

RACE PATROL *Lite*

ABOUT

The system performs the official 2 m wide open throttle test (2M Max) used in MX-GP. Inherent in the system design is the iOS app featuring sound level meter capabilities and advanced RPM detection algorithm. RPM reading is quick and accurate via a fully customized interface within the app running on iPad, iPhone or iPod. The measurement itself takes minimum time because all parameters of the motorcycle (noise level and RPM) are measured simultaneously. Since operator intervention is minimized, chances for errors and manipulation are also minimized.

FEATURES



COMPACT AND LIGHTWEIGHT

Regular use at the racetrack requires a lightweight and compact design. The system is stored in a compact lightweight suitcase which protects it and is very portable. This provides a reliable solution for sound measurements for motorcycle tuning prior to the race or exhaust testing.

EVERYTHING YOU NEED

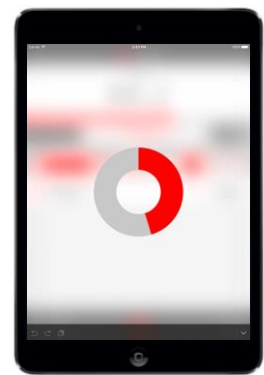
Motorcycle tuning or exhaust testing ... Race Patrol Lite provides everything you need in a single compact suitcase. Measurement unit, thermal printer (optional), measurement microphone and tripod holder are securely stored in a suitcase.

EASY TO USE

Once the system hardware is set up, there is one more thing to do - measure motorcycles. Since complete hardware is not only monitored from an iOS device, but also controlled and managed from the same device, measurements become a breeze. In this way complete control, transparency and visual cues allow fair control of motorcycle exhaust noise.

INTELLIREV™

Our proprietary algorithm IntelliRev analyses acoustic signal and extracts the RPM of the engine, when it operates at full throttle. This revolutionary algorithm immediately compares the measured RPM to the pre-defined limit and instant action can be taken. If the engine map was altered and the engine does not reach its maximum RPM at full throttle in an attempt to gain an unfair competitive advantage at the race, this can be detected on-the-spot. The algorithm also detects prominent explosions in the exhaust with a very clear visual indication. The **RevAssist** feature with visual feedback (see figure) helps operator achieve an accurate revving time.



SYSTEM CONTENT

- Measurement unit with wrist strap (3x AA alkaline batteries included)
- Measurement microphone i436 including windscreen and calibration certificate
- Tripod holder with 3/8-inch and 1/4-inch thread adapter
- Thermal printer with charger and a spare roll of paper (optional)
- Acoustical calibrator (optional)
- User manual

SPECIFICATIONS

System

Settling time	<5s (from power-on)
Battery type	Replacable 3 x AA alkaline batteries
Battery lifetime	Typically > 15 h of continuous operation
Size (LxWxH)	279 mm x 246 mm x 80 mm (11" x 9.7" x 3.15")
Weight	1.5 kg (3 lb)
Thermal printer	GeBe Flash for iOS (Bluetooth) ¹

Sound level meter

The sound level meter capability is built into the Race Patrol app, featuring A and C frequency weighting. It complies to It is calibrated according to IEC/EN 61672 - 1:2002 Class 2 requirements.

Microphone

Type	Mic-W type i436 ¼-inch electret condenser microphone
Nominal sensitivity	-44 dB re 1 V/Pa or 6.3 mV/ Pa
Frequency Range	20 Hz to 20 kHz ± 1dB
Polar pattern	Omnidirectional
Signal to noise ratio	62 dB

Calibration

Automatic acoustical calibration, using sound level meter calibrator Svantek SV 34².

SMART DEVICE (Not included)

Apple iOS (version 9 or later) device (iPhone, iPad or iPod) running Race Patrol app.



ORDERING INFORMATION

RP-305	Race Patrol Lite measurement system
RP-305-CAL	Acoustical calibrator option
RP-305-PRINT	Thermal printer option
RP-305-RC	Rugged case option
MIC-001	Measurement microphone MicW i436
UT-001	Microphone windscreen
RP-305-TCAL	Traceable calibration with certificate

¹ Thermal printer is optional.

² Acoustical calibrator is optional.

CONTACT

EA LAB d.o.o.

Cesta Ljubljanske brigade 23A

SI-1000 Ljubljana

Slovenia

Tel: +386 1 500 09 30

Email: info@ea-lab.eu

Visit www.racepatrol.eu for more information.

