

**CABLE AND TERMINAL GROUNDING
IN SUBSCRIBER'S BUILDING – GENERAL**

1. GENERAL

1.001 This addendum supplements Section 631-400-102.

1.002 It is issued to:

- (1) Provide additional bonding information on exposed cables
- (2) Permit the use of plastic splice closures on cables with 400 pairs or less and on water-proof cables if all bonding requirements are met
- (3) Furnish information on the C-4045 No. 6 ground clip for terminating No. 6 ground wire

6. RULES FOR GROUNDING EXPOSED AND UNEXPOSED CABLES AND FOR INSULATING JOINTS

The following changes apply to Part 6 of the section:

- (a) Paragraph 6.01 – revised

(b) Figs. 19 and 20 – revised

(c) Paragraph 6.02 – cancelled

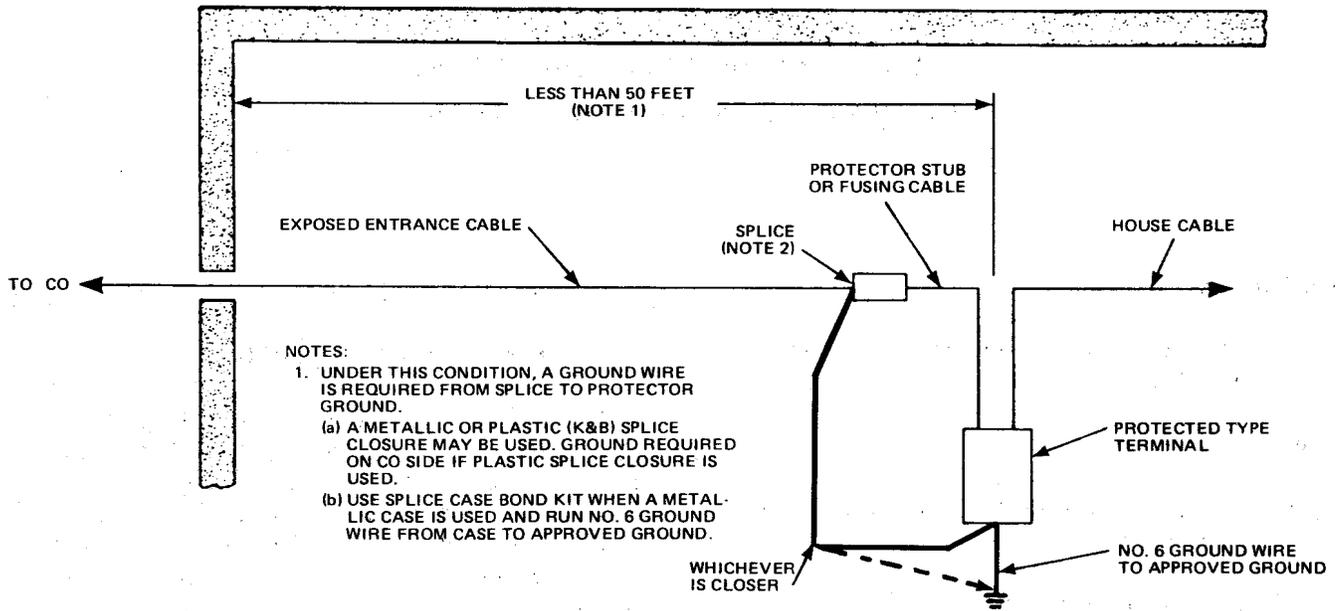
6.01 All exposed cables entering buildings must be grounded as close as possible to the entrance point. The point of grounding must not exceed 50 feet from the entrance. When the protected terminal is located within 50 feet of the cable entrance, ground both the field side of the terminal splice and the ground post of the protector as shown in revised Fig. 19. Where the terminal is located more than 50 feet from the entrance, the shield of the cable must be grounded as close to the entrance point as possible. The shield should be connected by means of No. 6 ground wire to either the protector grounding electrode or to the protector ground lug, whichever results in the shortest length of ground wire. Revised Fig. 19 and 20 illustrate and define the general rules for grounding exposed entrance feeder cables in the building.

