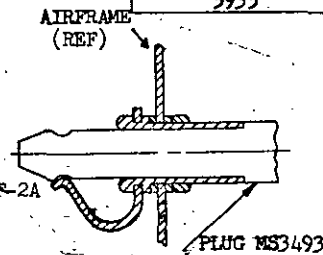
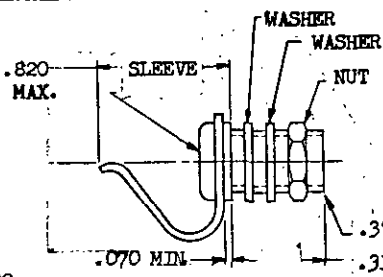
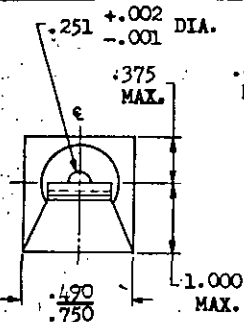


PROJECT NO. 5935-F134

FED. SUP CLASS  
5935



SECTION OF TYPICAL INSTALLATION OF RECEPTACLE IN AIRFRAME WITH PLUG INSERTED IN RECEPTACLE

NOTES:

- DIMENSIONS IN INCHES, UNLESS OTHERWISE SPECIFIED, TOLERANCES: DECIMALS  $\pm .016$ . DIMENSIONING AND TOLERANCING IN ACCORDANCE WITH ANSI Y14.5-1973.
- MATERIAL: (a) SLEEVE: BRASS, QQ-B-613. (b) CONTACT: PHOSPHOR BRONZE, QQ-B-750, COMPOSITION A - SPRING TEMPER.
- FINISH: CADMIUM PLATE, QQ-P-416, TYPE II. .0002 TO .0005 THICK, CONTROL PLATING ON ALL FLAT SURFACES, CLASS 1. .0002 TO .0003 THICK, CONTROL PLATING ON ALL THREADED PARTS, CLASS 3.
- WHERE ONLY MAXIMUM DIMENSIONS ARE SHOWN, THE RECEPTACLE NEED NOT HAVE THE SHAPE SHOWN, BUT THE RECEPTACLE, INCLUDING ALL PROTRUSIONS, SHALL BE CONTAINED WITHIN MAX. OUTLINE SHOWN.
- THREADS SHALL BE IN ACCORDANCE WITH HDBK H-28.
- THE RECEPTACLE SHALL BE USABLE AS SHOWN ABOVE WITH A MS3493-5 PLUG.
- THE RECEPTACLE SHALL PROVIDE DETENT ACTION FOR THE PLUG.
- INSERTION FORCE: THE FORCE REQUIRED TO INSERT THE TEST PLUG (MS3493-5) IN THE RECEPTACLE SHALL NOT EXCEED 10 POUNDS AT ANY POINT.
- REMOVAL FORCE: (a) THE FORCE REQUIRED TO MOVE THE TEST PLUG (MS3493-5) OUT OF THE RECEPTACLE DETENT SHALL BE  $12 \pm 2$  POUNDS. (b) THE FORCE REQUIRED TO REMOVE THE TEST PLUG FROM THE RECEPTACLE SHALL NOT EXCEED 6 POUNDS AT ANY POINT OTHER THAN THE DETENT. FORCE TO BE APPLIED AT A CONSTANT OF  $10 \pm 4$  INCHES PER MINUTE.
- CURRENT CARRYING: THE RECEPTACLES SHALL BE MOUNTED ON AN ALUMINUM PANEL 0.091 INCHES THICK APPROXIMATELY 6 INCHES X 6 INCHES. WITH THE TEST PLUG MATED WITH THE RECEPTACLE AND A TEST CURRENT OF  $10 \pm 1$  AMPERE IS FLOWED THRU THE PLUG AND BACK THRU THE MOUNTING PANEL THERE SHALL BE NO DAMAGE TO THE RECEPTACLE AND NO MORE THAN 50 MILLIVOLTS POTENTIAL DIFFERENCE BETWEEN THE BACK END OF THE PLUG AND A POINT ON THE PANEL  $2 \pm 0.1$  INCHES FROM THE AXIS OF THE RECEPTACLE.
- TORQUE TEST. CONNECTOR SHALL WITHSTAND 20 INCH POUNDS TORQUE: WHEN 20 INCH POUNDS TORQUE IS APPLIED TO THE CONNECTOR SLEEVE AND THE CONTACT HELD FIXED, THE SLEEVE SHALL NOT TURN IN OR BREAK LOOSE FROM THE CONTACT, NOR SHALL THE CONTACT BE DEFORMED.
- LIFE TEST. TEST PLUG (MS3493-5) SHALL BE INSERTED AND WITHDRAWN 3,000 TIMES MINIMUM. THE CONNECTORS SHALL THEN HAVE NOT LESS THAN 8 POUNDS WITHDRAWAL FORCE.
- ENGAGEMENT. WHEN THE PLUG IS INSERTED IN THE CONNECTOR AND THE CONNECTOR CONTACT IS ENGAGED IN THE PLUG DETENT; THERE SHALL BE NO FREE AXIAL MOVEMENT OF THE CONTACT TIP IN THE PLUG DETENT (DUE TO CLEARANCE BETWEEN THE CONTACT TIP AND PLUG DETENT). CONTACT TIP SHALL MAINTAIN CONNECTION IN THE PLUG DETENT DURING AXIAL MOVEMENT.
- FIRST ARTICLE TESTING: SIX SAMPLES WILL BE TESTED FOR THE FOLLOWING, IN THE ORDER LISTED: (a) VISUAL AND MECHANICAL: FOR MATERIAL, DIMENSIONS AND WORKMANSHIP. (b) INSERTION AND WITHDRAWAL TEST INITIAL. (c) CURRENT CARRYING TEST. (d) LIFE TEST. (e) TORQUE TEST. (f) ENGAGEMENT TEST.
- ACCEPTANCE INSPECTION: CONNECTORS WILL BE INSPECTED FOR THE FOLLOWING: (a) VISUAL AND MECHANICAL, INSERTION AND WITHDRAWAL FORCE, ENGAGEMENT TEST, SAMPLING PER MIL-STD-105 WITH AN AQL OF 1. (b) TORQUE TEST AND LIFE TEST SAMPLING PER MIL-STD-105, SPECIAL INSPECTION LEVEL S-2 WITH AN AQL OF 1.

