BS EN 15213-4:2013

BSI Standards Publication

Intelligent transport systems — After-theft systems for the recovery of stolen vehicles

Part 4: Interface and system requirements in terms of long range communication system

bsi.

...making excellence a habit.™

National foreword

This British Standard is the UK implementation of EN 15213-4:2013. It supersedes DD CEN/TS 15213-4:2006 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee EPL/278, Intelligent transport systems.

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.

ISBN 978 0 580 80231 7

ICS 35.240.60

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

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 June 2013.

Amendments issued since publication

Date	Text affected

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 15213-4

June 2013

ICS 35.240.60

Supersedes CEN/TS 15213-4:2006

English Version

Intelligent transport systems - After-theft systems for the recovery of stolen vehicles - Part 4: Interface and system requirements in terms of long range communication system

Systèmes de transport intelligents - Systèmes intervenant après un vol pour la récupération des véhicules - Partie 4: Spécifications d'interface et de système pour les communications à longue portée

Intelligente Transportsysteme - Systeme für das Wiederfinden gestohlener Fahrzeuge - Teil 4: Schnittstellen- und Systemanforderungen für Weitbereichskommunikationsysteme

This European Standard was approved by CEN on 26 April 2013.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 15213-4:2013: E

Contents

Page

Foreword

This document (EN 15213-4:2013) has been prepared by Technical Committee CEN/TC 278 “Road Transport and Traffic Telematics”, the secretariat of which is held by NEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2013, and conflicting national standards shall be withdrawn at the latest by December 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes CEN/TS 15213-4:2006.

It is derived from a suite of CEN Technical Specifications CEN/TS 15213-1 to -6 inclusive dealing with the tracking and recovery of stolen vehicles. Parts 1 to 5 inclusive have been upgraded to EN status without change. CEN/TS 15213-6:2011 remains a valid Technical Specification as of the date of this publication and will be considered for EN status in due course. All these documents remain related and should be read in conjunction according to the type of technology, product or service being considered.

EN 15213 consists of the following parts:

— EN 15213-1, *Intelligent transport systems — After-theft systems for the recovery of stolen vehicles — Part 1: Reference architecture and terminology*;

— EN 15213-2, *Intelligent transport systems — After-theft systems for the recovery of stolen vehicles — Part 2: Common status message elements*;

— EN 15213-3, *Intelligent transport systems — After-theft systems for the recovery of stolen vehicles — Part 3: Interface and system requirements in terms of short range communication system*;

— EN 15213-4, *Intelligent transport systems — After-theft systems for the recovery of stolen vehicles — Part 4: Interface and system requirements in terms of long range communication system* (the present document);

— EN 15213-5, *Intelligent transport systems — After-theft systems for the recovery of stolen vehicles — Part 5: Messaging interface*;

— CEN/TS 15213-6, *Road transport and traffic telematics — After-theft services for the recovery of stolen vehicles — Part 6: Test procedures*[1)].

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1) Part 6 awaits final evaluation and ratification as EN and until such time remains a valid part of this EN as CEN/TS 15213-6:2011.

Introduction

This European Standard was developed by CEN/TC 278 "Road transport and traffic telematics", Working Group 14 (WG 14) on the subject of After Theft Systems for Vehicle Recovery (ATSVR).

WG 14 comprised representatives and experts from police, insurance associations (CEA), car manufacturers, transport associations, vehicle rental associations and ATSVR system and product providers. The work was also in cooperation with Europol and the European Police Cooperation Working Group (EPCWG).

This European Standard was developed to define an architecture within guidelines from CEN/TC 278 through which a level of interoperability can be achieved between Systems Operating Centres (SOC) and Law Enforcement Agencies (LEA), both nationally and internationally.

This will provide minimum standards of information and assurance to users as to the functionality of systems, thereby enabling the recovery of vehicles, detection of offenders and a reduction in crime.

This European Standard refers to the potential development of systems to enable law enforcement agencies to remotely slow and/or stop the engines of stolen vehicles. This situation remains and further information is available in 2012 CEN publication N2643 Feasibility Report on Remote Slow and Stop Technology, available from CEN/TC 278.

This document should be read in conjunction with EN 15213-1 which provides the preliminary framework for ATSVR concepts.

1 Scope

This European Standard specifies the characteristics required to operate the Long Range ATSVR Architecture.

An ATSVR consists of various elements that communicate and interact through a range of interfaces in accordance with standard procedures and protocols in order to facilitate the recovery of stolen vehicles. These processes may involve a human operator.

ATSVR elements include an OBE installed in the vehicles, a range of Detecting Equipment and one or more System Operating Centres. One or more supporting Infrastructure Networks provide communications to support the ATSVR. The ATSVR location function may also include one or more supporting Position Reference Sources.

The LR systems use an interface that allows the Detection Equipment to operate some ATSVR Functions at distances greater than the direct line of sight. These LR systems are generally operated with ATSVR Location Functions using long-range communications.

This European Standard permits existing proprietary systems to operate using these interface specifications at ATSVR application level.

The main subject areas are:

a) definition of classes and categories;

b) interoperability and compatibility of systems at:

   1) functional level;

   2) information level;

   3) performance level;

c) identification of communications supporting infrastructures;

d) specification of compatible interfaces for ATSVR applications;

e) restriction of specifications to:

   1) application level;

   2) operating level;

   3) user level.

2 Normative references

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

EN 15213-1:2013, *Intelligent transport systems — After-theft systems for the recovery of stolen vehicles — Part 1: Reference architecture and terminology*

EN 15213-3:2013, *Intelligent transport systems — After-theft systems for the recovery of stolen vehicles — Part 3: Interface and system requirements in terms of short range communication system*

ISO/TS 21609, *Road vehicles — (EMC) guidelines for installation of aftermarket radio frequency transmitting equipment*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 15213-1:2013 and EN 15213-3:2013 apply.

