

MAGLINK Instruction Manual V1-0

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1. Product Overview

Product Name: MAGLINK

Product Description: This device integrates advanced positioning technologies such as GPS, BDS, GLONASS, Galileo, and QZSS. It includes an accelerometer, an OLED display, and supports both base station and mobile station modes. It also features Classic Bluetooth, BLE, 4G Cat1 communication, multi-scenario compatibility, and real-time data transmission. Designed for precision positioning and motion tracking, it is ideal for personal use, vehicles, and specialized operational environments. Highlighted by its accuracy, long battery life, ease of use, and visible status indicators, it is suitable for surveying, outdoor exploration, vehicle management, and engineering tasks, delivering dependable location services and motion data support.

Core Functions: High-precision positioning, coordinate collection, IP65 dust and water resistance.

2. Safety Precautions

- Do not operate or charge the device in flammable or explosive environments.
- Avoid subjecting the device to severe impacts, pressure, or drops (shock resistance height $\leq$ 1.5 meters).
- Use only the original charger to prevent overcharging (charging temperature range: 0° C ~ 40° C).
- The built-in lithium battery should not be disassembled or exposed to fire. Dispose of it according to environmental regulations when discarding.
- Do not attempt to disassemble the device; repairs must be performed by qualified professionals.

3. Technical Specifications

Item	Parameters
Positioning Systems	GPS, BDS, GLONASS, Galileo, and QZSS (multi-system, multi-frequency)
Positioning Accuracy	Single-point positioning: Horizontal: 1.5m Vertical: 2.5m DGPS differential: Horizontal: 0.4m Vertical: 0.8m RTK real-time differential: Horizontal $\pm$ 1cm Vertical $\pm$ 2cm
Input/Output	Supports differential data formats: RTCM 3.3/3.2/3.0Data output: NMEA – 0183
Communication Methods	4G CAT1:

	North America: FDD:B2/B4/B5/B12/B13/B66/B71 Europe & Asia-Pacific: FDD:B1/B3/B5/B7/B8/B20/B28 Bluetooth5.1: BR/EDR+BLE
Display	OLED/LED
Battery Capacity	3.7V/5000mAh lithium battery; continuous working time ≥15 hours (positioning mode)
Protection Rating	IP65 (dustproof, rainproof)
Operating Temperature	-20°C ~ +60°C
Dimensions	(HWL): 134mm × 51mm × 51mm
Interface	Type-C (supports USB communication)
Humidity	100% non-condensing
Shock Resistance	Withstands 1.5-meter drop
Material	ABS flame-retardant plastic

4. Device Structure and Button Functions

The OLED screen provides details about positioning, differential status, and the operational status of 4G and Bluetooth. The LED indicator shows charging progress and positioning status. The power button turns the device on/off and allows switching between OLED interface screens for user convenience.

OLED	Displays device status and information.
LED	Red: Charging; Green: Satellite signal indicator; Yellow: Charging + positioning.
Power Button	Power on/off: Press and hold for 3 seconds; Switch OLED interface: Single click.



To optimize satellite signal reception, the GNSS antenna is positioned vertically upward. This design minimizes signal interference and multipath effects, ensuring robust and stable satellite signal reception for high-accuracy positioning.

The USB Type-C port supports efficient power input for quick charging and enables high-speed data transfer. It facilitates seamless data exchange with external devices like computers and smartphones, simplifying connections and enhancing data transfer efficiency.

The device uses a Nano SIM card, which saves internal space while maintaining a compact form factor. As a widely supported standard, Nano SIM cards ensure reliable connectivity with various mobile network providers.

GNSS Antenna	Positioned vertically upward for satellite signal reception.
USB	Supports charging (5V/1A) and data transmission.
SIM	Compatible with Nano SIM cards.



5. Maintenance and Care Recommendations

- **Cleaning:** Wipe the screen with a soft damp cloth if dirty; avoid using corrosive substances like alcohol.
- **Battery Care:** If unused for extended periods, charge the battery to 50% before storage and recharge every 3 months.
- **Interface Protection:** Keep the dustproof cap securely closed when the data port is not in use to prevent water or dust ingress.
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6. Troubleshooting

Fault Phenomenon	Possible Cause	Solution
Inability to locate or poor accuracy	Weak satellite signal/differential connection issue	Move to an open area; verify differential account credentials.
No response when powering on	Depleted battery	Charge for at least 30 minutes

4G internet connectivity issues	SIM card balance depleted / weak 4G signal	and retry. Recharge the SIM card; compare signal strength with a smartphone. Replace with the original data
Unable to export data	Faulty data cable / driver not cable; installed	install the device driver (available on the official website).

7. Example of Application Scenario

Suitable for devices such as navigators, as shown in the figure below:



FCC Statement

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. 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.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

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.