Preface

This instruction sheet covers the installation of the LST1U-072/7 and the LSTLW (LaserWave)
Fiber Optic Termination Shelf.

Contents:

General Notes

- For 50 micron fiber applications, the LSTLW 7-inch Termination Shelf may come with six-pack SC or ST connector panels or twelve-pack LC connector panels equipped with "ganged" adapters in either Aqua (LaserWave), Blue (single-mode), or Beige (multi-mode). The shelf is black in color and may also be ordered without adapters. The fiber routing and cable management is the same as the LST1U-072/7 termination shelf.

- This product is intended for indoor use, or outdoors in a suitable protective enclosure.

List of Parts

Table 1.   List of Parts

LOOSE PARTS FURNISHED WITH SHELF

LST1U ID Number *	LSTLW ID Number *	Description	Quantity
846 247 427	848 826 210	Mounting Brackets	2
		Jumper Retainers	17
		Fiber Rings	12
		Shelf ID Label	1
		Warning Label	2
848 067 369	848 826 541	Cable Clamp Brackets	2
		Plastic Grommets	2
		Misc. Screws and Nuts	--
		Bend Limiter, Upper	2
		Bend Limiter, Lower	2

* For ID purposes, not for ordering

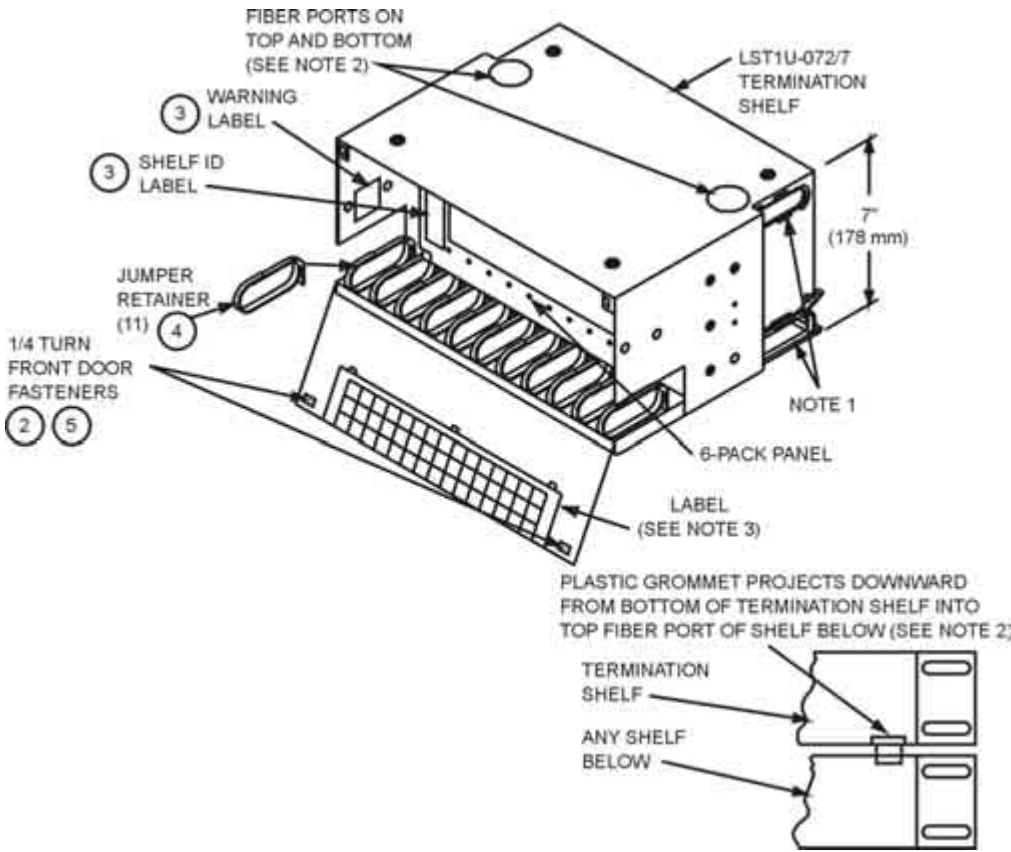## Step 1 – Check Parts and Install Labels, Grommets, and Rings

Figure 1.   Termination Shelf

➤NOTES:

— LS-type shelves come equipped with plastic grommets in upper entry ports, and slotted out lower cable entry ports. The slots will have grommets and will permit easy lay-in of cables or fibers.