4 Symbols and abbreviations

DE Detection Equipment

LEA Law Enforcement Agency (see EN 15213-1)

LR Long Range

OBE On Board Equipment

SOC System Operating Centre

SR Short Range

5 Requirements for Long Range Operations

5.1 LR ATSVR Architecture

An LR ATSVR consists of various equipment elements that communicate and interact through communication network interfaces in accordance with standard procedures and protocols to facilitate the recovery of a stolen vehicle. These processes may involve a human operator.

ATSVR elements include an OBE installed in the vehicle, a range of Detecting Equipment and one or more SOC's. One or more supporting communications network interfaces facilitates the interactions that support the various ATSVR functions. The ATSVR location function may also include one or more supporting Position Reference Sources.

5.2 The LR ATSVR Process

The process begins with the theft of the vehicle. Following theft or suspected theft, the first possible function is to indicate that the theft has occurred. Following this, the status of the target vehicle, i.e., whether the target vehicle has been stolen or not, shall be confirmed by the user or by other appropriate personnel; this status shall then be acknowledged by an LEA. This then becomes a Registered Stolen Vehicle.

The vehicle should then be located by the ATSVR, and if moving, tracked or homed onto by the system in order to facilitate LEA or ATSVR service personnel to close range with the target vehicle. By closing range with the target vehicle, they will more easily be able to recognise the vehicle. Once recognised, the target vehicle shall be accurately discriminated as the target vehicle from other surrounding vehicles.

This process facilitates the selection of the target vehicle for closer examination by LEA or ATSVR personnel in order to confirm the identity of the target vehicle as the stolen vehicle. The process of establishing identity may require an additional query and response through ATSVR databases.

This process can, under controlled circumstances, be assisted by the degradation of the capabilities of the target vehicle.

5.3 The LR ATSVR Functions

5.3.1 General

There are three basic ATSVR functions:

a) Detection of a Registered Stolen Vehicle;

b) Location of a Registered Stolen Vehicle;

c) Identification of a Registered Stolen Vehicle.

5.3.2 LR Detection Function

This function provides the automatic or semi-automatic detection of the location of a Registered Stolen Vehicle. This may be done by Signaling or by Consulting.

Detection by Signaling is when the OBE has been activated by a signal from an external source. This activation may come from a mobile or stationary source, which may be local to the vehicle (Short Range) or at a distance from the vehicle (Long Range). Once activated, the OBE transmits a signal that can be picked up by ATSVR Detection Equipment located either locally or at a distance from the vehicle. The transmitted signal may contain other relevant information.

Detection by Consulting is when an external item of DE interrogates the OBE and the OBE responds by transmitting data to the DE. The DE then compares the received data with a database of Registered Stolen Vehicles; a data match confirms that a Registered Stolen vehicle is present and further action can take place.

5.3.3 LR Location Function

Once the Registered Stolen vehicle has been detected the location can be established by one of the following functions:

— location by using direct geographic co-ordinates;

— location by using indirect geographical co-ordinates;

— location by using homing techniques.

Location by direct or indirect geographic co-ordinates is the process that establishes the general or precise location of the vehicle at a given point in time. This allows entitled persons to carry out their defined tasks.

Homing (also known as Tracing or Relative Positioning) is the process that periodically updates the range and direction of the detected vehicle from an intercepting vehicle over a period of time. Thus allowing entitled personnel to approach or intercept the detected vehicle without the necessary use of landmarks or absolute geographic references.

Tracking is the process that periodically updates location and other information on the detected vehicle over a period of time and allows entitled personnel to monitor, approach or intercept the detected vehicle.

5.3.4 LR Identification Function

This function allows the unequivocal identification of a vehicle as being the Registered Stolen Vehicle. This may be by means of a secure process that allows the unique vehicle data to be read; e.g. VIN, registration number, and other data, e.g. theft status, model, colour and if relevant, position.

Discrimination is the process that enables entitled personnel to unambiguously differentiate the detected vehicle from other surrounding vehicles.

Recognition is the process that enables entitled personnel to correctly select the detected vehicle through visual observation based on knowledge of the vehicle particulars such as make, model, colour and other specific observable features.

Indirect Identification results from data coming from a central or remote data bank, whilst Direct Identification is that resulting from data coming from the OBE.

5.3.5 Remote Degradation Function (optional)

This function provides the possibility to degrade from a remote site the vehicle's performance using either long or short-range transmission techniques. Short-range communication may be preferable as some countries require that the vehicle be in the direct line of sight of authorised personnel to trigger this function.

Regulations for these devices will be developed according to the laws of each country. However, this EN seeks to establish the main principles currently requested by the LEA's. These are:

a) Use of the system and the resulting engine degradation shall not lead to the contravention of the vehicle or road transport legislation in the country where it is to be operated. Differences in legislation, in different countries shall be taken into account.

b) System shall not compromise the safety of the vehicle, or any other vehicle. It shall only influence the intended vehicle and no other, irrespective of the system or system operator (anti-collision protection).

c) For safety reasons, the device shall not switch off the engine or have any influence on the braking, steering or safety of the vehicle. Subject to these requirements a slow degradation of power that the engine can generate is permissible. The degradation time may be as long as 30 min to 60 min until a steady low power state is reached. This permits the driver to park the vehicle safely, without endangering passing traffic.

d) There shall be a positive identification of the vehicle and confirmation that it is actually stolen.

e) Systems may only be activated by a person authorised by the LEA or a relevant government department. Some countries may require the vehicle to be in the direct line of sight of such an authorised person to trigger this function.

f) ATSVR companies should indemnify, in writing, each LEA where it is intended that the system will operate. The indemnity shall cover the LEA and their officers and servants, against any claim under any course of action made by any person in respect of:

    1) personal injury (including death) caused as a result of the use of the tracking/remote engine degradation system;

    2) any loss, damage, expense, personal injury (including death), wrongful arrest, prosecution or charge caused by negligent operation of the system by the SOC, or by any malfunction of the system which results in a vehicle being wrongly identified as stolen.

