

CHC[®] HCE600 GNSS Data Controller

User Guide



Make your work more efficient

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1 Introduction

Thank you for choosing CHC® HCE600 GNSS Data Controller.

This Getting Started Guide will provide useful information about your controller. It will also guide you through your first steps of using HCE600 in the field.

1.1 Technical Assistance

If you have a problem and cannot find the information you need in the product documentation, contact your local dealer from which you purchased the HCE600. Alternatively, please request technical support using the CHC Website (www.chcnav.com) or CHC technical support email (support@chcnav.com).

1.2 Your Comments

Your feedback about this Getting Started Guide will help us to improve it in a future revision. Please e-mail your comments to support@chcnav.com.

1.3 Safety Information

This manual describes CHC HCE600 GNSS Data Controller. Before using the HCE600, please make sure that you have read and understood this Getting Started Guide, as well as the safety requirements.

1.4 Warning and Cautions

WARNING: Charging this device below 0°C may cause unexpected damage to the battery.

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 misused 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.

1.5 Use and Care

CHCNAV HCE600 is a high-performance smart handheld terminal developed by CHC Navigation. Therefore, the HCE600 should be treated with reasonable care.

1.6 FCC Interference Statement

This equipment has been designed to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules in the Portable Mode. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

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.

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

1.7 CE Interference Statement

Declaration of Conformity: Hereby, Shanghai Huace Navigation Technology Ltd. declares that this HCE600 is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. A copy of the Declaration of conformity can be found at Shanghai Huace Navigation Technology Ltd.



2 Overview

2.1 Features

CHCNAV HCE600 is a high-performance smart handheld terminal developed by CHC Navigation. Integrating 3GB RAM and 32GB flash memory, it brings you more powerful performance during the survey work. It possesses Android 10 operating system, being equipped with a 2.0GHz octa-core processor and with long battery life.

2.2 Specifications

Operating System	Android 10
CPU	MTK6762 2.0GHz Octa-core
RAM	3GB
Flash Memory	32 GB
Memory Extend	Micro SD, up to 128G
WIFI	802.11 a/b/g/n/ac/d/e/h/i/k/r/v/w, access point mode (2.4 G / 5G)
Cellular Modem	LTE FDD: B1/B2/B3/B4/B5/B7/B8/B12/ B17/B20/B28AB LTE TDD: B34/B38/B39/B40/B41 WCDMA: B1/B2/B4/B5/B8 TDSCDMA: B34/B39 CDMA-EVDO: BC0 GSM: 850/900/1800/1900
Bluetooth	V 5.0
USB	Type-C,OTG
Li-ion Battery	6240mAh
Battery Life	14 h
Charging Time	4 h (typical)
Camera	Rear 13MP Autofocus with flash

Physical specifications

Display

- Size: 5.5" IPS LTPS LCD capacitive multi-touch
- Resolution: 1440 × 720 pixels HD+ 296 ppi
- Brightness: 500 cd/m²
- Touch screen: DragonTrail™ scratch resistant glass
- Stylus: Mapping stylus with high degree of accuracy

Physical

- Dust proof and waterproof: IP67
- Shock: Survives 1.5 m (4 ft) fall on concrete
- Humidity: 5% - 95% RH (without condensation)
- Dimension: 224mm*80mm*15.4mm
- Weight: 345g (with battery)
- Operating temperature: -30°C to + 60°C
- Storage temperature: -40°C to + 65°C

Sensors

- NFC: Support
- G-sensor: Support
- Light sensor: Support
- E-compass: Support
- Gyroscope: Support
- GNSS (BDS, GPS, GLONASS) A-GPS support

