GUIDE 37

Instructions for use of products of consumer interest

Second edition 1995

Corrected and reprinted 1995

Contents

Page

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form a specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

ISO/IEC Guide 37 has been drawn up by the ISO Committee on Consumer Policy (COPOLCO). The document was approved by IEC national committees and ISO member bodies.

This second edition cancels and replaces the first edition (ISO/IEC Guide 37:1983).

Annex A of this Guide is for information only.

iTeh STANDARD PREVIEW
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ISO/IEC Guide 37:1995
https://standards.iteh.ai/catalog/standards/sist/f2603b28-1fcb-4381-875d-
35e7bb204830/iso-iec-guide-37-1995

Introduction

0.1 Instructions for use are the means of conveying information to the user on how to use the product in a correct and safe manner. As means of communication, texts, words, signs, symbols, diagrams, illustrations and audible or visible information are used, separately or in combination. They may be on the product itself or its packaging or in accompanying materials, for example, leaflets, manuals, audio and video tapes, and computerized information.

0.2 A general guide cannot provide comprehensive information covering each case. This Guide, therefore, 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 an informative annex.

0.3 This Guide may 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.

Instructions for use of products of consumer interest

1 Scope

1.1 This Guide establishes the principles and gives recommendations on the design and formulation of instructions for use of products of consumer interest. It is intended for

— product designers, manufacturers, technical writers or other people engaged in the work of conceiving and drafting such instructions;

— committees preparing standards for consumer products.

1.2 The principles and detailed recommendations in this Guide should apply in combination with the specific requirements on instructions for use laid down in standards for specific products or groups of products.

1.3 Assessment of the quality of instructions for use should follow common criteria. This Guide therefore has an informative annex (annex A) containing some practical recommendations and a proposed methodology for assessment. The annex is addressed primarily to researchers and experts engaged in such assessment work; it may also be helpful to the Guide's principal target groups named in 1.1.

2 References

ISO 3864:1984, *Safety colours and safety signs.*

ISO 7000:1989, *Graphical symbols for use on equipment — Index and synopsis.*

ISO 7001:1990 and Amendment 1:1993, *Public information symbols.*

ISO 11683:1993, *Packaging — Tactile danger warnings — Requirements.*

IEC 417:1973 (and supplements), *Graphical symbols for use on equipment — Index, survey and compilation of the single sheets.*

ISO/IEC Directives, part 2:1992, *Methodology for the development of International Standards.*

ISO/IEC Guide 14:1977, *Product information for consumers.*

ISO/IEC Guide 50:1987, *Child safety and standards — General guidelines.*

ISO/IEC Guide 51:1990, *Guidelines for the inclusion of safety aspects in standards.*

ISO/IEC Guide 52:1990, *Glossary of fire terms and definitions.*

3 General principles

3.1 Instructions for use are an integral part of the delivery of the product. They should also reduce the risk of damage to the product and consequent malfunction or inefficient operation.

3.2 Instructions for use should allow and promote correct use of a product and should directly help to avoid misuse which may lead to hazards. Instructions for use cannot and should not compensate for design deficiencies[1].

3.3 Instructions for use should

a) clearly identify the product;

b) recognize the type of user, and his/her capabilities;

c) define, if necessary, the intended use of the product[2];

d) contain all information required for correct and safe use of the product and/or for service and maintenance.

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[1] For general principles of preferences of risk reduction, see ISO/IEC Guide 51:1990, clause 5.

[2] For definitions of "intended use" and "reasonably foreseeable misuse", see ISO/IEC Guide 51:1990, 3.7 and 3.8.

3.4 Instructions for use should cover reasonably foreseeable misuse of the product, and adequate warning should be given (see ISO/IEC Guide 51:1990, 6.4.4). In most countries the manufacturer/producer has a legal obligation to include such warnings.

