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Graphical Symbols for Operator Controls and Displays on Agricultural Equipment



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Proposed by the Engineering Committee of the Farm and Industrial Institute; approved by the ASAE Power and Machinery Division Technical Committee; adopted by ASAE June 1967; revised December 1967, December 1969, October 1970; approved as an American National Standard July 1971; revised June 1972; reaffirmed December 1976; revised March 1978; revision approved by ANSI December 1982; reaffirmed December 1982, December 1987, July 1993; revised March 1995; reaffirmed for one year December 1999; revised June 2000, revised May 2006 and removed as an American National Standard July 2006; reaffirmed December 2010, December 2015.

Keywords: Controls, Displays, Symbols

1 Scope

1.1 This Standard presents additional graphical symbols for use on operator controls and other displays on agricultural equipment as defined in ASAE S390. The symbols found in this standard are supplemental to those found in ASABE/ISO 3767-1:1998 and ASABE/ISO 3767-2:1991 W/Amd. 1-3.

2 Normative references

The following standards contain provisions that, through reference in this text, constitute provisions of this Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Standards organizations maintain registers of currently valid standards.

2.1 ASAE S390.4 JAN05, *Classifications and Definitions of Agricultural Equipment*

2.2 ASABE/ISO 3767-1:1998, *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment — Symbols for operator controls and other displays — Part 1: Common symbols*

2.3 ASABE/ISO 3767-2:1991, W/Amd.1-3, *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment — Symbols for operator controls and other displays — Part 2: Symbols for agricultural tractors and machinery*

2.4 IEC 60417 database, *Graphical symbols for use on equipment* [Available at <http://www.graphical-symbols.info/>]

2.5 IEC 80416-1:1988, *Basic principles for graphical symbols for use on equipment. Part 1: Creation of symbol originals*

2.6 ISO 80416-2:2001, *Basic principles for graphical symbols for use on equipment — Part 2: Form and use of arrows*

2.7 ISO 7000 database, *Graphical symbols for use on equipment* [Available at <http://www.graphical-symbols.info/>]

3 Definition

3.1 symbol: Visually perceptible figure used to transmit information independently of language. It may be produced by drawing, printing, or other means.

4 General

4.1 Symbols shall be as shown in succeeding sections of this Standard. However, symbols which are shown in outline form may be filled in actual use for enhanced clarity of reproduction and improved visual perception by the operator, unless otherwise noted for individual symbols.

4.2 Limitations inherent in some reproduction and display technologies may require increased line thickness or other minor modifications of symbols. Such modifications are acceptable provided the symbol is unchanged in its basic graphical elements and remains easily discernible by the operator.

4.3 Additionally, to improve the appearance and perceptibility of a graphical symbol, or to coordinate with the design of the equipment to which the symbol is applied, it may be necessary to change the line thickness or round the corners of a symbol. The graphic designer is normally free to make such changes, provided that the essential perceptual characteristics of the symbol are maintained.

4.4 For actual use, all symbols shall be reproduced large enough to be easily discernible by the operator. See IEC 80416-1 for guidelines on the proper sizing of symbols. Symbols shall be used in the orientation shown in this Standard unless otherwise noted for individual symbols.

4.5 Most symbols are constructed using a building block approach in which various symbols and symbol elements are combined in a logical manner to produce new symbols.

4.6 If a symbol shows a machine or parts of a machine from a side view, a machine moving from right to left across the symbol grid area shall be assumed. If a symbol shows a machine or parts of a machine from an overhead view, a machine moving from bottom to top across the symbol grid area shall be assumed. Machine movements to right or left and descriptors forward or reverse relate to the normal operating position of the operator.

4.7 Symbols on controls and displays shall have good contrast to their background. A light symbol on a dark background is preferred for most controls. Displays may use either a light symbol on a dark background or a dark symbol on a light background, depending upon which alternative provides the best visual perception. When a symbol image is reversed (for example, from black-on-white to white-on-black and vice versa), it shall be done for the entire symbol.

4.8 Symbols shall be located on or adjacent to the control or display that is being identified. Where more than one symbol is required for a control, the symbols shall be located in relation to the control such that movement of the control toward the symbol shall effect the function depicted by that symbol.

4.9 Arrows used in symbols shall conform to the requirements of ISO 80416-2. IEC 80416-1 should be consulted for general principles for the creation of symbols.

4.10 ISO/IEC registration numbers are shown for symbols in this Standard. Registration numbers below 5000 refer to ISO 7000. Registration numbers above 5000 refer to IEC 60417. Absence of an ISO/IEC registration number indicates that no number has been assigned to that symbol.

4.11 Symbols are shown in this Standard within the outer limits of a 24 mm square grid (32% of original ISO graphics grid size). Corner marks delimit the corners of the 75 mm square graphics grid from IEC 80416-1. Corner marks are not part of the symbol itself.

4.12 Symbols shown in the main body of this standard are preferred; however, several alternate symbols are shown in Annex A which may be used in place of the corresponding symbols found in the main body of this standard.

5 Color

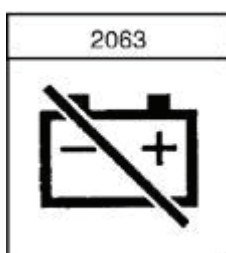
5.1 When used to indicate operating status or condition, the following colors have meaning as follows:

- The color red shall denote a failure or serious malfunction that requires immediate attention;
- The color yellow or amber denotes a condition outside normal operating limits;
- The color green denotes a normal operating condition.

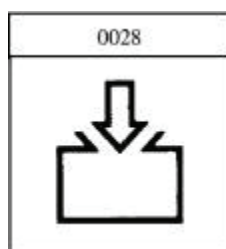
5.2 If color is used on or in association with symbols for heating and cooling systems, the color red shall be used to indicate hot and the color blue shall be used to indicate cold.

6 General symbols

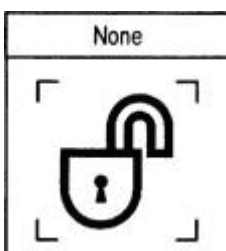
6.1 Battery disconnect; battery shut-off



6.2 Filling



6.3 Unlock



6.4 Rearward moving machine alarm — cancel

