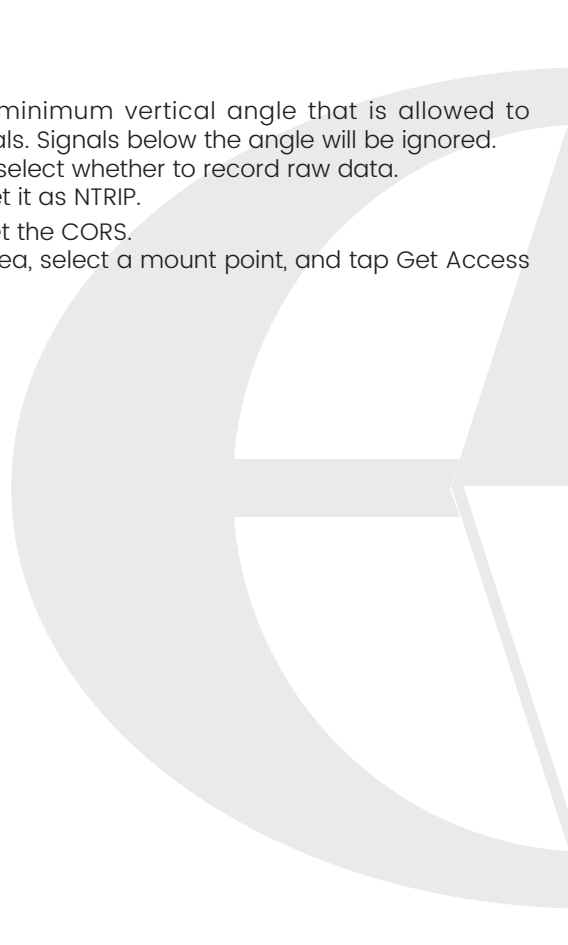


Set the Rover Station

To set the rover, do the following:

To establish communication, do the following:

1. In Device page, tap Rover:
2. Select Phone internet to transmit differential signals:

- 
3. Set the following:
 - File name
 - Cut-off angle: the minimum vertical angle that is allowed to receive satellite signals. Signals below the angle will be ignored.
 - Record raw data: to select whether to record raw data.
 - Connect mode: to set it as NTRIP.
 4. In CORS Settings area, set the CORS.
 5. In MountPoint Settings area, select a mount point, and tap Get Access Point.
 6. Tap Apply.

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solution & service in the global geospatial industry**

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This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The device has been evaluated to meet general RF exposure requirement.