Fiber Connector Shelf (CCS)

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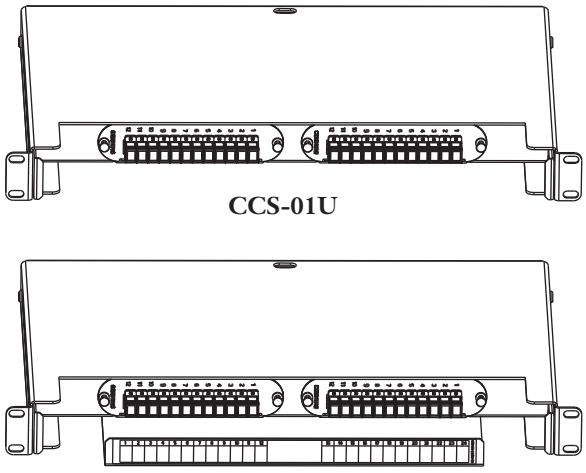

CCS-01U

CCS-01U (shown with optional CCS-LBL-PNL)

KPA-1184

Figure 1

1. General

1.1 This document describes the recommended procedures for the installation of the Fiber Connector Shelf (CCS-01U). The CCS-01U unit is a sliding tray inside a housing that accommodates a splice tray with space available underneath the splice tray for cable slack. The optional CCS-LBL-PNL (ordered separately) is a jumper routing shelf that provides jumper slack storage and a label for recording port assignments. Connectors are installed in adapters that are secured to two removable LANscape®-compatible panels. The unit houses two incoming cables. Additional splice holders are supplied that allow splicing in the unit. The unit can be mounted to a standard 19-inch or a 23-inch utility rack.

1.2 Contact your customer service representative to purchase accessories that are sold separately.

1.3 This document is being reissued to add the logo indicating this product is RoHS compliant.

NOTE: *Before you begin your installation, make sure you understand how the unit is to be installed, where cable will enter the unit, where it will be placed on the utility rack, how jumpers will be routed, and other details of the installation plan.*

2. Precautions

2.1 Laser Handling Precautions

⚠**WARNING:** ***Never look directly into the end of a fiber that may be carrying laser light.*** *Laser light may 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 be suspected, arrange for an eye examination immediately.*

2.2 Safety Precautions

⚠**CAUTION:** *The wearing of safety glasses to protect the eyes from accidental injury is strongly recommended when handling chemicals and cutting fiber. Pieces of glass fiber are very sharp and can damage the cornea easily.*

> ⚠**CAUTION:** *The wearing of safety gloves to protect hands from accidental injury is strongly recommended when using sharp instruments.*

2.3 Glass Fiber Precautions

> ⚠**WARNING:** *Cleaved glass fibers are very sharp and can pierce the skin easily. Do not let cut pieces of fiber stick to your clothing or drop in the work area where they can cause injury later. Use tweezers to pick up cut or broken pieces of the glass fibers and place them on a loop of tape kept for that purpose alone.* ***Good housekeeping is very important.***

2.4 Cable Handling Precautions

> **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.*

3. Components

Components are illustrated in Figure 2.

