

190-TYPE PROTECTORS

DESCRIPTION AND USE

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2. DESCRIPTION

1. GENERAL

1.01 This section covers the description of the 190-type protectors used as station protectors in buildings served by exposed cable.

1.02 When this section is reissued, the reasons for reissue will be given in this paragraph.

2.01 The 190-type protector (Fig. 1 and 2) consists of a metal housing containing a fire retardant molded plastic connecting block, a 26-gauge stub cable which serves as a fusible link, a 24-gauge terminating stub cable, and two connectors for external ground connections. *The 190-type protector is not gastight. If a plug is required, place the plug in the entrance cable and not in either stub cable.*

NOTICE

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ELECTRIC - Proprietary

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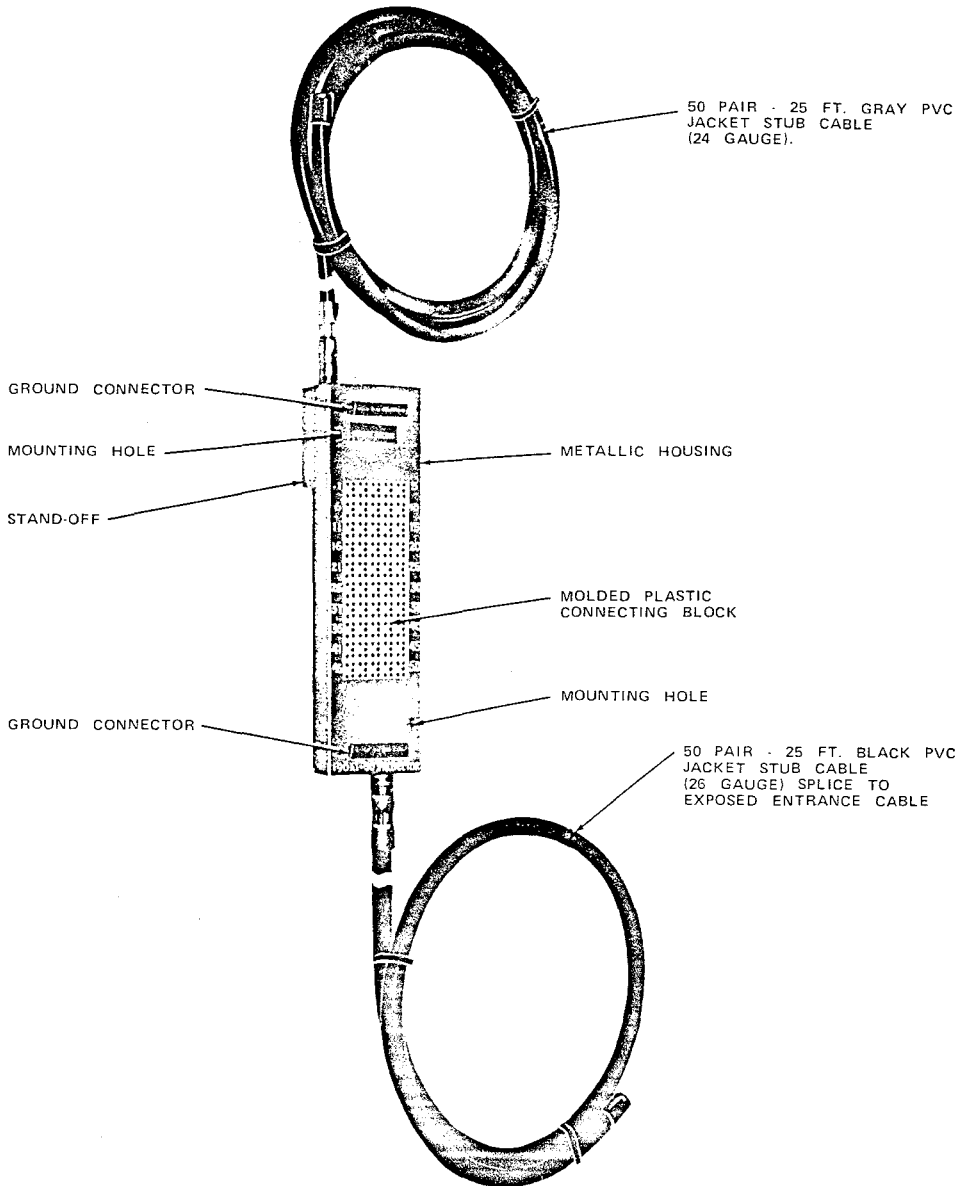


