

MILITARY  
SPECIFICATION

MIL-C-10544C(SigC)  
27 September 1962  
Superseding  
MIL-C-10544B(SigC)  
1 July 1960

CONNECTORS, PLUG AND RECEPTACLE  
(ELECTRICAL, AUDIO, WATERPROOF, TEN CONTACT, POLARIZED)

1. SCOPE

1.1 Scope.- This specification covers waterproof, polarized, ten contact, electrical connectors (See 6.3) (plugs and receptacles) designated (See 6.4) as follows:

Connector, Plug, U-77( )/U (Rigid Contacts, mates with all non-rigid contact plugs and receptacles)

Connector, Plug, U-78( )/U (Non-rigid contacts, mates with all rigid contact plugs and receptacles)

Receptacle Connector, U-79( )/U (Non-rigid contacts, mates with all rigid contact plugs)

Connector, Receptacle, U-126( )/U, (Rigid contacts, mates with all non-rigid contact plugs)

Connector, Plug, U-127( )/U (Rigid contacts, right angle, mates with U-79( )/U and U-165( )/U connectors)

Connector, Plug, U-128( )/U (Non-rigid contacts, right angle, mates with U-126( )/U connector and all receptacles)

Connector, Plug, Electrical, U-161( )/U (Rigid contacts, mates with all non-rigid contact plugs and receptacles)

Connector, Plug, Electrical, U-162( )/U (Non-rigid contacts, mates with all rigid contact plugs and receptacles)

Connector, Plug, Electrical, U-163( )/U (Rigid contacts, right angle, mates with U-79( )/U and U-165( )/U connectors)

Connector, Plug, Electrical, U-164( )/U (Non-rigid contacts, right angle, mates with U-126( )/U connector)

Connector, Receptacle, Electrical, U-165( )/U (Non-rigid contacts, mates with all rigid contact plugs)

2. APPLICABLE DOCUMENTS

2.1 Documents.- The following documents of the issue in effect on date of invitation for bids, form a part of this specification to the extent specified herein:

SPECIFICATIONS

## MIL-C-10544C(S:9C)

## FEDERAL

PPP-B-621  
 PPP-B-636  
 PPP-P-291  
 PPP-T-76

Boxes, Wood, Nailed and Lock-Corner  
 Box, Fiberboard  
 Paperboard, Wrapping, Cushioning  
 Tape, Pressure-Sensitive Adhesive, Paper, Water  
 Resistant

## MILITARY

MIL-P-116  
 MIL-M-13231  
 MIL-F-14072

Preservation, Methods of  
 Marking of Electronic Items  
 Finishes for Ground Signal Equipment

## STANDARDS

## MILITARY

MIL-STD-105  
 MIL-STD-129  
 MIL-STD-170  
 MIL-STD-202

Sampling Procedures and Tables for Inspection by  
 Attributes  
 Marking for Shipment and Storage  
 Moisture Resistance Test Cycle for Ground Signal  
 Equipment  
 Test Methods for Electronic and Electric Component  
 Parts

## DRAWINGS

## SIGNAL CORPS

SC-DL-22728  
 SC-DL-34036  
 SC-DL-34037  
 SC-DL-34038  
 SC-DL-34039  
 SC-A-46439  
 SC-DL-68417  
 SC-DL-83049  
 SC-DL-99587  
 SC-DL-99590  
 SC-DL-105995  
 SC-DL-106000

Connector, Receptacle, Electrical, U-165( )/U  
 Connector, Plug, Electrical, U-161( )/U  
 Connector, Plug, Electrical, U-162( )/U  
 Connector, Plug, Electrical, U-163( )/U  
 Connector, Plug, Electrical, U-164( )/U  
 List of Accessories for Package Tester  
 Connector, Plug, U-77( )/U  
 Receptacle Connector, U-79( )/U  
 Connector, Plug, U-78( )/U  
 Connector, Receptacle, U-126( )/U  
 Connector, Plug, U-127( )/U  
 Connector, Plug, U-128( )/U

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(Copies of specifications, standards, and drawings, required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer. Both the title and number or symbol should be stipulated when requesting copies.)

