

STATIONARY EXHAUST NOISE METER



The AutoTest eNoise is a hand-held, stand-alone portable instrument for the measurement and analysis of sound pressure level emitted by stationary vehicles at a nominated engine speed.

With the additional feature of an integrated internal tachometer that simultaneously monitors the acoustic signal of the exhaust to measure the engine speed, without the need of any external wiring or additional equipment.

Application

The Stationary Exhaust Noise Test Procedures for in-service motor vehicles was first prepared by the Motor Vehicle Environment Committee (MVEC, the precursor to LTEC) in 1999 to introduce a national approach to measuring exhaust noise.

Previous to this, some jurisdictions had developed their own approaches and the differences in these approaches could have led to inconsistencies in test results. A uniform approach ensures that vehicle owners will get an accurate assessment of whether their vehicle complies with national noise standards.

This noise emission standard for motor vehicles adopts the UN Economic Commission for Europe (UNECE) Regulations for motor vehicle noise. The UNECE regulations refer to ISO 5130 "acoustics - measurement of sound pressure levels emitted by stationary road vehicles" which provide the noise testing procedures for in-service vehicles.



Specifications:

Measured parameter	Sound pressure
Frequency range	63Hz to 10kHz
Dynamic range	80dB
Max sound pressure level	120dB
Level ranges	60 - 100dB, 70 - 110dB, 80 - 120dB
Frequency weighting	A
Measurement time	1s in SPL Test 1.5s in Engine Speed Test
Displayed parameters	SPL RPM
Input parameters required	No. cylinder : 2,4,6,8 No. stroke : 2 stroke or 4 stroke
Power supply	Rechargeable battery pack (automatic power off below 10%) "Battery Flat" displayed
Operating time	9 hours continuous
IP rating	IP53
Microphone	7.5mm electret, frequency range 20Hz - 20kHz
Display	240 x 160 pixel full graphics display
Keypad	40 keys alphanumeric tactile membrane keypad
Weight	0.4kg
Physical dimensions	230 x 95 x 50mm
Temperature range	0° - 60°C
Humidity range	20% - 90%

Applicable standards:

Type	Standard
Class 1	International Electrotechnical Commission Publication IEC 61672-1 Ed. 1.0 (Bilingual 2002): Electroacoustics - Sound level meters - Part 1: Specifications
Class 1	Australian Standard AS IEC 61672.1-2004: Electroacoustics - Sound level meters - Specifications
Type 1	International Electrotechnical Commission Publication IEC 60654 (1979) "Precision sound level meters"