(B) ENTIRE STANDARD REVISED

P.A. AIR FORCE - 85	INTERNATIONAL INTEREST	TITLE CONNECTOR, RECEPTACLE, ELECTRIC, GROUNDING	MILITARY STANDARD
Other Cost			MS 0090298
Procurement Specifications NONE	SUPERSEDES: MS90298 REVISION A		SHEET 1 OF 2

USER ACTIVITIES:  
ARMY - ME, CR  
NAVY - MC

REVIEWING ACTIVITIES:  
AF - 11, 99

This military standard is approved by the Directorate of Electronic Support, (AFALD/PTS), Department of the Air Force and shall be used by that activity. All other military activities are required to employ this standard where suitable.

APPROVED 21 APRIL 1964 REVISED 5 FEB 1971 7 AUG 72

USER ACTIVITIES:  
ARMY - ME, CR  
NAVY - NC

REVIEWING ACTIVITIES:  
AF - 11, 99

This military standard is approved by the Directorate of Electronic Support, (AFALD/PTS), Department of the Air Force and shall be used by that activity. All other military activities are required to employ this standard where suitable.

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16. UNLESS OTHERWISE SPECIFIED BY THE PROCURING ACTIVITY, THE FOLLOWING HARDWARE SHALL BE INCLUDED WITH EACH RECEPTACLE:

- (a) 1 EA. NUT MS25082-B20.
- (b) 1 EA. SOLDER TERMINAL (TYPE: LOCKING SCREW HOLE) SMB501107 OR EQUIVALENT.
- (c) 1 EA. LOCKWASHER MS35333-42.
- (d) TWO WASHERS AN960-D616 .032 THICK.

APPROVED 21 APRIL 1964 REVISED (A) 5 FEB 1971 (B) ENTIRE STANDARD REVISED

P.A. AIR FORCE - 85 Other Cust	INTERNATIONAL INTEREST	TITLE CONNECTOR, RECEPTACLE, ELECTRIC, GROUNDING	MILITARY STANDARD MS0090298
Procurement Specifications NONE	SUPERSEDES: MS90298 REVISION A		SHEET 2 OF 2

DD FORM 672 (LIMITED COORDINATION)  
1 MAY 73

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

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DATE