

# LT60H GNSS Data Controller User Guide

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**Shanghai Huace Navigation Technology Ltd.** 

#### Introduction

This user guide describes in detail how to install, configure and use the LT60H; the description of the operation process is clear and simple, so that users can easily, quickly and accurately get familiar of this controller.

## **Experience requirements**

In order to be able to use LT60H better, CHCNAV recommends to read this user guide carefully before using this product. If you are not familiar with the LT60H principle, please contact <a href="mailto:support@chcnav.com">support@chcnav.com</a> for more details.

## Disclaimer

Before using this product, please make sure you read the user guide carefully for better use of this product.CHCNAV will not be responsible for any damage caused by the operation without following the requirements of this document, or the misuse of this document without proper understanding of the requirements of this document; however, we will strive to continuously improve the functions and performance of the product, improve the quality of service, and reserve the right to change, optimize and improve the content of the instruction manual, and regularly inform the content in the form of upgrade release. Please pay attention to the latest information released on our official website (www.chcnav.com).

# **Your suggestions**

If you have questions, you can contact local supplier or send email to support@chcanv.com.

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## 1. Introduction

#### 1.1 Introduction

CHCNAV LT60H is a high-performance intelligent handheld terminal developed by Shanghai Huace Navigation Technology LTD. The LT60H incorporates powerful navigation features with improved sensitivity, helping to achieve more accurate and faster location services. Powered by Android 12.0 OS with 2.0GHz quad-core processor, it has a long battery life.

## 1.2 Battery Notes

- Do not allow the battery to sit idle for too long, either in product equipment or in storage. If the battery is 6 months old, check the state of charge or dispose of the battery properly.
- Lithium-ion batteries typically have a life of two to three years and 300 to 500 cycle charges. A full charge cycle is a complete charge, a complete discharge, and then a complete charge.
- Rechargeable lithium-ion batteries have a limited life span and gradually lose their ability to hold a charge. This amount of loss (aging) is unchangeable. When the battery loses capacity, the service life is reduced (run time).
- The lithium-ion battery continues to slowly (automatically) discharge when it is not being used or when it is idle. Check the battery charge status frequently, or refer to the instruction manual for information on how to charge the battery.
- Observe and record a battery that is unused and fully charged. Based on new battery run time, compared to a battery with longer run time. Battery runtime will vary depending on product configuration and application.
- Check the battery charge status regularly.
- The battery charge time increases significantly as the battery runtime drops below approximately 80% of the original runtime.
- If the battery is left idle or unused for a long period of time, you need to check if
  it still has a charge and if the battery has any charge left, do not try to charge it
  or use it. Should have gotten a new battery. Remove the battery and place it
  separately.
- Battery storage temperature from 5°C to 20°C (41°F to 68°F)
- Note: Replacing batteries with the wrong type poses a risk of explosion, so be sure to dispose of used batteries according to the instructions.

# **1.3 Adapter Notes**

 Products are shipped without adapters, if consumers use power adapters to supply power, they should purchase power adapters that meet the requirements of the corresponding safety standards or power adapters that have obtained CCC certification

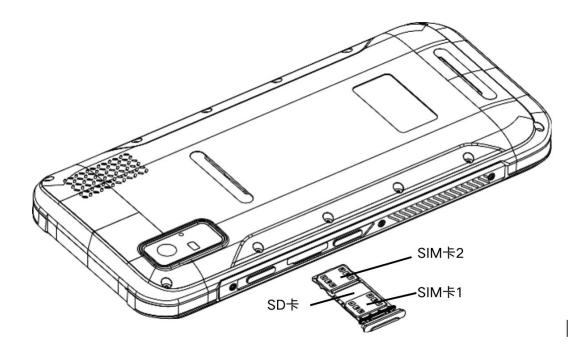
## 2 Installation Guide

# 2.1 Appearance



# 2.2 Install Micro SD, SIM card

The locations of the card slots are as follows.

