



Overview:

The PerformanceBox Sport (RLPBMIC01) is a small, waterproof (IP66) GPS data logger with a user-selectable log rate from 1 sample per minute to 10 samples per second.

It can be used to measure time, speed, distance, position, acceleration, height and vertical velocity and logs data to a removable Compact Flash card. It features CAN Input and Output, USB interface for configuration, status LEDs and Compact Flash logging. The small form factor, ruggedness and flexible logging rates make the PerformanceBox Sport ideal for durability testing, motorcycles, boats, mining trucks and race cars.

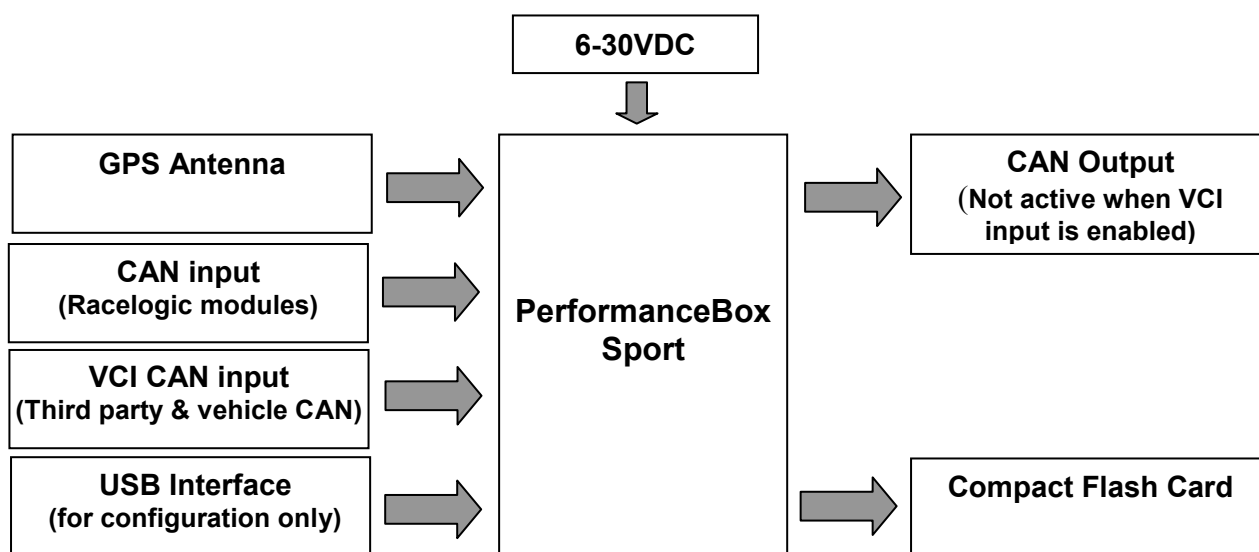
Two versions are available, the RLPBMIC01 featuring basic CAN connection to Racelogic units and the RLPBMIC01C, allowing connection to other manufacturer's CAN units and vehicle CAN. If required, manufacturer's CAN Data sets are available for an additional charge.



Features:

- Non-contact speed and distance measurement using GPS
- Maximum 10Hz Update rate
- User adjustable log rate from 100ms/sample to 60s/sample.
- CAN Bus interface for connection to all VBOX input modules – RLPBMIC01 version
- VCI CAN Input for connection to third party CAN modules and Vehicle CAN – RLPBMIC01C version
- USB Interface (for configuration only)
- Compact Flash card storage
- IP66 rated enclosure
- Logging of up to 13 GPS channels, plus module dependent CAN channels
- LED operational status indication
- Supplied with VBOX Tools data analysis software

PerformanceBox Sport Inputs and Outputs





Package Contents

- 1 x RLPBMIC01 or RLPBMIC01C – PerformanceBox Sport 10Hz GPS data logger
- 1 x RLVBACS001 - Magnetic GPS antenna
- 1 x RLCAB060 - 12V Fischer to Vehicle cigar lighter cable (1m)
- 1 x RLVBACS048 - 512MB Compact Flash card



PerformanceBox Sport
(with door open)



RLVBACS001



RLCAB060



RLVBACS048



Specification

Velocity

Accuracy	0.2 Km/h (averaged over 4 samples)
Units	Km/h or Mph
Maximum update rate	10 Hz
Maximum velocity	1000 Mph
Minimum velocity	0.1 Km/h
Resolution	0.01 Km/h
Latency	>160ms

Distance

Accuracy	0.05% (<50cm per Km)
Units	Metres / Feet
Maximum update rate	10 Hz
Resolution	1cm
Height accuracy	10 Metres 95% CEP**

Absolute Positioning

Accuracy	2.5m 95% CEP**
Maximum update rate	10 Hz
Resolution	1 cm

Heading

Resolution	0.01°
Accuracy	0.2°

Time

Resolution	0.01 s
Accuracy	0.01 s

Acceleration

Accuracy	1%
Maximum	4 G
Resolution	0.01 G
Maximum update rate	10 Hz

Memory

External memory support	Compact Flash Card
Recording time	Dependant on CF capacity. Approx 3.67 KB per hour used while logging all GPS channels at 60s per sample log rate.



Inputs

CAN Bus – RLPBMIC01

VCI CAN Input – RLPBMIC01C

CAN connection for Racelogic modules only. Allows the user to log incoming CAN data from other systems. Note: Unit does not connect to other Racelogic CAN modules when in VCI CAN input is active.

Outputs

CAN Bus

Bit rate

125 kbit/s, 250kbit/s, 500kbit/s & 1Mbit/s selectable baud rate

Identifier type

Standard 11bit and Extended 29bit 2.0A

Data available

Satellites in view, UTC time, Latitude, Longitude, Speed, Heading, Altitude, Vertical velocity, Longitudinal acceleration, Lateral acceleration, Distance since reset

Power

Input Voltage range

6-30V DC

Current

Typically 70mA

Environmental and physical

Weight

Approx 275 grammes

Size

105mm x 85 x 30mm

Operating temperature

-10°C to +60°C

Storage temperature

-40°C to +85°C

Definitions

** CEP = Circle of Error Probable

95% CEP (Circle Error Probable) means 95% of the time the position readings will fall within a circle of the stated diameter

Hardware/Software Support

One Year Hardware/Lifetime Software Support Contract.

Lifetime Software Support Contract is valid for a minimum of 5 years from the date of purchase and limited to original purchaser. Contract includes telephone/email technical support provided by local distributor and firmware/software upgrades where applicable.

PerformanceBox Sport – Rear view showing connectors:

