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MIL-DTL-24558A  
17 February 2006  
SUPERSEDING  
MIL-T-24558  
8 May 1981

## DETAIL SPECIFICATION

### TERMINAL BOXES, CONNECTION, FOR ELECTRICAL AND ELECTRONIC SYSTEMS, GENERAL SPECIFICATION FOR

This specification is approved for use by all departments and agencies of the Department of Defense.

#### 1. SCOPE

1.1 Scope. This specification covers the general requirements for terminal connection boxes for electrical and electronic systems.

1.2 Classification. Terminal connection boxes are of the symbol numbers specified in the individual specification sheets (see 6.2 and 6.6).

#### 2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3 and 4 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of the documents cited in sections 3 and 4 of this specification, whether or not they are listed.

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| Comments, suggestions, or questions on this document should be addressed to Defense Supply Center Richmond, ATTN: DSCR-VEB, 8000 Jefferson Davis Highway, Richmond, VA 23297-5616 or e-mailed to <a href="mailto:STDZNMGT@dla.mil">STDZNMGT@dla.mil</a> . Since contact information can change, you may want to verify the currency of this address information using the ASSIST database at <a href="http://assist.daps.dla.mil">http://assist.daps.dla.mil</a> . |
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AMSC N/A

FSC 5940

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2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract (see 6.2).

## FEDERAL STANDARDS

|               |   |
|---------------|---|
| FED-STD-H28   | - Screw-Thread Standards for Federal Services.  |
| FED-STD-H28/2 | - Screw-Thread Standards for Federal Services<br>Section 2 Unified Inch Screw Threads - UN and<br>UNR Thread Forms. |

## COMMERCIAL ITEM DESCRIPTIONS

|           |  |
|-----------|--|
| A-A-59125 | - Terminal Boards, Molded, Barrier Screw and Stud<br>Types and Associated Accessories. |
|-----------|--|

## DEPARTMENT OF DEFENSE SPECIFICATIONS

|               |   |
|---------------|---|
| MIL-S-901     | - Shock Tests, H.I. (High-Impact) Shipboard Machinery,<br>Equipment, and Systems, Requirements for. |
| MIL-DTL-15024 | - Plates, Tags, and Bands for Identification of<br>Equipment, General Specification for.            |
| MIL-P-15024/5 | - Plates, Identification.   |
| MIL-E-24142   | - Enclosures for Electrical Fittings and Fixtures,<br>General Specification for.                    |
| MIL-PRF-24712 | - Coatings, Powder (Metric).  |

(See Supplement 1 for list of specification sheets.)

## DEPARTMENT OF DEFENSE STANDARDS

|               |  |
|---------------|--|
| MIL-STD-108   | - Definitions of and Basic Requirements for<br>Enclosures for Electric and Electronic Equipment.             |
| MIL-STD-167/1 | - Mechanical Vibrations of Shipboard Equipment<br>(Type I - Environmental and Type II - Internally Excited). |
| MIL-STD-202   | - Electronic and Electrical Component Parts.   |
| MIL-STD-1916  | - DoD Preferred Methods for Acceptance of Product.   |

## DEPARTMENT OF DEFENSE HANDBOOKS

|              |  |
|--------------|--|
| MIL-HDBK-454 | - General Guidelines for Electronic Equipment. |
|--------------|--|

(Copies of these documents are available at <http://assist.daps.dla.mil> or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

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2.3 Non-government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract (see 6.2).

### AEROSPACE INDUSTRIES ASSOCIATION

NASM 45938 - Nut, Plain, Clinch and Nut, Self-Locking, Clinch General Specification for.

(Copies of these documents are available at <http://www.aia-aerospace.org/> or from Aerospace Industries Association, 1000 Wilson Boulevard, Suite 1700, Arlington, VA 22209-3928.

### ASTM INTERNATIONAL

ASTM B 36/B 36M - Standard Specification for Brass Plate, Sheet, Strip, and Rolled Bar.  
ASTM B 139/B 139M - Standard Specification for Phosphor Bronze Rod, Bar, and Shapes.  
ASTM B 152/B 152M - Standard Specification for Copper Sheet, Strip, Plate, and Rolled Bar.  
ASTM D 5948 - Standard Specification for Molding Compounds, Thermosetting.

(Copies of these documents are available at <http://www.astm.org/> or from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.)

### MASTER PAINTERS INSTITUTE (MPI)

MPI Reference #48 - Interior Alkyd, Gloss.

(Copies of these documents are available at <http://www.specifypaint.us/> or from the Painting & Decorating Contractors of America - National Office (PDCA), 3913 Old Lee Highway, Suite 33-B, Fairfax, VA 22030-2433.)

2.4 Order of precedence. In the event of a conflict between the text of this document and the references cited herein (except for related specification sheets), the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

## 3. REQUIREMENTS

3.1 First article inspection. Prior to beginning production, a sample terminal connection box manufactured by production tools and processes shall be inspected as specified in 4.3 (see 6.3).

3.2 Materials. Materials shall be as specified herein and in accordance with the applicable specification sheets.

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3.2.1 Recovered materials. Unless otherwise specified herein, all equipment, material, and articles incorporated in the products covered by this specification shall be new and shall be fabricated using materials produced from recovered materials to the maximum extent practicable without jeopardizing the intended use. The term "recovered materials" means materials that have been collected or recovered from solid waste and reprocessed to become a source of raw materials, as opposed to virgin raw materials. None of the above shall be interpreted to mean that the use of used or rebuilt products is allowed under this specification unless otherwise specified.

3.2.2 Metals. Metals shall be corrosion-resistant. Copper, brass, and phosphor bronze materials shall be in accordance with ASTM B 152/B 152M, ASTM B 36/B 36M, and ASTM B 139/B 139M, respectively. Metal parts susceptible to stress corrosion cracking shall be stress relieved (see 6.5).

3.2.3 Non-metallic materials. Non-metallic materials shall be fungus-inert. MIL-HDBK-454, guideline 4 may be used as a reference for the identification of non-metallic materials that are not a nutrient to fungi. Plastic materials shall be in accordance with ASTM D 5948. Adequate measures shall be taken in molding or processing plastics to ensure that stress build-up does not occur or is satisfactorily treated to relieve these stresses to prevent deterioration or failure of a part or assembly. The stress-relieving process shall be as required by the technical data furnished by the supplier of the raw material.

3.2.4 Hardware. Unless otherwise specified in the applicable specification sheet, all hardware (bolts, nuts, screws, washers, and miscellaneous hardware) shall be of good commercial grade material compatible with that of the basic fixture.

