21-33101-27

Contact, Socket, Coaxial, Type LJT-R and TV-R Crimp
(MIL-C-38999 Series I and III Electrical Connectors)
Installation Instructions

Standard contact arrangements available in Series I and III are: 17-2, 21-75, 21-79, 25-7, 25-17, 25-26 and 25-46

1. Slide piggyback grommet seal over cable jacket, rubber seal end first.
2. Slide the outer crimp ferrule over the outer cable jacket.
3. Cable description: M17/128-RG400 or equivalent
   3.1 Jacket – Type IX .195 dia. maximum
   3.2 Outer conductor – double braid of 36 awg silver coated wire .171 dia. maximum
   3.3 Dielectric core – solid extruded PTFE .116 ±.005 dia.
   3.4 Inner conductor – stranded silver coated copper wire .0384 ±.0010 dia.
4. Strip the outer cable jacket .740 inches as shown.
   CAUTION: Do not cut or nick cable outer conductor strands under outer cable jacket.
5. Trim the cable outer conductor (double braid) to .410 inches as shown.
6. Flare cable outer conductor (double braid) to expose cable dielectric core.
7. Carefully cut away .410 inches of exposed cable dielectric core.
   CAUTION: Do not cut or nick cable inner conductor strands under cable dielectric core.
8. Slide the grooved retainer, tapered end first, over the cable dielectric core, until .050 of the dielectric core extends through the grooved retainer.
9. Slide the rear (hard dielectric) insulator, large end first, over the cable stranded inner conductor until it firmly butts the end of the grooved retainer.
   CAUTION: Be sure all strands of the center conductor extend through the rear insulator.
10. Trim fit the inner pin contact wire well to the cable stranded inner conductor. The inner pin contact wire well end must butt the rear insulator and the stranded inner conductor must be visible in the inner pin contact wire well inspection hole.
    CAUTION: All wire strands must be inside the wire well.
11. Crimp the inner pin contact wire well using tool part number M22520/2-01 and tool positioner part number M22520/2-10. The tool selector setting shall be set at number “8”.
12. Carefully slide the contact front insulator over the inner pin contact until the inner pin contact shoulder comes to a firm butt inside the front insulator. A gap between the front insulator and rear insulator outer diameters is permissible.
13. Carefully slide the outer socket contact, ringed end first, over the insulators and grooved retainer and under the cable outer conductor until the front insulator is fully seated in the outer socket contact front portion as illustrated.
14. Form the cable outer conductor strands over the outer socket contact ringed portion and trim outer conductor length if necessary so that the outer conductor ends do not butt the outer socket contact thin crimp flange.

Continued on back.

