Quick Start

Land Survey

# P9IV

## Rugged Handheld

e-survey

Shanghai eSurvey GNSS Co., Ltd.

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**Certificate**

CE FC IC

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## 1 What in the Box

**P9IV** Android 11, internal battery

**Power adapter**
Type-C port;
UK/US/EU/AU;
Output: 5V/3A, 9V/3A

**Power cable**
Type C to type C (1.5 m)

**Bracket**
For data collector survey pole

**USB cable**
Type C to USB (1.5 m)

## 2 Before You Start

Dear customers,

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

- This 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 could lead to personal death or injury, 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 as the content in the user guide without any obligation to notify you. For any questions, please contact us.

## 2.1 Precautions for Safe Operation

Please follow the following instructions to ensure optimal performance of the handheld:

- Please use the handheld indoor in the European Community using frequency in 5150 – 5250 MHz to reduce the potential interference. Restriction in BE, BG, CZ, DK, DE, EE, IE, EL, ES, FR, HR, IT, CY, LV, LT, LU, HU, MT, NL, AT, PL, PT, RO, SI, SK, FI, SE, and UK.
- Please do not use the handheld in the place where the use of electronic handheld is not allowed, like airports, hospitals, gas stations, etc.
- For safety, please do not use the handheld while driving a vehicle.
- To avoid potential safety problems, please do not put the handheld near the vehicle's airbag.
- For your safety, please do not use the handheld during thunderstorms.
- Although the handheld is waterproof, please do not leave it for long time in areas with water or moisture.
- Please use the handheld in the environment where the temperature is within -30 - +65°C and put it in the environment where the temperature is within -40 - +80°C. Or its performance and service life may be affected.
- Please do not place the handheld in the high humidity environment.
- Please do not disassemble, repair or transform the handheld without authorization.
- After the handheld has reached its service life, please discard it in a proper way to avoid environmental pollution.
- Please avoid exposure to bright light or strong ultraviolet rays for a long time.
- Please do not drop the product or subject it to violent impact.

- The handheld belongs to Class B product, which may cause radio interference. Please take necessary preventive measures.
- Please avoid storing or carrying the handheld with flammable and explosive materials or corrosive materials.
- Please only use the original power adapter.
- Please do not wait until the handheld is depleted before recharging, but recharge as often as needed.
- Please do not charge the handheld if the ambient temperature is too high (above 45°C) or too low (below 0°C).
- Please do not place the handheld in extremely cold or hot areas, which will shorten the battery life and cause the handheld to malfunction, even if the battery is fully charged.
- Please do not put the handheld in a fire.
- If the handheld is not used for a long period of time, it is better to fully charge the handheld every 3 months, as excessive discharge of the handheld may affect its full capacity.

## 2.2 Disclaimer

You are expected to follow all operating instructions and regularly check the handheld performance. We assume no responsibility or liability for any damages to property, 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 this guide.