— Grommets installed in fiber ports allow fibers to be routed internally to other shelves. To install grommets, remove bottom two fiber port plugs. Install grommets from inside shelf projecting downward as shown above. When mounting termination shelf above another shelf, remove top fiber port plugs in shelf below. When mounting under another shelf, remove top two fiber plugs in termination shelf.

— Flip-type label with fields on either side. Use one side to record fiber termination location and other side to record circuit information. Shelf ID label is provided to key shelf to label which may be removed from door. Shelf location ID information must be written on both the flip-type label and matching shelf ID label prior to use.

Step 1 (continued)

1. Verify parts against parts list. Connector panels, build-out blocks, and couplers used with this shelf are ordered/provided separately.

2. Rotate front door fasteners 1/4 turn and tilt open shelf front door.

3. Apply shelf ID label to 6-pack panel and warning labels to either inside wall of shelf - one in front of 6-pack panel, one behind panel.

4. Twelve fiber rings and six jumper retainers are provided for the rear of shelf. The fiber rings should be installed for buffered fiber OR the jumper retainers, if jumpers are to be terminated. See Figure 9.

5. Eleven jumper retainers (shown above) may be installed now or following 6-pack connector panel installation.

6. Return front door to closed position and rotate fasteners 1/4 turn to secure.

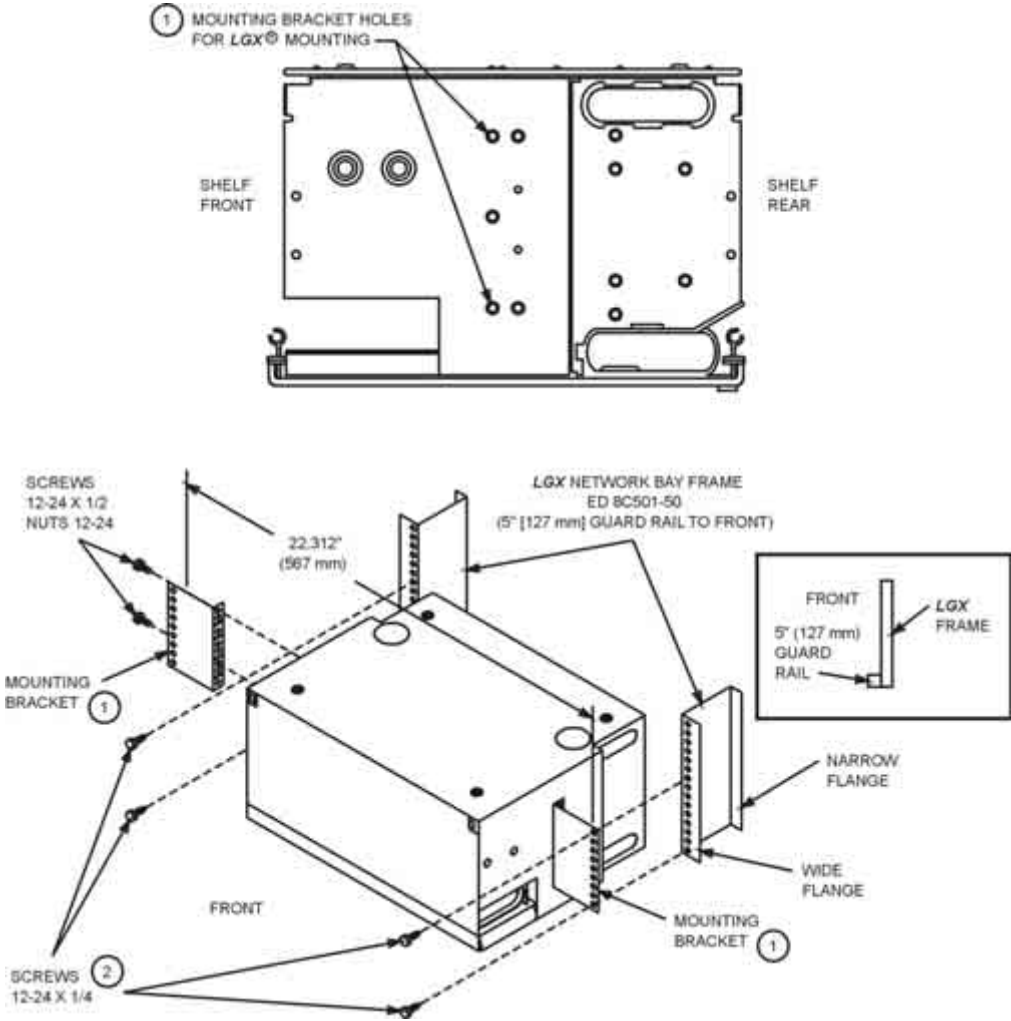## Step 2 – Install Shelf Mounting Backets and Mount Shelf