3.5 Instructions for use should cover information, separately or in combination, as far as it is relevant, on

a)   function and operation;

b)   transport, assembly, installation;

c)   cleaning, maintenance, fault diagnosis, repair;

d)   destruction/disposal of the product and/or any waste materials with due regard to safety and environmental considerations.

3.6 Instructions for use should convey important messages to the user about aspects of use related to

—   the environment (for example, appropriate dosage of detergent for a washing machine, destruction/disposal of waste, recycling);

—   conservation of energy and other resources.

3.7 Attention should be drawn to the need for special protective measures, such as adult supervision or the wearing of special clothing, needed to protect users and bystanders. Dangers to particular groups such as children (see ISO/IEC Guide 50:1987), elderly people and disabled people should be borne in mind.

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

3.9 For products which have a limited safe or effective life, clear information should be provided on the year of manufacture and/or on the date of expiry.

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

3.11 Instructions for use should be consistent with all other material about the same product issued by the manufacturer/producer such as advertising or packaging.

4 Clauses in standards

4.1 Standards for products of consumer interest should specify, for instance in the form of a minimum list, the matters which need to be covered in the instructions for use. This should be a separate section of the product standard, normally entitled "Instructions for use, including installation and maintenance" (for safety standards see ISO/IEC Guide 51:1990, 6.4.6).

4.2 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 2:1992, subclause 8.3).

4.3 Where instructions for use are to be given on the product itself, they should be specified in the section dealing with marking and labelling (see ISO/IEC Guide 51:1990, clause 5; ISO/IEC Directives, Part 2:1992, subclause 8.2; and clauses 8 and 9 below).

5 Location and nature

5.1 Depending on one or more of the following elements:

—   the risks (see ISO/IEC Guide 51:1990, 3.2);

—   environmental or similar requirements;

—   the product design;

—   when the information is needed by the user,

it should be decided whether the instructions for use — or parts of them, and if so which parts — are to be given in one or more of the following ways:

—   on the product;

—   on the packaging;

—   in accompanying material.

In addition, it should be decided what means of communication should be used in each case (see 0.1).

NOTE 1   Placing of instructions on the product itself has clear advantages in convenience for the user. But 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 on packaging or in accompanying materials may be the best or only solution.

5.2 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 11).

5.3 Where safety depends to a considerable degree upon correct installation, use, maintenance, destruction or disposal, and 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 Availability of information at the point of sale

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

NOTE 2 Product information systems as described in ISO/IEC Guide 14 are the recommended means of providing, at the point of sale, all the information necessary for a reasoned purchasing decision. This should include matters mentioned in this Guide, such as the need for protective clothing (see 3.9) and a warning to parents on restrictions to use by children (see 8.5).

7 Advice for the design and formulation of instructions for use

7.1 General

7.1.1 Instructions for use should clearly identify the product, stating for example the model, version or type to which they apply. It should be impossible for product modifications or differences (however small) between models or between subgroups within the same model, to lead to a mismatch between the instructions in the hands of the user and the actual product in use (see 3.10).

7.1.2 The user of a particular model should preferably be provided with information referring only to that model. However, if instructions for two or more models are identical, a single set of instructions is acceptable.
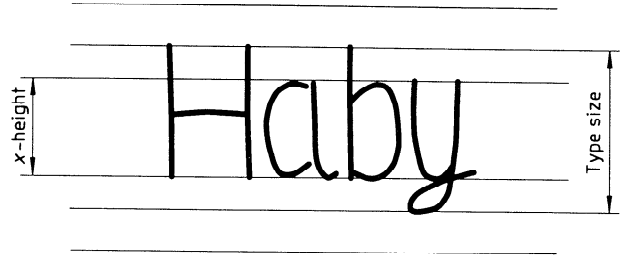
7.1.3 Instructions concerning optional modules or extras should be kept clearly separated from general instructions and from instructions for other modules or extras (for example, by the use of separate clauses, headings, etc.), so that users are not confused by irrelevant material.