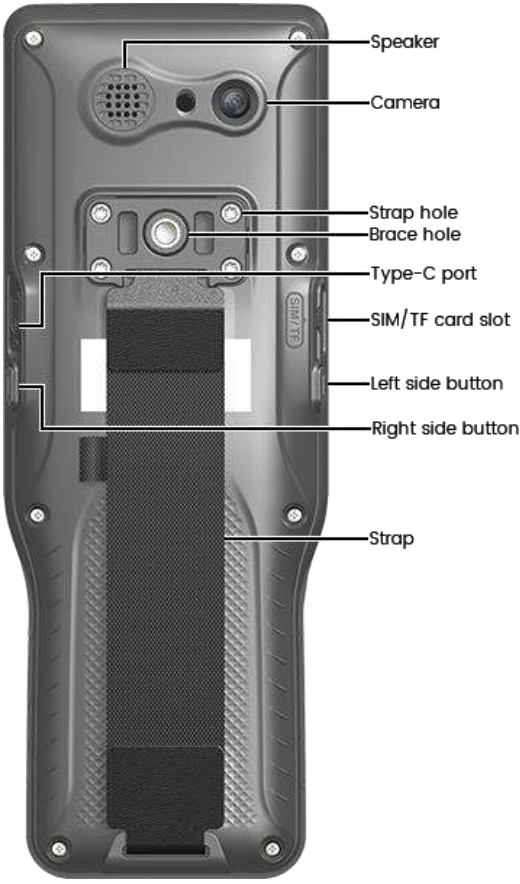
# 3 Your P9IV

## 3.1 Front View

- **Touchscreen**: to interact with the device through simple or multi-touch gestures by touching the screen with a special stylus or one or more fingers.
- **Keyboard**: 26 buttons, including numeric / letter buttons and special function buttons.
- **Microphone**: to make recording, phone calls, etc.

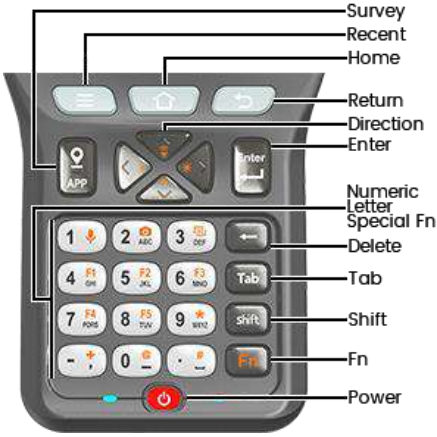
- **Wi-Fi/BT indicator**:
  - Green: the handheld is connected with Bluetooth of the GNSS receiver.
  - Blue: the handheld is connected with Wi-Fi of the GNSS receiver.
  - Off: the handheld is not connected with the GNSS receiver via Bluetooth or Wi-Fi.
- **Power indicator**:
  - In charging: the indicator light flashes green and turns to solid green when the handheld is fully charged.
  - In standby mode: the indicator light is off when the power is greater than 15% and turns to solid red when the power is less than 15%.

## 3.2 Rear View




- **Speaker**: to transmit music, sound and voice.
- **Camera**: to shoot photos.
- **Scrap hole**: to fix the strap.
- **Brace hole**: to connect the handheld and brace, and fix the brace.
- **Type-C port**: to transmit data and provide charging power, supporting USB OTG.
- **SIM/TF card slot**: to insert a SIM card and TF card.
- **Left side button** & **right side button**: user-defined buttons.
- **Strap**: to hold the handheld.

## 3.3 Keyboard




- **Home** button: to return to the homepage.
- **Recent** button: to call the list of recent apps.
- **Survey** button: to start data collection if the current interface is the interface of land survey software; otherwise, to switch to the interface of land survey software.
- **Power** button: to power on/off the handheld.
- **Fn** button: to activate the function in orange as indicated on the keyboard. Once it is activated, the **Fn** character will show in the upper right of the screen.
- **Shift** button: to switch between numbers, lowercase letters and uppercase letters when using the physical keyboard.
- **Tab** button: to advance the cursor to the next tab stop.
- **Delete** button: to delete one character forward when inputting characters.
- **Enter** button: to collect if the current interface is the interface of land survey software; otherwise, to confirm information or make a line break.

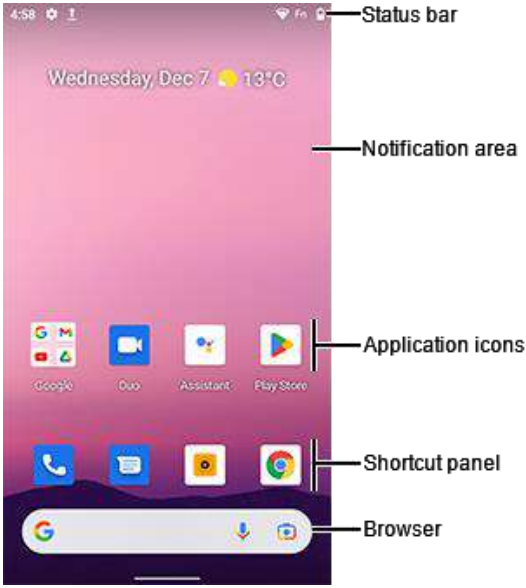
- **Numeric / letter / special Fn** buttons
  - **Numeric** buttons: to input numbers.
  - **Letter** buttons: to input letters in the lower right.
    See Change an Input Method for details.
  - **Special Fn** buttons (in orange): to access to the following function:

    Note You can activate the buttons by pressing **Fn** button. After it is activated, the character **Fn** shows in the upper right of the screen.

    - ✓ Voice function (numeric button 1): to make the land survey software to perform voice commands. This function is coming soon.
    - ✓ Camera function (numeric button 2): to wake up camera.
    - ✓ Screenshot function (numeric button 3): to take a quick screenshot.
    - ✓ User-defined function (numeric button 4, 5, 6, 7, 8): to define the function by yourself.
- **Direction** buttons
  - To move up (↑), down (↓), left (←) and right (→) in the screen or menu.
  - To increase (↑) or decrease (↓) volume.
  - To increase (→) or decrease (←) screen brightness.
- **Return** button: to return to the previous screen.

## 3.4 Homepage

After powering on the handheld, swipe upwards on the screen to unlock the homepage. The layout of homepage is as follows:




**Status bar**

To check time, battery power, SIM card status, Wi-Fi, Bluetooth, airplane mode, etc.

**Notification area**

To open the notification panel, hold the status bar and swipe down.

**Application icons**

- To see all applications, swipe upwards on the homepage.
- To hide all applications, swipe downwards on the homepage.
- To move an application, press and hold the application icon, and drag it to the desired location on the homepage.
- To remove an icon, press and hold the icon, and drag up to the **Remove** icon.

**Shortcut panel**

To add a shortcut icon, press and hold the icon and drag it down to “Shortcut panel”.

**Folder**

- To create a folder, drag the application icon onto another on the homepage.
- To rename the folder, tap the folder, and tap **Edit Name**, and input a name.

**Home settings / widgets / wallpaper**

Press and hold a blank area on the homepage, and select **Home settings** / **Widgets** / **Wallpapers**.

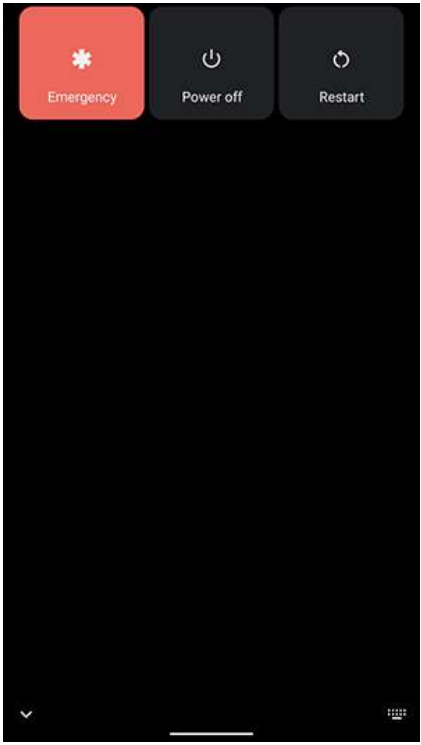
# 4 Common Operations

## 4.1 Power ON

The start-up time is about 20 seconds.
Press and hold the power button and release your finger until you feel the handheld vibrate a little.

## 4.2 Power Off

Press and hold the power button until the options menu shows, and select **Power off** option to power off the handheld:




## 4.3 Restart

Press and hold the power button until the options menu shows, and select **Restart** to restart the system.

### 4.4 Wake the Screen

If the device has been idle for a period of time, the screen will automatically turn off and go into sleep mode.