Note: Section 638-300-901PT illustrates the use of the Bullet Bond Clip and the C-4045 No. 6 ground clip that may be used for grounding the cable sheaths.

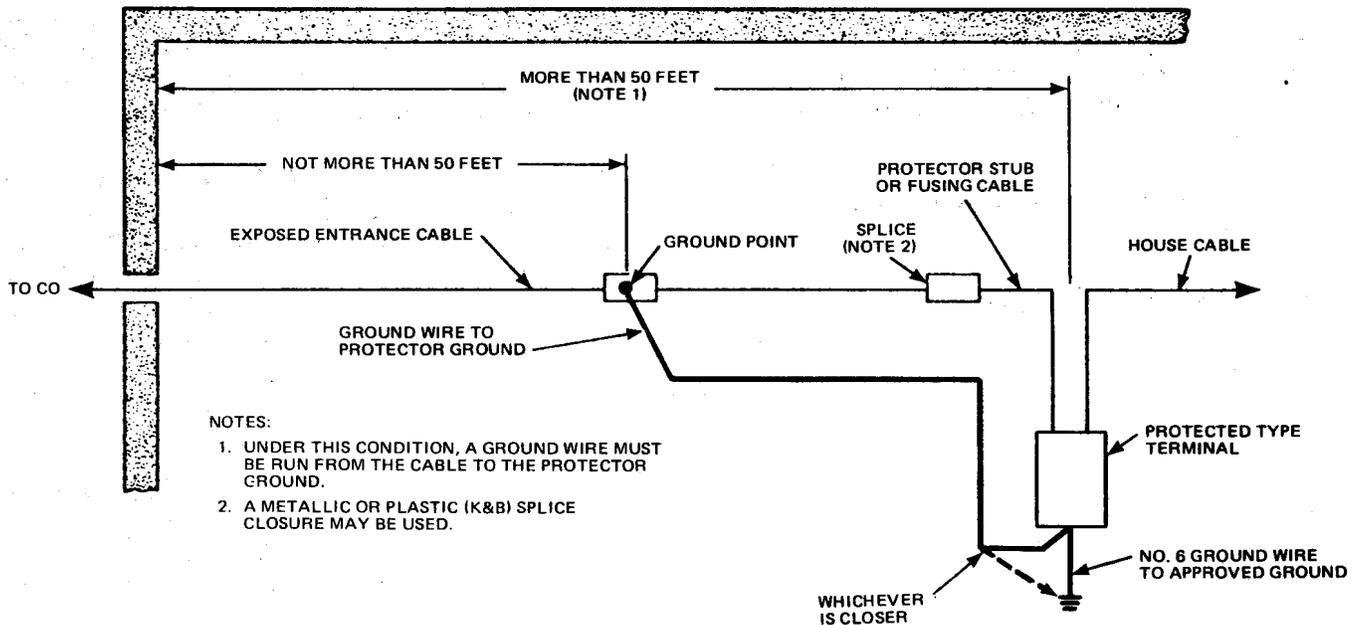
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Exposed Entrance Cable Grounding Requirements (50 Feet or Less)
 Fig. 19



Exposed Entrance Cable Grounding Requirements (More Than 50 Feet)
 Fig. 20

7. METHODS FOR GROUNDING EXPOSED AND UNEXPOSED CABLES AND FOR INSULATING JOINTS

The following changes apply to Part 7 of the section:

- (a) Table C — revised
- (b) Paragraph 7.01, Fig. 25 — add note
- (c) Paragraph 7.02 — revised
- (d) Paragraph 7.03 — revised
- (e) Paragraph 7.04 — revised

(f) Paragraph 7.06 — revised

7.01 Fig. 25 (add the following note at the bottom)

Note: The outer sheath clamp shown in Fig. 25 is no longer used. Any standard bond clamp may be used to attach the bonding ribbon. A C-4045 No. 6 ground clip may be used in place of the AT-7796X connector.

