302- AND 308-TYPE CONNECTORS

REPAIR PROCEDURES

1. GENERAL

1.01 This section covers information required for maintenance and repair of 302- and 308-type connectors. Information on the 303- and 305-type connectors is provided in Section 201-208-805.

1.02 The reasons for reissuing this section are listed below. Since this reissue is a general revision, no revision arrows have been used to denote significant changes.

(a) To add information on the 308-type connector.

(b) To move information on the 303- and 305-type connector to Section 201-208-805.

(c) To change the section title.

(d) To generally update this section.

1.03 Figures in this section illustrate the various piece parts in their proper relation to other parts of the apparatus. Associated tables provide additional information. The piece-part numbers of the various parts are given together with the names of the parts.

1.04 When ordering piece parts for replacement purposes, give both the part number and name of the part, ie, P-181434 screw. Do not refer to the section number or to any information shown in parentheses following the piece-part numbers.

1.05 Information enclosed in parentheses is not ordering information. It may be references to notes or parts referred to in other portions of the section not considered replaceable or part names in general use in the field if they differ from those assigned by the manufacturer.

1.06 Before making repairs to the apparatus referred to in this section, craft personnel should be familiar with the contents of the following sections:

- 069-132-811—Punched or Wire-Type Terminals (Not Having Notches or Perforations) Method of Making and Removing Wrapped Connections

- 069-140-811—Soldered Connections—Using Soldering Coppers—Method of Making and Removing

2. PRECAUTIONS

2.01 This section covers only those parts which can be replaced in the field. No attempt should be made to replace parts not designated.

2.02 Exercise extreme care when removing and connecting wires and replacing terminals to prevent damage to adjacent connections and to avoid crosses to operating circuits.

2.03 The ends of wire previously used for a solderless wrapped connection or soldered connection shall not be reused for subsequent connections. The end of the wire must be cut off and reconnected by solderless wrapping or soldering. Except in cross-connection fields, it will be necessary to splice the wire if there is not enough slack to provide the number of turns required for solderless wrapped connections. In cross-connection fields, the wire shall be rerun to provide sufficient length for a solderless-wrapped connection. (See Section 069-132-811.)

2.04 Figures 1 and 2 illustrate the 302- and 308-type connectors and the relationship of piece parts.

3. TOOLS AND MATERIALS

3.01 A list of tools and materials used in this section follows:

CODE OR SPEC NO.	DESCRIPTION
—	B long-nose pliers
KS-6320	Orange stick
—	Solder
KS-8740	Soldering copper (or other KS-8740 coppers rated at 95 watts)
—	Wire wrap gun.

4. REPLACEMENT OF BROKEN OR DAMAGED TERMINALS

REMOVING TERMINALS

4.01 ***840212476 Terminal (Mfr Disc) or 841634207 Terminal (Fig. 3 and 4)***

(a) On the wiring side of the connector, tag and remove the leads from the broken or damaged terminal.

(b) Using B long-nose pliers, close the tangs on the terminal or break the terminal flush with the back side of the connector panel and remove the terminal from the front side of the connector panel.

4.02 ***P-46D862 Terminal (Fig. 3 and 4)***

(a) On wiring side of the connector, use a soldering copper and remove all solder from the terminal to be replaced.

(b) Using B long-nose pliers, close the tangs on the damaged or broken terminal or break the terminal flush with the back side of the connector panel and remove the terminal from the front side of the connector panel.

4.03 ***842137986 Terminal (Fig. 3) and 842360851 (Fig. 4)***

(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 test contact side of the connector, grasp the terminal head with the B long-nose pliers and pull the terminal from the block.

REPLACING TERMINALS

4.04 Prior to making connections to terminals, refer to paragraph 2.03.

4.05 ***840212476 Terminal (Mfr Disc) or 841634207 Terminal (Fig. 3 and 4)***

(a) Using the fingers, properly orient the new terminal and insert into the same hole from which the old terminal was removed. Push the terminal into the hole as far as possible.

(b) Insert a protector unit into the connector to hold the terminal in place.