Press the power button to wake the device.

### 4.5 Take a Screenshot

To take a screenshot, do one of the following:

- In the keyboard area, press the **Fn** button to activate the special function buttons, and press **3**.
- Swipe down from the top of the screen, and select **Screenshot**.

### 4.6 Insert/Detach a SIM/TF Card

The detaching process is the reverse of the inserting process.

1. Open the SIM/TF card slot.
2. Insert your SIM/TF card.
3. Tightly cover the card slot.

### 4.7 Charge Your Handheld

The handheld should be fully charged at first use, which lasts about 4 hours. The adapter has overcharge protection.

You can use it for more than 20 hours.

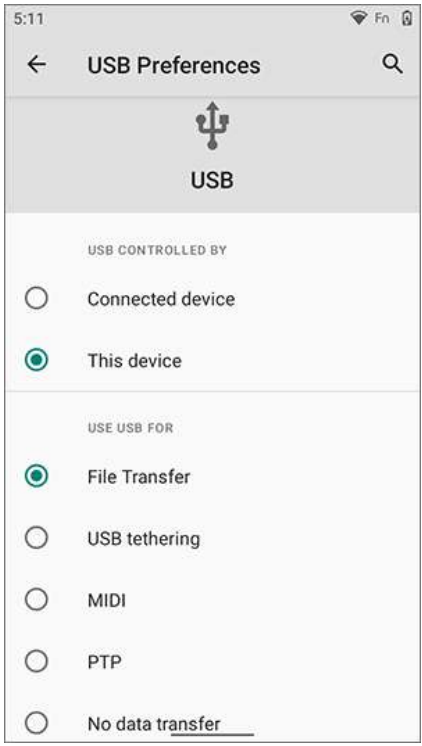
1. Insert one end of the power cable into the type C port of the handheld, and insert another end of the power cable into the power adapter.
2. Insert the power adapter into a power outlet for charging.

## 4.8 Transmit Data

To transmit data, do one of the following:

- Via the local disk
  a. Insert the type C end of the USB cable into the type C port of the handheld, and insert the USB end of the USB cable into your computer.
  b. Swipe down from the top of the screen, and tap

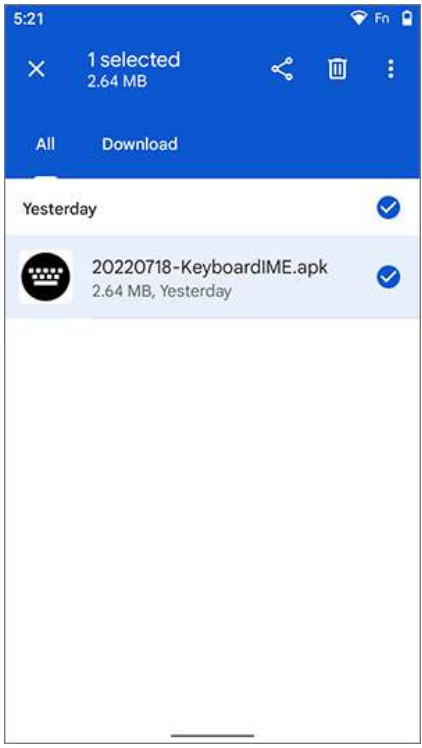
, tap the option again:



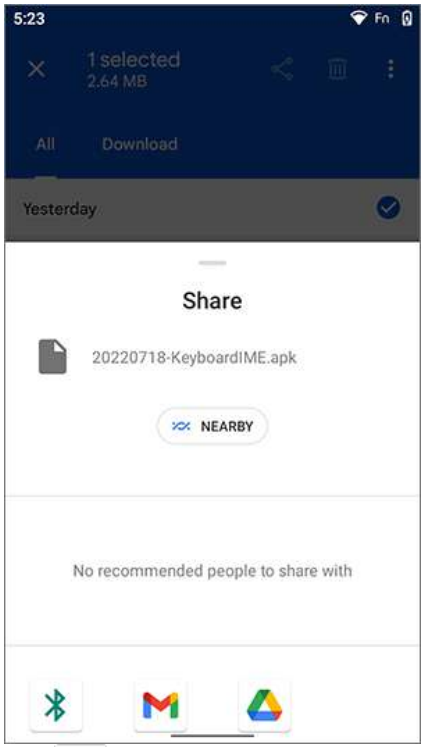

  c. Tap **File Transfer**. The device drive shows in your computer:

  d. Open the device drive, select the target files and paste/move the files to your computer.