This section does not inhibit the use of the Prohibit Engine Start function when the vehicle is in Engine Off mode.

5.3.6 LR Theft Indication Function

This function provides the possibility to transmit a warning or alert from the OBE to an SOC, indicating in a DE, that the transmitting vehicle may have been stolen.

6 Vehicle Tracking System Parameters

6.1 Attack Resistance

It shall be possible to install the system, including the antenna so that it is hidden from sight.

6.2 Technical Specification

The vehicle battery shall normally power the system.

The system shall have its own back up battery.

The back up battery (a device that powers the device in the event that the main vehicle supply is interrupted), shall be able to maintain the system in active mode for a minimum of 5 h.

The back up battery shall be able to maintain the system in power saving mode for a minimum of 48 h.

The quiescent current drain of the system shall be less than 20 milliamps when the OBE is inactive.

6.3 Activation of the ATSVR Process

The ATSVR Process may only be initiated by an SOC for the purpose of ATSVR where that SOC has an agreement with an LEA or another SOC that has such an agreement.

A SOC shall only initiate the ATSVR Process when:

— it has been confirmed with a LEA that the vehicle has been stolen;

— the standard operational procedures of the SOC have been followed.

A SOC may initiate the ATSVR Process for testing purposes with the prior agreement of the appropriate LEA.

6.4 Deactivation of the ATSVR Process

The ATSVR Process may only be stopped by a duly *authorised* SOC.

A SOC shall only deactivate the ATSVR Process when:

— requested by a LEA for valid operational reasons;

— following the standard operational procedures of the SOC; or

— following the successful recovery of the stolen vehicle.

6.5 Functional Specification

Where the system is capable of providing its position to the SOC:

— time of the position report shall be known;

— system shall continue to update its position at regular intervals or as required by the LEA.

The system's operational area shall be clearly identified (for clarification, this does not refer to a radio coverage map, but rather restrictions on the operational area due to policy e.g. restriction of operation to an individual country).

6.6 Detection

Any of the following events, among others, shall initiate the ATSVR process:

a) Report of theft by an Authorised User;

b) Request by the LEA (such requests shall be from a suitably senior officer and relate to a real and present danger to an individual or the public);

c) Detection of unauthorised movement:

   1) change in inclination;

   2) irregular movement;

   3) change of location.

6.7 Information Protocol

The SOC shall maintain a database containing the following information for each vehicle:

— make;

— model;

— vehicle Registration Mark (if applicable);

— VIN (if applicable);

— colour;

— status (i.e. whether active or not).

For all communications between the SOC and the LEA, all ATSVR's shall provide the SOC with a unique code to avoid operational errors.

The minimum detection accuracy shall be 25 m RMS.

6.8 Tests

The Test House shall assess the system for compliance with the mandatory requirements of this standard.

The Test House shall validate the claims made by the ATSVR Supplier.

The system components shall be tested in the form as installed.

The Test House shall determine the location of the test in accordance with the Supplier’s installation and operational instructions. Any special test requirements imposed by the Supplier shall be in accordance with normal installations.

During each test all system components shall function normally and not cause any unintended alarms or change of status.

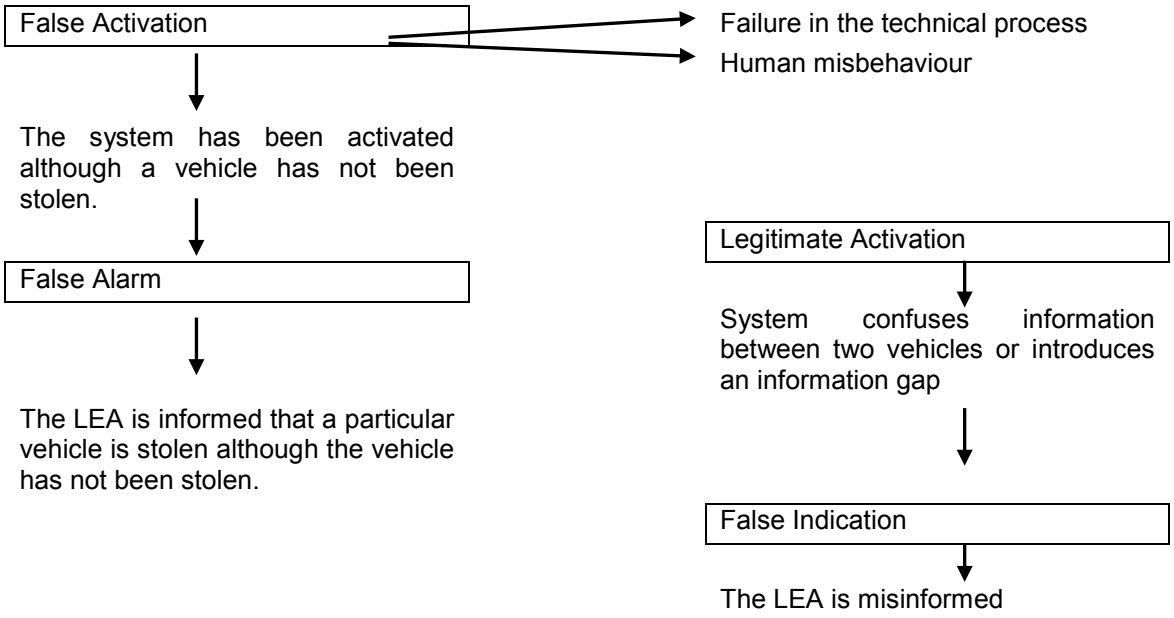
On completion of the test, the system shall continue to function according to the Supplier’s specifications.

