INTERNATIONAL STANDARD

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Road vehicles — Information for first and second responders —

Part 1: Rescue sheet for passenger cars and light commercial vehicles

Véhicules routiers — Information pour les premiers et seconds intervenants —

Partie 1: Fiche de secours pour véhicules particuliers et pour véhicules utilitaires légers

Reference number
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Contents

Page

Foreword

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

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

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

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

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

The committee responsible for this document is ISO/TC 22, *Road vehicles*, Subcommittee SC 36, *Safety aspects and impact testing*.

ISO 17840 consists of the following parts, under the general title *Road vehicles — Information for first and second responders*:

— *Part 1: Rescue sheet for passenger cars and light commercial vehicles*

The following parts are under preparation:

— *Part 2: Rescue sheet for buses, coaches and heavy commercial vehicles*

— *Part 3: Rescue and training manuals*

— *Part 4: Propulsion energy identification*

Introduction

This part of ISO 17840 provides necessary and useful information about a vehicle involved in an accident to support the rescue team (or first responders) extricating the occupants as fast and as safe as possible. The information is provided to ensure that rescue teams are aware of special design elements and position of components to be considered.

Information used for training, where the rescue teams have time to go into the details and learn the generic approach and where to find and how to read the specific information that will be needed in case of an accident are not in the scope of this part of ISO 17840.

This part of ISO 17840 has been created in order to cover the following types of vehicle propulsion:

— conventional powertrains (diesel, gasoline);

— liquefied petroleum gas (LPG);

— compressed natural gas (CNG);

— electric;

— hybrid electric.

It is intended to update this part of ISO 17840 to cover other technologies coming on the market in the future.

Annex A, Annex B, and Annex C are normative. Annex D, Annex E, and Annex F are for information only.

Road vehicles — Information for first and second responders —

Part 1: Rescue sheet for passenger cars and light commercial vehicles

1 Scope

This part of ISO 17840 defines the content and the layout of the rescue sheet providing necessary and useful information about a vehicle involved in an accident to support the rescue team extricating the occupants as fast and as safe as possible. The contents and layout takes into account that the rescue sheet has to be easy to use by rescue teams of all over the world and can be available in paper or electronic format.

This part of ISO 17840 is applicable to passenger cars and light commercial vehicles according to ISO 3833.

The identification of the vehicle and of the model through a database using the license plate, the VIN number, an automatic emergency call systems (e.g. eCall) system or other identifiers (e.g. bar code or QR code) is not covered by this part of ISO 17840.

The rescue process or the process of handling the rescue sheets is not covered by this part of ISO 17840.

This part of ISO 17840 does not cover information related to education and training for rescue teams.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1
airbag
airbag assembly
airbag module consisting of at least an inflator and a bag for all airbag applications, such as front airbag, seat-mounted side airbag, knee airbag, inflatable curtain, inflatable seat belt

2.2
airbag inflator
stored gas inflator
device to create the gas (e.g. pyrotechnic), or storage for gas, used to inflate airbags or other protection devices

Note 1 to entry: The term is used when necessary in conjunction with protection systems where the inflator is not an integrated part of the airbag assembly, e.g. for inflatable curtain, knee airbag, or pedestrian protection active system.

2.3
automatic roll-over protection system
occupant protection system that will deploy on vehicle roll-over

2.4
battery
low-voltage battery
power source for the low-voltage system (generally 12 V or 24 V)

2.5
compressed natural gas
CNG
natural gas which has been compressed and stored for use as a vehicle fuel

[SOURCE: ISO 15500-1:2000, 3.2]

2.6
fuel tank
tank containing fuel (e.g. gasoline or diesel) under normal atmospheric pressure

2.7
gas tank
tank containing pressurised gas (e.g. CNG or LPG)

2.8
gas strut
preloaded spring
devices designed to actuate hatch, hood, door, trunk lid, or active head restraints, which can be of danger when directly cut during an extrication or put into pressure during a fire

Note 1 to entry: These devices may occur independently or in combination with each other.

2.9
high-voltage system
HV system
class B voltage system
classification of an electric component or circuit with a maximum working voltage between 30 V a.c. (rms) and 1 000 V a.c. (rms) or between 60 V d.c. and 1 500 V d.c.

