

ROADSIDE NOISE TESTING

CARS AND MOTORCYCLES

The noise from road vehicles – cars, trucks and motorcycles – is a nuisance to many city dwellers, and the exhaust systems of some vehicles are too noisy due to wear, maladjustment or modification. EU Directive 70/157/EEC and ISO standard ISO 5130 describe how to check the exhaust noise of a stationary vehicle at the roadside.

A microphone is placed at a well-defined position close to the exhaust; the engine speed is gradually increased from idle to a specified engine speed, and gradually held constant at that speed. The throttle control is then quickly released and the engine speed returned to idle. During the entire cycle, the sound level is measured and the maximum reading recorded. The maximum level is then compared to the level permitted for the vehicle in question, and suitable action taken if the level is exceeded.

The basic instrumentation for acoustical measurement is a Class 1 Sound Level Meter and a sound calibrator. In addition, the engine speed must be measured accurately.

Product Guide

Exhaust Noise Inspector Type 3638 A measures and documents the exterior exhaust sound levels from stationary road vehicles, simultaneously with engine speed detection. As an all-in-one automatic system, it minimises the inconvenience to traffic and drivers, and helps the user make accurate measurements.



Microphone positions for roadside exhaust noise measurement

