

User activities: Army ME, SL, WC
Navy
Air Force

(A)

Reviewer activities: Army MU, MI, AV, EL, SL
Navy EC, MC, AS
Air Force 14, 15, 17, 80

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PURPOSE:

The purpose of this drawing is to define the cable preparation and connector assembly instructions for flat conductor cable plugs per MIL-C-55544/5. Following the instructions of this drawing will assure that the completed plug assembly will meet the performance requirements of MIL-C-55544, "CONNECTORS, ELECTRICAL ENVIRONMENT RESISTANT, FOR USE WITH FLEXIBLE, FLAT CONDUCTOR CABLE."

MATERIALS:

The materials required for assembling of the flat conductor cable plug consist of the following:

Standard cables in accordance with the requirements of MIL-C-55543 or as specified on applicable cable assembly drawing.

Plug parts in accordance with MIL-C-55544/5 consisting of base plate, conductor spacer, body, keys, wedge, seal, potting compound, and bonding agent.

These materials shall be processed and assembled in accordance with the following instructions.

PROCESS AND ASSEMBLY INSTRUCTIONS:

1. Cable Preparation:

The flat conductor cable shall be that specified on the applicable cable assembly drawing and shall be prepared as follows:

- A. Prepare the cable ends of the two flat conductor cables by removing the insulation as shown in Figure 1 (Cable Stripping).
- B. Plate the bared copper conductors, if non-plated, with a minimum of 50 microinches of stress-free nickel, then superimpose gold plating in accordance with requirements of MIL-G-45204; type 2, class 1 to 50 microinches minimum thickness. If the bare conductors are already plated, only the gold plating is required.

2. Plug Assembly:

The cable, as prepared above, and the flat conductor cable plug parts defined by MIL-C-55544/5 and furnished as the complete MIL-C-55544/5 part number are assembled as follows:

Note: This is a design standard; not to be used as a part number; no materials are to be procured per this drawing.

APPROVED 26 DEC. 1968 REVISED (A) 25 June 1971

P.A. EL Other Cust AS, II	International Interest	TITLE	MILITARY STANDARD
		METHOD DRAWING, M55544/5 PLUG ASSEMBLY, PREMOLDED FLAT CONDUCTOR CABLE	MS75078
Procurement Specification MIL-C-55544		SUPERSEDES:	SHEET 1 OF 6

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PROJECT 5935-1703-14

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- A. Thread the uninsulated conductors (both cables) through the untapered side of central opening of base plate. Move base plate back on cables far enough to give liberty in working with each cable. See Figure 2 (Cable Insertion).
- B. Position conductors of cables into slots of conductor spacer with forward edge of insulation seated against ends of ribs on the conductor spacer. See Figure 2 (Cable Insertion).
- C. Using a tool to hold the bare conductors in the respective slots, bend conductors of one cable at right angle and then into the wedge groove. See Figure 3 (Conductor Forming). Repeat bending operations for conductors of other cable.
- D. Apply silicone bonding agent to wedge and seat wedge into wedge groove securely. See Figure 4 (Wedge Installation).
- E. Insert conductor spacer through body. See Figure 5 (Body Installation).
- F. Bring base plate into position and install keys through body and base plate.
- G. Bend protruding tabs of keys towards outer side of body to secure proper junction of conductor spacer and body. See Figure 6 (Key Installation).
- H. Apply potting compound around and between cables at rear of the plug. See Figure 7 (Potting Installation). Allow sufficient curing time, compatible with type of potting compound used.
- I. Apply cement to seal groove and effectually seat the seal into the groove. See Figure 8 (Seal Installation). Cure before using.