2.3 Front View

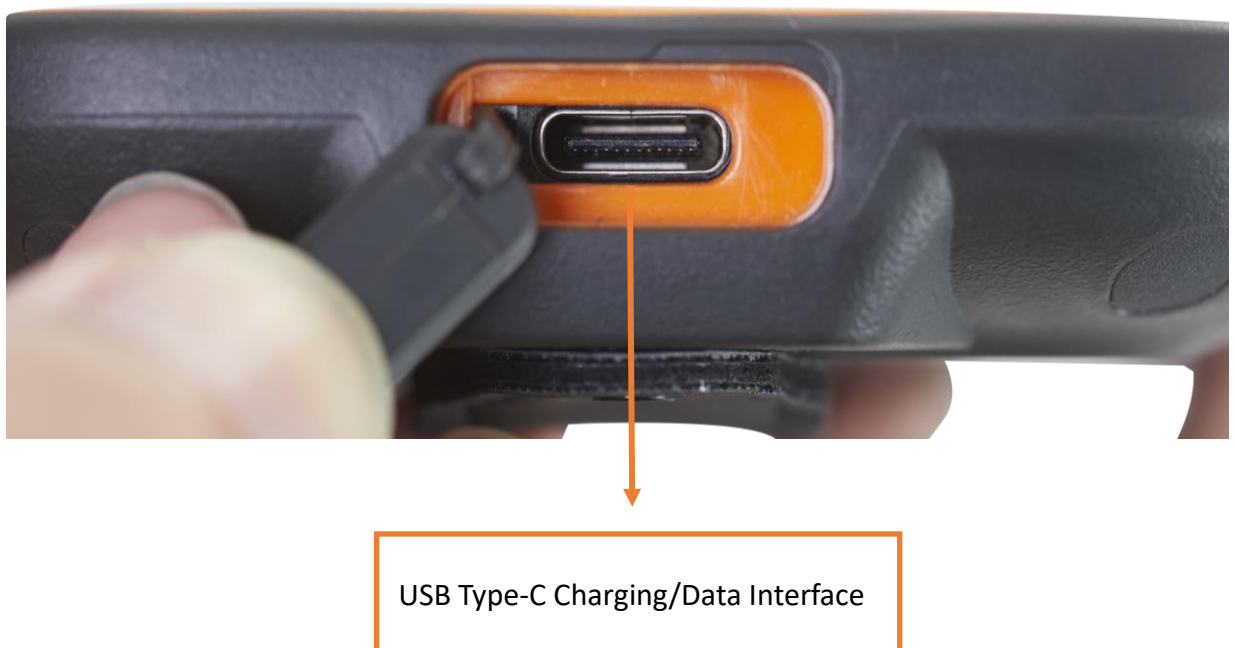


Keypad		Instruction
Side button	1.Survey button	On right side of device, used for Landstar 7 survey Hotkey.
Main keypad	2.Power button	Turn on/off device
	3.Main keypad	Standard function keypads
	4.APP button	Quickly open customized app

2.4 Back View

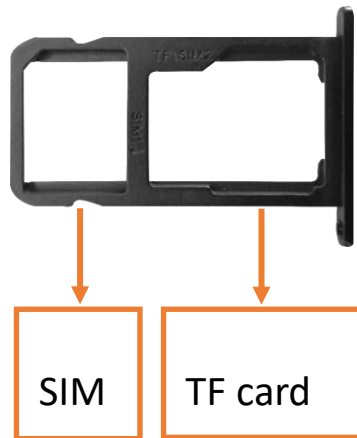


2.5 Bottom



2.6 Installation

Please insert the SIM card and the TF card in the direction of the diagram.





3 Basic Operation


3.1 Insert SIM Card and power on


Refer to **2.6 Installation** find the SIM card and TF card slot, and then insert the cards into slots correctly.

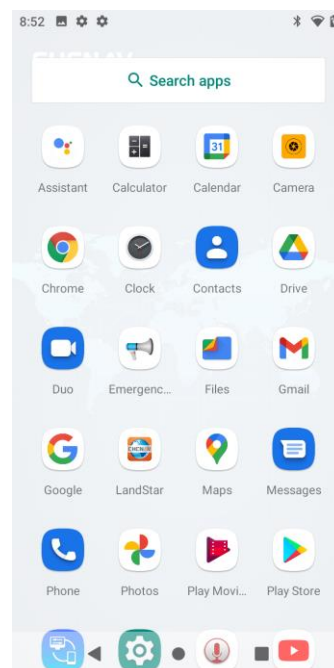
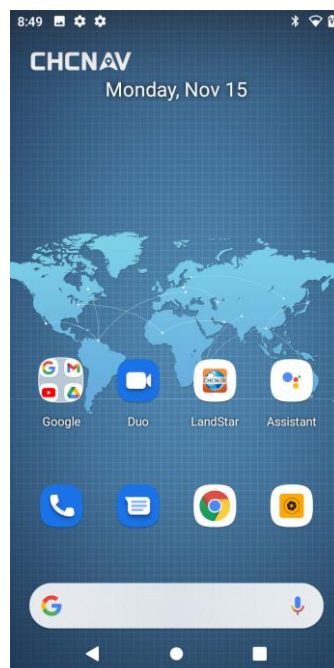
Before powering on HCE600, please make sure the battery has plenty of power. Then long press the power button to turn on HCE600 and enter its home screen.