(c) On the wiring side of the connector, use the B long-nose pliers and pull the terminal into its proper position. Pay attention to the orientation of the terminal. Determine that the terminal is in the correct position by observing the position of adjacent terminals.

(d) Using B long-nose pliers, carefully spread the tangs of the terminal to lock the terminal in place in the connector panel.

(e) Reconnect all leads to the terminal.

(f) Remove the protector unit.

4.06 ***P-46D862 Terminal (Fig. 3 and 4)***

(a) Using the fingers, properly orient the new terminal and insert into the same hole from which the old terminal was removed. Push the terminal into the hole as far as possible.

(b) Insert a protector unit into the connector to hold the terminal in place.

(c) On the wiring side of the connector, use the B long-nose pliers and pull the terminal into its proper position. Pay attention to the orientation of the terminal. Determine that the

terminal is in the correct position by observing the position of adjacent ground terminals.

(d) Using B long-nose pliers, carefully spread the tangs of the terminal to lock the terminal in place in the connector panel.

(e) Remove the protector unit.

(f) Using the soldering copper, solder the terminal to the ground bus.

4.07 ***842137986 Terminal (Fig. 3) and 842360851 (Fig. 4)***

(a) From the front side of the connector, insert the new terminal into the same hole from which the old terminal was removed.

(b) Using the fingers, push the terminal into the hole as far as possible.

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

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

5. REPLACEMENT OF ASSOCIATED PARTS (308-TYPE CONNECTOR)

5.01 ***Threaded Inserts (Fig. 2)*** The 100-pair P test connector attaches to the 308-type connector by means of two thumbscrew fasteners which engage threaded inserts at the top and bottom of the test contact field. The threaded inserts have different com code numbers due to the varying length of the inserts. Com code numbers for the two inserts are as follows:

Top Insert—842137879

Bottom Insert—842357543

5.02 To remove and replace the threaded inserts from the connector panel, the connector must be removed from the protector frame. To remove the connector from the frame proceed as follows:

(a) Remove and retain two mounting screws on the rear of the connector.

(b) Remove and retain the two mounting screws from the front of the connector. Removal of these screws will allow the connector to be removed from the protector frame.

5.03 To remove the threaded inserts from the connector panel, proceed as follows:

(a) Observe the mounting of the inserts. At the front side of the connector, remove and retain the flathead screws which secure the insert in position.

(b) Remove the insert carefully to prevent a short in the test terminal field.

(c) Install the insert and secure with the flathead screws removed in Step(a).

(d) Replace the connector on the protector frame by reversing the steps in paragraph 5.02.