### 3.3 Design and construction.

3.3.1 Electrical rating. The electrical rating shall be as specified in the applicable specification sheet.

3.3.2 Wire terminating facilities. Wire terminating facilities shall be as specified in the applicable specification sheet.

3.3.3 Enclosure. The enclosure shall be as specified in the applicable specification sheet.

3.3.3.1 Submersible. Submersible (15-foot) (SBM-15) enclosures shall be in accordance with MIL-E-24142 and as specified herein.

3.3.3.2 Watertight. Watertight enclosures shall be as specified in the applicable specification sheet.

3.3.3.3 Stress relief. Metal enclosures shall be stress relieved and marked in accordance with MIL-E-24142.

3.3.3.4 Cleaning. The enclosure shall be furnished thoroughly cleaned of all brazing/welding flux and other corrosive agents. Cleaning agent shall be neutralized after cleaning.

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3.3.3.5 Finish. Unless otherwise specified in the applicable specification sheet, the interior of the enclosures (covers optional) shall be primed and shall be painted white using enamel that complies with Master Painters Institute Reference #48, MPI Gloss Level 6. Unless otherwise specified (see 6.2), the exterior of the enclosure shall be neither primed nor painted.

3.3.3.6 Alternate finish. If specified (see 6.2), the interior of the connection boxes may be finished with a white powder coating in accordance with MIL-PRF-24712.

3.3.4 Terminals. Terminal boards shall be in accordance with A-A-59125 and of the type specified in the applicable specification sheet. Terminal lug assemblies and terminal lug bases shall be as specified in the applicable specification sheet.

3.3.4.1 Mounting brackets. Unless otherwise specified (see 6.2), the terminal board mounting brackets and pads shall be of brass and shall be as shown on figures 1 through 5. Mounting bracket and pad installation shall be as specified in the applicable specification sheet.

3.3.4.2 Alternate mounting bracket. If specified (see 6.2), an alternate style terminal board mounting bracket that utilizes stainless steel PEM style fasteners with self locking nuts in accordance with NASM 45938 may be used in lieu of the typical brass barrel nuts that are typically brazed into the bracket.

3.3.5 Threaded parts. Threads for all threaded fastening devices shall conform to FED-STD-H28 and FED-STD-H28/2. The threads shall be right hand, coarse-thread series, unified thread form, class 2A or 2B or American National thread form, class 2. Other thread series and classes, such as fine thread, may be used where it is necessary to assure functional operation of the equipment. Threads shall be checked during production run with "go" and "no go" gages to insure conformance to FED-STD-H28 and FED-STD-H28/2.

3.3.6 Gaskets. Cover sealing gaskets shall be furnished and installed in accordance with MIL-E-24142.

3.3.7 Brazing and welding. Brazing and welding shall be in accordance with best commercial practices and performed in a manner that will pass all required tests. Gas tungsten arc welding (GTAW) is an acceptable alternate to brazing.

3.3.8 Dimensions and tolerances. Dimensions shall be as shown in the applicable specification sheet. Unless otherwise specified in the applicable specification sheet, the following tolerances shall apply:

- a. Fractional dimensions - Plus or minus 1/64 inch.
- b. Decimal dimensions - Plus or minus 0.005 inch.
- c. Angular dimensions - Plus or minus 0 degree 15 minutes.

Unless otherwise specified in the applicable specification sheet, a tolerance of  $\pm 1/32$  inch is acceptable on fractional dimensions that are controlled by welding or brazing provided that this wider tolerance will not interfere with the interchangeability of assemblies or parts.

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3.3.9 Drilling, countersinking, and tapping. All drilling, countersinking, and tapping shall be done before plating or finish is applied. Tapped holes that are used for normal replacement of parts shall be countersunk.

3.3.10 Sharp edges. All sharp edges and corners shall be given a slight radius.

3.4 Performance characteristics.

3.4.1 Vibration. The connection boxes shall conform to the vibration requirements of type I of MIL-STD-167/1. These tests may be conducted with the connection boxes in the de-energized condition. The connection boxes shall show no evidence of mechanical or electrical damage or loosening of parts following the test specified in 4.5.2.

3.4.2 Shock. The connection boxes shall conform to the shock requirements of grade A, class 1, type C of MIL-S-901. These tests may be conducted with the connection boxes in the de-energized condition. Following the test of 4.5.3, there shall be no signs of mechanical or electrical damage, breakage, or loosening of parts and distortion of sides, bottom, or cover of the enclosure.

3.4.3 Effectiveness of enclosure. The connection boxes shall show no signs of water leakage when subjected to the test specified in 4.5.4.

3.4.4 Dielectric withstanding voltage. The connection boxes shall conform to a dielectric withstanding voltage requirement of twice the rated voltage, plus 1,000 volts AC applied between isolated circuits and live parts and ground. Any evidence of arcing (other than at test probes), corona (visible, audible, or smell), flashover, or punctured insulation shall be interpreted as failure to pass the test (see 4.5.5).

3.5 Designation and marking.

3.5.1 Equipment identification plates. Identification plates shall conform to types A, B, or C of MIL-DTL-15024 and to the requirements for normal service of MIL-P-15024/5. Material, marking, and installation shall be as shown on figure 6 and as specified in the applicable specification sheet. As an option, identification marking may be molded (plastic enclosures only), engraved, or stamped directly on the covers of the enclosures to provide a permanent identification. Marking shall not be located on gasketed surfaces of covers.

3.5.1.1 Filling. Filling of stamped, engraved, or molded marking with paint is not required.

3.5.1.2 Sharp edges. Sharp edges of plates shall be removed and corners shall be given a slight radius.

3.5.1.3 Enclosure manufacturer. The enclosure manufacturer, if other than the terminal box supplier, shall be identified by appropriate marking on the interior surface of the cover.

3.5.2 Information plates. Unless otherwise specified (see 6.2), information plates shall be as specified in 3.5.1 except that they shall be blank. The option of molding, depressing, or embossing the inscriptions or markings on the cover is not applicable for information plates.

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3.5.3 Warning plates. Warning plates shall be as specified in the applicable specification sheet. Material shall be brass. Depressed lettering shall be filled with red enamel. The face of warning plates shall be neither primed nor painted. They shall be brazed on the cover as shown in the applicable specification sheet. All sharp edges and corners shall be given a slight radius.

