BS EN 15213-2:2013

BSI Standards Publication

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

Part 2: Common status message elements

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National foreword

This British Standard is the UK implementation of EN 15213-2:2013. It supersedes DD CEN/TS 15213-2:2006 which is withdrawn.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 80232 4

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 15213-2

June 2013

ICS 35.240.60

Supersedes CEN/TS 15213-2:2006

English Version

Intelligent transport systems - After-theft systems for the recovery of stolen vehicles - Part 2: Common status message elements

Systèmes de transport intelligents - Systèmes intervenant après un vol pour la récupération des véhicules - Partie 2 : Éléments de message d'état communs

Intelligente Transportsysteme - Systeme für das Wiederfinden gestohlener Fahrzeuge - Teil 2: Bestandteile allgemeiner Statusmitteilungen

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.

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EUROPÄISCHES KOMITEE FÜR NORMUNG

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Ref. No. EN 15213-2:2013: E

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Foreword

This document (EN 15213-2:2013) 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 15213-2:2006.

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* (the present document);

— 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*;

— 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 basic structure of the message elements, or items of information, that are put together to form the common message sets used in exchanging information in an After Theft System for Vehicle Recovery.

Parts 3, 4 and 5 of EN 15213 define the content of these messages. The design is such that all currently identified information can be included in an unambiguous format, while allowing for additional items to be included should they either be required in the future or become available in the future.

These message elements can also be referenced in a unique manner and described in plain language for transmission by voice, fax or e-mail. Similarly the data can be encoded in XML language for electronic transmission.

Standards for Automatic Vehicle Identification (AVI) and Automatic Equipment Identification (AEI) are being developed by CEN/TC 278/WG 12 in parallel with EN ISO 14814. This ATSVR standard does not prejudice that work and does not seek to establish parameters for future AVI/AEI standards. DSRC and AVI standards are seen as the basic technology blocks for types of short-range ATSVR systems.

This part of EN 15213 aims to identify the main elements and illustrate the data concepts and way forward.

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 ISO 3166-1, *Codes for the representation of names of countries and their subdivisions — Part 1: Country codes (ISO 3166-1)*

3 Terms and definitions

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

4 Numerical notations

Numerical notations are represented as follows:

— Decimal (“normal”) notation will have no subscript:

EXAMPLE 127.

— Hexadecimal numbers will be denoted by the subscript 16:

EXAMPLE $7F_{16}$.

— Binary numbers will be denoted by the subscript 2:

EXAMPLE 011111_2.

Characters will be encoded in ASCII and represented as follows:

— Characters will have no subscript or hyphen:

EXAMPLE ABC59MNO

5 Symbols and abbreviations

For the purposes of this document, the symbols and abbreviations given in EN 15213-1:2013 and the following apply.

AEI Automatic Equipment Identification

ASCII American Standard Code for Information Interchange

ATSVR After Theft System for Vehicle Recovery

AVI Automatic Vehicle Identification

RTTT Road Traffic and Transport Telematics

6 Requirements

6.1 General requirements

The coding structure defined in this document is an enabling structure. It is designed to allow combinations of data elements to be used in composite data structures. It is designed to allow as much interoperability of the data elements as possible. Data elements may be of any length and may be combined in many ways.

This document recognises that there will be systems of different capability that should be interoperable, even though the systems may be significantly different. Even where information is obtained by a proprietary system, the data, once collected, is held in a common interoperable format and so may be accurately and confidently used.

The document has been designed according to the principles of ISO/IEC 8825-2. The encoding rules enable the chaining of multiple data elements to build complex data structures.

The structure is built from a series of data elements that identify:

a) first, the Sector Identifier indicating that it is an RTTT data structure;

b) second, the RTTT Application Identifier;

c) third, the Coding structure Identifier;

d) fourth (et seq.), the data elements.

By adopting this document, some degree of compatibility can be achieved with AVI and AEI existing standards.