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Procurement Specification MIL-C-55544		SUPERSEDES:	SHEET 2 OF

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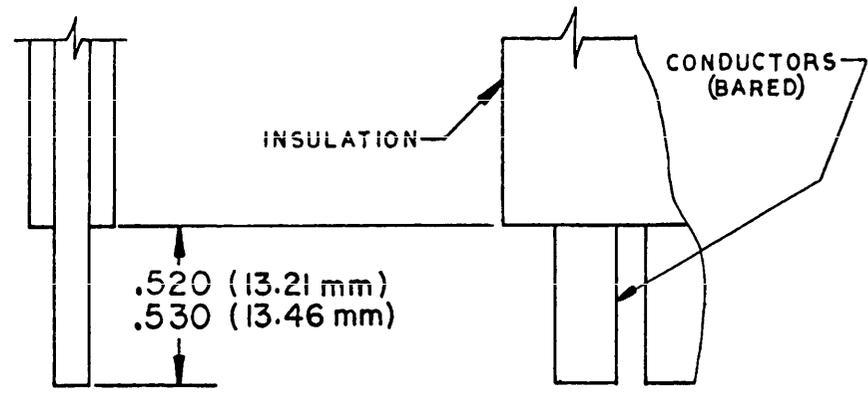


FIGURE 1. Cable stripping.

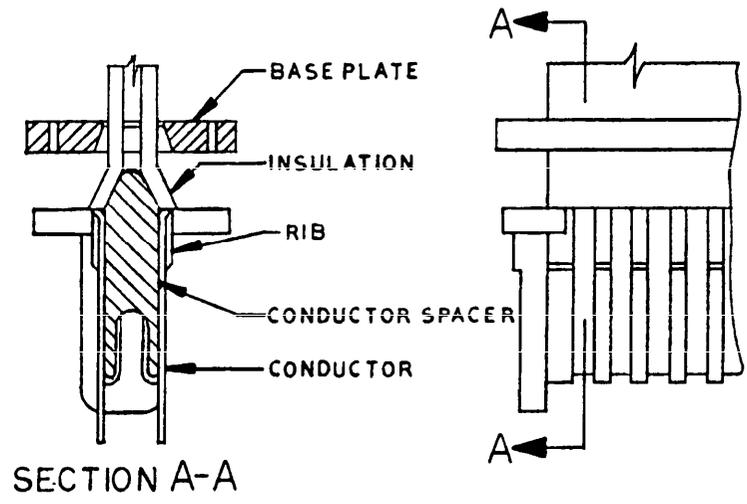


FIGURE 2. Cable insertion.

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			MS75078
Procurement Specification MIL-C-55544	SUPERSEDES:	SHEET 3 OF	

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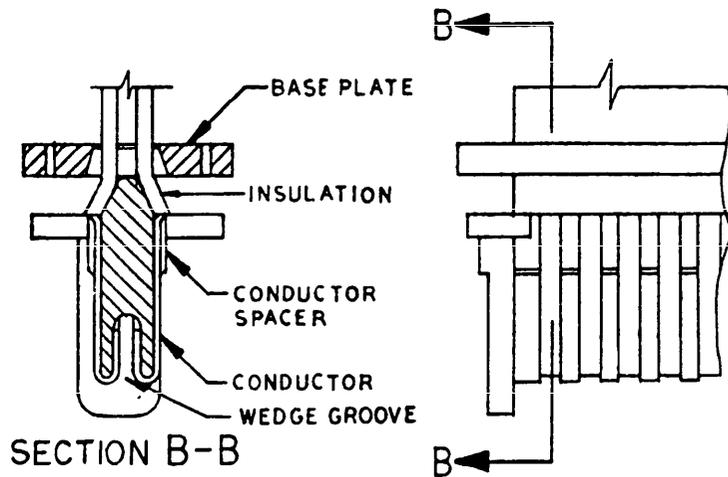


FIGURE 3. Conductor forming.