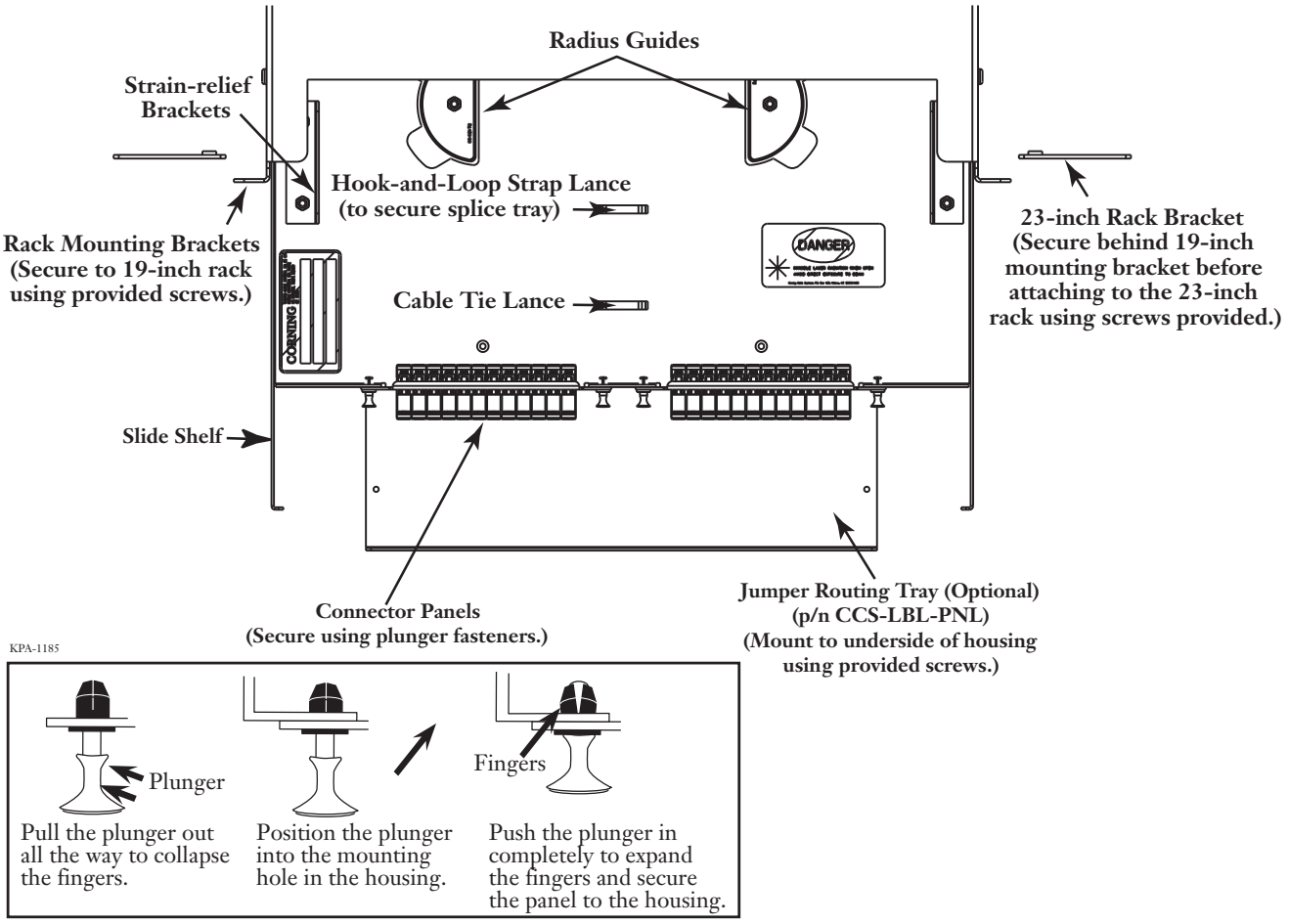

Figure 2

4. Tools and Equipment

The tools required to complete this installation include:

- Phillips-head screwdriver
- Flat-blade screwdriver
- 5/16-in. nut driver
- Utility knife
- Tape Measure
- Needle-nose pliers

5. Cable Installation

5.1 Determine the location for cable entry into the unit and remove the appropriate grommet. Pierce a hole as instructed in Figure 3. Grommets must fit tightly to prevent intrusion of insects, water, dirt or foreign particles. A knife may cut all the way through the grommet and cutters may cut a hole that is too large for a tight fit.