[SOURCE: ISO 6469-3:2011, 3.31; UN Regulation R100]

2.9.1
high-voltage battery pack
HV battery pack
traction battery for vehicle high-voltage system

2.9.2
fuse box disabling high voltage
box containing fuses or devices for disabling the vehicle high-voltage system

2.9.3
high-voltage disconnect
HV disconnect
feature for disabling the vehicle high-voltage system

Note 1 to entry: High-voltage disconnect may be a service plug or other features specified by the vehicle manufacturer.

2.9.4
high-voltage power cable
high-voltage component
HV power cable
HV component
cable or component for vehicle high-voltage system

2.10
left-hand drive
LHD
right-hand drive
RHD
lateral position of the steering wheel in the vehicle

2.11
liquefied petroleum gas
LPG
mixture of light hydrocarbons, gaseous under normal atmospheric conditions which can be liquefied by increased pressure or decreased temperature, the main components of which are propane, propane, butane, and butane isomers

[SOURCE: ISO 20826:2006, 3.12]

2.12
low-voltage system
LV system
class A voltage system
classification of an electric component or circuit with a maximum working voltage of less than 30 V a.c. (rms) or 60 V d.c.

[SOURCE: ISO 6469-3:2011, 3.30; UN Regulation R100]

2.13
pedestrian protection active system
protection system designed to actively (e.g. pyrotechnically) deploy parts of the vehicle in order to mitigate the injury outcome in case of a collision with a pedestrian

2.14
pictogram
graphical composition that may include a symbol plus other graphic elements, such as a border, background pattern, or colour that is intended to convey specific information

[SOURCE: ISO 11014:2009, 3.10]

2.15
reinforcement
structural reinforcement that may influence (delay) the rescue process

2.16
roof cutting point
preferred area at which the roof can be cut

2.17
safety valve
shut-off valve, pressure relief device, etc. on the gas tank

2.18
seatbelt pretensioner
mechanism to pretension the seatbelt in an impact, included in the seatbelt retractor or mounted to buckle or lap belt anchor point

2.19
supplementary restraint system control unit
SRS control unit
control unit used for the decision of triggering the supplemental restraint systems

2.20
ultra-capacitor HV
high-voltage source of energy used in addition to the conventional low-voltage battery

2.21
ultra-capacitor LV
low-voltage source of energy used in addition to the conventional low-voltage battery

3 Pictograms for components to be considered

3.1 Colour coding principles

Colour codes according to Table 1 are applied in this part of ISO 17840.

Table 1 — Colour coding principles

Colour	RGB code[a]	Components/functions
Yellow	RGB: 255,255,0	Low-voltage electrical system/components, including SRS control unit
Orange	RGB: 255,165,0	High-voltage (class B) electrical system/components
Blue	RGB: 77,77,255	Occupant protection system, e.g. airbags
Purple	RGB: 152,43,143	Seat belt pretensioner
Red	RGB: 255,0,0	Surrounding colour for triggered systems, e.g. airbag, gas inflator, or preloaded spring actively triggered by sensor or similar
Lime green	RGB: 0,255,0	Gas, liquid, and pretensioned spring components
Sea green	RGB: 0,128,128	High strength zones

[a] RGB colour components as expressed in terms of digital 8-bit per channel (from 0 to 255).

NOTE RGB colour components are also given in Table 2 with the respective component/function pictogram.

3.2 Pictogram for rescue sheet application

Components/functions to be taken into account during the rescue procedure are represented by dedicated pictograms. These pictograms are used to indicate the location of the respective components/functions in the vehicle.

Table 2 lists the pictograms for the components to be considered. See Annex C for application in the rescue sheet legend. When applicable, all components are mandatory to be shown in the rescue sheet, except when explicitly stated otherwise.

NOTE All technologies (for propulsion, safety, material, etc.) that are not directly mentioned in this part of ISO 17840 should be treated as close as possible to the known/mentioned technologies.

