

Universal 288/1728 Fiber Splice Vault

User Manual

P97-20989

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About This Manual

This publication describes Priority Electronics Ltd's Universal Splice Vault.

Admonishments

Important safety admonishments are used throughout this manual to warn of possible hazards to persons or equipment. An admonishment identifies a potential hazard and then explains what may happen if the hazard is not avoided. These warnings are flagged by use of the alert triangle (See Below) and are listed in order of severity of injury or damage and likelihood of occurrence.



Danger: Danger is used to indicate the presence of a hazard that will or can cause severe personal injury, death or substantial property damage if the hazard is not avoided.



Warning: Warning is used to indicate the presence of a hazard that can cause severe personal injury, death or substantial property damage if the hazard is not avoided.



Caution: Caution is used to indicate the presence of a hazard that will or can cause minor personal injury or property damage if the hazard is not avoided.

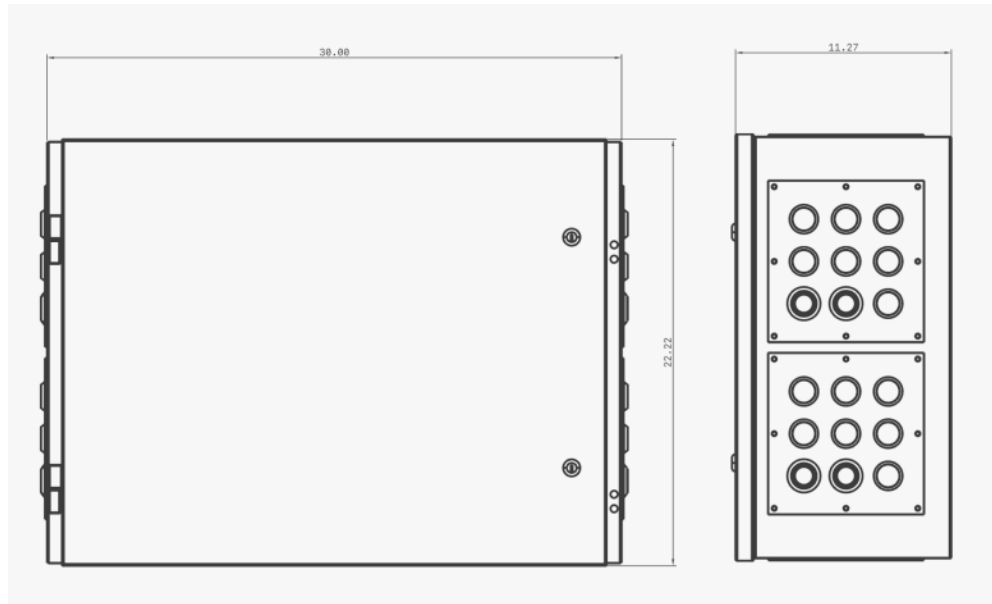
General Safety Precautions



Danger: Do not look into the ends of any optical fiber. Exposure to laser radiation may result. Do not assume the laser power is turned off or that the fiber is disconnected at the other end. Priority Electronics Ltd recommends the use of video inspection microscopes for inspecting connector end faces in the field.



Danger: Do not stand under the cabinet as it is being lifted into position for mounting. Serious personal injury and/or significant damage to the cabinet may result if dropped.



1. Overview

1.1. Cabinet Benefits

- ✓ Internal cable routing throughout ensure and within the splice trays to protect fibers
- ✓ Pull-down work tray provides a convenient work surface for installation & maintenance
- ✓ Wall mounted
- ✓ Multiple cable entrance options
- ✓ Lockable

1.2. Specifications

Mechanical	
Dimensions	30" W x 22.22" H x 11.27" D (762mm x 564mm x 286mm)
Material	Cold-Rolled Steel/Aluminum
Finish	Grey powder coat
Fiber Capacity	288 single fiber, 1728 Ribbon Fiber
Environmental	
Temperature Range	-25° to 55°C
Humidity	0 to 90%, non-condensing

These guidelines explain how to wall mount the 288-Fiber Splice Vault and how to route and secure the fiber optic cables. Each enclosure consists of a metal chassis with four interchangeable cable entry panels that can be mounted on the top, bottom, or sides of the vault for easy cable routing. The entrance door is reversible with two locks and a literature pocket for holding documentation.

The splice vault chassis features a pull-down work tray for splicing or test equipment. The internal fiber shelf holds 12 removable splice trays capable of 24 splices per tray, for a total of 288 splices (sold separately). Splice holders are capable of accepting mass fusion splices which significantly increases the fiber density of the vault. The chassis also contains an isolated ground buss bar for termination of cable sheath or cable strength member grounding.

Each enclosure comes with a ground bus bar.