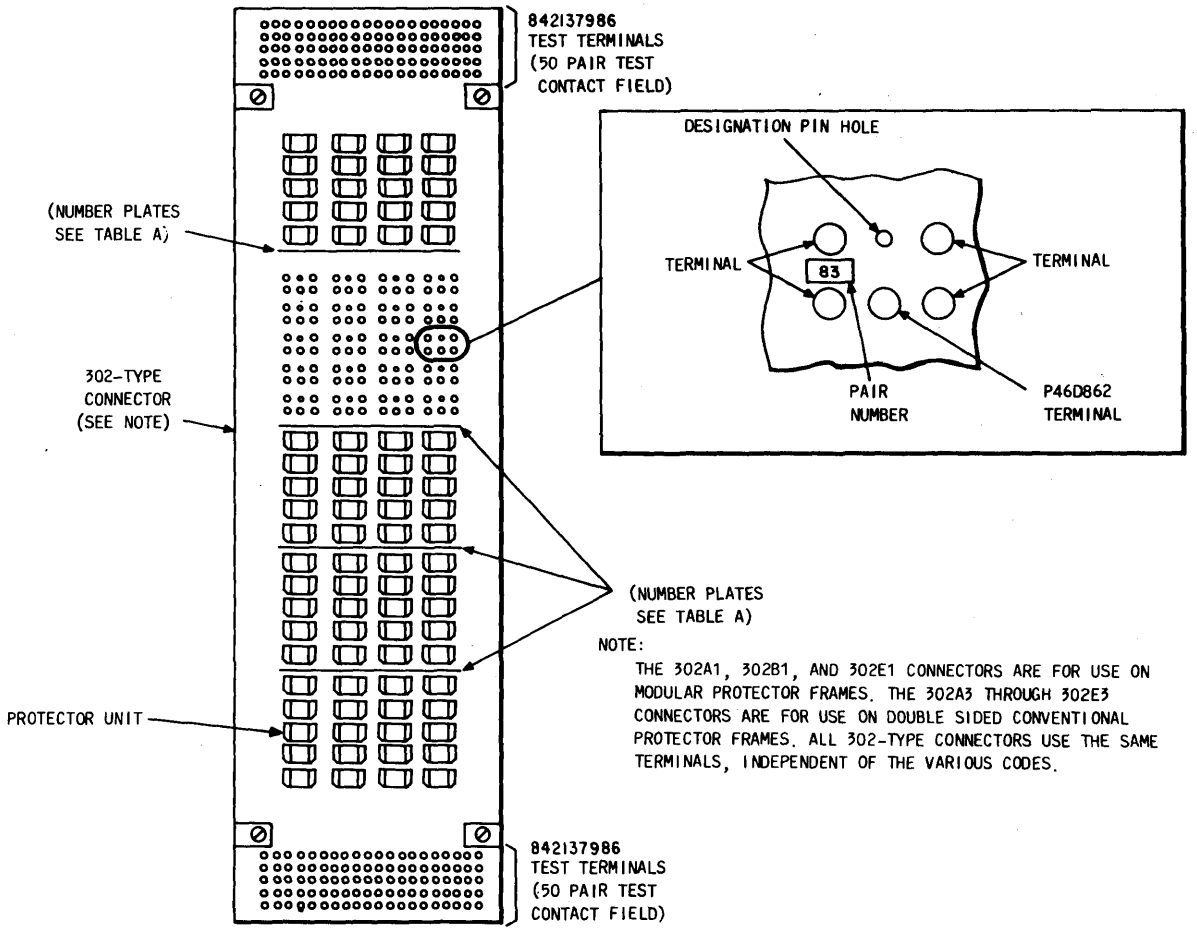

Fig. 1—302-Type Connector Panel

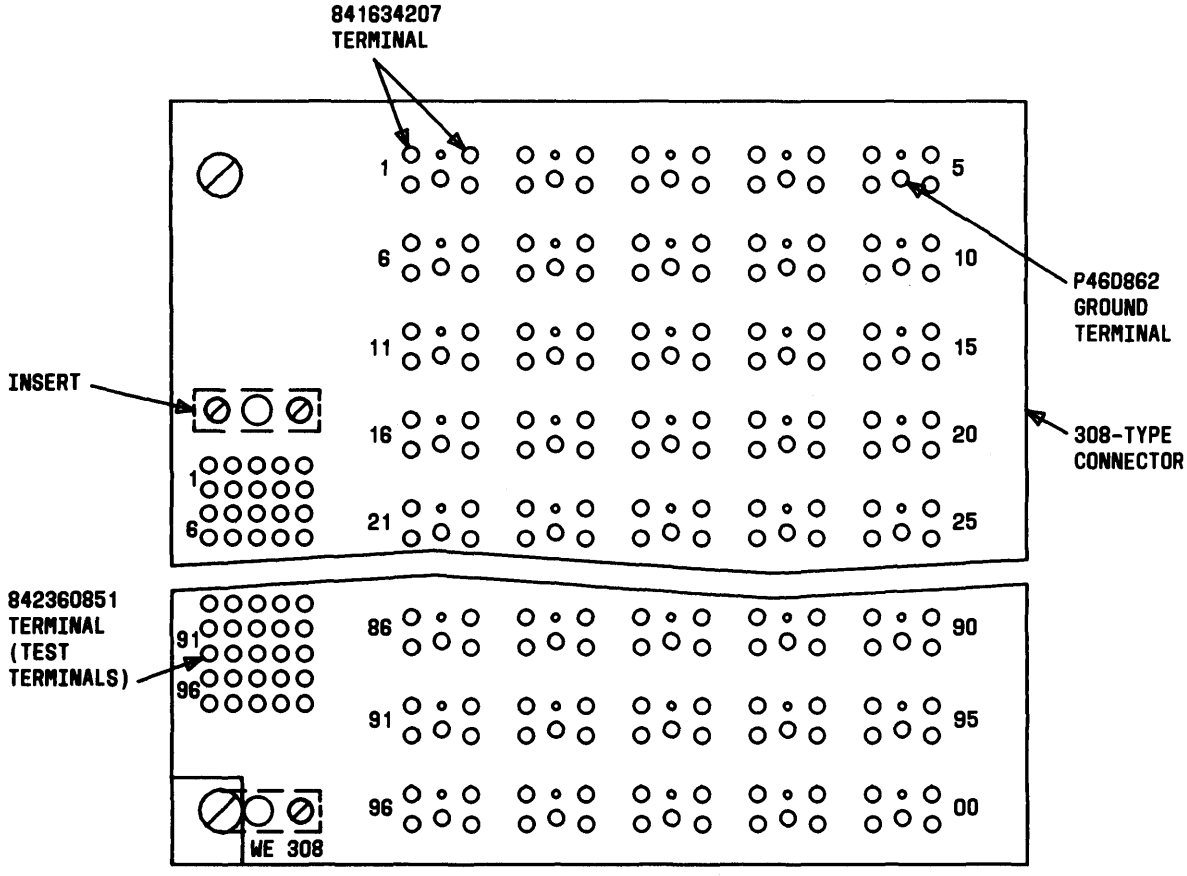

Fig. 2—308-Type Connector Panel

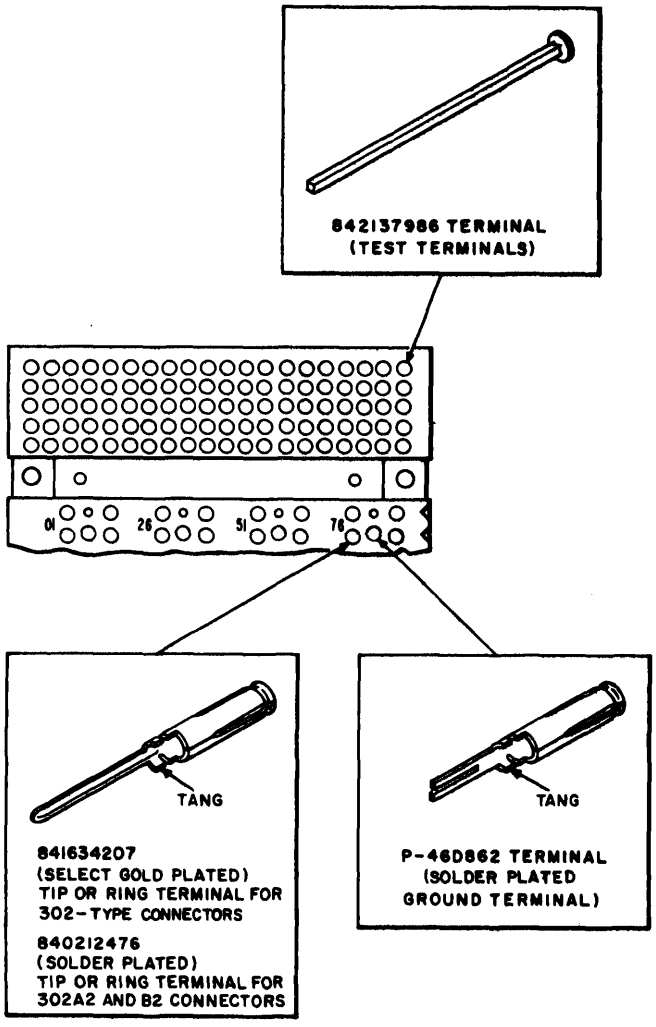

Fig. 3—302-Type Connector, Front Side

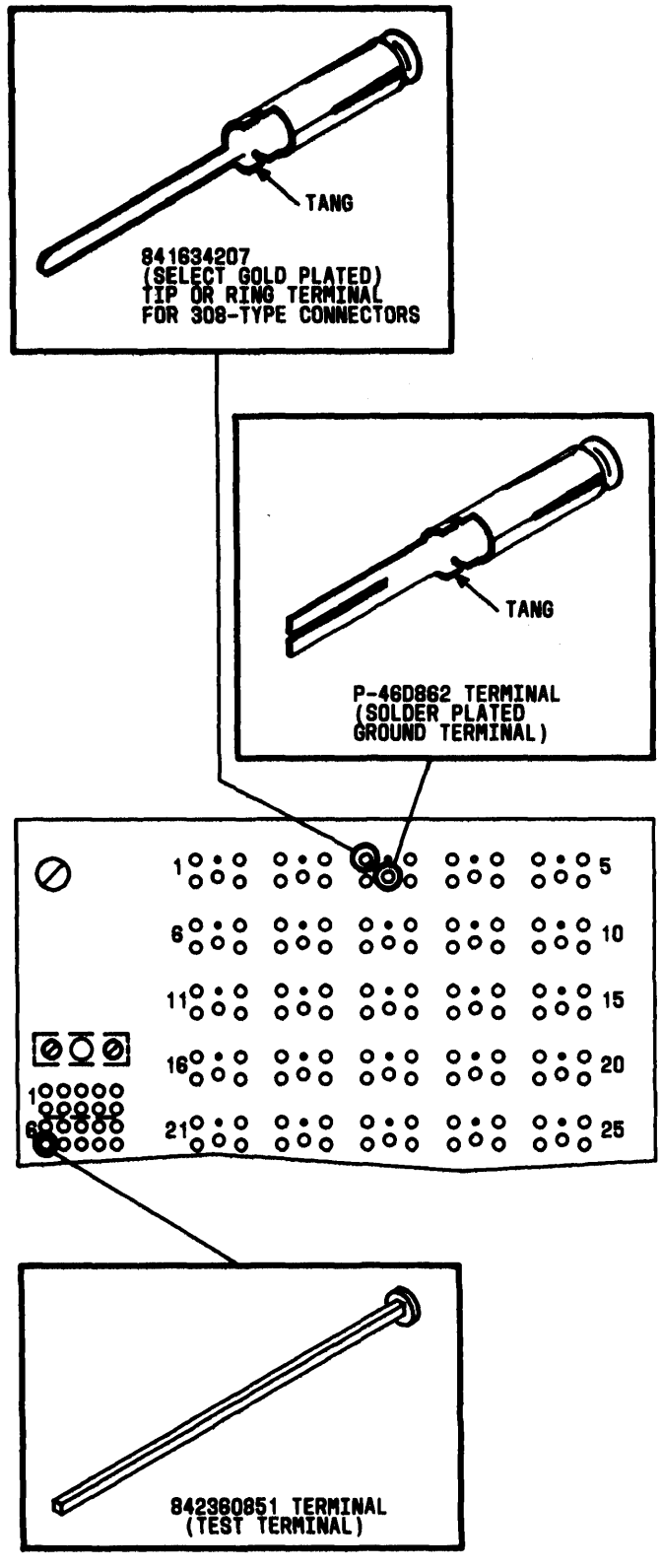

Fig. 4—308-Type Connector, Front Side

TABLE A

NUMBER PLATES FOR 302-TYPE CONNECTORS

USED WITH	PLATE NUMBER	STENCILED			
3-Type Protector Units	P-19E131 P-19E132 P-19E133 P-19E134	5-6, 10-11, 15-16, 20-21,	30-31, 35-36, 40-41, 45-46,	55-56, 60-61, 65-66, 70-71,	80-81 85-86 90-91 95-96
4-Type Protector Units	P-46L642 P-46L643 P-46L644 P-46L645	5-6, 10-11, 15-16, 20-21,	30-31, 35-36, 40-41, 45-46,	55-56, 60-61, 65-66, 70-71,	80-81 85-86 90-91 95-96
5-Type Protector Units	P-19E127 P-19E128 P-19E129 P-19E130	5-6, 10-11, 15-16, 20-21,	30-31, 35-36, 40-41, 45-46,	55-56, 60-61, 65-66, 70-71,	80-81 85-86 90-91 95-96