### 3. REQUIREMENTS

3.1 Construction. - The connectors shall be constructed in accordance with the following:

Connector, Plug	U-77( )/U	SC-DL-68417
Connector, Plug	U-78( )/U	SC-DL-99587
Receptacle Connector	U-79( )/U	SC-DL-83049
Connector, Receptacle	U-126( )/U	SC-DL-99590
Connector, Plug	U-127( )/U	SC-DL-105995
Connector, Plug	U-128( )/U	SC-DL-106000
Connector, Plug, Electrical	U-161( )/U	SC-DL-34036
Connector, Plug, Electrical	U-162( )/U	SC-DL-34037
Connector, Plug, Electrical	U-163( )/U	SC-DL-34038
Connector, Plug, Electrical	U-164( )/U	SC-DL-34039
Connector, Receptacle, Electrical	U-165( )/U	SC-DL-22728

3.2 Preproduction samples. - The contractor shall furnish the following preproduction samples for each type of connector on order for approval provided the invitation for bids and contract require samples (See 4.3):

- 18 assembled connectors
- 1 unassembled connector
- 6 applicable mating connectors

3.3 Castings. - Castings shall be of uniform quality and condition and free from cracks, harmful shrinkage, porosity, gas holes, foreign matter, and other injurious defects. The surface of the castings shall be free from pits, parting lines, porous areas, fins, ridges, modules, raised metal, and scale. All castings shall be completely cleaned prior to presentation for inspection. Castings shall not be plugged or welded, nor shall imperfections be filled in.

### 3.4 Cleaning. -

3.4.1 Parts. - After fabrication, parts shall be cleaned in accordance with good commercial practice, or as specified in an applicable document. Cleaning processes shall have no deleterious effect. Corrosive material shall be removed completely.

3.4.2 Connectors. - After assembly, connectors shall be cleaned thoroughly and shall be free from particles of solder, flux, and other foreign material. In addition, when necessary, such cleaning shall also be performed before final assembly of the connectors.

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3.5 Finish.- Connectors shall be finished in accordance with Specification MIL-F-14072 and the connector drawings. (See 4.4)

3.6 Marking.- Marking shall conform to Specification MIL-M-13231. (See 4.4)

3.7 Interchangeability.- Like connectors and subassemblies of like connectors shall be physically and functionally interchangeable without modification of such items. (See 4.6) Individual parts shall not be hand-picked for fit.

3.8 Contact depression.- The force required to depress the contacts of connectors with non-rigid contacts to a distance of 0.135 inch from the front edge of the shell shall not exceed 25 pounds. The contact resistance (see 3.9) shall not change. (See 4.7)

3.9 Contact resistance.- The electrical resistance of each non-rigid contact shall be such that the terminal-to-terminal resistance of mated connector contacts shall not exceed 0.015 ohm (see 4.8).

3.10 Dielectric strength.- The connectors shall show no evidence of breakdown when subjected to a potential of 500 volts rms, 60 cycles per second, for a minimum of one minute. (See 4.9 and 4.9.1)

3.11 Insulation resistance.- The insulation resistance shall be not less than 1000 megohms except for unmated connectors following the immersion test when it shall be not less than 100 megohms. (See 4.10)

3.12 Air pressure.- The connector shall show no leakage when subjected to pressure of 2.5 psi applied to the contact face and then to the rear of the connector. (See 4.11)

3.13 Bounce.- After being tested as specified in paragraph 4.12, there shall be no evidence of loose parts or physical damage other than surface abrasion.

3.14 Drop.- After being tested as specified in paragraph 4.13, the connectors shall show no evidence of physical damage which affects matability nor shall there be any loose parts.

3.15 Durability.- Connectors shall show no mechanical damage and shall meet the requirements specified for contact resistance, dielectric strength, and air pressure after being tested as specified in paragraph 4.14.

3.16 Immersion.- Following immersion as specified in paragraph 4.15, there shall be no evidence of leakage into the body of unmated connectors or on the contact face area of mated connectors and the connectors shall meet the requirement specified for insulation resistance.

