GUIDE 37

Third edition 2012-12-01

Instructions for use of products by consumers

Instructions d'emploi des produits par les consommateurs

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ISO/IEC Guide 37:2012 https://standards.iteh.ai/catalog/standards/sist/e5166932-2c9f-447a-be4b-312466892de2/iso-iec-guide-37-2012



Reference number ISO/IEC GUIDE 37:2012(E)

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ISO/IEC Guide 37:2012 https://standards.iteh.ai/catalog/standards/sist/e5166932-2c9f-447a-be4b-312466892de2/iso-iec-guide-37-2012



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Published in Switzerland

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

Draft Guides adopted by the responsible Committee or Group are circulated to the member bodies for voting. Publication as a Guide requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO/IEC Guide 37 was prepared by the ISO Committee for consumer policy (ISO/COPOLCO).

This third edition cancels and replaces the second edition (ISO/IEC Guide 37:1995), which has been technically revised.

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Introduction

Instructions for use are the means of conveying information to the user on how to use products and product-related services in a correct and safe manner. The following are used as means of communication, either separately or in combination:

- texts;
- words;
- graphical symbols;
- diagrams;
- illustrations;
- audible, visible or tactile information.

The instructions for use can be on the product itself or its packaging, or in accompanying materials, e.g. leaflets, manuals, media and computerized information such as the product supplier's website.

While much of the advice in this Guide is equally relevant to instructions for consumer services, it is not intended to cover all aspects of services. See ISO/IEC Guide 76 for further information.

This Guide is not intended to provide comprehensive information covering each case. It offers guidance to all interested parties in the form of general principles and detailed recommendations on the design and formulation of all types of instructions necessary or helpful to the final user of consumer products. Practical recommendations for the assessment of such instructions are included in the informative Annexes A and B.

This Guide can be used in conjunction with the requirements of specific product standards or, where no such standards exist, with the relevant requirements of standards for similar products. 312466892de2/iso-iec-guide-37-2012

Since the previous edition of this Guide was published, the developments listed below have occurred.

- a) An International Standard for writing instructions (IEC 82079-1) has been published, which provides the possibility for normative references to be made in product standards. However, contrary to physical safety requirements, in practice the effectiveness of the information supplied with a product has hardly ever been subjected to independent verification or certification.
- b) There has been a substantial increase in cross-border movement of both fully-packaged products and of consumers, through migration, tourism, relocation of manufacturing and the opportunities for personal imports provided by the Internet. It can now no longer be assumed by a manufacturer that every consumer can read the official language of the country from which a product was retailed.
- c) It has become recognized that for many products there will be a proportion of older consumers and consumers with disabilities who can use the product safely and independently when given adequate information, but who are unable to gain access to this information in the usual medium in which it is supplied with the product most often because the size of print that can be accommodated on the product is too small.

This edition of this Guide has been thoroughly revised to take into account both the developments listed above and the many research studies into the effectiveness of product instructions and warning labels, which vary a great deal in the degree to which consumers read, notice and comply with them.

The effectiveness of instructions in preventing harm can never be assumed to be as high as supervised training or designing the product to be fail-safe (when this is possible). The aim of this Guide is to help convey necessary knowledge to the end users of consumer products, and to facilitate understanding and use of instructions.

If reliance is placed on just one medium, one phrase or one graphic to communicate a crucial safety message, then some proportion of consumers will not receive that message and another proportion will fail to recall it at the crucial moment.

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Instructions for use of products by consumers

1 Scope

This Guide establishes principles and gives recommendations on the design and formulation of instructions for use of products by consumers.

This Guide is intended to be used by the following:

- committees preparing standards for consumer products;
- product designers, manufacturers, technical writers or other people engaged in the work of conceiving and drafting such instructions;
- importers, regulators, inspection bodies and researchers.

The principles and detailed recommendations in this Guide are intended to be applied in combination with the specific requirements on instructions for use specified in standards for particular products or groups of products. Some model formats and wordings are suggested for inclusion in standards.

This Guide contains some practical recommendations and a proposed methodology for assessment in order to help establish common criteria for the assessment of the quality of instructions for use.

Annexes A and B provide checklists to help principal target groups using this Guide.

