►**B**

COUNCIL DIRECTIVE 1999/37/EC

of 29 April 1999

on the registration documents for vehicles

(OJ L 138, 1.6.1999, p. 57)

Amended by:

		Official Journal		
		No	page	date
►**M1**	Commission Directive 2003/127/EC of 23 December 2003	L 10	29	16.1.2004
►**M2**	Council Directive 2006/103/EC of 20 November 2006	L 363	344	20.12.2006

Amended by:

►**A1**	Act concerning the conditions of accession of the Czech Republic, the Republic of Estonia, the Republic of Cyprus, the Republic of Latvia, the Republic of Lithuania, the Republic of Hungary, the Republic of Malta, the Republic of Poland, the Republic of Slovenia and the Slovak Republic and the adjustments to the Treaties on which the European Union is founded	L 236	33	23.9.2003

▼B

COUNCIL DIRECTIVE 1999/37/EC

of 29 April 1999

on the registration documents for vehicles

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 75(1)(d) thereof,

Having regard to the proposal from the Commission ([1]),

Having regard to the opinion of the Economic and Social Committee ([2]),

Acting in accordance with the procedure laid down in Article 189c of the Treaty, ([3]),

(1) Whereas the Community has adopted a certain number of measures that are intended to create an internal market consisting of an area without frontiers within which the free movement of goods, persons, services and capital is guaranteed in accordance with the provisions of the Treaty;

(2) Whereas all of the Member States require the driver of a vehicle registered in another Member State of hold the certificate of registration corresponding to that vehicle, in order for it to be permitted to use the roads on their territory;

(3) Whereas harmonisation of the form and content of the registration certificate will facilitate its comprehension and thus help towards the free movement, on the roads in the territory of the other Member States, of vehicles registered in a Member State;

(4) Whereas the content of the registration certificate must enable it to be checked that the holder of a driving licence issued pursuant to Council Directive 91/439/EEC of 29 July 1991 on driving licences ([4]) drives solely those categories of vehicles for which he is authorised; whereas such checking helps to improve road safety;

(5) Whereas, as a prerequisite for registering a vehicle that has previously been registered in another Member State, all of the Member States require a document certifying that registration and the technical characteristics of the vehicle;

(6) Whereas harmonisation of the registration certificate will facilitate the re-entry into service of vehicles that have previously been registered in another Member State, and will contribute to the proper functioning of the internal market;

(7) Whereas Member States use a registration certificate consisting either of one single part or two separate parts, and whereas it is currently appropriate to allow both systems to coexist;

(8) Whereas differences remain between the Member States concerning the interpretation of the particulars contained in the registration certificate; whereas, in the interests of the proper

([1]) OJ C 202, 2.7.1997, p. 13 and
OJ C 301, 30.9.1998, p. 8.
([2]) OJ C 19, 21.1.1998, p. 17.
([3]) Opinion of the European Parliament of 28 May 1998 (OJ C 195, 22.6.1998, p. 21) Council Common Position of 3 November 1998 (OJ C 388, 14.12.1998, p. 12) and Decision of the European Parliament of 25 February 1999 (not yet published in the Official Journal).
([4]) OJ L 237, 24.8.1991, p. 1. Directive as last amended by Directive 97/26/EC (OJ L 150, 7.6.1997, p. 41).

▼B

functioning of the internal market and of the free movement and checks that these involve, it is therefore appropriate to specify in which capacity the persons named in the certificate may use the vehicle for which it was issued;

(9) Whereas, in order to facilitate those checks specifically intended to combat fraud and the illegal trade in stolen vehicles, it is appropriate to establish close cooperation between Member States, based on an effective exchange of information;

(10) Whereas it is appropriate to provide for a simplified procedure for adjusting the technical aspects contained in Annexes I and II

HAS ADOPTED THIS DIRECTIVE:

Article 1

This Directive shall apply to the documents issued by the Member States at the time of registration of vehicles.

It shall not prejudice the right of Member States to use, for the temporary registration of vehicles, documents which may not meet the requirements of this Directive in every respect.

Article 2

For the purposes of this Directive:

(a) 'vehicle': shall mean any vehicle as defined in Article 2 of Council Directive 70/156/EEC of 6 February 1970 on the approximation of the laws of the Member States relating to the type-approval of motor vehicles and their trailers ([1]) and in Article 1 of Council Directive 92/61/EEC of 30 June 1992 relating to the type-approval of two or three-wheel motor vehicles ([2]);

(b) 'registration': shall mean the administrative authorisation for the entry into service in road traffic of a vehicle, involving the identification of the latter and the issuing to it of a serial number, to be known as the registration number;

(c) 'registration certificate': shall mean the document which certifies that the vehicle is registered in a Member State;

(d) 'holder of the registration certificate': shall mean the person in whose name a vehicle is registered.

Article 3

1. Member States shall issue a registration certificate for vehicles which are subject to registration under their national legislation. The certificate shall consist of either a single part in accordance with Annex I or two parts in accordance with Annexes I and II.

Member States may authorise the services they appoint to this end, in particular those of the manufacturers, to fill in the technical parts of the registration certificate.

2. Where a new registration certificate is issued for a vehicle registered prior to the implementation of this Directive, Member States shall use a certification model as defined in this Directive and may limit the particulars shown therein to those for which the required data are available.

([1]) OJ L 42, 23.2.1970, p. 1. Directive as last amended by Commission Directive 98/14/EC (OJ L 91, 25.3.1998, p. 1).

([2]) OJ L 225, 10.8.1992, p. 72. Directive as amended by the 1994 Act of Accession.

▼B

3. The data given in the registration certificate, in accordance with Annexes I and II, shall be represented by the harmonised Community codes shown in those Annexes.

Article 4

For the purposes of this Directive, the registration certificate issued by a Member State shall be recognised by the other Member States for the identification of the vehicle in international traffic or for its re-registration in another Member State.

Article 5

1. For the purposes of identifying a vehicle in road traffic, Member States may require that the driver carry Part I of the registration certificate.

2. With a view to re-registering a vehicle previously registered in another Member State, the competent authorities shall require the submission of Part I of the previous registration certificate in every case and the submission of Part II if it was issued. These authorities shall withdraw the part(s) of the previous registration certificate submitted and shall keep the latter for a minimum of six months. They shall, within two months, inform the authorities of the Member State which delivered the certificate of its withdrawal. They shall return the certificate which they have withdrawn to those authorities if they so request within six months of its withdrawal.

Where the registration certificate consists of Parts I and II, and Part II is missing, the competent authorities in the Member State where the new registration has been requested may decide, in exceptional cases, to re-register the vehicle, but only after having obtained confirmation, in writing or by electronic means, from the competent authorities in the Member State where the vehicle was previously registered, that the applicant is entitled to re-register the vehicle in another Member State.

Article 6

Any amendments necessary in order to adapt the Annexes to this Directive to technical progress shall be adopted in accordance with the procedure laid down in Article 7.

Article 7

1. Where reference is made to the procedure provided for in this Article, the Commission shall be assisted by the committee established by Article 8 of Council Directive 96/96/EC of 20 December 1996 on the approximation of the laws of the Member States relating to roadworthiness tests for motor vehicles and their trailers ([1]), hereinafter referred to as the 'committee', which shall consist of representatives of the Member States with a representative of the Commission in the chair.

2. The representative of the Commission shall submit to the committee a draft of the measures to be taken. The committee shall deliver its opinion on the draft within a time limit which the chairman may lay down according to the urgency of the matter. The opinion shall be delivered by the majority laid down in Article 148(2) of the Treaty in the case of decisions which the Council is required to adopt on a proposal from the Commission. The votes of the representatives of

([1]) OJ L 46, 17.2.1997, p. 1.

▼B

the Member States within the committee shall be weighted in the manner set out in that Article. The chairman shall not vote.

3. (a) The Commission shall adopt the measures envisaged if they are in accordance with the opinion of the committee.