3.17 Moisture resistance.- After being tested as specified in paragraph 4.16, connectors shall have an insulation resistance of not less than 100 megohms.

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3.18 Pull. - Mated connectors shall withstand an axial pull of less than 40 pounds applied to the shell and 25 pounds applied to the cable. The force shall be applied abruptly. (See 4.17)

3.19 Salt spray. - There shall be no evidence of base metal corrosion when the connectors are tested as specified in paragraph 4.18.

3.20 Temperature cycling. - At the extreme temperatures during the test specified in paragraph 4.19, the connectors shall be capable of being mated and unmated. The contact resistance of connectors with non-rigid contacts shall be 5.0 ohms or less at the low extreme. After the test, the contact resistance of connectors with non-rigid contacts shall be as specified in paragraph 3.9.

3.21 Vibration. - When mated connectors are tested as specified in 4.20, there shall be no evidence of cracking, breaking, or loosening of parts, and the plug shall not become disengaged from the receptacle. The connectors shall meet the requirements specified for contact resistance, dielectric strength and insulation resistance following the test.

3.22 Workmanship. - The connectors shall be manufactured and assembled in accordance with the applicable portions of the following paragraphs herein:

3.3 Castings

3.4 Cleaning

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Contractor's responsibility. - The supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified, the supplier may utilize his own or any other inspection facilities and services acceptable to the Government. Inspection records of the examination and tests shall be kept complete and available to the Government as specified in the contract. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure that supplies and services conform to prescribed requirements.

4.2 Classification of inspection. - Inspection shall be classified as follows:

(a) Preproduction inspection (does not include preparation for delivery). (See 4.3.)

(b) Acceptance inspection.

(1) Acceptance inspection before preparation for delivery. (See 4.4 and 4.5.)

(2) Acceptance inspection of preparation for delivery. (See 4.22.)

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**4.3 Preproduction inspection.**- This inspection will be performed by the Government unless otherwise specified in the contract. It shall consist of the preproduction inspection specified in table I, the inspection specified in the subsidiary documents covering the items listed in 4.4, and the inspection specified for group A, group B, and group C (see tables II, III, and IV, respectively). The preproduction inspection will normally be performed in this order: (1) vibration, (2) bounce, (3) shock, drop, and (4) immersion; other preproduction inspection may precede, follow, or be interspersed between the foregoing.

Table I.- Preproduction inspection

Inspection (For additional preproduction inspection see 4.3)	Req Para	Insp Para
Bounce	3.13	4.12
Drop	3.14	4.13
Moisture resistance	3.17	4.16
Temperature cycling	3.20	4.19

**4.4 Acceptance inspection covered by subsidiary documents.**- The following shall be inspected under the applicable subsidiary documents as part of the acceptance inspection before preparation for delivery:

<u>Item</u>	<u>Where required</u>
Finish	3.5
Marking	3.6

**4.5 Acceptance inspection of equipment before preparation for delivery.**- The contractor, to demonstrate compliance with specified requirements, shall perform the inspection specified in 4.4 and 4.5.1 through 4.5.4. This does not relieve the contractor of his responsibility for performing any additional inspection which is necessary to control the quality of the product and to assure compliance with all specification requirements. The Government will review and evaluate the contractor's inspection procedures and examine the contractor's inspection records. In addition, the Government--at its discretion--may perform all or any part of the specified inspection, to verify the contractor's compliance with specified requirements. (See 6.6.) Test equipment for Government verification inspection shall be made available by the contractor.

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**4.5.1 Group A inspection.**- This inspection, including sampling, shall conform to table II and the ordinary inspection procedures of Standard MIL-STD-105. Group A inspection shall be performed in any order which is satisfactory to the Government.

Table II.- Group A inspection

Inspection	Req Para	Insp Para	AQL	
			Major	Minor
Visual and Mechanical	3.22	4.21	1.0%	4.0%
<b>Electrical</b>				
Dielectric Strength	3.10	4.9)		•
Insulation Resistance	3.11	4.10)	1.0%	
			for the group	
Air-pressure	3.12	4.11	1.0%	•

\* All electrical and air-pressure defects are considered major.