2 Normative references ISO/IEC Guide 37:2012

document (including any amendments) applies.

https://standards.iteh.ai/catalog/standards/sist/e5166932-2c9f-447a-be4b-The following referenced documentscare_indispensable_for_the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced

ISO/IEC Guide 14, Purchase information on goods and services intended for consumers

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC Guide 14 apply.

4 General principles

IMPORTANT — Instructions for use cannot and should not compensate for design deficiencies (see ISO/IEC Guide 51)

- **4.1** Instructions for use are an integral part of the delivery of the product. Their purpose is to reduce
- the danger of injury or ill health to people or animals, and
- the risks to the product (or other property) of damage, malfunction or inefficient operation.

4.2 Instructions for use should be integrated and the information should be consistent with all other material about the same product issued by the manufacturer/producer (such as advertising, packaging, any warranty and Internet-based information). There should be consistency in all instructional and promotional materials, including markings, labels and shipping containers.

4.3 Instructions for use should:

- motivate the user to follow and remember the instructions;
- recognize the potential safety hazards;
- clearly identify the product;
- recognize all types of users, in terms of the following:
 - age;
 - gender;
 - cultural background;
 - capabilities, including novice and skilled users and those with disabilities (see ISO/IEC Guide 71) or low levels of literacy;
- (if necessary) define the intended use of the product (see ISO/IEC Guide 51);
- contain all information required for correct and safe use of the product and/or for service and maintenance.

4.4 Instructions for use should cover reasonably foreseeable misuse of the product, and adequate warnings should be given (see ISO/IEC Guide 51). In most countries, the manufacturer/producer has a legal obligation to include such warnings.

4.5 Instructions for use should cover information, separately or in combination, as far as it is relevant, on the following: **(standards.iteh.ai)**

- function and operation, including any adaptations for people with specific disabilities and other special considerations, e.g. access to the product by children or pets;
- https://standards.iteh.ai/catalog/standards/sist/e5166932-2c9f-447a-be4b transport and handling of product, lifting weight, assembly, installation and storage conditions;
- cleaning, maintenance, fault diagnosis, signs of deterioration and repair;
- destruction/disposal of the product and/or any waste materials with due regard to safety and environmental considerations;
- consumer-relevant technical specifications.

4.6 Instructions for use should convey important messages to the user about environmental aspects related to the following:

- destruction/disposal of waste;
- recycling;
- contaminants or pollutants;
- noise;
- consumption and conservation of energy and other resources.

4.7 Attention should be drawn to the need for special protective measures, such as adult supervision or the wearing of special clothing, which are needed to protect users and bystanders. Consideration should be given to dangers to particular groups, e.g. children, older people and people with disabilities (see ISO/IEC Guide 50 and ISO/IEC Guide 71).

4.8 If some of the instructions are directed only to a specific group of users (e.g. for installation, repair or certain kinds of maintenance), those instructions should be given separately and marked adequately. In some cases, they need not accompany the product (see also 7.12).

4.9 Information related to specific use or safety requirements in specific countries should be clearly identified.

4.10 Instructions requiring professional expertise should be clearly distinguished.

4.11 For products that have a limited life (in terms of safety, quality of performance or economic benefit), clear information should be provided on the year of manufacture and/or on the date (and nature) of expiry.

4.12 The date of publication of the instructions for use should be given.

4.13 Depending upon the complexity of the product and the extent to which safe and correct use depends on conveying information to the user, instructions for use may need to be evaluated during the development stage and/or before the product is placed on the market. Assessment may take the form of

- desk research, and/or
- interactive panel testing of the product by users.

See also Clause 10 and Annex A.

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4.14 Assessment of instructions for use covers the instructions on the product itself and/or its packaging, and/or in accompanying materials (a.g. leaflets, handbooks) audio and video tapes, CDs, websites). In accordance with 4.1, instructions for use should be assessed as an integral part of the delivery of the product, and for their compliance with the requirements of International Standards or national laws.

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5 Content of standards

5.1 Standards should only specify the minimum information required by users to be able to minimize harm to people, property and the environment. Essential information can easily become lost amidst warnings of hazards that are obvious or that have been eliminated through design features: in such cases, it is communicated less effectively.

5.2 In some circumstances, it may be counterproductive to require any provision of instructions or warnings in standards, e.g.