(b) If the measures envisaged are not accordance with the opinion of the committee, or if no opinion is delivered, the Commission shall, without delay, submit to the Council a proposal relating to the measures to be taken. The Council shall act by a qualified majority.

If, within three months of the submission of the proposal to the Council, the Council has not acted, the proposed measures shall be adopted by the Commission.

Article 8

1. Member States shall bring into force the laws, regulations or administration provisions necessary to comply with this Directive by 1 June 2004. They shall notify the Commission thereof immediately.

When Member States adopt these provisions, they shall contain a reference to this Directive or be accompanied by such reference at the time of their official publication. The methods of making such reference shall be laid down by Member States.

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field governed by this Directive.

The Commission shall communicate to the Member States all the models for registration certificates used by the national administration.

Article 9

Member States shall assist one another in the implementation of this Directive. They may exchange information at bilateral or multilateral level in particular so as to check, before any registration of a vehicle, the latter's legal status, where necessary in the Member State in which it was previously registered. Such checking may in particular involve the use of an electronic network.

Article 10

This Directive shall enter into force on the day of its publication in the *Official Journal of the European Communities*.

Article 11

This Directive is addressed to the Member States.

▼M1

ANNEX I

PART I OF THE REGISTRATION CERTIFICATE ([1])

I. This part may be implemented in either of two formats: as a paper document or as a smart card. The characteristics of the paper document version are specified in Chapter II and those of the smart card version in Chapter III.

II. Specifications of Part I of the Registration Certificate in paper format

II.1. The overall dimensions of the Registration Certificate shall not be greater than an A4 format (210 × 297 mm) or a folder of A4 format.

II.2. The paper used for Part I of the Registration Certificate shall be made secure against forgery by using at least two of the following techniques:

— graphics,

— watermark,

— fluorescent fibres, or

— fluorescent imprints.

Member States are free to introduce additional security features.

II.3. Part I of the Registration Certificate may consist of several pages. Member States shall determine the number of pages in accordance with the information contained in the document and its layout.

II.4. The first page of Part I of the Registration Certificate shall contain:

— the name of the Member State issuing Part I of the Registration Certificate,

▼A1

— the distinguishing mark of the Member State issuing Part I of the registration certificate, namely:

B: Belgium

▼M2

BG: Bulgaria

▼A1

CZ: Czech Republic

DK: Denmark

D: Germany

EST: Estonia

GR: Greece

E: Spain

F: France

IRL: Ireland

I: Italy

CY: Cyprus

LV: Latvia

LT: Lithuania

L: Luxembourg

H: Hungary

M: Malta

NL: Netherlands

A: Austria

([1]) The certificate consisting of one part only will bear the words ‘Registration Certificate’, and there will be no reference in the text to ‘Part I’.

▼A1

PL: Poland

P: Portugal

▼M2

RO: Romania

▼A1

SLO: Slovenia

SK: Slovakia

FIN: Finland

S: Sweden

UK: United Kingdom,

▼M1

— the name of the competent authority,

— the words ‘Part I of the Registration Certificate’ or, if the certificate consists of one part only, the words ‘Registration Certificate’, printed in large type in the language or languages of the Member States issuing the Registration Certificate; they shall also appear, after a suitable space, in small type in the other languages of the European Community,

— the words ‘European Community’, printed in the language or languages of the Member State issuing Part I of the Registration Certificate,

— the number of the document.

II.5. Part I of the Registration Certificate shall also contain the following data, preceded by the corresponding harmonised Community codes:

(A) registration number;

(B) date of first registration of the vehicle;

(C) personal data;

(C.1) holder of the Registration Certificate:

(C.1.1) surname(s) or business name,

(C.1.2) other name(s) or initial(s) (where appropriate),

(C.1.3) address in the Member State of registration on the date of issue of the document;

(C.4) Where the particulars specified in II.6, code C.2 are not included in the Registration Certificate, reference to the fact that the holder of the Registration Certificate:

(a) is the vehicle owner,

(b) is not the vehicle owner,

(c) is not identified by the Registration Certificate as being the vehicle owner;

(D) vehicle:

(D.1) make,

(D.2) type,

— variant (if available),

— version (if available);

(D.3) commercial description(s);

(E) vehicle identification number;

(F) mass:

(F.1) maximum technically permissible laden mass, except for motorcycles;

▼**M1**

(G) mass of the vehicle in service with bodywork, and with coupling device in the case of a towing vehicle in service from any category other than M1;

(H) period of validity, if not unlimited;

(I) date of the registration to which this certificate refers;

(K) type-approval number (if available);

(P) engine;

(P.1) capacity (in cm^3),

(P.2) maximum net power (in kW) (if available),

(P.3) type of fuel or power source;

(Q) power/weight ratio (in kW/kg) (only for motorcycles);

(S) seating capacity,

(S.1) number of seats, including the driver's seat,

(S.2) number of standing places (where appropriate).

II.6. Part I of the Registration Certificate may, moreover, contain the following data, preceded by the corresponding harmonised Community codes:

(C) personal data,

(C.2) owner of the vehicle (repeated as many times as there are owners),

(C.2.1) surname or business name,

(C.2.2) other name(s) or initial(s) (where appropriate),

(C.2.3) address in the Member State of registration, on the date of issue of the document,

(C.3) natural or legal person who may use the vehicle by virtue of a legal right other than that of ownership,

(C.3.1) surname or business name,

(C.3.2) other name(s) or initial(s) (where appropriate),

(C.3.3) address in the Member State of registration, on the date of issue of the document,

(C.5), (C.6), (C.7), (C.8): where a change in the personal data given in points II.5, code C.1, II.6, code C.2 and/or II.6, code C.3 does not give rise to the issue of a new Registration Certificate, the new personal data corresponding to these points may be included under codes (C.5), (C.6), (C.7) or (C.8); they are then broken down in accordance with the references in points II.5, code C.1, II.6, code C.2, II.6, code C.3 and II.5, code C.4;

(F) mass:

(F.2) maximum permissible laden mass of the vehicle in service in the Member State of registration;

(F.3) maximum permissible laden mass of the whole vehicle in service in the Member State of registration;

(J) vehicle category;

(L) number of axles;

(M) wheelbase (in mm);

▼M1

(N) for vehicles with a total exceeding 3 500 kg, distribution of the technically permissible maximum laden mass among the axles:

(N.1) axle 1 (in kg),

(N.2) axle 2 (in kg), where appropriate,

(N.3) axle 3 (in kg), where appropriate,

(N.4) axle 4 (in kg), where appropriate,

(N.5) axle 5 (in kg), where appropriate,

(O) technically permissible maximum towable mass of the trailer:

(O.1) braked (in kg),

(O.2) unbraked (in kg);

(P) engine:

(P.4) rated speed (in min-1),

(P.5) engine identification number;

(R) colour of the vehicle;

(T) maximum speed (in km/h);

(U) sound level:

(U.1) stationary (in dB(A)),

(U.2) engine speed (in min-1),

(U.3) drive-by (in dB(A));

(V) exhaust emissions:

(V.1) CO (in g/km or g/kWh),

(V.2) HC (in g/km or g/kWh),

(V.3) NOx (in g/km or g/kWh),

(V.4) HC + NOx (in g/km),

(V.5) particulates for diesel (in g/km or g/kWh),

(V.6) corrected absorption coefficient for diesel (in min-1),

(V.7) CO2 (in g/km),

(V.8) combined fuel consumption (in l/100 km),

(V.9) indication of the environmental category of EC type-approval;

reference to the version applicable pursuant to Directive 70/220/EEC. [1] or Directive 88/77/EEC [2].

(W) fuel tank(s) capacity (in litres).

II.7 Member States may include additional information (in Part I of the Registration Certificate), in particular they may add between brackets to the identification codes, as laid down under II.5 and II.6, additional national codes.

