

BELL SYSTEM PRACTICES
Station Installation and Maintenance

SECTION C33.401
Issue 1, 11-22-33
Standard

INSIDE PROTECTED TERMINALS
FUSING AND WIRING

1. GENERAL

- 1.01 This section covers the fusing and wiring of LA and LB type inside protected terminals.
- 1.02 Reference shall be made to the handbook specification or replacing information covering "Station and P.B.X. Protector Installation" for data regarding the fusing and wiring of other types of protectors.

2. FUSING OF LA AND LB TYPE FUSE CHAMBERS

2.01 Fig. 1 shows a cross-section view of these fuse chambers. The feeder cable pairs are terminated on lugs at the rear right and left-hand sides of the fuse chamber designated (F) in Fig. 1. In LB type fuse chambers the house cable pairs are terminated on the binding post lugs designated (H) in Fig. 1. House cable pairs are not terminated in LA type fuse chambers but instead are terminated in a separate binding post chamber as indicated in Fig. 2.

2.02 Each feeder cable conductor placed in service in an LA or LB type fuse chamber must be equipped with a separate 7A fuse. To place a 7A fuse, loosen the lock nut on the fuse, place the male end of the fuse in the lug at the rear of the fuse chamber, slip the end equipped with a lock nut into the fuse clip at the front of the fuse chamber and then screw the fuse into the lug at the rear and tighten the lock nut to hold the fuse in the fuse clip.

2.03 Each feeder cable conductor placed in service must also be equipped with Nos. 26 and 27 protector blocks. To place the protector blocks, raise the spring at the inside front edge of the fuse chamber and place the protector blocks under the spring as shown in Fig. 1.

2.04 The two parts of the two-piece clip inside of LA and LB type fuse chambers are normally joined together with a connector P-290225 as shown to the right in Fig. 1.

If the connector is removed and the angle portion of the two-piece clip is removed from the binding post and reinstalled turned through an angle of 180°, a 60 type fuse can be placed in the two-piece clip as shown to the left in Fig. 1.

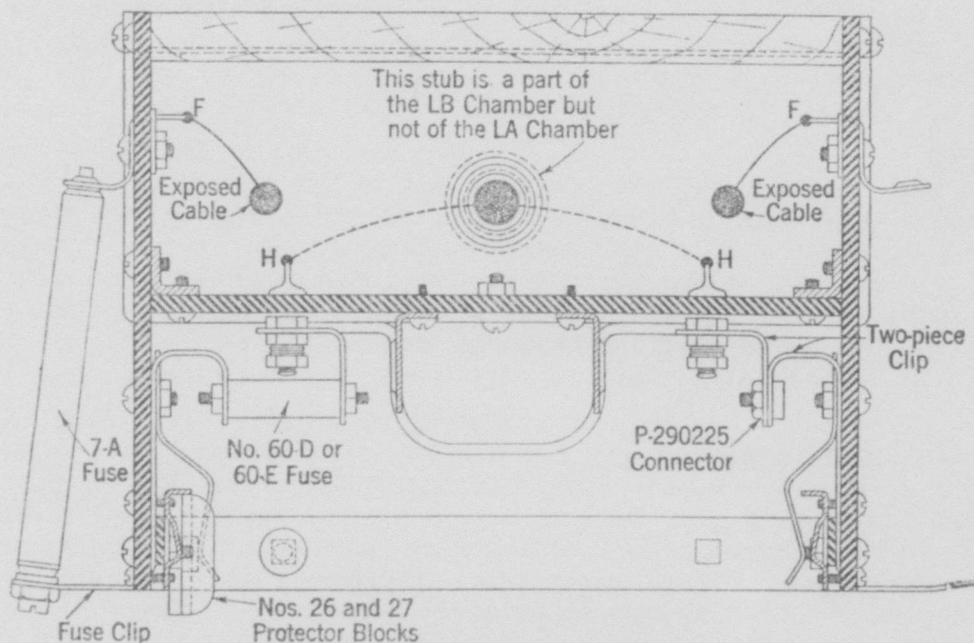


Fig. 1—Cross-sectional View of LA or LB Type Fuse Chamber.

2.05 For all subscriber lines (except P.B.X. trunks) install 7A fuses, place protector blocks and see that the two-piece clip is joined with a connector P-290225.

2.06 For P.B.X. trunks, generator pairs and off-premises extension stations install 7A fuse, place protector blocks and install 60D (red shell) sneak current fuse on each conductor.

Caution: Certain private lines, leased lines and special circuits may require 60D (red shell) sneak current fuses. Information regarding the fusing of these circuits should be obtained locally.

2.07 Install 7A fuses, protector blocks and 60E (black shell) fuses on each conductor used for P.B.X. battery feeders. See 3.06 for strapping of P.B.X. battery feeders.

3. WIRING OF LA TYPE CABLE TERMINALS

3.01 When an LA type fuse chamber is used, the house cable pairs are terminated in a binding post chamber or on connecting blocks placed adjacent to the fuse chamber.

