
**Road vehicles — Information for first
and second responders —**

**Part 3:
Emergency response guide template**

*Véhicules routiers — Information pour les premier et second
intervenant*

iTeh STANDARD PREVIEW
Partie 3: Modèle de guide de réponse d'urgence
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[ISO 17840-3:2019](https://standards.iteh.ai/catalog/standards/sist/4403cd9b-8c0d-40eb-afc9-69746cb456dc/iso-17840-3-2019)

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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 of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 36, *Safety and impact testing*.

A list of all parts in the ISO 17840 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

For first and second responders initiating a rescuing action at a traffic accident site, it is of utmost importance to make the correct decisions quickly to save lives of the traffic victims, and to avoid risking their own lives in the rescuing activity. Critical decisions must be made in a very short time to make up the rescue strategy.

To cope with this situation, it is necessary to have immediate access to unambiguous information about the vehicles involved – especially in the case of vehicles with new technology.

This does not only concern information about the location of the components (given in the rescue sheet) but the concept to be dealt with (e.g. fire in vehicle, fire in battery/REESS, dangerous products in vehicle, submersion, new/unknown technology).

There are clear benefits to having a common template, using standardised colours and pictograms to make it easier for first and second responders and vehicle manufacturers to understand each other. It will also facilitate for the vehicle manufacturers to know what kind and how the first and second responder workers want their crucial information.

The standardised format of emergency response guide (ERG) presented in this document aims at improving the situation described above.

The ERG template follows in principle a flowchart for the main actions of the first and second responders arriving at an accident scene.

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Road vehicles — Information for first and second responders —

Part 3: Emergency response guide template

IMPORTANT — The colours represented in the electronic file of this document can be neither viewed on screen nor printed as true representations. For the purposes of colour matching, see ISO 3864-4 which provides colorimetric and photometric properties together with, as a guideline, references from colour order systems.

1 Scope

This document defines the template layout of the Emergency Response Guide (ERG) providing necessary and useful information about a vehicle involved in an accident to support the rescue team rescuing the occupants as quickly and as safely as possible, and to promote the correct action with respect to the vehicle technology concerned. The ERG also provides in-depth information related to fire, submersion and leakage of fluids.

The ERG contains crucial and in-depth information linked to the rescue sheet (ISO 17840 parts 1 and 2), to inform training and development of rescue procedures. The headings/contents of the rescue sheet and the ERG information are aligned with each other, i.e. the ERG information works as an extension of the related rescue sheet.

The template defines the layout and general contents, for ease of use by first and second responders. The guide can be communicated in paper or electronic format.

The ERG template follows in principle a flowchart for the main actions of the first and second responders arriving at an accident scene or performing towing and other activities afterwards.

The ERG can be related to a specific vehicle model, to a family of similar vehicle models, or to a certain type of vehicle technology in general.

The ERG template provides a format for filling in the following necessary and useful emergency information:

- relevant information for a vehicle involved in a traffic accident (including immobilisation, disabling of hazards, access to occupants, shut-off procedures, handling of stored propulsion energy);
- information in case of fire or submersion; and
- information regarding towing, transportation and storage.

This document is applicable to passenger cars, buses, coaches, light and heavy commercial vehicles according to ISO 3833.

The proposed template can be beneficial for use also for other types of vehicles (e.g. trains, trams, airplanes), although this is out of the scope of this document.

The identification of the vehicle and of the model via a database using the license plate, the VIN number, an automatic emergency call system (e.g. e-Call) system or other identifiers (e.g. bar code or QR code) is not covered by this document.

The rescue procedure or the process of handling the ERG is not covered by this document.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 17840-1, *Road vehicles — Information for first and second responders — Part 1: Rescue sheet for passenger cars and light commercial vehicles*

ISO 17840-2, *Road vehicles — Information for first and second responders — Part 2: Rescue sheet for buses, coaches and heavy commercial vehicles*

ISO 17840-4, *Road vehicles — Information for first and second responders — Part 4: Propulsion energy identification*

3 Terms, definitions and abbreviations

For the purposes of this document, the terms and definitions in ISO 17840-1 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at <https://www.iso.org/obp>

— IEC Electropedia: available at <http://www.electropedia.org>

3.1 emergency response guide ERG

specific information allowing responders to take the appropriate actions in an emergency situation with regard to a certain technology or design principles

Note 1 to entry: The ERG describes first and/or second response operations, and related warnings and cautions, for a specific vehicle model, to a family of similar vehicle models, or to a certain type of vehicle technology in general.

3.2 first responder

individual who is authorized, trained and qualified to provide primary response to victims of a traffic accident, fire or submersion

Note 1 to entry: Included, but not limited to, fire departments, rescue squads, emergency medical personnel, law enforcement personnel, and in some instances military personnel where the personnel are trained in assessing and treating injuries.

3.3 second responder

individual who is authorized, trained and qualified to take care of vehicles after they have been subject to a traffic accident, fire or submersion

Note 1 to entry: Included, but not limited to, tow/recovery personnel, vehicle storage operators, repair/service technicians, dismantlers and auto salvage personnel.

3.4 material safety data sheet MSDS

specification sheet defining physical aspects, characteristics, and health and safety data for a substance

[SOURCE: ISO 14085-2:2015]

3.5 rechargeable electrical energy storage system REESS

system that stores energy for delivery of electric power and which is rechargeable

Note 1 to entry: The abbreviation corresponds to the one used within UN-ECE.