III. Specifications of Part I of the Registration Certificate in smart card format *(Alternative to the specimen in paper format described in Chapter II)*

III.1 *Card format and data legible with the eye*

Being a microprocessor card, the chip card shall be designed in accordance with the standards mentioned in Chapter III.5. The data

[1] Council Directive 70/220/EEC of 20 March 1970 on the approximation of the laws of the Member States relating to measures to be taken against air pollution by gases from positive-ignition engines of motor vehicles (OJ L 76, 6.4.1970, p. 1), Directive as last amended by Commission Directive 2002/80/EC (OJ L 291, 28.10.2002, p. 20).

[2] Council Directive 88/77/EEC of 3 December 1987 on the approximation of the laws of the Member States relating to the measures to be taken against the emission of gaseous pollutants from diesel engines for use in vehicles (OJ L 36, 9.2.1988, p. 33). Directive as last amended by Commission Directive 2001/27/EC (OJ L 107, 18.4.2001, p. 10).

▼M1

stored on the card should be legible with normal reading devices (such as for tachograph cards).

Printed on the front and back of the card shall be at least the data specified in Chapters II.4 and II.5; these data shall be legible with the eye (minimum character height: 6 points) and printed on as follows. (Examples of possible lay-outs are presented in Figure 1 at the end of this section.)

A. Basic imprint

The basic data shall contain the following:

Front

(a) To the right of the chip location:

in the language(s) of the Member State issuing the Registration Certificate

— the words 'European Community';

— the name of the Member State issuing the Registration Certificate;

— the words 'Part I of the Registration Certificate', or, if the certificate consists of one part only, the words 'Registration Certificate' printed in large type;

— another (e.g. previous national) designation of the equivalent document (optional);

— the name of the competent authority (alternatively, also in the form of a personalisation imprint as per Letter B);

— the unambiguous consecutive number of the document as used within the Member State (alternatively, also in the form of a personalisation imprint as per Letter B);

(b) Above the chip location:

the distinguishing mark of the Member State issuing the Registration Certificate, white in a blue rectangle and surrounded by twelve yellow stars:

B Belgium

▼M2

BG Bulgaria

▼M1

DK Denmark

D Germany

GR Greece

E Spain

F France

IRL Ireland

I Italy

L Luxembourg

NL The Netherlands

A Austria

P Portugal

▼M2

RO Romania

▼M1

FIN Finland

S Sweden

UK United Kingdom

▼M1

(c) Member States might consider adding, at the lower edge in small type and in their national language(s), the note: 'This document should be produced to any authorised person requesting it.'

(d) The basic colour of the card is green (Pantone 362); alternatively, a green-to-white transition is possible.

(e) A symbol representing a wheel (see proposed lay-out in Fig.1) shall be printed within the printing area in the bottom left corner of the card front.

In other respects, the provisions of Chapter III.13 shall apply.

B. Personalisation imprint

The personalisation imprint shall contain the following information:

Front

(a) the name of the competent authority — see also Letter Aa)

(b) the name of the authority issuing the Registration Certificate (optional)

(c) the unambiguous consecutive number of the document as used within the Member State — see also Letter Aa)

(d) The following data from Chapter II.5; according to Chapter II.7, individual national codes may be added to the preceding harmonised Community codes:

Code	Reference
(A)	registration number (official licence number)
(B)	date of first registration of the vehicle
(I)	date of the registration to which this certificate refers
personal data	
(C.1)	holder of the Registration Certificate
(C.1.1)	surname or business name
(C.1.2)	other name(s) or initial(s) (where appropriate)
(C.1.3)	address in the Member State of registration on the date of issue of the document
(C.4)	Where the particulars specified in Chapter II.6, code C.2 are not included in the imprint of the Registration Certificate defined in the Letters A and B, reference to the fact that the holder of the Registration Certificate
	(a) is the vehicle owner;
	(b) is not the vehicle owner;
	(c) is not identified as the vehicle owner in the Registration Certificate;

Back

The back shall bear at least the remaining data specified in Chapter II.5; in accordance with Chapter II.7, individual national codes may be added to the preceding harmonised Community codes.

In detail, these data are:

Code	Reference
Vehicle Data (in consideration of the notes in Chapter II.5)	
(D.1)	make
(D.2)	type (variant/version, where appropriate)
(D.3)	commercial description(s)
(E)	vehicle identification number

▼**M1**

Code		Reference
	(F.1)	max. technically permissible laden mass, except for motorcycles (kg)
(G)		mass of the vehicle in service with bodywork, and with coupling device in the case of a towing vehicle in service from any category other than M1 (kg)
(H)		period of validity, if not unlimited
(K)		type-approval number (if available)
	(P.1)	displacement (cm^3)
	(P.2)	nominal power (kW)
	(P.3)	type of fuel or power source
(Q)		power/weight ratio (in kW/kg) (only for motorcycles)
	(S.1)	number of seats, including driver's seat
	(S.2)	number of standing places (where appropriate)

Optionally, additional data from II.6 (with the harmonised codes) and II.7 may be added on the back of the card.

C. Physical security features of the smart card

The threats to the physical security of documents are:

— Production of false cards: creating a new object which bears great resemblance to the document, either by making it from scratch or by copying an original document.

— Material alteration: changing a property of an original document, e.g. modifying some of the data printed on the document.

The material used for Part I of the Registration Certificate shall be made secure against forgery by using at least three of the following techniques:

— microprinting,

— guilloche printing*,

— iridescent printing,

— laser engraving,

— ultraviolet fluorescent ink,

— inks with viewing angle — dependent colour*,

— inks with temperature — dependent colour*,

— custom holograms*,

— variable laser images,

— optical variable images.

Member States are free to introduce additional security features.

As a basis, the techniques indicated with an asterisk are to be preferred as they enable the law enforcement officers to check the validity of the card without any special means.