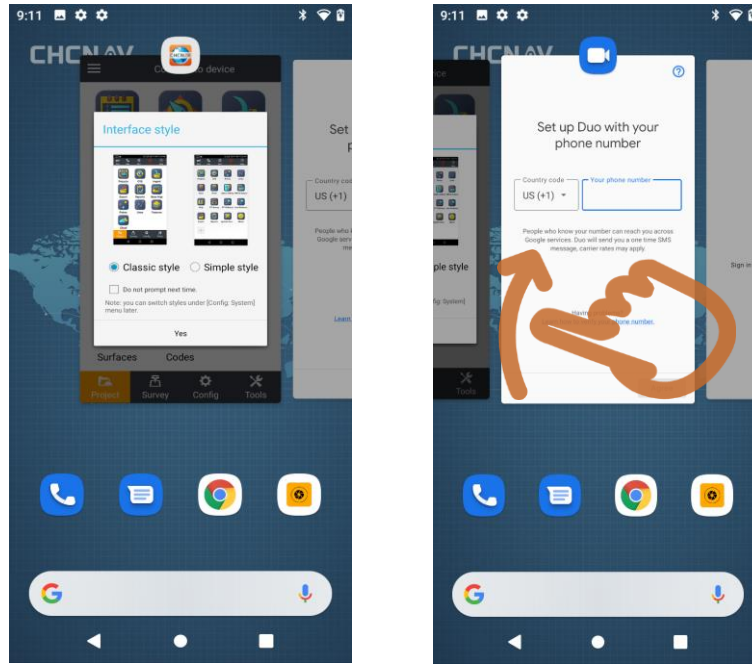
Click  to make a phone call.

Click  to access contacts information.


Click  to open message.


Click  to open browser.






Use virtual button key to facilitate your operation with HCE600.

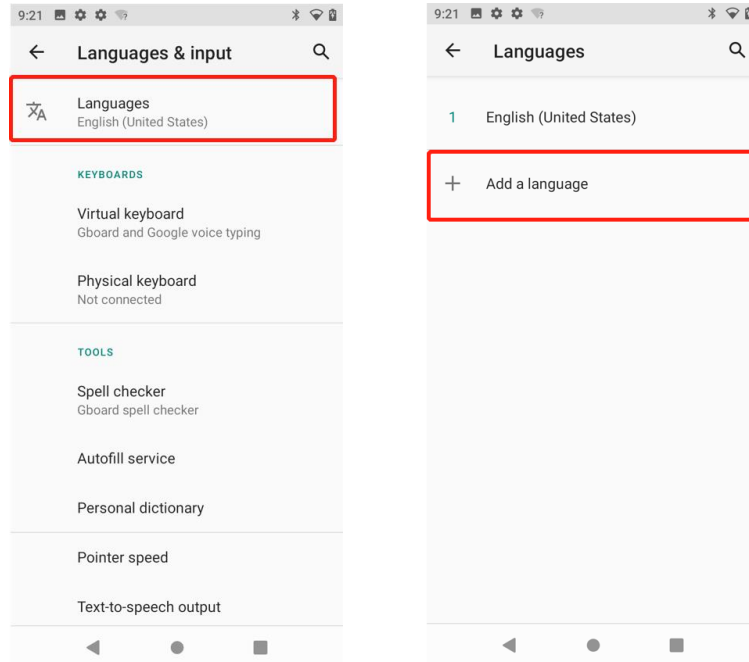
Click  to go back to previous menu.

Click  to return home screen.