3.6 Workmanship. The workmanship shall be in accordance with 3.6.1 through 3.6.5.

3.6.1 Mounting of parts. Parts or hardware shall be assembled and secured or mounted in the specified manner to satisfactorily accomplish the purpose for which intended. Equipment having missing, inoperative, defective, bent, broken, or otherwise damaged parts will not be acceptable.

3.6.2 Cleaning. After fabrication, and prior to assembly in the connection boxes, parts shall be cleaned of smudges, weld metal, metal chips, and mold release agents or any other foreign material that might detract from the intended operation, function, or appearance of the connection boxes. All corrosive material shall be removed. All assembled connection boxes shall be cleaned of contaminants such as lubricating oils, mold release agents, waxes, sand, corrosion products, solder fluxes, and dust. The nature of the contaminant shall be determined to the extent that a suitable cleaning solvent can be selected for its removal. The inertness of the materials of construction to the solvent shall be determined to prevent damage to electrical and mechanical properties. Cleaning processes shall have no deleterious effect on the connection boxes or parts.

3.6.3 Threaded parts or devices. Screws, nuts, and bolts shall show no evidence of cross threading, mutilation, or detrimental or hazardous burrs.

3.6.3.1 Tightness. All screw-type fasteners shall be tight. The word tight means the screw shall be firmly secured and that there shall be no relative movement possible between the attached parts.

3.6.4 Riveting. The riveting operation shall be carefully performed in order to assure that rivets are tight and satisfactorily headed with the rivet heads tightly seated against their bearing surface.

3.6.5 Welding/brazing. All welding/brazing shall be free of harmful defects such as cracks, porosity, undercuts, voids, and gaps. There shall be no burn-through. Fillets shall be uniform and smooth. Angular or thickness misalignment, warpage, or dimensional change due to heat from the welding/brazing operation shall be within permitted tolerances. There shall be no damage to adjacent parts resulting from the welding or brazing.

#### 4. VERIFICATION

4.1 Classification of inspections. The inspection requirements specified herein are classified as follows:

- a. First article inspection (see 4.3).
- b. Conformance inspection (see 4.4).

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4.2 Inspection conditions. Unless otherwise specified (see 6.2), all inspections shall be performed in accordance with the test conditions specified in the general requirements of MIL-STD-202.

4.3 First article inspection. The sample for first article inspection shall be subjected to the examination and tests specified in table I in the order shown.

TABLE I. First article inspection.

| Inspection                      | Requirement paragraph | Test method paragraph |
|---------------------------------|-----------------------|-----------------------|
| Examination                     | 3.2, 3.3, 3.5, 3.6    | 4.5.1                 |
| Dielectric withstanding voltage | 3.4.4                 | 4.5.5                 |
| Effectiveness of enclosure      | 3.4.3                 | 4.5.4                 |
| Vibration                       | 3.4.1                 | 4.5.2                 |
| Shock                           | 3.4.2                 | 4.5.3                 |
| Effectiveness of enclosure      | 3.4.3                 | 4.5.4                 |
| Dielectric withstanding voltage | 3.4.4                 | 4.5.5                 |

4.4 Conformance inspection.

4.4.1 Inspection lot. An inspection lot shall consist of all terminal connection boxes of the same symbol produced under essentially the same conditions and offered for inspection at one time.

4.4.2 Sampling plan A inspection. Sampling plan A inspection shall consist of the inspections specified in 4.5.1.

4.4.2.1 Sampling plan. Attributes sampling and inspection shall be in accordance with MIL-STD-1916 for verification level I.

4.4.3 Sampling plan B inspection. Sampling plan B inspection shall consist of the sampling plan A inspections specified in 4.4.2 and the inspections specified in 4.5.4.

4.4.3.1 Sampling plan. The sampling plan shall be in accordance with MIL-STD-1916 verification level I. The sample size shall be based on the inspection lot size from which the sample was selected for sampling plan A inspection.

4.5 Methods of inspection.

4.5.1 Examination. Examination shall be as specified in 4.5.1.1 and 4.5.1.2.

4.5.1.1 Visual and mechanical inspection. Each sample connection box shall be subjected to a thorough examination to ascertain that the design and construction (see 3.4), designation and marking (see 3.5), and workmanship (see 3.6) conform to the requirements of this specification.

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4.5.1.2 Materials inspection. During first article inspection, the contractor shall make available to the government inspector satisfactory evidence that the parts and materials used in the fabrication of the terminal connection box comply with all requirements of this specification. Satisfactory evidence shall consist of purchasing documents specifying applicable requirements or specifications, inspection and test reports, or contractor certification. If certification is submitted, this certification shall contain a statement to the effect that inspection and test records are available upon request for government inspection at any time within a time frame of not less than one year from date of contract.

4.5.2 Vibration. Equipment shall be tested in accordance with type I vibration of MIL-STD-167/1, except that the variable frequency test shall be omitted. Performance requirements shall be as specified in 3.4.1.

4.5.3 Shock. Equipment shall be tested in accordance with the Class HI shock test for grade A, class 1, type C of MIL-S-901. Performance requirements shall be as specified in 3.4.2.

4.5.4 Effectiveness of enclosure. Connection boxes shall be tested in accordance with MIL-STD-108 for submersible (SBM-15) or watertight enclosures as required for the enclosure ratings designated in the applicable specification sheets. Performance during and after the test shall be as specified in 3.4.3.

4.5.5 Dielectric withstanding voltage. Connection boxes shall be tested in accordance with Method 301 of MIL-STD-202. The following details and exceptions shall apply:

- a. Magnitude of test voltage - twice the rated voltage plus 1,000 volts rms.
- b. Nature of potential - AC
- c. Points of applications - between isolated circuits and live parts and ground.
- d. Examination after test - equipment shall be in accordance with requirements specified in 3.4.4.

## 5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When packaging of materiel is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the inventory control point's packaging activity within the military department or defense agency, or within the military department's system command. Packaging data retrieval is available from the managing military department's or defense agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

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## 6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. Terminal connection boxes specified herein are intended for use in electrical and electronic systems primarily on naval ships.

6.2 Acquisition requirements. Acquisition documents should specify the following:

- a. Title, number, and date of this specification.
- b. Symbol number of terminal connection box required and title, number, and date of the applicable specification sheet (see 1.2).
- c. The specific issue of individual documents referenced (see 2.2.1 and 2.3).
- d. Priming or painting of the enclosure exterior, if required (see 3.3.3.5).
- e. Alternate white powder coating finish, if required (see 3.3.3.6).
- f. Type of mounting bracket, if different (see 3.3.4.1).
- g. Alternate mounting bracket, if required (see 3.3.4.2).
- h. Type of information plate required, if other than specified (see 3.5.2).
- i. Inspection test conditions, if other than specified (see 4.2).
- j. Packaging requirements (see 5.1).

