CORNING

Rack-Mountable 4U Housing Hardware (PCH-04U)

003-650, Issue 8

related literature |

SRP 003-658	Instruction, PCH-04U Splice Bracket

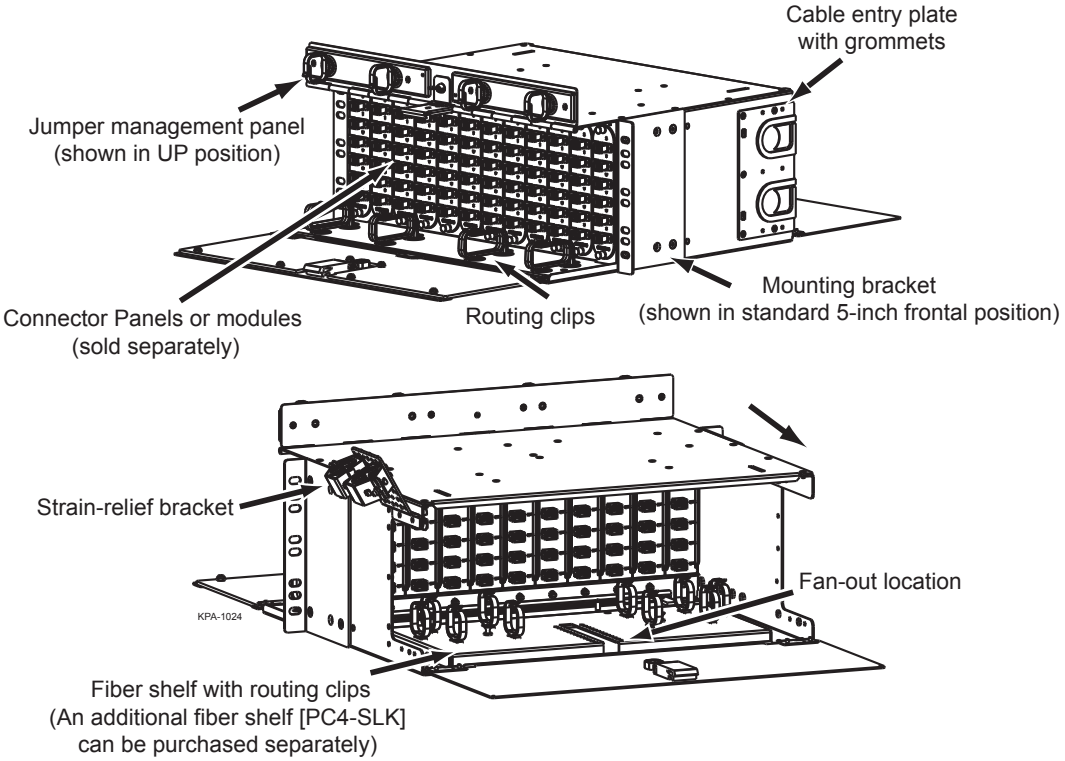
1. PRECAUTIONS

CAUTION: Recommend the use of safety glasses (spectacles) conforming to ANSI Z87, for eye protection from accidental injury when handling chemicals, cables, or working with fiber. Pieces of glass fiber are very sharp and have the potential to damage the eye.

CAUTION: The wearing of cut-resistant safety gloves to protect your hands from accidental injury when using sharp-bladed tools and armored cable is strongly recommended. Use extreme care when working with severed armor. There will be a sharp edge where armor is cut. To minimize the chance of injury from the cut armor, cover the exposed edge with a wrap of electrical tape. To minimize the chance of injury from sharp-bladed tools, always cut away from yourself and others. Dispose of used blades and armor scrap properly.

WARNING: **Never look directly into the end of a fiber that may be carrying laser light.** Laser light can be invisible and can damage your eyes. Viewing it directly does not cause pain. The iris of the eye will not close involuntarily as when viewing a bright light. Consequently, serious damage to the retina of the eye is possible. Should accidental eye exposure to laser light be suspected, arrange for an eye examination immediately.