The overall coding structure shall:

— be unambiguous and flexible enough to include relevant numbering structures;

— follow relevant standards;

— provide an exact coding of the data elements;

— be extendable to enable future expansion;

— be able to accommodate private structures.

6.2 Data structure

This subclause refers to a future general ASN.1 coding structure standard being developed by CEN/TC 278. When this document is available, this subclause will be replaced.

The schematic of the ASN.1 Message is:

RTTT Sector Identifier	Length	RTTT Application Identifier	Length	Coding structure Identifier	Length	CS Data Field

EXAMPLE 1 For a data content field of 6 bytes or octets:

RTTT sector Identifier *(to be found)*	nm_{16}
Length, number of bytes following this length field e.g. 11	$0B_{16}$
RTTT Application Identifier *(to be found)*	pq_{16}
Length, number of bytes following this length field e.g. 09	09_{16}
Coding structure Identifier e.g. 1	41_{16}
Length, number of bytes following this length field e.g. 07	07_{16}
Data content – 7 bytes	

The length field defines the length of the rest of the message, excluding the length field itself.

In the example below, the data contents have three data elements: country code, issuer and unique number.

NOTE Each element does not have to be a multiple of 8 bits, although the Data content is a multiple of 8 bits.

EXAMPLE 2

Country code	2 octets	e.g. GB
Issuer	14 bits	e.g. $110F_{16}$
Unique number	32 bits	e.g. 12345678_{16}
Total	56 bits or 7 bytes	

7 General rules for data elements

7.1 General points

This subclause defines some general codes and rules used by the data elements section, these codes and rules have been constructed from existing standards where available. Each of the data elements will be given a unique reference.

7.2 Country code

Country code values shall be assigned according to EN ISO 3166-1.

NOTE An updated list of country codes can be found at http://www.iso.org/iso/country_codes.htm.

7.3 Alphabet Indicator

This is the alphabet used in the rest of the message or until another alphabet indicator is read. This is referenced in EN ISO 14816.

Definition	Decimal Code	Hex Code
latinAlphabetNo1	1	1_{16}
latinAlphabetNo2	2	2_{16}
latinAlphabetNo3	3	3_{16}
latinAlphabetNo4	4	4_{16}
latincyrillicAlphabet	5	5_{16}
latinArabicAlphabet	6	6_{16}
latinGreecAlphabet	7	7_{16}
latinHebrewAlphabet	8	8_{16}
latinAlphabetNo5	9	9_{16}
latinAlphabetNo6	10	A_{16}
two OctetBMP	128	80_{16}
fourOctetCanonical	129	81_{16}

Default latinAlphabetNo1

7.4 Date

The date element will be fixed format of eight octets of numbers coded as ASCII characters. It may require a time zone parameter when used, depending on context.

YYYYMMDD

EXAMPLE 20011206 for the 6th of December 2001.

7.5 Time

Time will default to UTC and be of twelve octets coded as ASCII characters. This format allows sorting by date. The Time data element requires time zone information.

YYYYMMDDhhmm

EXAMPLE 200112060958 for 09:58 on the 6th of December 2001.

7.6 Time zone

The time zone will be represented by the hours difference from UTC. The first octet will be the sign “+” or “-“ and the second and third will be the hours difference.

SZZ

EXAMPLE +01 for winter time in Europe.

7.7 String delimiters

The standard delimiters of “null” 00_{16} or <<Carriage Return>> or <<Carriage Return+Line Feed>> will be used.

8 Data protection — General requirements

All data shall be accurate, up to date and secure, particularly where this relates to personal data. All data shall be kept in accordance with the data protection principles set out by the Council of Europe Convention on 28th January 1981 and shall take account of Recommendation R(87)15 of the Committee of Ministers of the Council of Europe 17th September 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
(normative)

Data elements

A.1 List of data elements

All the messages considered to be part of the common message set will consist of a number of the following message elements.

