

## SWITCHBOARD CORD CUSHIONS 1A, 2A AND 4A TYPE INSTALLATION PROCEDURES

### 1. GENERAL

- 1.01 This section covers the procedures for installing the Nos. 1A, 2A, and 4A cushions on switchboard cords equipped with Nos. 47, 109, 110, 309, 310, and 347 plugs.
- 1.02 This section is reissued to reinstate and illustrate the KS-7872 pliers and to add information as to when the pliers should be used.
- 1.03 The No. 1A cushion is for use on switchboard cords equipped with Nos. 109 and 309 plugs, the No. 2A cushion is for use on switchboard cords equipped with Nos. 110 and 310 plugs, and the No. 4A cushion is for use on switchboard cords equipped with 47- and 347-type plugs.
- 1.04 It is recommended that only a sufficient quantity of cushions be kept on hand to meet the immediate needs. This will insure the greatest life in service for the cushions by reducing to a minimum the deterioration of the material prior to the actual use of the cushion.
- 1.05 Worn or frayed cushions may cause sticking of the plug in the plug seat. In such cases replace the cushion.
- 1.06 To facilitate installing the cushions on switchboard cords, the cushions should be dusted with powdered soapstone or talcum powder.
- 1.07 To install cushions on cords which are to be equipped with 47- and 347-type plugs, it will be necessary to place the cushion on the cord before attaching the cord to the plug. The procedures are similar to those outlined in 3.04 and 4.02, except that the end of the cord instead of the plug is forced through the No. 557A cushion-placing clip, after which the plug is installed on the cord in accordance with standard procedures.
- 1.08 In general, the No. 557A cushion-placing clip is used to install No. 1A or No. 2A cushions. However, when a considerable number of cushions is to be installed, use the KS-7872 pliers, as covered in 4.05, to expedite the work.

### 2. LIST OF TOOLS AND MATERIALS

<u>Code or Spec No.</u>	<u>Description</u>
<u>Tools</u>	
43	3/16-in. and 1/4-in. Hex., Open Double-end, Flat Wrench
485A	Smooth Jaw Pliers
515A	Block
557A	Cushion-placing Clip
KS-2348	Cord Repair Screwdriver
KS-6320	Orange Stick
KS-7872	Pliers
-	5-in. Diagonal Pliers
<u>Materials</u>	
1A	Cushion
2A	Cushion
4A	Cushion
-	Talcum Powder or Powdered Soapstone

### 3. PREPARATION

- 3.01 Preparation of KS-7872 Pliers for Use With Nos. 1A and 2A Cushions: The KS-7872 pliers used for mounting the cushions on switchboard cords are equipped with a reversible pin in order to limit the opening of the jaws of the pliers and thereby limit the stretching of the cushions. When installing No. 1A cushions, mount the end of the pin having the shorter threaded portion in the handle of the pliers. When installing No. 2A cushions, mount the end of the pin having the longer threaded portion in the handle of the pliers. In order to avoid reversing this pin more than is necessary, it is recommended that where both sizes of cushions are used in an office all the work with one size be completed before the other size is mounted. Use the No. 43 wrench or No. 485A smooth jaw pliers to change the position of the pin.
- 3.02 Placing Cushions on No. 557A Cushion-placing Clip or KS-7872 Pliers: The

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No. 515A block shown in Fig. 1 is used to assist in placing the cushions on the clip or pliers. The center hole of the block is for use in mounting the block on a bench or table when desired.

3.03 To place a No. 1A or No. 2A cushion on the clip or pliers, place the cushion in the larger or smaller circular hole in the No. 515A block, depending on whether the No. 2A or No. 1A cushion is used. Insert the jaws of the clip or pliers into the cushion and force the cushion part way onto the jaws. Remove the cushion and clip or pliers from the circular hole and place them in the elliptical hole so that the cushion rests on the edge of the hole. Force the cushion onto the jaws as far as possible and then slide the clip or pliers and cushion so that the cushion rests against the edge at the opposite end of the hole. Repeat the operation until the cushion is in contact with the shoulders of the jaws. On the No. 557A cushion-placing clip the No. 1A cushion should be mounted only two-thirds of the way onto the jaws.

3.04 To mount a No. 4A cushion on the clip (the pliers are not recommended for mounting a No. 4A cushion), place the cushion over the elliptical hole in the No. 515A block, insert the clip into the cushion, and force the cushion onto the jaws until the cushion is in contact with the shoulders of the jaws.

