ComNav Technology

User Guide

R80 Data Collector



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This is the V1.0 (June, 2025) revision of the R80 data collector User Guide. It cannot be copied or translated into any language without the written permission of ComNav Technology.

Technical Assistance

If you have any question and can't find the answer in this manual, please contact your local dealer from which you purchased the R80 controller. Alternatively, request technical support from ComNav Technology Website: *www.comnavtech.com* or technical support email: *support@comnavtech.com*. Your feedback about this Guide will help us to improve it with future revisions.

Safety Information

Device is designed for working in -25~60℃, proper storage temperature is -40~70℃, lower or higher temperature would compromise device performance, even cause potential damage to device or battery. Charge device in 5~35℃ environment, in case of battery endurance weakness.

Charge

Charging device before first use is recommended.

♦ Note: The charger plugs should be fully plugged into socket and keep in easy-to-unplug location.

Warning and Caution

Following actions may cause battery safety risks, resulting safety problems:

- Disassembly battery.
- Demolition device.
- Repair device in unofficial service.
- Using uncertified USB cable.
- Put device into or near microwave oven, fire, or other heat source.

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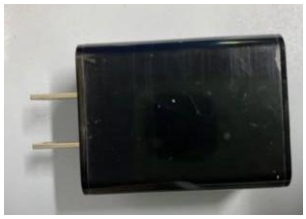
1 R80 Introduction

The SinoGNSS R80 is a professional GNSS data controller with smartphone capabilities, it has 6''sunlight-readable touch display and backlight keypad. Equipped with Wi-Fi, NFC, and Bluetooth5.1, you are able to easily connect or control the SinoGNSS GNSS receivers, enhancing efficiency and productivity in the field.

1.1 R80 parts list

Survey Master can only run in Android operating system, and the android device specification should be at least or better than the ones listed below:

Items	Picture
1*R80 data collector	
1*USB cable	
1*Charger adapter (EU/USA/UK)	
EU	

USA	
UK	

1.2 Appearance





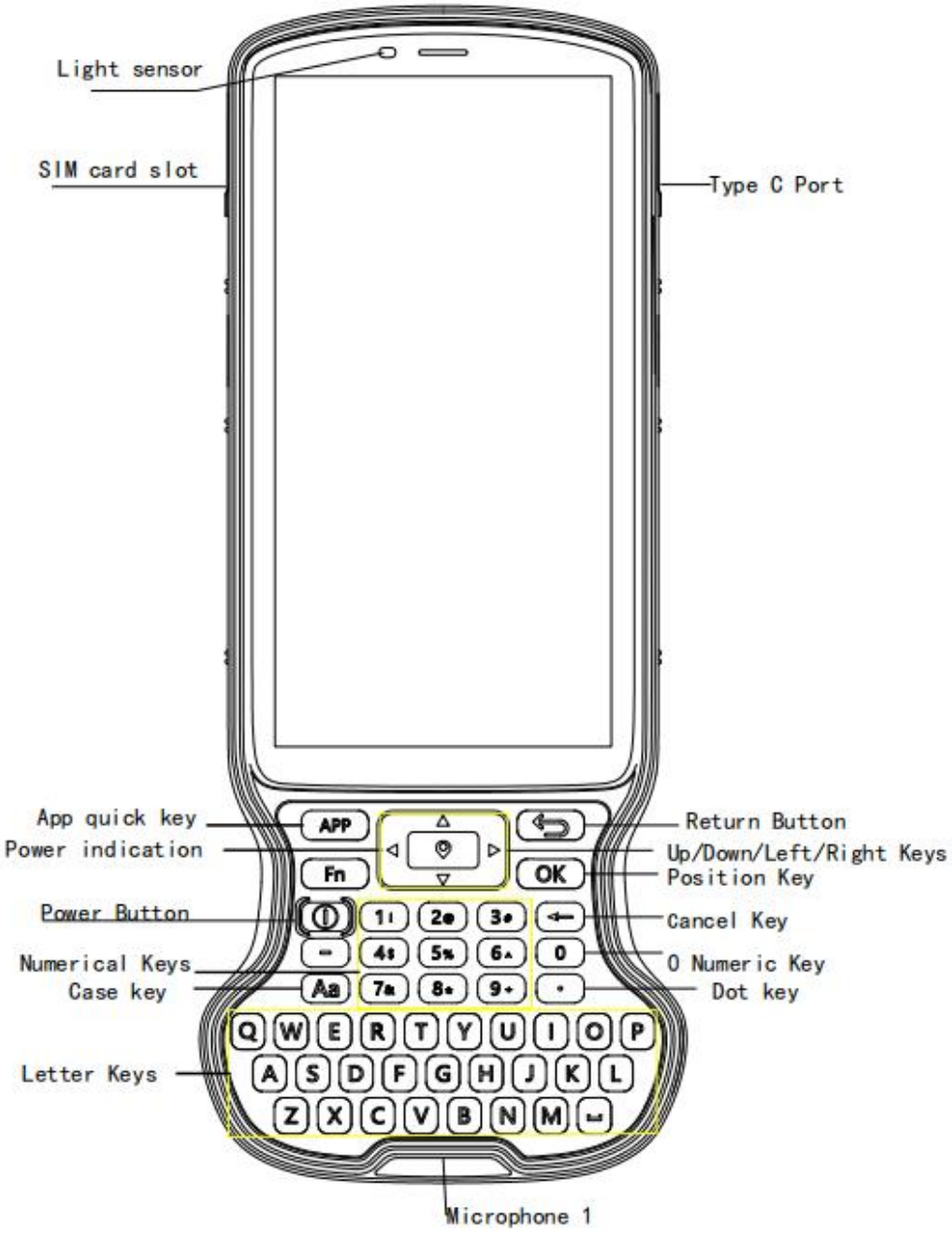
1.3 Survey Master Data Collection Software