▼M1

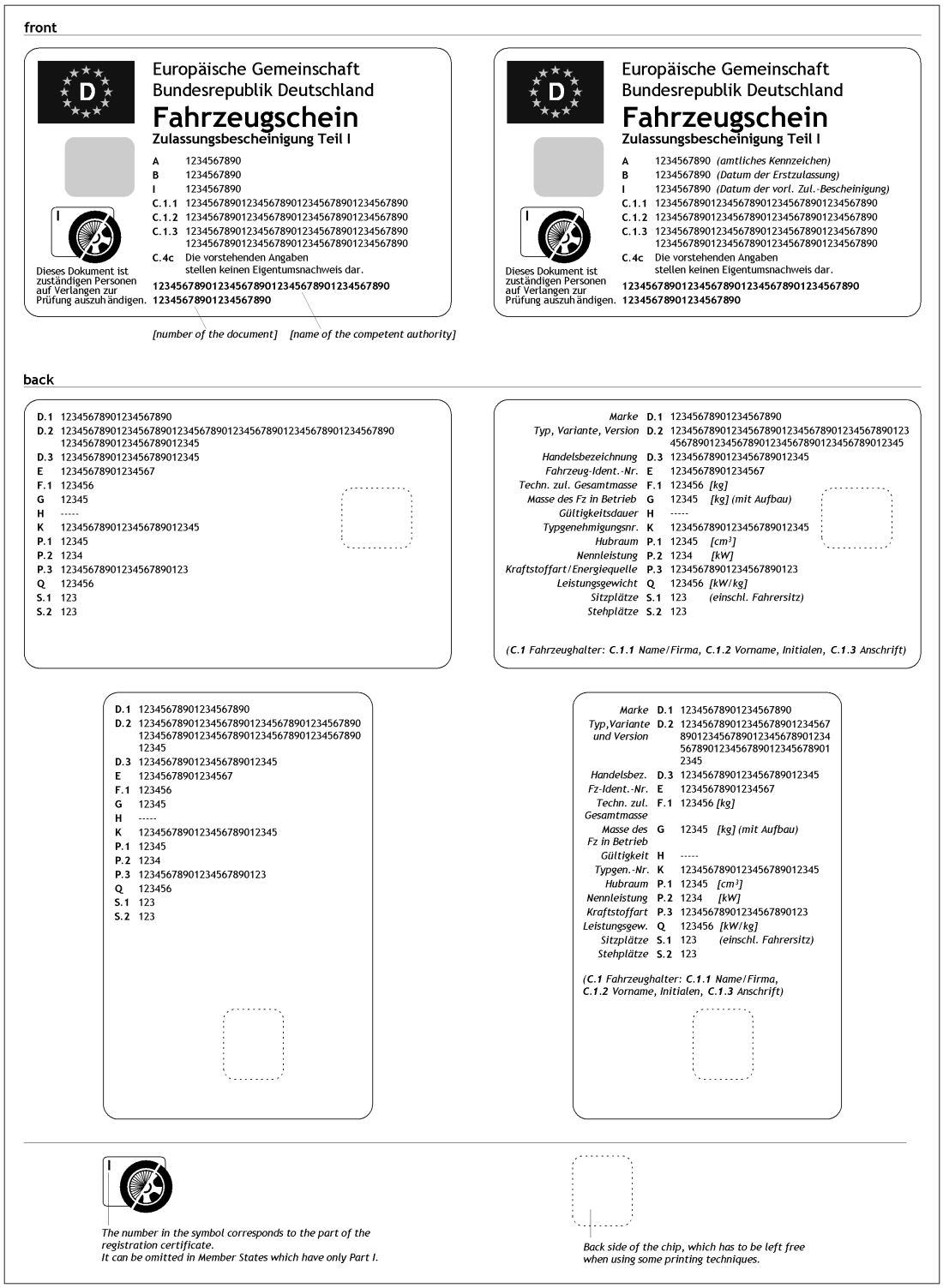

Figure 1: Examples of possible lay-outs of the mandatory data

(more optional and additional data may be added to the back side of the card)

▼M1

III.2. *Data storage and protection*

Preceded by the harmonised common codes (where appropriate, in connection with the individual codes of the Member States according to Chapter II.7), the following data shall or may be additionally stored on the card surface bearing the legible information as per Chapter III.1:

(A) Data as per Chapters II.4 and II.5

All data specified in Chapters II.4 and II.5 shall be mandatorily stored on the card.

(B) Other data as per Chapter II.6

Moreover, the Member States are free to store more data as per Chapter II.6, to the necessary extent.

(C) Other data as per Chapter II.7

Optionally, additional information may be stored on the card.

The data from the letters A and B is stored in two corresponding files with transparent structure (see ISO/IEC 7816-4). The Member States may specify the storage of data from Letter C according to their requirements.

There are no read restrictions on these files.

Write access to these files shall be restricted to the national competent authorities (and their authorised agencies) in the Member State issuing the smart card.

Write access is permitted only after an asymmetric authentication with session key exchange for protecting the session between the vehicle registration card and a security module (e.g. a security module card) of the national competent authorities (or their authorised agencies). Thereby card verifiable certificates according to ISO/IEC 7816-8 are exchanged before the authentication process. The card verifiable certificates contain the corresponding public keys to be retrieved and to be used in the following authentication process. These certificates are signed by the national competent authorities and contain an authorisation object (certificate holder authorisation) according to ISO/IEC 7816-9 in order to encode role specific authorisation to the card. This role authorisation is related to the national competent authority (e.g. to update a data field).

The corresponding public keys of the national competent authority are stored as trust anchor (root public key) in the card.

The specification of the files and commands needed for the authentication process and the writing process is under the responsibility of the Member States. The security assurance has to be approved by common criteria evaluation according to EAL4+. The augmentations are as follows: 1. AVA_MSU.3 Analysis and testing for insecure states; 2. AVA_VLA.4 Highly resistant.

(D) Verification data for authenticity of registration data

The issuing authority calculates its electronic signature about the complete data of a file containing the data of the letter A or B and stores it in a related file. These signatures allow the authenticity of the stored data to be verified. The cards shall store the following data:

— electronic signature of registration data related to letter A,

— electronic signature of registration data related to letter B,

For verification of these electronic signatures the card shall store:

— certificates of the issuing authority calculating the signatures about the data of letters A, B.

Electronic signatures and the certificates shall be readable without restriction. Write access to electronic signatures and certificates shall be restricted to the national competent authorities.

III.3. *Interface*

External contacts should be used for interfacing. A combination of external contacts with a transponder is optional.

▼M1

III.4. *Storage capacity of the card*

The card shall have sufficient capacity to store the data mentioned in Chapter III.2.

III.5. *Standards*

The chip card and reading devices used shall comply with the following standards:

— ISO 7810: Standards for identification cards (plastic cards): Physical characteristics

— ISO 7816-1 and –2: Physical characteristics of chip cards, dimensions and location of contacts

— ISO 7816-3: Electrical characteristics of contacts, transmission protocols

— ISO 7816-4: Communication contents, chip card data structure, safety architecture, access mechanisms

— ISO 7816-5: Structure of application identifiers, selection and execution of application identifiers, registration procedure for application identifiers (numbering system)

— ISO 7816-6: Inter-industry data elements for interchange

— ISO 7816-8: Integrated circuit(s) cards with contacts — Security related inter-industry commands

— ISO 7816-9: Integrated circuit(s) cards with contacts — Enhanced inter-industry commands

III.6. *Technical Characteristics and Transmission Protocols*

The format shall be ID-1 (normal size, see ISO/IEC 7810).

The card shall support transmission protocol T=1 in compliance with ISO/IEC 7816-3. Additionally other transmission protocols may be supported, e.g. T=0, USB or contactless protocols.

For bit transmission the ‘direct convention’ shall be applied (see ISO/IEC 7816-3).

(A) Supply voltage, programming voltage

The card shall work with Vcc = 3V (+/0.3V) or with Vcc = 5V (+/0,5V). The card shall not require a programming voltage at pin C6.

(B) Answer to reset

The Information Field Size Card byte shall be presented at the ATR in character TA3. This value shall be at least ‘80h’ (=128 bytes).

(C) Protocol parameter selection

The support of Protocol parameter selection (PPS) according to ISO/IEC 7816-3 is mandatory. It is used for selecting T=1, if T=0 is additionally present in the card, and to negotiate the Fi/Di parameters for achieving higher transmission rates.

(D) Transmission protocol T = 1

The support of chaining is mandatory.

The following simplifications are allowed:

— NAD Byte: not used (NAD should be set to ‘00’),

— S-Block ABORT: not used,

— S-Block VPP state error: not used.

The information field size device (IFSD) shall be indicated from the IFD immediately after ATR, i.e. the IFD shall transmit the S-Block IFS Request after ATR and the card shall send back S-Block IFS. The recommended value for IFSD is 254 bytes.

▼M1

III.7. *Temperature range*

The registration certificate in smart card format shall properly function under all climatic conditions usually prevailing in the territories of the community and at least in the temperature range specified in ISO 7810. The cards shall be capable of operating correctly in the humidity range 10 % to 90 %.

III.8. *Physical lifetime*

If used in accordance with the environmental and electricity-related specifications, the card must function properly for a period of ten years. The material of the card must be chosen in such a way that this lifetime is ensured.

III.9. *Electrical characteristics*

During operation, the cards shall conform to Commission Directive 95/54/EC of 31 October 1995 ([1]), related to electromagnetic compatibility, and shall be protected against electrostatic discharges.

III.10. *File structure*

Table 1 lists the mandatory elementary files (EF) of the application DF (see ISO/IEC 7816-4) DF.Registration. All these files have a transparent structure. The access requirements are described in Chapter III.2. The file sizes are specified by the Member States according their requirements.