6.3 First article inspection. Invitations for bid should provide that the government reserves the right to waive the requirement for samples for first article inspection for those bidders offering a product that has been previously acquired or tested by the government, and that bidders offering such products who wish to rely on such production or test, must furnish evidence with the bid that prior government approval is appropriate for the pending contract.

6.3.1 Approval of the first article inspection report. The contracting officer or his authorized representative will, by written notice to the contractor, waive, approve, conditionally approve, or disapprove the first article inspection report.

6.4 Symbol number. The symbol number is a standard equipment designation. Symbol numbers are listed in publication MIL-HDBK-290.

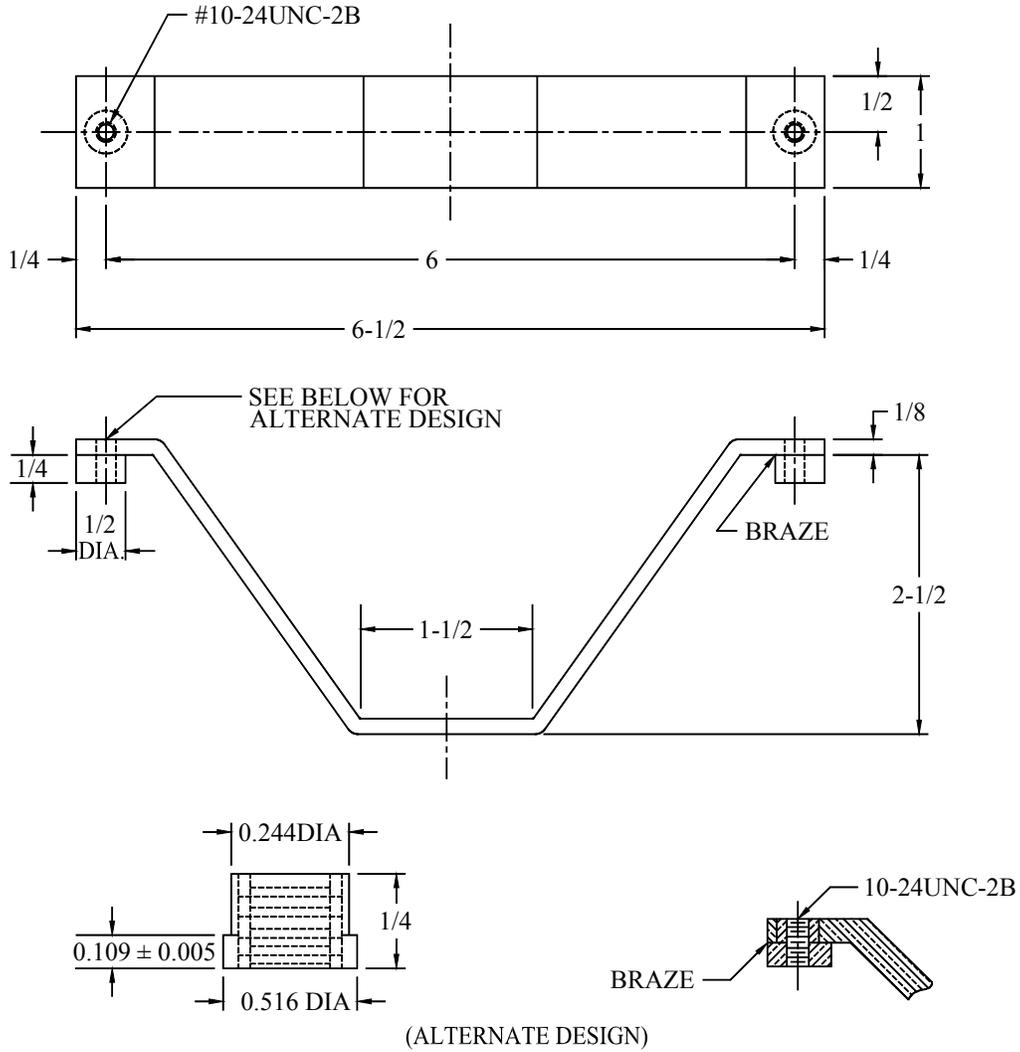
6.5 Stress-corrosion cracking. Stress-corrosion cracking characteristics are of primary concern in material selection for marine service. High residual stresses in tension in certain materials can cause stress-corrosion cracking when it is exposed to a corrosive environment. Stress-corrosion cracking occurs under tensile stresses that are induced into metal parts that are formed by bending or drawing or that are fabricated by welding.

6.6 Sub-contracted material and parts. The preparation for delivery requirements of referenced documents listed in section 2 do not apply when material and parts are acquired by the contractor for incorporation into the equipment. A list of their separate identity is required when the equipment is shipped.

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6.7 Subject term (key word) listing.