- Via the Bluetooth
  a. Run the app **Files**, and select the target file to be transmitted:



b. Tap :




c. Tap . The device starts to search for the Bluetooth device.

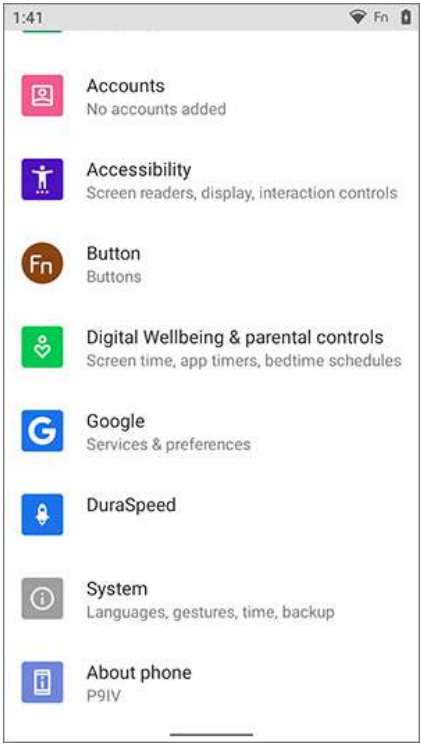
d. Turn on the Bluetooth of your computer, and select the target Bluetooth device via the handheld.

e. Select receiving the file. The file starts to be transmitted.

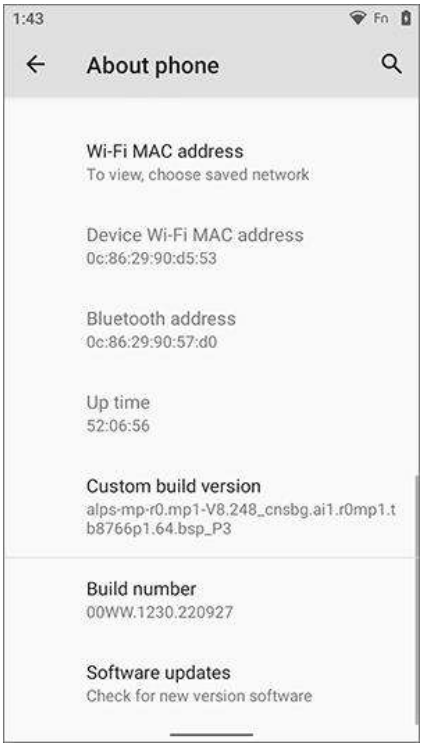
f. After file transmission, select the target file path to save the received file.