Figure 2.   Installing Shelf Mounting Brackets

1. Position and attach each mounting bracket to shelf using proper mounting holes (see above) with two 12-24 by 1/2 screws and 12-24 nuts (with captive lockwashers).

2. Install shelf to frame with two 12-24 by 1/4 screws per mounting bracket.
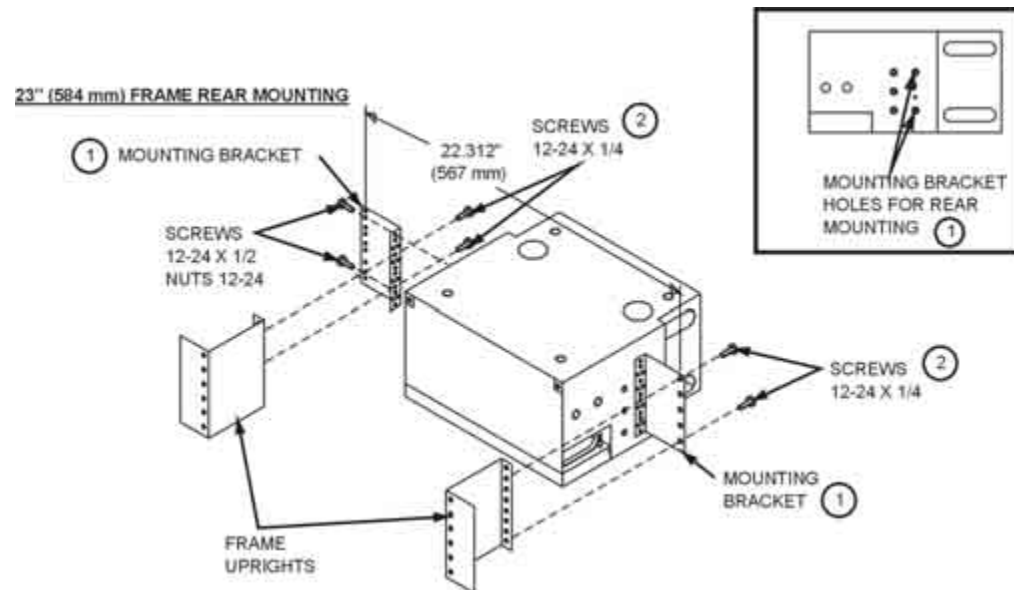
Step 2 (continued)

Figure 3.   23-inch (584 mm) Frame Rear Mounting

  1. Position and attach each mounting bracket to shelf using proper mounting holes (see above) with two 12-24 by 1/2 screws and 12-24 nuts (with captive lockwashers).

  2. Install shelf to frame with two 12-24 by 1/4 screws per mounting bracket.

Step 2 (continued)

19-inch Frame Mounting

1. Position and attach each mounting bracket using appropriate mounting holes (see below) to shelf with two 12-24 by 1/2 screws and 12-24 nuts (with captive lockwashers).