These are the tools you will need for installation:

- 3/8" Bolt Driver
- Phillips Screwdriver
- Heat gun (optional)

The installation described in this sheet is one of many possible configurations. The experienced installer may select other suitable installations while following the basic sequence.

2. Inspection

Please read these instructions carefully before beginning installation.

Inspect equipment after unpacking.

Immediately report any shipping damage, defects, or missing parts to Priority at 1-800-478-0447, keep all documentation that came with your shipment.

Priority is not liable for shipping damage. If the product is damaged, notify the carrier and call a Priority CSR at 1-800-478-0447.

3. Installation Procedures



Caution: Caution is used to indicate the presence of a hazard that will or can cause minor personal injury or property damage if the hazard is not avoided.

Alert! Only qualified personnel may install this product.

3.1. Changing Entry Door Direction

Complete this section if you would like to change the door entry to left-to-right.

Procedure steps:

- 3.1.1. Lift door off hinges and set aside.
- 3.1.2. Using a Phillips screwdriver, remove the screws holding the door hinges.
- 3.1.3. Remove four hole plugs from the right side of the splice vault. Insert them into the left side of the vault.
- 3.1.4. Place door hinges over holes on the right side. Insert and tighten screws.
- 3.1.5. Reinstall door hinge holders so that openings for hinges are on bottom.
- 3.1.6. Insert door into hinges.

This procedure is complete.

3.2. Top and Bottom Cable Entry

Procedure steps:

- 3.2.1. Using a 3/8" bolt driver, remove four cable entry panels from side walls and set aside.
- 3.2.2. Remove four blank cable entry panels from top and bottom and install on left and right sides of the the splice vault.
- 3.2.3. Install cable entry panels with entry holes on top and bottom of the splice vault

Note: When reinstalling panels, neoprene seals should remain between the splice vault and the cable entry panel.

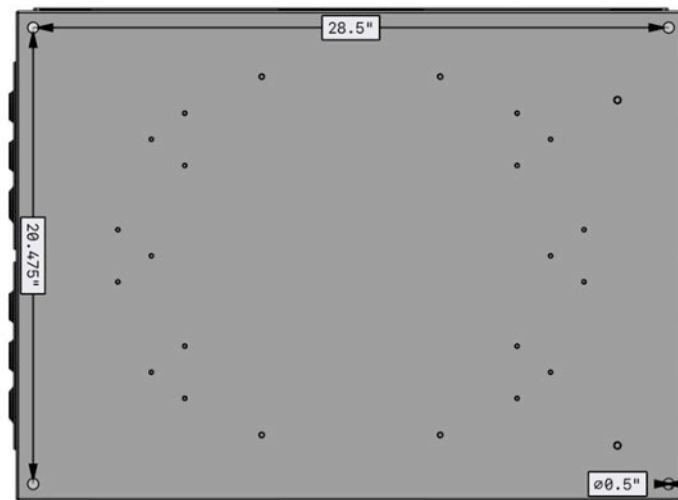
This procedure is complete.

3.3. Mounting Enclosure

Procedure steps:

- 3.3.1. Mark the location of holes on the wall according to this drawing.
- 3.3.2. Install the wall anchors onto the wall. Use Unistrut channels if required by local regulations.
- 3.3.3. Secure the enclosure to the wall by placing it into the wall anchors.

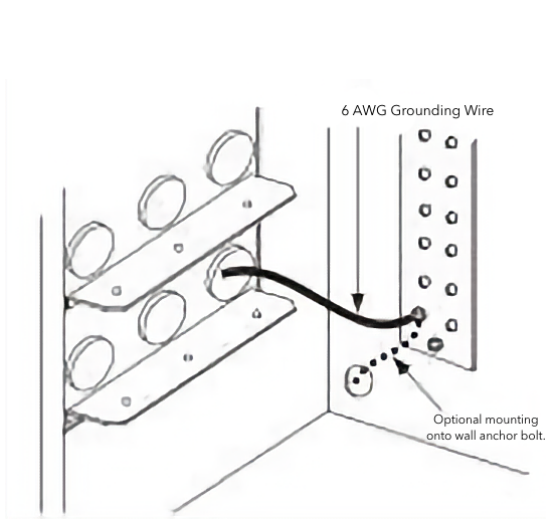
This procedure is complete.



