

MIL-STD-15-2

30 October 1961

SUPERSEDING

MIL-STD-15A

(See Foreword)

MILITARY STANDARD

ELECTRICAL WIRING EQUIPMENT SYMBOLS FOR SHIPS' PLANS PART 2



**UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON: 1961**

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington 25, D.C. Price 10 cents

MIL-STD-15-2
30 October 1961

ARMY

Electrical Wiring I

MIL-STD-15-2

1. This standard is mandatory for use effective 30 October 1961.

2. Recommend to the Standardization Division, D. C., with the following information:

- (a) Number
- (b) Item of class
- (c) Present specification
- (d) Proposed specification
- (e) Reason for change
- (f) Reference
- (g) Any other information

MIL-STD-15-2
30 October 1961

FOREWORD

Standard MIL-STD-15-2 contains a listing of graphical drawing symbols for electrical and electronic parts and recommendations as to their use. These symbols should be used by all who have occasion to prepare electrical or electronic schematic drawings for the Departments of the Army, the Navy, and the Air Force.

During the preparation of Standard MIL-STD-15-2 it was recognized that a need existed for the coordination of drafting symbols and drafting practices used by the Military, to make them compatible with those in private industry and accepted nationwide industry standards.

The symbols contained in Standard MIL-STD-15A were considered carefully in the preparation of Standard MIL-STD-15-2 and where there was no good reason for making a change, their use was adopted. In many instances symbols generally accepted in practice were selected, even though more definitive pictorial symbols could have been devised. Certain new symbols have been included to cover items which have come into use since Standard MIL-STD-15A was adopted, or to more clearly identify given types of items. Certain symbols that relate to obsolete items, and to items covered by other standards were omitted.

Since the symbols used in chapters 4 and 5 of Standard MIL-STD-15A, dated 1 April 1954 have limited and specific applications, Standard MIL-STD-15 is being published in three parts as follows:

Part 1—Graphical Symbols for Electrical and Electronic Diagrams.

Part 2—Electrical Wiring Equipment Symbols for Ships' Plans

The symbols contained in Part 2, herein, constitute those formerly contained in chapter 4 of Standard MIL-STD-15A.

Part 3—Electrical Wiring Symbols for Architectural and Electrical Layout Drawings.

MIL-STD-15-2
30 October 1961

CONTENTS

<i>Paragraph</i>	<i>Page</i>
1 SCOPE	1
1.1 Purpose	1
1.2 Scope	1
2 REFERENCED DOCUMENTS (Not applicable)	1
3 DEFINITIONS (Not applicable)	1
4 LIST OF SYMBOLS FOR MARINE EQUIPMENT	1
INDEX	6

MIL-STD-15-2
30 October 1961

ELECTRICAL WIRING EQUIPMENT SYMBOLS FOR SHIPS' PLANS

1. SCOPE

1.1 Purpose. The purpose of this standard is to establish a uniform system of graphic symbols for use on drawings and plans of shipboard (marine) electrical installations. Standard electrical symbol designations shown in the Standard Electrical Symbol List NAVSHIPS 250-560-3 provide a means of correlating graphical symbols, when shown on drawings, with parts lists and descriptions of and instructions concerning the wiring.

1.2 Scope. This standard establishes the principles governing the formation and application of symbols for electrical wiring equipment to be used on ships' plans and provides a general list of such symbols. It does not cover electronic equipments aboard ship, which will be found in Standard MIL-STD-15-1, although it does cover wiring appliances used in their power supply systems.

1.3 Abbreviations shall be in accordance with Standard MIL-STD-12. Letter combinations used as parts of the graphical symbols are not abbreviations.

1.4 Items are identified by colloquial names to facilitate identification of parts. For standard item names see Part I of the Federal Item Identification Guides for Supply Cataloguing, H6-1.

1.5 A buildup (composite) symbol can be contrived from basic symbols.

2. REFERENCED DOCUMENTS

2.1 Not applicable.

3. DEFINITIONS

3.1 Not applicable.

4. LIST OF SYMBOLS FOR MARINE EQUIPMENT

4.1 The graphic symbols (items) in this list are arranged by item number indicating a generic class. The item number is not significant other than to distinguish between classes. The initial decimal portion of the complete item number indicates a further breakdown of symbols by type or functional designation, usually in alphabetical sequence. Further decimal subordinations indicate a symbol designed for a specific single function arranged alphabetically in order of the name modifiers. Thus the use of this decimal, item-numbering system for each symbol permits changes and revisions, or insertions, to be made conveniently, and without regard for paragraph and section numbering.