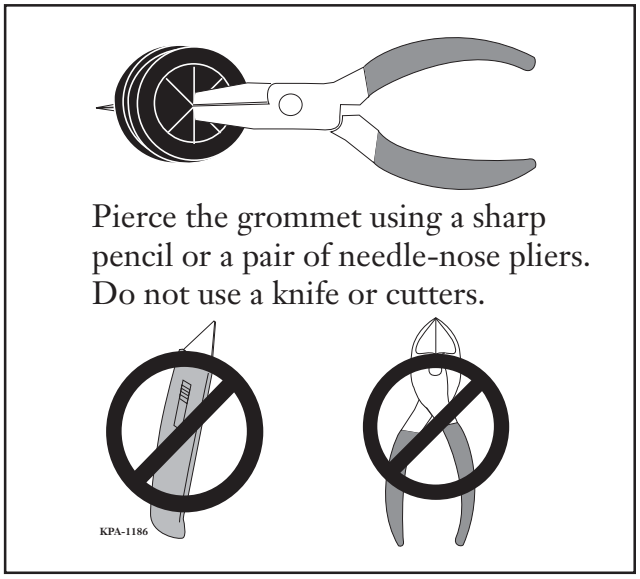

Figure 3

5.2 Feed the cable through the pierced grommet. Allow extra loop of cable for a service loop when the tray is fully extended.

5.3 Outside plant (loose-tube) fiber optic cable can be installed using Corning Cable Systems Buffer Tube Fan-out (BTF) Kits (purchased separately). After following the instructions provided with the kit, route the fibers and use cable ties to secure the fan-out bodies to the lance on the shelf.

5.4 Remove cable sheath to the length illustrated in Figure 4. When installing BTF kits, leave 57 in. of fiber with the buffer tube removed.

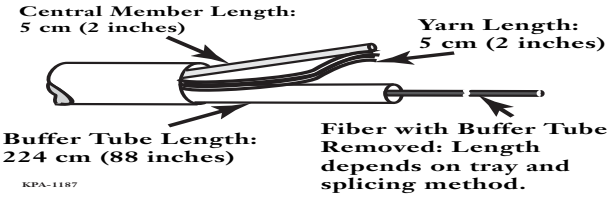

Figure 4

5.5 Direct Connectorization. If the cable you are installing must be connectorized, do so at this time per connector manufacturer instructions.

5.6 Secure the cable to the strain-relief bracket using cable ties (Figure 5).

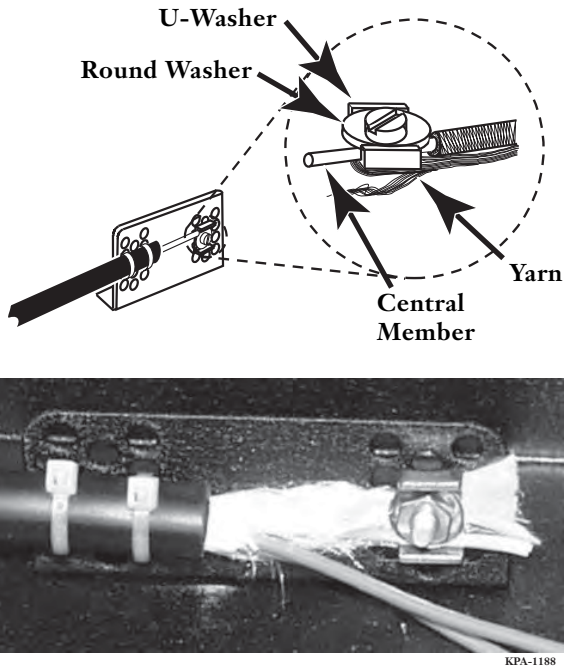

Figure 5

5.7 Strain-relieve central members as needed:

1) Use the 5/16-in. nut driver to remove the strain-relief bracket from the cabinet.
2) Attach the cable to the bracket (with cable ties in two places) on the side of the mounting flange. Make sure the location on the bracket you choose for the cable ties will line up with the cable entry hole.
3) Install a U-shaped washer assembly to the bracket.
4) Wrap the aramid yarn, if present, clockwise under the U-shaped washer and position the central member between the U-shaped washer and the round washer.