Table 1

Filename	File Identifier	Description
EF.Registration_A	‘D001’	Registration data according to the Chapters II.4 and II.5
EF. Signature_A	‘E001’	Electronic Signature about complete data content of EF.Registration_A
EF.C.IA_A. DS	‘C001’	X.509v3 Certificate of the issuing authority calculating the signatures for EF.Signature_A
EF.Registration_B	‘D011’	Registration data according Chapter II.6
EF. Signature_B	‘E011’	Electronic Signature about complete data content of EF.Registration_B
EF.C.IA_B. DS	‘C011’	X.509v3 Certificate of the issuing authority calculating the signatures for EF.Signature_B

III.11. *Data structure*

The stored certificates are in the X.509v3 format according ISO/IEC 9594-8. The electronic signatures are stored transparently.

The registration data is stored as BER-TLV data objects (see ISO/IEC 7816-4) in the corresponding elementary files. The value fields are coded as ASCII character as defined by ISO/IEC 8824-1, the values ‘C0’-‘FF’ are defined by ISO/IEC 8859-1 (Latin1 character set), ISO/IEC 8859-7 (Greek character set) or ISO/IEC 8859-5 (Cyrillic character set). The format of dates is YYYYMMDD.

Table 2 lists the Tags identifying the data objects corresponding to the registration data of the Chapters II.4 and II.5 together with additional data from Chapter III.1. Unless otherwise stated, the data objects listed in Table 2 are mandatory. Optional data objects may be omitted. The column of the Tag indicates the level of nesting.

([1]) Commission Directive 95/54/EC of 31 October 1995 adapting to technical progress Council Directive 72/245/EEC on the approximation of the laws of the Member States relating to the suppression of radio interference produced by spark-ignition engines fitted to motor vehicles and amending Directive 70/156/EEC on the approximation of the laws of the Member States relating to the type-approval of motor vehicles and their trailers (OJ L 266, 8.11.1995 p. 1).

▼M1

Table 2

Tag				Description
‘78’				Compatible tag allocation authority, nesting object ‘4F’ (see ISO/IEC 7816-4 and ISO/IEC 7816-6)
	‘4F’			Application identifier (see ISO/IEC 7816-4)
‘71’				Inter-industry template (see ISO/IEC 7816-4 and ISO/IEC 7816-6) corresponding to mandatory data of the registration certificate Part 1, nesting all following objects
	‘80’			Version of Tag definition
	‘9F33’			Name of the Member State issuing the registration certificate Part 1
	‘9F34’			Another (e.g. previous national) designation of the equivalent document (optional)
	‘9F35’			Name of the competent authority
	‘9F36’			Name of the authority issuing the registration certificate (optional)
	‘9F37’			Character set used: ‘00’: ISO/IEC 8859-1 (Latin1 character set) ‘01’: ISO/IEC 8859-5 (Cyrillic character set) ‘02’: ISO/IEC 8859-7 (Greek character set)
	‘9F38’			Unambiguous consecutive number of the document as used within the Member State
	‘81’			Registration number
	‘82’			Date of first registration
	‘A1’			Personal data, nesting objects ‘A2’ and ‘86’
		‘A2’		Holder of the registration certificate, nesting objects ‘83’, ‘84’ and ‘85’
			‘83’	Surname or business name
			‘84’	Other names or initials (optional)
			‘85’	Address in the Member State
		‘86’		‘00’: is the vehicle owner ‘01’: is not the vehicle owner ‘02’: is not identified as the vehicle owner
	‘A3’			Vehicle, nesting objects ‘87’, ‘88’ and ‘89’
		‘87’		Vehicle make
		‘88’		Vehicle type
		‘89’		Vehicle commercial descriptions
	‘8A’			Vehicle identification number
	‘A4’			Mass nesting ‘8B’
		‘8B’		Mass maximum technically permissible laden mass
	‘8C’			Mass of the vehicle in service with bodywork
	‘8D’			Period of validity
	‘8E’			Date of the registration to which this certificate refers
	‘8F’			Type approval number

▼M1

Tag				Description
	‘A5’			Engine, nesting objects ‘90’, ‘91’, and ‘92’
		‘90’		Engine capacity
		‘91’		Engine maximum net power
		‘92’		Engine type of fuel
	‘93’			Power weight ratio
	‘A6’			Seating capacity nesting objects ‘94’ and ‘95’
		‘94’		Number of seats
		‘95’		Number of standing places

Table 3 lists the Tags identifying the data objects corresponding to the registration data of Chapter II.6. The data objects listed in Table 3 are optional.

Table 3

Tag				Description
‘78’				Compatible tag allocation authority, nesting object ‘4F’ (see ISO/IEC 7816-4 and ISO/IEC 7816-6)
	‘4F’			Application Identifier (see ISO/IEC 7816-4)
‘72’				Inter-industry template (see ISO/IEC 7816-4 and ISO/IEC 7816-6) corresponding to optional data of the registration certificate Part 1, Chapter II.6, nesting all following objects
	‘80’			Version of Tag definition
	‘A1’			Personal data nesting objects ‘A7’, ‘A8’ and ‘A9’
		‘A7’		Vehicle owner, nesting objects ‘83’, ‘84’ and ‘85’
			..	
		‘A8’		Second vehicle owner, nesting objects ‘83’, ‘84’ and ‘85’
			..	
		‘A9’		Person who may use the vehicle by virtue of legal right other than ownership nesting objects ‘83’, ‘84’, and ‘85’
			..	
	‘A4’			Mass, nesting ‘96’ and ‘97’
		‘96’		Maximum permissible laden mass of the vehicle in service
		‘97’		Maximum permissible laden mass of the whole vehicle in service
	‘98’			Vehicle category
	‘99’			Number of axles
	‘9A’			Wheelbase
	‘AD’			Distribution of the maximum permissible laden mass among the axles, nesting objects ‘9F1F’, ‘9F20’, ‘9F21’, ‘9F22’ and ‘9F23’
		‘9F1F’		Axle 1
		‘9F20’		Axle 2
		‘9F21’		Axle 3
		‘9F22’		Axle 4
		‘9F23’		Axle 5

▼M1

Tag				Description
	‘AE’			Technically permissible maximum towable mass of the trailer, nesting objects ‘9B’ and ‘9C’
		‘9B’		Braked
		‘9C’		Unbraked
	‘A5’			Engine, nesting objects ‘9D’ and ‘9E’
		‘9D’		Rated speed
		‘9E’		Engine identification number
	‘9F24’			Colour of the vehicle
	‘9F25’			Maximum speed
	‘AF’			Sound level, nesting objects ‘DF26’, ‘DF27’ and ‘DF28’
		‘9F26’		Stationary
		‘9F27’		Engine speed
		‘9F28’		Drive by
	‘B0’			Exhaust emissions, nesting objects ‘9F29’, ‘9F2A’, ‘9F2B’, ‘9F2C’, ‘9F2D’, ‘9F2E’, ‘9F2F’, ‘9F30’ and ‘9F31’
		‘9F29’		CO
		‘9F2A’		HC
		‘9F2B’		NO_X
		‘9F2C’		$HC+NO_X$
		‘9F2D’		Particulates of diesel
		‘9F2E’		Corrected absorption coefficient for diesel
		‘9F2F’		CO_2
		‘9F30’		Combined fuel consumption
		‘9F31’		Indication of the environmental category of EC type-approval
	‘9F32’			Fuel tanks capacity

Structure and format of the data according Chapter II.7 are specified by the Member States.

III.12. *Reading the registration data*

A. Application selection

The application ‘Vehicle Registration’ shall be selectable by a SELECT DF (by name, see ISO/IEC 7816-4) with its application identifier (AID). The AID value is requested from a laboratory selected by the European Commission.

B. Reading data from files

The files corresponding to Chapter II, Letters A, B and D, shall be selectable by SELECT (see ISO/IEC 7816-4) with the command parameters P1 set to ‘02’, P2 set to ‘04’ and the command data field containing the file identifier (see Chapter X, Table 1). The returned FCP template contains the file size which can be useful for reading these files.

These files shall be readable with READ BINARY (see ISO/IEC 7816-4) with an absent command data field and L_e set to the length of the expected data, using a short L_e.

