

# Performance Box Touch

RLPBT-V2



RACELOGIC's **Performance Box Touch** measures speed, lap and split times, delta-T, acceleration, deceleration as well as distance and more.

All these parameters are logged to an SD card 25 times per second and can be viewed on screen and analysed in detail using the VBOX Test Suite or Circuit Tools software provided.

Performance Box Touch has four operation modes available which allow you to conduct a range of performance tests and functions: Accel, Decel, Lap Timing, and Speed.



[More info](#)



[More info](#)



[More info](#)



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## Example Screens for Acceleration Testing

See links above for more information on the other operation modes.

### Primary Screen



- Acceleration tests including: 0-60, 0-100, 0-100-0 and 0-¼ mile.
- Custom speed, distance or 0-speed-0 tests can be configured, and other options include enabling or disabling alert at end of test, one-foot rollout and slope correction.
- Can display up to 4 concurrent test results.
- Screen displays time, run number, distance, VMAX, Peak G, and altitude difference. Units of measurement for speed or distance can be easily swapped between metric or imperial.

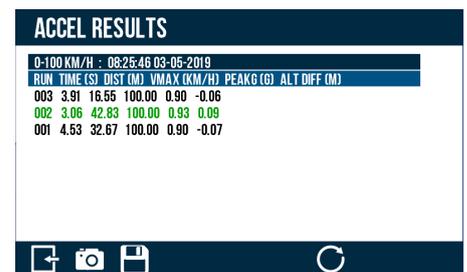
### Secondary Screen



### Best Result



### Accel Results



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## Environmental and Physical

Environmental & Physical	
<b>Input Voltage</b>	5 V (USB compliant 4.4 V – 5.3 V)
<b>Power consumption (Connected to external power supply)</b>	
With Battery	< 7 W using 1.5 A or greater USB supply via micro-B
Without Battery	< 3 W Using 0.9 A or greater USB supply via micro-B
<b>Operating Temperature</b>	-20°C to +50°C
<b>Storage Temperature</b>	-30°C to +80°C
<b>Size</b>	
With battery attached	136.3 x 90.4 x 38.3 mm
Without battery	136.3 x 90.4 x 36.3 mm
<b>Weight</b>	
With battery	336 g
Without battery	226 g
<b>Battery</b>	
Capacity	11 Wh
Run time	6 hrs normal use from full charge
Time to charge	95% charge at 3.5 hrs, dependant on unit power demands and power supply.
Touch Screen	
<b>Size</b>	4.3" TFT Capacitive Touch
<b>Resolution</b>	480*800 pixels
<b>TFT LCD Display Colours</b>	262K colours (18 Bit)
Mounting	
<b>Mount Type</b>	Suction cup windscreen mount
Data Storage	
<b>Type</b>	SD card (8 GB supplied)
<b>Recording Time</b>	120 hours on supplied SD card.

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## Diagrams

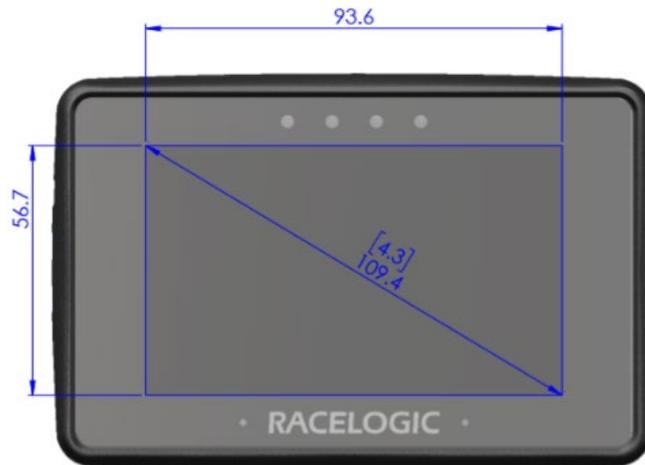
### Without Battery



### With Battery



## Screen



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## GPS Specifications

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

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

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

Definitions:

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

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## Package content

Performance Box Touch is available in two versions. There are no differences in functionality between the two, only in which peripherals are included:

Description of RLPBT	Product Code
1x Performance Box Touch unit only	PBT-V2
1x Windscreen Suction Mount	RLACS331
1x Cigar Plug USB Adaptor	RLACS184
1x USB 2.0 A to Right Angle Micro B Charging Cable 1.5m lead	USB2-007241
1x 8 GB SD Ultima Pro UHS-1 Memory Card	RLACS313

Description RLPBT/B	Product Code
<b>Same as RLPBT, plus:</b>	
1x Performance Box Touch Battery	RLACS290
1x GPS / GLONASS Low Profile Antenna 2m cable	RLACS284
1x Plastic Carry Case	RLACS281

## Supplied software

Each Performance Box Touch is supplied with a SD card containing the VBOX Test Suite and Circuit Tools software. This software allows the user to display and analyse the information recorded by the Performance Box Touch.

Features include graphical display of logged parameters, full circuit plot, overlaid comparison laps and detailed performance analysis. More help and information available via Racelogic [Support Centre](#).