[SOURCE: ISO 17409:2015, Modified — Note 1 to entry added]

3.6 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]

4 Symbols (and abbreviated terms)

EV	Electric Vehicle
FCEV	Fuel Cell Electric Vehicle
HEV	Hybrid Electric Vehicle
HV	High Voltage
PHEV	Plug-in Hybrid Electric Vehicle

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5 Principles for using the ERG template

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5.1 General

The following general principles apply:

- specific detailed vehicle information for quick reference shall be summarized in the Rescue Sheet, in accordance with ISO 17840-1 or ISO 17840-2 (depending on the type of vehicle);
- the ERG shall follow headings and colour coding of the vehicle ERG sections (see [Clause 7](#));
- the pictograms of the ERG and the Rescue Sheet shall be used in a consistent way when describing the same matter;
- pictograms provided in [Annex B](#) shall be used;
- information on propulsion energy shall be in accordance with ISO 17840-4;
- vehicle information should not be repeated between the Rescue Sheet and ERG, the ERG information is intended to complement the Rescue Sheet information;
- minimum recommended resolution of images: 300 DPI; and
- distracting information on images should be avoided (e.g. people, faces).

5.2 Caution and remarks

Caution notes shall be marked with the following sign (ISO 7010-W001):



6 Pictograms for components/functions/actions

Pictograms in [Annex B](#) shall be used for the items to be considered.

Colour codes according to [Table 1](#) are applied in this document.

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 voltage) 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 pre-tensioned spring components
Sea green	RGB: 0,128,128	High strength zones
Grey	RGB: 127,127,127	Liquid group 1 (Diesel, Bio Diesel, ...) tank/lines
Dark red	RGB: 139,0,0	Liquid group 2 (Petrol/Gasoline, Ethanol, ...) tank/lines
Green	RGB: 0,176,80	Gas tank/lines (generic)
White	RGB: 255,255,255	Cryogen Gas Group (LNG, ...) tank/lines
Light blue	RGB: 0,176,240	Hydrogen tank/lines
Purple	RGB: 204,0,204	Air-condition components/lines
Brown	RGB: 183,120,29	Oil tank/lines
White	RGB: 255,255,255	Air tank

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

7 Headings and colour coding of the vehicle ERG sections

The following headings and colours shall be applied.

NOTE White text can be used to improve legibility.

0. Rescue sheet(s)
1. Identification / recognition RGB: 191,191,191
2. Immobilisation / stabilisation / lifting RGB: 204,255,204
3. Disable direct hazards / safety regulations RGB: 255,204,0
4. Access to the occupants RGB: 102,255,51
5. Stored energy / liquids / gases / solids RGB: 255,255,0
6. In case of fire RGB: 255,0,0
7. In case of submersion RGB: 0,0,255
8. Towing / transportation / storage RGB: 255,204,153
9. Important additional information RGB: 141,179,226
10. Explanation of pictograms used

[Annex A](#) contains items for consideration under the respective heading, in the form of checklists.

Annex A
(informative)

Guideline for filling in ERG template for vehicle

INFORMATION FOR FIRST AND SECOND RESPONDERS

EMERGENCY RESPONSE GUIDE FOR VEHICLE

Propulsion identification sign (ISO 17840-4)	VEHICLE NAME / MODEL VEHICLE TYPE / DESIGNATION TYPE OF PROPULSION	Type of propulsion REESS
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Version:

CONTENTS

1. Identification / recognition	Page ...
2. Immobilisation / stabilisation / lifting	Page ...
3. Disable direct hazards / safety regulations	Page ...
4. Access to the occupants	Page ...
5. Stored energy / liquids / gases / solids	Page ...
6. In case of fire	Page ...
7. In case of submersion	Page ...
8. Towing / transportation / storage	Page ...
9. Important additional information	Page ...
10. Explanation of pictograms used	Page ...

NOTE Items for consideration under the respective heading are given in the following pages.

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1. Identification / recognition

Recommended contents:

- All relevant information for the full identification of the vehicle
- Information concerning symbols, model name, etc. on vehicles to recognize propulsion system
- Information under the hood
- Information on the dashboard
- Information in general
- Specific information to recognise this vehicle (e.g. hybrid, EV, FCEV, or other identification)

Specific REESS or alternative propulsion fluid / energy source:

- Identification of the type of battery: chemistry family, voltage class, location in vehicle
- Inclusion of applicable pictograms

Specific to bus / coach:

— —

Specific to commercial vehicle:

— —

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2. Immobilisation / stabilisation / lifting

Recommended contents:

- Relevant information for immobilisation and stabilisation actions on/around the vehicle
- How to determine if vehicle is ON/OFF
- Naming, pointing out lifting points, stabilisation, focus of attention
- Provide images/illustrations of these elements with necessary text for clarification
- Preferred vehicle specific stabilisation points
- Prohibited vehicle specific stabilisation points

Specific to bus / coach:

- Stabilisation of bus / coach

Specific to commercial vehicle:

- Stabilisation of truck and trailer / semitrailer

3. Disable direct hazards / safety regulations

Recommended contents:

- How to eliminate immediate danger, which safety requirements are needed
- Including “preferred” procedure and “alternative” procedure(s) for disabling direct hazards (e.g. disabling high voltage or shutting off gas pressure)
- Procedure when EV / PHEV are connected on charging
- Provide detailed images of “specific type” of disconnections, with necessary information

Specific to bus / coach:

- —

Specific to commercial vehicle:

- —