Table A.1 — List of data elements

Element Description from heading		CSI $Code_{16}$	Document Reference
Date		01	A.2
Date and time		02	A.3
Dynamic Data, Descriptive Location		11	A.4
Dynamic Data, Direction		12	A.5
Dynamic Data, Geographic Location		13	A.6
Dynamic Data, Speed		14	A.7
Incident, LEA holding original report		20	A.8
Incident, Place of Theft		21	A.14
Incident, Report		22	A.9
Incident, Reporting Person		23	A.10
Incident, Stolen Status		24	A.11
Incident, Theft Update, Location		25	A.13
Incident, Time of Theft		26	A.12
Incident, Unique Reference Number		27	A.15
Incident, vehicle load		28	A.34
Incident, vehicle reference		2A	A.36
LEA, Communication		30	A.16
LEA, Identifier		31	A.17
Message Reference		32	A.18
Name and Address, Keeper		33	A.19
Name & Address, Owner		34	A.20
SOC, Communication Number		35	A.21
SOC, Identifier		36	A.22
Message Time		37	A.37
Vehicle, ATSVR Details		48	A.23
Vehicle, Body Type		49	A.24
Vehicle, Colour		50	A.25
Vehicle, Engine Number		47	A.26
Vehicle, Engine Size		41	A.27
Vehicle, Manufacturer		42	A.28
Vehicle, Model		43	A.29
Vehicle, Nationality and Licence Plate		44	A.30
Vehicle, Other Descriptive Information		51	A.31
Vehicle, date of manufacture		52	A.37
Vehicle, Registration Date		46	A.32
Vehicle, VIN		45	A.33

A.2 Date

A.2.1 Function

The basic date field is used for defining non-time critical time and data information, such as date of first vehicle registration. This is distinct from the time and date of the message.

A.2.2 Coding format

Code	Data element size	Time Zone	Time
01_{16}	$0F_{16}$	3 octets	12 octets

A.3 Date and time

A.3.1 Function

All dynamic data shall be referenced to a specific date and time at which the data was true. This is distinct from the time and date of the message.

A.3.2 Coding format

Code	Data element size	Time Zone	Time
02_{16}	$0F_{16}$	3 octets	12 octets

A.4 Dynamic Data, Descriptive Location

A.4.1 Function

The function of this field is to describe a location by reference to visual landmarks apparent to an observer at that location. It may include reference to road numbers allocated by Government e.g. A1234. It may include distances from landmarks. The text description will be in ASCII characters. A road Intersection is regarded as two road descriptors. A relative position is regarded as range and bearing to a Geographic Location. If required, because of the complexity of describing a location or route, more than one dynamic data, descriptive location, elements can be included in one message.

A.4.2 Coding format

Code	Data element size	Alphabet Code	Text Description
11_{16}	1 octet	1 octet	Variable

A.5 Dynamic Data, Direction

A.5.1 Function

The function of this field is to give the direction of movement of a vehicle. Care shall be exercised to distinguish between known direction and unknown direction.

A.5.2 Coding structure

Code	Data element size	Descriptor	Direction value
12_{16}	02_{16} or 04_{16}	1 octet	1 octet or 3 octets

Direction descriptor will be:

Description	Code
Direction not known	00_{16}
Bearing in degrees	01_{16}
8-point compass	02_{16}
Future spare	03_{16} – FF_{16}

Direction will be given as a true bearing or 8-point compass.

When given as a bearing it will be three numeric characters coded as ASCII characters. The bearing is strictly relative to the ellipsoid used in calculating the position. For practical purposes the differences will be small and will be ignored. Thus a single value in whole degrees, 0 to 359, will be allowed.