Fig. 1—190A1-50 Protector

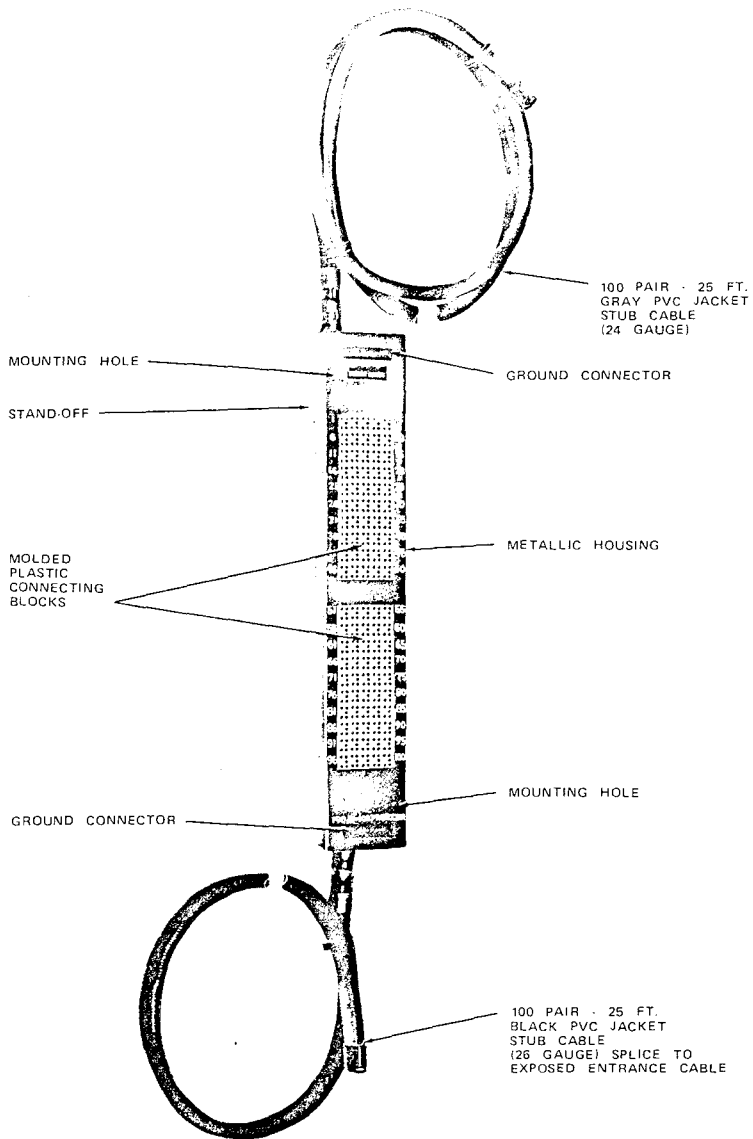


Fig. 2—190A1-100 Protector

2.02 The 190-type protectors are available in 50- and 100-pair sizes. Specifications of these protectors are listed in Table A. Figure 3 shows a typical wiring diagram of the protector.

2.03 Following is a brief description of the component parts of the 190-type protector:

(a) **Stub cables:** The top and bottom stub cables entering the protector are staggered, allowing protectors to be mounted in a stacked configuration. One stub cable consists of 26-gauge PVC-insulated conductors with a **black** PVC jacket over the aluminum shield. This stub is to be spliced to the exposed central office feeder cable to provide the fuse cable requirement for building entrance cable. When these stubs are spliced to an exposed cable containing **400 pairs or less**, a **metallic splice closure must be used**.