Table 2 — Pictograms for rescue sheet application

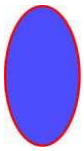
Component /function	Pictogram (top and side view)	Remarks
Airbag	 A shape coloured in blue with a red surrounding. — blue (RGB: 77,77,255) — red (RGB: 255,0,0)	Pictogram can be adjusted to represent the actual size and form. Different types of airbag-related occupant protection systems can be shown using the airbag pictogram with an appropriate size and form, e.g.: — side airbag; — curtain airbag; — knee airbag; — inflatable seat belt.
Airbag inflator/ stored gas inflator	 A rounded rectangular shape coloured in blue with black contour on white background with a red surrounding. — blue (RGB: 77,77,255) — red (RGB: 255,0,0)	Pictogram can be adjusted to represent the actual size and form. Pictogram is used to show the location of the stored gas inflator for e.g. inflatable curtains or pedestrian protection active system. This pictogram should not be shown for conventional airbag systems with integrated gas inflator, such as frontal air-bag in the steering wheel or in the dashboard, side airbag, knee airbag.
Seat belt pretensioner	 A rounded rectangular shape coloured in purple with black contour on white background with a red surrounding. — purple (RGB: 152,43,143) — red (RGB: 255,0,0)	If a seating position has more than one pretensioner (e.g. for lap and shoulder belt), each pretensioner location shall be indicated by pictogram. Pictogram can be adjusted to represent the actual size and form. It can also be a combination of simple forms.
Automatic roll-over protection system	 A shape coloured in lime with black contour on white background with a red surrounding. — lime green (RGB: 0,255,0) — red (RGB: 255,0,0)	Pictogram can be adjusted to represent the actual size and form.

Table 2 *(continued)*

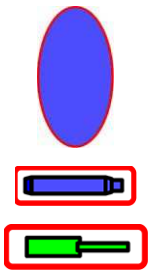
Component /function	Pictogram (top and side view)	Remarks
Pedestrian protection active system	 A rounded squared shape in white with a red surrounding and figure as shown. — red (RGB: 255,0,0) Pictogram may be used in combination with actual technical solution (below) inserted at the appropriate location in the vehicle. 	Pictogram for pedestrian protection active system shall be used to inform that the vehicle is equipped with a system that can deploy, e.g. the bonnet/hood. The pictogram background is white by default but can alternatively be using the colour of the activation mechanism. The pictogram can be combined with or connected to the activation mechanism (airbag, gas inflator, gas strut, preloaded spring) for deploying the system, e.g. the bonnet/hood.
Gas strut Preloaded spring	 A rectangular shape coloured in lime with black contour. If triggered, on white background with a red surrounding. — lime green (RGB: 0,255,0) — red (RGB: 255,0,0)	Red surrounding is used only if the device is triggered. Pictogram can be adjusted to represent the actual size and form.
SRS control unit	 A rounded squared shape coloured in yellow with a black surrounding and figure as shown. — yellow (RGB: 255,255,0)	
High strength zone	 A shape coloured in sea green with a black surrounding. — sea green (RGB: 0,128,128)	This information is optional to show, see 4.2.2 and 4.2.3. Pictogram can be adjusted to represent the actual size and form.
Zone requiring special attention	 A white rectangular shape surrounded by a black double frame.	For application, see 4.2.1. Pictogram can be adjusted to represent the actual size and form.

Table 2 *(continued)*

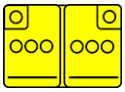
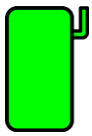
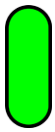
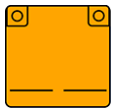
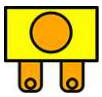
Component /function	Pictogram (top and side view)	Remarks
Battery, low-voltage	 A rectangular shape coloured in yellow with a black surrounding and figure as shown. — yellow (RGB: 255,255,0)	For class A voltage application. It shall be accompanied with the technology of the battery (e.g Li-Ion or Ni-MH) if different from a conventional battery type.
Ultra-capacitor, low-voltage	 A rounded squared shape coloured in yellow with a black surrounding and figure as shown. — yellow (RGB: 255,255,0)	For class A voltage application.
Fuel tank	 A rounded rectangular shape coloured in lime with black contour which reflects the shape of fuel tank. — lime green (RGB: 0,255,0)	Pictogram can be adjusted to represent the actual size and form. It may be accompanied with the content written in the pictogram (e.g. diesel). Other colours than those specified in Table 1 may be used if needed to highlight the risks concerning the content in the tank.
Gas tank	 A rounded shape coloured in lime with black contour which reflects the shape of gas tank. — lime green (RGB: 0,255,0)	Pictogram can be adjusted to represent the actual size, the maximum of number of gas tanks should be shown. It shall be accompanied with the content written in the pictogram (e.g. LPG/CNG). Other colours than those specified in Table 1 may be used if needed to highlight the risks concerning the content in the tank.
Safety valve	 A rounded squared shape coloured in lime with black contour and figure as shown. — lime green (RGB: 0,255,0)	
High-voltage battery pack	 A rectangular shape coloured in orange with a black surrounding. — orange (RGB: 255,165,0)	Pictogram can be adjusted to represent the actual size and form. It shall be accompanied with the technology of the battery (e.g Li-ion or Ni-MH). Optionally, the nominal voltage value of the battery may be added.

