

QSTARZ 8000GT *Champion ship* GPS LAP TIMER

User's Manual



QRacing App



English

LT-8000GT GPS Lap Timer User's Guide**■ A. LT-8000GT Package Contents:**

- 1) QSTARZ LT-8000GT unit
- 2) USB Type C cable
- 3) Quick Start Guide
- 4) Exclusive Sticker + Warranty card



(1)



(2)



(3)



(4)

Main functions:

- Support GPS/GLONSASS/QZSSS, eXtreme 25Hz Log to record 25 times per second
- Multi-Function Device – Performance Timer, Lap Timer and GPS Logger
- 3.2" TFT color display and real-time perform race timing analysis
- Drag Race by 1/4 mile, Speed, Distance and 0-Speed-0
- Circuit Race by Practice, Prediction, Race, Challenge and Custom
- Real time Lap/Spilt/Sector Comparison
- Auto global track recognition & view circuit thumbnails
- Auto Start-Run after device senses forward motion
- History database organized as Calendar and table type for easily review
- Flexible Track Manager – On-Device created to User track, and QRacing Sync to Shared track
- Visualized GPS logger as a dashboard speedometer
- Built-in 6-axis gravity sensor, which can sense and measure the G-force state and the inclination of both sides at any time (20 sensing times per second)
- WiFi & Bluetooth LE can be used with QRacing APP for data transmission and lap time measurement
- Auto-speedometer for your driving every day
- Built-in GNSS antenna and external antenna connecter strengthen the car heat insulation paper limit

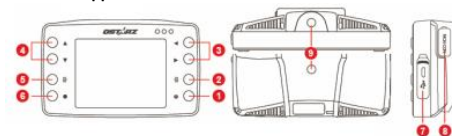
Specifications:

- GPS: 25Hz GPS/GLONASS/Galileo/BeiDou
- 3.2" (320x240) TFT Color display with 252K color
- Wireless function: Bluetooth LE 5.0 + Wi-Fi 2.4G
- Built-in large memory and view history data easily
- Ultra lower power consumption up to 14hrs operation (under LCD backlight on)
- Sensor/Antenna: 6-axis motion sensor/built-in antenna and external antenna MCX socket
- 8 Function buttons – 4 Direction Buttons, Back, Enter, Multi-function, and Power Buttons
- 3 LED Indicators – Green for Screen Power Saving, Orange for Charging, and Red for Alert
- Device recognized as USB removable disk for data access with computer conveniently
- Raise beeper function to notice some status of device

- Less than 15-Sec. AGPS fix support to realize faster TTFF and positioning under warm start
- USB Type C interface for charging, data download and firmware update
- Input power: 5V, 750mA
- IPX-7 water resistance and Firmware upgradable
- Device Dimension (LxWxH): 117 x 72 x 31mm / Weight: 158 grams (Mounting bracket excluded)
- Environment temperature- Operation: -10°C to +60°C / Storage: -20°C to +60°C / Charging: 0°C to +45°C

Notification: Battery life varies by configuration, operating conditions, and other factors. Maximum battery capacity decreases with time and use.
















■ B. Appearance



Name	Icon	Function
1. Power button		● Press for 3 seconds to power on or power off
2. Enter/Set button		Press to confirm the selected option
3. Left/Right Navigation button		Press to switch among different options and pages
4. Up/Down Navigation button		Press to switch among different options
5. Back/Cancel button		Press to cancel function and go back to previous screen
6. Multi-function button:		Press to start the race and record

7. -Mini USB Port -Reset button		<ul style="list-style-type: none"> ● For Charging device ● For Data download to PC ● For Firmware Upgrade ● Reset Device
8. External GPS Antenna Jack		For connecting optional External GPS Antenna with MCX plug

C. Icon definition

圖示	描述	圖示	描述
	GNSS is not fixed Internal antenna		Battery full
	GNSS is 2D fix Internal antenna		Battery sufficient
	GNSS is 3D fix Internal antenna		Low battery (less than 15% battery time) (Steady ON red color)
	GNSS is not fixed external antenna		Low battery (less than 5% battery time)
	GNSS is 2D fix external antenna		BLE ON(No Connection)
	GNSS is 3D fix external antenna		BLE ON(Connected)
	GNSS Time		WiFi ON(No Connection)
16:20	GNSS Time		WiFi ON(Connected)

D. LED Signal definition

LED	Red	1. When the memory $\leq 98\%$ or fail to read/write memory, the Red LED will steady ON. 2. When the battery is in low status below 15%, Red LED will steady ON.
	Orange	1. When device is under charging mode, the Orange LED will be steady ON. After device battery is fully charged, the Green LED will be steady ON. 2. When updating firmware, the Orange LED will be steady ON
	Green	1. When device is under Screen power saving mode (backlight off), Green LED will steady ON. 2. When the device battery is fully charged, the Green LED will be steady ON.

E. Safety Notice

Note: Please read this section carefully before start operating the 8000GT.

- Keep the 8000GT far from heat or high temperature environment. We recommend not to expose your 8000GT in temperature higher than 145°F/60°C to prevent the device from overheating, exploding or melting itself.
- When car interior temperature is too high, is likely to result in product failure or damage. When device is not in use or driver leaves the car, we suggest disconnecting the device and place in the car glove box.
- To reduce the risk of fire or shock hazard, do not expose this product to rain or moisture.
- Do not mount the devices in a place where the driver or passengers may receive injury during vehicle operation or collision. For your safety, take care to route all cables away from shifters, pedals, accessory controls and mechanisms
- The manufacturer assumes no responsibility for any damages and loss resulting from the use of this manual, or from deletion of data as a result of malfunction, dead battery, or from misuse of the product in any way.
- Please clean the unit with a dry and clean soft cloth. Do not use harsh cleaning solvents, chemicals, or strong detergents.
- Do not attempt to open 8000GT by yourself. Unauthorized hacking may damage the unit, and void your

warranty.