4. PROCEDURES FOR MOUNTING CUSHIONS ON CORDS

Method of Using No. 557A Cushion-placing Clip

4.01 Before installing a No. 4A cushion on cords equipped with 47- and 347-type

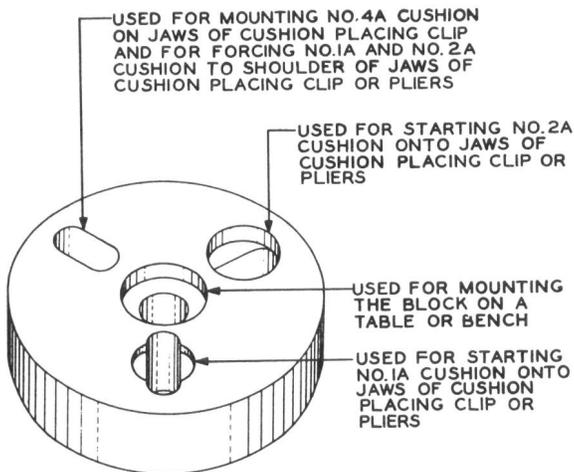


Fig. 1 - No. 515A Block Used for Mounting Nos. 1A and 2A Cushions on No. 557A Cushion-placing Clip or KS-7872 Pliers, or for Mounting No. 4A Cushions on the No. 557A Cushion-placing Clip

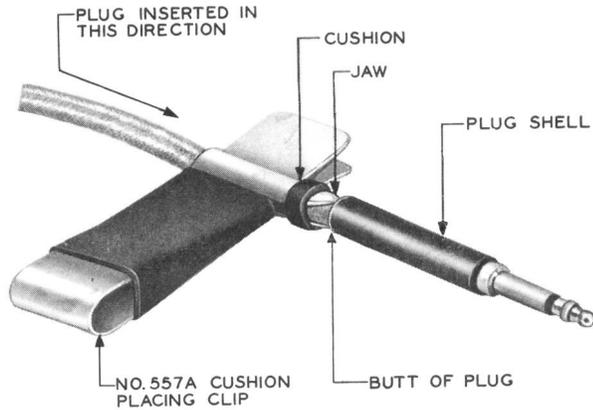


Fig. 2 - Showing Jaws of No. 557A Cushion-placing Clip at Butt of Plug

plugs, remove the plug shell mounting screw with the KS-2348 screwdriver and remove the plug shell.

4.02 After the cushion has been placed on the No. 557A cushion-placing clip as covered in 3.03, proceed as follows: Hold the cord as close to the butt of the plug as possible using care to avoid bending the cord sharply. Push the tip of the plug through the jaws of the clip, rocking the plug slightly as the shell of the plug starts to pass through the cushion. Push the plug through the cushion until the edge of the clip opposite the jaws is even with the butt of the plug. Then shift hands and pull the plug and cord through the clip the rest of the way until the tips of the jaws just clear the butt of the plug and are resting on the cord as shown in Fig. 2. This procedure can be facilitated by rocking the plug slightly. With the No. 557A clip in the position shown in Fig. 2, hold the cushion in one hand and pull on the clip with the other hand, using a slight rocking action until the cushion is removed from the clip. A KS-6320 orange stick may be used to assist in removing the cushion. Exercise care not to scratch the shell during this operation.

4.03 After disengaging the No. 557A cushion placing clip, position the cushion on the cord against the butt of the plug.

4.04 In the case of 47- and 347-type plugs, remount the shell using a new shell mounting screw if the old screw is not in good condition. Tighten the shell mounting screw securely.

Method of Using KS-7872 Pliers

4.05 With the cushion placed on the KS-7872 pliers as covered in 3.03,

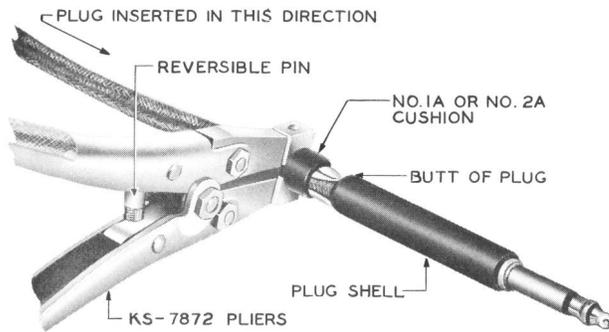


Fig. 3 - Showing Jaws of KS-7872 Pliers at Butt of Plug

and while covering the jaws and cushion with one hand to protect the worker from injury if the cushion should break, compress the handles of the pliers the limit of the stroke. This will expand the cushion sufficiently to allow the pliers to fit over the plug and plug shell. Hold the pliers stationary with one hand and insert the plug through the expanded jaws and the cushion with the other hand. In certain

cases it may be necessary to rock the plug slightly in order to start the cushion over the shell. Slide the cushion onto the cord until the tips of the jaws are directly at the butt of the plug as shown in Fig. 3. Exercise care not to scratch the shell during this operation.

4.06 Release the pressure on the pliers. Slide the cushion to the end of the plier jaws until the cushion is in contact with the butt of the plug. While holding the cushion in this position against the plug, withdraw the jaws from under the cushion using a slight rocking action. A KS-6320 orange stick may be used to assist in starting the movement of the cushion.

4.07 If the cushion does not rest against the butt of the plug, slide it to its proper position.

#### 5. PROCEDURE FOR REMOVING CUSHIONS FROM CORDS

5.01 To remove a cushion from a cord, cut the cushion with the diagonal pliers. To avoid damage to the cord, force a KS-6320 orange stick under the cushion and over the butt of the plug and cut that portion of the cushion between the orange stick and the cord.