Table 2 *(continued)*

Component /function	Pictogram (top and side view)	Remarks
High-voltage power cable/ component	 A cable shape coloured in orange. — orange (RGB: 255,165,0)	Pictogram can be adjusted to represent the actual shape and cable path. It can optionally have a black contour line. HV components should be possible to differentiate from HV battery pack. Legend and pictogram graphics has to correspond with regard to the use of contour line concept.
High-voltage disconnect	 A rectangular shape coloured in orange with a black surrounding and figure as shown. — orange (RGB: 255,165,0)	Pictogram is intended to be used also for emergency cutting of high voltage. For emergency cutting complementary information and more specific pictograms, e.g. cable cutting, can be used in the additional pages.
Fuse box disabling high voltage	 A shape coloured in orange and yellow with a black surrounding and figure as shown. — yellow (RGB: 255,255,0) — orange (RGB: 255,165,0)	For disabling class B systems only. It is generally a low-voltage component acting on the high-voltage system.
Ultra-capacitor, high-voltage	 A rounded squared shape coloured in orange with a black surrounding and figure as shown. — orange (RGB: 255,165,0)	For class B voltage application.
RHD vehicle, steering wheel position in the right side	 Top view pictogram showing the location of the steering wheel on the front right seat.	For use in the header of the rescue sheet. The colour can be adjusted to contrast with the background of the header.
LHD vehicle, steering wheel position in the left side	 Top view pictogram showing the location of the steering wheel on the front left seat.	For use in the header of the rescue sheet. The colour can be adjusted to contrast with the background of the header.

4 Layout and contents of a rescue sheet

4.1 General requirements

As applicable, all components that can expose the vehicle occupants or the rescue personnel to risks during the extrication process (including e.g. cutting of the vehicle) shall be identified and shown in the rescue sheet. Devices/measures to inhibit a dangerous state (e.g. high-voltage disconnect) shall also be shown.

The rescue sheet can be created as one sheet covering all vehicle variants and body shapes and drives (e.g. 2-door, sedan 4-door, 4-door coupe, convertible, sedan, station wagon, LHD and RHD, etc.). However, it is recognized that there might be instances where the location of the position of the components listed in Table 2 might differ from one vehicle variant to another, and that in these instances, it will be necessary to create additional rescue sheets to cover these differences.

4.2 Front page

The front page of the rescue sheet is mandatory and shall be designed according to Annex A or Annex B.

This includes the header, the top view, the side view, and the legend which show all relevant components/functions to be considered. These are defined in Table 2. For the described vehicle, the front page shall show the maximum configuration/equipment possible for the vehicle.

4.2.1 Header

The header consists of two parts.

First part of header shall include

— the logo(s) of the vehicle brand,

NOTE 1 Take into account the applicable copyright rules.

— the name of manufacturer and vehicle model as well as the body type(s) covered by the rescue sheet,

NOTE 2 Vehicle model name can include regional information as decided by the creator of the rescue sheet.

— the date of release of the vehicle model and the end of production when applicable, presented as year of start of production to year of end of production, and

NOTE 3 Applicability to be decided by the creator of the rescue sheet.

— steering position covered by the rescue sheet:

  — If there are no other differences between left hand drive (LHD) and right hand drive (RHD) vehicles except the switch of the airbags between the driver and the front passenger(s), there is no extra information to communicate. By default, the rescue sheet covers both steering wheel positions.

  — In case there are other differences, it is necessary to have two rescue sheets; one for LHD, one for RHD. In order to avoid the translation of this information, pictograms as shown in Table 2 should be used.

    — When the “RHD” pictogram is used, it means that the rescue sheet applies to right-hand drive vehicles only.

    — When the “LHD” pictogram is used, it means that the rescue sheet applies to left-hand drive vehicles only.

NOTE 4 This first part of the header could be in a colour band linked to the colour of the brand.

Second part of header consists of two perspective photos of the vehicle from the front and from the back in the position as defined in Annexes A and B.

NOTE 5 If needed, for showing additional vehicle specifics, e.g. wing doors, a third view can be added.

A white double-framed rectangle may be placed on the perspective photos to alert the rescue teams of components requiring additional attention. The need for additional attention is linked to an uncommon technology/unusual location of a specific component, uncommon/unusual meaning not frequently found in the vehicle fleet.