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS

F. Charging 8000GT

Please charge the battery fully before the first time use.

8000GT comes with a built-in rechargeable Li-Ion battery. To charge it connect the provided (or compatible) USB Type C cable at the back of the device and plug it into a suitable charger (500mA capable). Charging time is 5 hours typically with Power OFF mode and 10 hours with Power On mode. A fully charged battery will last about 10 hours operation.

Note: To avoid damage to the battery, please do not overcharge the battery for more than 10 hours. The battery will stop charging if it's overheated for safety reason.

G. Device bracket mounting

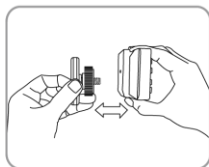
There are two 1/4 inches screw holes on LT-8000GT. Qstarz offers the optional mounting accessories for car and motorcycle. You can use the optional Qstarz quick mount/vehicle holder, or find the standard 1/4 inches screw holders for your LT-8000GT.

Step1: Screw the quick mount on the top or bottom of your LT-8000GT.

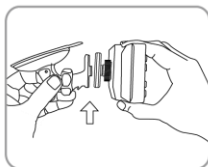
Step2: Lock up the car holder or bike holder to the quick mount.

Step3: Place the car sucking holder on the window and lock up.

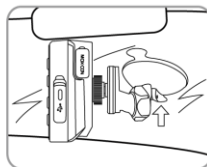
Quick mount is easy to install for your LT-8000GT



Step 1



Step 2



Step 3

■ How to get better GPS accuracy with 8000GT

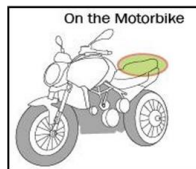
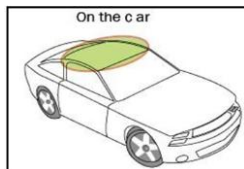
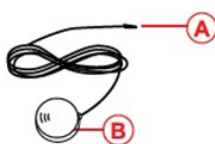
- 8000GT is for outdoor use, it should be used in open area environments without shelter of tall building or trees to enable faster satellite lock and provide better positioning accuracy.
- If you are using the 8000GT for the first time or you haven't been use it for a while, it will need to be left for 10-15 minutes to make the GPS signal accurate and steady.

■ Install external GPS antenna (Optional Accessory)

8000GT has built-in GPS antenna, you also can increase the GPS precision and reception quality with external GPS antenna. Open the Rubber cover and plug in the GPS antenna connector to antenna jack on the back of 8000GT. Make sure to mount the external GPS antenna on the car roof or any metallic surface.

A. MCX Plug for connecting to 8000GT

B. GPS Antenna for receiving GPS Signal. Magnet design can stick to car roof or metallic surface.



■ About the GPS

- The GPS is operated by the government of United States, which is solely responsible for its accuracy and maintenance. The accuracy of location data can be affected by adjustments to GPS satellites made by United States government.
- Quality of GPS signals may be affected by your location, building, natural obstacles, and weather conditions. The GPS module should only be used outdoors to allow reception of GPS signals.
- The GPS position is for user reference only, you should never rely solely on location data from the GPS module for positioning.

■ Data backup

Regularly back up and format the memory of the device would keep your device health and work as usual.

* Please BACKUP your data BEFORE format the memory of your LT-8000GT, otherwise it might cause the data loss or damage.

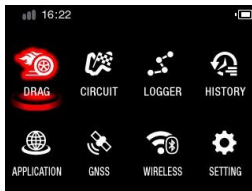
■ I. Setup 8000GT for First Time

To power on your unit, press and hold the power button for 3 seconds until it turns on, when you turn on the 8000GT for the first time, you will be required to set up the following information:

- Language (English, Chinese, Japanese)
- Units of Measurement (Metric or Imperial)
- Time zone and Time format

After the setup is completed, you will see the **Main Menu** screen. Select one of 8 operation Modes to execute required function.

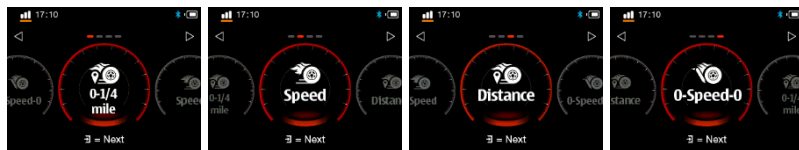
1. Drag Race Mode
2. Circuit Race Mode
3. GPS Logger Mode
4. History Mode
5. Application Mode



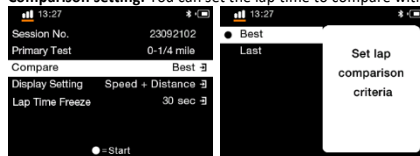
6. GNSS mode
7. Wireless Mode
8. Setting Mode

I-1. Drag Race mode

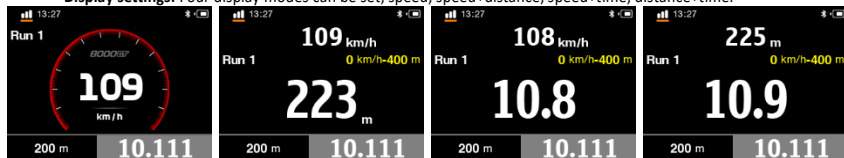
The Drag race mode is to measure your vehicle's acceleration and braking's performance, 4 pre-defined Profiles (1/4 mile, Speed, Distance, 0-Speed-0) are stored in 8000GT.