IMPORTANT: *If the central member is metallic, make sure a half inch of insulation is stripped off and the central member makes metal-to-metal contact with the washers.*

5) Trim the yarn. Leave 1/4-in. of central member.

6) Secure the bracket to the housing with the nylon nuts provided. Tighten with a 5/16-in. nut driver.

7) Reinstall the cable entry grommet.

5.8 Carefully install the connectors into the adapters on the back side of the connector panel and tighten. Obey the following precautions in order not to damage the surface of the connector and make it unusable.

- Do not press heavily on it as you clean.
- Do not OVERTIGHTEN.
- Do not allow the connector body (ferrule) to turn as you screw it into place. This causes the surfaces to grind against each other.
- Do not force the connector into the receptacle. If the connector does not fit easily into the receptacle, back it out and retighten.

5.9 Secure buffer tubes to the lance on the shelf using a cable tie (Figure 6).

6. Grounding

6.1 Metallic Central Members. Place the eye of a ground wire (#6 AWG, purchased separately in an appropriate length from any electrical supply store) under the U-shaped washer or under the flat washer. Then either:

- Attach the other end of the ground wire to the equipment rack (be sure to remove any paint or anodization so good contact is made). Ground the equipment rack to the primary building ground.
- Or, attach the other end of the ground wire to a rack mounted grounding bus bar, which is itself grounded to the primary building ground.

IMPORTANT: *The ground strap must have an electrical path to the central member.*

6.2 Armor Grounding. Order p/n FDC-CABLE-GRND and follow the provided instructions to attach the grounding lug to the cable armor. Then, run a ground wire (#6 AWG, purchased separately in an appropriate length from any electrical supply store) from the lug to the primary building ground via one of the methods mentioned in Section 6.1.

7. Splicing

7.1 A pigtail is cable with connectors on one end; the other end of the pigtail is terminated in the splice tray. Install connectorized end into the connector planels and route to an appropriate splicing area.

7.2 Route buffer tubes and pigtails into the shelf as shown in Figure 6.

7.3 Splice fibers according to the instructions for your splicing method.

7.4 If you are splicing fibers into the supplied self-adhesive splice holders:

a) Remove and discard the hook-and-loop strap.

b) Clean the surface of the housing in the area between the radius guides.

c) Secure the splice holders to the floor of the shelf between the two routing guides.

d) Install splices into holder.

7.5 If you are splicing fibers into the splice tray (purchased separately):

a) Follow the instructions provided with the splice tray.

b) Secure the splice tray to the unit using the hook-and-loop strap.

8. Jumpers

A jumper is cable with connectors on both ends. Install jumpers (patch cords) into adapters in front of the connector panel as instructed on planning diagrams.