4.2 To locate the symbol for a specific part, find the item number under the colloquial or functional name in the index.

MIL-STD-15-2
30 October 1961

LIST OF SYMBOLS

1 APPLIANCES; MISCELLANEOUS WIRING (GENERAL)



2 BOXES, GENERAL



2.1 Buildup examples

2.1.1 Branch



2.1.2 Connection



2.1.3 Distribution



2.1.4 Junction



3 BUS TRANSFER EQUIPMENT

3.1 Automatic:

3.1.1 AC without phase failure



3.1.2 AC with phase failure



3.1.3 DC



3.2 Nonautomatic or push button control

3.2.1 AC



3.2.2 DC



4 CASUALTY POWER SUPPLY EQUIPMENT



5 COMMUNICATION EQUIPMENT

5.1 Annunciator for torpedo panel



5.2 Box, plug and receptacle, gyrocompass repeater



5.3 Box, switch, telephone



5.4 Dimmer for torpedo firing panel



5.5 Fire alarm system mercurial thermostat



5.6 Indicators



5.7 Jacks



5.8 Panel, sector control for air defense



5.9 Panel, torpedo firing



5.10 Plugs, telephone



6 CONTROLLER, MOTOR (GENERAL)



6.1 Buildup examples

6.1.1 Controller with low voltage release, recloses upon return of power



6.1.2 Controller with low voltage protection, remains open upon return of power



7 COUNTER, SHAFT REVOLUTION



MIL-STD-15-2
30 October 1961

LIST OF SYMBOLS

8 FANS

8.1 Fan, portable bracket



8.2 Fan, overhead



9 HEATERS

9.1 Heater, general



9.2 Heater, portable radiant



10 LIGHTING UNITS

10.1 Bulkhead



10.2 Bulkhead, berth



10.3 Hand lantern



10.4 Navigational



10.5 Night light



10.6 Overhead



10.7 Overhead, magazine



10.8 Portable



10.9 Special



10.10 Overhead, fluorescent



Arrows show direction of tubes

10.11 Overhead fluorescent with separately controlled red and white sections



10.12 Overhead fluorescent



Short arrow shows direction of maximum intensity when sidewise light distribution is asymmetrical

10.13 Overhead, fluorescent with separately controlled red and white sections



Short arrow shows direction of maximum intensity

11 PLUG



12 RECEPTACLE OR OUTLET



13 SWITCH

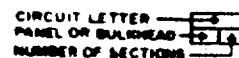
13.1 Push button



13.2 On-off



13.3 Selector



13.4 Snap



MIL-STD-15-2
30 October 1961

LIST OF SYMBOLS

13.5 Transfer



13.6 Water switch



14 SWITCH AND RECEPTACLE



15 SWITCH (CONTACT MAKER) (GENERAL)



15.1 Buildup examples

15.2 Sensitive switch type



15.3 Motor operated



15.4 Pressure operated



15.5 Temperature operated



16 SOUND MOTION PICTURE EQUIPMENT

16.1 Amplifier, motion picture



16.2 Monitor, loudspeaker



16.3 Panel, control



16.4 Phonograph unit



16.5 Projector



16.6 Rectifier, arc



17 TELEPHONE EQUIPMENT

17.1 Box, jack, with volume control



17.2 Box, telephone ringer



17.3 Hand set, sound powered telephone



17.4 Telephone, wall type



"A" represents type letter

17.5 Telephone desk type



"A" represents type letter

18 TRANSMITTERS, INDICATORS, RECORDERS

For the following and any other similar applications:

- Anemometer
- Engine control
- Wind direction and intensity
- Engine order and revolution telegraph
- Steering telegraph and rudder angle indicator
- Shaft revolution
- Oil burner telegraph
- Underwater log system
- Shaft torsion

18.1 Indicators



The number of lines used in the symbol signify that the indicator is double, triple, etc.
See items 5.6 and 18.5 for special indicators

MIL-STD-15-2
30 October 1961

LIST OF SYMBOLS

18.2 Transmitter and indicator combination



18.3 Recorders



18.4 Transmitters



18.4.1 Master transmitter



18.5 Special indicators

18.5.1 Salinity indicator



18.5.2 Shaft revolution indicators, frequency-control unit



Notice: When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

Copies of specifications, standards, drawings, and publications required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.