When given as an 8-point compass a single ASCII numeric character will be used, value 0 to 7, zero is north and increment clockwise. For example:

Direction Value	English	French	German	…..
0	North	Nord	Nord	
1	North East	Nord Est	Nord Ost	
2	East	Est	Ost	
3	South East	Sud Est	Süd Ost	
4	South	Sud	Süd	
5	South West	Sud Ouest	Süd West	
6	West	Ouest	West	
7	North West	Nord Ouest	Nord West	

A.6 Dynamic Data, Geographic Location

A.6.1 Function

The function of this field is to describe a location in geographic co-ordinates and will include the frame of reference of those co-ordinates, e.g. latitude and longitude may be given together with the figure of the earth (e.g. WGS84). If given in Grid format, then it will include reference to the grid origin (e.g. OSGB36).

A.6.2 Coding format

When given in latitude and longitude the co-ordinates will be given in degrees, minutes, seconds and hundredths of minutes. Grid positions are always in metres and are given to one metre precision.

Definition	Co-ordinate Code
Lat / Long WGS84	01_{16}
L/L Gauss-Krüger	02_{16}
L/L Hayford 1924 (International)	03_{16}
L/L Rijksdriehoeksnet (Bessel 1841)	04_{16}
	05_{16}
	06_{16}
	07_{16}
	08_{16}
Grid, OSGB 36	09_{16}
Grid, UTM	$0A_{16}$
Future Spare	$0B_{16}$ to FF_{16}

Latitude DDMMSSss 8 octets,

Longitude DDDMMSSss 9 octets,

DD degrees
MM minutes
SS seconds
ss fractions of seconds

1/100 of a second of Latitude is approximately 30 cm and 1/100 of a second of longitude is approximately about (30 cm x Cos Lat)

Code	Data element size	Descriptor	Latitude	Longitude
13_{16}	13_{16}	2 octets	8 octets	9 octets

Position in Grid co-ordinates

7 digits are required in each co-ordinate, leading zeros are required

Code	Data element size	Descriptor	Zone code	Eastings	Northings
13_{16}	13_{16}	2 octets	3 octets	7 octets	7 octets

NOTE Universal Transverse Mercator (UTM) (Gauss-Krüger type) co-ordinates define two dimensional, horizontal positions in metre units. The sixty UTM *zone numbers* designate 6° wide longitudinal strips extending from 80° South latitude to 84° North latitude. UTM *zone characters* are letters that designate 8° zones extending north and south from the equator. Beginning at 80° south and proceeding northward, twenty bands are lettered C through X, omitting I and O. These bands are all 8° wide except for band X, which is 12° wide (between 72-84 N); e.g. the UK is in zone 30U and Sicily is in zone 33S.

Thus a UTM position contains the three-character zone code.

A.7 Dynamic Data, Speed

A.7.1 Function

The function of this field is to give the speed of a vehicle. Care shall be exercised to distinguish between zero speed and unknown speed.

Speed will be given in units between 0 and 255 in one octet and will be to whole numbers.

A.7.2 Coding structure

Description	**Speed Units**
Engine and Speed state not known	00_{16}
Engine On, Speed unknown	01_{16}
Engine On, Speed in Kilometres per hour,	02_{16}
Engine On, Speed in Miles per hour,	03_{16}
Engine Off, Speed unknown	04_{16}
Engine Off, Speed in Kilometres per hour,	05_{16}
Engine Off, Speed in Miles per hour,	06_{16}
Future spare	07_{16} – FF_{16}

Code	Data element size	Speed Units	Speed Value
14_{16}	02_{16}	1 octet	1 octet

A.8 Incident, LEA holding original report

A.8.1 Function

This is a free form descriptive data element and can be alphabetic or numeric as agreed or accepted by a national authority. The coding structure is ASCII.

A.8.2 Coding structure

Code	Data element size	LEA identifier
20_{16}	1 Octet	Variable

A.9 Incident, Report

A.9.1 Function

The function of this field is to describe how the incident happened; it will therefore be in a language and in free format. Consideration should be given to breaking an incident report into smaller elements that are conducive to more rigid definition.