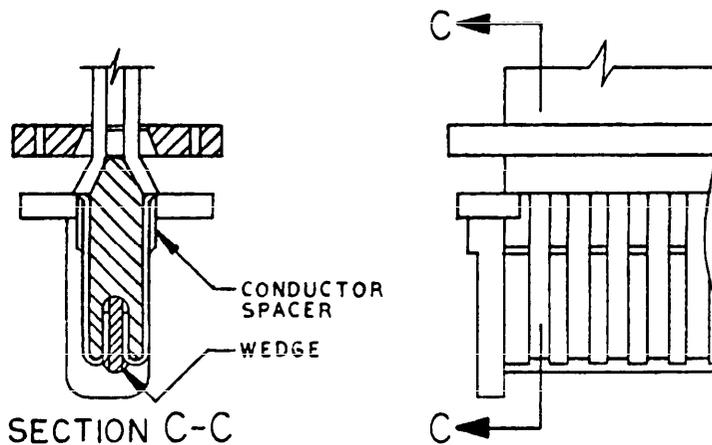


FIGURE 4. Wedge installation.

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Other Cust AS, II		METHOD DRAWING, M55544/5 PLUG ASSEMBLY, PREMOLDED FLAT CONDUCTOR CABLE	MS75078
Procurement Specification MIL-C-55544		SUPERSEDES:	SHEET 4 OF

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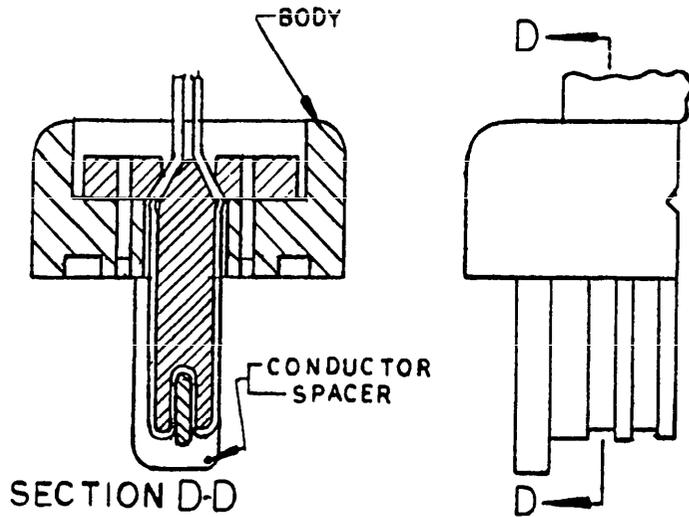


FIGURE 5. Body installation.

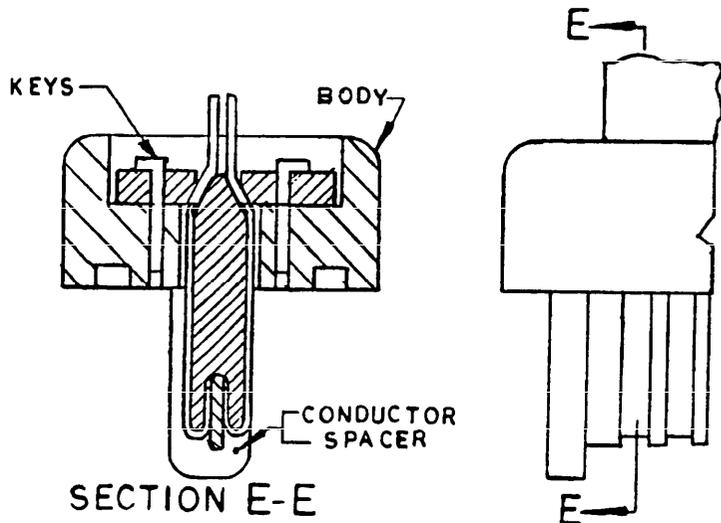


FIGURE 6. Key installation.