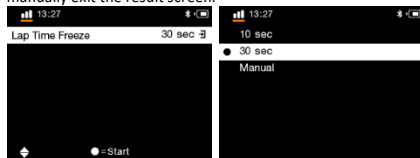
Comparison setting: You can set the lap time to compare with the last lap or the best lap.



Display settings: Four display modes can be set, speed, speed+distance, speed+time, distance+time.

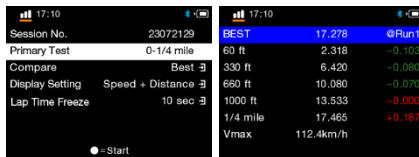


Lap Time Freeze : You can set the time for displaying the single lap result screen. You can set 10 seconds, 30 seconds or manually exit the result screen.



Select the performance test you want to run, press **Next button** to enter setup screen.

- **1/4 mile**: Starting from a stationary state, it is timed according to various distances. The distance conditions are 60ft, 330ft, 660ft, 1000ft and 1/4mile), and the comparison circle (best/previous circle) .

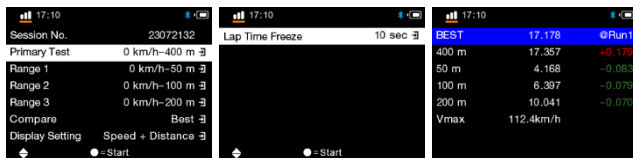


- **Speed mode**: You can set a primary speed condition and three secondary speed range. The speed condition can set the starting speed and ending speed. The speed interval of the secondary condition cannot be larger than the speed interval of the primary condition.

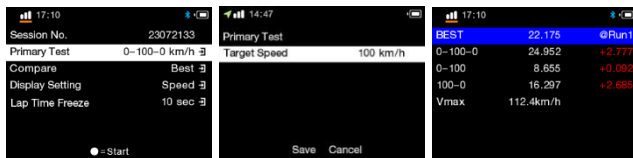



- **Distance mode**: You can set a primary distance condition and three secondary distance range, you can set the

start speed (start timing when the start speed is reached) and the set ending distance. The distance interval of the secondary condition cannot be greater than the distance interval of the primary condition.




- **0-Speed-0 mode:** After setting the target speed, you can start timing from a static state and record the maximum speed information at the same time.



Press  Start button to start perform your run.

Once the screen show **"Ready"** the timer will automatically start when it detects the car starts moving, and stops it when your car is passing Profile condition.

If it is determined after saving that any secondary range setting is not between the primary condition, the items to be modified in the setting page will be displayed in red. Only after the setting is correct can you press =start to start the time measurement.



***Do not to run these tests on the public roads!**

I-2. Circuit Race mode

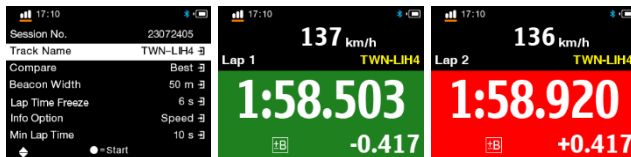
The circuit race mode is for measuring lap times and analyzing laps, there are 4 pre-defined and 1 Custom Profiles in Circuit race mode.

Select one of the profiles you want to test, press **Next button**. 8000GT will automatically detect and display the nearby start/finish line coordinates of the track based on the track list database within 8000GT.

Select the track you want to test and press **Next button**. You can set Compare 、 Beacon Width 、 Lap Time Freeze 、 Info Option and Min Lap Time.

➤ Practice profile:

This profile is suitable for track day practice session; it will compare your current lap time with the last lap time by default and can set the min lap time (filter the wrong lap time generated when waiting at the start line)



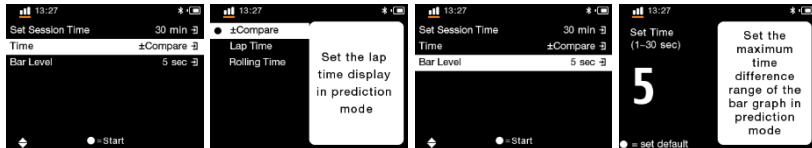
➤ Prediction profile:

Predictive Lap Timing function is featured to predict the lap time which is about to complete. It can predict you will be getting faster or slower than the previous best lap. It's suitable for pursuit breaking your best lap time.

At the same time, you can set the time display mode in the second column (\pm Compare, Lap time, Rolling Time) and the Bar Level in the third column.



At the same time, you can set the time display mode (\pm time difference, predicted lap time, rolling time) in the second column and the maximum time difference scale to be displayed on the bar chart in the third column.



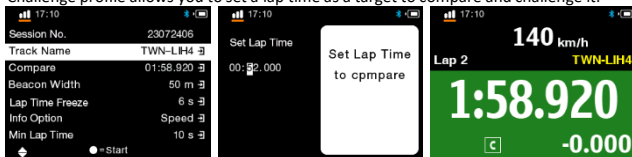
> Race profile:

This profile is suitable for race day; it will compare your current lap time with the best lap time by default.



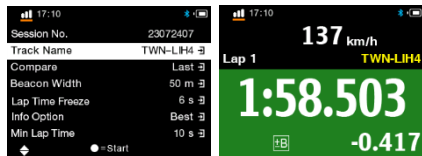
> Challenge profile:

Challenge profile allows you to set a lap time as a target to compare and challenge it.