Click  to see all the running apps, and you can stop apps by sliding them upward

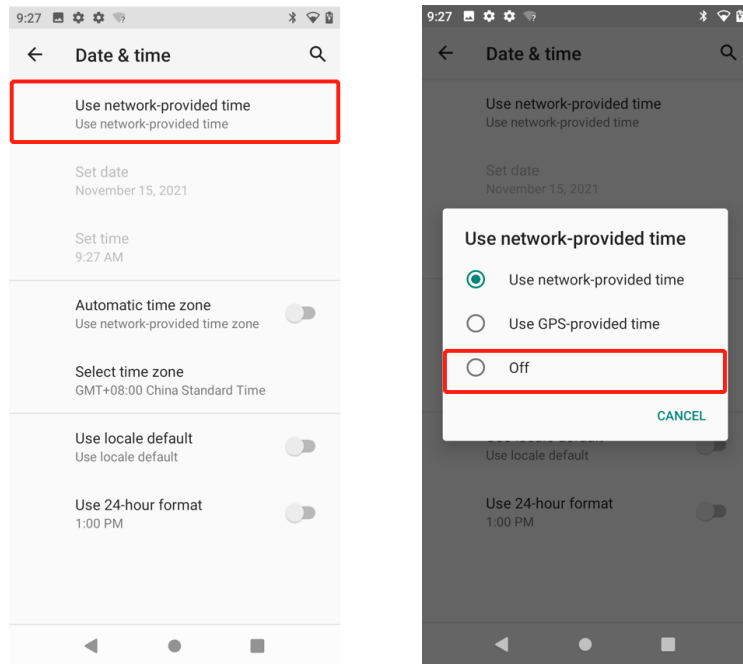
3.2 Language & input

Click **[Settings]** – **[System]** – **[Language & input]** – **[Languages]** to select language. If you have not found the language you want to choose, click **[Add a language]** to find the target language.

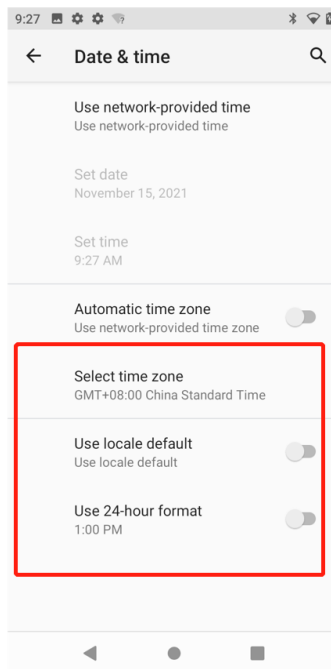


3.3 Set Date & Time

Click [Settings] – [System] – [Date & time] and enter [Date & time] interface.



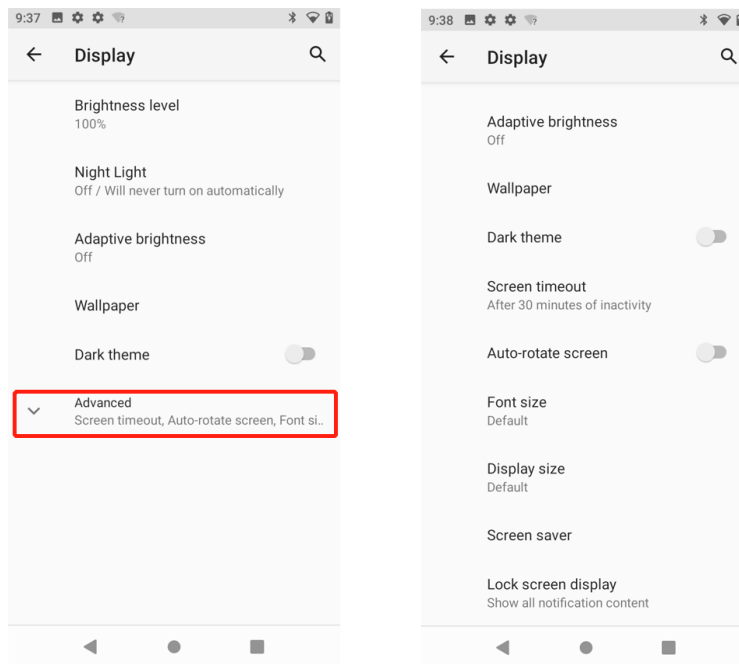
If you want to set date and time by yourself, please turn off the **Use network-provided time** and start your own settings.



You can also customize your time zone and choose whether to use 24-hour format in this interface.

3.4 Display

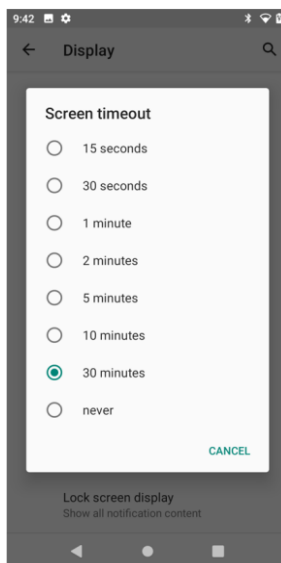
Click [Settings] – [Display] to enter **Display** interface. Click **Advanced** to view all the options.