## 4.9 Select Developer Options

1. Run the app **Settings**:

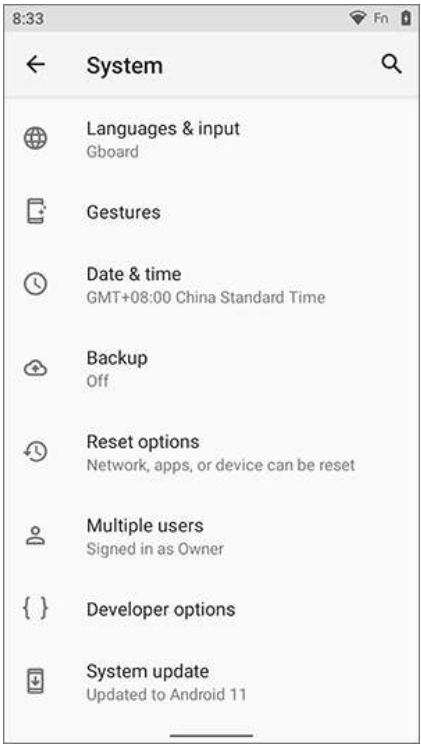


2. Tap **About phone**:

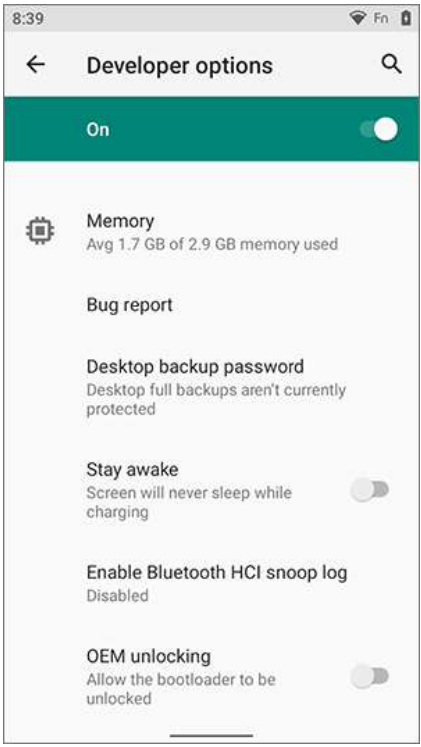



3. Continuously tap **Build number** 7 times. The prompt **You are now a developer** shows.
4. Return to the previous page.

5. Tap **System**, tap **Advanced**:



6. Tap **Developer options**:

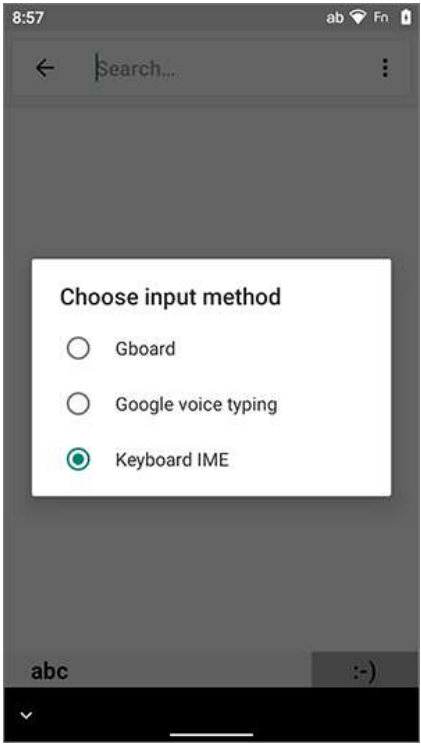



7. Select the target developer options.

## 4.10 Change an Input Method

You can use third-party input methods on the device, and change the input method when inputting data.

1. When inputting data, tap in the lower right of the screen:




2. Select an input method:

Note If you would like to activate letter buttons, please select **Keyboard IME**.

## 4.11 Install an Application

Except for the applications pre-installed, you can freely install the applications as needed.

To install an application, do one of the following:

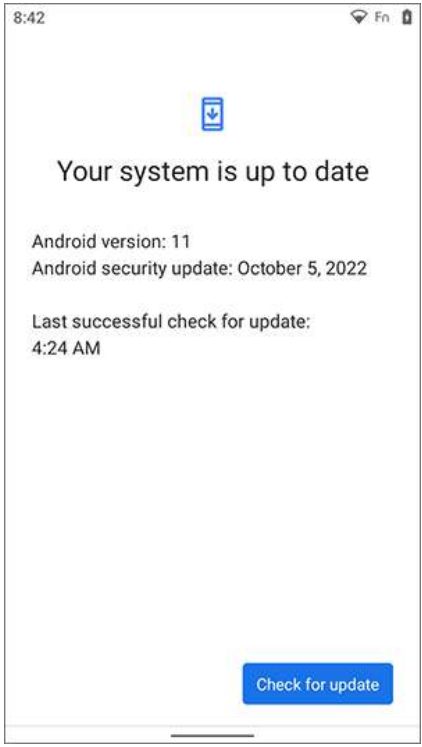
- Via the app **File**
  a. Download the target application, or save the target application locally in the handheld through data transmission.
  b. Find the installation package in the **Files** app, click and install the package, and follow the instructions.
  You can choose the installation path during the installation process.
- Via the app **Play Store**
  Use Google play store to install the software directly.

