

INCH-POUND

MIL-DTL-83521B
5 September 2003
SUPERSEDING
MIL-M-83521A
24 July 1987

DETAIL SPECIFICATION

MAINTENANCE KITS, ELECTRICAL CONNECTORS, 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 a maintenance kit used for repair and maintenance of electrical connectors (see 6.1).

1.2 Part or Identifying Number (PIN). The PIN is specified on the applicable specification sheet (see 3.1).

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 documents cited in sections 3 and 4 of this specification, whether or not they are listed.

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 listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATIONS

FEDERAL

- A-A-1936 - Adhesive, Contact, Neoprene Rubber.
- A-A-59135 - Packaging Material, Sheet.
- A-A-59136 - Cushioning Material, Packaging, Closed Cell Foam Plank.
- MMM-A-132 - Adhesive, Heat Resistant, Airframe Structural, Metal to Metal.
- MMM-A-134 - Adhesive, Epoxy Resin, Metal to Metal Structural Bonding.

Comments, suggestions, or questions on this document should be addressed to: Defense Supply Center Columbus, ATTN: VAI, 3990 East Broad Street, Columbus OH 43216-5000 or emailed to CircularConnector@dsc.c.dla.mil. Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online-database at www.dodssp.daps.mil.

AMSC N/A

FSC 5935

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

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DEPARTMENT OF DEFENSE

- MIL-P-19834 - Plates, Identification, Metal Foil, Adhesive Backed.
- MIL-DTL-22520 - Crimping Tools, Wire Termination, General Specification for.
- MIL-F-81334 - Foam, Plastic, Flexible, Open Cell, Polyester Type Polyurethane.
- MIL-I-81969 - Installing and Removal Tools, Connector Electrical Contact, General Specification for.

STANDARDS

FEDERAL

- FED-STD-595 - Colors used in Government Procurement.

DEPARTMENT OF DEFENSE

- MIL-STD-130 - Identification Marking of US Military Property.
- MIL-STD-202 - Electronic and Electrical Component Parts.
- MIL-STD-810 - Environmental Engineering Considerations and Laboratory Tests.

(Unless otherwise indicated, copies of the above specifications, standards and handbooks are available from the Defense Printing Service Detachment Office, Building 4D, Customer Service, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein (except for related associated specifications or 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 Specifications sheets. The individual item requirements shall be as specified herein and in accordance with the applicable specification sheet. In the event of any conflict between the requirements of this specification and the specification sheet, the latter shall govern.

3.1.1 First article. When specified, a sample shall be subjected to first article inspection in accordance with 4.3.

3.2 Materials. Materials shall be as specified herein. However, when a definite material is not specified, a material shall be used which will enable the kits to meet the performance requirements of this specification and the applicable specification sheet. Acceptance or approval of any constituent material shall not be construed as a guaranty of the acceptance of the finished product.

3.2.1 Cases. Unless otherwise specified (see 3.1), the case shall be of the following categories.

3.2.1.1 Category 1. Ruggedized cases. For requirements, see applicable specification sheets.

3.2.1.2 Category 2. Environmental case shall meet the following requirements of MIL-STD-810, methods 500, 501 procedure II, 502, 505 procedure II, 506, 507 procedure II, 508, 509, 510, 512 procedure I, 514 procedure XI, 516 procedure II, except drop shall be on top and bottom only, unless otherwise specified.

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3.2.1.3 Category 3. Nonenvironmental cases shall meet accepted commercial practices (see 3.1).

3.2.2 Adhesives. Unless otherwise specified, adhesive shall be in accordance with A-A-1936, MMM-A-132, or MMM-A-134.

3.2.3 Cushioning material. Unless otherwise specified, cushioning material shall be in accordance with A-A-59135, A-A-59136 or MIL-F-81334.