6.9 Integrity of Response

Any request for data, whether manual or automatic, should always yield the same results when applied to the same database.

6.10 Incorrect Operations

There are a number of ways in which an ATSVR system can be misused or operated incorrectly. An incorrect operation is one that misleads the ATSVR users. The different types of incorrect operations may be defined according to the result of such incorrect operations as follows:



6.11 Management of False Alarms

Management of False Alarms needs to be agreed with the LEA. A False Alarm is an alarm generated by the ATSVR system where the LEA has been informed by the SOC or the OBE, despite no vehicle theft having taken place. An Activation of an ATSVR system that results from use of the vehicle by an Authorised Vehicle Operator that is reported to an LEA by the SOC or OBE is a False Alarm.

A SOC shall be capable of providing management information on their system to the LEA to enable an assessment of false alarms in each jurisdiction. The information supplied shall give details of the number of calls received by the SOC and passed to the LEA, the number of recoveries and the number of false alarms.

If the level of false alarms is unacceptable this may result in a written warning or sanctions from the LEA to the SOC involved. If the level of false alarms remains unacceptable, LEA response to the SOC requests to track vehicles can be withdrawn.

To restore response the LEA may require the SOC to demonstrate that the level of false activations are not excessive and show what corrective action has been taken. False alarms include malicious calls and matters that are not LEA responsibility; for example, debt recovery may not be a LEA responsibility.

It will, therefore, be the responsibility of the SOC to limit false alarms by early identification of problem installations and subsequent withdrawal of service for such installations.

The LEA shall be satisfied with the system(s) being operated by the SOC. Each system shall be capable of being demonstrated to the LEA. The LEA will determine the acceptable false alarm rate.

6.12 Quality of Process

It is recommended that any SOC providing services in monitoring or activating a vehicle tracking or location system should demonstrate internal and external procedures that are designed to comply with ISO 9000 quality assurance requirements or equivalent.

Any SOC used in monitoring or recovering 'high risk loads' belonging to third parties should also comply with the security requirements of the national security standard. This standard should define SOC response times.

Compliance with this document does not in itself confer immunity from any legal obligations applicable to organisations involved in running and/or supporting ATSVR services

6.13 Quality of Information

The SOC supplying information to the LEA shall:

— operate 24 h a day, 365 days a year;

— provide full backup monitoring systems in the event of down time;

— have a full disaster recovery plan to enable continuation of service within a few hours;

— adhere to the data protection and Human Rights laws of the country in whose jurisdiction they operate.

6.14 Quality of Equipment

It is recommended that the ATSVR equipment manufacturer be certified to EN ISO 9001 or the equivalent.

6.15 Quality of Manufacturing

All ATSVR equipment shall be of good build quality and be fit for purpose. It shall have a CE mark and appropriate EMC certification (EU 95/54) and any necessary radio Type Approval certificate.

NOTE It will, where appropriate, comply with the relevant criteria of EU 95/56.

Any radio equipment shall comply with the EC advisory requirements for both radio transmitters and receivers as appropriate.

6.16 Quality of Installation

Installation of the equipment shall be of a high standard, in accordance with best common practice, as laid down in the ISO/TS 21609 Code of Practice or other similar national standards.

Detailed installation instructions provided by the supplier shall be such that when followed by a competent installer, the safety and reliability of the vehicle is not affected.

6.17 Transmitted Power

The transmitted power levels of radio equipment will not cause harm or damage and be compliant with the specified legal limits for the device.

6.18 Safety of Vehicle User

The ATSVR equipment shall not adversely affect the design function and safe operation of any vehicle, even in the case of malfunction, especially with regard to steering, brakes and electromagnetic compatibility. Antennas shall be installed in a safe manner and in accordance with manufacturer's instructions if available.

6.19 Safety of Operators of Mobile Equipment

Mobile ATSVR equipment shall be suitable for vehicle use and when installed in LEA vehicles shall meet the defined standards of safe equipment operation for that LEA.

Any ATSVR display shall be suitable for operation in all normal lighting conditions and shall refresh at an appropriate frequency to enable the operator to effectively use the equipment.

7 Security Considerations in LR Systems

7.1 Communications security

It is accepted that all radio devices can be jammed, however, the ATSVR equipment operators should have a method of detecting if jamming occurs and if possible, identifying the source jamming the signal. If the jamming results from unauthorised transmissions then the ATSVR operator can report that to the relevant territories radio licensing body. This is outside the scope of this standard.

The Transmission protocols shall include error correction and require the use of codes to provide a secure and high integrity means of communication with the vehicle and ATSVR devices.

It is accepted that with the knowledge, relevant technology and time, a criminal attack on any device may be successful. To provide realistic protection the device shall be installed in a covert manner so that normally non user-removable items of trim or other fabric of the vehicle shall be removed in order to gain access to the system, including the antenna.

7.2 Stored Data Security

Whilst this is not within the scope of this standard, any operator of ATSVR equipment shall ensure that data held is backed up, is not corrupted nor interfered with by any third party. They shall take steps to ensure the integrity and protection of any sensitive data held or processed.

7.3 Personnel Security

Whilst this is not within the scope of this standard, any ATSVR system operators shall undertake such measures and investigations as permitted in the host country to ensure that staff employed on ATSVR systems do not have criminal convictions that would pose a risk to security.