7.02 Methods for terminating waterproof cable when the protector is located *within 50 feet of the cable entrance* are as follows:

- (a) Splice the waterproof cable to the stub cable of the protector block, using any approved connectors as outlined in Section 632-410-204.

**TABLE C
METHODS FOR GROUNDING EXPOSED BUILDING ENTRANCE CABLES**

TYPE OF CABLE	FIG. NO. PAR. NO. IN THIS SECTION	SPLICE CLOSURE OR SLEEVE	BELL SYSTEM PRACTICE
LEAD SHEATH, PLASTIC-, PAPER-, OR PULP-INSULATED CONDUCTORS	FIG. 23		633-200-201
PLASTIC SHEATH, PAPER-OR PULP-INSULATED CONDUCTORS	FIG. 24	(a) USE METALLIC SPLICE CASE: (1) 20-TYPE OR (2) 30-TYPE OR (3) 9A, 10A, OR 40E — OR —	633-400-200 633-400-210 633-460-210
	FIG. 25 FIG. 23	(b) USE K&B CLOSURE OR EQUIVALENT	633-560-101 633-300-210
PLASTIC SHEATH, PLASTIC-INSULATED CONDUCTORS, AIR CORE	FIG. 24	(a) USE METALLIC SPLICE CASE: (1) 20-TYPE OR (2) 30-TYPE OR (3) 9A, 10A, OR 40E — OR —	633-400-200 633-400-210 633-460-210
	FIG. 26 AND 27 FIG. 23	(b) USE K&B CLOSURE OR EQUIVALENT	631-600-215 633-300-210
PLASTIC SHEATH, PLASTIC-INSULATED CONDUCTORS, WATERPROOF	PAR. 7.02, 7.03 AND 7.04	(a) ANY OF THE ABOVE	633-400-200

- (b) Ground the field side of the cable as shown in revised Fig. 19 and cover it with a metallic or plastic splice closure.

7.03 Methods for terminating waterproof cable when the protector is located more than 50 feet from the cable entrance are as follows:

- (a) Splice an air core PVC jacketed stub cable to the waterproof cable at a suitable location within 50 feet of the cable entrance. Use an approved connector as outlined in Section 632-410-204.

- (b) Ground cable and cover splice as shown in revised Fig. 20.

7.04 Methods for placing waterproof entrance cable in a metallic conduit are as follows:

- (a) Assure the metallic conduit is bonded with a No. 6 ground wire to the building ground at or near the entrance point.

- (b) Splice an air core PVC stub cable to the waterproof cable as close as possible to the station end of the conduit, using an approved connector as outlined in Section 632-410-204.

- (c) Cover with a metallic or plastic closure.

- (d) If a metallic case is used, bond the case to the metallic conduit. If plastic closure is used, bond the field side of cable to the metallic conduit. In both instances, use No. 6 ground wire.

- (e) Connect the other end of stub cable to the protector. Ground cable as shown in Fig. 19

7.06 Plastic Sheath, Plastic-Insulated Conductors, Waterproof Cables: Waterproof unexposed entrance cable can be used as building entrance facility as follows:

- (a) When the waterproof cable extends no more than 50 feet into the building:

- (1) Splice a PVC jacketed stub cable to the waterproof cable, using an approved connector as outlined in Section 632-410-204.

- (2) Ground the cable and cover the splice as shown in Fig. 20.

- (3) Terminate the other end of the stub cable on the building terminal.

- (4) The method of grounding this end of the stub to the metallic housing of the building terminal is discussed in Part 9.

- (b) Where metallic conduit is provided for the entrance cable:

- (1) Assure the metallic conduit is bonded with a No. 6 ground wire to the building ground at or near the entrance.

- (2) Follow steps outlined in paragraph 7.04.

