

302- AND 303-TYPE CONNECTORS

REPLACEMENT OF TERMINALS

1. GENERAL

1.01 This section provides procedures for replacing broken or damaged terminals on 302- and 303-type connectors.

1.02 This section is reissued to include the 303-type connector.

1.03 A broken terminal is usually discovered by continuity checks or when a protector unit is removed, disclosing the broken terminal.

1.04 The procedures apply to the three types of terminals used on 302-type connectors as shown in Fig. 1 and the four types of terminals used on 303-type connectors shown in Fig. 2.

1.05 Precaution should be taken to prevent interference to working circuits on adjacent terminals during replacement of broken terminals.

2. TOOLS AND MATERIALS

CODE OR SPEC. NO.	DESCRIPTION
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TOOLS

—	B Long-Nose Pliers
73C	Bracket (For 303-Type Connector)

KS-6320	Orange Stick
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MATERIALS

P-21E489	Terminal
P-46D861	Terminal
P-46D862	Terminal
P-47L969	Terminal
840212476	Terminal

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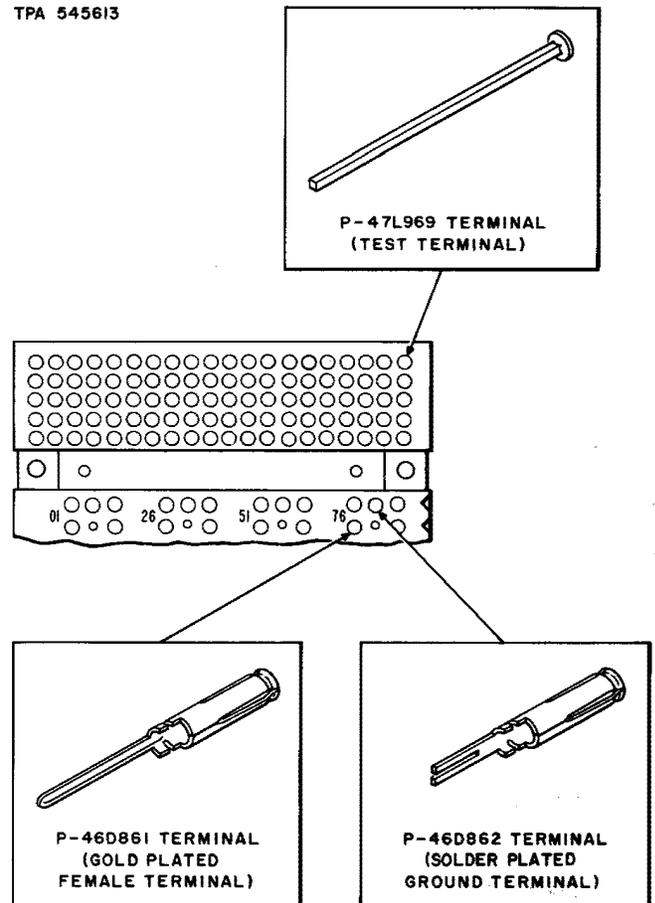
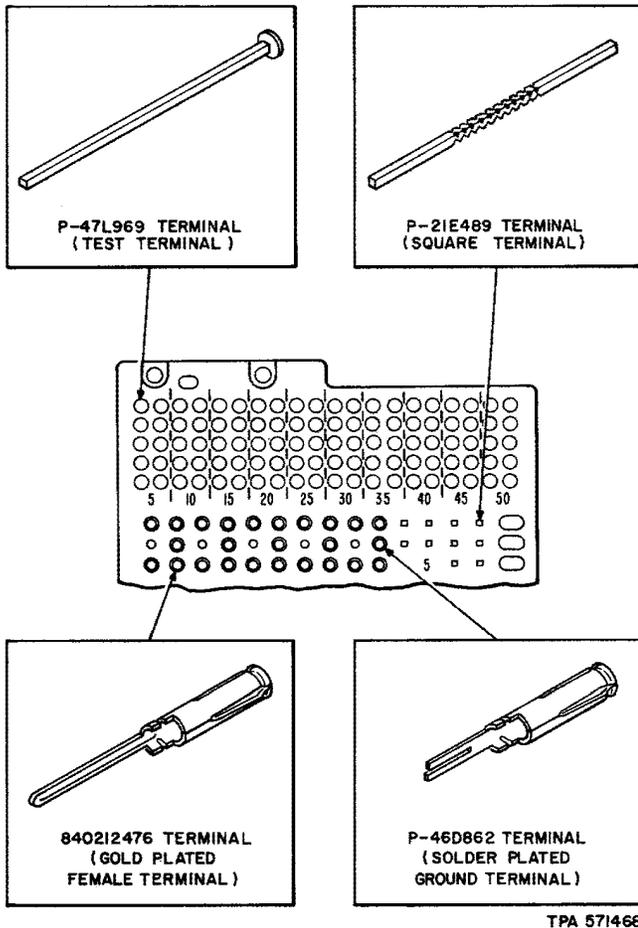


Fig. 1—302-Type Connector—Front Side

3. REMOVING AND REPLACING BROKEN OR DAMAGED TERMINALS

3.01 Instructions for making and removing wrapped connections are given in Section 069-132-811. Instructions for soldered connections are given in Section 069-140-811. Instructions for use of 73C bracket are given in 3.10. If a plastic cover exists over the connector it will be necessary to remove the cover before removing and replacing terminals.