WARNING: DO NOT use magnifiers in the presence of laser radiation. Diffused laser light can cause eye damage if focused with optical instruments. Should accidental eye exposure to laser light be suspected, arrange for an eye examination immediately.



2. CARTON CONTENTS

- Pretium® Connector Housing
- Hardware Kit containing:
  - (1) Unit identification label
  - (1 ft) Double-sided hook-and-loop strap
  - (12) 1/4 x 4-in cable ties
  - (3 ft) Spiral wrap
  - (4) Routing clips
- (1) Universal Cable Clamp (UCC) kit
- (1) Strain-relief bracket
- (2) 6-32 Wing nuts
- (4) #10-32 Phillips screws
- (4) #12-24 Phillips screws
- (1) 8-32 Phillips screw
- (1) M6 flat washer
- (1) U-shaped washer

3. TOOLS REQUIRED

- Phillips screwdriver
- Slotted screwdriver
- 5/16 in socket or wrench
- 11/32 in socket or wrench
- Needle-nosed pliers
- Sand paper

4. ADDITIONAL MATERIALS (PURCHASED SEPARATELY)

May or may not be required depending on your application.

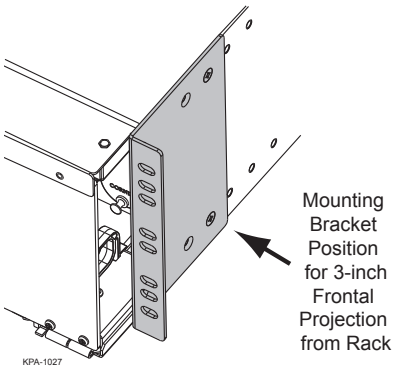
- Connector Panels (CCH-CPXX-YY)
- Grounding kit (HDWR-GRND-KIT) for armored cable
- Additional UCC kits (UCC-001/-005)
- Buffer Tube Fan-Out kit (FAN-XX36-YY)
- Splice tray bracket kit (PC4-SPLC-12SR)
- Pigtailed Panels (CCH-CPXX-YY-P03ZZ)
- Pigtailed Modules (CCH-RMXX-YY-P03ZZ)
- Plug & Play(r) Modules
- 23-in rack-mounting brackets (PC4-BKT-23)

5. INSTALLATION

5.1. Mount the Housing into a Rack

Attach the unit to the equipment rack using the four screws provided. Two screws are required per each side of the housing. The mounting bracket position may be changed to adjust the frontal projection from the rack.

If installing into a 23-in rack, follow the instructions included with attach the adapter bracket (sold separately).



5.2. Remove the Front or Rear Doors

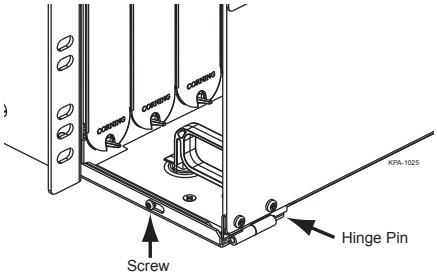
The doors can be removed to facilitate cable installation.

5.2.1 Removing Front Door

Step 1: Loosen the screw on the left side of the housing.

Step 2: Slide the screw toward the rear of the housing.

Step 3: Slide the door off the hinge pin.



5.2.2 Removing Rear Door

Step 1: Open rear door of housing.

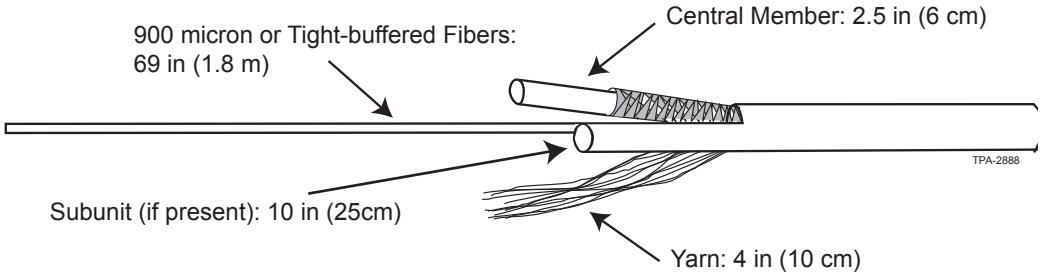
Step 2: Flex the door and slide the door off one of the hinge pins.

Step 3: Remove the door from the other hinge pin.

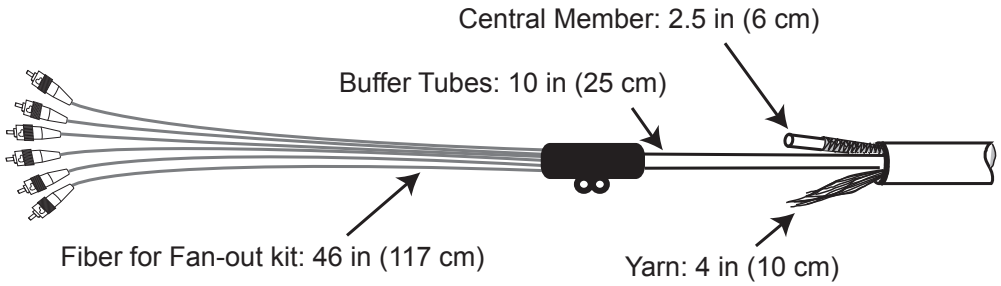
6. CABLE PREPARATION

IMPORTANT: Pierce entry grommet and slide down cable before accessing.

- **Indoor Cables: Access 79 in (2 m)**



- **Outdoor Cables with 36-in Fan-Out Kit: Access 56 in (1.4 m)**



Remove between 65 and 65 in of jacketed buffer tube and between 75 and 85 in of jacketed pigtail.

6.1. Secure the Cable

NOTE: Fiber optic cable is sensitive to excessive pulling, bending, and crushing forces. Consult the cable specification sheet for the cable you are installing. Do not bend the cable more sharply than the minimum recommended bend radius. Do not apply more pulling force to the cable than specified. Do not crush the cable or allow it to kink. Doing so may cause damage that can alter the transmission characteristics of the cable; the cable may have to be replaced.

IMPORTANT: If you are installing outside plant cable or temperature fluctuates widely along any part of the cable, the strength members of the cable must be strain-relieved. Failure to do so may result
in damage to the cable as temperature varies. Other situations only require the cable to be strain-relieved by sheath retention only.

For cable sheath retention only, use the universal cable clamp (UCC) or cable ties.

6.1.1 Strain-relieve using the Universal Cable Clamp (UCC)

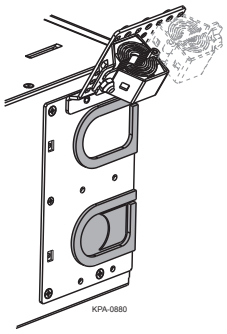
Step 1: Determine the location for cable entry into the housing.

Step 2: Attach the UCC clamshell to the strain-relief bracket as shown to allow installation of a second UCC if necessary.

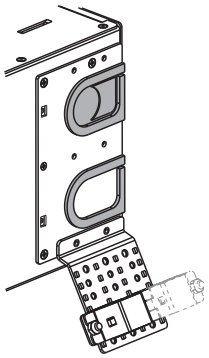
Step 3: Attach the strain-relief bracket to the housing with two wing nuts.

Step 4: Follow installation instructions provided with the UCC kit to secure the cable. Do not tighten yet to allow for cable adjustment if necessary.

Bracket Orientation for Top Cable Entry



Bracket Orientation for Bottom Cable Entry



6.1.2 Strain-relieve using Cable Ties

Step 1: Attach the cable to the strain-relief bracket in two places with cable ties.