> Custom profile:

User can custom your preference by selecting the comparison lap (best or last) and Info option display for lap timing.

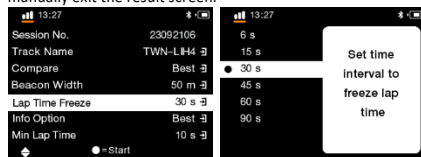


Press **Start** button, when the screen displays **READY**, the 8000GT will start to count automatically after detecting the movement of the car.

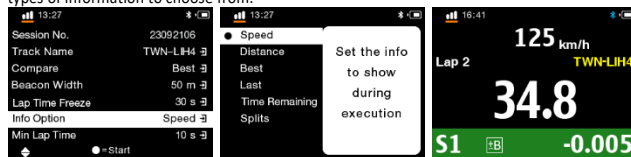
Comparison setting: You can set the lap time to compare with the last lap or the best lap.



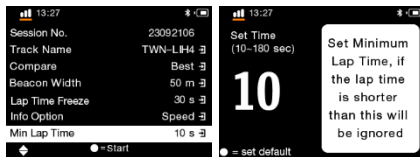
Lap Time Freeze : You can set the time for displaying the single lap result screen. You can set 10 seconds, 30 seconds or manually exit the result screen.



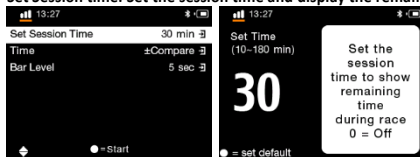
Info Option: You can set the field information display content at the top of the time measurement screen. There are six types of information to choose from.



Minimum lap time: Set the minimum lap time. Lap times shorter than this set time will be ignored and will not become the best lap or be used as a comparison lap.



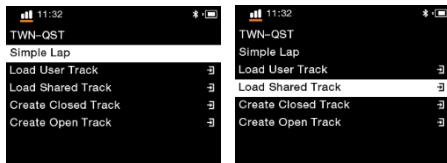
Set Session time: Set the session time and display the remaining time of the session on the time measurement screen.



If you don't see the track you need, you can download the latest tracks from Qstarz website

(<http://racing.qstarz.com/Share.html>) or select the track by the following menu. (See below guide: **How to Setup**

Start/Finish and Split lines?)

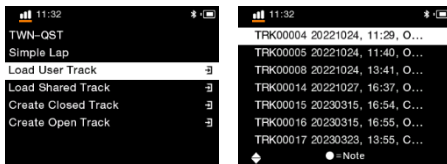


Simple Lap: Just press the **Start button** to race and 8000GT will set up the Start/Finish line automatically (Speed is greater than the start timer speed).

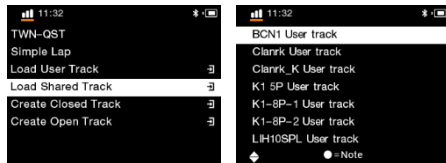
- **Load User Track:** Load the track which you created before in this device.
- **Load Shared Track:** Load the track which you exported from QRacing software.
- **Create Closed Track:** You can create Start/Finish lines and Splits. Start/Finish line is at the same place.
- **Create Open Track:** You can create Start line, Splits and Finish line. Start and Finish line are not at the same place.

You can load the beacon from User Track you previously created. Or you can load it from Shared Track you exported from QRacing or downloaded from website.

***Load User Track:**



***Load Shared Track:**




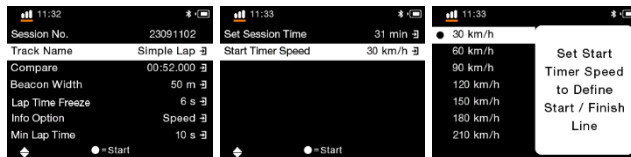
Note1: The vehicle must be moving for better precision when setting the Start/Finish line.


Note2: In some cases it may not be feasible or safe to add Start/Finish Splits line while driving. Users can use alternative way by QRacing software to edit the Start/Finish and Split lines, then export them to 8000GT for race (Please see K-2 Edit Beacon).

➤ How to setup Start/Finish and Split lines?

Simple Lap: You can set the start timer speed to set the start/end line. When the speed is greater than the start timer speed (30 Km/h), this position will be set as the start/end line.


Press  button to complete the start/end line setting.

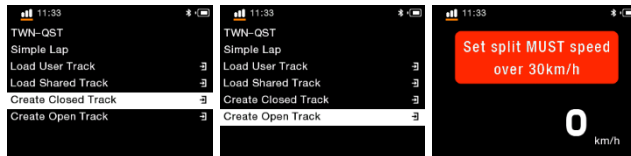


Create Closed/Open Track: By driving slowly (at least 30km/h) on the track, press  button when you are on the spot that you want to mark as Start/Finish line.

After you have created the Start/Finish line, press  button to mark the split line.

(Note: Max 25 split lines can be added for each track)

Press  button to finish creating the Start/Finish and Split lines. The Track will be saved automatically in the memory of 8000GT\C_BEACON\USER folder once finished; you can re-load it later by **Load User Track** or share it with other users.





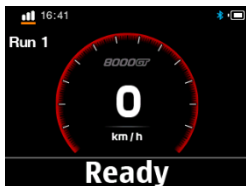
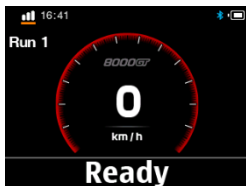
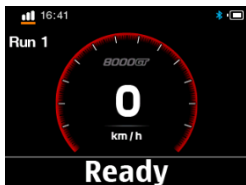
Beacon Width: Beacon is commonly referred to as the virtual start/finish or split lines. The default beacon width is set to 50 meters (25m from each side of the vehicle) and the Beacon line is placed in a straight angle to your current bearing (see below picture), you may adjust the beacon width according to your track width.