Survey Master(SM) is a professional Android-based surveying software developed by ComNav Technology. The setup Wizard makes you easily configure the GNSS, and with the User-friendly interface with smart menus, objects and graphics you can collect field data through Topo survey/Auto survey/Area Survey, Static and PPK, also stake points/lines. Moreover, Survey Master provides a convenient way to import/export surveying data.



2 R80 Using

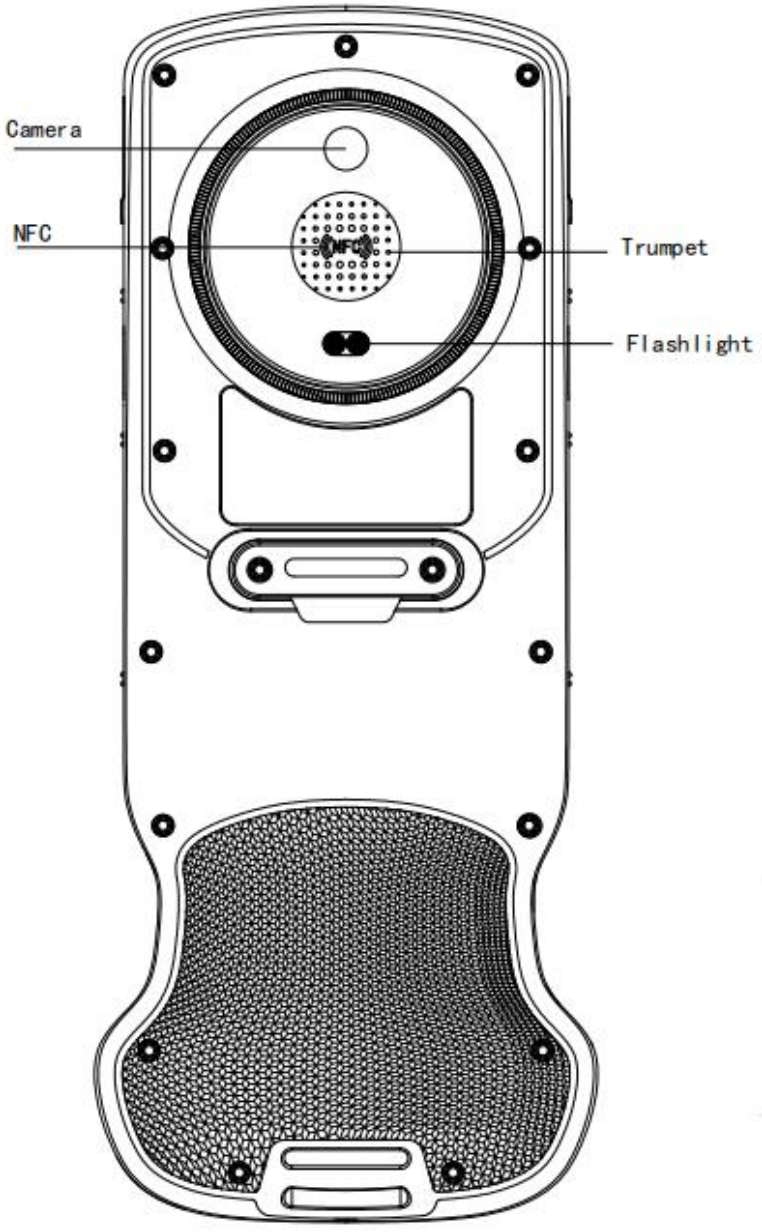
2.1 General function



Descriptions:

1. Power Button: Long press for 3 seconds to power on/off/restart, long press for 10 seconds to reset R80.
2. Case Key:
   1) Switch case when using letter keys.
   2) Toggle numbers/special symbols when using number keys.
3. App quick key/Fn key: you can define the quick key for some software, like Survey Master, then when you click App/Fn key, you will open the software directly. Go to Settings->Key Map, you can only define one software for App switch or Fn key.

4. Position Key:
    1) Confirm Key.
    2) Start/Stop survey in Survey Master or other GNSS software.
5. Up/down keys: Volume up/down.
6. Left/Right keys: When entering numbers, adjust the cursor position left and right.