ATSVR Service Personnel employed by an ATSVR SOC dealing with vehicles carrying High Value Goods shall be security cleared to the recognised national standard.

7.4 Radio Transmissions

Radio transmitting devices shall operate on a legal frequency and be licensed for the country of operation. The equipment supplier should take steps to ensure that equipment does not transmit outside of the licensed area whilst in control of the authorised user. This may require equipment to be able to select a different frequency for each country of operation. Manufacturers of such a device shall ensure a list of the countries for which the device is licensed accompanies the sale of the device.

7.5 Data Protection requirements

All data shall be accurate, up to date and secure, particularly where this relates to personal data.

NOTE All data will be kept in accordance with the data protection principles set out by the Council of Europe Convention on January 28th 1981 and will take account of Recommendation R(87)15 of the Committee of Ministers of the Council of Europe on September 17th 1987 concerning the use of personal data in the police sector.

There are some variations in requirements across EU member states. Therefore, the data shall also be kept in accordance with the national data protection requirements of the country where the data originates and the country where the data is stored**.**

Annex A
(informative)

Examples of Long Range Systems

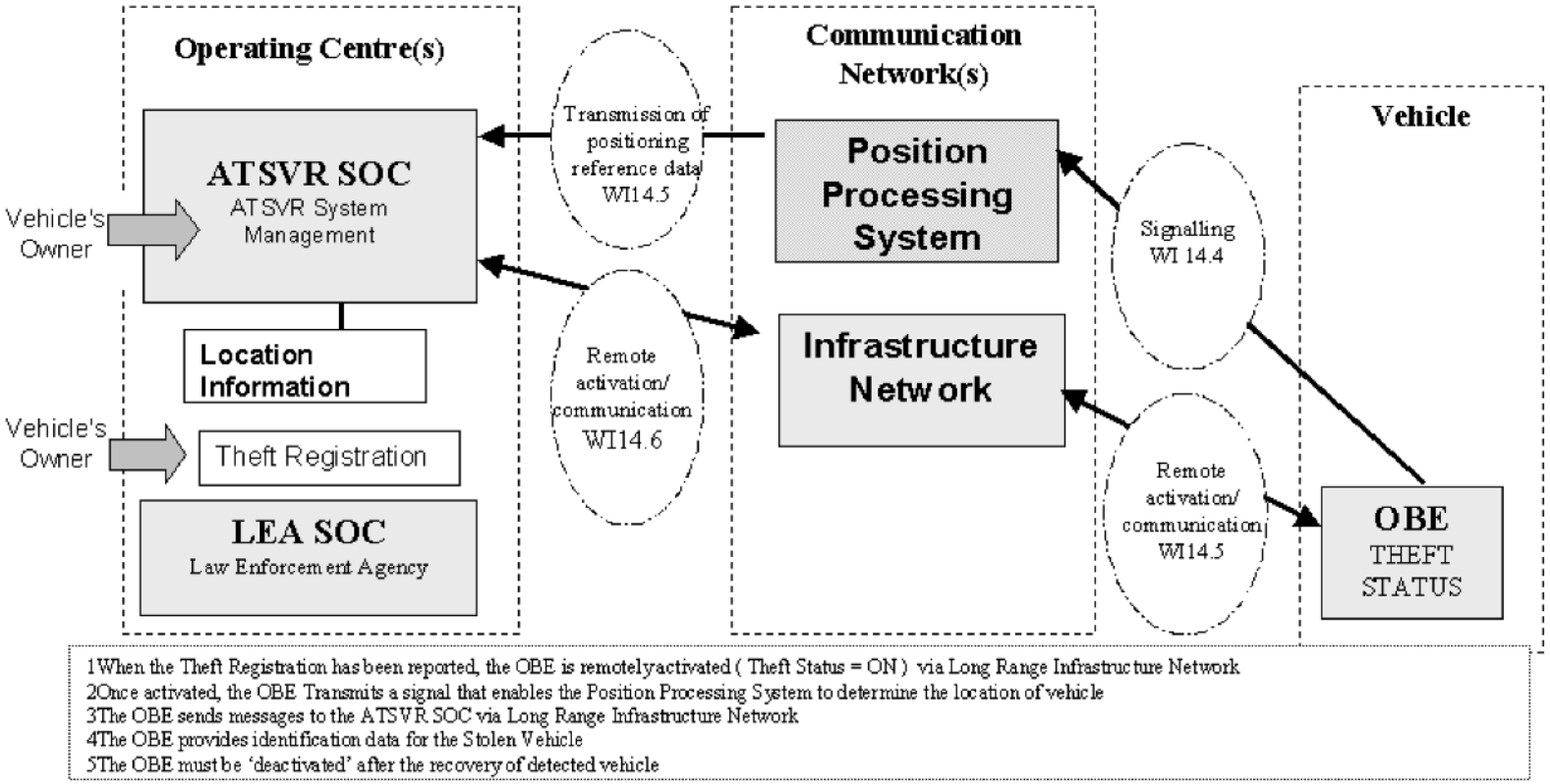


Figure A.1 — LR Detection by Signalling with Location Function by Communication Network