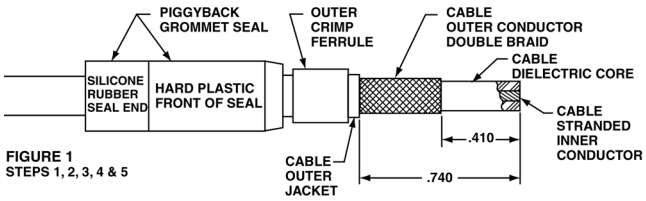

FIGURE 1
STEPS 1, 2, 3, 4 & 5

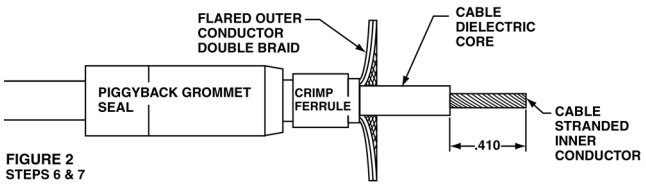

FIGURE 2
STEPS 6 & 7

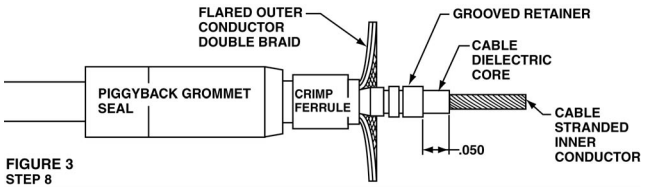

FIGURE 3
STEP 8

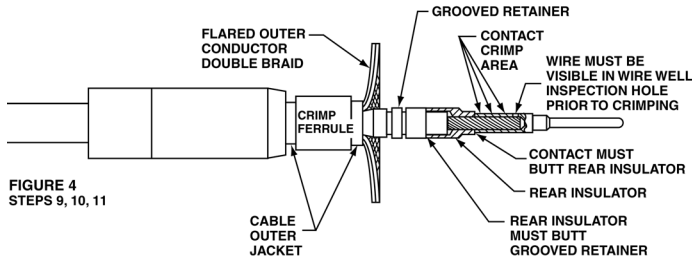

FIGURE 4
STEPS 9, 10, 11

15. Slide the rear crimp ferrule forward over the cable outer conductor and outer socket contact. Observe dimension shown for location of ferrule end. Be sure shields are tight and outer socket contact and inner components are still fully seated.
16. Using an M22520/5-01 tool frame and die set M22520/5-45 placed correctly in tool frame, simultaneously crimp the rear crimp ferrule and outer socket thin flange in the die set opening marked “A”. (.231 inches across the hex flats). Be sure the tool frame handles are fully cycled.
    (Note: Crimping the thin flange traps the rear insulator in place inside the outer socket contact and captivates the inner pin contact).
17. After crimping to length illustrated, the contact portion behind the .316 max. diameter retention flange, must not exceed .276 inches effective diameter.
    (Note: If the effective diameter is greater than .276 inches, check the crimp tool and dieset for proper dimensions and operation).
18. After crimping, the contact should be examined for defects that may be due to die set configuration other than that configuration per M22520/5-45.
    In addition, an electrical integrity dielectric withstanding voltage test of 500 volts AC RMS, applied between the inner and outer contact may be performed in accordance with test method set forth in MIL-C-39029.

CONTACT INSERTION INTO CONNECTOR

Hand insert the contact assembly through proper grommet opening until contact firmly seats inside the connector insert cavity. Tug slightly on cable to insure the contact has properly seated in the insert contact retention device. Slide piggyback grommet seal down the cable until hard plastic portion enters the grommet cavity and the piggyback grommet seal comes to a firm butt inside the grommet cavity or the rubber seal portion butts against the crimped end of the contact.

CONTACT REMOVAL FROM THE CONNECTOR

Slide the piggyback grommet seal up the cable and out of the connector grommet cavity approximately 1.000 inches. Position Daniels Mfg. Co. removal tool part number “DRK 264-8” around the cable jacket and slide tool down the cable until tool tips enter the rear grommet and come to a positive stop. Hold the tool tips firmly against the positive stop on the contact and grip the cable jacket and simultaneously remove tool, contact and cable.
(Note: Amphenol removal tool part number 11-9170 or equivalent tools may also be used).

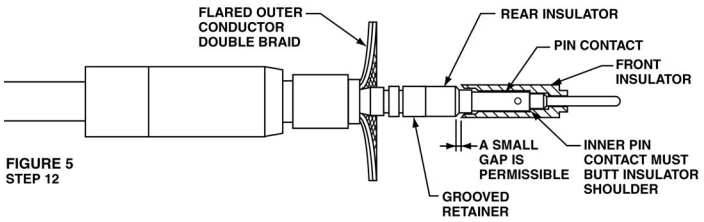

FIGURE 5
STEP 12

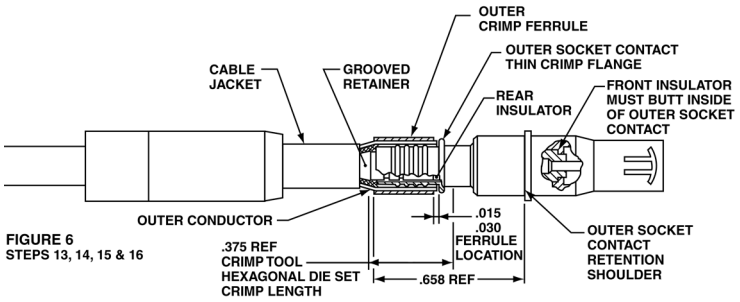

FIGURE 6
STEPS 13, 14, 15 & 16

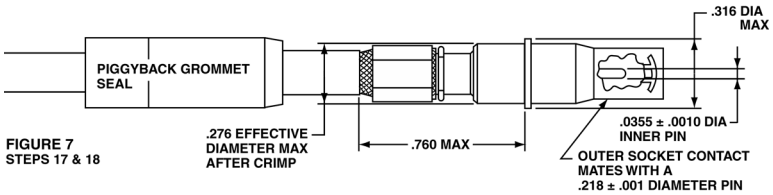

FIGURE 7
STEPS 17 & 18

Amphenol

Amphenol Corporation
40-60 Delaware Ave.
Sidney, NY 13838-1395
Website: www.amphenol-aerospace.com