HYSOL CR SPLICE CASE GROMMET
DESCRIPTION AND INSTALLATION

Contents

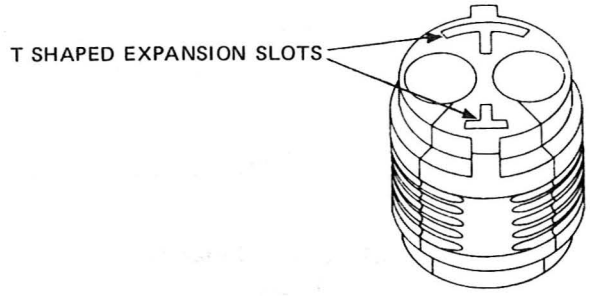
1. GENERAL

1.01 This section provides the description and installation of the Hysol CR Splice Case Grommet. It is designed to be installed in a single opening of a 21D or 31D splice case. The grommet will accommodate two T1-Carrier apparatus case stubs (CA 2110 cable — 104 pair Lepeth).

1.02 The grommet does not require sealing washers or sealing tape.

2. DESCRIPTION AND NOMENCLATURE

2.01 The Hysol CR Splice Case Grommet is made of polyurethane. (See Figure 1.)



Hysol CR Splice Case Grommet
Figure 1

2.02 The grommet and other material required to complete the installation are packaged in a kit. There are two kits available; the 3100 series, having one sealing grommet, and the 3200 series with two sealing grommets. The 3200 kit (see Figure 2) and its components are described below:

(a) Grommets — Provides an airtight seal around the CA2110 stub cable and the splice case port.

(b) Sealant — A two-part mixture (A and B) provides a good seal between the split in the grommet, between the grommet and cable and the grommet and splice case.

(c) Wooden Paddle — Used to stir the sealant.

(d) Emery Cloth — Used to clean the cable sheath and splice case port.

(e) Brush — Used to apply the sealant.

(f) Gloves — Provides protection while using the sealant.

CR 3200 Kit
Figure 2

2.03 Ordering information for the kits is as follows:

- (ea) Kit, Grommet, Hysol CR (3100 or 3200)

2.04 The sealant can be ordered separately as a kit. It is used where a splice case has been removed and the existing grommet is reusable. The kit consists of:

(a) Sealant (Parts A and B)

(b) Mixing paddle

(c) Brush

(d) Gloves

2.05 The kit is ordered as:

- (ea) Kit, Sealant, Hysol C1

3. BONDING CABLES AND INSTALLING GROMMETS

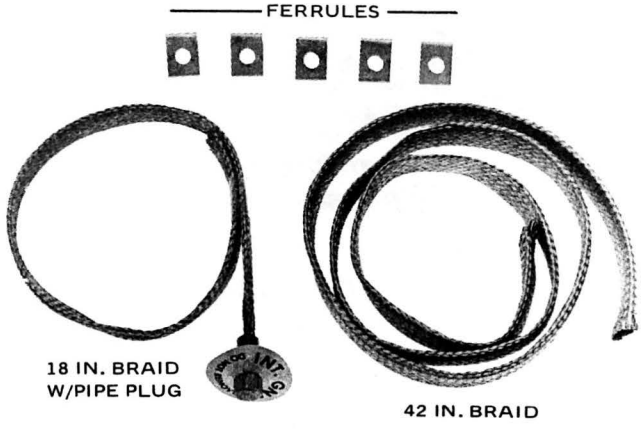
3.01 The sheath or aluminum shields of all cables entering one side of a splice must be electrically connected and bonded across the opening to cables entering the other side of the splice. Continuity must also be established between the cables and the splice case.

3.02 Bonding is accomplished with the 8000-714 Splice Case Bond Kit. The bonding kit consists of the following items. (See Figure 3.)

(a) A 42-inch length of No. 6 bonding braid — used to interconnect cables and bond across the splice.

(b) An 18-inch length of No. 6 bonding braid with pipe plug — used to bond splice case to cables.

(c) Five ferrules — used to connect braid to bond clamps.