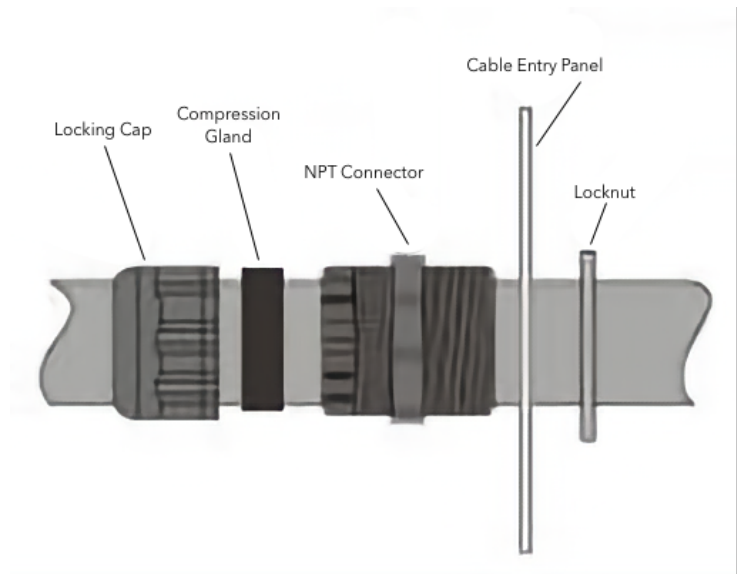
3.4. Install Incoming Cable

Procedure steps:

- 3.4.1. Install the number 6 AWG copper ground wire by connecting it to the spare bolt on the bottom-left of the isolated ground bus bar.
- 3.4.2. Route the wire through the nearest available cable-entry port or wall anchor bolt.
- 3.4.3. Starting with the rear-most opening, choose a cable entry port and remove the hole plug.
- 3.4.4. Install the locking cap from the entry hole grommet onto the fiber stub.
- 3.4.5. Insert the compression gland into the NPT connector and screw into the cable port. Secure by installing the locknut on the inside of the vault.
- 3.4.6. Insert the cable into the entry slot, connecting the locking cap to the NPT connector



Installing the incoming cable



Inserting Cable using Gland

- 3.4.7. Remove approximately 4 meters (13.1ft) of outer sheath from cable inside the vault. If the cable has an underlying metallic cover, leave approximately 3 inches (7.6 cm) exposed for grounding to the isolated ground bus bar.
- 3.4.8. Repeat steps 3.4.3 through 3.4.7 to install additional cables.

This procedure is complete.

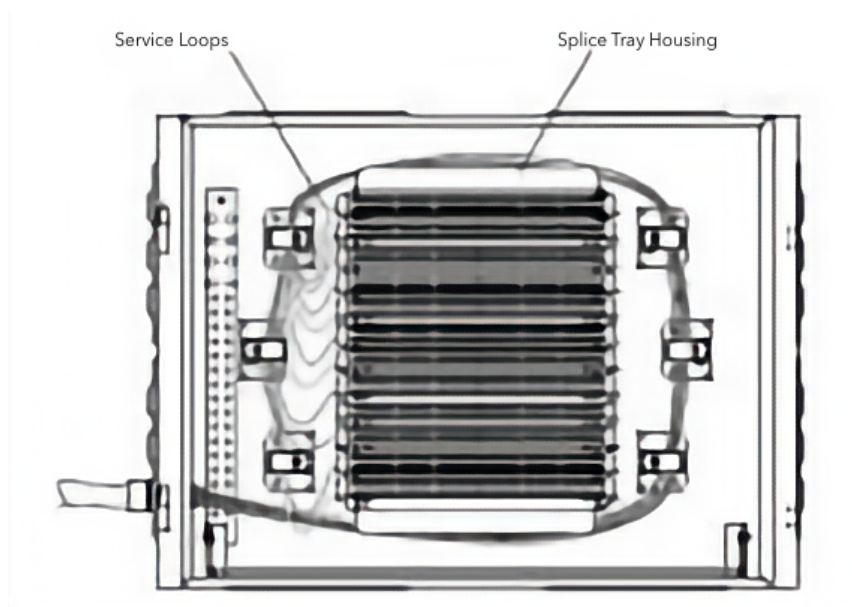
3.5. Route and Secure Incoming Cable

The number of wraps the fiber strands make around the splice tray housing depends on installer preference. One length is given, providing a service loop that allows you to pull the splice tray out to the working shelf for splicing. For other lengths or paths, use the management posts, and maintain proper bend radius.