It is, therefore, necessary to employ jumpers between the fuse chamber and the binding post chamber or connecting blocks for cross-connection purposes. A typical LA type cable terminal installation is shown in Fig. 2.

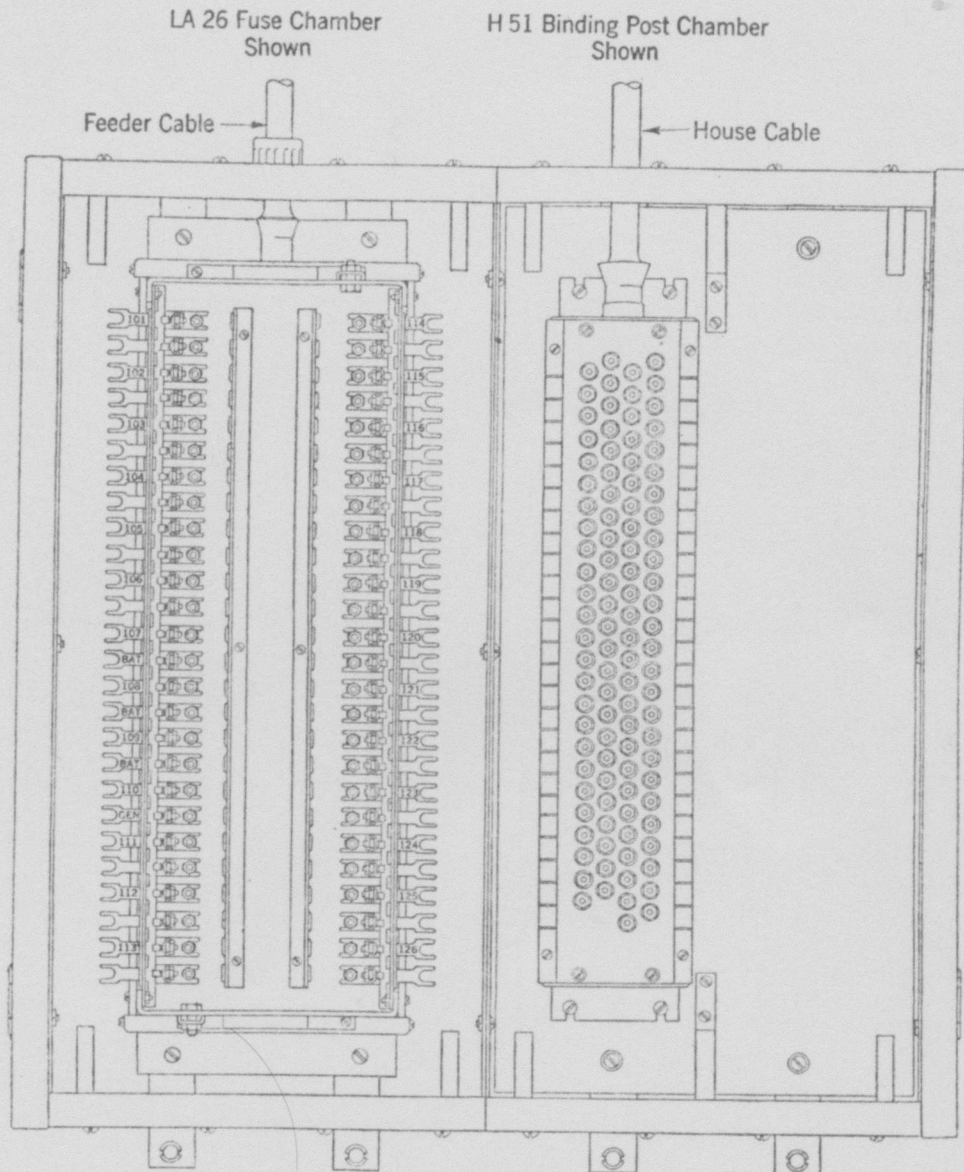


Fig. 2—Front View of LA Type Cable Terminal.

3.02 In order to provide a uniform wiring arrangement and avoid congestion of jumpers it is desirable to place the jumpers in accordance with Fig. 3. The numbered sections F1, F2, etc., and B1, B2, etc., in Fig. 3 are formed by visually dividing the fuse and binding post chambers into four approximately equal quadrants.

