

Figure 1

## 1. INTRODUCTION

Enclosure 1435652-1 is used for housing singlemode and multimode fiber optic connections. The enclosure fits into a standard 483 mm [19 in.] or 584 mm [23 in.] Electronic Industries Alliance (EIA) rack only. Read these instructions thoroughly before starting installation.

### NOTE



*Dimensions in this instruction sheet are in millimeters [with inches in brackets]. Figures are not drawn to scale.*

Reasons for reissue of this instruction sheet are provided in Section 5, REVISION SUMMARY.

To obtain information on AMP NETCONNECT products, call PRODUCT INFORMATION at the number at the bottom of this page, or visit the AMP NETCONNECT website at [www.ampnetconnect.com](http://www.ampnetconnect.com).

## 2. DESCRIPTION (Figure 1)

The enclosure consists of a removable door, front cover, rear cover, and splice tray shelf. The door has bottom hinges designed to keep the door attached when opened. Inside the door is a label holder. The

splice tray shelf holds up to six splice trays and features foam pads to hold the splice trays in place. The shelf also features 14 tie-down points used to facilitate cable routing. The shelf slides to the front and back of the enclosure, but will not slide out of the enclosure.

### NOTE



*The enclosure is designed to accept Splice Trays 559433-[ ] (available separately).*

The enclosure features two universal mounting brackets, a fixed patch panel, two cable routing rings, and two cutouts on each side for cable entrance and exit. The patch panel holds up to three snap-in adapter plates. The front cutouts feature edge guards that prevent damage to the cable. The cable routing rings are used for facilitating cable routing within the enclosure.

Two cable clamp brackets, four 6-32 pan head screws with lockwashers, and six hose clamps are included with the enclosure. Each bracket is used to secure up to three trunk cables to the enclosure. There are four sets of screw holes for attaching the cable clamp brackets to the enclosure (two for cable entrance into the back and two for cable entrance into the side of the enclosure).

Also included are four  $\frac{1}{4}$ -turn fastener handles, four 12-24 UNF-2A screws (for mounting the enclosure in the rack), two warning labels, and a card label marked by alphabet (A through F) for connector identification that corresponds with the patch panel.

### 3. INSTALLATION

#### 3.1. Mount the Enclosure



**CAUTION** ALWAYS use safe lifting techniques. NEVER lift more than you can manage comfortably. Lifting guidelines are available from the Occupational Safety and Health Administration (OSHA).

The enclosure is assembled for mounting in a 483 [19] rack; using the mounting screws, mount the enclosure in the rack. See Figure 2.

For a 584 [23] rack, remove the screws securing the brackets to the enclosure. Turn the brackets so that the long leg of the "L" is protruding, and secure the

brackets to the enclosure using the screws. Using the mounting screws, mount the enclosure in the rack. See Figure 2.

#### NOTE



The mounting holes at the front of the enclosure are for flush-mount application.

#### 3.2. Open the Enclosure

1. Using the  $\frac{1}{4}$ -turn fastener handle, turn the  $\frac{1}{4}$ -turn fasteners for the door, and open the door. Lift the door from the hinges, and set aside. Slide the front cover off of the enclosure, and set aside.

#### NOTE



The front cover is attached to the enclosure by the  $\frac{1}{4}$ -turn fasteners for the door.

2. Using the  $\frac{1}{4}$ -turn fastener handle, turn the  $\frac{1}{4}$ -turn fasteners for the rear cover, remove the rear cover from the enclosure, and set aside.

#### 3.3. Install the Snap-In Adapter Plate Onto the Patch Panel

1. From the *back* of the enclosure, make sure that the splice tray shelf is positioned at the *front* of the enclosure.

2. Position the adapter plate over the *front* of the patch panel so that the split end of the lock pins align with the holes in the patch panel. Push the lock pins into the holes until the adapter plate is secure. See Figure 3.