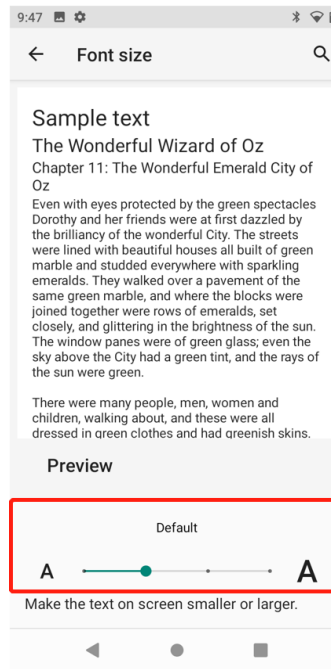
Brightness adjusting: Click **Brightness level** to adjust it according to your preference.



Screen timeout: Click to optimize the inactivity time HCE600 needs to close screen.

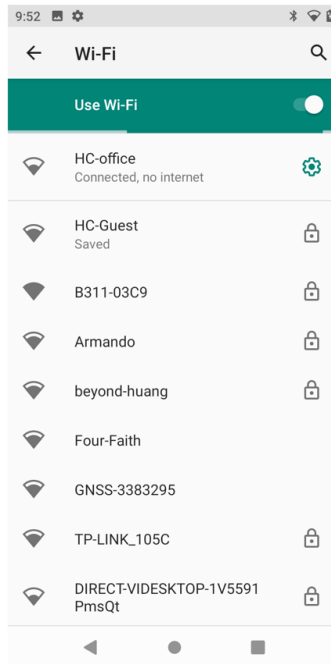


Font size: Slide the green dot to change the font size.

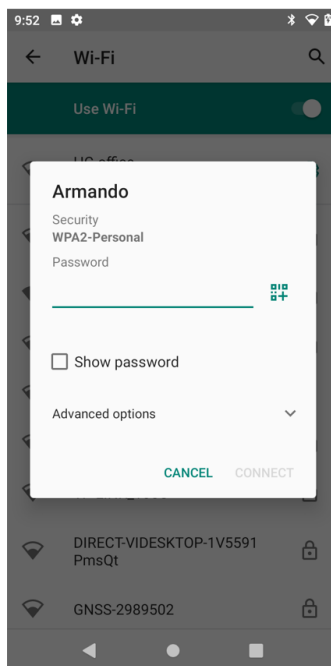


3.5 WIFI

Click [Settings] – [Network & internet] – [WIFI] to switch on the button.



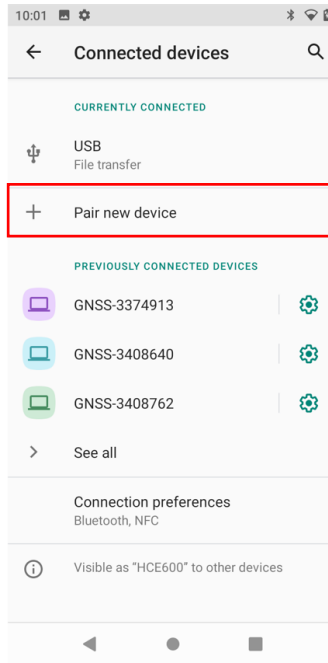
Select **WIFI** and type in its password to connect.



3.6 Bluetooth

Click **[Settings]** – **[Connected devices]** – **[Bluetooth]** to turn on the Bluetooth.

Users can view paired device list. Meanwhile, users can pair new device by clicking **[Pair new device]** button.



Find nearby devices and pair with it.

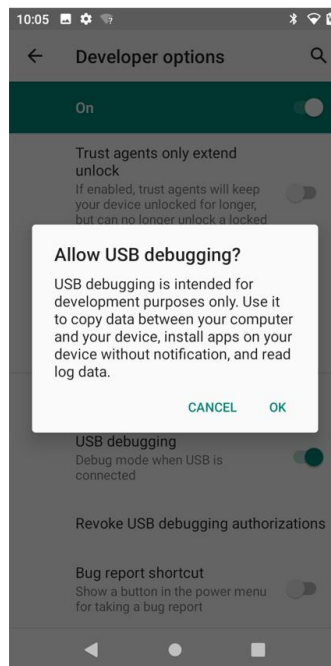


3.7 USB Connection

For connection or data transmission between HCE600 and personal computer, please use the USB data cable as shown below.



Click **[Settings]** – **[System]** – **[Advanced]** – **[Developer options]** – **[USB debugging]** to make sure this function is switched on. After USB data cable is connected to PC, wait until the **Allow USB debugging** dialogue pops up, click OK.




You can also use third party software to manage the documents and data stored in HCE600 and install software like GNSS Tool into it.



3.8 Use Camera

Make sure that the battery is charged. If the battery capacity is lower than 5% percent, the device is not allowed to use camera function.

