

3.0 **Fuse Link Specifications:**

This COP has a built in 28 gauge fuse link. If an overcurrent condition were to occur, the chassis will act as a fuse chamber, greatly reducing any threat to safety. Once fuse links have been fused, they cannot be rehabilitated or repaired.

4.0 **Installation Data:**

The Protector should be installed to the network's standard installation procedure. However, the following factors should be considered.

- 4.1 Use care when unpacking the Protector from its shipping carton to avoid damage to the Protector, modules, or connectors.
- 4.2 Install the Protector as close to the incoming entrance cable as possible.
- 4.3 The Protector can be mounted on any level, uniform vertical surface. Install the Protector where it will be accessible to technicians at all times without the terminal obstructing individuals or equipment.

Note: Although the Protector is designed to withstand extreme conditions, it is always best to avoid any unnecessary problems by observing the following important notes: When installing the Protector, it is highly recommended that unit be placed in a non-combustible area. (The environment surrounding these devices should not contain flammable materials such as curtains, carpeting, etc.)

If the installation for the telco equipment is not in an assigned electrical room, it is advised to avoid areas with dust, moisture, extreme environmental conditions, heavy traffic areas requiring rolling machinery, pipes used to transport water, fuel, and gases.

- 4.4 Avoid exposing the Protector to chemicals or cleaning liquids, which could damage various plastic components within the device.

5.0 **Installation Procedures:**

Mount the COP to the applicable Central Office rack. The COP is designed to mount to a standard Central Office rack, using the supplied screws.

5.1 **Outside Plant Termination (Incoming/Cable Stub):**

Protectors with an incoming cable stub should be terminated as follows: Splice the outside plants (incoming) stub to the entrance cable. Cable pairs can be matched to the Protector module field as per Table 1. Note: The cable stub can either be in a stub top or stub bottom position.

5.2 **Distribution Termination (Outgoing/IDC Connector):**

To terminate the entrance cable pairs to the outgoing IDC connector, the procedure is as follows: Refer to Figure 1 for IDC connector arrangements. The pairs should be jumpered to the IDC connector.

Caution: Do not use a screwdriver for attaching line pairs to IDC terminals, as a screwdriver may spread the clip beams and result in a faulty connection.

6.0 **Grounding:**

The Terminal has one location to attach a ground wire (located on the Cable assembly.). A #6 AWG wire should be connected from one of the Protector ground lugs to a local ground as per network standard methods. It should be noted that incorrect bonding and grounding would result in terminal and protection module failure.

7.0 **Protector Module Installation:**

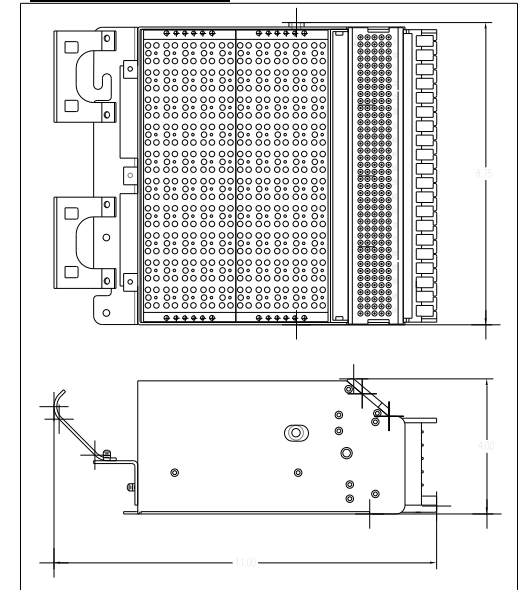
If the Protector is purchased with the modules installed they will be inserted in the panel in the detent position. A distinctive "notch" in the three long pins of the module indicates the detent position. This will connect the incoming tip / ring as well as grounding circuits of the module.

Note: When the module is in detent position it will protect only the incoming (outside plant) cable. The module must be fully inserted to provide protection to both the central office and customer premise side of the installation.