3. Follow same procedure for remaining adapter plates.

**Mounting Enclosure**

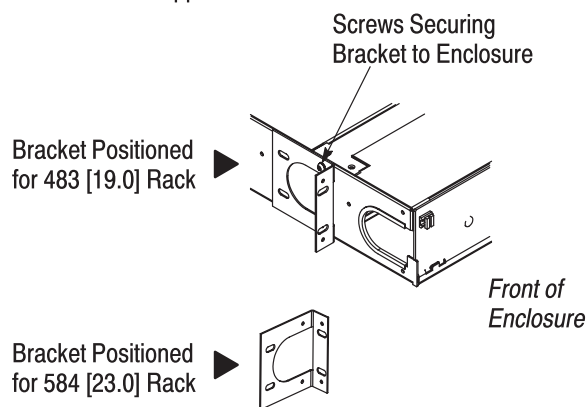
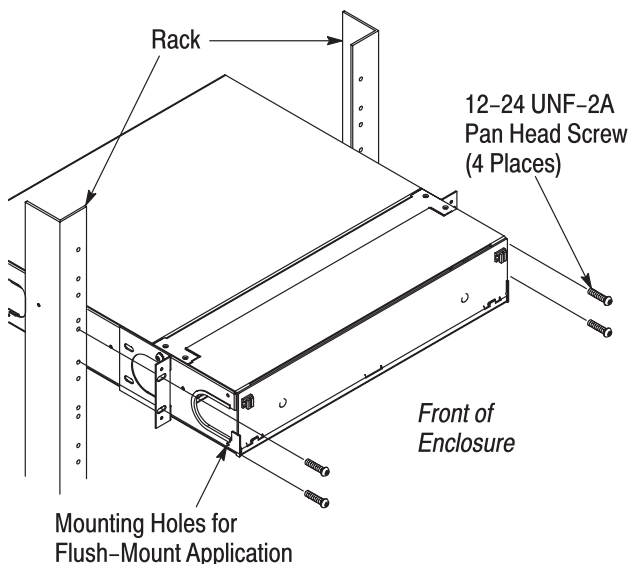


Figure 2

**Installing Snap-In Adapter Plate**

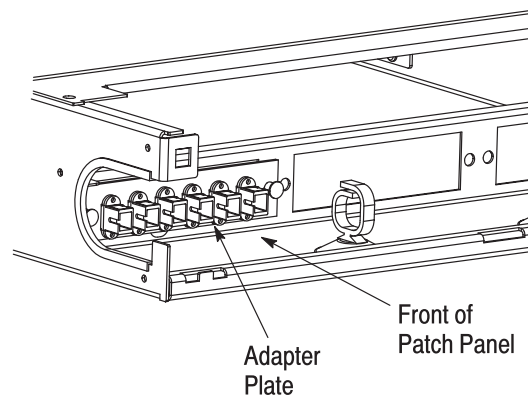


Figure 3

### 3.4. Install the Cable Clamp Bracket

1. Align the holes in the cable clamp bracket with the holes in the lip of the enclosure. For an inside mount, orient the pegs of the bracket so that they face the inside of the enclosure; for an outside mount, orient the pegs of the bracket so that they face outward. For either mount, make sure that the short leg of the bracket wraps over the lip of the enclosure. Refer to Figure 4.

2. Thread the screws through the holes from the same side as the pegs of the bracket. Tighten the screws.

### 3.5. Prepare the Cable

#### DANGER



*ALWAYS wear eye protection when working with optical fibers. NEVER look into the end of a terminated or unterminated fiber. Laser radiation is invisible but can damage eye tissue. NEVER eat, drink, or smoke when working with fibers. This could lead to ingestion of fiber particles.*

#### DANGER



*BE VERY CAREFUL to dispose of fiber ends properly. The fibers create slivers that can easily puncture the skin and cause irritation.*

Strip the cable to the dimensions shown in Figure 5.