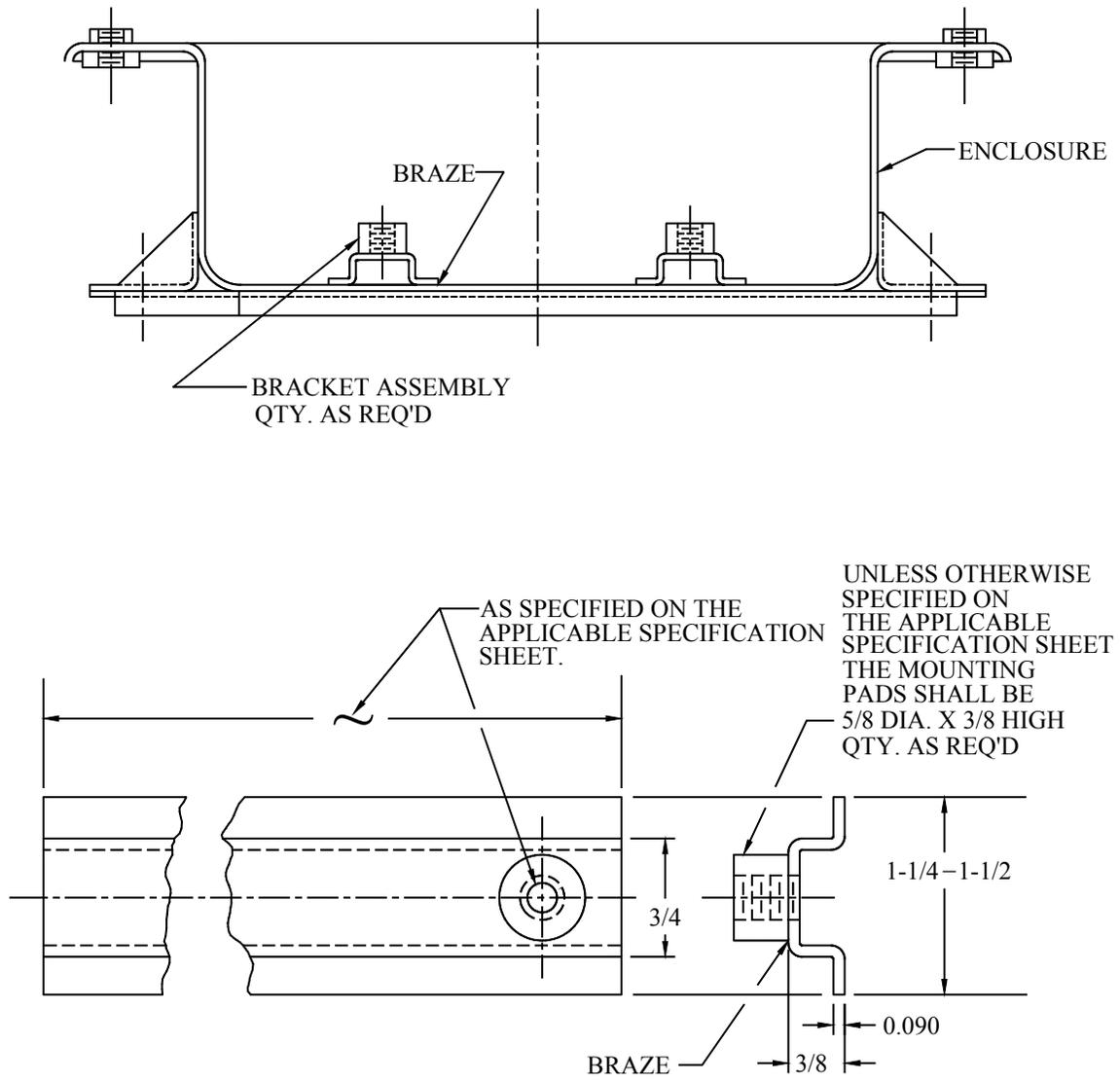
enclosure  
 mounting brackets  
 submersible  
 voltage  
 watertight  
 wire



SH 11566

FIGURE 1. Terminal board mounting bracket.

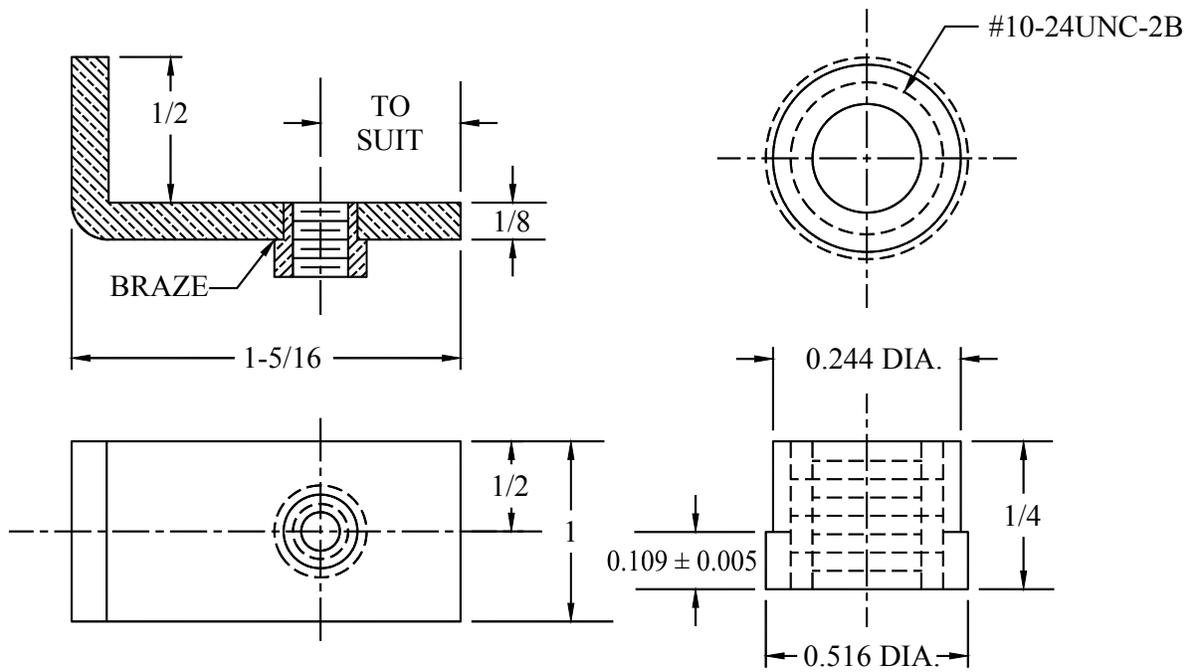
MIL-DTL-24558A



SH 11567

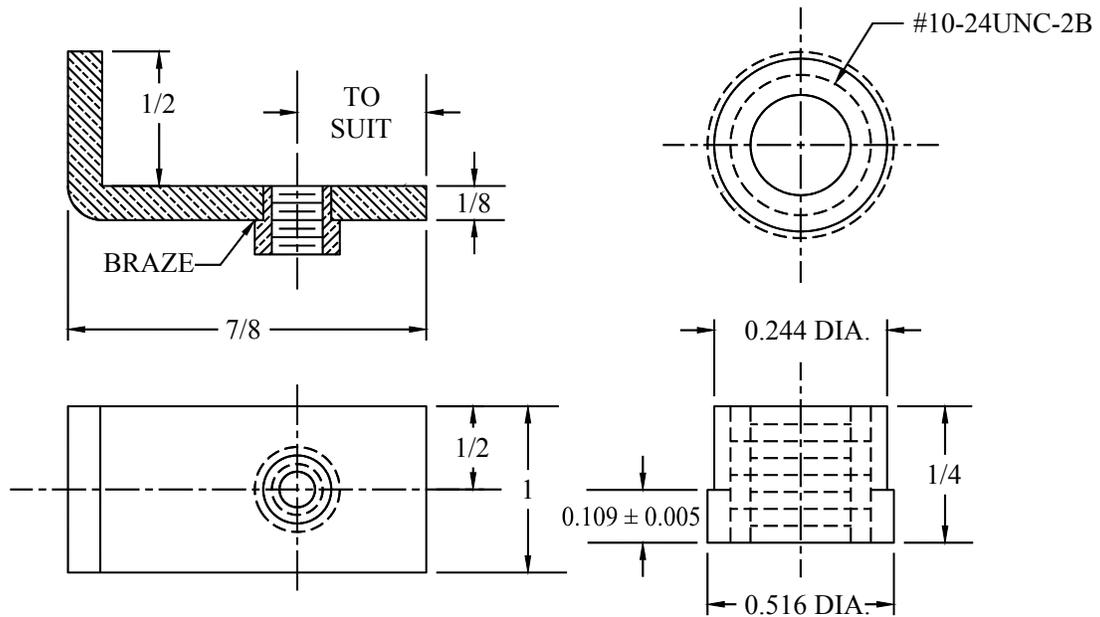
FIGURE 2. Terminal board mounting bracket.