7.2 Legibility

7.2.1 Type and size of on-product information, of printed material and of computerized information should be as clear and as large as practicable to ensure legibility.

7.2.1.1 The x-height (height of the lower case characters) of the type face should always be 1,5 mm or larger:

NOTES

3 In the so-called typographic point systems (Didot and Pica) the corresponding size would be approximately 4 points [1 point ≈ 0,4 mm (Didot: 0,376 mm; Pica: 0,351 mm)].

4 For alphabets other than roman, the selection of lettering type and size should meet the same degree of legibility as that indicated above.

7.2.1.2 For continuous text in printed instructions for use (for example, leaflets, manuals) type between 3,2 mm and 5,6 mm (8 points and 14 points) should be used.

7.2.1.3 For headings in printed leaflets, manuals, etc., for on-product instructions, or for other short messages which the user needs to consult often, the type size should be about 4 mm or even larger (at the top of the 10 point to 14 point scale), depending on the reading distance.

7.2.1.4 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.

7.2.1.5 National standards may contain detailed information on more parameters relating to legibility, and especially on the relation between type size and reading distance.

7.2.2 Brightness contrast — the difference between the percentage of light reflected from the background and the percentage of light reflected from the print — should be as great as possible.

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5 The contrast should normally be at least 70 %. Good quality black print on white paper provides a contrast of about 80 %.

6 Brightness contrast can be reduced and legibility impaired by printing on both sides of insufficiently opaque paper.

Subject to the above parameters, minimum type sizes and minimum requirements on brightness contrast should be specified in product standards.

7.2.3 Safety related instructions for use in leaflets and manuals should have a different type face, or type size, or other means of making them conspicuous. In cases of doubt whether particular instructions are related primarily to safety or to fitness for purpose, considerations dealing with safety should be given precedence.

7.2.4 If instructions are incorporated in the material of the product itself, e.g. engraved or embossed lettering, figures or symbols on metal, glass or plastic, the advantages of such methods in durability, reduction of numbers of separate parts, etc., should be weighed against a possible disadvantage in legibility, which is generally inferior to that of good printing (see also 11.1).

7.3 Colour

7.3.1 The use of colour should be considered, in relation particularly to controls, components, etc., requiring clear and/or quick identification.

7.3.2 If the use of colour is adopted, it should be functional, systematic and consistent (see ISO 3864).

7.3.3 It should be borne in mind, however, that about 8 % of men and 0,5 % of women have some form of colour-deficient vision. Therefore, perception of different colours should never be the only means for understanding instructions.

7.4 Communication principles

7.4.1 In order to achieve the best results, those responsible for the design and formulation of instructions for use should apply the communication process "FIRST READ, THEN ACT" to the likely sequence of events in use of the product. Instructions for use should follow the required procedure step by step.

NOTE 7 In cases where the reader of instructions needs to react quickly (for example, when using fire extinguishers), only a minimal thought process should be necessary in order to understand them.

7.4.2 Where complex operating procedures must be followed for safe and correct use of the product, the instructions should enable and encourage the user to follow a continuous learning and understanding process. Particularly useful means of promoting this process include illustrations, tables and flow-charts (see 7.7, 7.9 and 7.10).

7.4.3 Instructions for use of a product intended to perform several different and independent functions should start with the basic or normal function and deal later with other functions.

7.4.4 The instructions for use of a product should anticipate the user's questions "WHERE? WHO? WHAT? WHEN? HOW? WHY?" and provide answers to them.

7.5 Wording and use of technical terms

7.5.1 Instructions for use should be as simple and brief as possible, and readily understandable by a lay person. Unavoidable technical terms should have their meaning explained. Information should be expressed in consistent terms and units.

7.5.2 The sequence of text in leaflets, manuals, etc., should follow the communication principles described in 7.4. Short and meaningful headings and/or marginal notes may help the user to locate the information he wants (see 7.11).