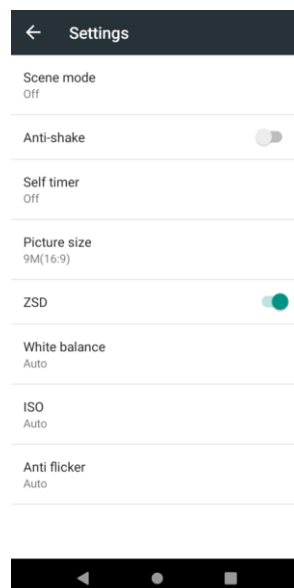


You can slide to change Picture or Video.

Click  button to take a photo.

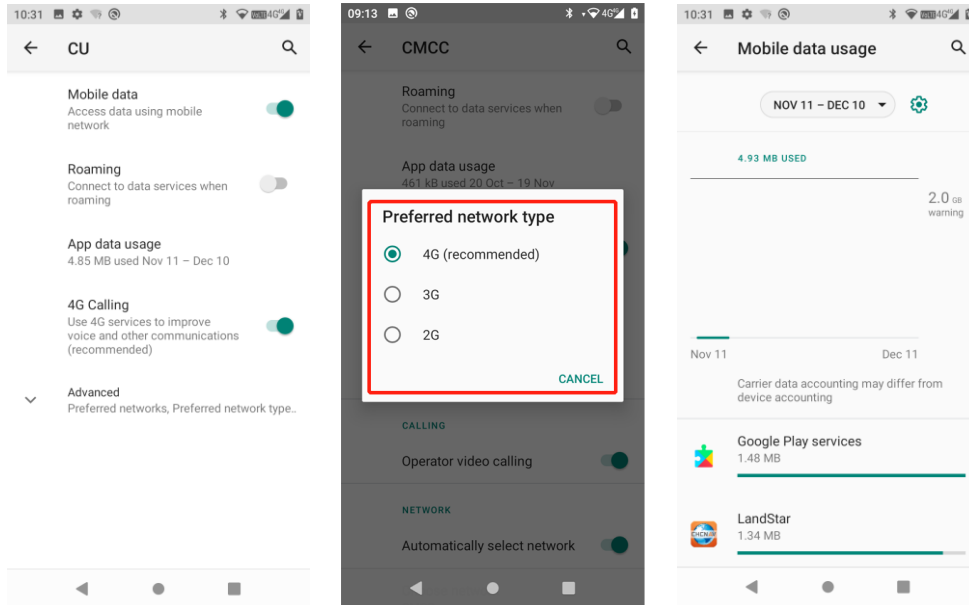
 button means Camera Modes and  button means Settings.

Click the button to configure related parameters.



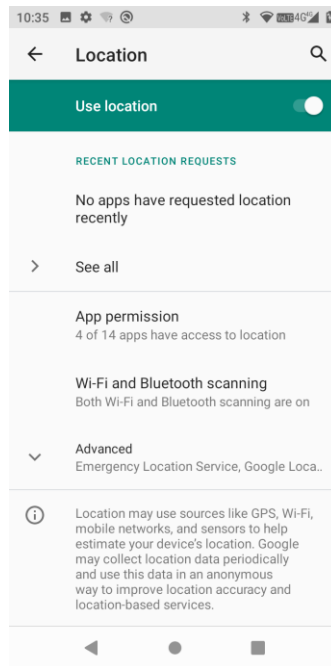
3.9 Log in 4G

After inserting your SIM card, click **[Settings]** – **[Network & Internet]** – **[Mobile Networks]** – **[Advance]** – **[Preferred network type]** and select corresponding network type of your SIM card. Then turn on **Mobile data** and click **App data usage** to see data usage.



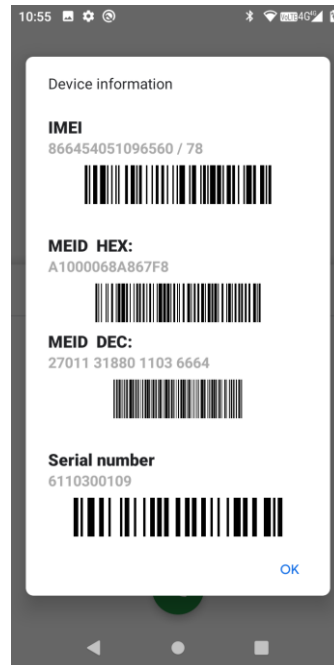
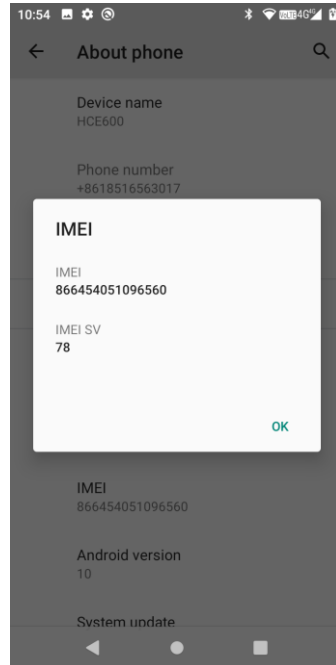
3.10 Location

Click **[Settings]** – **[Location]** to switch on location service.