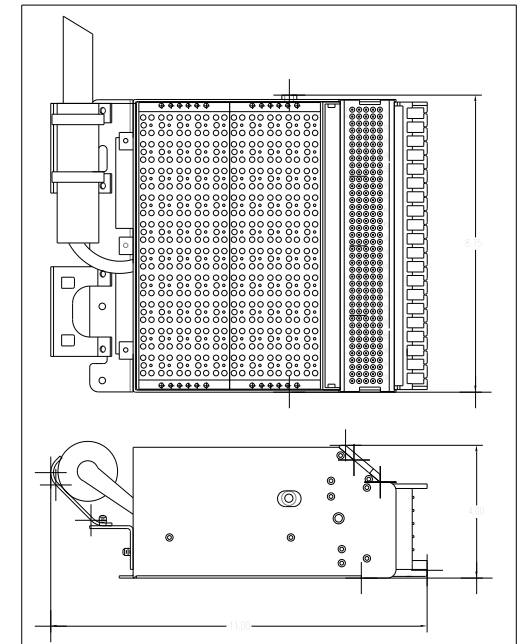
- 7.1 After all incoming and outgoing connections are completed; fully insert the terminal module until the base of the module meets the terminal block. This will connect the Distribution Termination (Outgoing/IDC Connector) side of the unit to the Outside Plant (Incoming/Cable Stub) side of the unit.

- 7.2 Fully test all connections.

8.0 **Terminal Diagrams:**



4486 (NO-STUB)



4486 (STUB TOP)

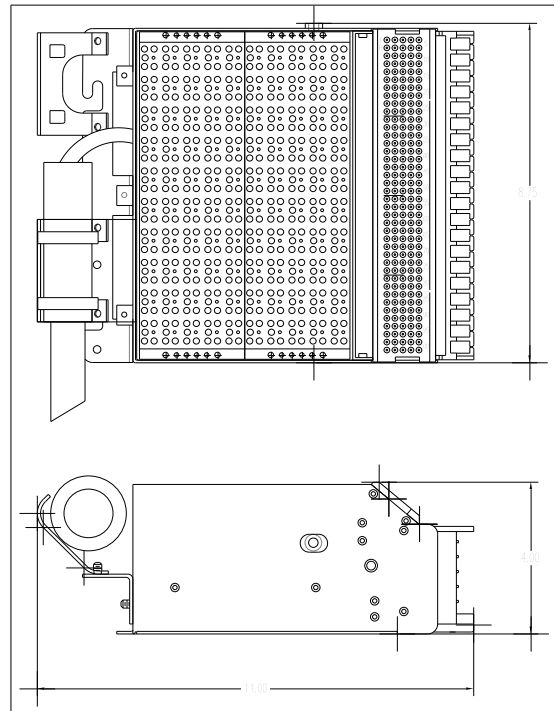


**4400 SERIES
INSTALLATION
PROCEDURE
(FOR INDOOR USE ONLY)**



**Central Office
Protector**

4486



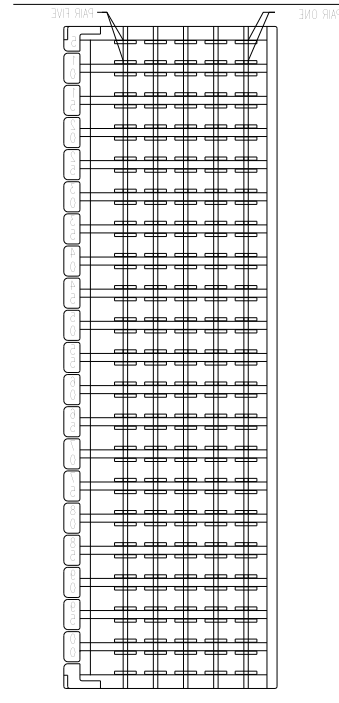
4486 (STUB BOTTOM)