7.5.3 One sentence should normally contain only one command, or at most a small number of closely related commands. For clarity

— use the active voice of verbs rather than the passive;

— be assertive in using commands rather than weaker forms;

— use action verbs rather than abstract nouns;

— speak directly to users rather than saying what they might do.

The following examples apply in the first instance to the English language, but may also be useful pointers towards clarity in other languages.

Recommendation	Like this	Not like this
Use the active voice	Turn off power	Be sure that the power has been disconnected
Be assertive	Do not remove tabs	The tabs should not be removed
Use action verbs	Use, keep, avoid	Utilization, maintenance, avoidance
Speak directly	Pull black lever towards you	Users will pull the black lever away from the machine

7.6 Language(s)

7.6.1 Instructions for use should be given in the official language(s) of the country of sale.

NOTE 8   In many countries this is a legal requirement.

7.6.2 If more than one language is used, each language should be readily distinguished from other(s). It is preferable to provide separate instructions — leaflet, manual, etc. — for each language. Where this is not practicable, instructions in each language should be clearly separated. It is preferable for each page to have texts in only one language.

7.6.3 Because of the limited space generally available, giving instructions on a product may present problems in relation to languages, especially when the country for sale has more than one official language. It may also be impossible to know the country of sale at the time of manufacture. These problems may be solved by the use of graphical symbols (see 7.8) — provided they are clearly understandable by users — and/or by the use of numerals, with explanation of their meaning in the appropriate language(s) given in accompanying texts and/or by using certain words or abbreviations (for example, STOP, MAX./MIN.) which have become internationally acceptable.

7.6.4 Text and illustrations which need to be read and seen together should be adjacent. Where needed, illustrations should be reproduced in each language text. Captions to illustrations should be written only in the language of the adjacent text (see also 7.7.7).

7.6.5 Where instructions for use are translated from one language to others, all steps in the process, including checking and proof-reading, should be carried out by competent linguists.

7.7 Illustrations

7.7.1 Attention should be paid to quality and clarity, whether photographs, line drawings or other media are chosen.

7.7.2 Whenever appropriate, text and illustrations should be used together, each supporting the other.

7.7.3 Illustrations should not be separated from the text to which they refer. If a sequence of operations is being described, text and illustrations should follow the same sequence.

7.7.4 Illustrations should be supplemented with captions providing written details, locating and identifying controls, sub-units, etc.

7.7.5 One illustration should not give more information than needed for the relevant function.

7.7.6 Illustrations or detailed part(s) of illustrations should be repeated in the relevant part(s) of instruction material(s), as needed to assist the user.

7.7.7 Subject to the recommendations in 7.6 to 7.10 inclusive, illustrations, tables or flow-charts which fold out may usefully be placed on pages of the leaflet or manual in a way that they can be seen adjacent to different pages of text at different times.

7.8 Graphical symbols

7.8.1 Graphical symbols should be readily understood and unambiguous. Where graphical symbols have been standardized by ISO and IEC, they should be specified in accordance with ISO 7000, ISO 7001 and IEC 417.

7.8.2 The instructions for use should clearly indicate and explain which of the product functions are covered by the symbols appearing on the product.

7.9 Tables

7.9.1 Information should be presented in the form of tables where this will enhance understanding. Tables should be presented adjacent to the relevant text (see also 7.7.7).

7.9.2 Tables or parts of tables should be repeated in the relevant part(s) of instruction material(s), as needed to assist the user.

7.10 Flow-charts

Where a specific sequence of operations is necessary for safe and correct use of the product, a flow-chart may be helpful to the user. Flow-charts should be presented adjacent to the text to which they belong (see also 7.7.7).

7.11 Table of contents / Index

7.11.1 When instructions for use comprise more than one page, these should be numbered. Leaflets, manuals, etc., beyond four pages should have a table of contents and/or an index.

7.11.2 When the instructions are lengthy and complex, an index of keywords presented in alphabetical order should be included and be referenced in the table of contents.

7.11.3 For complex appliances a separate list of operator controls and indicators (such as dials, gauges or lights) should be provided.