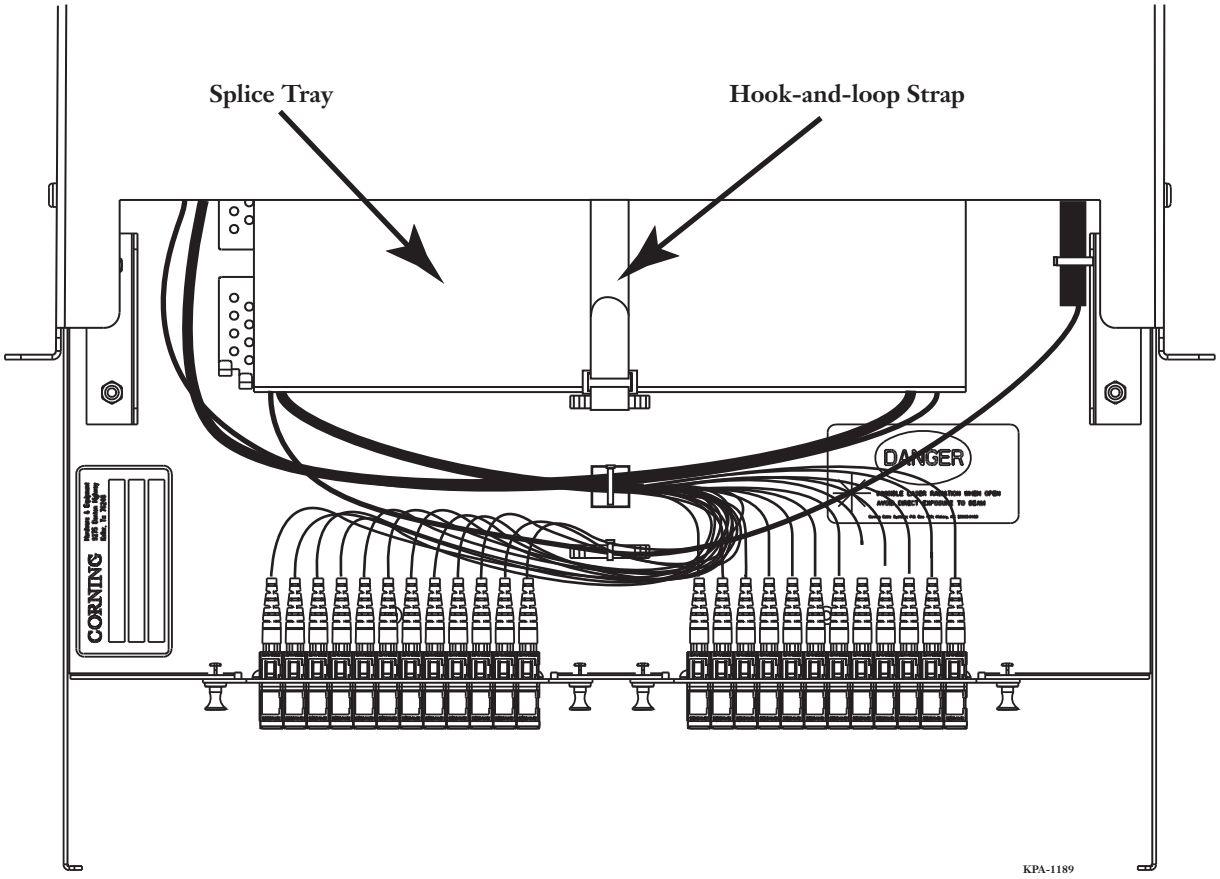

Figure 6

9. Specifications

The CCS-01U unit is 55 cm (21-3/4 in.) deep with the slide shelf fully extended.

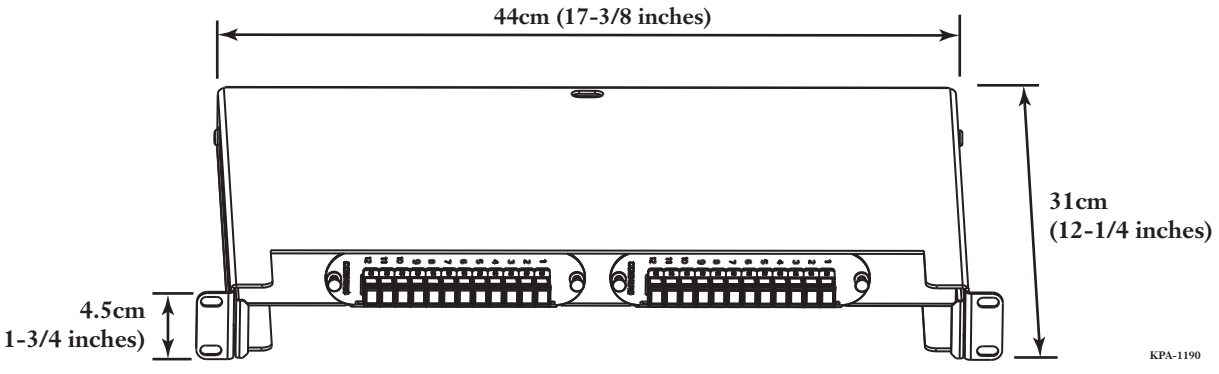

Figure 7

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