3.11 Check the IMEI Number of the Device

Click **[Settings]** – **[About phone]** – **[IMEI]**. Or enter the dialing panel, tap ‘*#06#’, the IMEI numbers show up automatically.

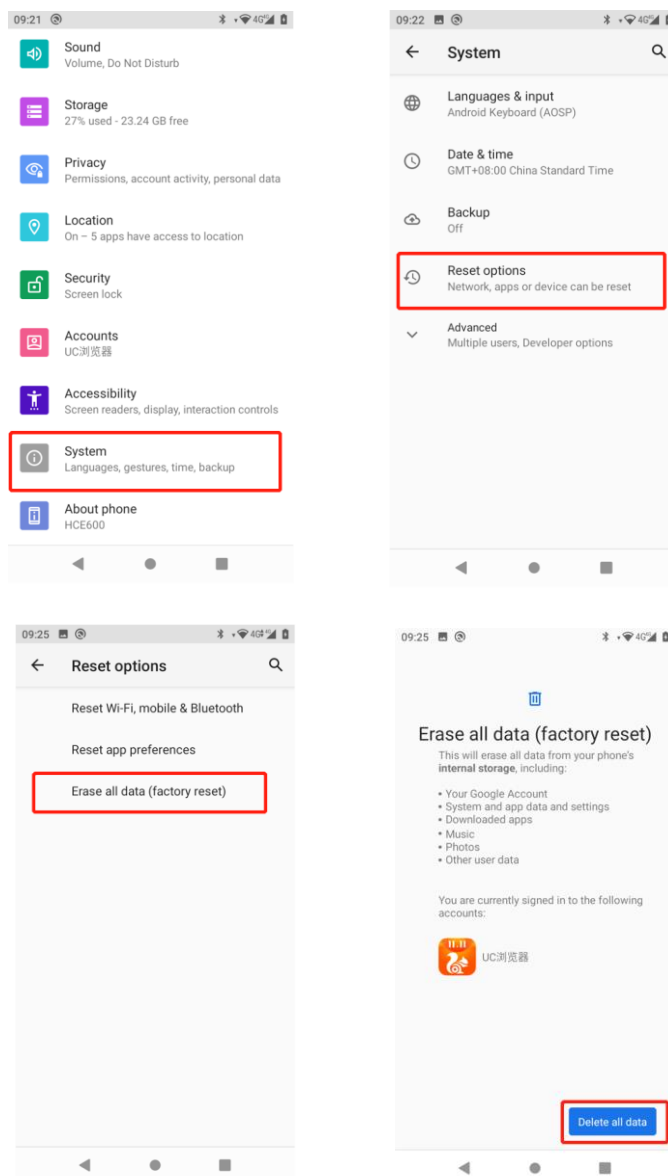


3.12 Restore Factory Setting

Enter the [Settings] – [System] – [Reset options] – [Erase all data]

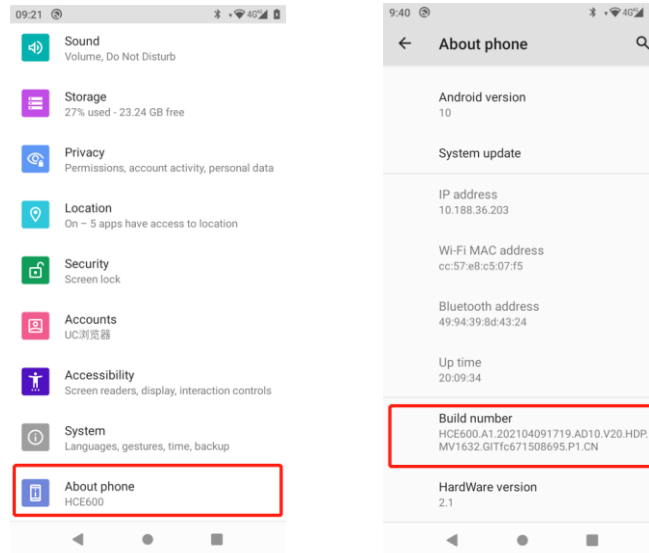
Press [Erase all data] – [Delete all data], data controller will automatically shut down and restart.