8000-714 Splice Case Bond Kit
Figure 3

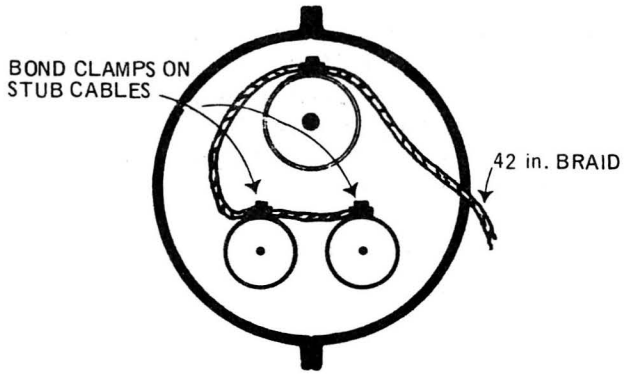
3.03 Prepare the sheath of the cables in accordance with the instructions for using the D Bond Clamp and proceed as follows:

(a) Position bond clamps as shown in Figure 4.

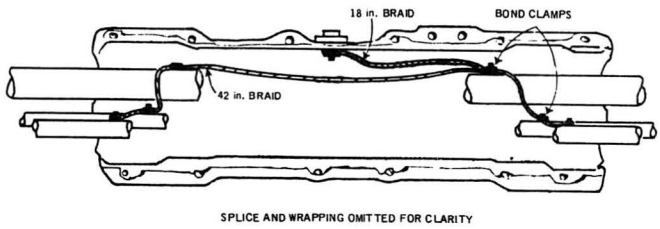
(b) Place ferrules approximately 6 inches from each end of the 42-inch braid. (Leave enough braid beyond ferrules for bonding to the stub cables.)

(c) Punch holes in the braid and connect to clamps on main cable as shown in Figures 4 and 5. This serves as a temporary bond during the splicing operation.

NOTE: Do not connect the braid to the stubs at this time.



Bond Clamps and Braid Installed
Figure 4



Completed Bond Installation
Figure 5

3.04 To complete the splicing operation, set up stubs and cable in the final location and place grommets as follows:

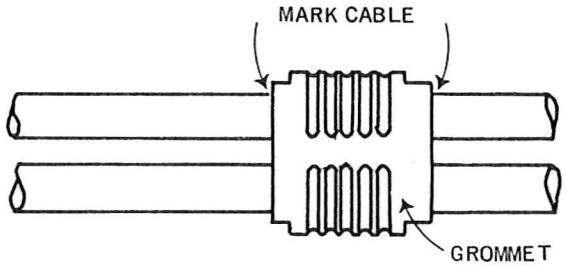
(a) Using the splice case as a guide, determine the location of the grommet. The grommet will be seated in the same area of the splice case as the sealing tape and washers in a conventional

installation. Place the grommet on the stubs as shown in Figure 6, mark the sheath at both ends of the grommet, and remove the grommet.

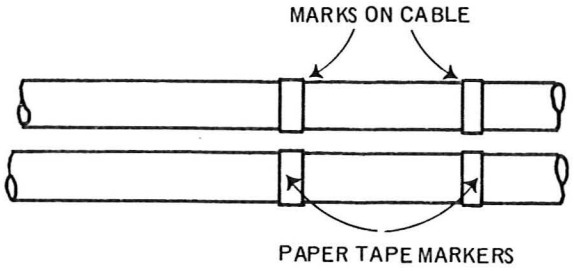
(b) Place B Paper Tape at the marks as shown in Figure 7.

(c) Using a carding brush (or the emery cloth provided in the kit), scuff the cable sheaths between the paper tape markers. Inspect, using a Splicer's Mirror where necessary, to be sure the scuffing is completely around the cable stubs. Scuff both halves of the splice case where contact will be made with the grommet.

NOTE: Always scuff the cables and case around the circumference. Do not scuff in a parallel direction to the length. Longitudinal marks will increase the possibility of air leaks.



Marking Sheath
Figure 6



Placing Paper Tape Markers and Sealant
Figure 7

(d) Using the gloves provided, prepare the sealant by pouring Part B into a can marked Part A. Mix thoroughly for one to two minutes, scraping the sides of the container frequently. The working life of the sealant is about 30 minutes.

(e) Using the brush provided:

(1) Coat the cable stub sheath between the tape markers with sealant.

(2) Apply sealant to the inner surfaces of the grommet holes. (See Figure 8.)

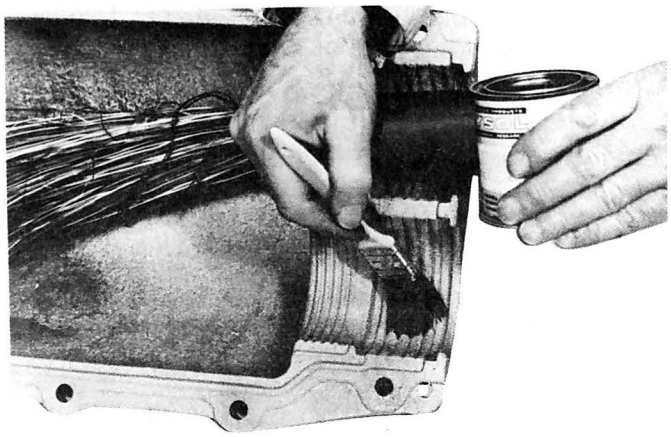
(3) Apply sealant to the area of both halves of the splice case which will contact the grommet. (See Figure 9.)

