



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 16903-2021

**Rules for the presentation of graphical symbols for use on
signs - Design principles and requirements for public
information graphical symbols**

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1 Scope

This standard establishes the rules for the presentation of graphical symbols for use on signs; specifies the requirements for design procedures, design template, design principles, specific graphic design of the public information graphical symbols (hereinafter referred to as graphical symbols); specifies the rules of forming graphic signs through the graphical symbols.

This standard applies to the design of public information graphical symbols.

This standard does not apply to the design of graphical symbols, which are used in safety signs and road traffic signs.

2 Normative references

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) is applicable to this standard.

GB/T 10001 (all parts) Public information graphical symbols

GB/T 15565 Graphical symbols - Terms

GB/T 16900 Rules for the presentation of graphical symbols - General principles

GB/T 16900.2 Rules for the presentation of graphical symbols - Part 2:

Methods for testing comprehensibility

GB/T 16903.3 Rules for the presentation of graphical symbols for use on graphical signs - Part 3: Method for testing perceptibility

3 Terms and definitions

The terms and definitions, which are defined in GB/T 15565, are applicable to this document.

4 Design procedures

The design of graphical symbols shall adhere to the provisions of GB/T 16900, as well as the following design procedures:

- a) Confirm that the graphical symbols to be designed are NEITHER safety signs NOR non-sign graphical symbols;
- b) Clarify the object to be expressed of the graphical symbol to be designed AND its meaning;
- c) Analyze the expected use environment of the graphical symbols AND characteristics of user groups;
- d) Confirm that the GB/T 10001 (all parts) and other relevant national standards have no graphical symbols, which are same as the meanings of the graphic signs to be designed;
- e) Give meaning to the graphical symbols to be designed; give descriptions of functions and application scenario;
- f) Search for the possible symbol elements, which are used to present relevant meaning, the symbol elements in the graphical symbols, the graphical symbols which can be used as elements, from the current standards; combine these symbol elements, to form new graphical symbol;
- g) If the graphical symbol cannot be formed, by directly using or combining existing symbols, THEN, use the design template, which is specified in Chapter 6, to design the graphical symbol, in accordance with the graphic design requirements specified in Chapter 7;
- h) Follow the requirements of GB/T 16900.2 and GB/T 16903.31), to test the graphical symbols, to evaluate the comprehensibility and perceptibility of graphical symbols in the use environment;
- i) Determine the graphical symbols; fine-tune the graphical symbols, to have beautiful vision and consistent composition.

1 This standard is proposed to be revised AND re-numbered to GB/T 16900.3 (see Foreword).

the graphics, which are related to popular pattern, as the symbol elements;

- e) Make the styles of graphical symbols in the same field consistent;
- f) Make the overall length and width ratio of the graphics less than 3:1;

g) Consider the impact on the comprehensibility of symbols, after adding negation factors (negation slashes);

h) Consist of figurative forms.

7.2 Use of characters

7.2.1 Letters, numbers, punctuation marks, mathematical symbols and other characters should only be used as symbol elements.

7.2.2 If some letters or punctuation marks have been widely recognized, THEN, they can be used alone as graphical symbols, such as the letter "P" for parking lots, the punctuation mark "?" for information query.

7.3 Combination of graphical symbols and/or symbol elements

7.3.1 If a new symbol graphic is the combination of two or more graphical symbols or symbol elements (see Figure 6), THEN, the meaning of the new graphical symbol shall be composed of a combination of the original graphical symbols or the meaning of symbol elements.

7.6 Size of line width, gap, symbol elements in design template

7.6.1 When designing graphical symbols, according to needs, the size of line width can be selected as 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm; the gap size can be selected as 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm; in special cases (such as the gap between the humanoid arm and body), it may use the gap size of 1.5 mm.

7.6.2 In order to ensure that the graphical symbol, which is designed in the template, can still maintain visual clarity, when it is reduced to 10 mm x 10 mm (see Figure 11b)], the minimum line width in the graphical symbol shall not be less than 2.5 mm; the minimum gap between symbol details should not be less than 2.0 mm [see Figure 11a)].

7.6.3 For graphical symbols, which are composed of two or more symbol elements, the gap between symbol details within the symbol element shall be smaller than the gap between the symbol elements.

7.6.4 The size of the smallest symbol element in the graphical symbol shall not be less than 3.0 mm x 3.0 mm (see Figure 12).

a) Example of the original image of symbol with a graphical symbol area of 100 mm x 100 mm