

[INCH-POUND]
MIL-DTL-44258B
19 June 1998
SUPERSEDING
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17 March 1990

DETAIL SPECIFICATION

ELECTRICAL DISTRIBUTION ASSEMBLIES FOR TENT, EXTENDABLE, MODULAR, PERSONNEL (TEMPER)

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

1. SCOPE

1.1 Scope. This detail specification covers electrical distribution assemblies and accessories for use with the TEMPER tent.

1.2 Classification. The electrical distribution assemblies are of the following types as specified (see 6.2).

- Type I - 120 volt single phase, direct connect style distribution box
- Type II - 208 volt three phase, direct connect style distribution box
- Type III - 120 volt single phase, receptacle style distribution box
- Type IV - 208 volt three phase, receptacle style distribution box

Beneficial comments (recommendations, additions, deletions) and any data which may be of use in improving this document should be sent to: Defense Supply Center Richmond, ATTN: DSCR-VBD, 8000 Jefferson Davis Highway, Richmond, VA 23297-5610 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 6150

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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2. APPLLICABLE 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 in other section of the 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 documents cited in section 3 and 4 of this specification, whether or not they are listed.

2.2 Government documents.

2.2.1 Government documents, drawings, and publications. The following other Government documents, drawing, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

Drawings

U.S. ARMY NATICK RESEARCH, DEVELOPMENT AND ENGINEERING CENTER

1-6-6011	Power Control Type I/120V
1-6-6026	Power Control Type II/208V
1-6-6041	Power Control Type III/120V
1-6-6056	Power Control Type IV/208V
1-6-6016	Convenience Outlet Type I and II
1-6-6046	Convenience Outlet Type III
9-1-0190	Convenience Outlet, Type III, GFCI
1-6-6005	Power Panel Stand Assembly
1-6-6006	Mounting Plate
1-6-6007	Foot, Stand
1-6-6008	U-Bracket
1-6-6009	Tube, Outer
1-6-6010	Tube, Inner
1-6-6043	Cable Assembly Outlet Type III
1-6-6058	Cable Assembly Outlet Type IV
1-6-6044	Cable Assembly Light Type III & IV
1-6-6047	Extension Cable Type III & IV
1-6-6048	Light Cable Type III & IV
1-6-6013	Cable Assembly Outlet Type I
1-6-6028	Cable Assembly Outlet Type II
1-6-6014	Cable Assembly Light Type I & II
1-6-6017	Extension Cable Type I & II
1-6-6018	Light Cables Type I & II

(Copies of drawings are available from the U.S. Army Natick Research, Development, and Engineering Center, ATTN: STRNC-EMSS, Natick, MA 01760-5014.)

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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 the documents which are DoD adopted are those listed in the issue of the DoDISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DoDISS are the issues of the documents cited in the solicitation (see 6.2).

American National Standards Institute (ANSI)

ANSI Z1.4-1994 Sampling Procedures and Tables for Inspection by
Attributes (DoD adopted)

Applications for copies should be sent to: American National Standards Institute, 11 West
42nd Street, New York, NY 10036.

Underwriters Laboratories Inc. (UL)

UL 817 Cord Sets and Power Supply Cords

Applications for copies should be sent to: Underwriters Laboratories Inc., 333 Pfingsten
Road, Northbrook, IL 60062.

2.4 Order of precedence. In the event of a conflict between the test of this document and the references cited herein (except for related associated specifications or specification sheets), the text of the 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. When specified (see 6.2), a sample shall be subjected to first article inspection in accordance with 4.2.

3.2 Materials and components. Materials and components shall be as specified on the drawings referenced herein. When substitute components are proposed, the contractor shall submit to the responsible agency a listing of all substitute components, samples of the components, and supporting data which proves the functional equivalence and design compatibility of the items. Approval of the submitted listing authorizes construction of the first article.

3.3 Construction. Construction shall conform in all respects to the drawings listed in section 2 and as specified herein.

3.4 Convenience outlets. Convenience outlets shall be furnished as specified (see 6.3).

3.5 Accessories. Accessories shall be furnished when specified (see 6.3).

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3.6 Cable assembly tests. The electrical cable assemblies shall have a direct current resistance of less than 1 ohm when tested for electrical continuity as specified in 4.4.1. In addition, the insulation resistance shall be greater than 100 megohms when tested as specified in 4.4.2.

3.7 Distribution box tests. The electrical distribution boxes shall have a direct current resistance of less than 1 ohm when tested for electrical continuity as specified in 4.4.3.

3.8 Convenience outlet tests. The convenience outlets shall have a direct current resistance of less than 1 ohm when tested for electrical continuity as specified in 4.4.1. In addition, the insulation resistance of all cables shall be greater than 100 megohms when tested as specified in 4.4.2.

4 VERIFICATION

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

- a. First article inspection (see 4.2).
- b. Conformance inspection (see 4.3).

4.2 First article inspection. When a first article is required (see 6.2), it shall be examined for the defects specified in 4.3.2 and 4.3.3 and tested in accordance with section 4.3.4. Any nonconformance or test failure shall be cause for rejection.

4.3 Conformance inspection. Unless otherwise specified (see 6.2), conformance inspection shall consist of sections 4.3.1 through 4.3.2. Sampling for inspection shall be performed in accordance with ANSI Z1.4.

4.3.1 Component and material inspection. In accordance with 3.2, components and materials shall be inspected for compliance with all the requirements of referenced documents unless otherwise excluded, amended modified, or qualified in this specification or applicable purchase document.

4.3.2 End item visual examination. The end items shall be examined for the defects listed below. The lot size shall be expressed in units of electrical distribution assemblies of one type only.

