Licensed copy: Tech Street, ISO Exchange - Michigan, Version correct as of 30/09/2014, (c) The British Standards Institution 2014

PD ISO/TS 21609:2014



BSI Standards Publication

Road vehicles — (EMC) guidelines for installation of aftermarket radio frequency transmitting equipment

bsi.

...making excellence a habit.™

Licensed copy: Tech Street, ISO Exchange - Michigan, Version correct as of 30/09/2014, (c) The British Standards Institution 2014

National foreword

This Published Document is the UK implementation of ISO/TS 21609:2014.

The UK participation in its preparation was entrusted to Technical Committee AUE/16, Electrical and electronic equipment.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2014.

Published by BSI Standards Limited 2014

ISBN 978 0 580 80788 6

ICS 33.100.01; 43.040.10

Compliance with a British Standard cannot confer immunity from legal obligations.

This Published Document was published under the authority of the Standards Policy and Strategy Committee on 30 September 2014.

Amendments/corrigenda issued since publication

Date	Text affected

Licensed copy: Tech Street, ISO Exchange - Michigan, Version correct as of 30/09/2014, (c) The British Standards Institution 2014

TECHNICAL SPECIFICATION

ISO/TS 21609

Second edition
2014-04-15

Road vehicles — (EMC) guidelines for installation of aftermarket radio frequency transmitting equipment

Véhicules routiers — Guide sur la compatibilité électromagnétique (CEM) pour l'installation en seconde monte d'équipements radio-téléphone

Reference number
ISO/TS 21609:2014(E)

© ISO 2014

Licensed copy: Tech Street, ISO Exchange - Michigan, Version correct as of 30/09/2014, (c) The British Standards Institution 2014



COPYRIGHT PROTECTED DOCUMENT

© ISO 2014

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword ..... **iv**

1 Scope **1**

2 Normative references **1**

3 Terms, definitions and abbreviated terms **1**
3.1 Terms and definitions 1
3.2 Abbreviated terms 2

4 General **2**
4.1 Customer liaison and installation requirements 3

5 Installation **7**
5.1 Installation process 7
5.2 Antenna 7
5.3 Antenna cable 9
5.4 Installation of radio equipment 9

6 Test and final inspection **11**
6.1 Antenna basic checks 11
6.2 Test calls 11
6.3 Disturbance checks 12

Bibliography **13**

Licensed copy: Tech Street, ISO Exchange - Michigan, Version correct as of 30/09/2014, (c) The British Standards Institution 2014

© ISO 2014 – All rights reserved

Licensed copy: Tech Street, ISO Exchange - Michigan, Version correct as of 30/09/2014, (c) The British Standards Institution 2014

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received. www.iso.org/patents

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 22, *Road vehicles*, Subcommittee SC 3, *Electrical and electronic equipment*.

This second edition cancels and replaces the first edition (ISO/TS 21609:2003), which has been technically revised.

© ISO 2014 – All rights reserved

Licensed copy: Tech Street, ISO Exchange - Michigan, Version correct as of 30/09/2014, (c) The British Standards Institution 2014

Road vehicles — (EMC) guidelines for installation of aftermarket radio frequency transmitting equipment

1 Scope

This Technical Specification gives requirements and recommendations for the installation in road vehicles of

— radio frequency (RF) transmitting and receiving equipment,

— "in-road-vehicle" mounting kits for transportable and hand-held RF equipment, and

— ancillary equipment associated with these.

As well as methods for installation, it establishes methods for minimizing the possibility of electromagnetic interference (EMI) between the installed equipment and the vehicle electrical and electronic systems.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable to its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60050 (all parts), *International Electrotechnical Vocabulary (IEV)*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60050 (all parts) and the following terms, definitions and abbreviated terms apply.

3.1.1
mobile equipment
receiver, transmitter or transmitter/receiver (transceiver) that is intended for installation and use in a vehicle, and powered by the main battery of the vehicle

3.1.2
ancillary equipment
any equipment required as part of the installation in addition to the radio

EXAMPLE Voltage converter

3.1.3
equipment supplier
supplier of the equipment to the installer

Note 1 to entry: The equipment supplier may be a dealer, distributor or manufacturer.

3.1.4
floating system
isolated ground return

© ISO 2014 – All rights reserved