This provides a safer closure around cable pairs that could be carrying excessive current under power cross conditions. **A plastic closure may be used when the exposed cable is larger than 400 pairs.** These cables are judged to contain sufficient copper to act as a "heat sink" under power fault conditions. The other stub consists of 24-gauge, PVC-insulated conductors with a **gray** PVC jacket over the aluminum shield. This stub is to be terminated on connecting blocks spliced to building cables or terminal blocks.

(b) **Ground connectors:** A 3-wire ground connector is provided at the top and bottom of the protector housing to bond housings together and for terminating a No. 6 ground wire from an approved ground (see Section 631-400-102).

TABLE A

190-TYPE PROTECTOR SPECIFICATIONS

PROTECTOR CODE	MAX. NO. OF PROTECTOR UNITS	DIMENSIONS (INCHES)			STUB CABLE (NOTE)			
		LENGTH	WIDTH	DEPTH	SHEATH COLOR	GAUGE	NO. OF PAIRS	LENGTH (FT)
190A1-50	50	13	4	2.75	Black	26	50	25
				4.40*	Grey	24		
190A1-100	100	24	4	2.75	Black	26	100	25
				4.40*	Grey	24		

Note: Splice 26-gauge stub cable to exposed feeder (entrance) cable.

* With 3B protector units installed.

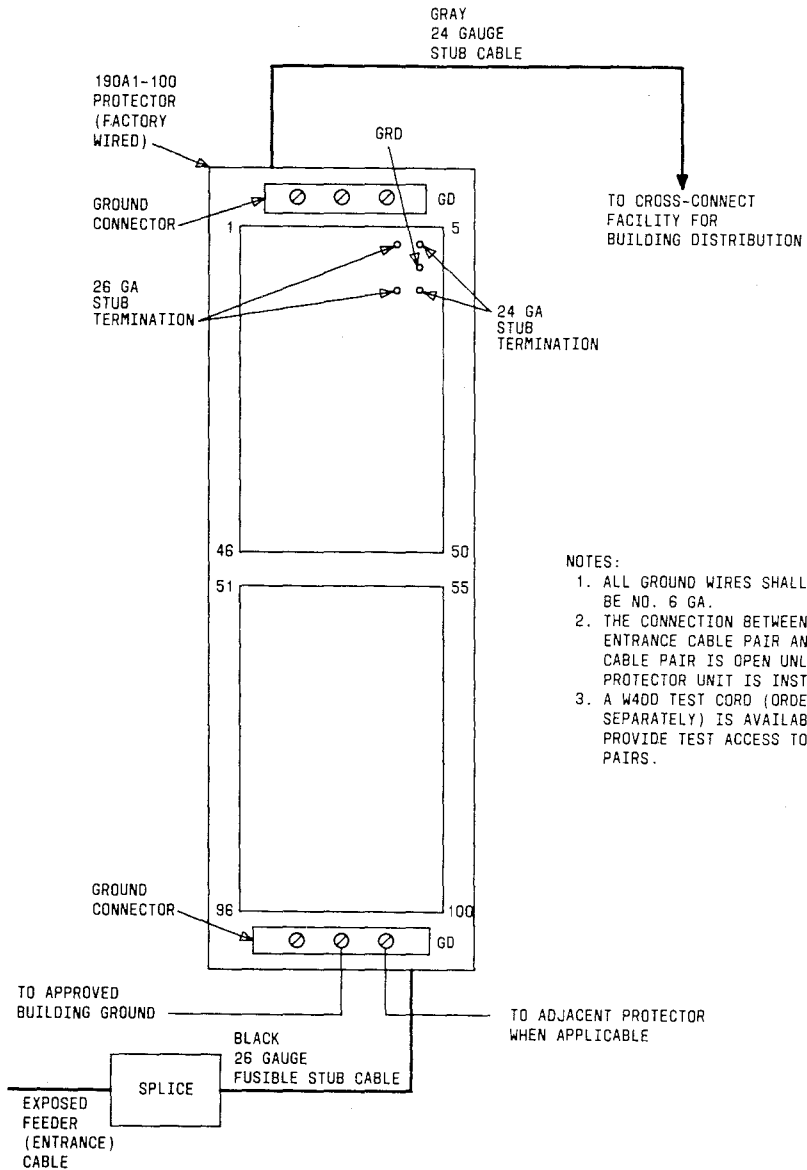


Fig. 3—190-Type Protector—Typical Wiring Diagram

(c) **Protector units:** (See Table B.) The 190-type protector will accept 3B protector units (order separately as required). The 3B protector units provide voltage protection of 500 volts or higher.