- for simple common products with only obvious inherent hazards,
- for automated, intuitive or fail-safe devices in which there are no residual hazards.
- **5.3** Alternatively, it may be appropriate
- to specify the key issues about which users will require instruction, or
- to compile a list of hazards of which consumers are likely to be insufficiently aware.

The drafting of a requirement may be easier if the standard covers a wide range of product designs, or if the physical requirements permit several compliance options or levels of performance (see Table B.1).

5.4 Where necessary, standards should include clauses specifying the minimum specific content, wording or format of instructions or warnings to be provided (see Table B.2).

5.5 Standards may advise or require that producers follow specific guidelines on the writing of instructions when preparing and presenting instructions (see Table B.3).

5.6 Where any requirements for instructions and warnings in a standard exist, there should be a clause indicating how compliance with those requirements is to be assessed (see Table B.4).

5.7 Requirements for instructions for use should be listed in a separate clause or a normative annex of the standard, except for the following:

- instructions required to appear on the product itself should be specified in a clause entitled "Marking and labelling";
- instructions also required to be available prior to purchasing should be listed in a clause entitled "Point of sale information", or should be part of a product information system (see ISO/IEC Guide 14).

5.8 Standards for products of consumer interest should specify (e.g. in the form of a list of key issues) the matters which need to be covered in the instructions for use. This should be a separate clause of the product standard normally entitled "Instructions for use, including installation and maintenance" (for safety standards, see ISO/IEC Guide 51).

5.9 Where specific procedures are necessary for safe use, operation, assembly, disassembly, cleaning or maintenance of the product, or similarly for its destruction/disposal, or disposal of waste materials, they should be specified in the product standard (see ISO/IEC Directives, Part 2, 2011, 6.3.3 and 6.3.7).

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5.10 Where instructions for use are to be given on the product itself, they should be specified in the clause dealing with marking and labelling (see 150/IEC Guide 51) ISO//EC Directives, Part 2, 2011, 6.3.3 and 6.3.7, and Clauses 8 and 9 of this Guide).

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5.11 The circumstances in which the product standard should specify minimum font sizes and brightness contrast, or a viewing distance at which instructions are visible, are described in 7.2.

6 Placement and presentation

6.1 All instructions should be packaged and placed in such a way as to encourage recognition of them and motivate their use. Alternative formats should be considered, e.g. including one set of instructions in writing and another in pictures, in audio or on video (this could be particularly important for older people and those with disabilities).

- **6.2** Instructions for use, or parts of them, may be given in one or more of the following ways:
- on the product;
- on the packaging;
- in accompanying printed material and documentation;
- in audio, video or interactive media.

The placing of instructions, or parts of instructions, should take into account legal requirements, health and safety risks, environmental or similar requirements, the product design, the time that the user needs the information and the required level of skill.

6.3 Instructions for use that appear on the supplier's website (if one exists) should be as detailed as those appearing in documentation. Both Internet and paper formats should be provided.

NOTE The World Wide Web consortium (W3C) standards provide further guidance on interoperability and access. Standards produced by ISO/IEC JTC 1/SC 35, *Information technology – User interfaces*, are other examples.

6.4 The placing of instructions on the product itself has clear advantages in terms of convenience for the user. However, for some products, because of their small size or their shape, or the fact that they are partially obscured from view during use, placing some or all of the instructions either on packaging or in accompanying materials may be the best or only solution.

6.5 Where instructions for use are complex, it may be helpful if certain important messages are given or displayed on the product by means of short reference or reminder cards, stickers or labels (see Clause 9).

6.6 Where safety depends upon correct installation, use, maintenance, destruction or disposal, and where correct methods are not self-evident from the product, the product safety standard should specify, as a minimum, a cautionary marking to draw the user's attention to the relevant part(s) of the instructions.

6.7 Instructions for use in electronic format, e.g. video, digital video disc (DVD) or multimedia, should be designed for the widest possible audience, be easy to use and promote comprehension. DVDs and similar media can provide a range of sound track and subtitle options, including a sign language feature for consumers with a hearing impairment and an audio description for those with a sight impairment.

6.8 If instructions for use are necessary to make an informed purchasing decision amongst products, these instructions or the relevant parts of them should be readily available at the point of sale and from a website.

EXAMPLE The need for protective clothing; warnings to parents on restrictions on the use of a product by children below a certain age, weight or ability.

