



To Be the Best GNSS Solution Provider



M20L GNSS RTK System User Manual

Preface

Introduction

Welcome to the Meridian M20L receiver. This introduction describes how to use this product.

Experience requirement

To help you use the Meridian series products better, Meridian suggests that you read the instructions carefully. If you are unfamiliar with the products, please refer to www.meridiangnss.com

Tips for safe uses



Notice: The contents here are special operations and need your special attention. Please read them carefully.



Warning: The contents here are generally very important as the wrong operation may damage the machine. This can lead to the loss of data, or even break the system and endanger your safety.

Exclusions

Before using the product, please read these operating instructions carefully, as they will help you to use it better. Meridian GNSS Co., Ltd. assumes no responsibility if you fail to operate the product according to the instructions, or operate it wrongly because you have misunderstood them.

Meridian is committed to constantly perfecting the product's functions and performance, improving its service quality, and reserves the right to change these operating instructions without notice.

We have checked the contents of the instructions and the software & hardware without eliminating the possibility of deviation. The pictures in the operating instructions are for reference only. In the case of non-conformity with products, the products shall prevail.

Technology and service

If you have any technical issues, please call the Meridian technology department for help, and we will answer your question.

Relevant information

You can obtain this introduction by:

Purchasing Meridian products: this manual is found in the instrument container and will help you to operate the instrument.

Advice

If you have any suggestions for this product, please email them to: info@meridiangnss.com. Your feedback information will help us to improve the product and service.

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1. M20L Receiver Description

1.1 Exterior description

- A. Power Light
- B. Bluetooth Light
- C. Data Light
- D. Satellite Light
- E. Power on Button
- F. UHF Antenna Port
- G. Five-pin LEMO port
- H. Speaker
- I. Type-C Charging Port
- J. SIM card slot
- K. AR Camera
- L. pickup
- M. NFC flash



1.2 Operating Instructions

1.2.1 SIM Card Installation



- a) Open the dust plug
- b) Install the SIM card as indicated (SIM card chip side towards the body, notch towards the receiver)
- c) Card, cover with dust plug

1.2.2 Description of Buttons and Indicator Lights

Buttons	Function	Description
	Power on/off	Long press to power on/off
	Data link indicator light	1) When it flashes continuously, differential data is received; the base station is successfully transmitted; the static mode is successful. 2) When it is not on, differential data is not received; the base station is not successfully started; the static mode fails to collect data.
	Satellite lights	Rove / base station: In the positioning state, the satellite flashes .
	Bluetooth light	When Bluetooth is connected to the host, it is always on; when Bluetooth is not connected to the host, it is off.
	Power light	1) During normal operation, when the battery level is greater than 50%, the red light is always on; when the battery level is 40%~50%, the red light flashes once every 5 seconds; when the battery level is 30%~40%, the red light flashes once every 4 seconds; when the battery level is 20%~30%, the red light flashes once every 3 seconds; when the battery level is 10%~20%, the red light flashes once every 2 seconds; when the battery level is 0%~10%, the red light flashes once every 1 second. 2) When charging with the power off, if the battery is not fully charged, the red light is always on; when the battery is fully charged, the green light is always on.

1.2.3 Speaker

- 1) The speaker will sound when the button is pressed to turn on the M20L.
- 2) When registration code expires and the speaker will continues to sound.
- 3) The receiver mode is switched and the speaker sounds once, indicating that the switch is successful.
- 4) The handheld Bluetooth speaker will sound once when connected to the receiver, and once when disconnected.

1.2.4 Power on/off

1) Power on

Long press the power button until the speaker sounds, then release it. The device will start up, the panel light will flash, and the device will start up.

2) Power off

Long press the power button for 3-4 seconds, all the panel lights will go out, and the device will shut down.

3) Forced shutdown

When the device fails to shut down normally due to an unexpected failure, press the reset button to shut down the device.

1.2.5 Device Charging

When the device is turned off for charging, if the battery is not fully charged, the red light is always on, and the green light is always on when charging is complete.

When the device is turned on for charging, the red light is always on,, and the yellow light is always on when charging is complete.

The host supports 12V1.5A fast charging. Using a fast charging adapter to charge can shorten the charging time.

Note: For the safety of your device, please use the standard adapter in the package or a brand adapter that meets the 3C certification to charge the host.

2. MC200 Hand Controller Description



2.1 Overview

MC200 Controller is a rugged and multi-functional wireless data terminal with a 5.5-inch sunlight-readable high-definition touch screen and alphanumeric keyboard design, equipped with a powerful octa-core processor and Android operating system, which can perfectly adapt to the measurement notebook software.

Professional IP67 protection level, rugged and reliable, suitable for harsh outdoor environments. Large-capacity lithium battery can ensure more than 15 hours of field work and complete multiple measurement tasks for a whole day.

2.2 Main features

- 5.5 inches, resolution 1920*1080, multi- touch, support gloves and wet hands operation;
- Octa-core 2.0GHz CPU
- Pre-installed Android 11 operating system
- 4GB RAM + 64GB ROM
- 5-megapixel front + 13-megapixel rear camera
- Wi-Fi, Bluetooth, NFC
- IP68 protection level, waterproof/shockproof/dustproof
- Support 4G full network access
- 9000mAh battery, 22 hours of ultra-long battery life
- Universal Type-C interface
- Charging time: less than 4 hours (fast charging)