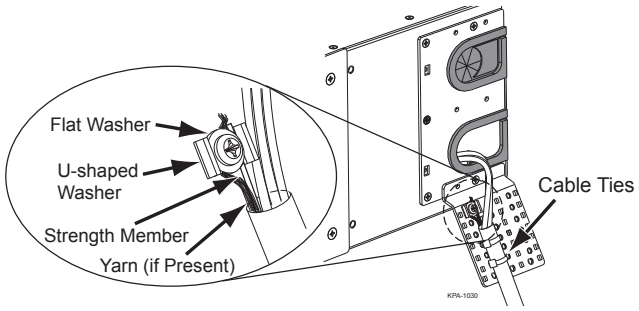
Step 2: Attach the strain-relief bracket to the housing with two wing nuts.

6.1.3 Strain-relieving the Cable Strength Member

Step 1: Attach the cable to the strain-relief bracket in two places with cable ties

Step 2: Install the U-shaped washer and the flat washer on the strain-relief bracket in the orientation shown using the supplied Phillips-head machine screw.

Step 3: Place the central member and yarn, if present, between the U-shaped washer and the flat washer.



Step 4: Wrap yarn around the screw in a clockwise direction and under the U-shaped washer.

Step 5: Tighten the screw.

Step 6: Trim off the excess yarn and central member.

6.1.4 Grounding Armored Cable, if applicable

Use one HDWR-GRND-KIT per armored cable. Follow instructions provided with kit to properly ground the cable.

Step 1: Remove the paint from the rack with sand paper to ensure metal-to-metal contact at the grounding location.

Step 2: Attach the other end of the ground wire from the cable to the rack. The rack must be grounded to the primary building ground for this to work properly.
OR
Attach the other end of the ground wire from the cable to a rack-mount grounding bus.

7. MANAGING CABLE

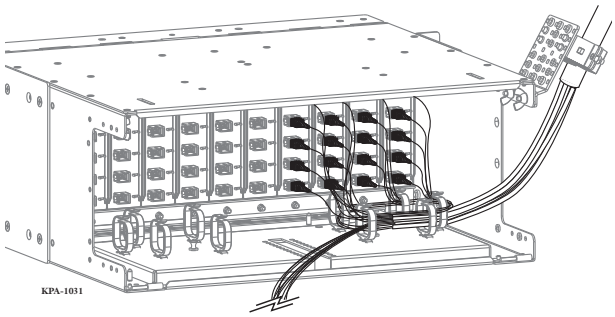
NOTE: The PCH-04U housing is supplied with one fiber shelf or rear slack storage bracket with no routing clips installed. Follow your company's best practices for routing fiber slack (both jacketed and unjacketed fiber), and install routing clips accordingly. Ensure that you abide by the minimum installed bend radius specifications of the fiber and/or cable. Corning Optical Communications can provide you with recommended routing schemes depending upon your particular product and cable configuration. Contact Corning Optical Communications for more information.

7.1. Install Preconnectorized Cable into Adapter Panels

Step 1: Remove the blank panels from the front of the unit and replace with adapter panels (purchased separately).

Step 2: Clean connectors and adapters per standard company practices and insert connectors into adapters.

Step 3: Route fiber slack through the routing clips on the fiber shelf.



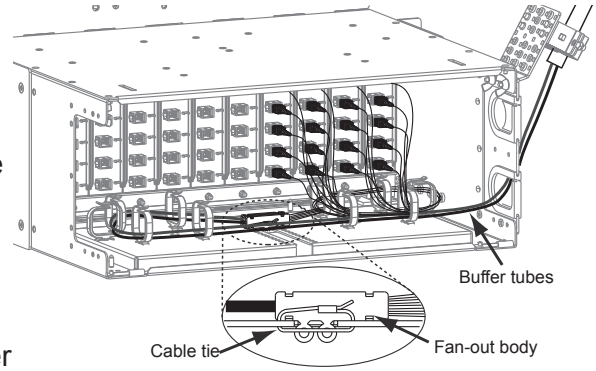
7.2. Install Cable Using BufferTube Fan-out (BTF) Kits

Step 1: Terminate the fibers according to the instruction provided with the BTF kit (purchased separately).

