

NoiseMeters

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CK261S

Vehicle Noise Measurement Kit



30 130
LAF dB LAFMax dB
66.4 88.2
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CR:261S
Vehicle Noise Analyser

NoiseMeters
Reset

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CR261S

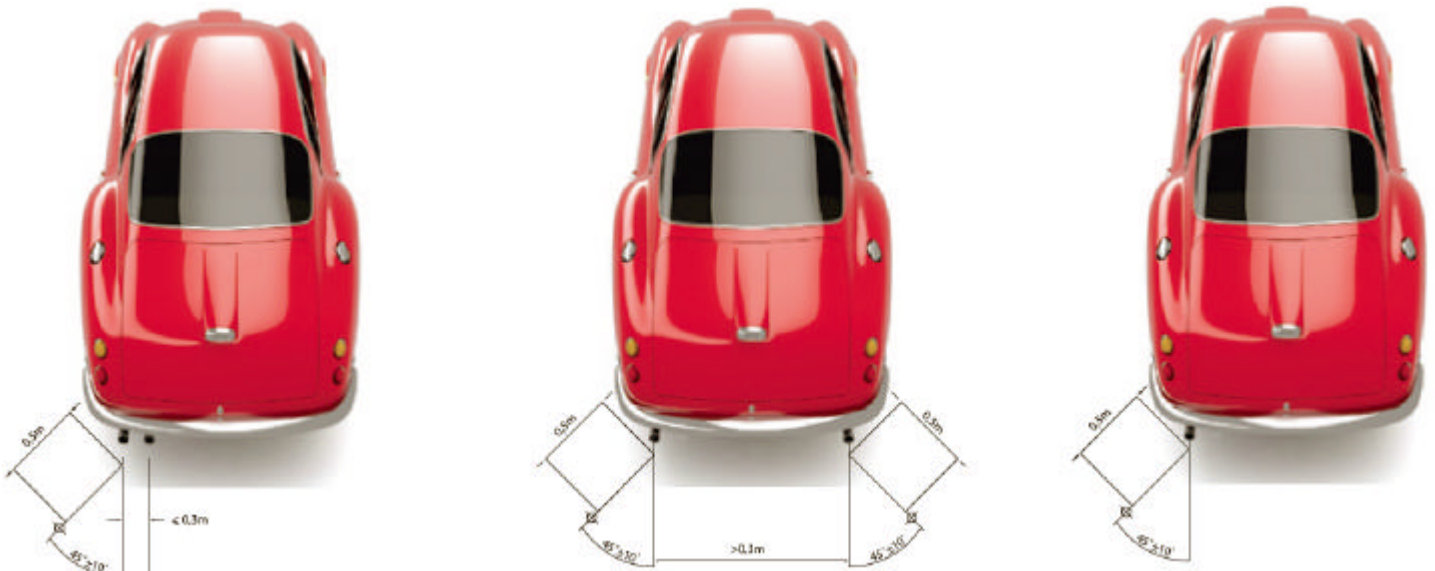
Key Features

- Vehicle noise testing to
 - ISO 5130:2007 "Acoustics - Measurement of noise emitted by stationary road vehicles"
 - §29 StVZO
- Class 1 to IEC 61672-1:2002
- PTB Type Approval
 - DIN EN 61672-1:2002-10
 - DIN EN 61672-2:2003-08
- Ideal for static noise testing of cars, trucks & motorbikes in workshops, garages and test laboratories
- Suitable for motor-sport noise measurements
- Simple Operation with 3 buttons
- Remote control for measurement and display of three measured levels
- Complete measurement kit (CK261S) includes all the accessories
- Calibrator, Tripod, Microphone Positioning Template, Tape Measure and Carrying Case
- Automatic Calibration
- English and German versions

Introduction

The CR261S is a Class 1 Sound Level Meter that has been designed to meet the requirements of ISO 5130:2007 and §29 StVZO for the noise testing of motor vehicles.

Designed to be used in workshops, garages and test laboratories alike, the CR:261S is a robust instrument that is simple to operate whilst providing the measurements needed.



Type Approval to IEC 61672

The CR261S carries full PTB Type Approval to the latest IEC 61672 Standard for Sound Level Meters. The approval is to DIN EN 61672-1:2002-10 and DIN EN 61672-2:2003-08 and the PTB reference number is PTB-1.72-4025043.

Making Measurements

The CR261S has been specifically designed to be used for vehicle noise measurements. In this application, the most commonly used measurement is the maximum sound level, or L_{AFmax} . The instrument has two operating modes.

Stand-Alone Mode

This is when the CR261S is used without the remote control. In this mode, the display shows the current sound level, L_{AF} , and the maximum sound level, L_{AFmax} , recorded.