Note: After choosing [Delete all data], the memory data in data controller will be cleared!

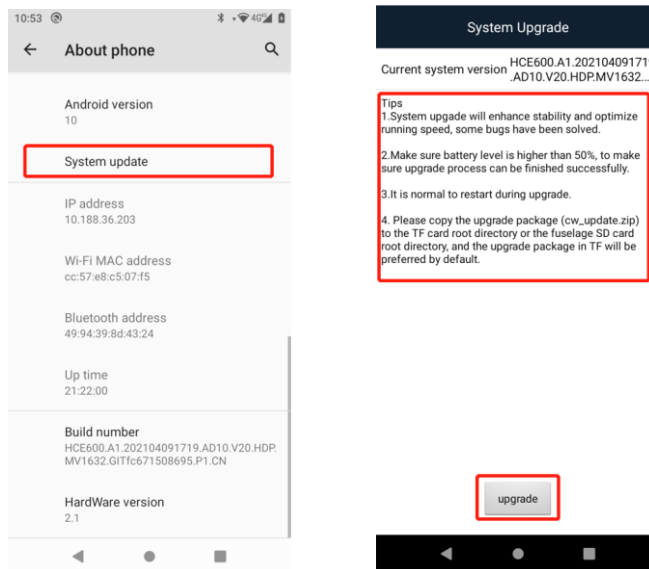


4 Upgrading the Operation System

Enter the [Settings], find and tap [About Phone], check core version of data controller firstly.



Then tap [System upgrade], then follow the tips to copy the upgrade package to the TF card. Then click [upgrade] to start.



The controller will restart automatically after upgrading, return to the mobile status interface to see the core version and check whether the upgrade is successful.

5 Declaration

Device declaration:

Hereby CHC Navigation declares that the radio equipment model HCE600 complies with directives 2014/53/EU

Operating Bands (Tx and Rx) and maximum power issued per TX band :

1. GSM 900 Band: TX 880 to 915 MHz / RX 925 – 960 MHz Max TX power: 32.9dBm
 2. DCS 1800 Band: TX 1710 to 1785 MHz / RX 1805 – 1880 MHz Max TX power: 30dBm
 3. WCDMA Band I: TX 1920 – 1980 MHz / RX 2110 – 2170 MHz Max TX power: 23dBm
 4. WCDMA Band VIII: TX 880 – 915 MHz / RX 925 – 960 MHz Max TX power: 22.5dBm
 5. LTE BAND1 TX 1920 -1980MHz / RX 2110 - 2170MHz Max TX power: 24.59dBm
 6. LTE BAND3 TX 1710 - 1785MHz / RX 1805 - 1880MHz Max TX power: 24.24dBm
 7. LTE BAND7 TX 2500 - 2570MHz / RX 2620 - 2690MHz Max TX power: 24.35dBm
 8. LTE BAND8 TX 880 - 915MHz / RX 925 - 960MHz Max TX power: 24.19dBm
 9. LTE BAND20 TX 832 - 862MHz / RX 791 - 821MHz Max TX power: 24.94dBm
 10. LTE BAND28 TX 703 - 748MHz / RX 758 - 803MHz Max TX power: 24.15dBm
 11. LTE BAND38 TX 2570 - 2620MHz / RX 2570- 2620MHz Max TX power: 23.97dBm
 12. LTE BAND40 TX 2300 - 2400MHz / RX 2300 - 2400MHz Max TX power: 24.31dBm
 13. 2.4GHz WLAN TX &RX 2412-2472MHz, Wi-Fi (802.11b/g/n20/n40) Max TX power 16.61dBm
 14. 5GHz WLAN TX &RX 5180-5240MHz, 5260-5320MHz, 5745-5825MHz,
Wi-Fi(802.11a/ac/n) Max TX power 14dBm
 15. Bluetooth Low Energy TX & RX 2402 MHz to 2480 MHz Max TX power -3.5dBm
 16. Bluetooth TX & RX 2402 MHz to 2480 MHz Max TX power 7dBm
 17. RFID TX & RX 13.56 MHz Max TX power 7dBm Product Class 1
 18. GNSS GPS L1: 1575.42MHz only RX
 19. GNSS GLONASS L1:1602.5625-1611.50MHz only RX
- GNSS BDS B1:1561.098MHz only RX

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