Storage Wraps	Splice Tray Wraps	Feet	Meters
1	2	17.22	5.25

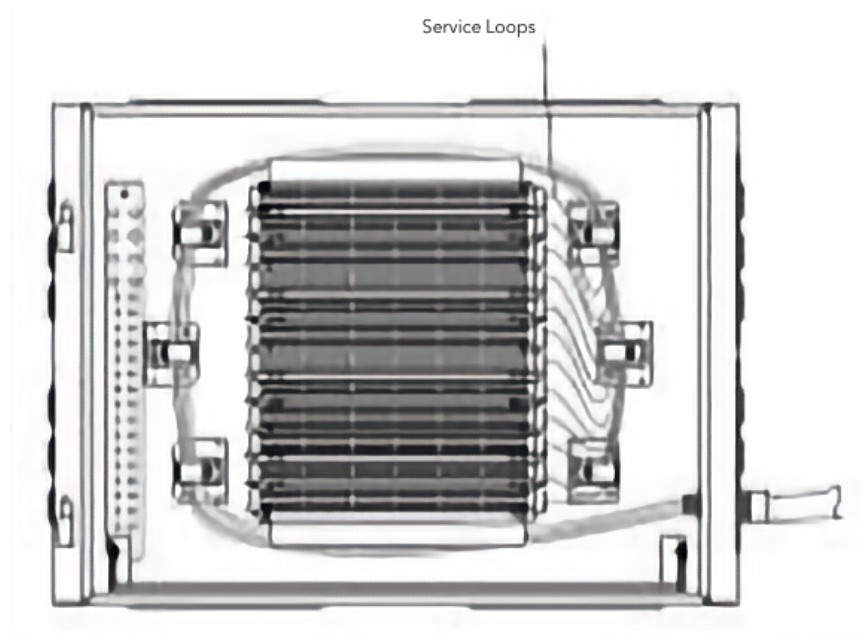
Procedure steps:

- 3.5.1. Cables entering through the left side of the splice vault should route counterclockwise around the splice tray housing and enter the left side of the splice trays.



Left-side Entry Cable Routing

- 3.5.2. Cables entering through the right side of the vault should route clockwise around the splice tray housing and enter the right side of the splice trays.



Right-side Entry Cable Routing

NOTE: OSP (outside plant) and premise cable should always be installed on opposite sides of the splice trays.

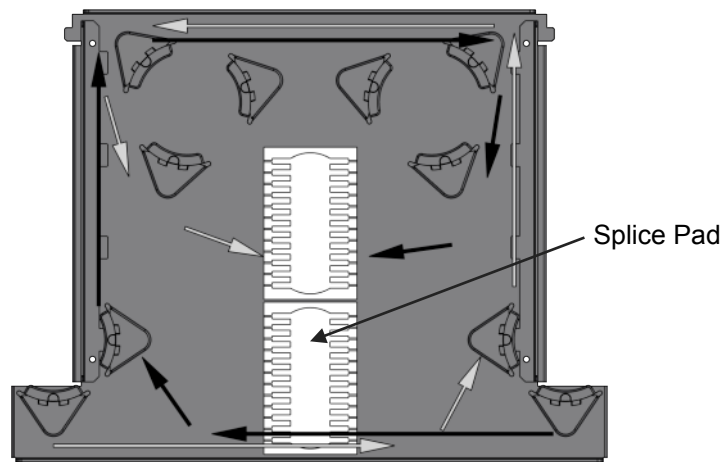
This procedure is complete.

3.6. Splice Tray Routing and Splicing

The 288-Fiber Splice vault can hold up to 12 splice trays with 24 splices each.

Procedure steps:

- 3.6.1. Pull the bottom splice tray out to the working shelf. You can remove the splice trays by lifting up on the rear of the tray.
- 3.6.2. Starting with the OSP side, attach the loose tubes containing up to 24 fibers to the first cable arc with a cable tie. Cable ties should fit loosely around the fiber strands. Over-tightening could damage the fiber. Optional PVC tubing can be installed at this stage for easier routing of fiber strands.
- 3.6.3. Wrap fiber strands around the cable arcs, carefully securing with cable ties. Route fiber two or three times clockwise for right cable entry and counterclockwise for left cable entry.



Routing the Fiber

- 3.6.4. At the premise side of the splice tray, cut and remove the jacket from sub-groups to expose 1.25 meters (4.1 ft.) of the 900um buffered fiber.
- 3.6.5. Follow the instructions in Step 3.6.3 to complete routing of fiber strands around cable arcs.
- 3.6.6. Prepare and splice the blue fiber strand from right side with the blue fiber strand from left side according to the splice manufacturer's instructions.
- 3.6.7. Place the splice in the splice pad.
- 3.6.8. Repeat Step 3.6.6 and Step 3.6.7 for the remaining fiber strands. Follow the 12-color sequence blue, orange, green, brown, grey, white, red, black, yellow, violet, pink, teal for splicing incoming fiber strands to the numbered pigtails.
- 3.6.9. Carefully tuck in any stray fiber strands so that they will not be pinched.
- 3.6.10. Push the splice tray back into the splice vault.
- 3.6.11. Repeat step 3.6.1 through 3.6.10 for remaining splice trays.

This procedure is complete.



3.7. Completing the Installation

Procedure steps:

- 3.7.1. Identify the splice connections on the designation strips provided on the front of the splice trays.
- 3.7.2. Return the fold-down work tray to the vertical storage position.
- 3.7.3. Store all important documentation in the literature pocket on the door.
- 3.7.4. Close and lock the splice vault.

This procedure is complete.

4. Ordering Information

Part #	Description
P97-20989	Vault, Universal 288 Fiber Splice
P97-19695	Tray, 24 Fiber Splice