

VBOX LapTimer

(RLVBLAP-S)



VBOX LapTimer is a 25 Hz GNSS data logger and predictive lap timer display in one. It provides instant driver feedback, helping you to find where time is being lost and where time can be gained around a track.

VBOX LapTimer compares your previous best lap to your current lap based on position rather than distance, which is far superior on longer tracks.

In addition to the Delta Time display, VBOX LapTimer features an array of 6 LEDs to give an indication of your speed relative to your fastest lap.

Data is logged to the SD card for post session analysis in our free Circuit Tools software, which is compatible with Windows, macOS and iOS devices.



Features

- Accurate to 100th of a second
- Uses position, not distance, for unrivalled accuracy.
- Delta-V LED indicators
- 25 Hz data logging to SD card
- View parameters such as live speed, max speed, g-force, lap times and predicted lap times
- Internal accelerometer: flips display according to the way it is mounted
- Supplied with external GNSS antenna
- Easy operation: three buttons to scroll display screens, set start/finish points, reset data, start/stop logging, and enter menus
- Motorsport Standard Lemo connectors
- Low power consumption: <2W
- Multiple Mounting methods including standard 1/4-20 UNC threaded hole
- Free lifetime customer support

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Display Modes

VBOX LapTimer has different display modes, which can be accessed using the Up and Down buttons. The data on each screen is always calculated, even if it is not displayed.

Live Speed

115.65 km/h

Predictive Lap Timing

-02.44

Max. Speed

271.39 max km/h

Lap Timing

2'07.7 Lap 01

Lap Count

TOTAL LAPS	CURRENT LAPS
003	003

Lateral G

+1.11g max ± 1.11

Longitudinal G

-4.08g max ± 4.18

Connectors



Power Connector			
Pin	I/O	Function	
1	I	Power +	
2	I	Ground	
Chassis	I	Ground	

GNSS Antenna Connector			
Pin	I/O	Function	
1	I	Signal	
Chassis	I	Ground	

RS232/CAN Connector			
Pin	I/O	Function	
1	O	RS232Tx	
2	I	RS232Rx	
3	I/O	CAN Hi	
4	I/O	CAN Lo	
5	I	Power	

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General Specifications

Environmental and Physical	
Unit Connection	1x Lemo 5W socket, 1 x Lemo 2W socket
IP Rating	IP31
Operating Temp	0 to +60°C
Power	<2W
Input Voltage	7 – 30 V DC
Dimensions	120 x 50 x 22 mm (exc. connectors)
Weight	171 g (exc. cable)

GPS Specifications

Velocity		Distance	
Accuracy	0.1 km/h	Accuracy	0.05% (<50 cm per km)
Units	km/h or mph	Units	Metres / Feet
Update rate	25 Hz	Update rate	25 Hz
Resolution	0.01 km/h	Resolution	1 cm

Absolute Positioning		Time	
Accuracy	±2 m 95% CEP*	Accuracy	0.01 s
Resolution	1 cm	Resolution	0.01 s
Update rate	25 Hz		

Acceleration		Heading	
Accuracy	1%	Accuracy	0.3°
Resolution	0.01 g	Resolution	0.01°
Maximum	4 g		
Update rate	25 Hz		

* CEP = Circle of Error Probable. 95% CEP means 95% of the time the position readings will fall within a circle of the stated radius.

Package Contents

	Product Code
VBOX LapTimer unit	VBLAP02-S-V1
External GNSS low profile antenna, 2 m, RG-174 & MCX Male Connector	RLACS262
Lightweight camera/display suction mount with thumb nut	RLACS287
2W Lemo to Unterminated power cable, 2 m, screened	RLCAB014LE
8 GB SD Ultima Pro UHS-1 Memory Card	RLACS313