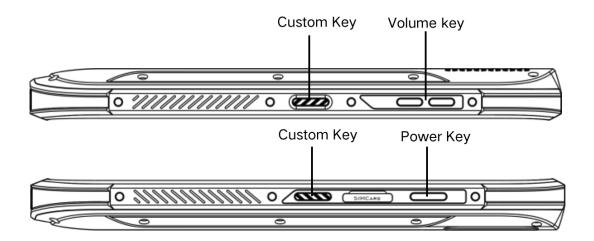


# 2.3 Battery charging

Charge the battery via the USB port using the original adapter, do not use other brand adapters to charge the device.

# 2.4 Button and function area display

The LT60H device is divided into 5 side button



# 3 Telephone function

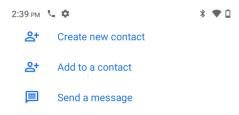
# 3.1 Make a phone call

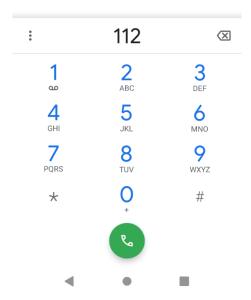


Tap the number keys to enter the telephone number.

Tap • to dial.

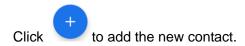
Tap oto end the call.

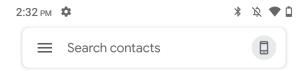




## 3.2 Contacts

Click 'Contacts' to open the contacts list.



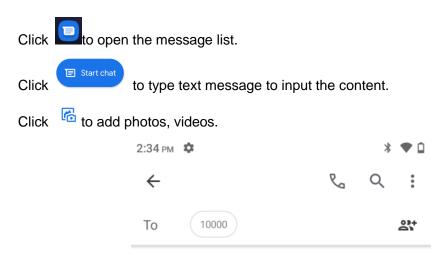


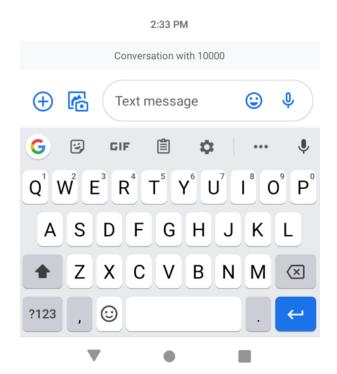


No contacts in this account



## 3.3 SMS and MMS

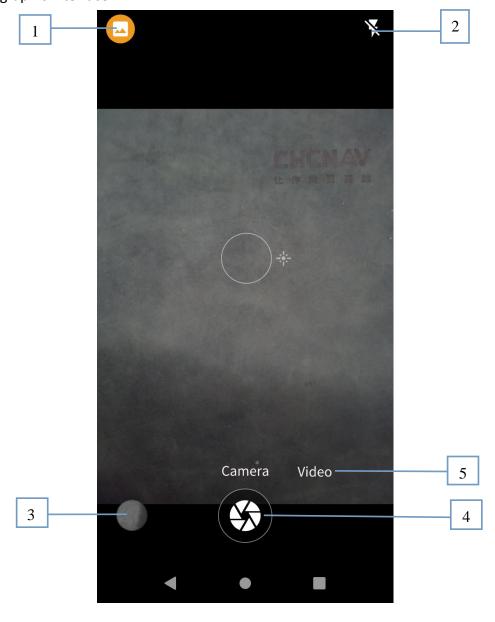




# 4 Multimedia

## 4.1 Camera

You can turn on your camera and capture every moving moment at any time. Photographic interface.



- Click to switch the photo mode.
   Click to switch the flash mode.
   Click to check photos or videos.
   Click to take a photo.
- 5. Click Video to switch to video, click start recording.

## 4.2 Gallery

Users can view photos and videos through the gallery.

## View pictures and video

- 1. In the pull-up menu, click
- 2. Select the folder of images to view.
- 3. Click on the image or video to view it full screen.

#### Show slide

- 1. In the pull-up menu, click
- 2. Select the folder of images to view.
- 3. Click and select to broadcast the slideshow.