TABLE B
PROTECTOR UNITS

PROTECTOR UNIT CODE	HOUSING COLOR	CIRCUIT APPLICATION
3B1A	Black	Standard Circuit
3B3A	Red	Special Circuit

3. USE

3.01 the 190-type protector may be mounted indoors in cabinets such as the H-type cable terminal sections or wall mounted on 3/4-inch thick, AD grade, interior plywood or high density particle board (particle board used for floor underlayment is **not** suitable as density and screw holding power

is too low). No. 10 x 3-1/2 inch flathead wood screws are furnished with the protector.

3.02 Typical arrangements using the 190-type protectors are illustrated in Fig. 4 through 7. Multiple protectors may be mounted side by side or stacked. Standoffs incorporated into the base provide "pass-through" clearance for a maximum of two 100-pair cables when stacked. No separation is required between protectors when mounted side by side or stacked.

3.03 The connection between the feeder (entrance) cable pair and building cable pair is open unless protector units are installed in the protector. When the protector unit is pulled out to the detent position, the building equipment is disconnected to isolate feeder (entrance) cable pair. In this position, protection is still provided on the entrance cable pair. Removing the protector unit from the connector removes all protection.

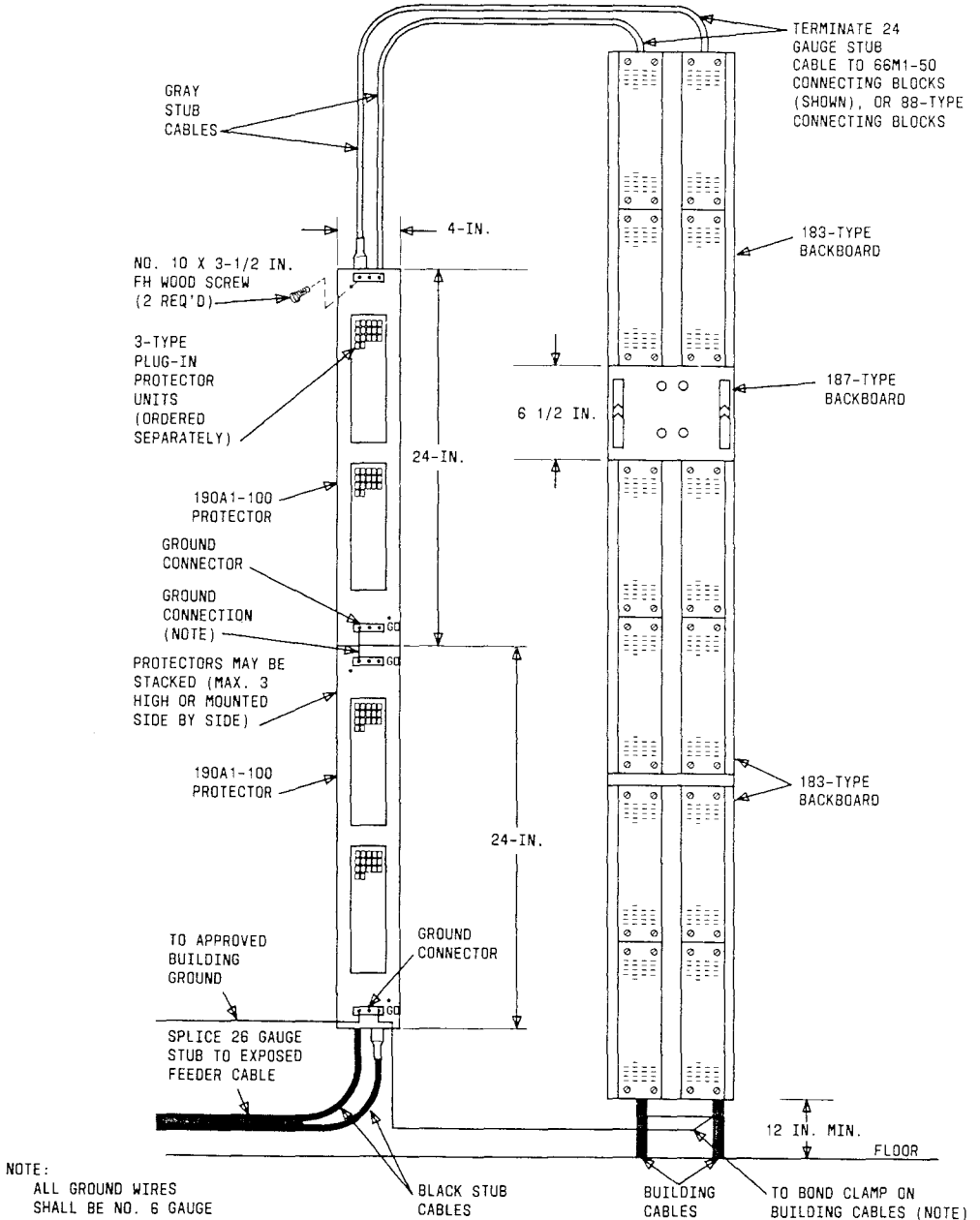


Fig. 4—Wall Mounted Protectors—200-Pair Exposed Entrance Cable—Typical Installation