Drag real-time display screen

Press **● Start button** Once the screen show **"Ready"** the timer will automatically start when it detects that the car starts moving.

If you were going faster than comparison lap (best or last), the lap time will be shown in **Green background**. Or if you were going slower, and the run time will be shown in **Red background**. The timing difference between your current lap and your best or last lap will be shown at the bottom of the screen. You can press the **●** button to switch the field option on the top right corner of screen or press **Up/Down** button to change timing display style.



Press  **button** to Stop the lap timing and view this Session's each Lap Time result.


Press  **button** to change display screen

0-1/4 mile		
Run	Time	+/-
1	17.278	Best
2	17.465	+0.187
3	18.938	+1.660

0-1/4 mile		
Best	17.278	@Run1
Run 2	17.465	+0.187
60 ft	2.318	48.3km/h
330 ft	6.420	87.6km/h
1/8 mile	10.080	105.8km/h
1000 ft	13.533	99.3km/h
1/4 mile	17.465	77.8km/h
Vmax	112.4km/h	

0-1/4 mile		
Best	17.278	@Run1
Run 2	17.465	+0.187
0-10	0.422	0.8m
0-20	0.806	2.7m
0-30	1.311	6.6m
0-40	1.815	11.9m
0-50	2.408	19.6m




Lap Time screen for Circuit Race mode: (tested with Lap with Splits)

For Lap with Splits, if you were passing split and going faster than the same split of compared lap, the Rolling time and Split timing difference will be shown in **Green background**. Or if slower, the Rolling time and Split timing difference will be shown in **Red background**. You can also press the  button to switch the field option on the top right corner of timing screen.

17:10	134 km/h	TWN-LIH4
Lap 1	1:58.503	

17:10	137 km/h	TWN-LIH4
Lap 1	1:58.503	-0.417

17:10	136 km/h	TWN-LIH4
Lap 2	1:58.920	+0.417

Press  button to Stop the lap timing and view this Session's each Lap Time result. Press  Display Mode button to display different data, navigate between these screens by using the  Left/Right buttons.

TWN-K1 (Info)		
Lap	Time	+/-
Opt	51.283	-0.130
1	51.673	+0.260
2	52.863	+1.450
3	51.806	+0.393
4	51.413	Best
5	52.592	+1.179
● = Change Display		

TWN-K1 (Sector)		
Lap	Time	+/-
Opt	51.283	-0.130
1	51.673	+0.260
2	52.863	+1.450
3	51.806	+0.393
4	51.413	Best
5	52.592	+1.179
● = Change Display		

- **Sectors:** The time from one split point to the next split point. Press the button to navigate and view each sector's time.

TWN-K1 (Sector)		
Lap	Time	+/-
Opt	51.283	-0.130
1	51.673	+0.260
2	52.863	+1.450
3	51.806	+0.393
4	51.413	Best
5	52.592	+1.179
● = Change Display		

TWN-K1 (Sector)		
Lap	S-1	+/-
Opt	22.664	-0.130
1	22.664	-0.130
2	23.837	+1.043
3	22.931	+0.137
4	22.794	-0.000
5	23.767	+0.973
● = Change Display		

TWN-K1 (Sector)		
Lap	1-F	+/-
Opt	28.619	-0.000
1	29.008	+0.389
2	29.026	+0.407
3	28.875	+0.258
4	28.619	-0.000
5	28.825	+0.206
● = Change Display		

- **Splits:** The cumulative time from start point to a split Point. Press the button to navigate and view each split's time.

TWN-K1 (Splits)		
Lap	Time	+/-
Opt	51.283	-0.130
1	51.673	+0.260
2	52.863	+1.450
3	51.806	+0.393
4	51.413	Best
5	52.592	+1.179
● = Change Display		

TWN-K1 (Splits)		
Lap	S-1	+/-
Opt	22.664	-0.130
1	22.664	-0.130
2	23.837	+1.043
3	22.931	+0.137
4	22.794	-0.000
5	23.767	+0.973
● = Change Display		

TWN-K1 (Splits)		
Lap	S-F	+/-
Opt	51.283	-0.130
1	51.673	+0.260
2	52.863	+1.450
3	51.806	+0.393
4	51.413	-0.000
5	52.592	+1.179
● = Change Display		

- **Split Speed:** The speed when across the split line.

TWN-K1 (S-Speed)			TWN-K1 (S-Speed)			TWN-K1 (S-Speed)		
Lap	Time	+/-	Lap	S1 (kph)	+/-	Lap	F (kph)	+/-
Opt	51.283	-0.130	Opt	85.0	+0.3	Opt	88.3	-0.0
1	51.673	+0.260	1	85.0	+0.3	1	83.2	-5.1
2	52.863	+1.450	2	84.7	-0.0	2	90.6	+2.3
3	51.806	+0.393	3	85.3	+0.6	3	94.0	+5.7
4	51.413	Best	4	84.7	-0.0	4	88.3	-0.0
5	52.592	+1.179	5	85.8	+1.1	5	90.7	+2.4

● = Change Display ◀ ▶

➤ **Speed & G Value:** Display the session lap's Max/Min/Avg Velocity (Speed) and Max G Value.

