

Mounting an SBA Drop-down Panel Housing, Stubbed or Unstubbed

Revision History

Issue	Date	Reason for Change
1	11/2006	Initial release

Related Literature

003-391 Instruction, Universal Cable Clamp

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Admonishments

The precautionary terms used by Corning Cable Systems in its standard recommended procedures conform to the guidelines expressed in the American National Standards Institute document (ANSI Z535) for hazard alert messages. Alerts are included in this instruction based on the following:



DANGER: indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



WARNING: indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION: indicates a hazardous situation which, if not avoided, may result in minor or moderate injury.

1. PRODUCT DESCRIPTION

The SBA drop-down panel housing is a 1U-high housing that can be mounted into either a 19- or 23-inch rack. The unit has a slideable drawer that will accommodate up to 24 connectors and mass fusion or single-fiber splices.

The Corning Cable Systems housing is designed for controlled environmental vault, hut, and central office applications. The typical application provides an interconnect between outside plant fibers and electronic equipment. This unit allows for easy termination, rearrangement, and test access in one convenient location.

The drawer is designed to provide multi-position access when rack-mounted. The unit consists of two layers that can be separated depending upon the service task being performed. The top layer pivots up while the bottom remains stationary to provide access to the splice tray. Both top and bottom layers pivot down, if desired, to allow for easy access to the adapters. The drawer provides service loop storage that prevents kinking and allows easy removal of the splice tray to a nearby work area. Fiber management and bend radius controls are provided throughout the product to ensure signal integrity.

2. CARTON CONTENTS

- SBA drop-down panel housing
- Mounting kit, with two 19-inch brackets, two 23-inch brackets, and mounting screws

If the housing is ordered with a stubbed cable attached, the following items will be included:

- Input cable kit, with braided tubing, electrical tape, heatshrink tube, plastic rod, split grommet, cable raceway, radius protection guides, cable ties, Universal Cable Clamp (UCC) and bracket, and mounting screws

3. TOOLS AND MATERIALS REQUIRED

3.1 Tools

The following tools or an equivalent may be required for this installation:

- Phillips-head screwdriver
- 7/16-inch wrench or nut driver

3.2 Materials

Cable ties may be required if the housing is stubbed.

4. PRECAUTIONS

This section provides precautions to be observed when installing this product.

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.*

Laser Handling Precautions



WARNING: *Never look directly into the end of a fiber that may be carrying laser light. Laser light is 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.*

5. MOUNTING HOUSING

- Step 1:** Mount appropriate brackets to each side of the housing as shown. (Separate brackets for 19- and 23-inch frames are provided.)
- Step 2:** Mount the radius protection guides onto the studs in front of the mounting brackets and secure with the provided nuts.
- Step 3:** Attach brackets to the frame (Figure 1).

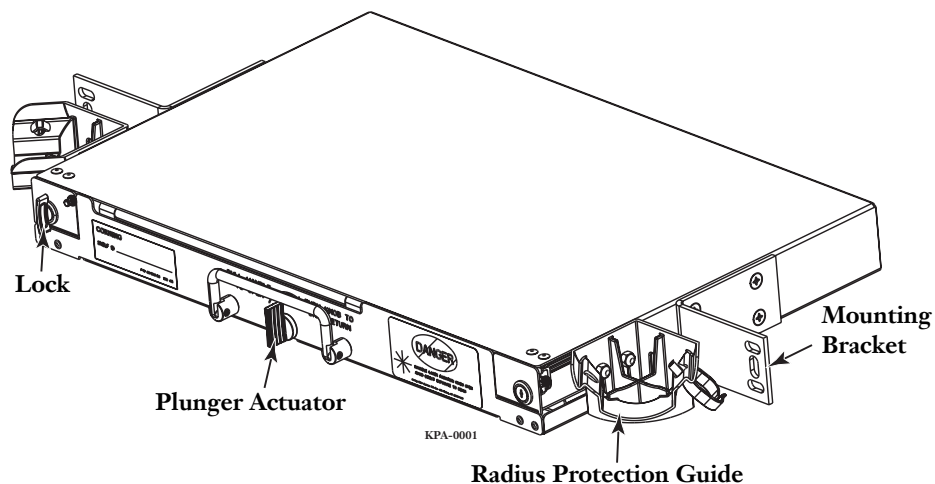


Figure 1 — Attach Brackets to Housing

If housing has a stubbed cable attached, proceed to Section 6.