C. Verification of data authenticity

To verify the authenticity of the stored registration data, the corresponding electronic signature may be verified. This means that besides the registration data also the corresponding electronic signature may be read from the registration card.

▼**M1**

The public key for signature verification can be retrieved by reading the corresponding issuing authority certificate from the registration card. Certificates contain the public key and the identity of the corresponding authority. The signature verification may be performed by another system than the registration card.

The Member States are free to retrieve the public keys and certificates for verifying the issuing authority certificate.

III.13. *Special provisions*

Irrespective of the other provisions herein, the Member States, after notifying the European Commission, may add colours, marks or symbols. In addition, for certain data of Chapter III.2 Letter C, the Member States may allow XML format and may allow access via TCP/IP.

Member States may, with the agreement of the European Commission, add other applications for which no harmonised rules or documents exist yet at EU level (e.g. roadworthiness certificate), on the vehicle registration card to realise additional vehicle related services.

▼M1

ANNEX II

PART II OF THE REGISTRATION CERTIFICATE (1)

I. This part may be implemented in either of two formats: as a paper document or as a smart card. The characteristics of the paper document version are specified in Chapter II and those of the smart card version in Chapter III.

II. **Specifications of Part II of the registration certificate in paper format**

II.1. The overall dimensions of the registration certificate shall not be greater than an A4 format (210 × 297 mm) or a folder of A4 format.

II.2. The paper used for part II of the registration certificate shall be made secure against forgery by using at least two of the following techniques:

— graphics,

— watermark,

— fluorescent fibres, or

— fluorescent imprints.

Member States are free to introduce additional security features.

II.3. Part II of the registration certificate may consist of several pages. Member States shall determine the number of pages in accordance with the information contained in the document and its layout.

II.4. The first page of Part II of the registration certificate shall contain

— the name of the Member State issuing Part II of the registration certificate,

▼A1

— the distinguishing mark of the Member State issuing Part II of the registration certificate, namely:

B: Belgium

▼M2

BG: Bulgaria

▼A1

CZ: Czech Republic

DK: Denmark

D: Germany

EST: Estonia

GR: Greece

E: Spain

F: France

IRL: Ireland

I: Italy

CY: Cyprus

LV: Latvia

LT: Lithuania

L: Luxembourg

H: Hungary

M: Malta

NL: Netherlands

A: Austria

PL: Poland

(1) This Annex is concerned only with Registration Certificates consisting of Parts I and II.

▼A1

P: Portugal

▼M2

RO: Romania

▼A1

SLO: Slovenia

SK: Slovakia

FIN: Finland

S: Sweden

UK: United Kingdom,

▼M1

— the name of the competent authority,

— the words ‘Part II of the Registration Certificate’, printed in large type in the language or languages of the Member States issuing the registration certificate; they shall also appear, after a suitable space, in small type, in the other languages of the European Community,

— the words ‘European Community’, printed in the language or languages of the Member State issuing Part II of the registration certificate,

— the number of the document.

II.5. Part II of the Registration Certificate shall also contain the following data, preceded by the corresponding harmonised Community codes:

(A) registration number

(B) date of the first registration of the vehicle

(D) vehicle:

(D.1) make,

(D.2) type,

— variant (if available)

— version (if available)

(D.3) commercial description(s)

(E) vehicle identification number

(K) type-approval number (if available)

II.6. Part II of the registration certificate may, moreover, contain the following data, preceded by the corresponding harmonised Community codes:

(C) personal data

(C.2) owner of the vehicle,

(C.2.1) surname(s) or business name,

(C.2.2) other name(s) or initial(s) (where appropriate),

(C.2.3) address in the Member State of registration, on the date of issue of the document,

(C.3) natural or legal person who may use the vehicle by virtue of a legal right other than that of ownership,

(C.3.1) surname(s) or business name,

(C.3.2) other name(s) or initial(s) (where appropriate),

(C.3.3) address in the Member State of registration, on the date of issue of the document

(C.5), (C.6) where a change in the personal data given in point II.6, code C.2 and/or point II.6, code C.3 does not give rise to the issue of a new Part II of the Registration Certificate, the new personal data corresponding to these points may be included under codes (C.5) or (C.6); they are broken down in accordance with point II.6, code C.2 and point II.6, code C.3.

▼M1

(J) vehicle category.

II.7. Member States may include additional information in Part II of the registration certificate; in particular, they may add between brackets to the identification codes, as laid down under points II.5 and II.6, additional national codes.

III. Specifications of Part II of the Registration Certificate in smart card format *(Alternative to the specimen in paper format described in Chapter II)*

III.1. *Card format and data legible with the eye*

Being a microprocessor card, the chip card shall be designed in accordance with the standards mentioned in Chapter III.5.

Printed on the front and back of the card shall be at least the data specified in Chapters II.4 and II.5; these data shall be legible with the eye (minimum character height: 6 points) and printed on as follows. (Examples of possible lay-outs are presented in Figure 2 at the end of this section)

A. Basic imprint

The basic data shall contain the following:

Front

(a) To the right of the chip location:

in the language(s) of the Member State issuing the Registration Certificate

— the words ‘European Community’,

— the name of the Member State issuing the Registration Certificate,

— the words ‘Part II of the Registration Certificate’ printed in large type,

— another (e.g. previous national) designation of the equivalent document (optional),

— the name of the competent authority (alternatively, also in the form of a personalisation imprint as per Letter B),

— the unambiguous consecutive number of the document as used within the Member State (alternatively, also in the form of a personalisation imprint as per Letter B).

(b) Above the chip location:

the distinguishing mark of the Member State issuing the Registration Certificate, white in a blue rectangle and surrounded by twelve yellow stars:

B Belgium

▼M2

BG Bulgaria

▼M1

DK Denmark

D Germany

GR Greece

E Spain

F France

IRL Ireland

I Italy

L Luxembourg

NL The Netherlands

A Austria

▼M1

P Portugal

▼M2

RO Romania

▼M1

FIN Finland

S Sweden

UK United Kingdom

(c) Member States might consider adding, at the lower edge in small type and in their national language(s), the note: 'This document should be kept in a safe place outside the vehicle.'

(d) The basic colour of the card is red (Pantone 194); alternatively, a red-to-white transition is possible.

(e) A symbol representing a wheel (see proposed lay-out) shall be printed within the printing area in the bottom left corner of the card front.

In other respects, the provisions of Chapter III.13 shall apply.

B. Personalisation imprint

The personalisation imprint shall contain the following information:

Front

(a) the name of the competent authority — see also Letter Aa).

(b) the name of the authority issuing the Registration Certificate (optional).

(c) the unambiguous consecutive number of the document as used within the Member State — see also Letter Aa).

(d) The following data from Chapter II.5; according to Chapter II.7, individual national codes may be added to the preceding harmonised Community codes.

Code	Reference
A	registration number (official licence number)
B	date of first registration of the vehicle

Back

The back shall bear at least the remaining data specified in Chapter II.5; according to Chapter II.7, individual national codes may be added to the preceding harmonised community codes.

In detail, these data are:

Code	Reference
Vehicle data (in consideration of the notes in Chapter II.5)	
D.1	make
D.2	type (variant/version, where appropriate)
D.3	commercial description(s)
E	vehicle identification number
K	type-approval number (if available)

Optionally, additional data from II.6 (with the harmonised codes) and II.7 may be added on the back of the card.

C. Physical security features of the smart card

The threats to the physical security of documents are:

— Production of false cards: creating a new object which bears great resemblance to the document, either by making it from scratch or by copying an original document.

▼M1

— Material alteration: changing a property of an original document, e.g. modifying some of the data printed on the document.

The material used for Part II of the registration certificate shall be made secure against forgery by using at least three of the following techniques:

— microprinting,

— guilloche printing*,

— iridescent printing,

— laser engraving,

— ultraviolet fluorescent ink,

— inks with viewing angle — dependent colour*,

— inks with temperature — dependent colour*,

— custom holograms*,

— variable laser images,

— optical variable images.