For example, pedestrian protection stored gas inflator, or ultra-capacitor, or carbon fibre monocoque are not widely spread (in 2014) in the vehicle fleet all over the world. Each of these should be identified by a white double-framed rectangle.

On the other hand, the following examples of components do not have to be in a white double-framed rectangle (because they are now part of a "common" car):

— the stored gas inflator of occupant airbags (including the curtain airbag);

— the standard structural reinforcements in the B-pillar (low part of the B-pillar and seat belt D-loop adjustment);

— the standard structural reinforcements in the A-pillar.

The above list should be updated in each revision of this part of ISO 17840.

To clearly identify the components highlighted by a white double-framed rectangle, it is recommended to number each rectangle in the perspective pictures and use this reference number in the top and/or side view.

4.2.2 Top view

The top view of the vehicle shall show the shapes of the vehicles and the shapes of doors, windows, bonnet, and boot in black lines. The creator of the rescue sheet decides regarding clarity which components, shown by pictograms defined in Table 2, will be placed in the top view. The placement of the top view is defined in Annexes A and B.

Transparency should be used to show when one component is behind another in the top view.

The technology of the HV battery shall be stated (e.g. Li-Ion or Ni-MH), and to help even more the first responders, the voltage may be mentioned, because the actions in case of a rescue could be different.

For cars with gas propulsion, the gas type shall be stated (e.g. LPG/CNG).

NOTE It might be necessary to place a component only in the top or the side view. The aim should be to place all components from Clause 3 in the top view, except the structure elements for the reinforcement of the vehicle safety cell.

4.2.3 Side view

The side view of the vehicle shall show the shapes of the vehicle and the shapes of doors, windows, bonnet, and boot in black lines. The creator of the rescue sheet decides regarding clarity which components, shown by pictograms defined in Table 2, will be placed in the side view. The placement of the side view is defined in Annexes A and B.

Transparency should be used to show when one component is behind another in the side view.

NOTE It might be necessary to place a component only in the top or the side view. The aim should be to place components from Clause 3 in the side view only if the vertical location adds valuable information (e.g. seat belt pretensioner). The structure elements for the door reinforcement are optional.

When one unique side view would be too “loaded” by the amount of components/pictograms shown on the drawing, it is possible to split the side view in two. In this case, it is recommended to have the structural reinforcements and the HV in the first view and the pyrotechnics, airbag, and gas damper components in the second view. See option 2 as presented in Annex B.

4.2.4 Legend

The legend shall be placed at the bottom of the front page as shown in Annexes A and B, showing all components from Table 2. All components shall be shown with the pictogram and name.

The legend should always be the same as shown in Annexes A and B (same pictograms and same order).

NOTE Annex C presents the legend in English and it is intended to provide translations into other languages represented in this part of ISO 17840.

4.2.5 Footer

The footer shall include

— document ID number of the rescue sheet:

  — The document ID number shall be a unique and logically structured identification number allowing the selection of the right rescue sheet. The rescue sheet identification number can be used as a simple identifier in communication (e.g. between dispatch and emergency vehicles). Proposal for an international document ID number is shown in Annex D.

— version number of the rescue sheet starting at “01” for the first release,

— version date (optional),

— page number (out of the total number of pages), and

— space available to the left may be used for additional information, e.g. applicable country or region for the vehicle model.

4.3 Additional pages (optional)

To provide additional or extra focus on the information presented in the first page of the rescue sheet, additional pages can be used. It is recommended to use it to show pictures or drawing of specific parts of a vehicle model that can be used to identify the specific version covered by the rescue sheet. For example, it is recommended to present the location of the logos or specific equipment of a hybrid version of a vehicle model in its specific rescue sheet. See Annex E.

Header (see 4.2.1) and footer (see 4.2.5) should be repeated in additional pages.

4.4 Specific to a paper version

The minimum requirements of a rescue sheet as described in 4.2 are valid for a paper version.

A paper rescue sheet shall be easily printed on an ISO A4 format (ISO 216) paper.

It is recommended to use a single page. It could be recto-verso printed in case of additional information as described in 4.2.

4.5 Specific to an electronic version

The minimum requirements of a rescue sheet as described in 4.2 are valid for an electronic format.

The elements described in 4.2.2 and 4.2.3 are essential for an electronic format as the vehicle graphic is the central element of the rescue information. Information in 4.2.1, 4.2.4, and 4.2.5 should be accessible also in the electronic format.

In addition, all the advantages of having an electronic format can be used. For instance, it is allowed to hide components or legend or to zoom into specific zones. No specific additional requirements are needed.