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<u>Examine</u>	<u>Defect</u>
Distribution boxes	Broken Malformed Switches fail to operate Corroded areas Burrs or sharp edges Welds containing any pits, protrusions, or voids
Distribution box Stands	Broken Malformed Corroded areas Burrs or sharp edges Welds improperly located Welds containing any pits, protrusions, or voids
Cable wires	Evidence of burns, cracking, abrasions, cuts, or pinch marks
Soldered connections	Rough or incomplete Poorly formed Lack of adherence Presence of protrusions, pits, or voids Not properly insulated
Cleanliness	Grease or oil stain on components, excess flux or solder
Marking and labels	omitted, incorrect, illegible, or misplaced

4.3.3 End item dimensional examination. The end items shall be examined for conformance to the dimensions specified on the drawings. Only those dimensions that can be evaluated without damaging or disassembling the end items shall be examined. Any dimension not within the specified tolerance shall be classified as a defect. The lot size shall be expressed in units of electrical distribution assemblies of one type only.

4.3.4 End item testing. The end item shall be tested for the characteristics listed below. The lot size shall be expressed in units of electrical distribution assemblies of one type only. The sample unit shall be the number of assemblies indicated by the inspection level. Any test failure shall be

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cause for rejection of the lot.

<u>Characteristic</u>	<u>Requirement Paragraph</u>	<u>Test Method Paragraph</u>
Electrical continuity	3.6, 3.8	4.4.1
Insulation resistance	3.6, 3.8	4.4.2
Distribution box continuity	3.7	4.4.3

4.3.5 Packaging examination. The fully packaged end items shall be examined for the defects listed below. The lot size shall be expressed in units of shipping containers. The sample unit shall be on shipping container fully packaged.

<u>Examine</u>	<u>Defect</u>
Marking (exterior and interior)	Omitted; incorrect; illegible; improper size, location, sequence, or method of application
Materials	Any component missing, damaged, or not as specified
Workmanship	Inadequate application of components, such as: incomplete sealing or closure of flap, improper taping, loose strapping, or inadequate stapling; bulged or distorted container
Content	Number per container is more or less than required

4.3.6 Palletization examination. The fully packaged and palletized end items shall be examined for the defects listed below. The lot size shall be expressed in units of palletized unit loads. The sample unit shall be one palletized unit load, fully packaged.

<u>Examine</u>	<u>Defect</u>
Finished dimensions	Length, width, or height exceeds specified maximum requirement
Palletization	Pallet pattern not as specified. Interlocking of loads not as specified. Load not bonded as specified
Weight	Exceeds maximum load limits
Marking	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application

4.4 Inspection tests.

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4.4.1 Electrical continuity for cable assemblies. Each conductor in the electrical cable assembly shall be tested in accordance with UL 817 paragraph 101.2. Measurement shall be made between connector pins which are mutually common to each other electrically. The continuity for each pin shall be checked for compliance with the continuity requirement of 3.6 and 3.8. Failure to comply shall be considered a test failure.

4.4.2 Insulation resistance for cable assemblies. The cable assembly shall be tested in accordance with UL 817 paragraph 87. Insulation resistance measurement shall be made between the mutually insulated points and between insulated points and connector shell or ground. Each resistance measurement shall be checked for compliance with the continuity requirement of 3.6 and 3.8. Failure to comply shall be considered a test failure.

4.4.3 Electrical continuity of distribution boxes. Each circuit in the electrical distribution box shall be tested for continuity. The continuity for each pin shall be checked for compliance with the continuity requirements of 3.7. Failure to comply shall be considered a test failure.

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of material is to be performed by DoD 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.

6. NOTES

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

6.1 Intended use. The electrical distribution assemblies are designed to supply adequate electrical power to lighting fixtures and to the electrical outlets of the TEMPER.

6.2 Acquisition requirements. Acquisition documents must specify the following:

- a. Title, number, and date of this document.
- b. Type of electrical distribution assembly required (see 1.2).
- c. Issue of DoDISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.3).
- d. First article, if required (see 3.1).

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- e. Convenience outlet, specify Type I and II, Type III, or Type III GFCI (see 3.4).
- f. Accessories, list required accessories (see 3.5)
- g. Quality conformance, specify sampling requirements (see 4.3).
- h. Packaging requirements (see 5.1).

6.3 Part identification number (PIN). The PIN to be used for electrical distribution assemblies acquired to this specification are created as follows:

<u>M</u>	<u>44258-</u>	<u>X</u>
Prefix for military specification	Specification number	Type (see 1.2)

6.4 Subject term (key word) listing.

Box
Electric receptacle
Extension
Lighting
Outlet
Power supply

MILITARY INTERESTS:

Custodians

Army - GL

Air Force - 99

Reviewer

Air Force - 82

PREPARING ACTIVITY:

DLA - GS

(Project 6150-0292)

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of 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.

I RECOMMEND A CHANGE:

1. DOCUMENT NUMBER

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2. DOCUMENT DATE (YYMMDD)

980317

3. DOCUMENT TITLE

ELECTRICAL DISTRIBUTION ASSEMBLIES FOR TENT, EXTENDABLE, MODULAR, PERSONNEL (TEMPER)

4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME (Last, First, Middle Initial)

b. ORGANIZATION

c. ADDRESS (Include Zip Code)

d. TELEPHONE (Include Area Code)

(1) Commercial

(2) AUTOVON

(If applicable)

7. DATE SUBMITTED

(YYMMDD)

8. PREPARING ACTIVITY

a. NAME

b. TELEPHONE (Include Area Code)

(1) Commercial

(2) AUTOVON

c. ADDRESS (Include Zip Code)

IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT:

Defense Quality and Standardization Office

5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3466

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