**4.5.2 Group B inspection.**- This inspection, including sampling, shall conform to Table III and to the special procedures for small-sample inspection of Standard MIL-STD-105. The inspection level shall be L-7 for normal and tightened inspection and L-5 for reduced inspection. The reduced inspection procedure shall be R-1. Group B inspection shall normally be performed on inspection lots that have passed group A inspection and on samples selected from units that have been subjected to and met group A inspection.

Table III.- Group B inspection

Inspection	Req Para	Insp Para	AQL
Contact depression	3.8	4.7	6.5% for
Contact resistance	3.9	4.3	the group
High altitude breakdown	3.10	4.9.1	6.5%
Interchangeability	3.7	4.6	6.5%
Pull	3.18	4.17	6.5%

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**4.5.3 Group C inspection.**- This inspection shall be listed in table IV, and shall normally be performed on sample units that have been subjected to and met group A and group B inspection.

**Table IV.- Group C inspection**

<u>Inspection</u>	<u>Req Para</u>	<u>Insp Para</u>
Durability:	3.15	4.14*
Immersion	3.16	4.15
Salt Spray	3.19	4.18*
Vibration	3.21	4.20

\*Sample units subjected to this inspection shall not be furnished on contract.

**4.5.3.1 Sampling for inspection of equipment.**- Four connectors of each type on order for each group C inspection shall be selected from each 1000 produced or fraction thereof, without regard to their quality, except that the units inspected at the start of the contract shall be selected from the first units produced.

**4.5.3.2 Noncompliance.**- If a sample unit fails group C inspection, the contractor shall immediately investigate the cause of failure and shall report to the Government Inspector the results thereof and details of the corrective action taken on the process and all units of product which were manufactured with the same conditions, materials, processes, etc. If the Government inspector does not consider that the corrective action will enable the product to meet specified requirements, or if the contractor cannot determine the cause of failure, the matter shall be referred to the contracting officer. (See 6.5)

**4.5.4 Reinspection of conforming group B and group C sample units.**- Unless otherwise specified, sample units which have been subjected to and passed group B or group C inspection, or both, may be accepted on contract, provided that they are resubjected to and pass group A inspection after repair of all visible damage.

**4.6 Interchangeability.**- The dimensions listed below shall be gaged or measured to determine conformance to the physical interchangeability requirement of 3.7. When a listed dimension is not within specified or design limits, it shall be considered a major defect.

- (a) Angular location of bayonet pins
- (b) Diameter of bayonet pins
- (c) Outside diameter of shell
- (d) Location of keyway with respect to bayonet pin

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- (e) Distance between face of rigid contacts and bottom of bayonet pins.
- (f) Inside diameter of bayonet pin circle
- (g) Diameter of rubber seal
- (h) Dimension between top of rubber seal and bottom of bayonet pins
- (i) Location of contact "A" in reference to bayonet pin
- (j) Location of J-slot
- (k) Dimension between the front face and final position depth of shell
- (l) Dimension between high point in J-slot and face of shell
- (m) Width of J-slots
- (n) Inside diameter of shell
- (o) Location of contact "A" with final position of J-slot

**4.7 Contact depression.**- A plate shall be applied to the contacts of connectors with non-rigid contacts in such a manner that the normal plane of the contacts is depressed to a distance of 0.135 inch from the front edge of the shell. The depressive force shall be measured and shall conform the requirement specified in paragraph 3.8. The inspection specified for contact resistance shall be performed after completion of the above procedure.

**4.8 Contact resistance.**- The contact resistance of a connector with non-rigid contacts mated with a rigid contact connector or equivalent test jig shall be measured with a Kelvin bridge or other approved method. (See 3.9)

**4.9 Dielectric strength.**- A potential of 500 volts rms shall be applied between each contact of the connector and the remaining contacts connected together and to the shell. The voltage shall be increased gradually from zero to 500 volts within 5 seconds and shall be maintained at 500 volts for approximately but not less than one minute. (See 3.10)

**4.9.1 High altitude breakdown.**- The connector shall be placed in an altitude chamber and the barometric pressure reduced to  $3.4 \pm 0.1$  inches of mercury (simulated 50,000 feet above sea level). After temperature and pressure stabilization, the test specified in paragraph 4.9 shall be repeated.