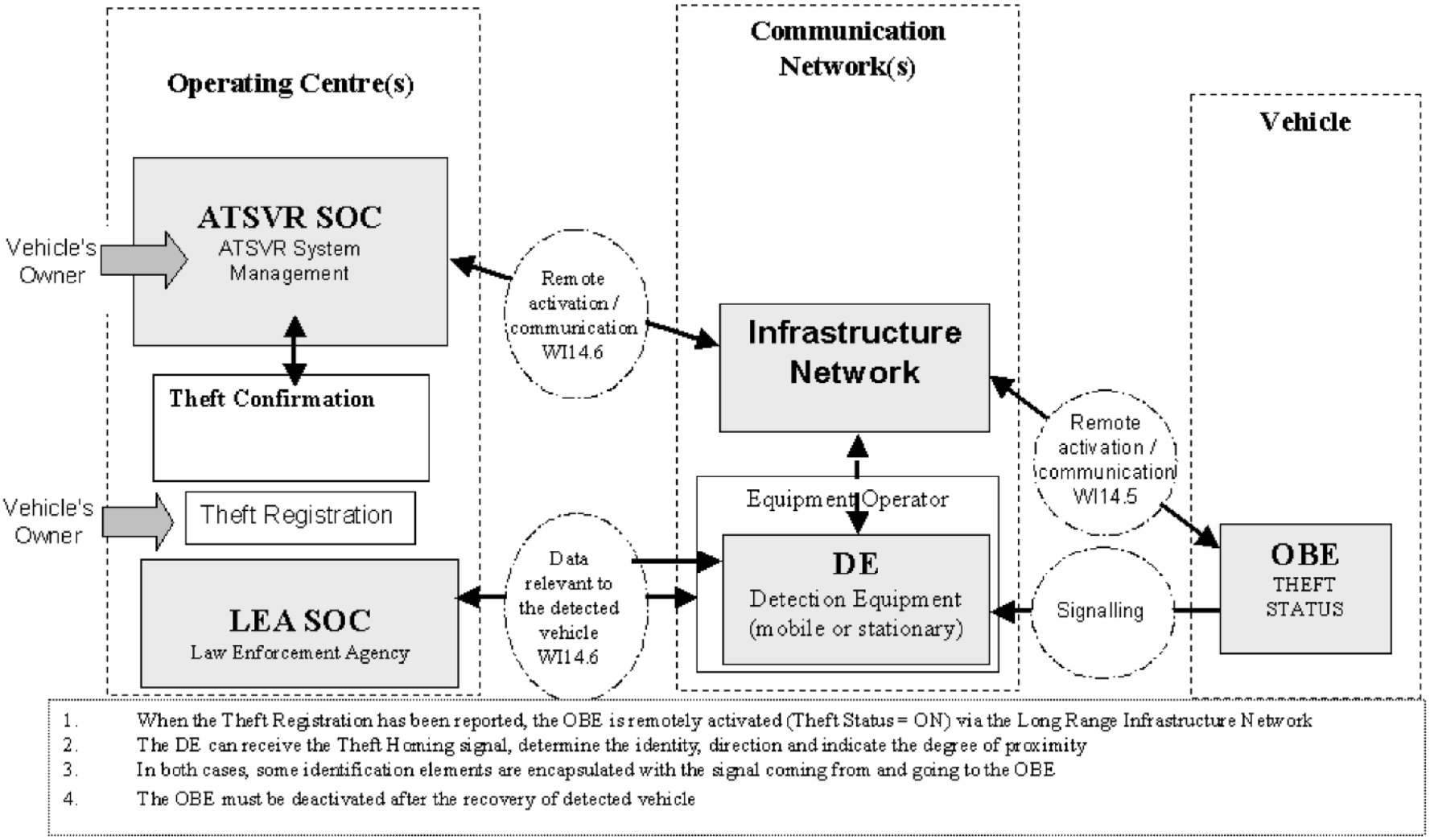
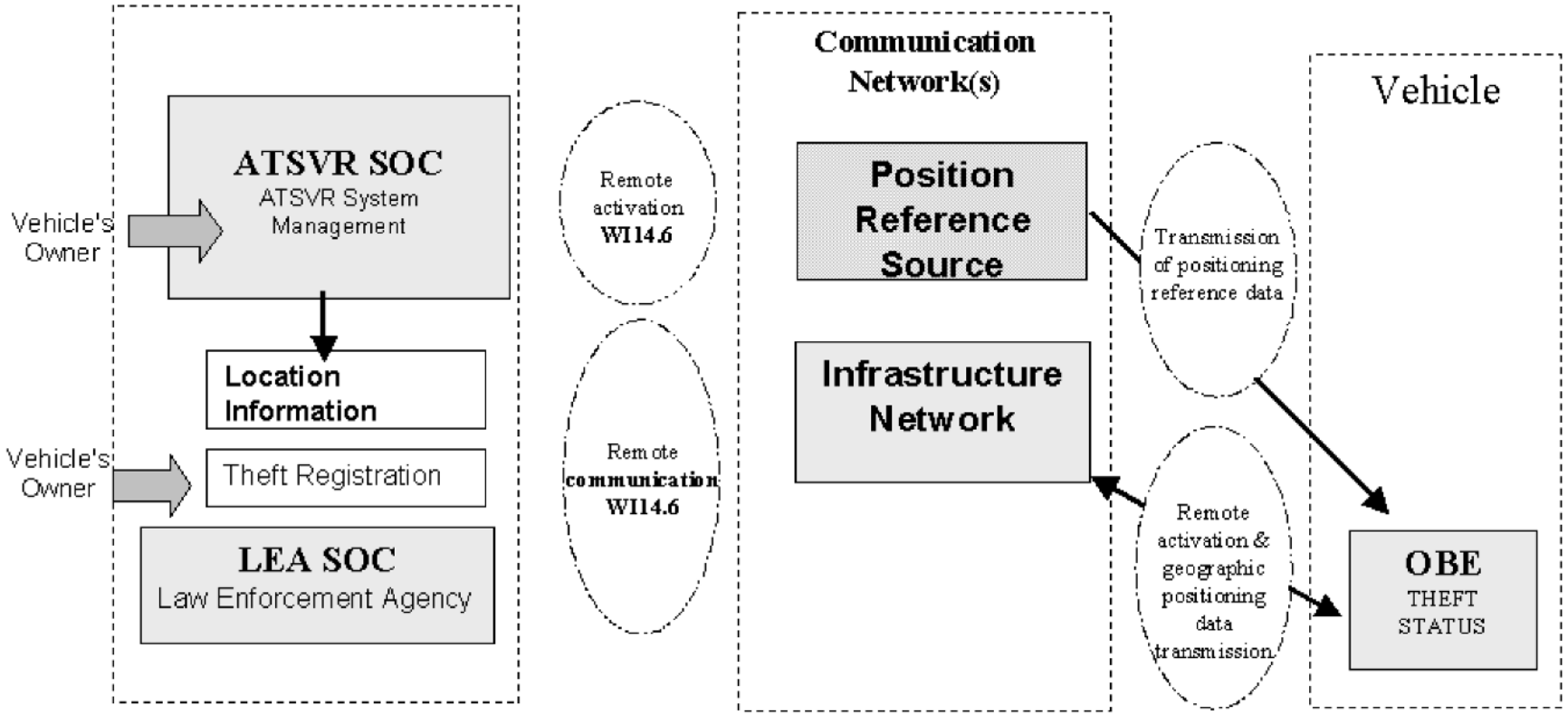