Important Note:

All statements, technical information and recommendations related to the Seller's products are based on information believed to be reliable, but the accuracy or completeness thereof is not guaranteed. Before utilizing the product, the user should determine the suitability of the product for its intended use. The user assumes all risks and liability whatsoever in connection with such use. Any statements or recommendations of the Seller, which are not contained in the Seller's current publications, shall have no force or effect unless contained in an agreement signed by an authorized officer of the Seller. The statements contained herein are made in lieu of all warranties, express or implied, including but not limited to the implied warranties of merchantability and fitness for a particular purpose which warranties are hereby expressly disclaimed.

Seller shall not be liable to the user or any person under any legal theory, including but not limited to negligence or strict liability, for any injury or any direct or consequential damages sustained or incurred by reason of the use of any of the Seller's product that were defective.

Figure 1- IDC Connector



Protector shall be installed to the applicable requirements of the:
National Electrical Code, ANSI/NFPA 70(Article 800, Section C)
Canadian Electrical Code, Part 1 (Section 60)

TM91-0064

REV.01

CAUTION: Risk of electric shock
Protector is not be used without the arrester assembly installed.

CONTENTS:

	PAGE
1.0 General	1
2.0 Terminal Module Specifications	1
3.0 Fuse Link Specifications	2
4.0 Installation Data	2
5.0 Installation Procedures	2-3
6.0 Grounding	3
7.0 Terminal Installation	3
8.0 Terminal Diagrams	4-5

1.0 General:

The 4400 Series Central Office Protectors are double cross – connect field, indoor protection units designed for terminating outside plant cables. The 4400 Series COP is available in 100 pair counts with the option of no cable stub and cable stub in/ IDC Connector out configurations.

1.1 Terminal Dimensions:

Model	Height	Width	Depth
4486-no stub	8.75in	11.00in	4.00in
4486-stub top	8.75in	11.00in	4.00in
4486-stub bottom	8.75in	11.00in	4.00in

1.2 Cable Requirements:

This COP is equipped with a 28 gauge fuse link; therefore it must only be spliced with 26 gauge or physically larger gauge C.O. feeder cable. This will ensure the C.O. cable is not damaged during an overcurrent condition.

2.0 Terminal Module Specifications:

The Terminal will accept any five-pin module of Western Electric design.
To maintain UL Listing, only UL Listed Terminal modules are to be used.

Table 1

CABLE PAIR GROUP	BINDER GROUP	CABLE PAIR SUB-GROUP	TIP WIRE COLOR	RING WIRE COLOR (FOR EACH TIP WIRE COLOR)
1-25	BLUE	1-5	WHITE	1 ST WIRE-BLUE
		6-10	RED	2 ND WIRE-ORANGE
		11-15	BLACK	3 RD WIRE-GREEN
		16-20	YELLOW	4 TH WIRE-BROWN
		21-25	VIOLET	5 TH WIRE-SLATE
26-50	ORANGE	26-30	WHITE	1 ST WIRE-BLUE
		31-35	RED	2 ND WIRE-ORANGE
		36-40	BLACK	3 RD WIRE-GREEN
		41-45	YELLOW	4 TH WIRE-BROWN
		46-50	VIOLET	5 TH WIRE-SLATE
51-75	GREEN	51-55	WHITE	1 ST WIRE-BLUE
		56-60	RED	2 ND WIRE-ORANGE
		61-65	BLACK	3 RD WIRE-GREEN
		66-70	YELLOW	4 TH WIRE-BROWN
		71-75	VIOLET	5 TH WIRE-SLATE
76-100	BROWN	76-80	WHITE	1 ST WIRE-BLUE
		81-85	RED	2 ND WIRE-ORANGE
		86-90	BLACK	3 RD WIRE-GREEN
		91-95	YELLOW	4 TH WIRE-BROWN
		96-100	VIOLET	5 TH WIRE-SLATE