#### **Edit photos**

- 1. In the pull-up menu, click
- 2. Select the folder of pictures you want to view.
- 3. Select a picture, touch the picture, click , you can start editing the picture.

#### **Delete image**

- 1. In the pull-up menu, click
- 2. Select the folder of pictures you want to view.
- 3. Select a picture, click ., and then click Delete to delete the picture.

#### Share pictures and videos

You can share pictures and videos via email, Bluetooth, and many other ways.

- 1. In the pull-up menu, click
- 2. Select the folder of pictures you want to view.
- 3. Select a picture, click , and you can finish sharing the picture and video.

### 4.3 Music

The controller has a built-in music player, so you can play your favorite songs whenever you want.

#### Add music

Before playing the music, users need to copy the music files to the controller, as following shows:

- 1. Copy via USB connection cable to a computer.
- 2. Download via the Internet.
- 3. Copy the music files to the controller via USB cable or bluetooth connection.

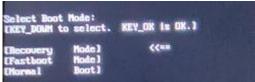
## Play music

- 1. In the pull-up menu, click .
- 2. Click the Song button to select the song you want to play.
- 3. Go to the player interface and enjoy the music.

# **5 Trouble shooting**

## 5.1 Abnormal power on

If you encounter an abnormal boot situation, as shown below, the phenomenon is caused by triggering the Power button + number 1 + number 6 at the same time to enter Recovery mode, you can use the  $\downarrow$  key on the keyboard to move to the Normal Boot option, press OK key to confirm the boot. After reboot you need to check whether the side buttons are back to normal. If the side buttons do not rebound properly, please contact your local supplier.



If you accidentally enter Recovery Mode and select Fastboot Mode to reboot, as shown below. Just press and hold the power button for 11 seconds to force a reboot.



If you accidentally enter Recovery Mode, you select Recovery Mode to reboot, as shown below. Just press and hold the power button for 11 seconds to force a reboot.



## 5.2 Hang up

If you get stuck and jammed during system use and cannot perform touch screen operations, you can restart by long pressing the power button for 11 seconds.

# **Product Specifications**

Equipment parameters						
Size	224mm*80mm*15.4mm					
Weight	340g					
Display screen	5.45", HD+ 1440 x 720 pixel resolution					
Keypads	Power, Numeric Keypad					
Battery	Rechargeable Li-Polymer Battery 6240mAh					
Storage Expansion	Pistol bat. (rechargeable li-ion polymer, 3.7V, 5200 mAh)  Micro-SD/TF (supports up to 128GB)					
Storage Expansion	Wilcio-3D/ IT (supports up to 128GB)					
Expansion Card Slot	1 Nano SIM card slot					
Sound frequency	Microphone, speaker (1W), voice call support					
As the circumstances allow	13 megapixels, flash support, continuous snapshot mode					
Sensors	Gravity Sensor, Gyroscope, Electronic Compass, Light and Proximity Sensor					
Screen brightness	500 nits maximum brightness (typical)					
Touchscreen	Asahi Glass, multi-touch support, glove or wet hand operation					
Performance Parameters						
СРИ	MTK6762 2.0GHz Octa-core					
★ Operating System	Android™ 10					
Running memory	3GB					
Data transmission	USB2.0 Type-C,OTG					
Storage	32GB					
Storage Expansion Support 128GB Micro-SD						
Working environment						
Operating temperature	-55°C~+85°C					