Note that time and place of occurrence, the registered keeper and driver fields are already available.

A.9.2 Coding format

Code	Data element size	Incident type	Alphabet code	Text description
22_{16}	Variable	I octet	1 octet	Variable

Type of incident	**Code**
Unknown / not entered in report	00_{16}
Unattended vehicle	01_{16}
Theft with armed threat	02_{16}
Theft with physical violence	03_{16}
Part of other criminal activity	04_{16}
Hostage in vehicle	05_{16}
Possible suicide situation	06_{16}
Future Spares	07_{16} to FF_{16}

A.10 Incident, Reporting Person

A.10.1 Function

The function of this element is to identify the person who reported the theft of the vehicle. Thus it will contain a name field and an address field. Both fields will be variable and alphanumeric.

NOTE The Reporting Person could be a SOC. These data are not translated.

A.10.2 Coding structure

Code	Data element size	Alphabet code	Person name	Data element size	Alphabet code	Person's address
23_{16}	1 octet	1 octet	Variable	1 octet	1 octet	Variable

A.11 Incident, Stolen Status

A.11.1 Function

The Incident, Stolen Status field can be incorporated in any message to indicate the status or change of status of the incident.

A.11.2 Coding structure

Code	Data element size	Incident Status	Status
24_{16}	02_{16}	1 octet	1 octet

The status byte will be related to the status information held in the OBE. The least significant bit will be equivalent to the "You may be stolen" status, while the next most significant bit will be the "Theft Confirmed" status.

Status	**Code**
Not stolen	00_{16}
Presumed stolen	01_{16}
Confirmed as stolen	02_{16}
Future Spare	03_{16}
Reported stolen but not confirmed	04_{16}
Presumed, reported but not confirmed	05_{16}
Future Spare	06_{16}
Incident closed	07_{16}
Vehicle found	08_{16}
Reported or presumed stolen and found	09_{16}
Confirmed stolen and found	$0A_{16}$
Reported stolen and recovered	$0B_{16}$
Future Spare	$0C_{16}$ to $0F_{16}$
Fraudulent possession (e.g. overdue hire)	10_{16}
Future Spare	11_{16} to FF_{16}

A.12 Incident, Time of Theft

A.12.1 Function

The Time of Theft shall be the time known or estimated when the theft is reported. A number of other variations are available. More than one Incident, Time of Theft message element may be used if required to more accurately define the time, for example “after” time *n* and “before” time *m*.

A.12.2 Coding structure

Code	Data element size	Time Type	Time Zone	Time
26_{16}	10_{16}	1 octet	3 octets	12 octets

Time Type	Time Type Code
TimeOfReport	01_{16}
TimeOfTheftActual	02_{16}
TimeOfTheftAfter	03_{16}
TimeOfTheftBefore	04_{16}
TimeNextReportReqd	10_{16}

A.13 Incident, Theft Update, Location

A.13.1 Function

This message will be a correction to the original incident report. It shall not be used to update the position of a vehicle subsequent to the original report.

A.13.2 Coding structure

Shall be as defined for Dynamic Description and Incident, Location

Code	Data element size	Alphabet Code	Text Description
25_{16}	1 octet	1 octet	Variable

A.14 Incident, Place of Theft

A.14.1 Function

The function of this field is to describe the place of theft by reference to visual landmarks apparent to an observer at that location It may include reference to road numbers allocated by Government e.g. A1234. It may include distances from landmarks.

A.14.2 Coding format

Code	Data element size	Alphabet code	Text description
21_{16}	1 octet	1 octet	Variable

A.15 Incident, Unique Reference Number

A.15.1 Function

The content of this field will be defined by the Law Enforcement Agency in whose jurisdiction the incident was reported. It may in fact be alphanumeric. Thus it shall have the LEA identifier included.

