

A Product of the Cooperative Engineering Program

SAE J1113 AUG87

Electromagnetic Susceptibility Measurement Procedures for Vehicle Components (Except Aircraft)

SAE Recommended Practice Revised August 1987

S. A. E. LIBRARY

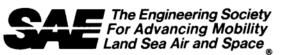
Submitted for Recognition as an American National Standard



No part of this publication may be reproduced in any form, in an electronic retrieval system or otherwise, without the prior written permission of the publisher.

Copyright 1988 Society of Automotive Engineers, Inc.





400 COMMONWEALTH DRIVE, WARRENDALE, PA 15096

HIGHWAY VEHICLE PRACTICE

Issued April 1975 Revised Aug. 1987

Submitted for recognition as an American National Standard

Superseding J1113 JUN84

Ø ELECTROMAGNETIC SUSCEPTIBILITY MEASUREMENT PROCEDURES FOR VEHICLE COMPONENTS (EXCEPT AIRCRAFT)

- 1. INTRODUCTION:
- 1.1 Scope: This SAE Recommended Practice establishes uniform laboratory measurement techniques for the determination of the susceptibility to undesired electromagnetic sources of electrical, electronic, and electromechanical ground-vehicle components. It is intended as a guide toward standard practice, but may be subject to frequent change to keep pace with experience and technical advances, and this should be kept in mind when considering its use.
- 1.2 <u>Measurement Philosophy</u>: The need for measurement of the susceptibility of vehicle electronic components to electromagnetic sources has become more essential as more electronic components are introduced into motor vehicles. Electronic and electrical equipment may be susceptible to performance anomalies when subjected to electromagnetic sources, either of a transient or steady-state nature.

Electromagnetic interference (EMI) may be transient, intermittent, or continuous in nature arising from sources such as transmitters or other equipment located either on board or adjacent to the vehicle, or from component parts of the vehicle ignition or electrical power systems.

This recommended practice sets forth uniform procedures for establishing the susceptibility levels of individual vehicle components. It does not set limits on levels of EM energy in which vehicle components must perform; however, suggestions for developing functional performance status classifications for immunity are given in Appendix B.

SAE Technical Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.