Ambient humidity  Drop height  Drop height 1.5 m, 6 sides, 4 corners, 2 times each side two cycles.  Platen  Rolling 1000 consecutive times 0.5m, stable operation even after 6 face contact surface rolls, meeting IE rolling specifications.  Waterproof and dustproof  IP67 rating according to IEC 60529 (1m deep lon stationary bucket, handpiece immersed in water distance from bottom of sample to water surface at least 1m, immersion time at least 30min.)  Static Protection  CLASS 4 rating Air type: ±15KV Contact type: ±8KV  WWAN  2G: GSM850/GSM900/DCS1800/PCS1900 3G: CDMA EVDO: BCO WCDMA: B1/B2/B4/B5/B8 TD-SCDMA: A/F(B34/B39) 4G: B1/B2/B3/B4/B5/B7/B8/B12/B17/B20/B26/B28AB/B38/B39/B40/B41  WLAN  IEEE802.11 a/b/g/n/ac, (2.4G/5G)  Bluetooth  Bluetooth v2.1+EDR,3.0+HS,v4.1+HS		20.00					
Drop height Drop height 1.5 m, 6 sides, 4 corners, 2 times each side two cycles.  Platen Rolling 1000 consecutive times 0.5m, stable operatio even after 6 face contact surface rolls, meeting IE rolling specifications.  Waterproof and dustproof IP67 rating according to IEC 60529 (1m deep lon stationary bucket, handpiece immersed in wate distance from bottom of sample to water surface at least 1m, immersion time at least 30min.)  Static Protection CLASS 4 rating Air type: ±15KV Contact type: ±8KV  WWAN 2G: GSM850/GSM900/DCS1800/PCS1900 3G: CDMA EVDO: BCO WCDMA: B1/B2/B4/B5/B8 TD-SCDMA: A/F(B34/B39) 4G: B1/B2/B3/B4/B5/B7/B8/B12/B17/B20/B26/B28AB/B38/B39/B40/B41  WLAN IEEE802.11 a/b/g/n/ac, (2.4G/5G)  Bluetooth Bluetooth v2.1+EDR,3.0+HS,v4.1+HS	Storage temperature	-55°C~+85°C					
Two cycles.  Rolling 1000 consecutive times 0.5m, stable operation even after 6 face contact surface rolls, meeting librolling specifications.  Waterproof and dustproof  IP67 rating according to IEC 60529 (1m deep lon stationary bucket, handpiece immersed in water distance from bottom of sample to water surface at least 1m, immersion time at least 30min.)  Static Protection  CLASS 4 rating Air type: ±15KV Contact type: ±8KV  WWAN  2G: GSM850/GSM900/DCS1800/PCS1900 3G: CDMA EVDO: BC0 WCDMA: B1/B2/B4/B5/B8 TD-SCDMA: A/F(B34/B39) 4G: B1/B2/B3/B4/B5/B7/B8/B12/B17/B20/B26/B28AB/B38/B39/B40/B41  WLAN  IEEE802.11 a/b/g/n/ac, (2.4G/5G)  Bluetooth  Bluetooth v2.1+EDR,3.0+HS,v4.1+HS	Ambient humidity	5% RH - 95% RH (no condensation)					
even after 6 face contact surface rolls, meeting IE rolling specifications.  Waterproof and dustproof  IP67 rating according to IEC 60529 (1m deep lon stationary bucket, handpiece immersed in wate distance from bottom of sample to water surface at leas 1m, immersion time at least 30min.)  Static Protection  CLASS 4 rating Air type: ±15KV Contact type: ±8KV  WWAN  2G: GSM850/GSM900/DCS1800/PCS1900 3G: CDMA EVDO: BC0 WCDMA: B1/B2/B4/B5/B8 TD-SCDMA: A/F(B34/B39) 4G: B1/B2/B3/B4/B5/B7/B8/B12/B17/B20/B26/B28AB/B38/B39/B40/B41  WLAN  IEEE802.11 a/b/g/n/ac, (2.4G/5G)  Bluetooth  Bluetooth v2.1+EDR,3.0+HS,v4.1+HS	Drop height	Drop height 1.5 m, 6 sides, 4 corners, 2 times each side, two cycles.					
stationary bucket, handpiece immersed in water distance from bottom of sample to water surface at least 1m, immersion time at least 30min.)  Static Protection  CLASS 4 rating Air type: ±15KV Contact type: ±8KV  WWAN  2G: GSM850/GSM900/DCS1800/PCS1900 3G: CDMA EVDO: BCO WCDMA: B1/B2/B4/B5/B8 TD-SCDMA: A/F(B34/B39) 4G: B1/B2/B3/B4/B5/B7/B8/B12/B17/B20/B26/B28AB/B38/B39/B40/B41  WLAN  IEEE802:11 a/b/g/n/ac, (2.4G/5G)  Bluetooth  Bluetooth v2.1+EDR,3.0+HS,v4.1+HS	Platen	Rolling 1000 consecutive times 0.5m, stable operation even after 6 face contact surface rolls, meeting IEC rolling specifications.					
### Air type: ±15KV Contact type: ±8KV    Wireless connection	·	IP67 rating according to IEC 60529 (1m deep long stationary bucket, handpiece immersed in water, distance from bottom of sample to water surface at least 1m, immersion time at least 30min.)					
WWAN  2G: GSM850/GSM900/DCS1800/PCS1900 3G: CDMA EVDO: BC0 WCDMA: B1/B2/B4/B5/B8 TD-SCDMA: A/F(B34/B39) 4G: B1/B2/B3/B4/B5/B7/B8/B12/B17/B20/B26/ B28AB/B38/ B39/B40/B41  WLAN  IEEE802.11 a/b/g/n/ac, (2.4G/5G)  Bluetooth  Bluetooth v2.1+EDR,3.0+HS,v4.1+HS	Static Protection	Air type: ±15KV					
3G: CDMA EVDO: BC0 WCDMA: B1/B2/B4/B5/B8 TD-SCDMA: A/F(B34/B39) 4G: B1/B2/B3/B4/B5/B7/B8/B12/B17/B20/B26/ B28AB/B38/ B39/B40/B41  WLAN IEEE802.11 a/b/g/n/ac, (2.4G/5G)  Bluetooth Bluetooth v2.1+EDR,3.0+HS,v4.1+HS	,	wireless connection					
Bluetooth Bluetooth v2.1+EDR,3.0+HS,v4.1+HS	WWAN	3G: CDMA EVDO: BC0 WCDMA: B1/B2/B4/B5/B8 TD-SCDMA: A/F(B34/B39) 4G: B1/B2/B3/B4/B5/B7/B8/B12/B17/B20/B26/					
, , ,	WLAN	IEEE802.11 a/b/g/n/ac, (2.4G/5G)					
	Bluetooth	Bluetooth v2.1+EDR,3.0+HS,v4.1+HS					
NFC Backing	NFC	Backing					