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SH 11568

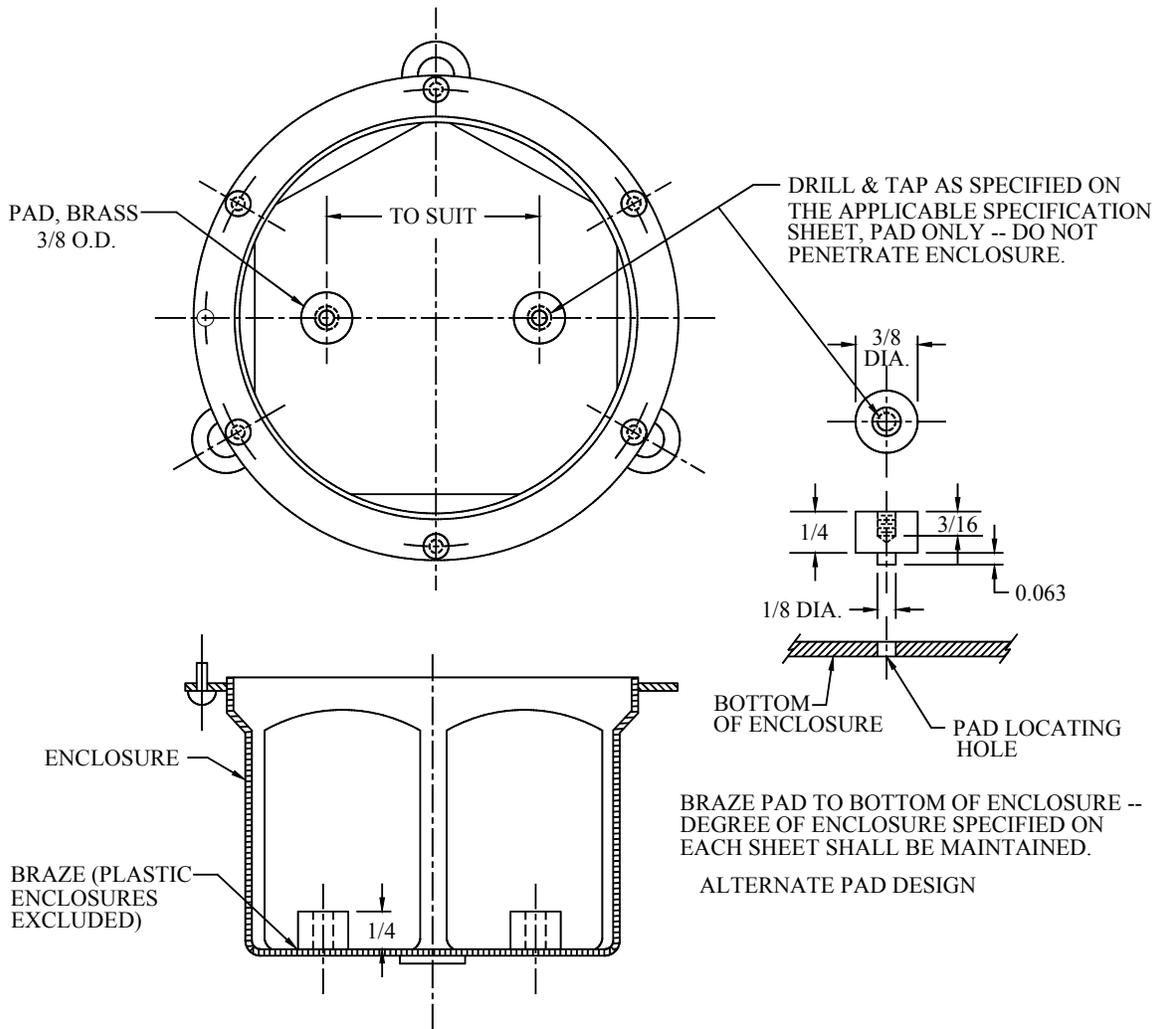
FIGURE 3. Terminal board mounting bracket.



SH 11569

FIGURE 4. Terminal board mounting bracket.