NOTE: A thin film of sealant is all that is necessary.

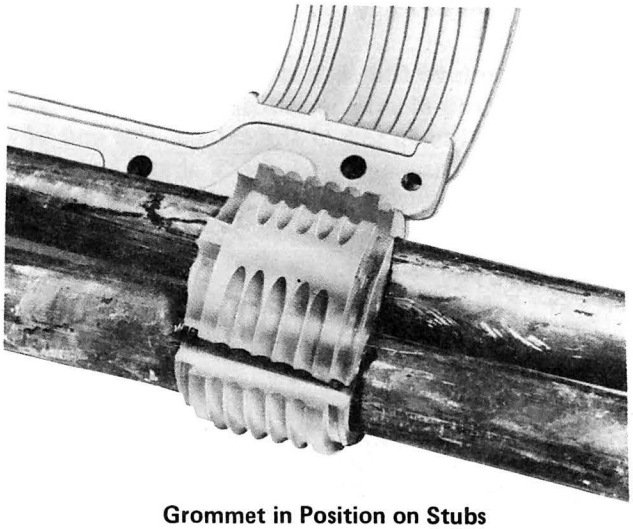
(f) Remove the tape markers and position the grommet on the stubs over the coated area with the slits on top of the cables. The end of the grommet that contains the T shaped expansion slots (see Figure 1) should face toward the inside of the case. (See Figure 10.)

(g) Press the grommet around the stubs and apply sealant to the slits or cuts of the grommet.

Coating Grommet Holes with Sealant
Figure 8



Coating Splice Case with Sealant
Figure 9



Grommet in Position on Stubs
Figure 10

Connecting Bond Braid to Stubs

3.05 Position ferrules on the running end of the 42-inch piece of braid. Punch holes in the braid and connect it to stub cables as shown in Figure 4.

3.06 Wrap the splice in an approved manner. Leave the braid outside the wrap for dielectric reasons.

Bonding Splice Case to Sheath

3.07 Position the back half of the splice case and proceed as follows:

(a) Thread the 18-inch length of braid through the pressure test hole in the back half of the case.

(b) Apply PIPETITE — Stik to the threads of the pipe plug and tighten.

(c) Place a ferrule on the end of the 18-inch length of braid. Punch a hole through the braid and connect it to the D Clamp on the main cable. The completed installation is illustrated in Figure 5.

(d) Place the "Do Not Remove" marker on pipe plug which indicates that the bond braid is attached. Remove the other pipe plug in the case for pressure testing.

4. PLACING SPLICE CASE

4.01 Place the assembled stubs into the back half of the splice case. Make sure that the grommet aligns properly with the case.

4.02 Place the front half of case in position, being careful not to disturb the sealing cord.

4.03 Place the bolts and nuts in the case and tighten it in the sequence prescribed in other Bell System Practices. To insure proper closing of the grommet slit, tighten the bottom bolts ahead of the top bolts.

4.04 Tighten the bolts until the cases are metal-to-metal. Check them with a B Torque Wrench; 300-inch pounds minimum to 450-inch pounds maximum. Wipe off the excess sealant.

5. PRESSURE TESTING

5.01 Test it with approved pressure testing solution after a back pressure of five pounds has been reached.

5.02 Bolts may loosen due to the relaxation of the sealing compound during the pressure testing operation. Therefore, after pressure testing is completed, recheck and retighten all bolts with a B Torque Wrench to a minimum of 300-inch pounds and a maximum of 450-inch pounds.

6. OPENING AND REASSEMBLING

6.01 Remove the bolts from the case and jack the case halves apart as shown in other Bell System Practices. Be careful not to pry or damage the sealing grommet in the above process.

6.02 The sealing grommet will not require replacement unless it is damaged. However, it should be removed from the cables and inspected for any physical damage. If damaged, it should be discarded and a new grommet installed as described in Part 3.

6.03 If the grommet is not damaged, recoat the grommet, cable and splice case with sealant. Then reinstall it as described in Part 3.

6.04 The C1 Sealant Kit has all the material required for the re-coating operation. It is not necessary to order the complete grommet kit.