# **Equipment Remarks**

Restrictions.

AT	BE	BG	HR	CY	CZ	DK	
EE	FI	FR	DE	GR	HU	IE	
IT	LV	LT	LU	MT	NL	PL	
PT	RO	SK	SI	ES	SE	UK	

The European version of the device is limited to indoor use in European communities using frequencies from 5150MHz-5350MHz to reduce the potential for interference.

# **Declaration**

Equipment declaration:

Ltd. hereby affirms that the radio equipment model LT60H complies with the Directive 2014/53/EU, and the full text of the EU conformity declaration is available on the official website: https://www.chcnav.com/.

#### 1) FCC 15.19

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.

#### 2) FCC 15.21

Warning: Changes or modifications to this unit not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

#### 3) FCC 15.105

For a Class B digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

Note: 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.

Specific Absorption Rate (SAR) information:

This Smart Phone meets the government's requirements for exposure to radio waves. The guide lines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health.

FCC RF Exposure Information and Statement:

The SAR limit of USA (FCC) is 1.6 W/kg averaged over one gram of tissue. Device types: Smart handheld printer (FCC ID: SY4-B01016) has also been tested against this SAR limit. During product certification, the maximum SAR value reported according to this standard is less than 1.6W/kg when correctly worn on the vehicle body. This device was tested for typical body-worn operations with the back of the Smart Phone kept 0cm from the body. To maintain compliance with FCC RF exposure requirements, use accessories that maintain a 0cm separation distance between the user's body and the back of the Tablet PC. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements, and should be avoided. Very high volume, prolonged listening to a mobile phone can damage your hearing.