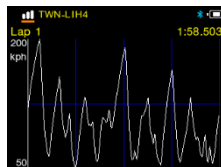
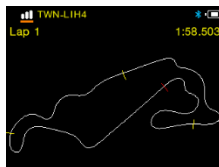
TWN-K1 (Info)			TWN-K1 (Info)			TWN-K1 (Info)		
Lap	Vmax (kph)	+/-	Lap	Vmin (kph)	+/-	Lap	Gmax-X	+/-
Opt	97.6	-0.0	Opt	31.6	+0.1	Opt	1.2	+0.1
1	95.8	-1.8	1	29.3	-2.2	1	1.2	+0.1
2	96.0	-1.6	2	31.2	-0.3	2	0.8	-0.3
3	96.8	-0.8	3	32.0	+0.5	3	1.0	-0.1
4	97.6	-0.0	4	31.5	-0.0	4	1.1	-0.0
5	96.1	-1.5	5	30.3	-1.2	5	0.9	-0.2

● = Change Display ◀ ▶

You can select the lap and press **Enter** button to view lap detail. Press the **◀▶** button to swap analysis and track pages.

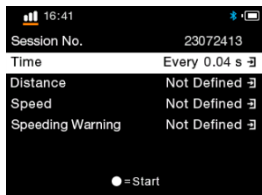
TWN-LIH4		
Best	1:58.503	@Lap1
Lap 1	1:58.503	-0.000
S-1	33.769	-0.000
1-2	23.906	-0.000
2-3	29.378	-0.000
3-F	31.451	-0.000


◀ ▶



I-3. GPS logger mode

You can also use 8000GT as a GPS Data logger to record your travel route.




- ✧ Session name: The system will automatically create the Log name with YYMMDDXX format.
- ✧ Time: Select the log frequency (1Hz, 5Hz, 25Hz or user define 0~99 seconds)
- ✧ Distance: Select to log by distance (0~9999 meters).
- ✧ Speed: Select to log by speed (0~999 kph).
- ✧ Speed Alarm: When you exceed the set speed, 8000GT will alert with beep sound.
- ✧ Press  button to start logging.



I-4. History Mode

You can review all the data recorded with 8000GT in History mode. When the calendar day shows up in **Red**, it means there's racing record.



Press  =Menu Button can view the selected **Session Detail**, **Property**, **Delete** session or **Export** track. Track export file format can be selected with KML, CSV or GPX file. After track export succeeded, the exported file can be found on the device memory of the **8000GT\Exports** folder.

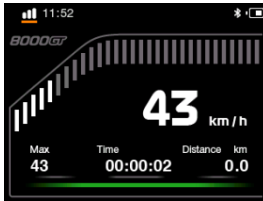
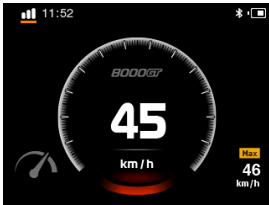


I-5. Application Mode

In Application mode, you will be able to perform 8000GT as Auto speedometer、G-meter or Demo display.

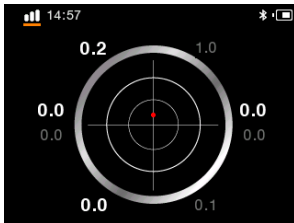
➤ Speedometer

When power off, under the car charger (charger), when power is detected, it will automatically turn on and enter the application/speedometer screen (the screen is based on the setting/auto speedometer setting to select the speedometer style), and keep it Speeding warning function (conditions are in accordance with the setting / speeding alarm setting), (but not recording, and POI has no effect).



➤ G-meter:

G-Meter uses 8000GT's built in 6-axial accelerometers to provide accurate real-time G-force results with graphics.



I-6. GNSS mode

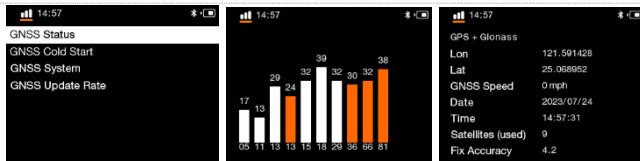
In GNSS mode, user can check GNSS satellite status or perform GNSS cold start and set GNSS system.

➤ GNSS Status:

8000GT will show a screen, which shows which satellites are in use. The bar graphs show the strength of the satellites that the GNSS has acquired. 8000GT support GNSS (GPS, GLONASS, and QZSS) satellite system.

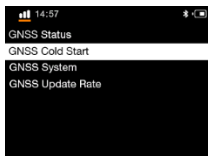
White bar graph means GPS satellite system and Orange bar graph means GNSS satellite system. Press the

◀▶ button to see GPS info.



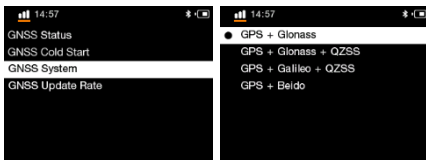
➤ GPS Cold Start:

Performing the Cold Start function will clear the GPS engine of the device's list of old satellite information. Under normal operating conditions, the last satellite lock computed before the unit was turned off is stored into memory and will be used as the reference when the next time the unit is turned on. Also, if you travel for more than 500 miles with it turned off, it will still have the reference point but it may be too inaccurate to be useful and result in longer time to get a satellite lock. In this case you may want to perform a cold start.



IMPORTANT NOTICE: For stable positioning and data accuracy, please DO NOT interrupts cold start. And start to use after cold start is completed.

➤ **GNSS System:** You can set up different GNSS systems according to your area.



GNSS update rate: You can switch between different GNSS update rate, 10Hz or 25Hz. When the vehicle speed is slow, it is recommended to use 10Hz to avoid excessive fluctuations in the QRacing PC analysis curve.