**4.10 Insulation resistance.**- The insulation resistance shall be measured between each contact of the connector and the remaining contacts connected together and to the shell. (See 3.11)

**4.11 Air-pressure.**- A pressure of 2.5 pounds per square inch (psi) shall be applied to the contact face and then to the rear of the connector, using the differential leakage tester described in Figure 1, or an equivalent method approved by the Government, to detect leakage

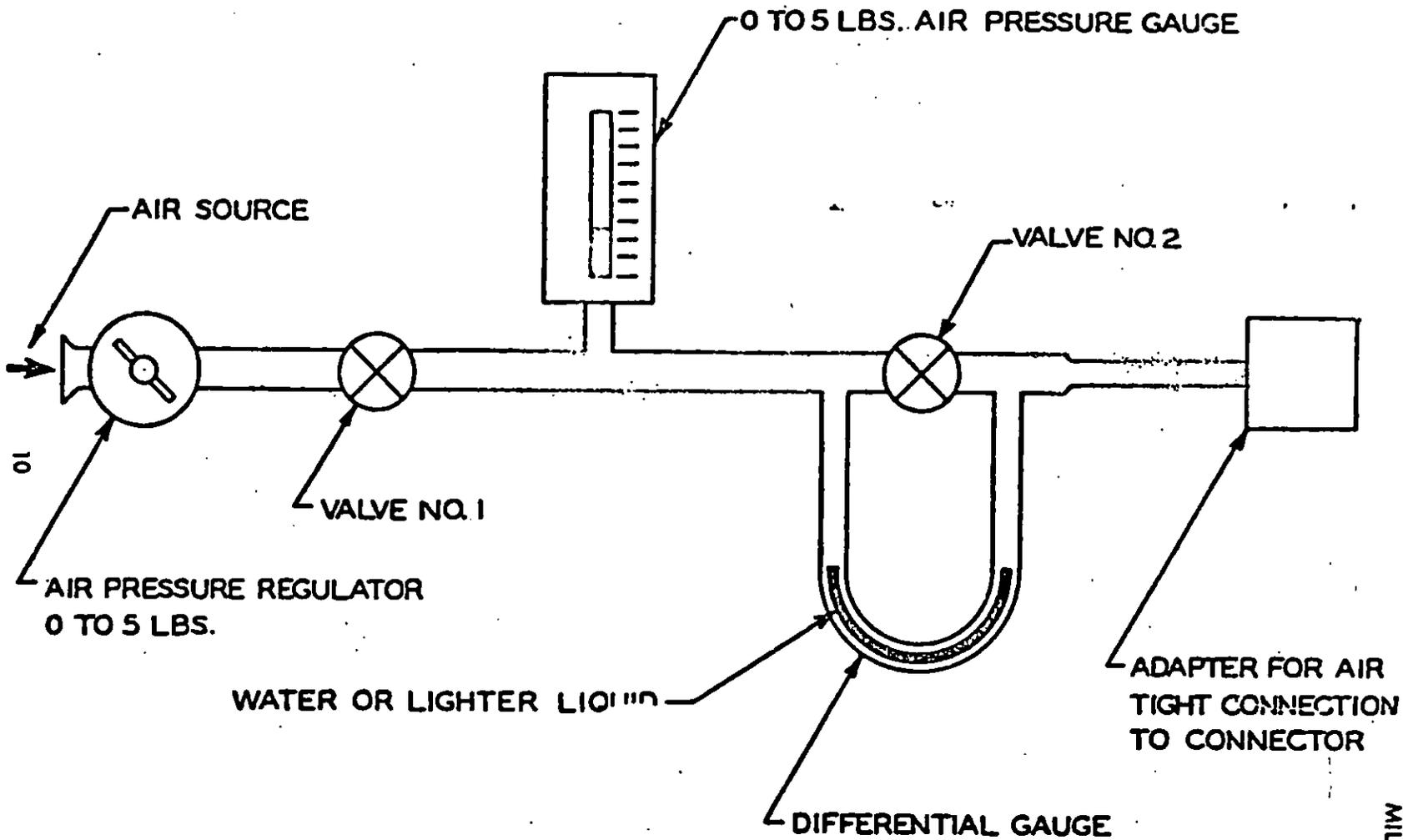


DIAGRAM OF AIR PRESSURE TEST SET-UP  
FIGURE 1

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4.11.1 Test method.- The connector shall be attached to the leakage tester with its face against the appropriate jig of the leakage tester. With valve no 2 open, valve No. 1 and regulator shall be adjusted to supply 2.5 psi pressure to the connector face. After at least 15 seconds, valve No. 1 shall be closed. Then valve No. 2 shall be closed and the gage observed at least 30 seconds for a continuous change in the level of the two columns (a small monetary change when valve No. 2 is closed is not evidence of leakage). Valve No. 2 shall then be opened before removal of the connector. The above procedure shall be repeated with the rear of the connector attached to the proper jig of the tester.

4.12 Bounce test (see 3.13).- The connectors shall be tested on the package tester, type 1000-SC, as made by the L.A.B. Corporation, Skaneateles, New York, or equal. Accessories shall be selected from those listed on Drawing SC-A-46439. The test shall be as follows:

(a) Cover the tester bed with a panel of 1/2-inch plywood, with the grain parallel to the drive chain. Space sixpenny nails, with the heads below the surface, at 6-inch intervals around all four edges and at 3-inch intervals in a 6-inch square in the center.

(b) Place the connectors on the bed of the package tester. Limit the lateral motion, by wooden fences, to not more than 3 inches and not less than 1 inch.

(c) Operate the package tester, shafts in phase, for a total of 3 hours at 284 ±2rpm.

(d) Following the above procedure, the connectors shall be tested for contact resistance, (4.8), insulation resistance (4.10), dielectric strength (4.9) and air pressure (4.11).