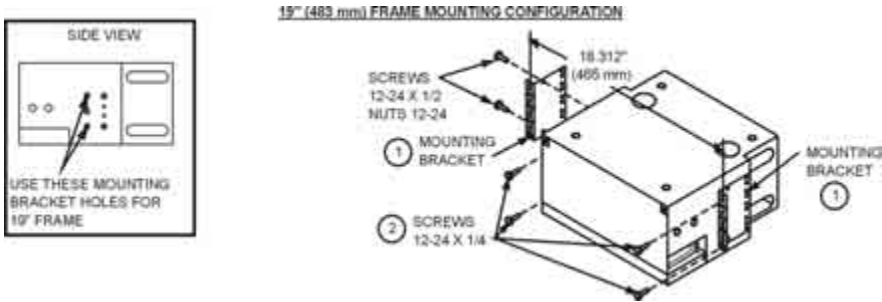2. Install shelf to 19-inch (483 mm) frame with two 12-24 by 1/4 screws per mounting bracket.

Figure 4.   19" (483 mm) Frame Mounting Configuration

Step 2 (continued)

Wall mounting:

➡ NOTE:

Illustration below is for wall mounting with top cable entry. For wall-mounted bottom cable entry, see illustration in Step 3. Shelf may also mount on 134-type wall bracket.

1. Install both mounting bracket and cable clamp bracket to side of shelf with three 12-24 by 1/2 screws and 12-24 nuts (with captive lockwashers). Two screws go through both brackets, while third screw goes through mounting bracket only. Repeat same for opposite side of shelf.

2. Install shelf to wall surface with two fasteners (locally obtained) per mounting bracket. Fasteners should be appropriate for wall surface.
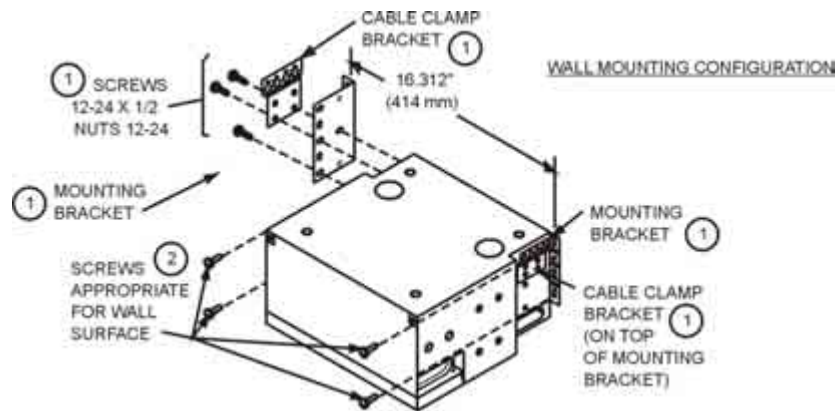

Figure 5.   Wall Mounting Configuration

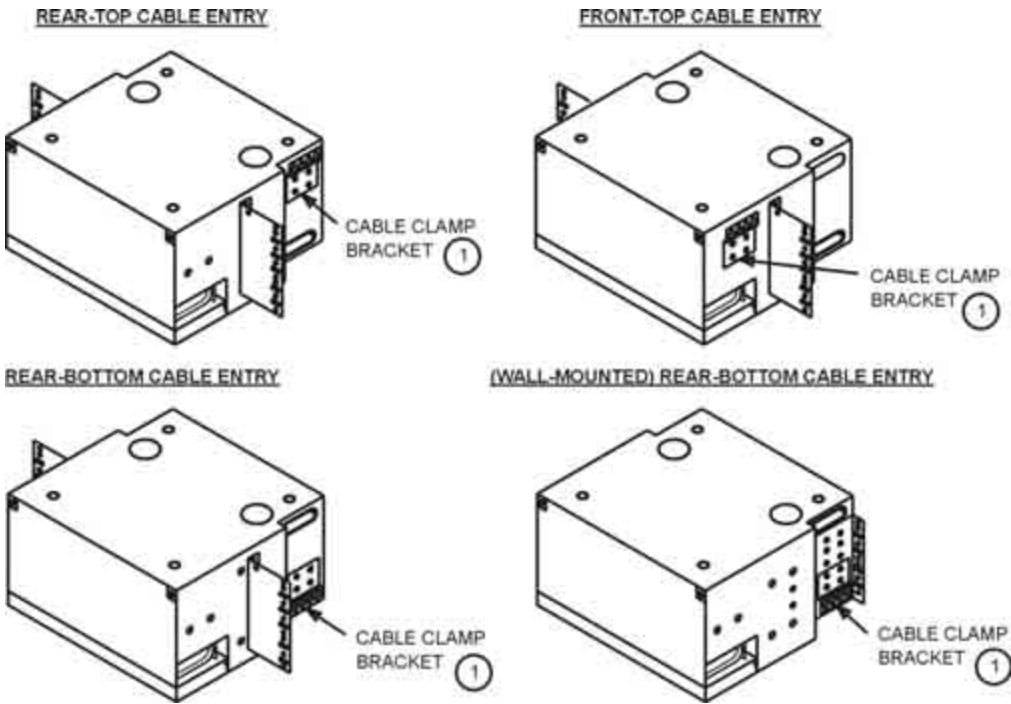## Step 3 – Install Cable Clamp Brackets and Rubber Grommets

