

SECTION 19. UNUSED CONNECTORS AND UNUSED WIRES

11-260. GENERAL. Connectors may have one or more contact cavities that are not used. Depending on the connector installation, unused connector contact cavities may need to be properly sealed to avoid damage to the connector, or have string wire installed. Unused wires can be secured by tying into a bundle or secured to a permanent structure; individually cut with strands even with insulation; or pre-insulated closed end connector or 1 inch piece of insulating tubing folded and tied back.

11-261. QUICK REFERENCE CHART. A quick reference chart of unused connector contact cavity requirements is given in table 11-25. These requirements apply to harness manufacturing or connector replacement only.

11-262. UNPRESSURIZED AREA CONNECTORS. Connectors may be installed in unpressurized areas of the aircraft. Unused connector contact cavities installed in unpressurized areas should be properly sealed as follows:

a. Firewall Connectors Installations.

Firewall unused connector contact cavities should be filled with spare contacts and stub wires. (See figure 11-39.)

(1) Construct stub wires using high temperature wire (260 °C). Ensure that stub wires are of the same type of wires in the bundle.

(2) Crimp the proper contact, for the connector and cavity being used, onto the wire. Install the crimped contact into the unused cavity.

(3) Extend stub wires beyond the back of the connector clamp from 1.5 to 6 inches. Feather trim stub wires to taper wire bundle.

(4) Secure wire ends with high tem

perature (greater than 250 °C) lacing cord. Nylon cable ties are not allowed for this installation.

NOTE: Both connectors mating through the engine fire-seal are considered firewall connectors. Connectors mounted on or near, but not through, the engine fire-seal are not considered firewall connectors.

b. Non-firewall Connector Installations.

In this type of installation all unused connector cavities must also be filled with spare contacts. It is not required, however, to crimp stub wires on filling contacts.

Fill unused contact cavities with spare contacts and Teflon sealing plugs or rods. (See figure 11-40.) Rods shall be cut so that they extend 1/8 to 1/4 inch beyond the surface of the grommet when bottomed against the end of the spare contact. (See table 11-26 for dimensions.)

11-263. PRESSURIZED AREAS. Connectors installed in pressurized areas of the aircraft may be divided into two main installation categories, sealed and unsealed.

a. Sealed connector installations. Sealed connectors installed in pressurized areas must have their unused contact cavities filled with Teflon sealing plugs or rods. (See figure 11-40.) Installation of spare contacts is optional, except for future wiring addition requirements. (See paragraph 11-234). No stub wires are required.

b. Unsealed Connector Installations. It is not required to fill unused contact cavities of unsealed connectors installed in pressurized areas with Teflon sealing plugs or rods. Installation of spare contacts is optional, except for future wiring addition requirements. (See paragraph 11-234.)

TABLE 11-25. Contact cavity sealing-quick reference.

| Sealing Means | Connector Installation Types | |
|--------------------------------------|------------------------------|--------------|
| | Unpressurized Area | |
| | Firewall | Non-Firewall |
| Sealing Plugs or Teflon Sealing Rods | No | Yes |
| Stub Wires (Note 2) | Yes | No |
| Spare Contacts | Yes | Yes |

NOTE 1: Sealing plugs may be included with the spare connector and may be used for sealing unused contacts. Sealing rods are procured from stock by the foot. (See table 11-26 for sealing rod dimensions.)

NOTE 2: Stub wires must be of the same type as the other wires of the bundle.

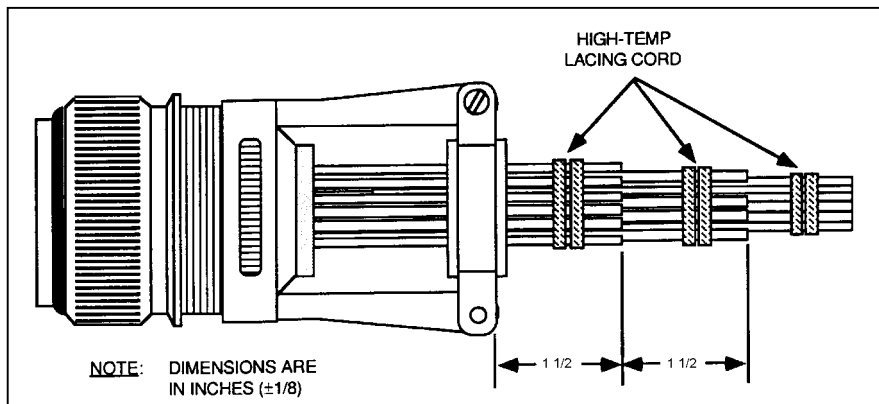


FIGURE 11-39. Stub wire installation.

TABLE 11-26. Sealing rod dimensions.

| CONTACT SIZE (AWG) | DIAMETER (INCHES) | ROD LENGTH (INCHES) | |
|--------------------|-------------------|---------------------|------|
| | | MIN | MAX |
| 20 | 1/16 | 5/8" | 3/4" |
| 16 | 3/32 | 7/8" | 1" |
| 12 | 1/8 | 7/8" | 1" |

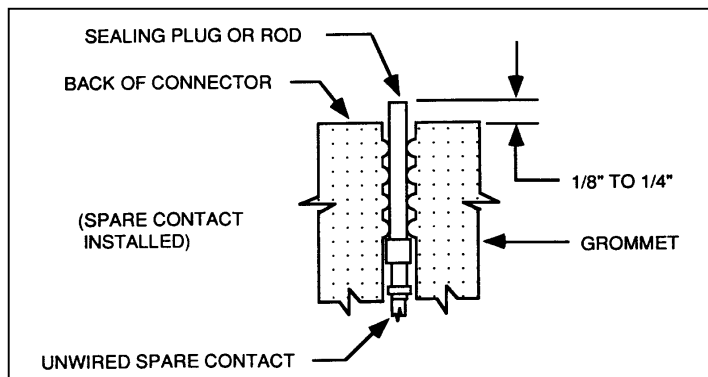


FIGURE 11-40. Sealing unused contact cavities-unpressurized areas-(cut-away view).

11-264.—11-270. [RESERVED.]