2.2 Installation SIM Card and TF Card

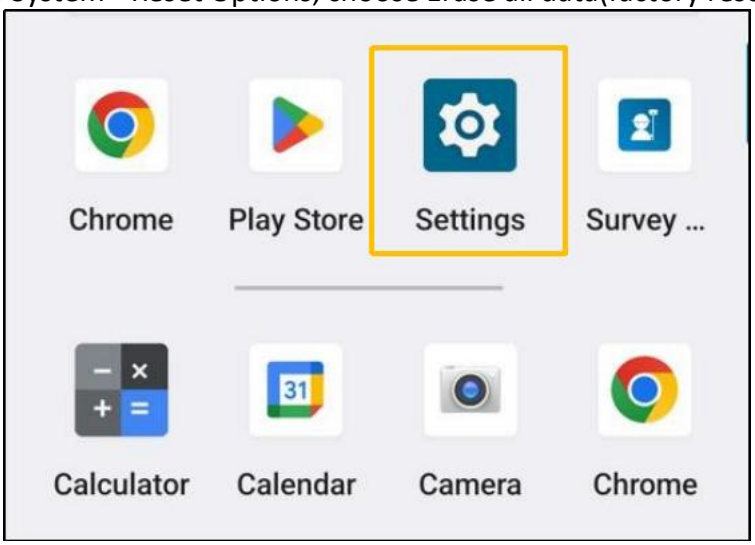


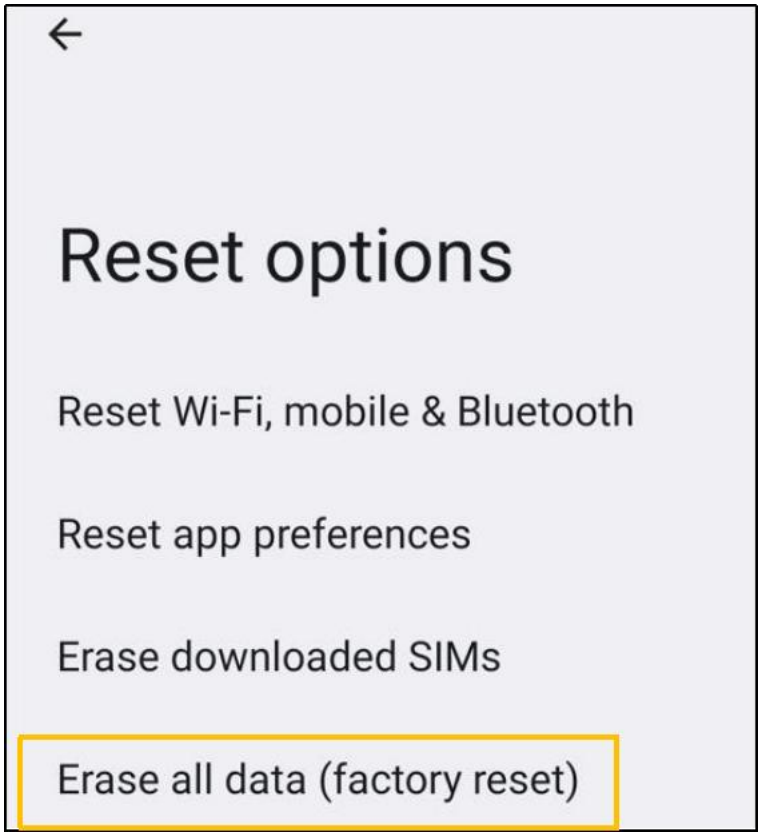
R80 controller uses Nano/Micro SIM card, the installation steps are as followings:

1) First, unscrew the gray cover on the left side of R80.
2) Pull out the SIM/TF card slot and insert the SIM/TF card into the slot.

2.3 Factory Reset

In Settings, go to System->Reset Options, choose Erase all data(factory reset)





3. Technical parameters

Itesms	Parameters
CPU	Qualcomm 8-Core Processor
OS	Android 12.0 Operating System
RAM	4GB
ROM	64GB
Camera	13 megapixel camera
Display	6'' capacitive touch screen 500 nits brightness
Resolution	720 * 1080 resolution
Battery	9000 mAh, working 30+ hours
Charging	support QC and PD fast-charging protocols
Bluetooth	BT5.1 with downward compatibility
Wi-Fi	802.11a/b/g/n/ac,2.4G+5G(Dual band, support fast roaming)
Communication	GSM: B2/B3/B5/B8 WCDMA: B1/B2/B4/B5/B8 TDD-LTE:B34/ B38/B39/B40/B41 FDD-LTE: B1/B2/B3/B4/B5/B7/B8/B12/B17/B19/B20/B25/B28A/B28B
NFC	13.56MHz readable range 20mm-50mm protocols ISO14443A/14443B/15693
Storage card	Up to 512G storage
Interface	Support OTG, meet ESD (Contact +8KV.Air +15KV standard design), EOS (VBUS±500V,VBAT +300V),OVP

	(10.5V,DCwithstand voltage of surge tube over 24V)
Notification type	Sound, vibration, LED signal
Working temperature	-25 °C to + 60 °C
Storage temperature	-40 °C to + 70 °C
Waterproof and dustproof	IP67
Shock	survive a 1.5 m drop onto concrete
Certification	Google GMS certification