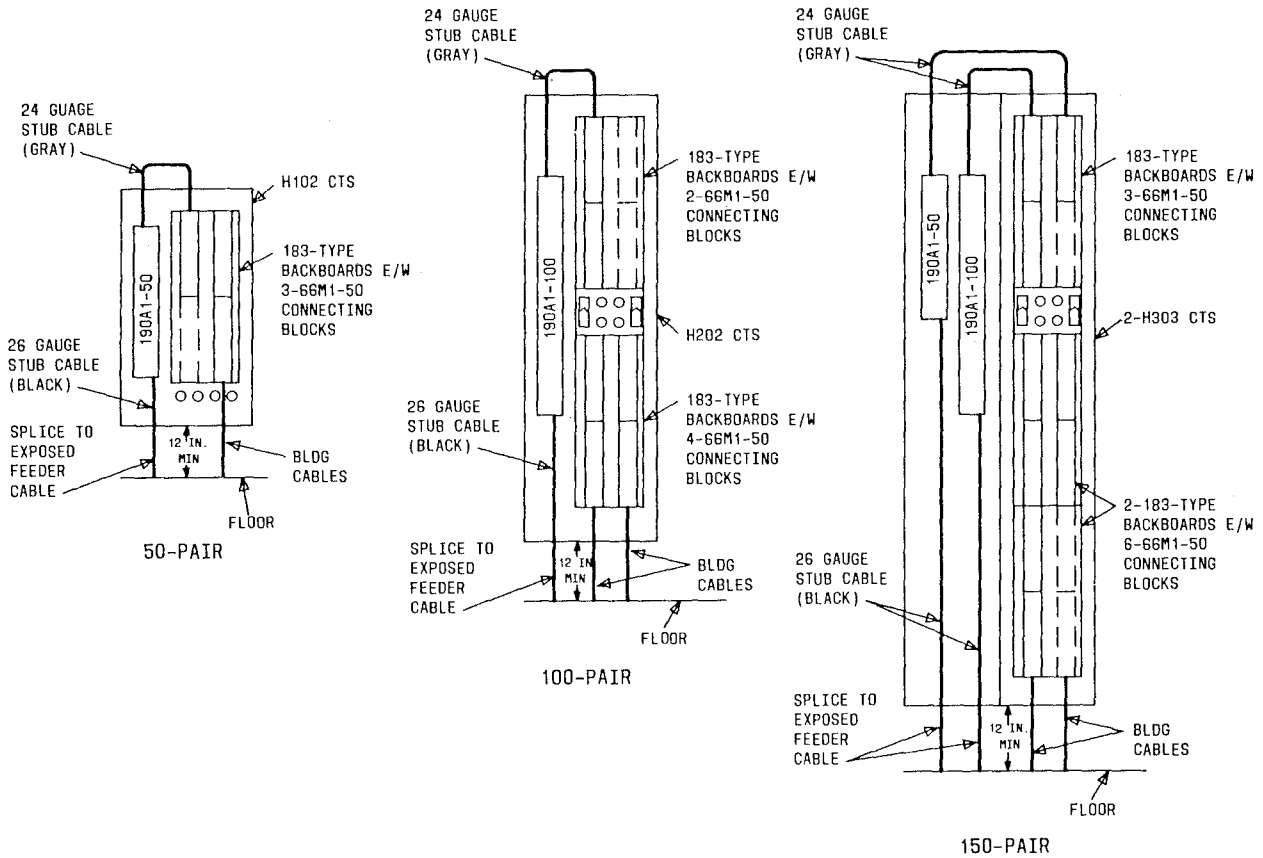


Fig. 5—50-, 100-, and 150-Pair Exposed Entrance Cable—66-Type