Copies of this standard for military use may be obtained as indicated in the general provisions of the Department of Defense Index of Specifications and Standards.

The title and identifying symbol should be stipulated when requesting copies of military standards.

Custodians:

Army—SigC

Navy—Ships

Air Force—AMC

Preparing activity:

Navy—Ships

(Project DRPR-601-88)

MIL-STD-15-2
30 October 1961

INDEX

<i>Name</i>	<i>Item No.</i>	<i>Name</i>	<i>Item No.</i>
Annunciator, torpedo panel	5.1	Junction box, marine	2.1.4
Appliances, general	1	Lighting unit, marine	10
Box, marine	2	Motion picture equipment	16
Branch box, marine	2.1	Navigational light	10.4
Bus transfer equipment	3	Night flight light	10.5
Casualty power supply equipment	4	Overhead light, marine	10.6
Communication equipment, marine	5	Plug, telephone, marine	5.10
Connection box, marine	2.1.2	Portable light, marine	10.8
Contact maker, marine	15	Salinity indicator	18.5.1
Controller, motor	6	Sector control panel	5.8
Counter, shaft revolution	7	Sensitive switch, marine	15.2
Dimmer, torpedo firing panel	5.4	Shaft, revolution indicator	18.5.2
Distribution box, marine	2.1.3	Snap switch, marine	13.4
Fans, marine	8	Sound motion picture equipment	16
Fluorescent units, marine	10.10	Switch and receptacle, marine	14
	through	Switch, marine	13
	10.13	Telephone equipment, marine	17
Gyrocompass repeater box	5.2	Telephone plug, marine	5.10
Hand Lantern, marine	10.3	Torpedo firing panel	5.9
Heater, marine	9	Transfer switch, marine	13.5
Indicators, marine	18	Transmitter, marine	18
Jack, marine	5.7	Water switch	13.6

☆ U. S. GOVERNMENT PRINTING OFFICE: 1971-714-156/644

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

(See Instructions - Reverse Side)

1. DOCUMENT NUMBER

2. DOCUMENT TITLE

3a. NAME OF SUBMITTING ORGANIZATION

4. TYPE OF ORGANIZATION (Mark one)

☐

VENDOR

☐

USER

☐

MANUFACTURER

☐

OTHER (Specify): _____

b. ADDRESS (Street, City, State, ZIP Code)

5. PROBLEM AREAS

a. Paragraph Number and Wording:

b. Recommended Wording:

c. Reason/Rationale for Recommendation:

6. REMARKS

7a. NAME OF SUBMITTER (Last, First, MI) - Optional

b. WORK TELEPHONE NUMBER (Include Area Code) - Optional

c. MAILING ADDRESS (Street, City, State, ZIP Code) - Optional

8. DATE OF SUBMISSION (YYMMDD)

INSTRUCTIONS: In a continuing effort to make our standardization documents better, the DoD provides this form for use in submitting comments and suggestions for improvements. All users of military standardization documents are invited to provide suggestions. This form may be detached, folded along the lines indicated, taped along the loose edge (*DO NOT STAPLE*), and mailed. In block 5, be as specific as possible about particular problem areas such as wording which required interpretation, too rigid, restrictive, loose, ambiguous, or was incompatible, and give proposed wording changes which would alleviate the problems. Enter in block 6 any remarks not related to a specific paragraph of the document. If block 7 is filled out, an acknowledgement will be mailed to you within 30 days to let you know that your comments were received and are being considered.

NOTE: This form may not be used to request copies of documents, nor to request waivers, deviations, or clarification of specification requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

(Fold along this line)

(Fold along this line)

DEPARTMENT OF THE NAVY



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE \$300

BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO. 12503 WASHINGTON D C

POSTAGE WILL BE PAID BY THE DEPARTMENT OF THE NAVY

Commander
Naval Ship Engineering Center
Center Building-SEC 6124B
Prince George's Center
Hyattsville, Maryland 20782