4.13 Drop (see 3.14).- The connectors shall be dropped at random six times from a height of six feet onto a 2 inch fir floor or barrier backed by a concrete or rigid steel frame. The connectors shall then be subjected to the tests specified for contact resistance (4.8), dielectric strength (4.9), insulation resistance (4.10) and air pressure (4.11).

4.14 Durability.- The connector shall be subjected to 1500 cycles of mating and unmating (a cycle consisting of mating, locking, unlocking, and complete separation of the connectors) at the rate of not more than 30 cycles per minute. (See 3.15). The connector shall be examined for mechanical damage and then subjected to the tests specified for contact resistance (4.8) dielectric strength (4.9) and air pressure (4.11). Failure of any of these test shall constitute failure of the durability test.

4.15 Immersion.- To determine compliance with the requirement specified in paragraph 3.16, the connectors shall be immersed in tap water to a depth of six (6) feet for a period of 48 hours in accordance with the following:

(a) Connectors, Plug shall be assembled to test cables (Cable, Special Purpose, WM-708/U).

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The length of cable shall be such that the cables extends a few feet outside of the tank.

(b) Connectors, Receptacle shall be sealed completely against leakage or shall be mounted by their normal means to the wall of the tank so that the terminal end of the shell is outside of the tank.

(c) Fifty (50) percent of the connectors tested shall be mated. Insulation resistance (see 4.10) of the still mated connectors shall be measured at the end of the test and shall meet the requirement specified in 3.11.

(d) Fifty (50) percent of the connectors tested shall be unmated. Upon completion of the test, all excess moisture shall be removed and the connector dried by room temperature compressed air for a period of 5 minutes. Insulation resistance (See 4.10) shall be measured within 1/2 hour after the connector is removed from the water and shall meet the requirement specified in paragraph 3.11.

(e) All connectors shall be inspected for internal leakage after being removed from the water.