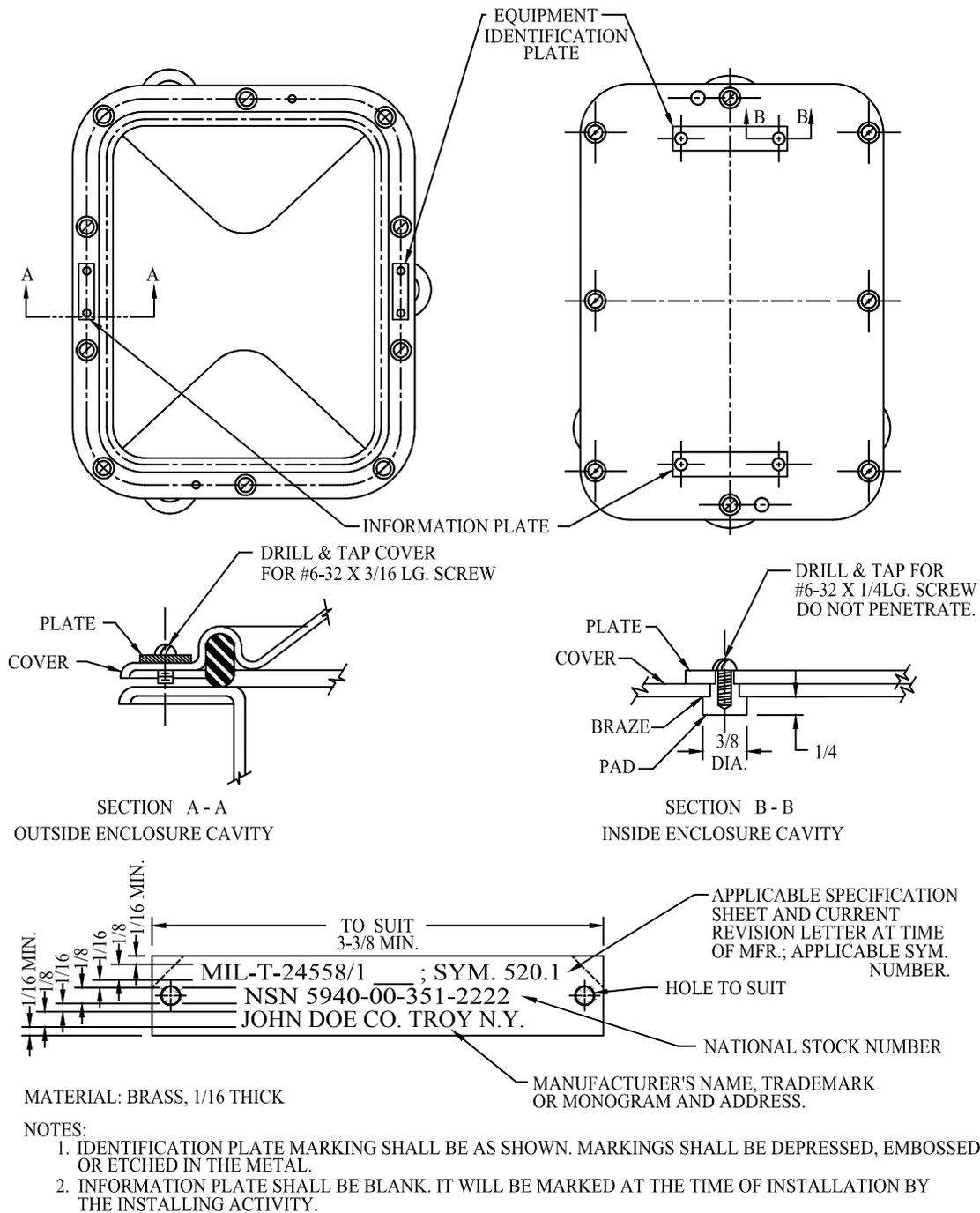
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SH 11570

FIGURE 5. Terminal board mounting pads.

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SH 11571

FIGURE 6. Typical equipment identification and information plates design and installation details.

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Custodian:  
Navy - SH

Preparing Activity:  
DLA - GS2

(Project 5940-1489-000)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST database at <http://assist.daps.dla.mil>.

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APPENDIX A

### A.1 SCOPE

A.1.1 This appendix is not a mandatory part of the specification. The information contained herein is intended for guidance only.

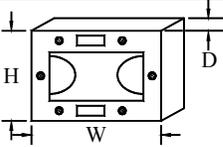
A.1.2 This appendix describes the selection and uses of the various terminal connection boxes.

### A.2 USAGE

A.2.1 Table A-I lists the terminal connection boxes used in electrical but primarily electronic systems (such as communications, and telephone service).

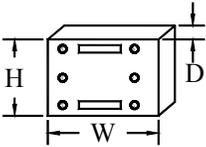
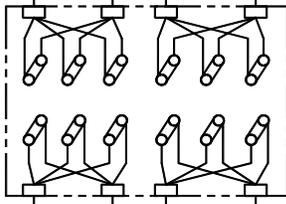
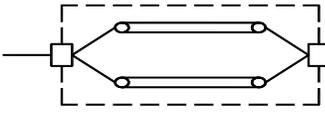
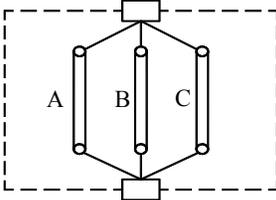
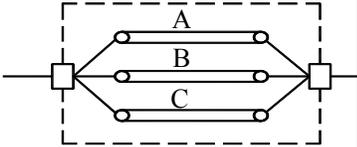
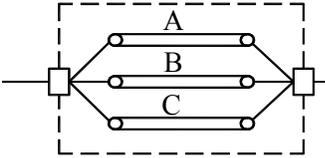
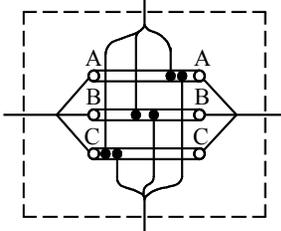
A.2.2 Table A-II lists terminal connection boxes used for connecting electric power cables.

TABLE A-I. Terminal connection boxes for electrical and electronic systems.