5 Recommendation for the handling of multiple variants of a vehicle model

In order to identify all possible variants of a specific vehicle model, information can be linked to the rescue sheet according to Annex F.

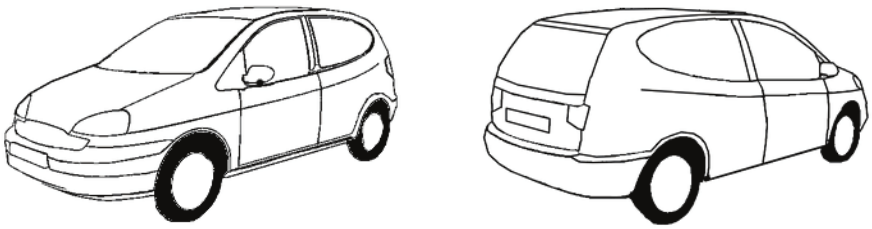
Annex A
(normative)

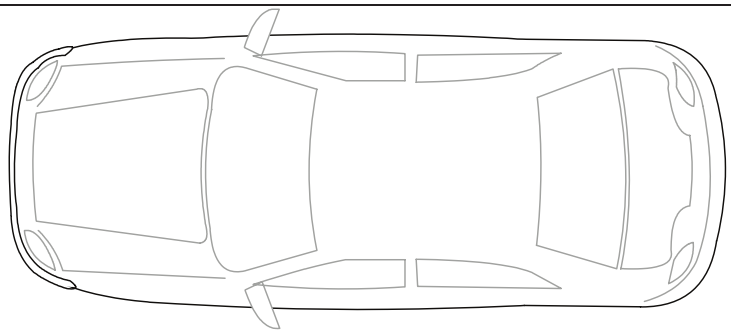
Front page of rescue sheet (print version) — Option 1: One side view

Dimensions in millimetres

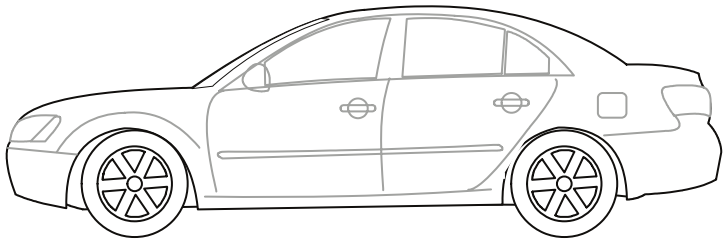
Logo of brand	Name of manufacturer and vehicle model Body type(s) covered by the rescue sheet (year of start of production – year of end of production*) * *leave empty if the car is still in production*		RHD pictogram or LHD pictogram *Note: Leave blank when LHD and RHD are covered by the same rescue sheet.*

Reserved for holes (paper version)





min. 50



min. 50

Legend according to Annex C

Field may be used for additional information, e.g. applicable country or region for the vehicle model.	ID No.	Version No.	Page N°

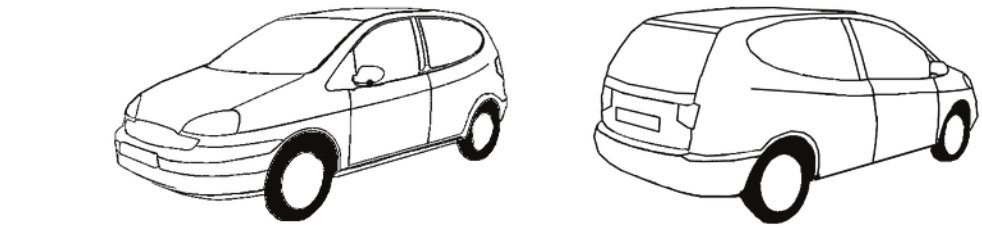
Annex B
(normative)