I-7. Wireless mode

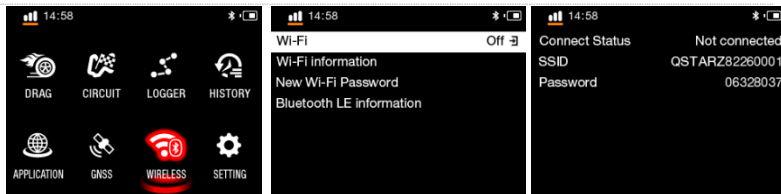
- The Bluetooth function is automatically turned on/off as the device is turned on/off. When the Bluetooth is turned on, a Bluetooth symbol will appear in the upper right corner. White is turned on but not connected, and blue is turned on and connected.

You can download the QRacing APP on your mobile phone, and use the Bluetooth to connect to the 8000GT to enjoy the QRacing APP timer function.

- WiFi is manually turned on/off.

Set WiFi on/off, Auto=When you press START to start Log, WiFi will be turned off automatically; when you press STOP to end Log & in the main screen, WiFi will be turned on automatically. A prompt message will appear when you select Auto. A prompt message will appear when you select Off.

After connecting to 8000GT through QRacing APP, download all the records in 8000GT to QRacing APP for use.



I-8. Setting mode

In the **Setting mode**, option such as Language options can be adjusted, Unit of Measure (mph/kph), Time Zone, Time format, Start Up Menu, Home View, Auto Speedometer, Speeding Warning, Speedometer Style, Daylight Saving, Tip, Power Saving, Brightness, System Sound, Timing Sound, G Threshold, Memory Status, Factory Reset, About and Update Font.



- **Language:** Select the desired language and press **Enter** Button, and wait until the language loading is completed. Please make sure the battery power is sufficient up to 80%, and do not turn off or press the reset button while loading the language.
- **Unit:** Set unit display metric / imperial.
- **Time Zone:** Set time zone on your location.
- **Time Format:** Set time format display, 12 hours / 24 hours.
- **Start Up Menu:** Select the start up page (Main/Drag Race/Circuit Race) once device is switching on.
- **Home View:** In the editing, 8 items on the main screen will be displayed. The status bar at the bottom shows

● = selected. Move to any position and press to select it. After selection, this item will turn red to indicate selection. At the same time, the status bar at the bottom shows ● = OK, and then use the arrow keys to move new position and then press ●, the previously selected item will be inserted into the new position, and other items will be adjusted in sequence. During the movement, the original position of the selected adjustment item will be empty.

- **Auto Speedometer:** When it is turned off, under the car charger (charger), when the power is detected, it will automatically turn on and enter the application\speedometer screen (the screen is based on the setting/automatic speedometer setting to select the type of stopwatch), and keep it Speeding warning function (conditions are in accordance with the setting / speeding alarm setting), (but not recording, and POI has no effect)
- **Speeding Warning:** Set speedometer speeding warning.
- **Speedometer Style:** Set the display style of the speedometer screen.
- **Daylight Saving:** Set daylight saving time.
- **Tip:** For the three recording modes, whether to open the corresponding prompt description.
- **Power Saving:** Set the power-saving mode, when it is turned on when the screen is not running, the screen will be turned off after 3 minutes after not being used, and the screen will be turned off after another 5 minutes.
- **Brightness:** Set backlight brightness.
- **System Sound:** Set button prompt, shutdown prompt and track record sound effect.
- **Timing Sound:** Set Drag/Circuit reminder sound.
- **G Threshold:** When start trigger by G-sensor is too sensitive, you may increase the G-Sensor threshold to make the trigger less sensitive. Default G-sensor threshold is 0.1G.
- **Memory Status:** You can know the percentage of Used Memory. Select ● button and is able to clear all memory. But make sure you have saved log data in advance.
- **Factory Reset:** Restore system default environment and parameters.
- **About:** Check your device's Software version and Trackmap version.

J. Official website to download firmware update

Qstarz will frequently update the firmware to provide new features and bugs fix; please update the latest 8000GT firmware via bundled QRacing software or Qstarz website.

Please check the unit's current version at **Setting Mode >> About**. If the current version is older than the one published in our website, please download the latest version and follow the steps below to upgrade firmware:

Step1. Turn OFF the device and connect to the USB port of computer. 8000GT will enter into **USB ACCESS MODE** automatically.

Step2. Extract the downloaded firmware file and copy **8000GT.qst** to the root directory of the device memory.

Step3. Unplug the USB cable and press **"POWER"** buttons at the same time until the **"CHECK FILE"** screen prompts. And it will start updating the firmware. Once the firmware updating process is complete, device will restart automatically.

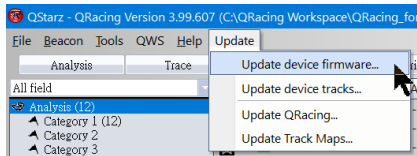
Caution 1: Please make sure your battery power is sufficient up to 80% before updating your firmware.

Caution 2: Do not press the reset button while updating the firmware.

K. QRacing PC Update the Software:

You can update the machine firmware by clicking the [Update Device Firmware] option from the [Update] function menu.

QRacing will check and update to the latest software version when there is a new version released. If your Qstarz device is connected to QRacing, it will also check the firmware version. For firmware update, please visit Racing.Qstarz.com for more information.



Or you can go to Qstarz download page to check latest software reversion history.

<http://racing.qstarz.com/>

L. Data Download and Data Analysis

8000GT GPS Lap Timer is bundled with **QRacing™** PC software.

