

General

This instruction sheet provides for inside mounting and wiring of 190-type protectors.

How to Contact Us

- To find out more about **Carrier Apparatus** products, visit us on the web at: <http://cw.commscope.com/>
- For technical assistance regarding Carrier Apparatus products: contact your local CommScope account representative or Commscope technical support at 1-800-344-0223.
- Report any missing or damaged parts to CommScope customer service in Omaha, Nebraska, at 1-866-539-2795.

Tools Required

- Level and flathead screwdriver
- Tape measure or other measuring device
- Wiring tools
- Drill with a 3/32-inch (2.38 mm) wood bit.

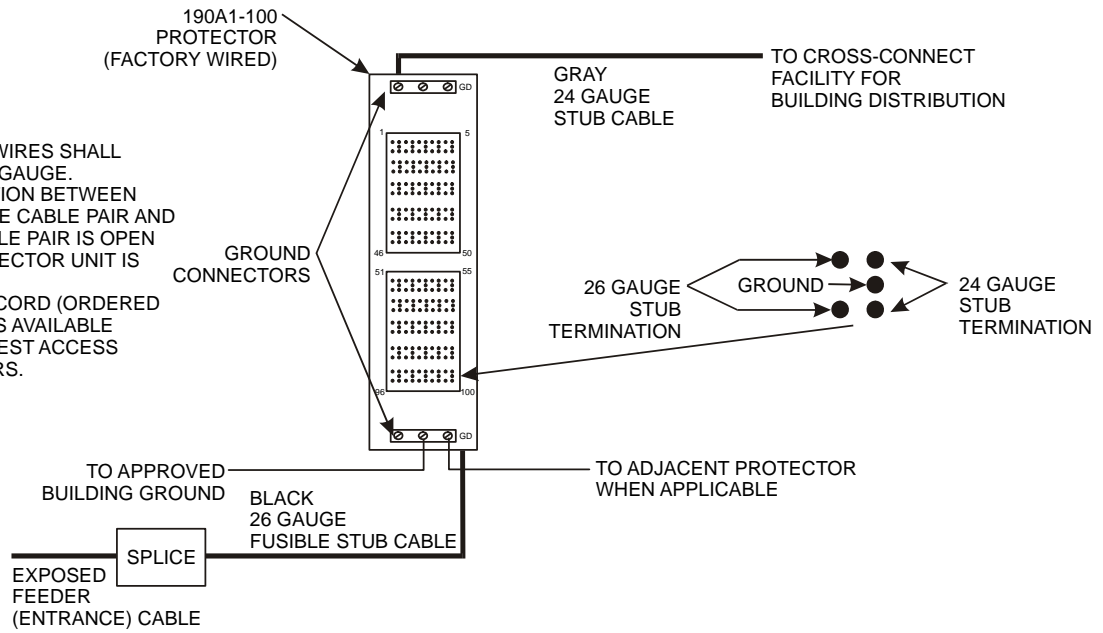
Ordering Information

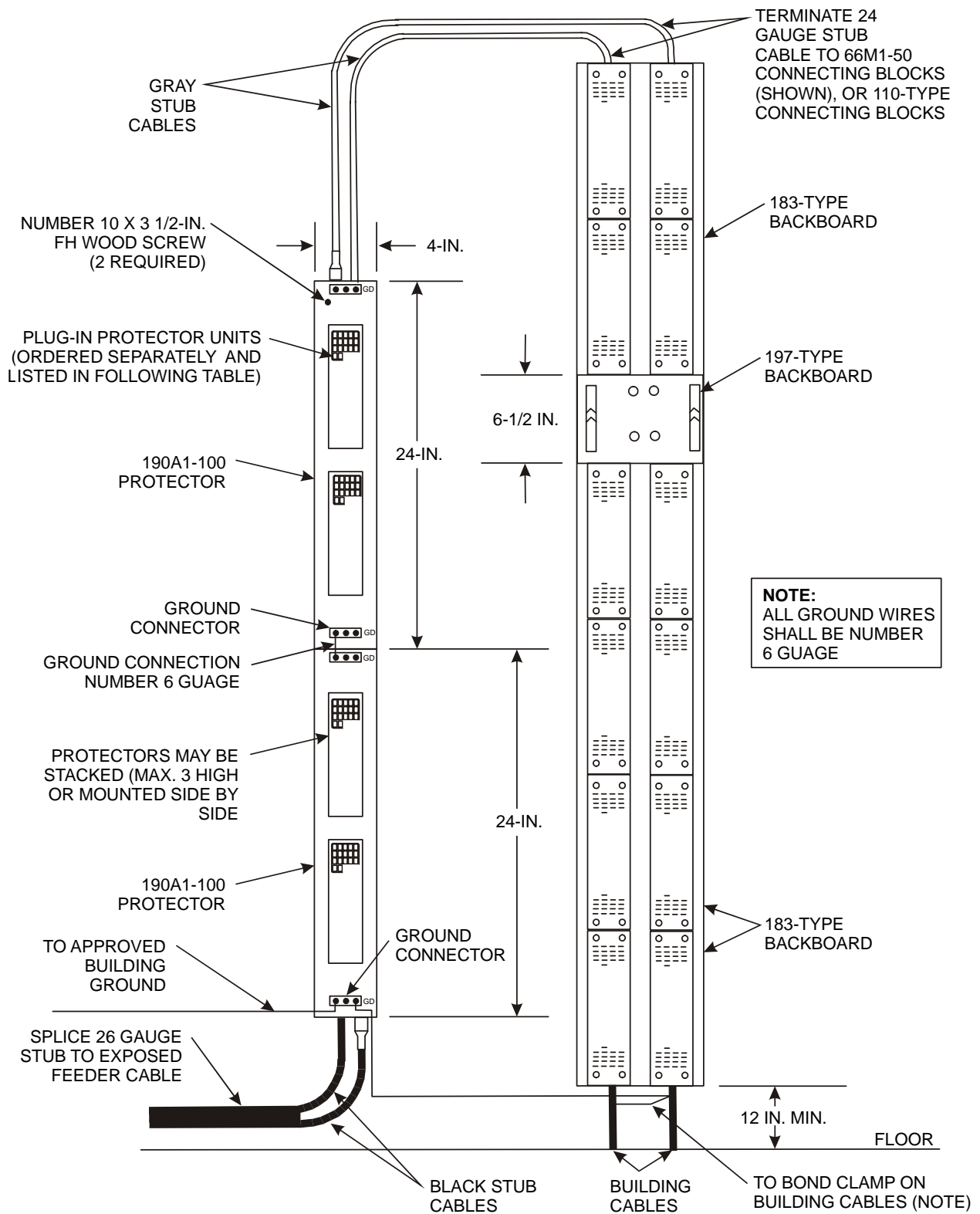
Apparatus Code	Material ID	Description
190A1-50	102 995 073	50 protector metal housing, fire retardant plastic connecting block, 26-gauge stub cable serving as a fusible link, 24-gauge terminating stub cable, and two connectors for external ground.
190A1-100	102 995 099	100 protector metal housing, fire retardant plastic connecting block, 26-gauge stub cable serving as a fusible link, 24-gauge terminating stub cable, and two connectors for external ground.

Material ID 900 517 459
Instruction Sheet

NOTES:

1. ALL GROUND WIRES SHALL BE NUMBER 6 GAUGE.
2. THE CONNECTION BETWEEN THE ENTRANCE CABLE PAIR AND BUILDING CABLE PAIR IS OPEN UNLESS PROTECTOR UNIT IS INSTALLED.