Remote Control Mode

The second measurement mode uses the remote control to start and stop the measurements.

With the remote control unit, ZL261S, the noise tests can be carried out quickly and comfortably by one person alone - with a single button. When the remote control is pressed, the instrument will measure and record the L_{AFmax} value. This mode allows noise measurements to be made in accordance with the requirements of ISO 5130:2007 as well as §29 StVZO.

The last three L_{AFmax} measurements are displayed on the screen allowing the user to safely operate or monitor the vehicle under test whilst making the noise measurements.

Measurements to ISO 5130:2007

ISO 5130:2007 requires three consecutive measurements to ensure repeatability. These measurements are taken at a specified engine speed, or RPM, and the maximum sound level produced during the test is taken. Once three valid measurements have been made, the highest is taken and used as the valid result.

The microphone can be placed at the specified measurement position, typically 45° and 0.5m from the exhaust of the vehicle under test.



The CK261S Measurement Kit includes a positioning template which can be used to ensure that the microphone capsule is set at the correct angle and distance from the vehicle exhaust. The tripod included with the kit allows the sound level meter and microphone to be set at the correct height from the ground. The remote control allows the user to control the measurements whilst ensuring that the engine is at the correct RPM for the test.



The CR261S can be supplied with a range of accessories and optional extras that allow the instrument to be used for various different applications.

CK261S Measurement Kit

The CR261S Sound Level Meter is usually supplied as part of the CK261S Vehicle Noise Measurement Kit.

Containing the Sound Level Meter and a full range of accessories, the CK261S Kit is the ideal tool for the measurement of noise according to ISO 5130:2007 and §29 StVZO. The CK261S Measurement Kit contains the following items:

- CR261S Class 1 Vehicle Noise Sound Level Meter
- CR515 Class 1 Acoustic Calibrator
- Windshield
- Carrying Case
- Remote Control (5m)
- User Manual
- Calibration Certificates
- Tape Measure & Positioning Template
- Tripod



The CK261S can also be specified with the CR511F Acoustic Calibrator and the CR590 Reference Barometer which carry PTB Type Approval to IEC 60942:1988.

The measurement kit includes a tripod to allow the microphone to be positioned at the correct height along with an alignment tool to position the microphone at the correct angle to the exhaust.

A tape measure is also provided to ensure that the vehicle under test is positioned away from objects as specified by ISO 5130:2007.

CR261S

Specifications

Applicable Standards

IEC 61672-1:2002 Class 1 X
DIN EN 61672-1:2002-08 & DIN EN 61672-2:2003-08

Microphone

Class+ Pre-polarized Free-field 1/2" Condenser

Microphone Preamplifier

MV200C Fixed Preamplifier

Approvals

PTB-1.72-4025043 to DIN EN 61672-1:2002-08 & DIN EN 61672-2:2003-08

Measurements/ Features

Sound level L_{AF}
Maximum Sound Level L_{AFmax}
Measurement program for automatic measurement and display of 3 maxima (L_{AFmax})
Remote control unit (5m) with one-touch operation

Time Weighting

F (Fast) to IEC 61672-1:2002

Frequency Weighting

dB(A) to IEC 61672-1:2002

Measurement Range

60 to 130dB(A)

Display

L_{AF} digital and quasi-analogue, L_{AFmax} , battery level, overload, measurement range

External Connections

Remote Control Connection for ZL261S
RS232 Connection for instrument configuration & testing

Physical

Dimensions	340 x 75 x 25 mm
Weight	450 g
Power	2 x 1.5v Alkaline LR6/AA
Battery Life	Typically >24 hours

Environmental

Temperature	Operating -10°C to +50°C Storage -20°C to +60°C
Humidity	Up to 95% RH Non Condensing

Electromagnetic Performance

EN 55022:1998
EN 61000-4-2:1995
EN 61000-4-8:1994
EN 61000-4-3:2002

Standard Accessories

The CK261S Vehicle Noise Measurement is supplied with the following components:

CR261S Vehicle Noise Sound Level Meter
CR515 Acoustic Calibrator
UA237 Windshield
CK260 Carrying Case
ZL261S Remote Control (5m)
User Manual & Certificates of Calibration
Tape Measure & Positioning Template
Tripod

Optional Accessories

The following optional accessories are available for the CK261S Vehicle Noise Measurement Kit:

CR511F Class 1L Acoustic Calibrator
CR590 Barometer for use with CR511F

Localisation

The CR:261S is available with the display and operating manuals in English & German. Other languages may be available. Please contact NoiseMeters for details.

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