Connecting Blocks

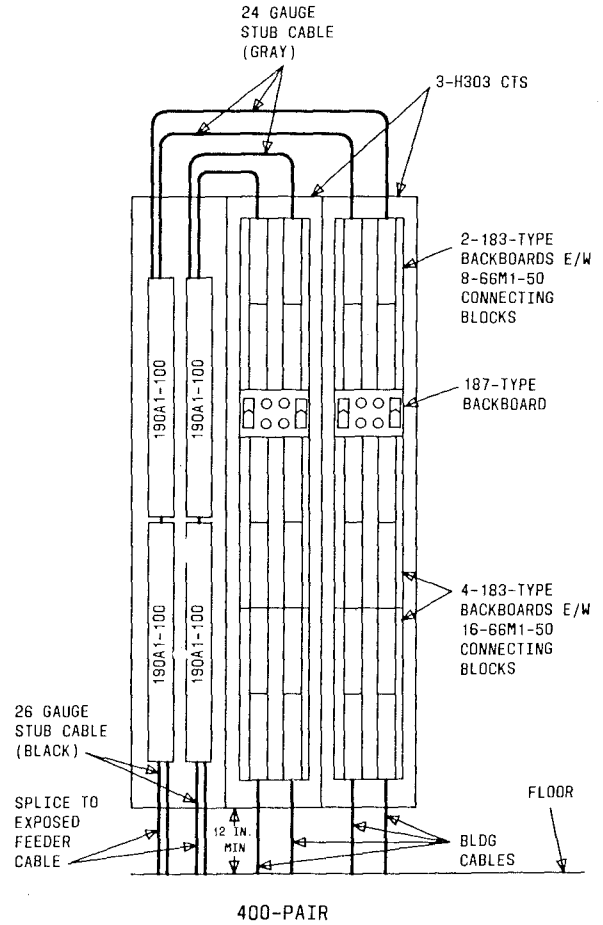
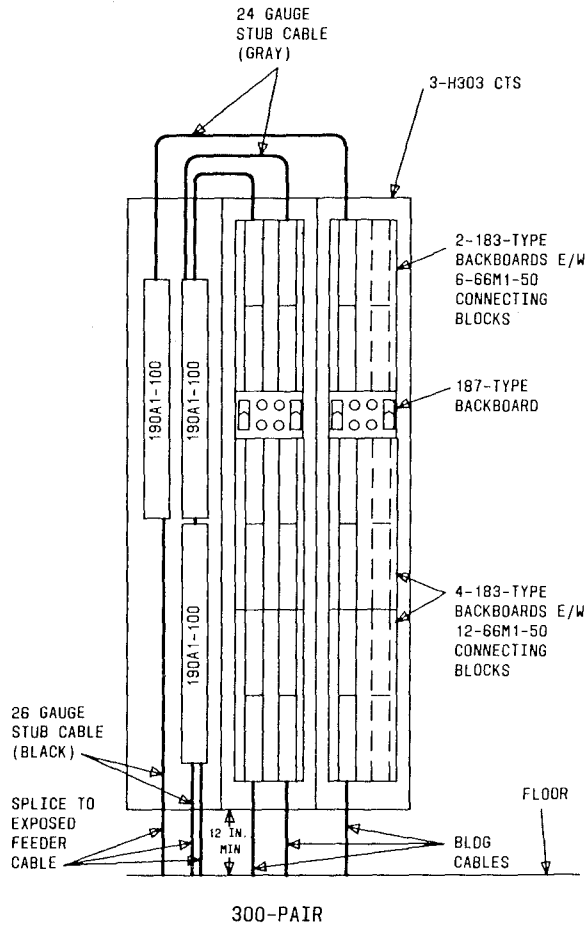