If housing has no stubbed cable attached, housing installation is complete. Contact your Customer Service Representative to order other products to complete the connectorization of the housing in your application.

6. INSTALLING STUBBED CABLE

6.1 Secure Stubbed Cable

If your housing has stubbed cable attached, follow the directions in the remainder of this instruction to install the cable and mate jumpers.

Step 1: Locate the Universal Cable Clamp (UCC) from the carton contents and secure the mounting bracket plate in a suitable location to allow the cable to route into the housing.

Step 2: Attach the UCC to the mounting bracket per the instructions provided with the UCC (Figure 2).

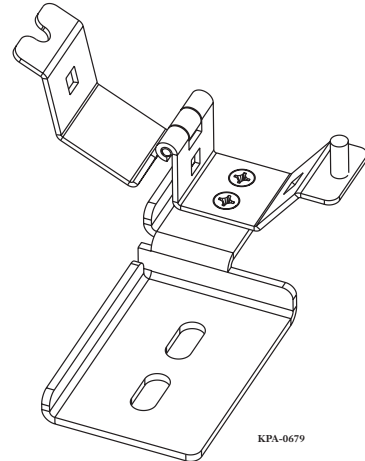


Figure 2 — Attach UCC to Mounting Bracket

Step 3: Using the appropriate number of shims as explained in the instructions provided with the UCC, secure the cable jacket just above the heatshrink tubing inside the UCC.

Step 4: Close and secure the UCC clamshell around the cable jacket.

Step 5: Place raceway in approximate required location to prevent damage to unsheathed fibers as they transition from the UCC to the point where they enter the housing.

Step 6: Cut the raceway to desired length, if necessary. Remove the cover from the raceway and secure the raceway to the frame using the screws provided.

Step 7: Place cable inside the raceway and snap the cover back on the raceway.

6.2 Install Inline Attenuators (Optional)

Open the drawer as described in Section 6.3.

6.2.1 In Adapters 1 through 12

Step 1: Remove connector from the rear of the adapter (Figure 3), insert connector into attenuator, then insert attenuator into the adapter.

Step 2: Readjust fiber slack to avoid pinching or pulling when the drawer is closed.

Step 3: Proceed to Section 6.3.

6.2.2 In Adapters 13 through 24

Step 1: Remove dust cap from the front of the adapter; insert inline attenuator into the front of the adapter.

Step 2: Proceed to Section 6.3.

6.3 Route Distribution Jumpers into the Housing

IMPORTANT: *The drawer may drop suddenly. Use your hand to gently lower the drawer.*

- Step 1:** With one hand beneath the drawer, turn the plunger actuator knob to release the plungers holding the drawer (Figure 3).
- Step 2:** Disengage plunger holding hinged flap to the adapter layer and open flap to expose adapter/connectors.