After the application is installed successfully, please restart the handheld if the system shows such a prompt.

## 4.12 Update the System Firmware

If there is an updated version of the system firmware under networked status, the updating prompt will be automatically pushed in the notification area.

1. Run the app **Settings**.
2. Tap **System** → **Advanced** → **System update**:



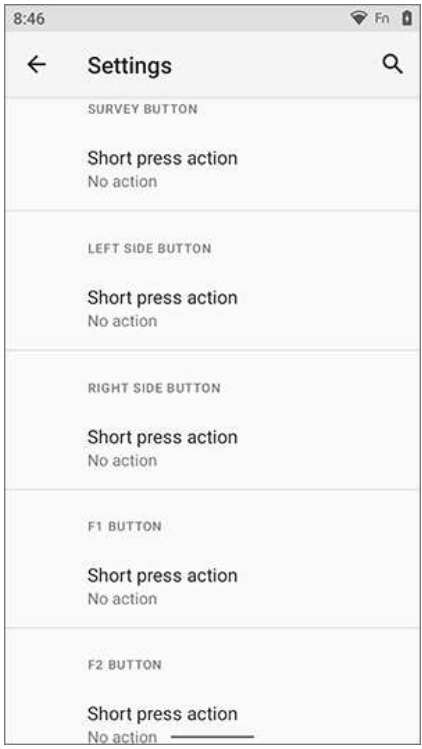

3. When the handheld is networked, tap **Check update**. The system starts to update according to tips if there is an updated version.

## 4.13 Customize the Button Definition

You can freely define the action of **Survey** button, **F1** - **F5** buttons, **Left side** button and **Right side** button. After the customization, you can quickly access to the target application by short pressing the button.

Survey button is customized to access to the eSurvey land survey software **Surpad** by default. F1 - F5 buttons, left side button and right side button are defined as no action by default.

1. Run the app **Settings**, and tap **Button**:




2. Tap each button, and select the target action.

# 5 Troubleshooting

This chapter lists problems that may occur during product use. If you have any questions, please contact us.

## 5.1 Unable to Power on the Handheld

The remaining battery power may be too low to power on the handheld.

To solve the problem, charge the handheld.

If the battery power is too low, it will takes about 30 minutes to charge to light the handheld up.

## 5.2 A Delayed Touchscreen Response

To solve the problem, do the following:

1. Make sure the handheld power is enough.
2. **Optional:** If the problem still exists, reset the handheld.

## 5.3 No Response on the Touchscreen

To solve the problem, reset the handheld.

## 5.4 Failed to Connect Your Handheld and PC via the USB Cable

To solve the problem, do the following:

1. Before connecting your handheld and PC, make sure both of them are powered on.
2. **Optional:** If the problem still exists, check if the USB cable is connected successfully with the type-C ports of your handheld and PC.
3. **Optional:** If the problem still exists, restart the handheld, and reconnect your handheld and PC via the USB cable.

## 5.5 A Warning about Insufficient Memory

To solve the problem, do the following:

1. Delete unnecessary files.
2. **Optional:** If the problem still exists, delete unnecessary applications.
3. **Optional:** If the problem still exists, exit applications not currently in use via the recent button.
4. **Optional:** If the problem still exists, reset this device.

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