Fig. 6—300- and 400-Pair Exposed Entrance Cable—66-Type Connecting Block

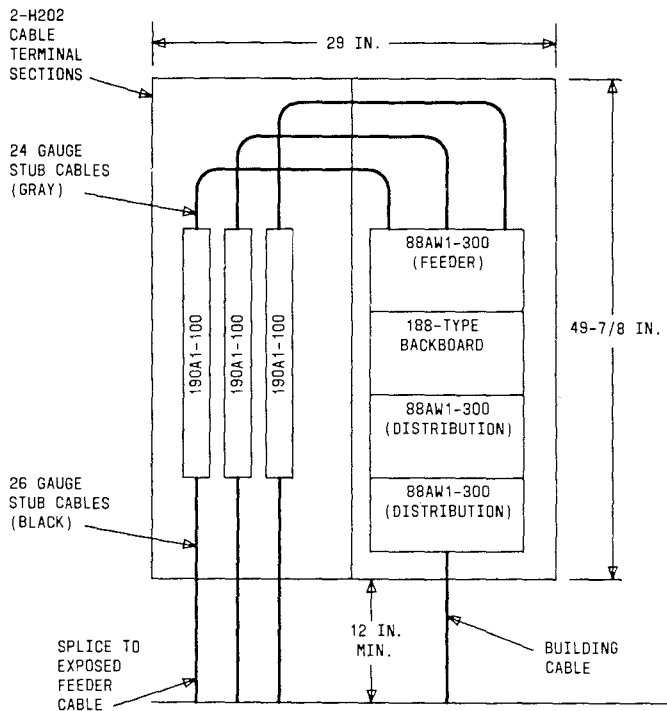


Fig. 7—300-Pair Exposed Entrance Cable—88-Type Connecting Blocks

4. TESTING

4.01 A W4DD test cord (Fig. 8) is available to provide test access to the cable pairs through the 190-type protector.

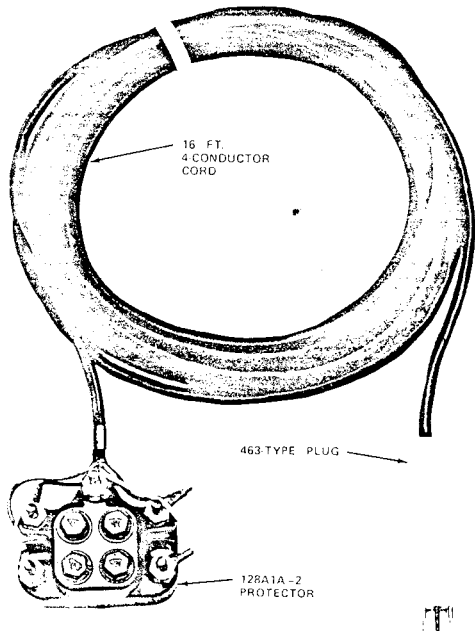


Fig. 8—W4DD TEST CORD