Figure A.2 — LR Detection by Signalling with Location Function by Homing



1. When the Theft Registration has been reported, the OBE is remotely activated (Theft Status = ON) via Long Range Infrastructure Network
2. Once activated, the OBE determines the location of vehicle with the Position Reference data received from Position Reference Source
3. The OBE sends messages to the ATSVR SOC (and possibly LEA SOC) via Long Range Infrastructure Network
4. The OBE provides identification and the Geographic position data for the Stolen Vehicle
5. The OBE must be 'deactivated' after the recovery of detected vehicle

Figure A.3 — LR Detection by Signalling with Location Function by Geographic Positioning

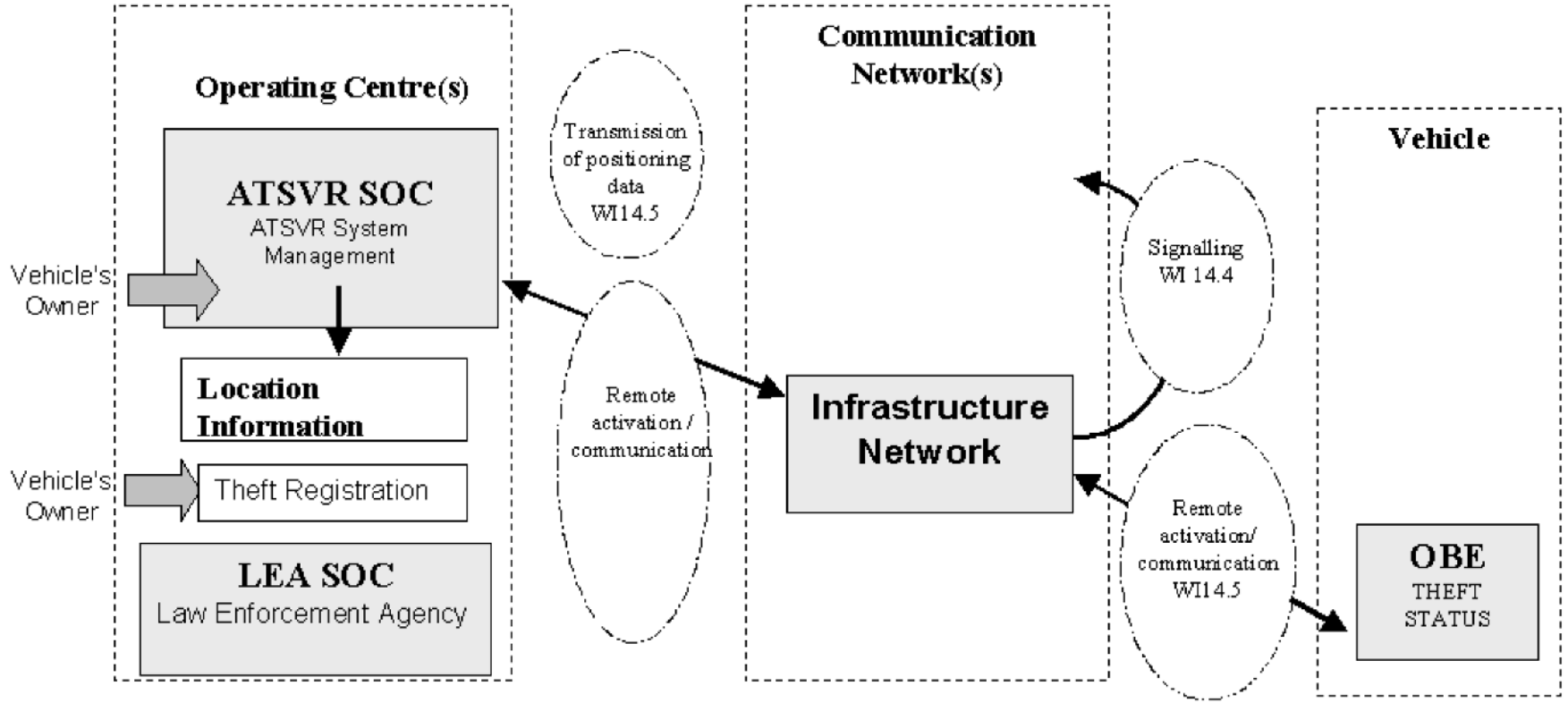


Figure A.4 — LR Detection by Signalling with Location Function by Communication Network

Annex B
(informative)

Regulatory issues

B.1 Communication Devices

Equipment should be type-approved and should comply with European EMC directives, CE and appropriate radio type approvals. The anti-theft system should be type approved to ECCE R97.01. Any radio equipment should comply with the EC advisory requirements of the radio standards for both transmitters and receivers as appropriate.