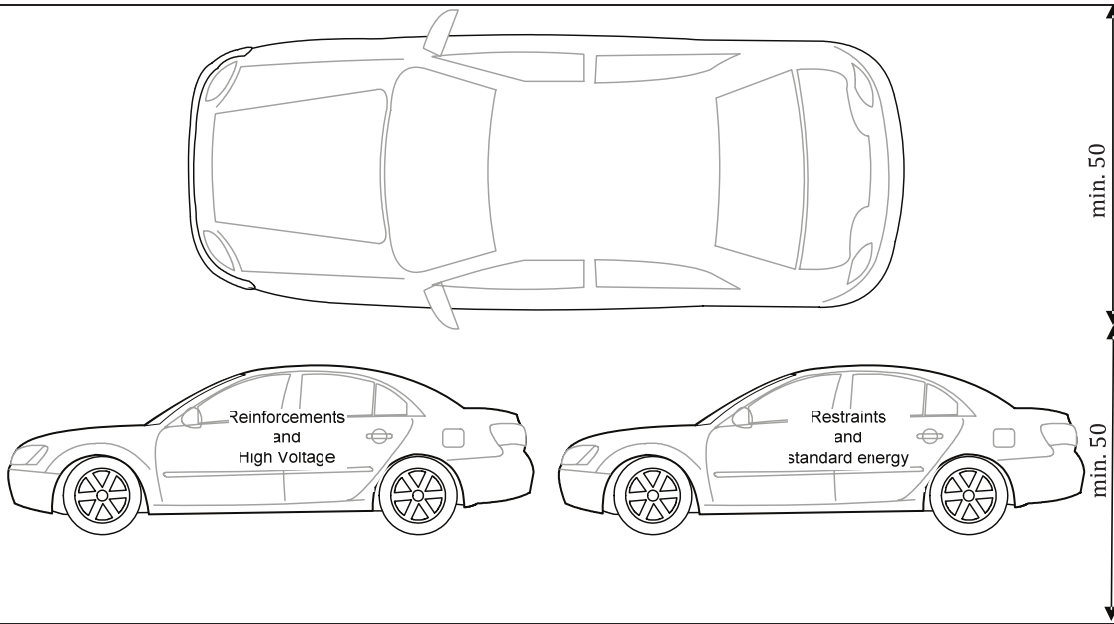
Front page of rescue sheet (print version) — Option 2: Two side views

Dimensions in millimetres

Logo of brand	Name of manufacturer and vehicle model Body type(s) covered by the rescue sheet (year of start of production – year of end of production*) * *leave empty if the car is still in production*		RHD pictogram or LHD pictogram *Note: Leave blank when LHD and RHD are covered by the same rescue sheet.*

Reserved for holes (paper version)





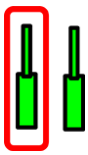
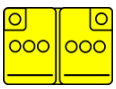
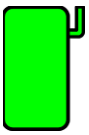
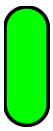
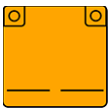
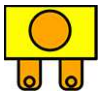
Legend according to Annex C

Field may be used for additional information, e.g. applicable country or region for the vehicle model.	ID No.	Version No.	Page N°

Annex C
(normative)

Legend to be used in the rescue sheet

The legend, using the pictograms from Table 2, is shown below.

	Airbag		Stored gas inflator		Seat belt preten-sioner		SRS control unit		Pedestrian protection active system
	Automatic rollover protection system		Gas strut/ Preloaded spring		High strength zone		Zone requiring special attention		
	Battery low voltage		Ultra capacitor, low voltage		Fuel tank		Gas tank		Safety valve
	High voltage battery pack		High voltage power cable/ component		High voltage disconnect		Fuse box disabling high voltage system		Ultra capacitor, high voltage

NOTE Other language versions of the legend, together with examples of rescue sheets, are provided at the ISO Standards Maintenance website: http://standards.iso.org/iso/17840/-1/

Annex D
(informative)

Rescue sheet identification number

The identification number (ID no.) shall be unique for every vehicle. To ensure such a unique number, the following components are recommended to be used.

xxx – yyyyy…y

where

"xxx" is a unique manufacturer code (WMI code) as part of the VIN number, defined in ISO 3779 and ISO 3780;

"yyyyy…y" is a reference number used by the vehicle manufacturer to identify its documents. The exact number of signs used depends on the car manufacturer document database system. It is the responsibility of the creator of the rescue sheet to ensure that this number is unique in its system.

The combination of xxx and yyyyy…y will give a unique identification number.

Annex E
(informative)

Optional information for the rescue sheet

E.1 Additional pages of the rescue sheet

E.1.1 General

Every vehicle manufacturer or the author of the rescue sheet should create further information not covered by Clause 4, when necessary for the rescue. Information should be specific to the particular vehicle model.

The following order shall be used by adding additional information to the rescue sheet:

a) identification of the vehicle model and specific version (e.g. hybrid);

b) avoidance of roll away of the crashed vehicle;

c) deactivating of HV system and drive train;

d) additional information for rescuing;

e) additional information in case of a fire;

f) miscellaneous information.