Figure 6.   Cable Entry Options

1. Position and install each cable clamp bracket to sides of shelf with two 12-24 by 3/8 screws and 12-24 nuts (with captive lockwashers). For wall-mounted shelves, cable clamp brackets were previously installed with mounting brackets.
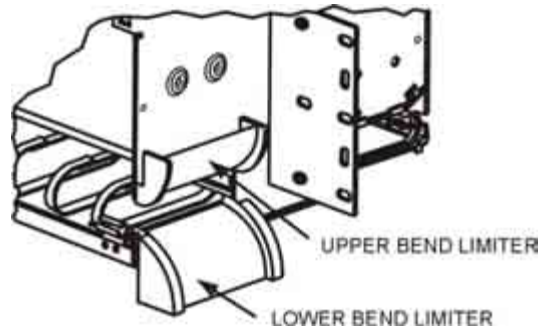
Step 4 – Install Bend Limiters

Figure 7.   Bend Limiter

1. Install upper and lower bend limiters in the jumper ports on the left and right side of the shelf. The lower bend limiters are installed by snapping them into position. The upper bend limiters are installed using the double-sided foam tape provided. Make sure surface of shelf is clean, peel release paper from tape on upper bend limiter, and press into position.

NOTE:

Order CC# 107330565, Set Bend Limiters (Multipack), to equip existing shelves with bend limiters. Each multipack will equip five shelves (LST1U only).

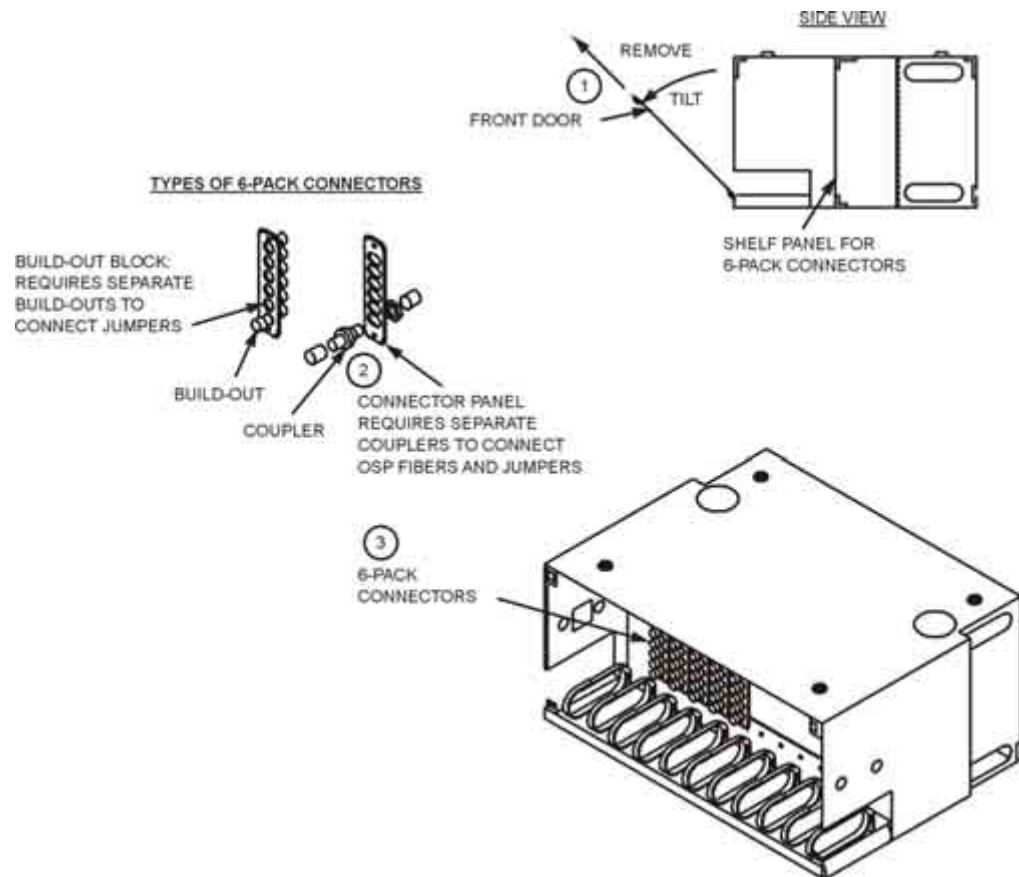## Step 5 – Install 6-Pack Connectors to Shelf Panel