3.3 Design and construction. Kits shall be of the design, construction, and physical dimensions specified (see 3.1).

3.3.1 Cases. Cases, metal or fiberglass shall be designed as specified (see 3.1).

3.3.2 Color. The kit color shall be in accordance with FED-STD-595.

3.3.3 Installing and removal tools. Unless otherwise specified, all installing and removal tools shall be in accordance with MIL-I-81969, or approved equivalent.

3.3.4 Crimping tools, dies, turret, positioners, and gauges. Unless otherwise specified, all crimping tools, dies, turrets, positioners, and gauges shall be in accordance with MIL-DTL-22520, or approved equivalent.

3.4 Marking. All marking shall be in accordance with MIL-STD-130 and shall be permanent and tangible.

3.4.1 Nameplates. Nameplates on tool cases shall be marked with information as specified (see 3.1). The plates shall be .003 to .005 inch (.0762 to .127 mm) thick aluminum foil in accordance with MIL-P-19834 and shall be permanently mounted. Marking shall be black on a light background.

3.4.2 Content charts and instruction sheets. Content charts and instruction sheets shall be white vinyl .020 inch (.508 mm) thick or approved equivalent with black lettering. The lettering shall be protected with a transparent coating.

3.5 Workmanship. The tool cases and tools contained therein shall have not sharp edges, burrs, or other features which are potential personal hazards to the operator during normal usage.

4. VERIFICATION

4.1 Classification of inspection. 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. First article inspection shall consist of certification supported by verifying data that the materials and components, as specified herein and in the specification sheets (see 3.1), used in fabricating the kits, are in accordance with the applicable referenced specifications or requirements prior to such fabrication.

4.3 Conformance inspection.

4.3.1 Inspection of product for delivery. Inspection of product for delivery shall consist of group A inspection.

4.3.1.1 Inspection lot. An inspection lot shall consist of all tool kits covered by a single specification sheet, produced under essentially the same conditions, and offered for inspection at one time.

4.3.1.2 Group A inspection. Group A inspection shall consist of the inspections specified in table I, in the order shown.

TABLE I. Group A inspection. 1/

Inspection	Requirement paragraph	Test method paragraph
Visual and mechanical inspection		
Material	3.1, 3.2	4.6.1
Finish	3.1, 3.2	4.6.1
Marking	3.4	4.6.1
Workmanship.	3.5	4.6.1

1/ One hundred percent inspection, no failures allowed.

4.3.1.2.1 Rejected lots. If an inspection lot is rejected, the contractor may rework it to correct the defects, or screen out the defective units, and resubmit for reinspection. If one or more defects are found, the lot shall not be supplied to this specification.

4.3.1.2.3 Disposition of group A sample. The kit which has passed group A Inspection may be delivered on the contract if the lot is accepted.

4.3.2 Inspection of packaging. The inspection of the preservation, packing and container marking shall be as specified (see 5.1 and 6.2).

4.4 Inspection conditions. Unless otherwise specified herein, all inspections shall be performed in accordance with the test conditions specified in the "GENERAL REQUIREMENTS" of MIL-STD-202.

4.6 Methods of inspection.

4.6.1 Visual and mechanical inspection. The kit and contents shall be examined to verify that the design, construction, physical dimensions, markings, and workmanship are in accordance with applicable requirements (see 3.1, 3.2, 3.3, 3.4, and 3.5).

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 a materiel 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. Kits and contents therein covered by this specification are intended to be used for repair and maintenance of electrical connectors, contacts, and other components equipment as specified.

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6.2 Acquisition requirements. Acquisition documents must specify the following:

- a. Title, number, and date of the specification.
- b. Issue of the DoDISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.2).
- c. Packaging requirements (see 5.1).
- d. PINs for tool kits as required.
- e. Quantity of kits desired.

6.3 Subject term (key word) listing.

Connectors
Electrical
Maintenance kit

CONCLUDING MATERIAL

Custodians:

Army - CR
Navy - AS
Air Force - 11
DLA - CC

Preparing activity:

DLA - CC

(Project 5935-4423-000)

Review activities:

Army - AR, AT, AV, CR4, GL
Navy - MC, OS, SH
Air Force - 19, 99