Compliance with this EN does not in itself confer immunity from any legal obligations applicable to organisations involved in running and/or supporting ATSVR services.

B.2 Radio Transmissions

Radio transmitting devices should operate on a legal frequency and be licensed for the country of operation. The equipment supplier should take steps to ensure that equipment does not transmit outside of the licensed area. This may require that equipment is able to select a different frequency for each country of operation. Manufacturers of such a device should ensure a list of the countries for which the device is licensed accompanies the sale of the device.

UNECE Reg. 21 [5] has been quoted

EU Directive 95/54/EEC has been quoted

EU Directive 89/336/EEC has been quoted

EU Directive 74/60/EEC (as amended) [5] has been quoted

CEPT Recommendation 70-03 emitted radiated power of active devices

B.3 Public Liability Insurance

The ATSVR service provider should have public liability insurance.

Bibliography

[1] EN 15213-2, *Intelligent transport systems — After-theft systems for the recovery of stolen vehicles — Part 2: Common status message elements*

[2] EN 15213-5, *Intelligent transport systems — After-theft systems for the recovery of stolen vehicles — Part 5: Messaging interface*

[3] CEN/TS 15213-6:2011[2)], *Road transport and traffic telematics — After-theft systems for the recovery of stolen vehicles — Part 6: Test procedures*

[4] EN 300113; *Radio Equipment and Systems (RES) — Land mobile service — Technical characteristics and test conditions for radio equipment intended for the transmission of data (and speech) and having an antenna connector*

[5] EN 300279; *Electromagnetic compatibility and Radio spectrum Matters (ERM) — ElectroMagnetic Compatibility (EMC) standard for Private land Mobile Radio (PMR) and ancillary equipment (speech and/or non-speech)*

[6] EN ISO 9001, *Quality management systems — Requirements (ISO 9001)*

[7] ECE R97.01

[8] UTE C 70-201; EMC — Part 1 (transmission)

[9] UTE C 70-202; EMC — Part 2 (immunity)

[10] EU 95/54; *Automotive type approval for 4 wheeled vehicles*

[11] VSIB Code of Practice (UK)

[12] ISO 9000, *Quality management systems — Fundamentals and vocabulary*

[13] EU 95/56

[14] Data protection principles, Council of Europe Convention, January 28th 1981

[15] Recommendation R(87)15 of the Committee of Ministers of the Council of Europe, September 17th 1987

[16] EU Directive 89/336/EEC

[17] EU Directive 74/60/EEC

[18] CEPT Recommendation 70-03

2) Part 6 awaits final evaluation and ratification as EN and until such time remains a valid part of this EN as CEN/TS 15213-6:2011.

This page deliberately left blank

British Standards Institution (BSI)

BSI is the national body responsible for preparing British Standards and other standards-related publications, information and services.

BSI is incorporated by Royal Charter. British Standards and other standardization products are published by BSI Standards Limited.

About us

We bring together business, industry, government, consumers, innovators and others to shape their combined experience and expertise into standards -based solutions.

The knowledge embodied in our standards has been carefully assembled in a dependable format and refined through our open consultation process. Organizations of all sizes and across all sectors choose standards to help them achieve their goals.

Information on standards

We can provide you with the knowledge that your organization needs to succeed. Find out more about British Standards by visiting our website at bsigroup.com/standards or contacting our Customer Services team or Knowledge Centre.

Buying standards

You can buy and download PDF versions of BSI publications, including British and adopted European and international standards, through our website at bsigroup.com/shop, where hard copies can also be purchased.

If you need international and foreign standards from other Standards Development Organizations, hard copies can be ordered from our Customer Services team.

Subscriptions

Our range of subscription services are designed to make using standards easier for you. For further information on our subscription products go to bsigroup.com/subscriptions.

With **British Standards Online (BSOL)** you'll have instant access to over 55,000 British and adopted European and international standards from your desktop. It's available 24/7 and is refreshed daily so you'll always be up to date.

You can keep in touch with standards developments and receive substantial discounts on the purchase price of standards, both in single copy and subscription format, by becoming a **BSI Subscribing Member**.

PLUS is an updating service exclusive to BSI Subscribing Members. You will automatically receive the latest hard copy of your standards when they're revised or replaced.

To find out more about becoming a BSI Subscribing Member and the benefits of membership, please visit bsigroup.com/shop.

With a **Multi-User Network Licence (MUNL)** you are able to host standards publications on your intranet. Licences can cover as few or as many users as you wish. With updates supplied as soon as they're available, you can be sure your documentation is current. For further information, email bsmusales@bsigroup.com.

BSI Group Headquarters

389 Chiswick High Road London W4 4AL UK

Revisions

Our British Standards and other publications are updated by amendment or revision.

We continually improve the quality of our products and services to benefit your business. If you find an inaccuracy or ambiguity within a British Standard or other BSI publication please inform the Knowledge Centre.

Copyright

Useful Contacts:

Customer Services
Tel: +44 845 086 9001
Email (orders): orders@bsigroup.com
Email (enquiries): cservices@bsigroup.com

Subscriptions
Tel: +44 845 086 9001
Email: subscriptions@bsigroup.com

Knowledge Centre
Tel: +44 20 8996 7004
Email: knowledgecentre@bsigroup.com

Copyright & Licensing
Tel: +44 20 8996 7070
Email: copyright@bsigroup.com

bsi.

...making excellence a habit.™