4.16 Moisture resistance.- Connectors shall be subjected to continuous cycling for five 48-hour cycles. Temperature, relative humidity, and period of time shall conform to Standard MIL-STD-170. The connectors shall then be removed from the humidity chamber and allowed to dry for a period of approximately 24 hours at  $25^{\circ} \pm 5^{\circ}\text{C}$ , with the relative humidity controlled at  $50 \pm 5$  percent. The connectors shall be subjected to the test specified for insulation resistance in paragraph 4.10. (See 3.17)

4.17 Pull (See 3.18).- The receptacle shall be mounted rigidly in the vertical axis with the mating face downward. The plug, assembled to cable specified in 4.15(a) with a device such as a sling or harness affixed to the plug, shall be mated with the receptacle. A dead weight of 40 pounds shall be placed abruptly on the device. Another device shall be attached to the cable and 25 pounds shall be placed abruptly on it.

4.18 Salt spray.- The connectors shall be subjected to salt spray (corrosion) in accordance with Method 101A, Test condition B, of Standard MIL-STD-202. (See 3.19)

4.19 Temperature cycling.- Connectors shall be subjected to temperature cycling in accordance with Method 102A, Test Condition D, of Standard MIL-STD-202. Half of the connectors tested shall be mated. At the extreme temperatures, the connector shall be mated and unmated and the contact resistance measured to determine compliance with the requirement specified in 3.20.

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4.20 Vibration. - Connectors, mated as follows, shall be subjected to the vibration specified in Method 201A of Standard MIL-STD-202.

(a) Receptacles shall be mounted securely to a plate mounted on the vibration table. The corresponding mating plugs shall then be mated to the receptacles.

(b) Plugs with non-rigid contacts shall be securely mounted by metal straps to a plate mounted on the vibration table in such a manner that the mating plug, when mated with it, is not supported by any means other than the coupling. The corresponding plug with rigid contact, shall be mated with the non-rigid plug.

Following the vibration procedure, the connectors shall be subjected to the tests specified for contact resistance (4.8), dielectric strength (4.9) and insulation resistance (4.10) to determine compliance with requirement specified in paragraph 3.21.

4.21 Visual and mechanical. - Connectors shall be examined for the defects listed in Table V.

Table V Classification of visual and mechanical defects

Classification	Defects
Major	Parts missing Misalignment or distortion of parts Broken contact Crack or hole in housing Cracked insert Rigid contacts not rigid Non-rigid contacts rigid
Minor	Poor finish Burr or foreign material remaining on connectors Marking missing

4.22 Acceptance inspection of preparation for delivery. - Preparation for delivery shall be inspected in accordance with Specification MIL-P-116 to determine conformance to the requirements of Section 5.

## 5. PREPARATION FOR DELIVERY

### 5.1 Preservation and packaging. -

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5.1.1 Level A.- Connectors, Plug and Receptacle, shall be preserved, packaged and tested in accordance with the procedures specified for the designated method as prescribed in Specification MIL-F-116 and as described herein.

5.1.2 Connectors, Plug and Receptacle, shall be packaged Method III as follows: Cushion each connector by wrapping in flexible corrugated paperboard, Type II, Class 2, conforming to Specification PPP-P-291. Secure cushioning with pressure sensitive tape, conforming to Specification PPP-T-76. Place each cushioned connector individually within a close-fitting Type A, Class a, folding paperboard box. Box closure shall be in accordance with the appendix of the box specification.

5.1.2.1 Intermediate container.- A quantity of connectors, packaged as specified in 5.1.2 and bearing the name stock number shall be placed together within a regular slotted style class 2, W6C fiber box conforming to Specification PPP-B-636. Fabricate the box to fit the content snugly. The gross weight of any box with contents shall not exceed 30 pounds. Box closure shall be in accordance with the referenced box specification.

5.1.3 Level C.- Connectors, Plug and receptacle, shall be preserved and packaged in accordance with commercial practice and in a manner that will afford protection against corrosion, deterioration and physical damage during direct shipment to the first receiving activity.