NOTE Product information systems such as those described in ISO/IEC Guide 14 (on product information) and in ISO/IEC Guide 41 (on aspects of packaging) give specific guidance on how to facilitate a reasoned purchasing decision.

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7 Design and communication

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7.1 General https://standards.iteh.ai/catalog/standards/sist/e5166932-2c9f-447a-be4b-312466892de2/iso-iec-guide-37-2012

7.1.1 Information related to safety should be presented at the beginning of the instructions, wherever possible.

7.1.2 Operating instructions should start by describing a normal function of the product, and follow a continuous learning process. Each task should be described in a logical sequence of smaller steps. Reference points (e.g. figure or paragraph numbers) are useful, particularly when assembly is required.

7.1.3 Repetition, preferably using rephrasing or graphical illustration, may help to reinforce key points of operation or safety, provided that each reoccurrence is relevant to the sequence, context or reader's needs at that point. Given that the understanding and memory of consumers can never be assumed to be perfect, there is a need for a degree of "redundancy" (in engineering terms) to be incorporated into the design and communication of product instructions in order to improve their effectiveness.

7.1.4 Instructions for use should clearly identify

- the manufacturer/service provider, by stating the company name, address, telephone number and website, and
- the product, e.g. by stating the model, version or type to which the instructions apply.

Cross-checks should be made to prevent product modifications, or differences (however small) between models or between subgroups within the same model, leading to a mismatch between the instructions in the hands of the user and the actual product in use (see 4.2).

The user of a particular model should preferably be provided with information referring only to 7.1.5 that model. However, if instructions for two or more models are identical, a single set of instructions is acceptable provided that the range covered is specified.

7.1.6 Instructions concerning optional modules or extras should be kept clearly separated from general instructions and from instructions for other modules or extras (e.g. by the use of separate clauses or headings), so that users are not confused by irrelevant material.

7.2 Legibility of text

7.2.1 All instructions should be easily visible and legible (with normal eyesight) from the distance at which users need to read them. Elements contributing to legibility include the viewing distance and angle, the style, size and colour of text font, the colour of the background and the brightness contrast between them.

7.2.2 The location of on-product instructions and the angle between their surface and the vertical plane should be such that they can be easily read and understood by users from their position(s) during use of the product.

For any information that needs to be legible from a greater distance, the product standard might need NOTE to specify the minimum viewing distance.

7.2.3 Instructions on packaging should be visible and legible in the package's upright position. Where the visible surface area of the product or packaging available for text is necessarily very restricted, the product standard should specify minimum font sizes and brightness contrast.

7.2.4 Unless national legislation or standards make specific requirements for legibility (e.g. the relation between type size and reading distance), the rules below should be regarded as the minimum acceptable **ISO/IEC Guide 37:2012** as good practice.

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- Critical on-product text (e.g. control markings) should be expected to be as clear and as large as a) practicable to be legible (at distances up to 1 m) by as high a proportion as possible of older users with degenerating eyesight. This is likely to require a 14- or 16-point font with an "x-height" for lower-case letters of 4 mm or 5 mm.
- In contrast, where space is limited by product size (e.g. in containers of less than 10 ml in capacity), b) an absolute minimum font size of 6 points may be tolerated, but only for continuous text in a high resolution plain black font on a bright (but not high-gloss) white background (with headings and warning phrases in a minimum font size of 8 points and a good "x-height").
- Wherever space allows, continuous text in instructions on hand-held products, labels, packaging or c) multiple-folded instruction sheets should have a font of 9 points or larger. 12 points (with a good "x-height") is the desired minimum for critical safety limits (e.g. minimum user age, expiry date, maximum load) or warning phrases (unless also presented by a standardized symbol).
- d) Continuous text of instructions in accompanying printed documents (e.g. single-folded leaflets and manuals) or in electronic displays should have a minimum font size of 10 points if in dark or strong colour against a plain light background. White text on a dark background requires a font size of at least 12 points to be effective.
- In any document, headings, critical safety limits, key warning phrases and key details that the user e) needs to consult frequently should use a different font style, larger font size, or other means of making them conspicuous. A minimum font size of 12 points (with a good "x-height") should be used. If there is any doubt as to whether particular instructions are related primarily to safety or to fitness for purpose, considerations dealing with safety should be given precedence.

"Heading", "critical safety limit", "KEY WARNING PHRASE". EXAMPLE