3. A W4DD TEST CORD (ORDERED SEPARATELY IS AVAILABLE TO PROVIDE TEST ACCESS TO CABLE PAIRS.





Protector Modules Recommended for Use in all 190-type BEPs					
Protector Code	Material ID	Description	Sneak Current Rating @ 25 Degree C	DC Voltage Breakdown	Impulse Sparkover Voltage
3B1EW	104 410 147	Gas tubes	N/A	265-425 V	200-800 V
4B1EW	104 401 856	Gas tubes + Heat Coils	Carry 350 Ma Operate in <210 seconds at 540 mA	265-425 V	200-800 V
3C1S	105 514 756	Solid State, Balanced	N/A	220-300 V	220-300 V
4C1S	104 386 545	Solid State + Heat Coils, Balanced	Carry 350 mA Operate in <210 seconds at 540 mA	220-300 V	220-300 V
7AAOT	108 115 197	Solid State, Bi Mod	N/A	265-400 V	265-400 V
7ABOT	106 945 074	Solid State, Balanced	N/A	265-400 V	265-400 V
7CBOT	106 945 538	Solid State, Balanced + Heat Coils	Carry 350 mA Operate in <210 seconds at 540 mA	265-400 V	265-400 V
7AB6A	107 098 196	Solid State + MTU + Half Ringer	N/A	265-400 V	265-400 V
7AB6B	107 670 028	Solid State + Half Ringer	N/A	265-400 V	265-400 V
7AB6C	107 911 612	Solid State + MTU	N/A	265-400 V	265-400 V
NOTE: For the full range of protector modules available to you, contact your CommScope account representative.					
IMPORTANT: UL* PROTECTORS SHOULD BE INSTALLED IN ACCORDANCE WITH NEC†, NCS, ANSI/NFPA 70 (ARTICLE 800 SECTION C).					
<p>* Registered trademark of Underwriter Laboratories, Inc. † Registered trademark of National Fire Protection Association.</p>					