If the LEA field is left blank, then the number will be that generated by the SOC to define the incident.

A.15.2 Coding structure

Code	Data element size	LEA Identifier	Data element size	Alphabet code	Unique reference number
27_{16}	1 octet	tbd	1 octet	1 octet	Variable

A.16 LEA, Communication Type — Function

The LEA Communications Type defines the method of communicating with the LEA, this message will normally be sent to the SOC or SOCs involved in the Incident. When a telephone number is given it shall start with the country access code.

E-mail address will be coded in ASCII and will always be interpreted as lower case characters.

Communications Type

Code	Data element size	LEA Identifier	Communications Type	Communications alpha-numeric
30_{16}	1 octet	tbd	1 octet	Variable

Type	**Code**
Telephone	00_{16}
fax	01_{16}
e-mail	02_{16}
Other	03_{16}
Future Spare	04_{16} to $0F_{16}$

A.17 LEA, Identifier

A.17.1 Function

This will define the LEA involved in the Incident; it will include the Country code (7.2) to allow ease of use. The LEA identifier shall be agreed between the LEAs operating in a country.

A.17.2 Coding structure

Code	Data element size	Country code	LEA Identifier
31_{16}	04_{16}	2 octets	2 octets

A.18 Message Reference

A.18.1 Function

The Message Reference field shall be included in any message it shall be used as a unique identifier to an Incident of reported or confirmed theft and will allow all messages and the data they contain to be linked together.

A.18.2 Coding structure

Code	Data element size	Country code	Message Reference
32_{16}	1 octet	2 octets	To be agreed

A.19 Name and Address, Keeper

A.19.1 Function

The function of this element is to identify the official keeper of the vehicle. Thus it will contain a name field and an address field. Both fields will be variable and alphanumeric. The contents should not be translated into different languages.

A.19.2 Coding structure

Code	Data element size	Alphabet code	Keeper name	Data element size	Alphabet code	Keeper address
33_{16}	1 octet	1 octet	Variable	1 octet	1 octet	Variable

A.20 Name & Address, Owner

A.20.1 Function

The function of this element is to identify the official owner of the vehicle. Thus it will contain a name field and an address field. Both fields will be variable and alphanumeric. The contents should not be translated into different languages.

A.20.2 Coding structure

Code	Data element size	Alphabet code	Keeper name	Data element size	Alphabet code	Keeper address
34_{16}	1 octet	1 octet	Variable	1 octet	1 octet	Variable

A.21 SOC, Communication Number

A.21.1 Function

To distinguish between messages and to provide an audit trail of the incident.

A.21.2 Coding structure

Code	Data element size	SOC, Communications Number
35_{16}	11 octet	

A.22 SOC, Identifier

A.22.1 Function

This will define the SOC involved in the Incident; it will include the country code (7.2) to allow ease of use. The LEA in whose territory the SOC operates shall define the SCO identifier.

A.22.2 Coding structure

Code	Data element size	Country code	SOC identifier
36_{16}	1 octet	Two octets	Variable

A.23 Vehicle, ATSVR Details

A.23.1 Function

This field describes to users the type of ATSVR fitted to the vehicle, this allows the SOC and LEA to better interpret the data that results from activation of the ATSVR during the incident.

The type code is given in two parts, the first defines the generic method and the second is used to describe sub types. The sub-types shall be submitted by ATSVR system manufacturers to the competent body maintaining this document.

If more than one ATSVR system is fitted, then the data element size will be increased by 02_{16} for each pair of octets used to describe the equipment fitted.