Member States are free to introduce additional security features.

As a basis, the techniques indicated with an asterisk are to be preferred as they enable the law enforcement officers to check the validity of the card without any special means.

▼M1

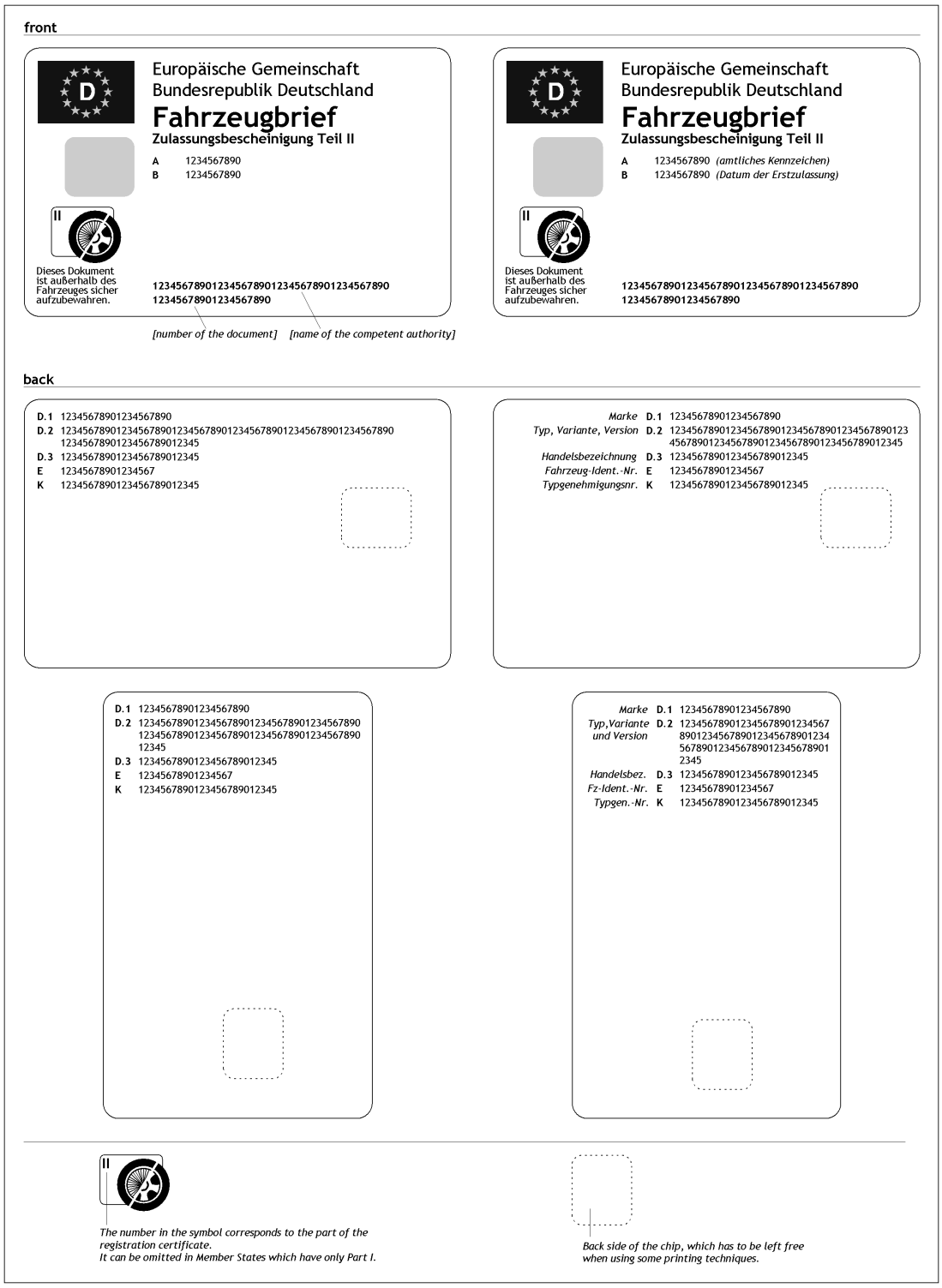

Figure 2: Examples of possible lay-outs of the mandatory data

(more optional and additional data may be added to the back side of the card)

▼M1

III.2. *Data storage and protection*

Preceded by the harmonised common codes (where appropriate, in connection with the individual codes of the Member States according to Chapter II.7), the following data shall or may be additionally stored on the card surface bearing the legible information as per Chapter III.1:

(A) Data as per Chapters II.4 and II.5

All data specified in Chapters II.4 and II.5 shall be mandatorily stored on the card.

(B) Other data as per Chapter II.6

Moreover, the Member States are free to store more data as per Chapter II.6, to the necessary extent.

(C) Other data as per Chapter II.7

Optionally, further vehicle-related data of general interest may be stored on the card.

The data from the Letters A and B is stored in two corresponding files with transparent structure (see ISO/IEC 7816-4). The Member States may specify the storage of data from Letter C according their requirements.

There are no read restrictions on these files.

Write access to these files shall be restricted to the national competent authorities (and their authorised Agencies) in the Member State issuing the smart card.

Write access is permitted only after an asymmetric authentication with session key exchange for protecting the session between the vehicle registration card and a Security Module (e.g. a Security Module Card) of the national competent authorities (or their authorised Agencies). Thereby Card Verifiable certificates according to ISO/IEC 7816-8 are exchanged before the authentication process. The Card Verifiable certificates contain the corresponding public keys to be retrieved and to be used in the following authentication process. These certificates are signed by the national competent authorities and contain an authorisation object (certificate holder authorisation) according to ISO/IEC 7816-9 in order to encode role specific authorisation to the card. This role authorisation is related to the national competent authority (e.g. to update a data field).

The corresponding public keys of the national competent authority are stored as trust anchor (root public key) in the card.

The specification of the files and commands needed for the authentication process and the writing process is under responsibility of the Member States. The security assurance has to be approved by Common Criteria Evaluation according to EAL4+. The augmentations are as follows: 1. AVA_MSU.3 Analysis and testing for insecure states; 2. AVA_VLA.4 Highly resistant.

(D) Verification data for authenticity of registration data

The issuing authority calculates its electronic signature about the complete data of a file containing the data of the Letter A or B and stores it in a related file. These signatures allow the authenticity of the stored data to be verified. The cards shall store the following data:

— electronic signature of registration data related to Letter A,

— electronic signature of registration data related to Letter B.

For verification of these electronic signatures the card shall store:

— certificates of the issuing authority calculating the signatures about the data of Letters A, B.

Electronic signatures and the certificates shall be readable without restriction. Write access to electronic signatures and certificates shall be restricted to the national competent authorities.

▼M1

III.3. *Interface*

External contacts should be used for interfacing. A combination of external contacts with a transponder is optional.

III.4. *Storage capacity of the card*

The card shall have sufficient capacity to store the data mentioned in Chapter III.2.

III.5. *Standards*

The chip card and reading devices used shall comply with the following standards:

— ISO 7810:	Standards for identification cards (plastic cards): Physical characteristics,
— ISO 7816-1 and — 2:	Physical characteristics of chip cards, dimensions and location of contacts,
— ISO 7816-3:	Electrical characteristics of contacts, transmission protocols,
— ISO 7816-4:	Communication contents, chip card data structure, safety architecture, access mechanisms,
— ISO 7816-5:	Structure of application identifiers, selection and execution of application identifiers, registration procedure for application identifiers (numbering system),
— ISO 7816-6:	Inter-industry data elements for interchange,
— ISO 7816-8:	Integrated circuit(s) cards with contacts — Security related inter-industry commands,
— ISO 7816-9:	Integrated circuit(s) cards with contacts — Enhanced inter-industry commands,

III.6. *Technical characteristics and transmission protocols*

The format shall be ID-1 (normal size, see ISO/IEC 7810).