8. GROUNDING PROTECTED TERMINALS IN BUILDINGS

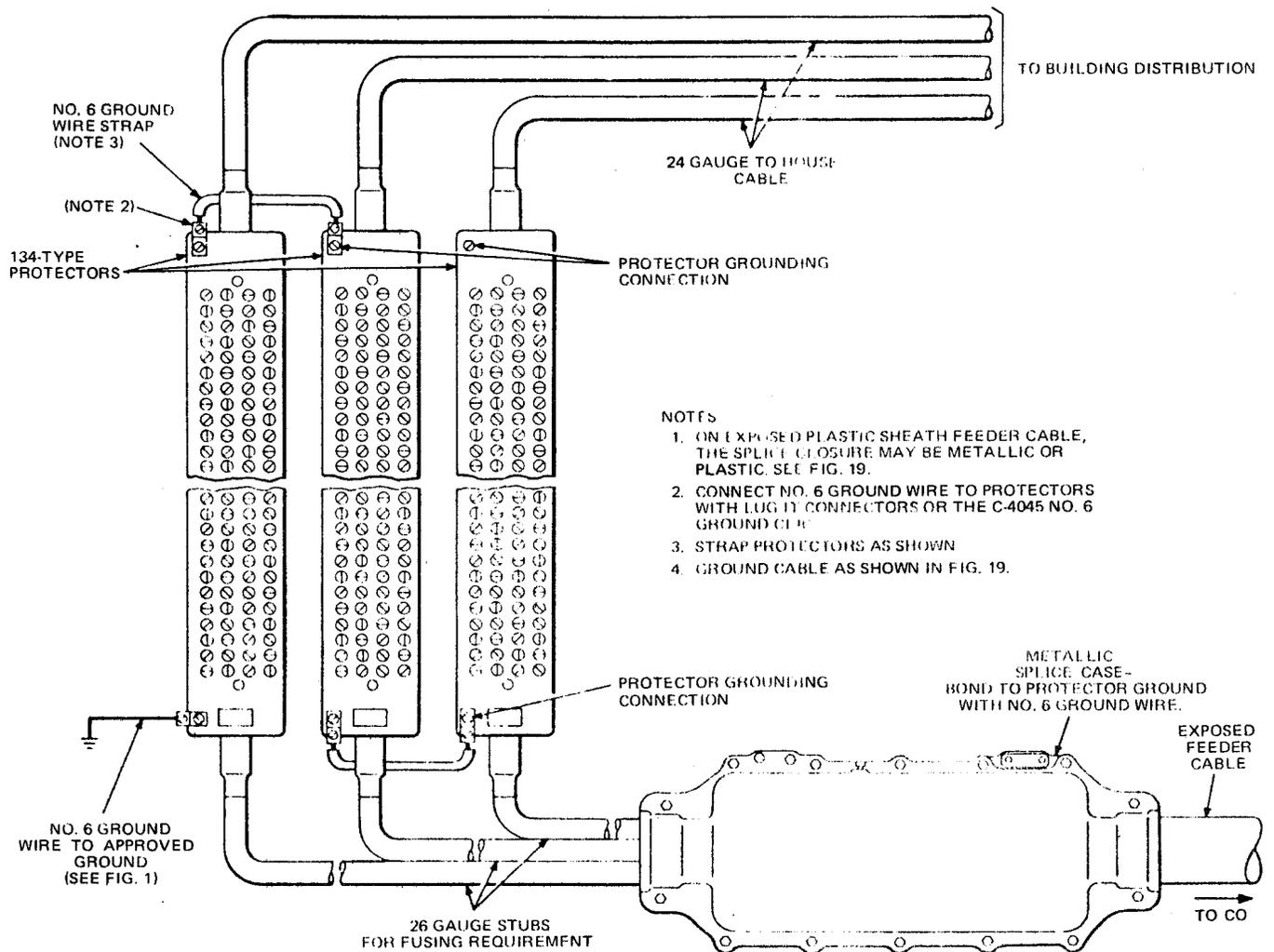
The following changes apply to Part 8 of the section:

- (a) Fig. 29 — revised

- (b) Paragraph 8.05 — revised

8.05 The 134A1A protector is not equipped with a removable ground linkage for establishing an insulating joint. Where local practices require an insulating joint, it must be provided external to the 134A1A protectors.

Note: Do not omit the bond across the splice. Construct a separate insulating joint near the cable entrance.



Grounding 134-Type Protectors
Fig. 29