A.23.2 Coding structure

Type	ATSVR Type	Sub type
Detection Thru Signaling	10 - $1F_{16}$	00 – FF_{16}
Tracking thru Location by Geographic Positioning	20 - $2F_{16}$	
Detection by Signaling thru relative Position / Homing	30 - $3F_{16}$	
Homing thru Direction finding	40 - $4F_{16}$	
Detection thru Consulting	50 - $5F_{16}$	
Selective Consulting	60 - $6F_{16}$	
Future Spare	7F – FF_{16}	

Code	Data element size	ATSVR Type	Sub type
48_{16}	02_{16}	1 octet	1 octet

A.24 Vehicle, Body Type

A.24.1 Function

This field describes the visual appearance of a vehicle to which information is attached. Plant, or construction equipment, coding is included for completeness and compatibility with other information systems.

A.24.2 Coding structure

Code	Data element size	Body Type
49_{16}	6 bits	1 octet

English Description	**Code**
Unknown	00_{16}
Saloon / Hatchback	01_{16}
Van	02_{16}
Estate	03_{16}
Convertible	04_{16}
Sports	05_{16}
Van	06_{16}
Pick-up	07_{16}
4 x 4	08_{16}
Motorcycle	09_{16}
Moped	$0A_{16}$
Scooter	$0B_{16}$
Motor home / caravan	$0C_{16}$
3 wheeled vehicle	$0D_{16}$
Lorry, rigid	$0E_{16}$
Tractor Unit, Articulated	$0F_{16}$
Trailer, Articulated, Curtain-sider	10_{16}
Trailer, Articulated, Rigid side	11_{16}
Future Spare	$12\text{-}1F_{16}$
Construction vehicle, Wheeled or tracked, driven machines more than 6 tonnes	20_{16}
Construction vehicle, Wheeled or tracked, driven machines less than 6 tonnes	21_{16}
Construction vehicle, Non-driven equipment	22_{16}
Construction vehicle t, Portable tools	23_{16}
Construction vehicle, Attachments	24_{16}
Construction vehicle, unpowered items	25_{16}
Future Spare	$26\text{-}FF_{16}$

A.25 Vehicle, Colour

A.25.1 Function

The Vehicle Colour field describes the colour appearance of the vehicle, a two-colour description is allowed, where the primary colour is the predominant colour

A.25.2 Coding structure

Code	Data element size	Primary Colour	Secondary Colour
50_{16}	02_{16}	1 octet	1 octet

Colour chart – the other language equivalent to be agreed

English Description	Code	English Description	Code
No colour	00_{16}	Pink	OD_{16}
Beige	01_{16}	Purple	OE_{16}
Black	02_{16}	Red	OF_{16}
Blue	03_{16}	Silver	10_{16}
Bronze	04_{16}	Turquoise	11_{16}
Brown	05_{16}	White	12_{16}
Cream	06_{16}	Yellow	13_{16}
Gold	07_{16}	Future spare	14_{16}
Green	08_{16}	Future spare	15_{16}
Grey	09_{16}	Future spare	16_{16}
Maroon	$0A_{16}$	Future spare	17_{16}
Multi	$0B_{16}$	Future spare	18_{16}
Orange	OC_{16}	Future spare	$19 – FF_{16}$

A.26 Vehicle, Engine Number

A.26.1 Function

The function of the Engine Number field is to act as a basic information source.

A.26.2 Coding structure

Code	Data element size	Alphanumeric
47_{16}	1 octet	variable

A.27 Vehicle, Engine Size

A.27.1 Function

The function of the Engine Size field is to act as a basic information source. The units will be cc for types 1 through 3.

A.27.2 Coding structure

Code	Data element size	Engine type	Alphanumeric
41_{16}	05_{16}	1 octet	4 octets

Engine type data

Type	Code	Size and measure
Petrol	01_{16}	Numeric cubic centimetres
Diesel	02_{16}	Numeric cubic centimetres
LPG	3_{16}	Numeric cubic centimetres
Electric	04_{16}	??
Hybrid Petrol/LPG	$05-_{16}$	
AVGAS	$06-_{16}$	
Future spare	$07-FF_{16}$	

A.28 Vehicle, Manufacturer

A.28.1 Function

The function of the Vehicle Manufacturer field is to act as a basic information source. The format will be that of free form alphanumeric.