Figure 8.   Installing Connector Panels

1. Rotate front door fasteners 1/4 turn; tilt door to align with hinge slots and remove.

2. Install couplers to 6-pack connector panels, if used. Six-pack build-out blocks do not require build-out installation prior to installing build-out blocks to shelf panel.

3. Install 6-pack connector panels or build-out blocks to shelf panel using the snap fasteners on 6-packs.

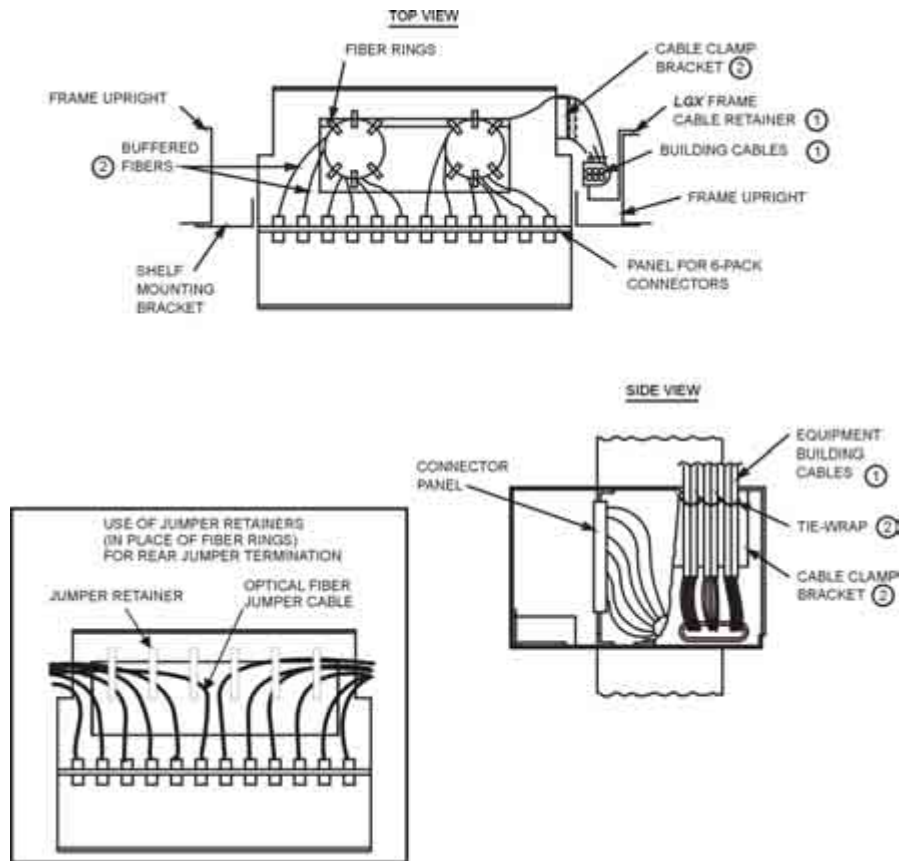# Step 6 - Install Building Cables to Shelf with Front and Rear Access (normal equipment room/CO application)