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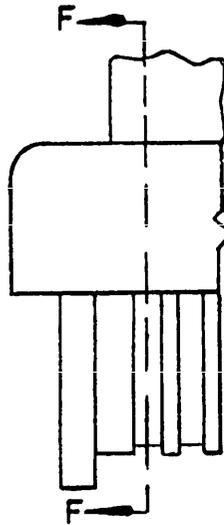
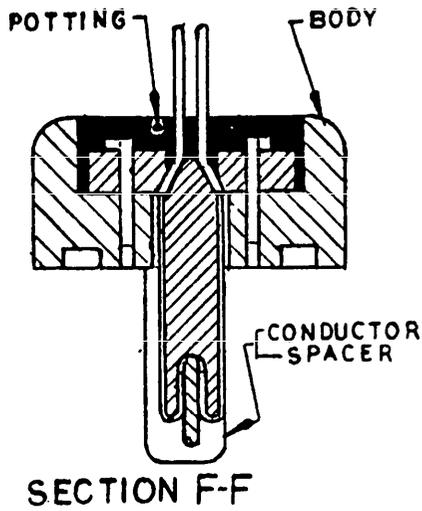
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P.A. EL Other Cust AS, II	International Interest	TITLE METHOD DRAWING, M5544/5 PLUG ASSEMBLY, PREMOLDED FLAT CONDUCTOR CABLE	MILITARY STANDARD MS75078
Procurement Specification MIL-C-55544	SUPERSEDES:		SHEET 5 OF

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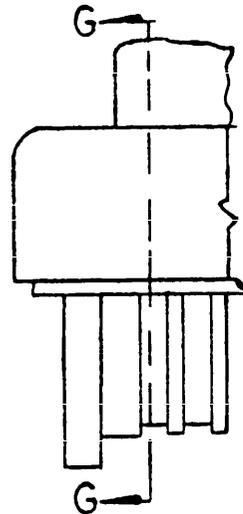
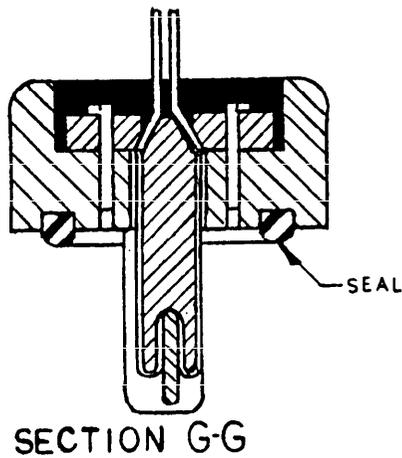
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SECTION F-F

FIGURE 7. Potting installation.



SECTION G-G

FIGURE 8. Seal installation.

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SPECIFICATION ANALYSIS SHEET		Form Approved Budget Bureau No. 22-R255
<p>INSTRUCTIONS: This sheet is to be filled out by personnel, either Government or contractor, involved in the use of the specification in procurement of products for ultimate use by the Department of Defense. This sheet is provided for obtaining information on the use of this specification which will insure that suitable products can be procured with a minimum amount of delay and at the least cost. Comments and the return of this form will be appreciated. Fold on lines on reverse side, staple in corner, and send to preparing activity. Comments and suggestions submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or serve to amend contractual requirements.</p>		
<p>SPECIFICATION MS75078 METHOD DRAWING, M55544/5 PLUG ASSEMBLY, PREMOLDED FLAT CONDUCTOR CABLE</p>		
ORGANIZATION		
CITY AND STATE		CONTRACT NUMBER
<p>MATERIAL PROCURED UNDER A</p> <p><input type="checkbox"/> DIRECT GOVERNMENT CONTRACT <input type="checkbox"/> SUBCONTRACT</p>		
<p>1. HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?</p> <p>A. GIVE PARAGRAPH NUMBER AND WORDING.</p>		
<p>B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES</p>		
<p>2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID</p>		
<p>3. IS THE SPECIFICATION RESTRICTIVE?</p> <p><input type="checkbox"/> YES <input type="checkbox"/> NO (If "yes", in what way?)</p>		
<p>4. REMARKS (Attach any pertinent data which may be of use in improving this specification. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity)</p>		
SUBMITTED BY (Printed or typed name and activity - Optional)		DATE

To detach this form, cut along this line

DD FORM 1426
1 JAN 66

REPLACES EDITION OF 1 OCT 64 WHICH MAY BE USED.

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