7.11.4 Headings appearing in the table of contents should be the same as those used in the text.

7.12 Fault diagnosis / Trouble-shooting / Repair

If the user of the product can perform some fault diagnosis and repair without risk of harm to him/herself, other people or the product, the instructions leaflet/manual should provide a checklist of possible faults with appropriate diagrams, illustrations, etc., and with clear indication whether the user can attempt the repair him/herself, or should call in a qualified person.

8 Warning notices

8.1 In accordance with the parameters of 7.2.1 to 7.2.4 and 7.3, warning notices should be emphasized by the use of larger and/or different print, and by the use of symbols and/or colour respectively.

8.2 In the formulation and design of warning notices the following should be taken into account, in order to achieve maximum effectiveness:

— limit the text and/or illustration to the essential;

— make the location, content and style of the warning conspicuous;

— ensure that the user and any other people at risk see the warning from their positions during use and at the right time;

— explain the nature of the hazard (and, if appropriate, its causes);

— provide clear guidance on what to do;

— provide clear guidance on what to avoid;

— use clear language, graphical symbols and illustrations;

— remember that warnings repeated frequently and false alarms reduce the effectiveness of necessary warnings.

8.3 When alerting users, instructions shall use the following hierarchy or "signal words" (see ISO/IEC Guide 51:1990, 6.4.8):

— "**DANGER**" to call attention to a high risk;

— "**WARNING**" to call attention to a medium risk;

— "**CAUTION**" to call attention to a low risk.

8.4 Warning notices for high and medium risks relating to products should be permanently affixed to, or attached to, the products so that the message continues to be clearly visible by users during the expected life of the product.

8.5 Warnings about hazards or restrictions on use (for example NOT SUITABLE FOR CHILDREN UNDER THE AGE OF THREE YEARS) are crucial to safety and should be given prominence at least equal to other instructions issued with the product. Such warnings should be clearly visible at the point of sale (see clause 6; and ISO/IEC Guide 50).

9 Standardized phrases and signs

Where appropriate, the use of standardized phrases, and/or safety signs or graphical symbols should be considered in order to convey important messages such as warning notices. Such phrases and signs should be specified in the relevant product standards, together with requirements for their location.

10 Visible and audible signals

10.1 Visible signals, such as flashing lights and audible signals, such as bleeps, may both be used to inform and warn the user.

10.2 It is important that such signals

— be unambiguous;

— be emitted in time to allow the user to take action to avoid hazard or malfunction;

— be clearly perceived and differentiated from other signals;

— be explained in the instructions for use on or accompanying the product;

— (for visible signals) be clearly seen by the user from his/her position during use.

10.3 Moreover, these signals should be so designed and located that they can be easily checked. Warning devices should be clearly described in instructions provided on, or with, the product. If appropriate, the instructions should prescribe regular checking of these devices.

10.4 Where appropriate, product standards should specify what visible or audible signals should be included in the product.

NOTE 9 Work in this field is currently under consideration within ISO and IEC.

11 Durability of instructions for use

11.1 On-product instructions for use should be permanent and clearly legible throughout the expected life of the product.

11.2 Instructions for use given on packaging or in materials accompanying the product (such as leaflets, manuals, etc.) should be produced in durable form; they should be designed and made to survive frequent handling by users during the expected life of the product in the environment where the product will be used.

11.3 It may be useful to mark such instructions, except those needed only for initial assembly or installation, KEEP FOR FUTURE REFERENCE. But replacement copies of all such instructions for use should be made available by the producer/manufacturer, on demand, throughout the expected life of the product.

11.4 Since packaging is often impermanent and can be destroyed in the unpacking process, the permanent placing of instructions on packaging is generally undesirable. Where the instructions are so placed, the advice to keep them for future reference should be prominent. If only a part of the packaging needs to be kept, because it contains instructions, that part should be easily detachable from the rest of the packaging.