-**QRacing™** lap timing analysis software allows you to download and analyze the data stored in 8000GT. You can manage your racing tracks as database structure and analyze with graph statistics.

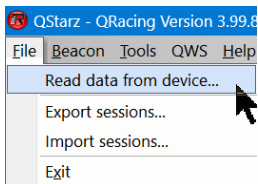
***For detailed instructions, please refer to QRacing's user manual attached with the software.**

***View product video tutorial at:** <https://www.youtube.com/user/QstarzInternational>

***Follow Qstarz GPS Lap timer Facebook page at** <https://www.facebook.com/QstarzGPSLapTimer/?fref=ts>

L-1. Read data from 8000GT

- Please go to Qstarz website (<http://racing.qstarz.com/Download.html>) to download and Install QRacing software. After complete the installation, make sure to input product key at first time use. When using the QRacing software for the first time, please enter the software key first and register/log in as a member on the QRacing Web cloud platform (<https://qws.qstarz.com>) to obtain the QRacing software key online.
- "Power off" the unit and connect the supplied USB cable to the computer.
- Run QRacing software
- Click on **"Read data from device"** from **Menu >> File**
- Select the Racing Type
- Select the session to import



M. Register your product

Register your Qstarz product to get the latest news, software update, event, and product information.

<http://www.qstarz.com/reg.php>

N. QRacing APP (supports iOS version/Android version)

QRacing



Please go to the App Store or Google Play store to download the QRacing App.

QRacing APP is a racing data analysis application that can integrate racing track data and videos for simultaneous playback and sharing. You can obtain and read the quick operation guide from the QRacing APP.

* Please refer to the Qstarz website description for supported versions.

Please download the QRacing APP to complete the QWS account application and activation when there is an Internet connection.

O. Use QRacing APP to connect to LT-8000GT Bluetooth GPS device

1. Turn on the LT-8000GT, confirm that the GPS has completed fixed, and Bluetooth is on by default.
2. Turn on the Bluetooth function of your mobile device, Settings > General > Bluetooth > Turn on.
3. Launch the QRacing APP on your phone.
4. Click GO or Racer > Link in the QRacing APP to add a Qstarz device.
5. Click your LT-8000GT serial number from the search list to connect to the Bluetooth GPS device

* When there is no network, you can still use LT-8000GT alone to measure time

* When there is an Internet connection, you can download the QRacing APP and connect it to the LT-8000GT and measure the time at the same time

P. Using the LT-8000GT Wi-Fi function

8000GT sessions uploaded to QRacing APP

1. On the 8000GT main screen, go to WIRELESS > Wi-Fi > ON to turn on the wireless function.
2. Turn on Wi-Fi information and confirm the SSID and Password.
3. Open QRacing APP and add 8000GT Wi-Fi connection in Racer > Link > Wi-Fi Network.
4. After entering the 8000GT SSID and Password, click "Join" to complete the connection.
5. Go to the history and click Download. You can see all the sessions on the machine. Select the session that need to be downloaded to the QRacing APP. After clicking the download symbol, the selected session can be downloaded to the QRacing APP.

Firmware update: When the 8000GT Wi-Fi function is turned on, click Link > Wi-Fi Network > 8000GT SSID on the QRacing APP to check and update to the latest firmware version.

- * When the 8000GT Wi-Fi function is turned on, the time measurement function and history cannot be used. If you want to use the time measurement function, please turn off Wi-Fi first.
- * When Wi-Fi is turned on to read sessions, do not turn off Wi-Fi during data transmission to avoid data loss or damage.
- *The Wi-Fi function is in the wireless connection device, not wireless Internet access

Q. Frequently asked Question

1. Why is my unit not receiving a satellite signal?

- Although the 8000GT will normally pick up a satellite signal within 1-2 minutes after powering on the device, it may take longer time if you are in an area with more geographic obstructions.
- Please make sure you have placed it in a position that has clear view to the sky and not obstructed by metal objects.

2. My 8000GT crashed. How can I make get it back to normal status?

- You can find the Reset button beside USB connector, a small hole which can be pressed by pen tip or pin to reset your device. (Hard reset will shut down the device without erasing the memory data

3. I have set up my Start/Finish line, but it does not show any lap times?

-Please make sure the unit is mounted vertically straight as possible to your car's windshield and you have driven a complete lap around passed the Start/Finish line.

4. How long is the battery life of 8000GT?

Depending on how you are using the unit, your average battery life will be 8 ~10 hours. Using the device in a poor environment, having the backlight always on will decrease battery life.

5. Once I skip the tip how to enable it again?

Go to **Setting >> Tip**, set Tip to **OFF** and then set Tip to **ON** again

Warranty Card	
Thank you for choosing Qstarz product, Our products are warranted under normal non commercial, personal use, against defective materials as follows:	
A. Qstarz warrants this product and provides 12 months free warranty from date of purchase. We reserve the right to charge a handling fee if a returned product is found not to be under the warranty. Proof of purchases is required.	
B. This limited warranty covers all defects encountered in normal use of the product and does not apply in the following cases: 1. Loss or damage to the product due to abuse, mishandling, accident, improper maintenance or failure to follow instructions. 2. If the product is defective as a result of sand, dirt or water damage. 3. Product accessories damage.	
C. The warranty card is only valid through authorized retailer only.	
E. Please go to Qstarz website for product registration. It takes only a couple of minutes and allows you to stay informed about the latest news, updating software, and product information.	
Model No.:	Dealer
Product Serial Number:	
Purchasing Date:	
() () ()	
QSTARZ Qstarz International Co., Ltd. www.qstarz.com	