It is strongly recommended to avoid lengthy sentences and to better use pictures, drawings, and numbers to explain or give instructions in order to avoid problems if the rescue sheet is translated in another language.

E.1.2 Identification of vehicle model and specific version

To help the first responders in being able to recognize the exact version of a vehicle model they have to rescue, it is recommended to show pictures or drawing of specific parts of specific version. For example, it is recommended to present the location of the logos or specific equipment of a hybrid version of a vehicle model in its specific rescue sheet.

E.1.3 Avoidance of roll away of the crashed vehicle

This optional section should show how to hold the crashed vehicle in place (jack points, roll away prevention, etc.) in order to avoid any risk for the first responders and the implicated people. The steps for this operation should be numbered.

E.1.4 Deactivating of HV system and drive train

This optional section should show how it is possible to deactivating of the HV system and the drive, especially by used systems which are new on the market or differ to other systems. The steps for this operation should be numbered.

E.1.5 Additional information for rescuing

This optional section should show additional information for rescuing. For example, it should show where roof cutting points are placed if there are recommended zones.

E.1.6 Additional information in case of a fire

This optional section should show additional information to help the first responders when they extinguish the non-conventional vehicle on fire. It will be useful for an electric or hybrid vehicle to show the specific points to aim at to reach the HV battery pack and drown it with water or any other product as recommended knowing the HV battery technology.

NOTE This information is usually not needed for conventional vehicles.

E.1.7 Miscellaneous information

This optional section can be used for any additional information that the vehicle manufacturer feels necessary to indicate.

Annex F
(informative)

Identification of all possible variants of a vehicle model

Because under the name of a model, the first responders might find different technologies such as, hybrid, CNG, LPG, and because not all the countries are equipped with numerical database that is able to identify the exact variant of a vehicle through its license plate or its VIN number. It is strongly recommended to the rescue sheet author to also provide this optional table in an additional document. This document can be considered as a table of content describing all the rescue sheets available under the brand and model name.

The table of contents can be presented in the following format (see Table F.1). Table F.1 summarizes all the specific power/energy available on this car model. It will help the first responders to acknowledge what kind of specificity they can encounter if they do not know the exact variant they have to work on.

Each cell of the table should be filled in, either by

— an “X” to indicate that this version is available on this model,

— the type of battery and its voltage, to give even more indication than a simple “X”, or

— put the whole cell filled in grey, to indicate that this version is not available on this model.

It is possible to add, in each cell, a direct link (hypertext link) to the individual rescue sheet.

If a whole line or column is not necessary, it may be deleted completely.

Table F.1 — Example of a summary table of all the specific power/energy available under the same brand and model name

	Body type			
	Exclusive energy [a]	**Hybrid electric**	**CNG**	**LPG**
Diesel	With “Stop and Start”	Ni-MH 200 V	X	
Gasoline	No “Stop and Start”		X	
Electric	Li-Ion 330 V			
Fuel cell	X			
Hydrogen direct combustion				

[a] It is recommended to mention in the cells if a “Stop and Start” component is available in this variant.

“Exclusive energy” means that there is a unique way to provide the energy to move the car. For instance, an electric vehicle is an exclusive energy, but a hybrid is not an exclusive energy since it will be moved due to a combination of diesel or gasoline and electricity.

“Stop and Start” means an additional device giving the energy to start the engine again after it was stopped.

“Hybrid electric” means a car that will be moved due to a combination of diesel or gasoline and electricity.

It could be possible for an additional development on the electronic format to consider this table as the “content” of the rescue sheets linked on one car model, e.g. by clicking on the cell the specific rescue sheet of this energy will be automatically opened.

Bibliography

[1] ISO 216, *Writing paper and certain classes of printed matter — Trimmed sizes — A and B series, and indication of machine direction*

[2] ISO 3779, *Road vehicles — Vehicle identification number (VIN) — Content and structure*

[3] ISO 3780, *Road vehicles — World manufacturer identifier (WMI) code*

[4] ISO 3833, *Road vehicles — Types — Terms and definitions*

[5] ISO 6469-3:2011, *Electrically propelled road vehicles — Safety specifications — Part 3: Protection of persons against electric shock*

[6] ISO 11014:2009, *Safety data sheet for chemical products — Content and order of sections*

[7] ISO 15500-1:2000, *Road vehicles — Compressed natural gas (CNG) fuel system components — Part 1: General requirements and definitions*

[8] ISO 20826:2006, *Automotive LPG components — Containers*

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