



# SURFACE VEHICLE RECOMMENDED PRACTICE

J1477™

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Superseding J1477 JAN1986

## Measurement of Interior Sound Levels of Light Vehicles

### RATIONALE

SAE J1477 is being stabilized because the Light Vehicle Exterior Sound Level Standards Committee has determined that the using community is moving towards newer technology and would like to alert users that this new technology exists which may want to be considered for new design. Developments in vehicle technology and the need to have test procedures applicable to human noise dose exposure has led to the revision of ISO 5128:1980, on which SAE J1477 was based.

Users of SAE J1477 needing provisions for different vehicle technologies or wish to understand the human dose response related to long term fatigue, task attentiveness, or hearing damage, are directed to ISO 5128:2023.

### STABILIZED NOTICE

This document has been declared "STABILIZED" by SAE Light Vehicle Exterior Sound Level Standards Committee and will no longer be subjected to periodic reviews for currency. Users are responsible for verifying references and continued suitability of technical requirements. Newer technology may exist.

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**Foreword**—This Document has not changed other than to put it into the new SAE Technical Standards Board Format. References were added as Section 2. All other section numbers changed accordingly.

- 1. Scope**—This SAE Recommended Practice establishes the test procedure, environment, instrumentation, and data analyses for comparing interior sound level of passenger cars, multipurpose vehicles, and light trucks having gross vehicle weight rating (GVWR) of 4540 kg (10 000 lb) or less.

The test procedure is characterized by having fixed initial conditions (specified initial vehicle speed and gear selection at the starting point on the test site) to obtain vehicle interior sound measurement during road load operation over various road surfaces at specified constant speeds.

The measurement data so derived is useful for vehicle engineering development and analysis.

- 1.1 Operation**—Perform a standard series of tests at 60, 70, 80, 90, and 100 km/h (38, 44, 50, 56, 63 mph) on smooth (within normal construction practice) level asphalt or equivalent road surface.

Perform special tests at desired speeds on designated road surfaces, and/or with special noise producing systems operating, as desired.

## **2. References**

- 2.1 Applicable Publications**—The following publications form a part of the specification to the extent specified herein. Unless otherwise indicated, the latest revision of SAE publications shall apply.

- 2.1.1 SAE PUBLICATION—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J184—Qualifying a Sound Data Acquisition System

- 2.1.2 ANSI AND ISO PUBLICATIONS—Available from ANSI, 11 West 42nd Street, New York, NY 10036-8002.

ANSI S1.4—American National Standard Specification for Sound Level meters

ISO 5128—Acoustics, measurement of noise inside motor vehicles