Figure 9.   Installing Building Cables

⇛ NOTE:

> Ideal procedure for securing building cables is to use spiral wrap, if available, around each building cable at cable clamp bracket. Tie-wrap should only loop through spiral wrap to secure cable.

1. Route and loosely secure (tie-wrap) building cables to cable retainers and cable retainer brackets when used on LGX distribution frame.

2. Loosely secure (tie-wrap) building cables to cable clamp bracket on shelf. Route buffered fibers into shelf, storing fiber slack in fiber rings as shown above, and terminate to 6-pack connectors.

Step 7 – Install OSP Cable (direct termination) to Shelves with Front and Rear Access (normal equipment room/CO application)
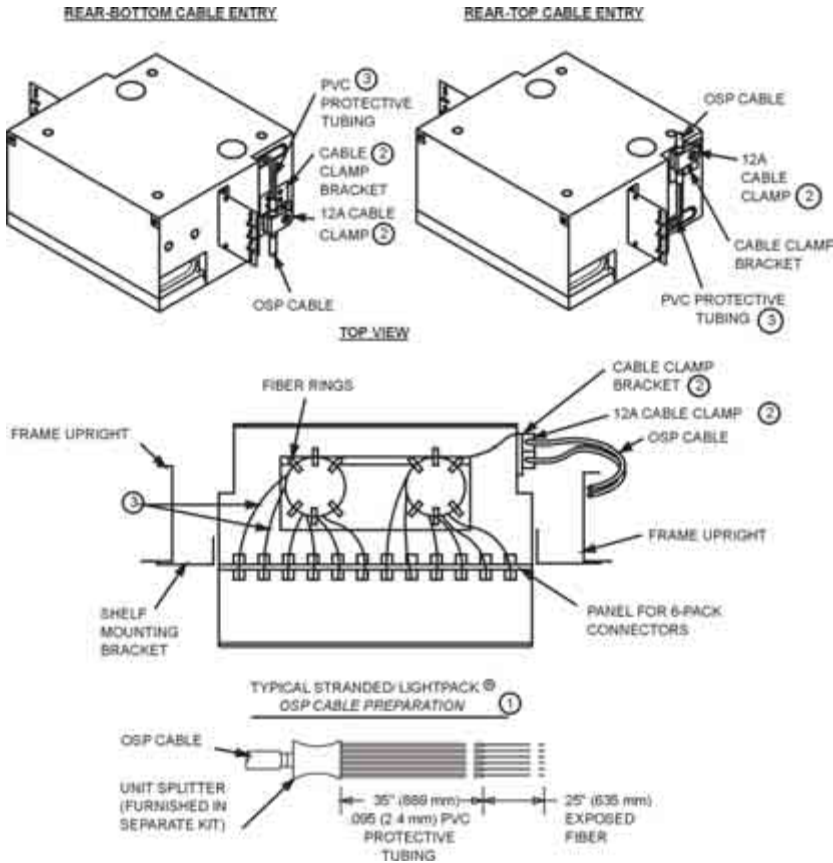

Figure 10.   Installing OSP Cables to Shelves

1. Prepare stranded/*Lightpack* cables typically as shown above using unit splitter. See 636-299-110 for cable preparation procedures for this and other types of cable.

2. Secure and ground OSP metallic cables to cable clamp bracket and frame, respectively, with 12A1 cable clamps (refer to 636-299-110 for details). Use 12A2 cable clamps with OSP nonmetallic cables. The 12A clamps are ordered/provided separately - one per OSP cable to be secured.

3. Route OSP cable fibers into shelf for buffering, connectorization, and termination to connector panels or build-out blocks.