









A. Key Features

- Support both GPS and GLONASS
- Support Bluetooth Smart (BT4.0) LNS service
- Log up to 250,000 waypoints
- More than 35 hours operation time
- Smart log of time, distance and speed
- Support 5Hz logging for high speed application
- Acceleration sensor for smart power saving
- Vibrator /beeper for POI confirmation
- Rechargeable Li-ion battery
- IPX3 water-proof

B. Package content

- GPS Recorder – GL-770 x 1
- USB cable x 1
- CD ROM x 1 (user manual, utility software)
- Quick start guide x 1

C. Appearance

 		Battery status: Green, Red Green light 1Hz blinking = Charging , Green/Red lights On = fully charged Red light 1Hz blinking = battery <30% , Red light On= battery <10%
		Bluetooth Smart status: Blue light On = Bluetooth smart is turned on and waiting for connection Blue light 1Hz blinking = Bluetooth smart is connected
		Car mode: Blue light Led On = In car mode, device will go into sleep mode when no power supply from USB and device will wake up and start logging when there is power supply from USB.
		GPS status: Orange light: Led On = searching for satellite, Led Flashing = GPS fix & start logging
		Memory status: Red light: 3 times flashing = POI button pressed and POI recorded. 1Hz flashing = memory 80% full OFF= sleep mode Keep flashing = Erasing data
		Acceleration sensor status: Blue light: On = acceleration sensor is turned on for motion detection. Off = acceleration is turned off 1/3Hz flashing = sleep mode
	POI Button	Push to record waypoint. Push and hold for 5 seconds to turn ON/OFF acceleration sensor. Push and hold for 10 seconds to turn ON/OFF Car mode. * Vibrating and beeping feedback when POI button is pressed.*
	Power Button	Push to turn ON/OFF Bluetooth when device is turned on. Push and hold for 3 seconds to turn on/off the device.
	USB port	For charging and data transmission.
	Reset Button	Push to reset device. Device is power off after reset
POI + Power Button	Press POI and Power buttons at the same time to erase the data in the device. *Please do not turn off the device when memory red color LED is flashing.*	

D. Default setting

NMEA	Support: GGA,GSA,GSV,RMC
Default log data	Date / Time/ Fix valid / Latitude / Longitude / Height/ Speed / Heading / RCR
Bluetooth smart LNS service	Default output: Speed, Distance, Latitude, Longitude, Elevation, Heading, Rolling time, UTC time. Output rate: 1 or 5Hz Bluetooth ID: same as serial number
Normal mode	User Name : same as serial number Log by time : 5 (can be programmed by software) Log by distance : 0 (can be programmed by software) Log by Speed : 0 (can be programmed by software) Acceleration sensor : OFF (can be turned on/off by software) Check password : OFF (can be turned on/off by software)

E. System requirement

Minimum Configuration	Recommended Configuration
<ul style="list-style-type: none">- Windows XP- Pentium 3, 500Mhz- 256M RAM- 400MB disk space- Network speed: 128Kbits/sec- 3D-capable video card with 16Mbytes of VRAM- 1024x768, "16-bit High Color" screen	<ul style="list-style-type: none">- Windows 7, 8, 10 PC version- Pentium 4 2.4GHz+ or AMD 2400xp+- 1G RAM- 2 GB of free disk space- Network speed: 768 Kbits/sec or better (DSL/Cable)- 3D-capable video card with 32 MB of VRAM or greater- 1280x1024, "32-bit True Color" screen

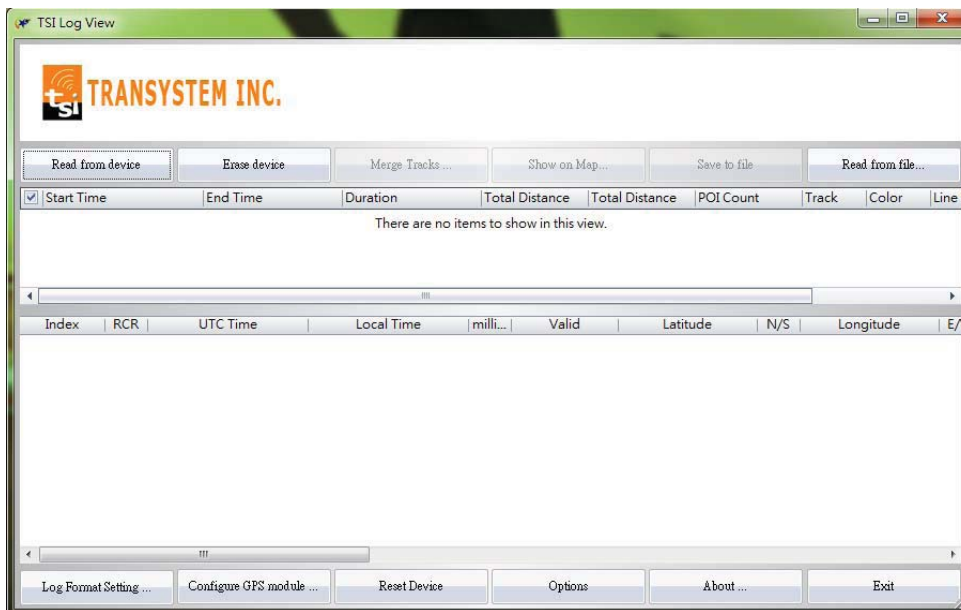
[Notes and Warning] If you have recorded more than 250,000 way points in your GL-770, it may take the entire resource of your computer to show all the logged data in Google Earth. Therefore, with not enough RAM capacity the computer may hang up (system frozen).

F. Getting Started

- Step1. Fully charge the battery via USB port first before starting to use.
- Step2. Press and hold Power bottom for 3 seconds to turn on / off the device.
- Step3. Acquire GPS signal
Orange LED will start blinking when GPS signal is acquired and have a valid fix.
- Step4. Push POI to mark a specific waypoint.
Vibrating/beeping feedback are provided when POI button is pressed

G. How to extract logged data from GL-770

- Step1. Install LogView and USB driver (refer to CD)
- Step2. Power on GL-770 and connect to PC or laptop.
- Step3. Click "Read from device" button on the top left of LogView software panel



To display the track points on Google Earth, your PC must have installed Google Earth and have the Internet connection. Google Earth installation (Download from <http://earth.google.com/>)

[Note] Google Earth is a trademark of Google.

H. Helpful tips

- Some vehicles using heavy metallic sun protecting coating on windshield may affect GPS signal reception.
- Streets with high rising buildings may affect GPS signal reception.
- Tunnel and indoor parking garage may affect signal reception.
- In general, GPS signal reception best in open space where it can see clear sky. Weather condition will also affect GPS reception – rain & snow contribute to worse sensitivity.
- Low battery status may affect signal reception.
- This device outputs coordinates data every second, therefore the actual position and the position shown on your map may have slight time delay. This may happen when you drive at higher speed or make a turn around a corner.
- For the device not in use over several days, allow it 1~3 minutes to obtain satellite constellation information and fix your position, this is called "Cold Start". Upon battery replacement, GPS device will do Cold Start again.
- If your device can not fix position for more than 20 minutes, please change to another location with open space and then try again.

FCC Notices

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.

CAUTION: Change or modification not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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.

CAUTION:

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

RF exposure warning

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance."