

INCH-POUND

MIL-C-39012C

AMENDMENT 8

3 August 1994

SUPERSEDING

AMENDMENT 7

30 October 1993

MILITARY SPECIFICATION

CONNECTORS, COAXIAL, RADIO FREQUENCY,
GENERAL SPECIFICATION FOR

This amendment forms a part of MIL-C-39012C, dated 11 August 1982, and is approved for use by all Departments and Agencies of the Department of Defense.

PAGE 1

1.2.2b, delete and substitute:

"b. Category B - Connectors which require special tools to assemble shall be designated as category B connectors. These connectors may be used for original installations only. Field replacement is intended to be made by categories A, C, D, E, or F connectors which shall provide the same form, fit and function. Category B connectors will not be stocked or procured by the Government."

1.2.2e, category E, add the following sentence to the end of the definition: "The method of assembly of the connector to the cable outer conductor shall be by solder."

Following 1.2.2e, add:

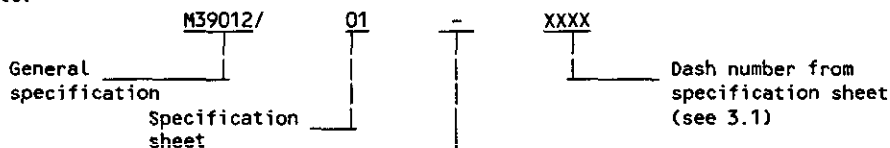
"f. Category F. - Connectors using semirigid cables with standard stripping dimensions and using standard military assembly tools. The method of assembly of the connector to the cable shall be solderless."

PAGE 2

1.2.3, delete and substitute:

"1.2.3 Part or identifying number (PIN). The PIN shall consist of the letter 'M' followed by the basic specification sheet number, and a sequentially assigned four digit dash number. The first digit in the dash number designates the material of the connector body (shell); i.e., '0' for brass, '3' for corrosion-resistant steel, or '4' for copper beryllium.

Example:



The '-' designates a standard military part. This position, when filled with the letter 'B' (i.e. M39012/01BXXXX), signifies a military part which is for OEM use only. The part is assembled to the cable with special tooling. Acquisition of this type part by any agency other than OEM's is prohibited and will result in the substitution of the equivalent military replacement part (i.e., if 'M39012/01BXXXX' is submitted for acquisition, 'M39012/01-XXXX' will be recommended)."

MIL-C-39012C
AMENDMENT 8

2.1, under SPECIFICATIONS, FEDERAL, delete "L-P-389", "L-P-403", "QQ-A-225/6", "QQ-B-613", "QQ-B-626", "QQ-B-750", "QQ-C-530", "QQ-C-533" and "QQ-C-576" and associated titles.

2.1, under SPECIFICATIONS, FEDERAL, add:

"QQ-N-290 - Nickel Plating (Electrodeposited).
QQ-P-35 - Passivation Treatment For Corrosion Resistant Steel.
QQ-S-365 - Silver Plating, Electrodeposited, General Requirements For."

2.1, under SPECIFICATIONS, MILITARY, delete "MIL-F-14072(SigC)" and associated title. Also delete "MIL-C-14550" and associated title (added by previous amendment).

2.1, under SPECIFICATIONS, MILITARY, for MIL-C-55330, delete title and substitute: "Connectors, Electrical and Fiber Optic, Packaging of."

PAGE 3

2.1, under STANDARD, add:

"FEDERAL

FED-STD-H28 - Screw Thread Standards for Federal Services."

2.1, under STANDARD, MILITARY: Delete "MIL-STD-105" and associated title.

2.1, under STANDARD, MILITARY, add:

"MIL-STD-348 - Radio Frequency Connector Interfaces.
MIL-STD-889 - Dissimilar Metals.
MIL-STD-1344 - Test Methods for Electrical Connectors.
MS20995 - Wire, Safety or Lock."

2.2, under AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM), add:

"ASTM B16 Free-Cutting Brass Rod, Bar and Shapes for Use in Screw Machines.
ASTM B36 Brass Plate, Sheet, Strip and Rolled Bar.
ASTM B121 Leaded Brass Plate, Sheet, Strip and Rolled Bar.
ASTM B124 Copper and Copper Alloy Forging Rod, Bar and Shapes.
ASTM B139 Phosphor Bronze Rod, Bar and Shapes.
ASTM B152 Copper Sheet, Strip, Plate and Rolled Bar.
ASTM B194 Copper Beryllium Alloy Plate, Sheet, Strip and Rolled Bar.
ASTM B196 Copper Beryllium Alloy Rod and Bar.
ASTM B197 Copper Beryllium Alloy Wire.
ASTM D1457 Polytetrafluoroethylene (PTFE) Molding and Extrusion Materials.
ASTM D2116 FEP Fluorocarbon Molding and Extrusion Materials."

3.1, delete and substitute the following:

"3.1 Specification sheets. The individual item requirements shall be as specified herein and in accordance with the applicable specification sheets. In the event of any conflict between requirements of this specification and the specification sheets, unless specifically stated otherwise herein, the specification sheets shall govern."

3.2, line 3, add: "Permission to grant qualification testing on category 'B' connectors shall only be granted when a noncategory 'B' connector is available on the latest issue of the Qualified Products List."

MIL-C-39012C
AMENDMENT 8

PAGE 4

TABLE I, delete and substitute the following:

" TABLE I. Materials.

Component material	Applicable specification
Brass	ASTM-B-16, ASTM-B-36, ASTM-B-121 or ASTM-B-124
Copper beryllium	ASTM-B-194, ASTM-B-196 or ASTM-B-197
Phosphor bronze	ASTM-B-139
Soft copper	ASTM-B-152
Copper	WW-T-799
Steel, corrosion resisting	QQ-S-763, ASTM-A-484 or ASTM-A-582
Flux	O-F-499
PTFE fluorocarbon	ASTM-D-1457
FEP fluorocarbon	ASTM-D-2116
Silicon rubber	ZZ-R-765
Silver solder	QQ-B-654
Soft solder	QQ-S-571
Bronze (alloy 425)	---

3.3.1, delete and substitute:

"3.3.1 Finish. Unless otherwise specified (see 3.1), connector center contacts and bodies shall be plated in the following manner."

3.3.1.1, delete and substitute:

"3.3.1.1 Center contacts. Center contacts shall be gold plated to a minimum thickness of 0.000050 inch in accordance with MIL-G-45204, type II, class 1 over a 0.000050 inch minimum nickel underplate in accordance with QQ-N-290, class 1. Plating of the internal surfaces of the contact shall be of sufficient thickness to ensure the intended performance of the contact is met and is to be uniform in appearance. A silver underplate shall not be permitted.

NOTE: No PIN changes will be made as a result of this plating change. The change will be tracked via the manufacturer's date code.

Disposition of stock. Manufacturers and their selling agents and distributors may ship from stock connectors which were manufactured and qualified to the previous amendment (5) until 11 December 1995."

3.3.1.2, delete and substitute:

"3.3.1.2 Connector bodies. All brass bodied connectors shall be silver plated in accordance with QQ-S-365 to a minimum thickness of 0.000200 inch over a copper underplate. All copper beryllium bodied connectors shall be gold plated in accordance with MIL-G-45204, type II, class 1 over a copper flash. All corrosion resistant steel bodied connectors shall be passivated in accordance with QQ-P-35, unless otherwise specified (see 3.1). NOTE: Ferrous or nickel alloys shall not be used on brass or copper beryllium bodied connectors (i.e., coupling nuts, etc.)."

3.3.1.2.1: Delete.

3.3.1.3: Delete in its entirety. (Paragraph added by previous amendment.)

3.3.2, delete "MIL-F-14072(SigC)" and substitute "MIL-STD-889".

After 3.4.1, add the following:

"3.4.2 Screw threads. Screw threads shall be in accordance with FED-STD-H28 unless otherwise specified (see 3.1).

"3.4.3 Connector interfaces. Connector interfaces shall be in accordance with MIL-STD-348 unless otherwise specified (see 3.1)."

MIL-C-39012C
AMENDMENT 8

PAGE 5

3.16, add the following new sentence to the end of the paragraph: "The following statement takes precedence over any specification sheet interpretation; The outer contact resistance values given for steel bodied connectors are typical values and are for engineering information purposes only."

PAGE 6

3.24, add the following sentence: "The direct clamping of the cable jacket shall not be the primary method of cable retention."

3.28, add the following after the first sentence: "It is not the intention of this specification to require assembly instructions with uncabled connectors (i.e., solder pot, solder tab or posts, etc.)."

3.28c, delete "loss" and substitute "loose".

3.29, delete and substitute:

"3.29 Marking. Connectors and associated fittings shall be permanently and legibly marked in accordance with the general marking requirements of MIL-STD-130 with the military part number (see 1.2.3), manufacturer's federal supply code, and final assembly date code. The marking location is optional; when practicable, a location should be picked that will be least likely to be covered in cable assembly or installation. Marking is required on all parts manufactured to this specification unless specifically excepted (see 3.1)."

Add 3.31 and 3.32 as follows:

"3.31 Manufacturers' control drawing. Connector manufacturers shall insure that special tooling and dies are documented. The replacement category A, C, D, E, or F part numbers shall be listed on the manufacturers' control drawing.

"3.32 Safety wire hole pullout. When applicable (see 3.1), connectors are to be tested as specified in 4.6.25. There shall be no evidence of hole tear out."

PAGES 6, 7, 8, 9, 10 and 11

Section 4, delete paragraphs 4. through 4.5.1.2.1.4 and substitute the following:

4. QUALITY ASSURANCE PROVISIONS

"4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements (examinations and tests) as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in this specification where such inspections are deemed necessary to ensure supplies and services conform to prescribed requirements.

"4.1.1 Responsibility for compliance. All items shall meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material.

"4.1.2 Test equipment and inspection facilities. Test and measuring equipment and inspection facilities of sufficient accuracy, quality, and quantity to permit performance of the required inspection shall be established and maintained by the contractor. The establishment and maintenance of a calibration system to control the accuracy of the measuring and test equipment shall be in accordance with Mil-STD-45662.

MIL-C-39012C
AMENDMENT 8

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

- a. Qualification inspection (see 4.4).
- b. Quality conformance inspection (see 4.5).

"4.3 Inspection conditions. Unless otherwise specified, all inspections shall be performed in accordance with the test conditions specified in the "GENERAL REQUIREMENTS" of MIL-STD-202 or MIL-STD-1344. For each test of threaded coupling connectors, where the test is performed on mated pairs, the pair shall be torqued to the specified value (see 3.1).

"4.4 Qualification inspection. Qualification inspection shall be performed at a laboratory acceptable to the Government (see 6.3) on sample units produced with equipment and procedures normally used in production.

"4.4.1 Sample size. Thirty class 1 connectors of the same PIN, or eighteen class 2 connectors of the same PIN with its mating connector (see 1.2.1), shall be subjected to qualification inspection.

"4.4.2 Group qualification. For group qualification of all series of connectors covered by this specification, see 3.1. Group qualification will be limited to those connectors for which evidence of manufacturing capability is demonstrated by providing engineering drawings to the qualifying agency. The Government reserves the right to authorize performance of any or all qualification inspection of additional types in the group that are considered necessary for qualification within each group.

"4.4.3 Inspection routine. The sample shall be subjected to the inspections specified in table II. All sample units shall be subjected to the inspection of group I. The sample units shall then be divided equally into six groups of 5 units (class 1) or three units each (class 2) and subjected to the inspection for their particular group and in the sequence given for that group.

"4.4.4 Failures. One or more failures shall be cause for refusal to grant qualification approval.

"4.4.5 Retention of qualification. To retain qualification, the contractor shall forward a report at 12- or 36-month intervals, as indicated below, to the qualifying activity. The qualifying activity shall establish the initial reporting date. The report shall consist of:

- "a. A summary of the results of the tests performed for inspection of product for delivery. Groups A and B shall be submitted every 12 months indicating, as a minimum, the number of lots that have passed and the number that have failed. The results of tests of all reworked lots shall be identified and accounted for.
- "b. A summary of the results of tests performed for qualification verification inspection, group C, shall be submitted every 36 months including the number and mode of failures. The summary shall include results of all qualification verification inspection tests performed and completed during the 36-month period. If the summary of the test results indicates nonconformance with specification requirements, and corrective action acceptable to the qualifying activity has not been taken, action may be taken to remove the failing product from the qualified products list.

"Failure to submit the report within 60 days after the end of each 12- or 36-month period may result in loss of qualification for the product. In addition to the periodic submission of inspection data, the contractor shall immediately notify the qualifying activity at any time during the 12- or 36-month period that the inspection data indicates failure of the qualified product to meet the requirements of this specification.

"In the event that no production occurred during the reporting period, a report shall be submitted certifying that the company still has the capabilities and facilities necessary to produce the item. If during 3 consecutive reporting periods there has been no production, the manufacturer may be required, at the discretion of the qualifying activity, to submit a representative product from each group, as defined by 4.4.2 to testing in accordance with the qualification inspection requirements."

MIL-C-39012C
AMENDMENT 8

"TABLE II. Qualification inspection.

Examination or test	Requirement paragraph	Test method paragraph
<u>Group I</u>		
Visual and mechanical examination		
Material	3.3	
Finish	3.3.1	4.6.1
Dissimilar metals	3.3.2	
Design and construction (dimensions)	3.4	4.6.1.1
Marking	3.29	
Mating (visual indication)	3.4.2	4.6.1
Force to engage/disengage		
Bayonet and threaded types	3.5.1	4.6.2.1
Push-on connector types	3.5.2	4.6.2.2
Coupling proof torque	3.6	4.6.3
Mating characteristics	3.7	4.6.4
Permeability of nonmagnetic materials	3.8	4.6.5
Workmanship	3.30	4.6.1
Hermetic seal (pressurized connectors only)	3.9	4.6.6
Leakage (pressurized connectors only)	3.10	4.6.7
Insulation resistance	3.11	4.6.8
<u>Group II</u>		
Center contact retention	3.12	4.6.9
Corrosion	3.13	4.6.10
<u>Group III</u>		
Voltage standing wave ratio	3.14	4.6.11
Connector durability	3.15	4.6.12
Safety wire hole pullout	3.32	4.6.25
<u>Group IV</u>		
Center contact resistance	3.16	4.6.13
Dielectric withstanding voltage	3.17	4.6.14
Vibration 1/	3.18	4.6.15
Shock (specified pulse) 1/	3.19	4.6.16
Thermal shock	3.20	4.6.17
Moisture resistance	3.21	4.6.18
Corona level 1/	3.22	4.6.19
RF high potential withstanding voltage 1/	3.23	4.6.20
Cable retention force	3.24	4.6.21
Coupling mechanism retention force	3.25	4.6.22
<u>Group V</u>		
RF leakage 1/	3.26	4.6.23
<u>Group VI</u>		
RF insertion loss 1/	3.27	4.6.24
<u>Group VII</u>		
Contact resistance	3.16	4.6.13

1/ These tests to be performed only during initial qualification as long as the qualifying design and manufacturing process has not been changed."

MIL-C-39012C
AMENDMENT 8"4.5 Quality conformance inspection:

"4.5.1 Inspection of product for delivery. Inspection of product for delivery shall consist of groups A and B inspection:

"4.5.1.1 Inspection lot. An inspection lot shall consist of all connectors of the same PIN produced under essentially the same conditions, and offered for inspection at one time.

"4.5.1.2 Group A inspection. Group A inspection shall consist of the inspections specified in table III in the order shown:

"4.5.1.2.1 Sampling plan (group A). Table III tests shall be performed on a production lot basis. Samples shall be selected in accordance with table IV. If one or more defects are found, the lot shall be screened for that particular defect and defects removed. A new sample of parts shall be selected in accordance with table IV and all group A tests again performed. If one or more defects are found in the second sample, the lot shall be rejected and shall not be supplied to this specification."

"TABLE III. Group A Inspection:

<u>Inspection</u>	<u>Requirement paragraph</u>	<u>Test method paragraph</u>	<u>Sampling procedure</u>
<u>Visual and mechanical examination</u>			
<u>Material</u>	<u>3.3</u>		
<u>Finish 1/</u>	<u>3.3.1</u>		
<u>Dissimilar metals</u>	<u>3.3.2</u>		
<u>Design and construction</u>	<u>3.4</u>	<u>4.6.1</u>	
<u>Marking</u>	<u>3.29</u>		
<u>Workmanship</u>	<u>3.30</u>		<u>See table IV</u>
<u>Mating (visual indication)</u>	<u>3.4.1</u>		
<u>Dielectric withstanding voltage</u>	<u>3.17</u>	<u>4.6.14</u>	
<u>Hermetic seal (pressurized connectors only)</u>	<u>3.9</u>	<u>4.6.6</u>	
<u>Leakage (pressurized connectors only)</u>	<u>3.10</u>	<u>4.6.7</u>	

1/ Verification of finish may be accomplished using the manufacturer's process controls providing these controls are clearly equal to or more stringent than the requirements of this specification.

"4.5.1.2.2 Visual inspection (group A inspection). Each connector shall be visually examined for completeness, workmanship, and identification requirements. Attention shall be given to those assemblies that require a gasket to determine the condition of the gasket. Gaskets missing, twisted, buckled, kinked, or damaged in any way shall be cause for rejection."

MIL-C-39012C
AMENDMENT 8

"TABLE IV. Inspection Level.

Lot size	Visual and mechanical inspection	
	Major	Minor 1/
1 to 8	ALL	5
9 to 15	ALL	5
16 to 25	20	5
26 to 50	20	5
51 to 90	20	7
91 to 150	20	11
151 to 280	20	13
281 to 500	47	16
501 to 1,200	47	19
1,201 to 3,200	53	23
3,201 to 10,000	68	29
10,001 to 35,000	77	35
35,001 to 150,000	96	40
150,001 to 500,000	119	40
500,001 and over	143	40

1/ Samples may be pulled from either the production lot itself or from samples pulled from the lot for major defect testing."

"NOTES:

1. Major defect: A major defect is a defect, other than critical, that is likely to result in failure, or to reduce materially the usability of the unit of product for its intended purpose.

2. Minor defect: A minor defect is a defect that is not likely to reduce materially the usability of the unit of product for its intended purpose, or is a departure from established standards having little bearing on the effective use or operation of the unit.

3. Critical defect: A critical defect is a defect that judgment and experience indicate is likely to result in hazardous or unsafe conditions for individuals using, maintaining, or depending upon the product; or a defect that judgment and experience indicate is likely to prevent performance of the tactical function of a major end item such as a ship, aircraft, tank, missile, or space vehicle.

"4.5.1.3 Group B inspection. Group B inspection shall consist of the inspections specified in table V in the order shown, and shall be made on sample units which have been subjected to and passed the group A inspection. Connectors having identical piece parts may be combined for lot purposes and shall be in proportion to the quantity of each PIN numbered adapter produced.

"4.5.1.3.1 Group B sampling plan. A sample of parts shall be randomly selected in accordance with table V-1. If one or more defects are found, the lot shall be screened for that particular defect and defects removed. After screening and removal of defects, a new sample of parts shall be randomly selected and subjected to all tests in accordance with table V. If one or more defects are found in the second sample, the lot shall be rejected and shall not be supplied to this specification."

MIL-C-39012C
AMENDMENT 8

"TABLE V. Group B inspection.

Inspection	Requirement paragraph	Test method paragraph
Force to engage/disengage		
Bayonet and threaded type	3.5.1	4.6.2.1
Push-on connector type	3.5.2	4.6.2.2
Coupling proof torque	3.6	4.6.3
Mating characteristics	3.7	4.6.4
Permeability of nonmagnetic materials	3.8	4.6.5
Insulation resistance	3.11	4.6.8
Voltage standing wave ratio (cabled) 1/	3.14	4.6.11

1/ Destructive test. When a VSWR failure occurs the defect which caused the failure shall be determined and the entire lot shall be screened for that/those particular defects and defects removed. A new sample of parts shall be selected in accordance with table V-1 and all tests again performed."

"TABLE V-1. Inspection level.

Lot size	Sample size	VSWR sample size
1 to 8	5	1
9 to 15	5	
16 to 25	5	
26 to 50	5	
51 to 90	5	
91 to 150	11	
151 to 280	13	
281 to 500	16	
501 to 1,200	19	
1,201 to 3,200	23	
3,201 to 10,000	29	
10,001 to 35,000	35	
35,001 to 150,000	40	
150,001 to 500,000	40	
500,001 and over	40	

"4.5.1.3.2 Disposition of sample units. Sample units which have passed all the group B inspection may be delivered on the contract or purchase order, if the lot is accepted. Any connector deformed or otherwise damaged during testing shall not be delivered on the contract or order.

"4.5.2 Periodic inspection. Periodic inspection shall consist of group C. Except where the results of these inspections shown noncompliance with the applicable requirements (see 4.5.2.1.4), delivery of products which have passed groups A and B shall not be delayed pending the results of these periodic inspections.

"4.5.2.1 Group C inspection. Group C inspection shall consist of the inspections specified in table V-2, in the order shown. Group C inspection shall be made on sample units selected from inspection lots which have passed the groups A and B inspection.

"4.5.2.1.1 Sampling plan. Twelve sample units of the same PIN shall be selected from the first lot produced after the date of notification of qualification. Thereafter, twelve sample units of the same part number shall be selected from current production after 200,000 connectors have been produced, or not less than once every year, whichever occurs first. The sample units shall be divided equally and subjected to the inspections of the six subgroups.

MIL-C-39012C
AMENDMENT 8

"4.5.2.1.2 Failures. If one or more sample units fails to pass group C inspection, the lot shall be considered to have failed.

"4.5.2.1.3 Disposition of sample units. Sample units which have been subjected to group C inspection shall not be delivered on the contract or order.

"4.5.2.1.4 Noncompliance. If a sample fails to pass group C inspection, the manufacturer shall notify the qualifying activity and the cognizant inspection activity of such failure and take corrective action on the materials or processes, or both, as warranted, and on all units of product which can be corrected and which are manufactured under essentially the same materials and processes, and which are considered subjected to the same failure. Acceptance and shipment of the product shall be discontinued until corrective action, acceptable to the qualifying activity has been taken. After the corrective action has been taken, group C inspection shall be repeated on additional sample units (all tests and examinations, or the test which the original sample failed, at the option of the qualifying activity). Groups A and B inspections may be reinstated, however, final acceptance and shipment shall be withheld until the group C inspection has shown that the corrective action was successful. In the event of failure after reinspection, information concerning the failure shall be furnished to the cognizant inspection activity and the qualifying activity."

"TABLE V-2 Group C Inspection.

Inspection	Requirement paragraph	Test method paragraph
Subgroup 1		
Center contact retention	3.12	4.6.9
Corrosion	3.13	4.6.10
Subgroup 2		
Voltage standing wave ratio (cabled)	3.14	4.6.11
Connector durability	3.15	4.6.12
Safety wire hole pullout	3.32	4.6.25
Subgroup 3		
Center contact resistance	3.16	4.6.13
Vibration 1/	3.18	4.6.15
Shock (specified pulse) 1/	3.19	4.6.16
Thermal Shock	3.20	4.6.17
Moisture resistance	3.21	4.6.18
Corona level 1/	3.22	4.6.19
RF high potential withstanding voltage 1/	3.23	4.6.20
Cable retention forces	3.24	4.6.21
Coupling mechanism retention force	3.25	4.6.22
Subgroup 4		
RF Leakage 1/	3.26	4.6.23
Subgroup 5		
RF insertion loss 1/	3.27	4.6.24
Subgroup 6		
Contact resistance	3.16	4.6.13

1/ These tests to be performed only during initial qualification as long as the qualifying design and manufacturing process has not been changed."

MIL-C-39012C
AMENDMENT 8

PAGE 12

4.6.6, item b: Delete "III" and substitute "I".