Step 2: Slide the fan-out body into the cut-out in the fiber shelf with the rings on the fan-out body beneath the shelf. Secure fan-out with a cable tie.

Step 3: Remove the blank panels from the unit and replace with connector panels (purchased separately).

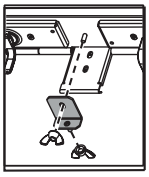
Step 4: Clean connector end faces and adapter per standard company practices and insert connectors into adapters.



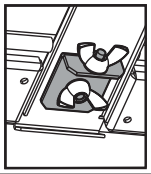
Step 5: Route fiber slack through the routing clips on the fiber shelf.

7.3. Install Connector Modules

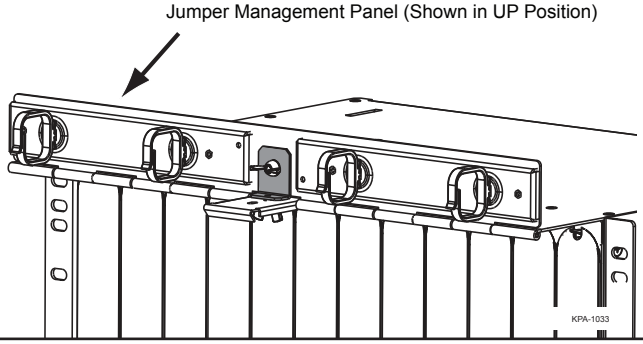
Step 1: Rotate the management panel to the UP position by removing the bracket from under the panel, raise the panel, then reinstall the bracket as shown.



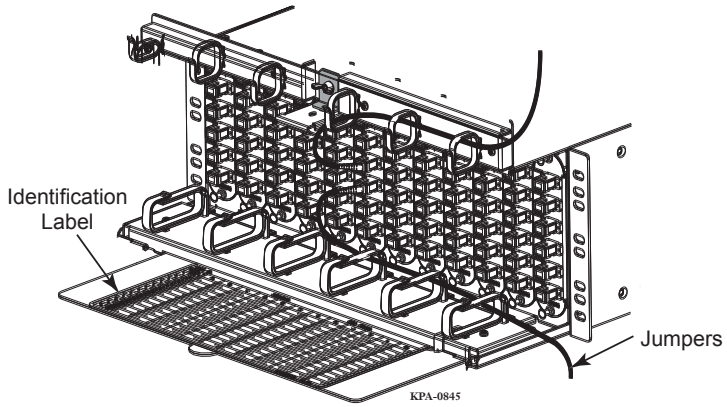
View From Above for Panel Orientation in the UP Position



View From Beneath With Panel in Standard Down Position



Step 2: Remove the blank panels from the front of the unit and replace with the connector modules (purchased separately).



7.4. Install Cable Using Splice Trays

A splice tray bracket kit (p/n PC4-SPLC-12SR, purchased separately) is required to install splice trays. Follow instructions provided with the splice tray bracket kit.

7.5. Documentation

Record fiber identification information appropriately on the provided identification label stored beneath the fiber routing plate. Accurate recordkeeping is imperative for an organized installation.

7.6. Reinstall Doors

If the front and rear doors were removed, reinstall them at this time.

7.7. Route Jumpers (Patch Cords)

The jumper management panel at the front of the housing can be used in the UP or DOWN position. Follow previous instructions in Section 7.3, step 1 if the UP position is desired.

Step 1: Remove dust caps from the connectors and adapters into which they will be mated. Clean connector end faces and adapters per standard company practices and insert connectors into adapters.

Step 2: Install jumpers as specified by company planning diagrams.

Step 3: Route jumpers through the clips at the front of the housing.

Corning Optical Communications LLC • PO Box 489 • Hickory, NC 28603-0489 USA
800-743-2675 • FAX: 828-325-5060 • International: +1-828-901-5000 • www.corning.com/opcomm