#### CAUTION



*Make sure that the sub-units are no shorter than the length given; otherwise, the fiber will be placed under tension when sliding the splice tray shelf to the front of the enclosure.*

### 3.6. Routing the Cable

#### DANGER



*NEVER look into the end of a terminated or unterminated fiber. Laser radiation is invisible but can damage eye tissue. NEVER eat, drink, or smoke when working with fibers. This could lead to ingestion of fiber particles.*

Use the following guidelines when installing cable and routing the fiber in the enclosure. Whatever method is used, make sure that it not only meets the application needs, but also conforms to local codes and standards:

- Allow enough fiber in the enclosure for routing
- Coil excess fiber inside the enclosure
- Keep bend radii of cable and fiber as large as possible (always follow manufacturer's minimum bend radius)

#### CAUTION



*DO NOT exceed minimum bend radii for the cable or fiber. ALWAYS avoid placing fiber under tension or torsion.*

#### Installing Cable Clamp Bracket

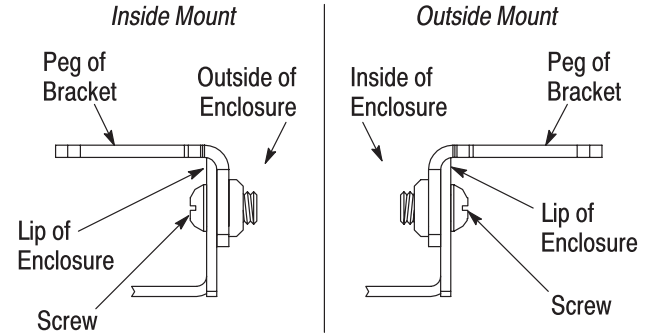
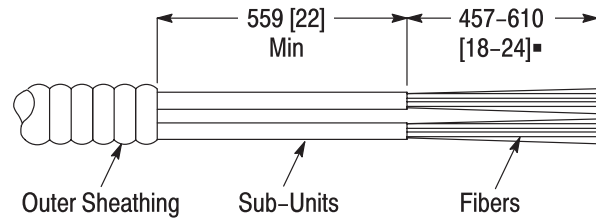


Figure 4

**Note:** Not to Scale



■ Recommended Range

Figure 5

The following procedure reflects a typical installation where cable or fiber is routed through only one side of the enclosure; however, cable or fiber can be routed through both sides of the enclosure. Follow the same procedure for both sides.

#### A. Secure the Trunk Cable

Lay the unstripped portion of the cable over one of the pegs of the cable clamp bracket. Secure armored cable to the peg using the hose clamp; secure other type of cable to the peg using cable ties. Refer to Figure 6.

#### B. Route the Fiber (Refer to Figure 7)

1. Slide the splice tray shelf to the *back* of the enclosure.
2. Position the splice tray(s) between the foam pads (maximum two stacked, three across). Route a maximum of 12 fibers to each splice tray. Secure the sub-units to the tie-down points and splice tray using cable ties.
3. Splice the fibers to the pigtails according to the instructions packaged with the splice tray. Secure the group of pigtails together using cable ties.

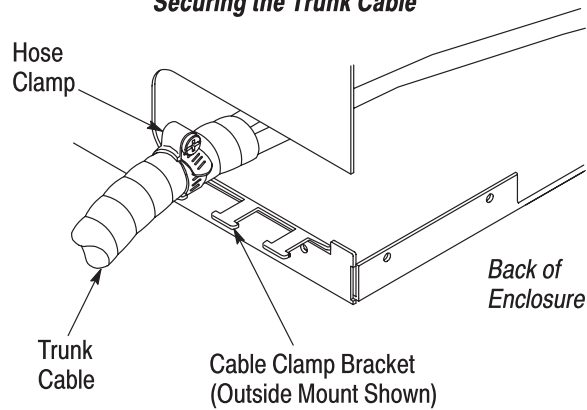
**Securing the Trunk Cable**

Figure 6

**NOTE**

*It is recommended that the length of the pigtails be no less than 559 [22] from the end of the splice tray.*

4. Slide the splice tray shelf to the *front* of the enclosure.
5. Join the pigtails to the coupling bushings on the adapter plate.

**C. Route the Jumpers** (Refer to Figure 7)

1. Slide the splice tray shelf to the *back* of the enclosure.

2. Route the jumpers through the cutout (either side or both sides) in the *front* of the enclosure.
3. Dress the jumpers through the cable routing rings, and join the connectors to the coupling bushings on the adapter plate.

