INSTRUCTION MANUAL
GSM-015 GNSS SPEED METER
SKYRC
SK-500024

Stop wondering how fast your RC car can run and how high your RC Airplane or helicopter can fly. Now all these data come at your finger with the GNSS SPEED METER by SkyRC. This gadget is ideal for RC racing/flying and casual biking, driving and long journey. The user could easily view the screen while working out data such as speed, altitude, total mileage, longitude/latitude. It also records the top speed and top altitude for instant recall after the running and helps RC fans much to fine-tune their RC gadgets for better performance.

SPECIFICATIONS
- Concurrent reception of GPS & GLONASS
- Receiver: L1, 1575.42 MHZ
- Update frequency: 10 Hz.
- Antenna type: Built-in
- Satellite signal reception sensitivity: -167dBm
- Dimensions: 65.7X39.6X20.8mm
- Weight: 45g
- Operating temperature: 0℃ to +40℃
- Storage temperature: -10℃ to +70℃
- Operating humidity: 5% to 90%

FEATURES
- Measure Top Speed, Average Speed, and Top Altitude;
- Concurrent reception of GPS & GLONASS;
- GNSS Coordinator;
- Update frequency up to 10Hz;
- Built-in 1M flash (recording time: 2 hours);
- UTC timestamp logged for each track point;
- Built-in rechargeable, LiPo battery 200mAh (Operating time: 150 minutes);
- Switch between Metric and Imperial system of Measurement;
- GNSS LOGGER software for device management and data logging on Bing Maps;
- Firmware upgradeable;

CHARGING BATTERY
1. Connect the USB cable to your computer USB port or another compatible USB power source.
2. Connect the other end of the USB cable to the USB data&Charging Port.
3. The battery icon will be blinking during the charging process.
4. The battery icon will be full and no longer blink when the charging is finished.
5. Disconnect the USB from the power source and meter.
6. Press and hold the POWER BUTTON to power off.

POWER ON
Press the POWER BUTTON to turn it on.

POWER OFF
Press and hold the POWER BUTTON for 2 seconds, "OFF" will be displayed on the LCD screen. Release the POWER BUTTON and the device will be power off.

GNSS(GPS+GLONASS) INITIALIZATION
1. Power on the device and it will start the process of satellite acquisition and tracking automatically.
2. The icon of Satellite Receiver will be invisible until a position fix is calculated.
3. After a position fix has been calculated, the icon of satellite receiver and the UTC time zone and time will be shown on the screen as below.

Note:
1. Normally, the meter takes about 30 seconds to achieve a position fix. And it may take longer than normal to establish an initial position for the first time or if the meter has not been used for an extended period of time. If the meter is powered on in outdoors with a clear view of the sky, this should not take more than 3-5 minutes.
2. If your meter is indoors, it may not acquire satellites.(OUTDOORS USED ONLY)
3. The satellite acquisition time depends on weather conditions and users location.
DIFFERENT MODE SWITCHING

Users can switch from mode to mode by pressing MODE button.

- **Time**
- **Current Speed**
- **Peak Speed**

**MOUNTING AND PREPARING FOR RC RACING OR FLYING**

It is recommended to use VELCRO or other fastening tape to mount the speed meter onto your RC cars, planes or helicopters. The GNSS antenna can pick up signals through glass and plastic but will not pick up signals through metal or other conductive surfaces. To avoid interference with the GNSS signal, make sure that the GNSS antenna is not covered or shielded by any object containing metal. Due to this fact, please try to mount the meter on top as possible as you can.

**UNIT OF MEASUREMENT CHANGE**

Hold and press the MODE button to switch from Metric to Imperial system.

**DATA LOG RECORDING**

After powering on and the ICON of signal is shown on the screen, please use ENTER button to enter RECORDING mode to log data before you launch your RC trip. During the data recording process, the icon of Satellite Receiver will keep blinking. The recording process will be terminated if the ENTER button is pressed.

Note:
1. The previous record will be replaced once the Flash is full.
2. The records can be cleared in ‘GNSS LOGGER’ software by PC.

**INSTALL ‘GNSS LOGGER’ SOFTWARE (For Windows 7 and above or macOS 10.12 and above)**

Power On the device and connect it to a computer with the USB cable. Install GNSS LOGGER which can be downloaded from [http://www.skyrc.com/downloads](http://www.skyrc.com/downloads).

**GUARDS Speed Meter Software**

You can use the GNSS LOGGER application to transfer the log data to PC or Mac and easily export the log data to Google Earth.

**GNSS LOGGER Software Application**

- Transfer the log data to PC and show the track data on Bing Maps
- Save the log data to PC
- Change time zone
- Change Metric and Imperial system of measurement
- Select the language between English and Chinese
- GNSS update rate selection
- Firmware upgrade

When connected to your PC or Mac, GSM-015 will display CONNEC(CONNECT), and your software will show ‘connected’ in the status bar.

The update rate can be selected. The factory default value is 1 Hz. Capturing at 10 Hz update rate (ten times per second) creates more detailed and higher resolution track but also demands more recording space. Please be discrete to choose the right update rate.

Users are recommended to set the right UTC based time zone to reflect the local time zone!

The Update button will be clickable whenever there is newer firmware.

**SET TIME ZONE**

The meter sets the time zone automatically based on your GPS position. In some circumstances, you need to manually sync the time zone according to your local observed time or current Daylight Savings Time.

**WARRANTY AND SERVICE**

**THIS WARRANTY IS ONLY VALID IN THE COUNTRY OF PURCHASE AND THROUGH FORMAL DISTRIBUTOR.**

We guarantee this product to be free of manufacturing and assembly defects for a period of one year from the time of purchase. The warranty only applies to material or operational defects, which are present at the time of purchase. During that period, we will repair or replace free of service charge for products deemed defective due to those causes.

For any repair or replace service, please contact your dealer in the first instance, who is responsible for processing guarantee claims. This warranty is not valid for any damage or subsequent damage arising as a result of misuse, modification or as a result of failure to observe the procedures outlined in this manual.

**SKYRC TECHNOLOGY CO., LTD.**

www.skyrc.com

All specifications and figures are subject to change without notice.

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