The card shall support transmission protocol T = 1 in compliance with ISO/IEC 7816-3. Additionally other transmission protocols may be supported, e.g. T=0, USB or contactless protocols. For bit transmission the ‘direct convention’ shall be applied (see ISO/IEC 7816-3).

A. Supply voltage, programming voltage

The card shall work with Vcc = 3V (+/0.3V) or with Vcc = 5V (+/0.5V). The card shall not require a programming voltage at pin C6.

B. Answer to reset

The Information Field Size Card byte shall be presented at the ATR in character TA3. This value shall be at least ‘80h’ (=128 bytes).

C. Protocol parameter selection

The support of protocol parameter selection (PPS) according to ISO/IEC 7816-3 is mandatory. It is used for selecting T=1, if T=0 is additionally present in the card, and to negotiate the Fi/Di parameters for achieving higher transmission rates.

D. Transmission protocol T = 1

The support of chaining is mandatory.

The following simplifications are allowed:

— NAD Byte: not used (NAD should be set to ‘00’),

— S-Block ABORT: not used,

— S-Block VPP state error: not used.

The information field size device (IFSD) shall be indicated from the IFD immediately after ATR, i.e. the IFD shall transmit the S-block IFS request after ATR and the card shall send back S-block IFS. The recommended value for IFSD is 254 bytes.

▼M1

III.7. *Temperature range*

The registration certificate in smart card format shall properly function under all climatic conditions usually prevailing in the territories of the community and at least in the temperature range specified in ISO 7810. The cards shall be capable of operating correctly in the humidity range 10 % to 90 %.

III.8. *Physical lifetime*

If used in accordance with the environmental and electricity-related specifications, the card must function properly for a period of ten years. The material of the card must be chosen in such a way that this lifetime is ensured.

III.9. *Electrical characteristics*

During operation, the cards shall conform to Directive 95/54/EC, related to electromagnetic compatibility, and shall be protected against electrostatic discharges.

III.10. *File structure*

Table 1 lists the mandatory elementary files (EF) of the application DF (see ISO/IEC 7816-4) DF.Registration. All these files have a transparent structure. The access requirements are described in Chapter III.2. The file sizes are specified by the Member States according their requirements.

Table 4

Filename	File Identifier	Description
EF.Registration_A	'D001'	Registration data according to the Chapters II.4 and II.5
EF. Signature_A	'E001'	Electronic Signature about complete data content of EF.Registration_A
EF.C.IA_A. DS	'C001'	X.509v3 Certificate of the issuing authority calculating the signatures for EF.Signature_A
EF.Registration_B	'D011'	Registration data according Chapter II.6
EF. Signature_B	'E011'	Electronic Signature about complete data content of EF.Registration_B
EF.C.IA_B. DS	'C011'	X.509v3 Certificate of the issuing authority calculating the signatures for EF.Signature_B

III.11. *Data structure*

The stored certificates are in the X.509v3 format according ISO/IEC 9594-8.

The electronic signatures are stored transparent.

The registration data is stored as BER-TLV data objects (see ISO/IEC 7816-4) in the corresponding elementary files. The value fields are coded as ASCII character as defined by ISO/IEC 8824-1, the values 'C0'-'FF' are defined by ISO/IEC 8859-1 (Latin1 character set) or ISO/IEC 8859-7 (Greek character set) or ISO/IEC 8859-5 (Cyrillic character set). The format of dates is YYYYMMDD.

Table 2 lists the Tags identifying the data objects corresponding to the registration data of Chapter II.4 and II.5 together with additional data from Chapter III.1. Unless otherwise stated, the data objects listed in Table 2 are mandatory. Optional data objects may be omitted. The column of the Tag indicates the level of nesting.

▼M1

Table 5

Tag				Description
‘78’				Compatible tag allocation authority, nesting object ‘4F’ (see ISO/IEC 7816-4 and ISO/IEC 7816-6)
	‘4F’			Application identifier (see ISO/IEC 7816-4)
‘73’				Inter-industry template (see ISO/IEC 7816-4 and ISO/IEC 7816-6) corresponding to mandatory data of the registration certificate Part 2, nesting all following objects
	‘80’			Version of tag definition
	‘9F33’			Name of the Member State issuing the registration certificate Part 2
	‘9F34’			Another (e.g. previous national) designation of the equivalent document (optional)
	‘9F35’			Name of the competent authority
	‘9F36’			Name of the authority issuing the registration certificate (optional)
	‘9F37’			Character set used: ‘00’: ISO/IEC 8859-1 (Latin1 character set) ‘01’: ISO/IEC 8859-5 (Cyrillic character set) ‘02’: ISO/IEC 8859-7 (Greek character set)
	‘9F38’			Unambiguous consecutive number of the document as used within the Member State
	‘81’			Registration number
	‘82’			Date of first registration
	‘A3’			Vehicle, nesting objects ‘87’, ‘88’ and ‘89’
		‘87’		Vehicle make
		‘88’		Vehicle type
		‘89’		Vehicle commercial descriptions
	‘8A’			Vehicle identification number
	‘8F’			Type approval number

Table 6 lists the Tags identifying the data objects corresponding to the registration data of Chapter II.6. The data objects listed in Table 6 are optional.

Table 6

Tag				Description
‘78’				Compatible tag allocation authority, nesting object ‘4F’ (see ISO/IEC 7816-4 and ISO/IEC 7816-6)
	‘4F’			Application identifier (see ISO/IEC 7816-4)
‘74’				Inter-industry template (see ISO/IEC 7816-4 and ISO/IEC 7816-6) corresponding to optional data of the registration certificate Part 1, Chapter II.6, nesting all following objects
	‘80’			Version of tag definition
	‘A1’			Personal data nesting objects ‘A7’, ‘A8’ and ‘A9’

▼**M1**

Tag				Description
		‘A7’		Vehicle owner nesting objects ‘83’, ‘84’ and ‘85’
			‘83’	Surname or business name
			‘84’	Other names or initials (optional)
			‘85’	Address in the Member State
		‘A8’		Second vehicle owner nesting objects ‘83’, ‘84’ and ‘85’
			…	
		‘A9’		Person who may use the vehicle by virtue of legal right other than ownership nesting objects ‘83’, ‘84’, and ‘85’
			…	
	‘98’			Vehicle category

Structure and format of the data according Chapter II.7 are specified by the Member States.

III.12. *Reading the registration data*

A. Application selection

The Application ‘Vehicle Registration’ shall be selectable by a SELECT DF (by name, see ISO/IEC 7816-4) with its Application identifier (AID). The AID value is requested from a laboratory selected by the European Commission.

B. Reading data from files

The files corresponding to Chapter II, letters A, B and D, shall be selectable by SELECT (see ISO/IEC 7816-4) with the command parameters P1 set to ‘02’, P2 set to ‘04’ and the command data field containing the file identifier (see Chapter X, Table 1). The returned FCP template contains the file size which can be useful for reading these files.

These files shall be readable with READ BINARY (see ISO/IEC 7816-4) with an absent command data field and L_e set to the length of the expected data, using a short L_e.

C. Verification of data authenticity

To verify the authenticity of the stored registration data, the corresponding electronic signature may be verified. This means that besides the registration data also the corresponding electronic signature may be read from the registration card.

The public key for signature verification can be retrieved by reading the corresponding issuing authority certificate from the registration card. Certificates contain the public key and the identity of the corresponding authority. The signature verification may be performed by another system than the registration card.

The Member States are free in retrieving the public keys and certificates for verifying the issuing authority certificate.

III.13. *Special provisions*

Irrespective of the other provisions herein, the Member States, after notifying the European Commission, may add colours, marks or symbols. In addition, for certain data of Chapter III.2 Letter C, the Member States may allow XML format and may allow access via TCP/IP. Member States may, with the agreement of the European Commission, add other applications for which no harmonised rules or documents exist yet at EU level (e.g. roadworthiness certificate), on the vehicle registration card to realise additional vehicle related services.