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Fig. 2—303-Type Connector—Front Side

- (a) From the wiring side of the connector, tag and remove the leads from the terminal to be replaced.
- (b) Using a new terminal or a sharp instrument such as a test probe, push the broken terminal through the connector about 1/8 inch.
- (c) From the front side of the connector, grasp the terminal head with the B long-nose pliers and pull the terminal from the block.

3.05 P-21E489 Terminal

- (a) From the front and back sides of the connector, tag and remove leads from the terminals to be replaced.
- (b) Using the B long-nose pliers, pull the terminal from the block.

REPLACING TERMINALS

3.06 The portion of a wire previously used for a solderless-wrapped connection shall not be reused for subsequent solderless-wrapped connections, nor shall it be soldered. This portion must be cut off and the wire reconnected by solderless wrapping. Except in cross-connection fields, it will be necessary to splice the wire if there is not sufficient slack to provide the number of turns required for a solderless-wrapped connection. In cross-connection fields, the wire shall be rerun to provide sufficient length for a solderless-wrapped connection.

3.07 P-46D861 or P-840212476 and P-46D862 Terminals.

- (a) From the front side of the connector, insert the new terminal into the same hole from which the old terminal was removed. Using the fingers, push the terminal into the slot as far as possible.
- (b) Replace the protector unit to hold the terminal in place.
- (c) From the wiring side of the connector, using the B long-nose pliers, pull the terminal forward into its proper position. Determine that the terminal is in the correct position by observing the position of the adjacent terminals.

REMOVING TERMINALS

3.02 P-46D861 and 840212476 Terminal

- (a) From the wiring side of the connector, tag and remove the leads from the broken terminal to be replaced.

3.03 P-46D862 Terminal

- (a) From the wiring side of the connector, using a soldering copper, remove all the solder from the terminal to be replaced and using the B long-nose pliers, grasp the broken terminal and remove it.

3.04 P-47L969 Terminal

(d) Using the B long-nose pliers, apply a steady pressure and spread open the tangs of the terminal.

(e) Reconnect all leads to the P-46D861 or P-840212476 terminal. Reconnect the P-46D862 terminal to the ground bar using a soldering copper.

3.08 P-46D871 Terminal

(a) From the front side of the connector, insert the new terminal into the same slot from which the old terminal was removed. Using the fingers, push the terminal into the slot as far as possible.

(b) Using an orange stick, push the terminal into its proper position on the connector.

(c) From the wiring side of the connector, reconnect all leads.

3.09 P-21E489 Terminal

(a) From the front side of the connector insert the new terminal into the same hole from which the old terminal was removed, using the B long-nose pliers.

(b) Reconnect all leads to the P-21E489 terminal.

3.10 P-73C Bracket

(a) The 73C bracket mounts on the frame in place of the 303 connector and holds the connector in place at an angle to the front of the frame to provide access to the rear of the connector for maintenance work.

946-/947- AND 970-/971-TYPE CONNECTORS CLEANING PROCEDURES

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1.04 The most common types of contamination likely to be encountered on 946-/947- or 970-/971-type connectors are flux contamination and acrylic contamination.

- (a) Flux residue results from improper cleaning of units after soldering or bonding operations.
- (b) Acrylic contamination occurs when an acrylic coating is applied to FB and FC circuit packs as a protective coating for printed wiring boards.

1. GENERAL

1.01 This section covers procedures to be followed when cleaning 946-/947- and 970-/971-type connectors within a frame or unit.

1.02 Whenever this section is reissued, the reason for reissue will be given in this paragraph. This issue does not affect the Equipment Test List.

1.03 The cleaning procedures in this section are for 946-/947- and 970-/971-type connectors only and are not designed to be applicable to all types of connectors. Nor are the cleaning procedures designed for use in cases of wide spread unit contamination, but are designed for the cleaning of isolated, contaminated locations within a frame or unit.

Danger: These cleaning procedures entail the use of volatile solvents which may be harmful to personnel if safety precautions are not observed. The solvents are also capable of degrading components, protective coatings, and adhesives; thus the reliability of the system. Refer to Section 065-330-320 for general precaution to be observed when using cleaning fluids.

2. SAFETY PRECAUTIONS

2.01 Freon TA and the solvent used as a carrier in the KS-19416 lubricant (trichloroethane) can be harmful if inhaled in sustained quantities. Since both of these compounds are solvents, they will extract skin oils resulting in dryness, cracking, and in some instances, infection. It is also possible for the solvents or their vapors to be absorbed through the pores of the skin resulting in much the same effects as inhalation. For these reasons, the following precautions should be observed.

- (a) Work in a well ventilated area.
- (b) Avoid prolonged exposure to the vapors.
- (c) Keep the work piece at least 1 1/2 feet away from the face so that vapors are not breathed directly.
- (d) Do not smoke in the area where solvents are being used.
- (e) Wear safety glasses with side shields. If solvent should accidentally contact the eyes, flush thoroughly with water.
- (f) Wear rubber gloves to avoid solvent to skin contact.

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