## 5.2 Packing.-

5.2.1 Level A.- A quantity of connectors, plug and receptacle, packaged as specified in 5.1.2.1 shall be packed for shipment within a Class 2, style 4, nailed wood box conforming to Specification PPP-B-621. The gross weight of any shipping container shall not exceed 200 pounds. Fabricate the box to fit the contents snugly. Box closure shall be in accordance with the referenced box specification.

5.2.1.1 Metal strapping.- Shipping containers shall be strapped in conformance with the requirements of the appendix of the referenced container specification only for direct shipment to ports.

5.2.2 Level B.- Connectors, Plug and Receptacle, shall be packed for shipment as specified in 5.2.1 except that the nailed wood box shall be Class 1, Style 2.

5.2.3 Level C.- The pack shall be as specified in 5.2.2.

5.3 Marking.- Interior packages and exterior shipping containers shall be marked in accordance with Military Standard MIL-STD-129.

## 6. NOTES

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**6.1 Intended use.**- Connectors covered by this specification are intended for use in audio frequency circuits at 60 millivolts minimum to 60 volts maximum potential and 0.5 amperes maximum current. Applications are such as bandset, headset, and microphone operation. Circuit application of the contacts can be as follows:

- A - Phone
- B - Phone return (Ground)
- C - Microphone
- D - Microphone return (wire application)
- E - Microphone return through switch (Ground)
- F - Control
- H - Control return (Ground)
- J - Remote power control
- K - Relay to ground
- L - Loudspeaker

**6.2 Ordering data.**- Procurement documents should specify the following:

- (a) Title, number, and date of this specification and any amendment thereto.
- (b) Type required.
- (c) Level of packaging and level of packing required for shipment (Level A, Level B, or Level C).
- (d) Preproduction pack(s) as follows:
  - Makeup of pack(s)
  - Number of each kind of pack to be submitted
  - Inspection to be performed thereon.
- (e) Marking and shipping of samples
- (f) Place of final inspection

**6.3 Definitions.**-

**6.3.1 Connector.**- A generic term used to denote an electrical plug or receptacle.

**6.3.2 Plug.**- A connector normally attached to a free-swinging electrical cable.

**6.3.3 Receptacle.**- A connector which is normally rigidly attached to or is an integral part of a supporting surface.

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6.4 Nomenclature.-- The parentheses in the nomenclature will be deleted or replaced by a letter identifying the particular design; for example: U-77W/U. The contractor should apply for nomenclature in accordance with the applicable clause in the contract. (See 1.1.)

6.5 Group C inspection.-- Approval to ship may be withheld, at the discretion of the Government, pending the decision from the contracting officer on the adequacy of corrective action. (See 4.5.3.)

6.6 Verification inspection.-- Verification by the Government will be limited to the amount deemed necessary to determine compliance with the contract and will be limited in severity to the definitive quality assurance provisions established in this specification and the contract. The amount of verification inspection by the Government will be adjusted to make maximum utilization of the contractor's quality control system and the quality history of the product, and will normally be identified by the categories listed below:

(a) Type A--The total of that inspection set forth in the Quality Assurance Provisions of this specification or the contract. Included in this category is that amount of inspection referred to as normal and tightened inspection by Military Standard 105.

(b) Type B--That inspection set forth in the Quality Assurance Provisions of this specification or the contract reduced in amount under the reduced inspection provisions of Military Standard 105.

(c) Type C--A reduced inspection procedure resulting in a material reduction in the amount of inspection set forth in the Quality Assurance Provisions of this specification. The amount of inspection is less than that provided for in type B and is based upon a consistently acceptable product resulting from a planned quality control system voluntarily employed by the contractor in the production of the product.

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.

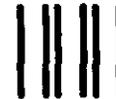
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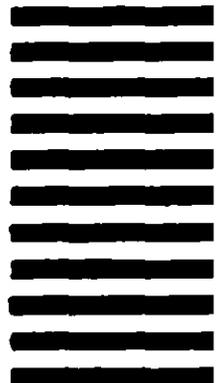


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*(See Instructions - Reverse Side)*

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)*

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