A.28.2 Coding structure

Code	Data element size	Alphabet code	Manufacturer name
42_{16}	1 octet	1 octet	Variable

A.29 Vehicle, Model

A.29.1 Function

The function of the Vehicle Model field is to act as a basic information source. The format will be that of free form alphanumeric.

A.29.2 Coding structure

Code	Data element size	Alphabet code	Model name
43_{16}	1 octet	8 bits	Variable

A.30 Vehicle, Nationality and Licence Plate

A.30.1 Function

The Nationality and Licence Plate information is the basic form of vehicle identification; each licence plate is unique to each country and may not be in a Latin script, hence the need to define the alphabet of the number plate.

A.30.2 Coding structure

The data structure would be:

Code	Data element size	Country code	Alphabet code	Licence Plate Number
44_{16}	Variable	2 octets	1 octet	Variable bits

A.31 Vehicle, Other Descriptive Information

A.31.1 Function

The function of the Other Descriptive Information field is to act as a place where any unstructured data can be placed and exchanged. The format will be that of free form alphanumeric.

A.31.2 Coding structure

Code	Data element size	Alphabet code	Model name
51_{16}	Variable	1 octet	Variable

A.32 Vehicle, Registration Date

A.32.1 Function

The function of the Vehicle Registration Date field is to act as a basic information source. The format will be that of date.

A.32.2 Coding structure

Code	Data element size	Numeric
46_{16}	06_{16}	6 octets

A.33 Vehicle, VIN

A.33.1 Function

A VIN is defined in ISO 3779 and ISO 3780. For information, it consists of 136 bits / 17 octets defining World Manufacturer Identifier, Vehicle Descriptor Section and Vehicle Indicator section.

A.33.2 Coding structure

Code	Data element size	VIN
45_{16}	11_{16} octets	136 bits (17 octets)

A.34 Incident, vehicle load

A.34.1 Function

To describe the load of the vehicle

A.34.2 Coding structure

Code	Data element size	Alphabet code	Text description
28_{16}	1 octet	1 octet	Variable

A.35 Incident, Vehicle Passengers

A.35.1 Function

To describe the passengers in the vehicle

A.35.2 Coding structure

Code	Data element size	Alphabet code	Text description
29_{16}	1 octet	1 octet	Variable

A.36 Incident, Vehicle Reference

A.36.1 Function

If the VIN number may not be used because of national regulations, then an alternative number shall be provided.

A.36.2 Coding format

Code	Data element size	VIN
$2A_{16}$	11_{16} octets	136 bits (17 octets)

A.37 Vehicle, Date of Manufacture

A.37.1 Function

To act as a basic reference source. The format will be that of date.

A.37.2 Coding structure

Code	Data element size	Numeric
52_{16}	06_{16}	6 octets

A.38 Message Time

A.38.1 Function

Every message shall include the time at which the message was sent. This is distinct from the time and date of the incident.

A.38.2 Coding structure

Code	Data element size	Time Zone	Time
37_{16}	$0F_{16}$	3 octets	12 octets

Annex B
(normative)

Passing data by other means

B.1 Data by e-mail

Each message element can be described in the language of the LEA. Thus a form, printed or electronic, could be prepared with “n” rows, one row per item in Annex A.

EXAMPLE

data element Code	Local Language Description	Element Value
1 octet	1 octet	

If sent electronically then the recipient could substitute the Local Language Definition.

In the case of descriptive elements and name elements the body of the message element should not be translated. For instance, the name of a vehicle manufacturer or vehicle owner shall never be translated. Descriptive text such as “proceeding in an easterly direction at 50 kph” will require translation.

B.2 Data by voice or fax/telecopy

When passing information by voice, then use of the data element title is required.

EXAMPLE Vehicle, VIN nnnn

This will reduce errors of understanding.

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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.

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