PAGE 19

4.6.21, delete and substitute:

"4.6.21 Cable retention force (see 3.24). When specified (see 3.1), the connector shall be assembled to its standard mating test cable. The connector shall be firmly fixed and a movable sleeve attached to the cable. The sleeve is then moved longitudinally away from the fixed connector gradually and in such a manner that the cable remains unbent and untwisted. A scale for measuring the retention force (see 3.1) shall be attached to the sleeve. The force shall be held for 30 seconds minimum. The assembly shall then be examined for mechanical failure, loosening, or rupture and tested for continuity using a suitable test method. When specified (see 3.1), a torque shall be applied to the cable about its axis in each direction relative to the connector at the location and to the torque value given on the detail specification sheet. The cable (flexible types only) shall then be bent at a radius of 10 times the diameter of the cable starting at the connectors at an angle of $90^\circ \pm 5^\circ$ from the axis of the connector, then reversed $180^\circ \pm 10^\circ$. Repeat this procedure four times, then retest and reexamine as outlined above."

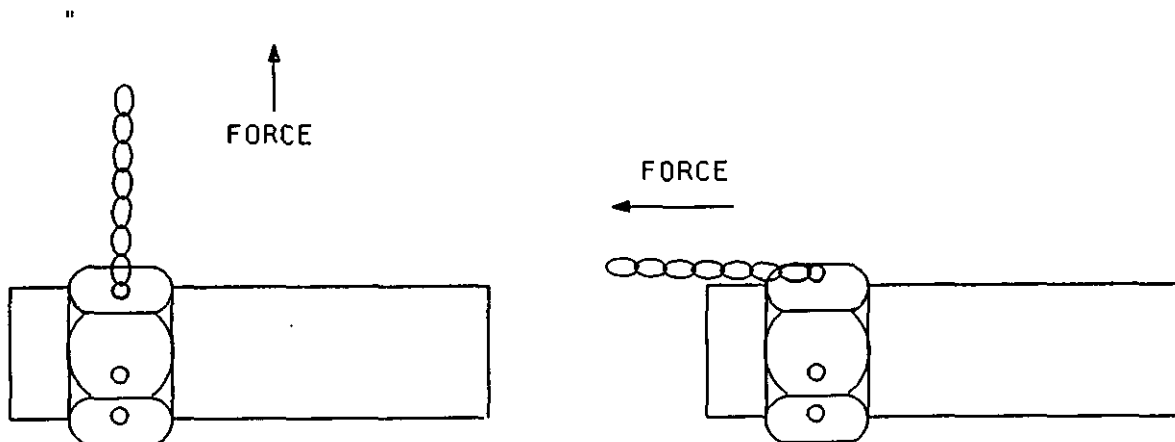
PAGE 20

4.6.24, following last sentence, add: "Use of alternate test methods may be approved by the qualifying activity."

Add 4.6.25 as follows:

"4.6.25 Safety wire hole pullout (see 3.32). A single strand of safety wire shall be looped through the safety wire hole and secured to itself. Forces of 15 pounds (67 newtons) minimum shall be applied to the safety wire pulling away from the connector. One pull shall be parallel to the connector axis and one pull perpendicular to the connector axis (see figure 6). The safety wire shall be corrosion resistant steel .020 inch diameter (24 gauge) or .015 inch diameter, (27 gauge) in accordance with MS20995. This test is to be conducted under static conditions. All holes are to be tested individually."

Add figure 6 as follows:

FIGURE 6. Safety wire hole pullout procedure."

6.2, items d and e: Delete in their entirety.

MIL-C-39012C
AMENDMENT 8

PAGE 26

Add 6.6.2 as follows:

"6.6.2 Installation of category 'B' connectors. Field replaceable connectors for category 'B' shall be those specified on the latest issue of the Qualified Products List and shall be adequate as a replacement without rework of the connector. The equipment parts list shall indicate the appropriate connector that will be used for the service replacement of a category 'B' connector."

PAGE 27

30.2, line 2: Delete "figures 8, 9, and 10" and substitute "MIL-STD-348."

PAGES 30 THROUGH 55

Figures 8, 9, and 10: Delete in their entirety.

The text of this amendment is highlighted to indicate where changes (additions, modifications, corrections, deletions) from the previous amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous amendment.

CONCLUDING MATERIAL

Custodians:
Army - CR
Navy - EC
Air Force - 85
NASA - NA

Preparing activity:
DLA - ES

(Project 5935-3979)

Review activities:
Army - AR, AT, MI
Navy - AS, MC, OS, SH
Air Force - 19, 99