| Military specification sheet<br>MIL-T-24558/ | Symbol number | <br>Dimensions<br>HXWXD<br>(inches) | Max. weight (lbs.) | Number of terminals | Max. number of wires | Recommended wire terminal list |                              | Max. number of wires connected to a single terminal |
|--|---------------|--|--------------------|---------------------|----------------------|--------------------------------|------------------------------|---|
|  |               |  |                    |                     |                      | MIL-T-16366 type               | MIL-T-7928 MS-17143 dash no. |   |
| 1  | 520.1         | 4-4/8 Dia. X 2-3/4   | 2.0                | 6                   | 18                   | L-81                           | -4, -5, -6                   | 3   |
| 2  | 435.1         | 6-3/4 Dia. X 4-1/8   | 4.0                | 8                   | 32                   | L-80                           | -1, -2, -3                   | 4   |
| 3  | 528           | 5-3/4 Dia. X 3-1/2   | 3.0                | 10                  | 30                   | L-81                           | -4, -5, -6                   | 3   |
| 4  | 432.1         | 11 X 8 X 5-1/8   | 9.0                | 20                  | 80                   | L-80                           | -1, -2, -3                   | 4   |
| 5  | 434           | 9 X 6 X 5-1/4  | 6.0                | 30                  | 90                   | L-81                           | -4, -5, -6                   | 3   |
| 6  | 433.1         | 11-3/8 X 13-3/8 X 7-5/8  | 18.0               | 40                  | 160                  | L-80                           | -1, -2, -3                   | 4   |
| 7  | 522.1         | 11-3/8 X 13-3/8 X 7-5/8  | 18.0               | 48                  | 144                  | L-81                           | -4, -5, -6                   | 3   |
| 8  | 446           | 13-3/8 X 16-3/8 X 7-5/8  | 25.0               | 60                  | 240                  | L-80                           | -1, -2, -3                   | 4   |
| 9  | 525           | 11-3/8 X 13-3/8 X 7-5/8  | 18.0               | 72                  | 216                  | L-81                           | -4, -5, -6                   | 3   |
| 10   | 438           | 15-3/8 X 20-3/8 X 7-5/8  | 33.0               | 80                  | 320                  | L-80                           | -1, -2, -3                   | 4   |
| 11   | 523.1         | 13-3/8 X 16-3/8 X 7-5/8  | 25.0               | 96                  | 288                  | L-81                           | -4, -5, -6                   | 3   |
| 12   | 450           | 15-3/8 X 27-3/8 X 7-5/8  | 44.0               | 120                 | 480                  | L-80                           | -1, -2, -3                   | 4   |
| 13   | 524.1         | 15-3/8 X 20-3/8 X 7-5/8  | 33.5               | 144                 | 432                  | L-81                           | -4, -5, -6                   | 3   |
| 14   | 451           | 23-3/8 X 17-3/8 X 7-5/8  | 44.5               | 192                 | 576                  | L-81                           | -4, -5, -6                   | 3   |
| 15   | 452           | 27-5/8 X 23-5/8 X 6-7/8  | 90.0               | 200                 | 800                  | L-80                           | -1, -2, -3                   | 4   |
| 16   | 453           | 29-3/8 X 17-3/8 X 7-5/8  | 58.0               | 288                 | 864                  | L-81                           | -4, -5, -6                   | 3   |
| 17   | 454           | 27-5/8 X 23-5/8 X 6-7/8  | 94.0               | 384                 | 1152                 | L-81                           | -4, -5, -6                   | 3   |
| 18   | 400.1         | 4-5/8 Dia. X 2-3/4   | 2.0                | 4                   | 8                    | L-80                           | -1, -2, -3                   | 2   |
| 18   | 400.2         | 5-3/4 Dia. X 3-1/2   | 3.0                | 4                   | 12                   | L-80                           | -1, -2, -3                   | 3   |
| 18   | 400.3         | 5-3/4 Dia. X 3-1/2   | 3.0                | 4                   | 12                   | L-80                           | -1, -2, -3                   | 3   |
| 18   | 400.4         | 4-5/8 Dia. X 2-3/4   | 2.0                | 4                   | 8                    | L-80                           | -1, -2, -3                   | 2   |
| 19   | 444           | 6-3/4 Dia. X 4-1/8   | 3.25               | 4                   | 8                    | L-80                           | -1, -2, -3                   | 4   |
| 20   | 529           | 11 X 8 X 5-1/8   | 9.0                | 10                  | 20                   | L-80                           | -1, -2, -3                   | 4   |

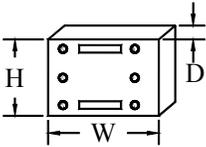
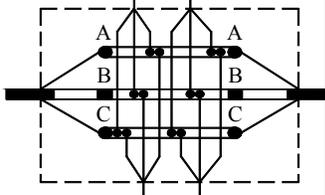
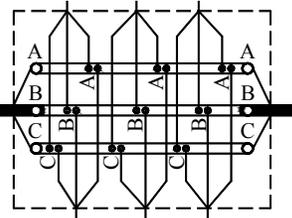
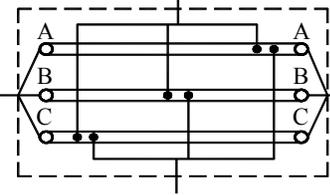
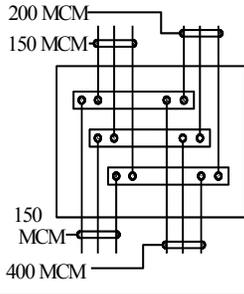
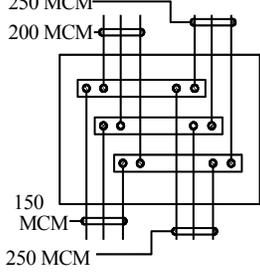
MIL-DTL-24558A  
APPENDIX A

TABLE A-II. Terminal connections boxes for electrical systems (500 volt maximum).

| Military specification sheet<br>MIL-T-24558/ | Symbol number                           | <br>Dimensions<br>HXWXD<br>(inches) | Wiring diagram<br>(Note entry of cables)   | Cable size<br>MCM-MAX.                            |        | Max. weight<br>(lbs.) |
|--|---|--|--|---|--------|-----------------------|
|  |   |  |  | Bus   | Branch |                       |
| 21   | 476.1                                   | 11-3/8 X 13-3/8 X 7-5/8  |    | 23/23   |        | 21.0                  |
| 22   | 415<br>415.1<br>415.2<br>415.3<br>415.4 | 11-3/8 X 13-3/8 X 7-5/8  |    | 75/75<br>100/100<br>125/125<br>150/150<br>200/200 |        | 23.0                  |
| 23   | 403.1                                   | 9 X 6 X 5-1/4  |   | 75/75   |        | 7.0                   |
| 24   | 416                                     | 11 X 8 X 5-1/8   |  | 75/75   |        | 10.0                  |
| 25   | 418.1<br>418.2<br>418.3                 | 16-3/8 X 15-3/8 X 7-5/8  |  | 250/250<br>300/300<br>400/400                     |        | 34.5                  |
| 26   | 572.1                                   | 13-3/8 X 16-3/8 X 7-5/8  |  | 75/75   | 40/40  | 29.9                  |

MIL-DTL-24558A  
APPENDIX A

TABLE A-II. Terminal connections boxes for electrical systems (500 volt maximum) - Continued.

| Military specification sheet<br>MIL-T-24558/ | Symbol number | <br>Dimensions<br>HXWxD<br>(inches) | Wiring diagram<br>(Note entry of cables)   | Cable size<br>MCM-MAX. |        | Max. weight<br>(lbs.) |
|--|---------------|--|--|------------------------|--------|-----------------------|
|  |               |  |  | Bus                    | Branch |                       |
| 27   | 573.1         | 13-3/8 X 19-3/8 X 7-5/8  |    | 75/75                  | 40     | 36.8                  |
| 28   | 574.1         | 13-3/8 X 23-3/8 X 7-5/8  |    | 75/75                  | 40     | 36.8                  |
| 29   | 575.1         | 13-3/8 X 16-3/8 X 7-5/8  |   | 200/200                | 75/75  | 32.0                  |
| 30   | 576.1         | 23-5/8 X 27-5/8 X 6-7/8  |  | see wiring diagram     |        | 81.4                  |
|  | 577.1         |  |  |                        |        | 81.4                  |