**3.7. Inspect and Close the Enclosure**

1. Record connector positions using the card label (A–F), then install the card label in the label holder.
2. Attach the warning labels to the inside at the back of the enclosure.
3. Inspect the installation according to the following:
  - enclosure is secure to rack (mounting screws are tight)
  - cable is not nicked or broken
  - cable is secured to cable clamp bracket
  - there are no sharp bends or kinks in the fibers
  - there are no fibers under tension
  - connectors are undamaged
  - connectors are fully joined to coupling bushings

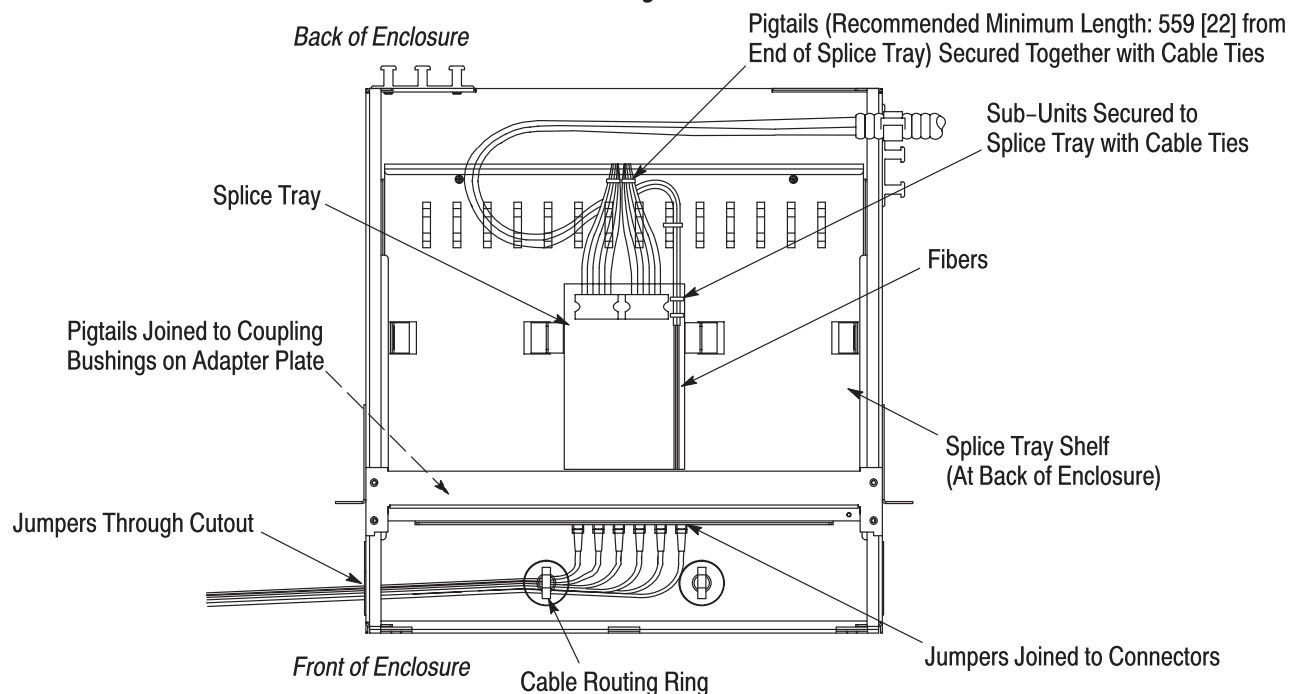
**Routing Cable**

Figure 7

4. Re-assemble the front cover and rear cover onto the enclosure, then install and close the door. Inspect the closing according to the following:
  - covers and door are secure
  - no cable or fibers are pinched in the covers or the door

#### **4. REPLACEMENT AND REPAIR**

The enclosure is not repairable if damaged. Order additional enclosures through your representative, or call 1-800-526-5142, or send a facsimile of your purchase order to 1-717-986-7605, or write to:

CUSTOMER SERVICE (038-035)  
TYCO ELECTRONICS CORPORATION  
PO BOX 3608  
HARRISBURG PA 17105-3608

#### **5. REVISION SUMMARY**

Revisions to this instruction sheet include:

- Updated document to corporate requirements