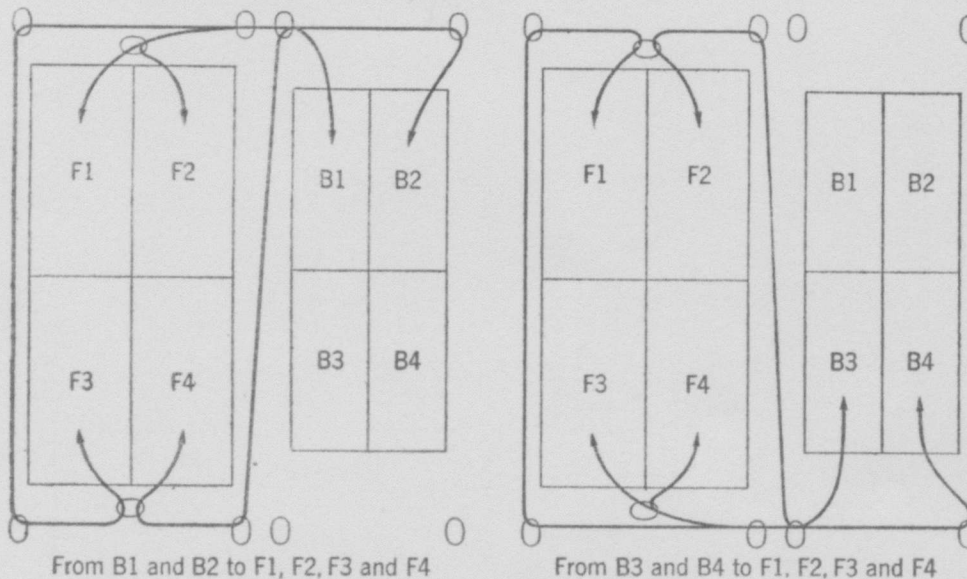


Fig. 3—Wiring Schematic of LA Type Cable Terminal.

3.03 Use duct wire for jumpers in LA type cable terminals. Pass the jumper through the distributing rings in the order shown in Fig. 3. Before cutting the jumper be sure to provide sufficient overall length to permit leaving about 2 inches slack. The proper amount of slack can usually be obtained by allowing sufficient length to reach the next binding post beyond the one on which the jumper is to be terminated both in the fuse chamber and the binding post chamber.

3.04 Cut the jumper and pass the ends through the fanning strips. Skin the insulation from the ends of the jumper and terminate the jumper wires on the proper binding posts. Leave the insulation cut back about 1/8 inch from the washers on the binding posts and neatly dress back each end of the jumper to the fanning strip. In terminating the jumper on the binding posts in LA type fuse chambers the ends of the jumper should pass above the angle portion of the two-piece clip as shown in Fig. 4.

3.05 In LA and LB type fuse chambers, the feeder pair number is stamped on the fuse clip of the ring conductor. In the case of battery and generator pairs the tip

conductor should be stamped BAT. and GEN. respectively. If this stamping is not already present it should be provided in accordance with the outside plant construction and maintenance section covering the marking of cable terminals.

3.06 In LA and LB type fuse chambers battery feeders should be strapped together on the binding posts in the fuse chamber as shown in Fig. 4.

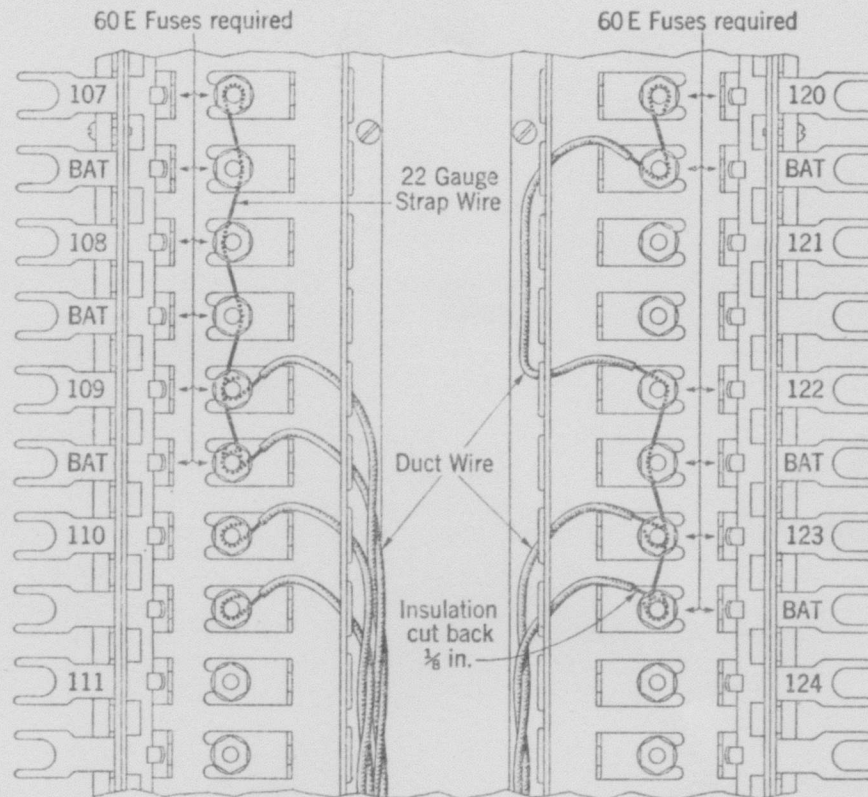


Fig. 4—Details of Terminating and Strapping in LA and LB Type Fuse Chambers.

LB 4. WIRING OF TYPE FUSE CHAMBERS

4.01 In LB type fuse chambers the house cable is terminated on the binding posts in the fuse chamber as mentioned in 2.01 and illustrated in Fig. 1. The fuses provide the necessary cross-connections between the feeder and house cable pairs; hence, jumpers are not required.

4.02 See 3.05 and 3.06 for numbering of feeder pairs and for strapping of battery feeders.