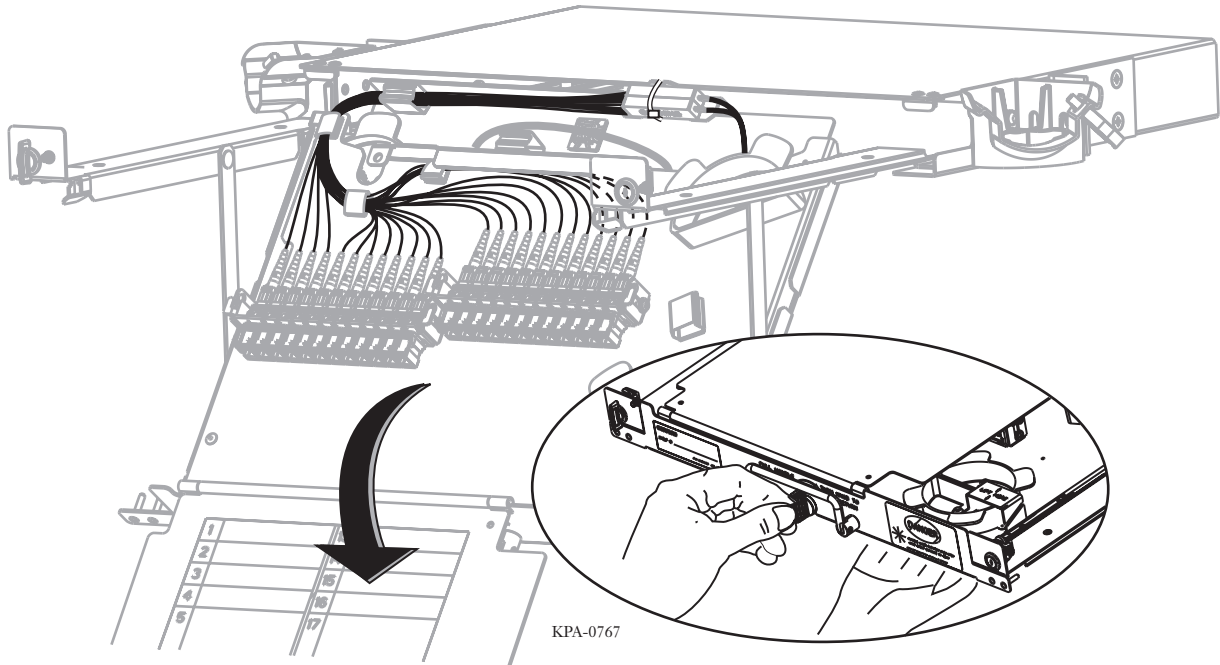


Figure 3 — Lower the Drawer

- Step 3:** Bring distribution jumpers around the radius protection guide into the housing from the right side (Figure 4).

6.4 Mate Connectors

- Step 1:** Remove dust caps from the connector and appropriate adapters to be mated. Clean both the connector end-face and the adapter per standard company practices.
- Step 2:** Insert the connector into the adapter, paying attention to the key location on the connector (Figure 4).
- Step 3:** Record connections on the label located inside the adapter panel flap.
- Step 4:** Store jumper slack around the storage spools to the right of the adapter field.

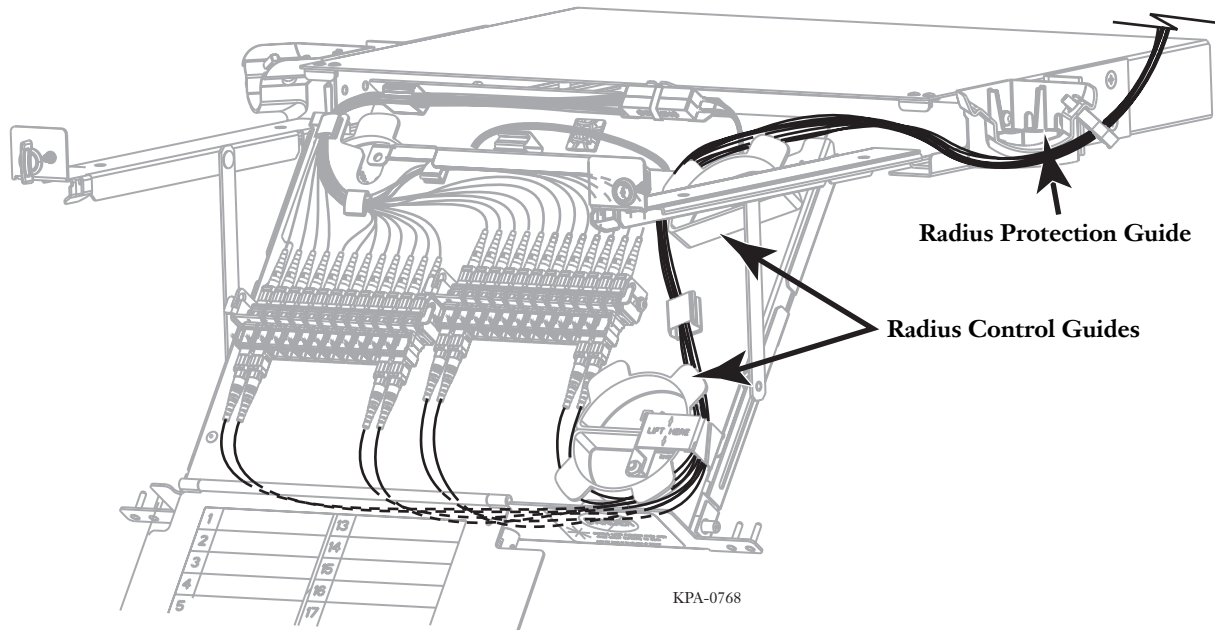


Figure 4 — Install Jumpers and Mate Connectors

7. COMPLETING INSTALLATION

- Step 1:** Close and secure the flap covering the adapter fields with the plunger at the back left corner of the flap.
- Step 2:** Lift the drawer up to a horizontal position. Turn the plunger actuator on the drawer and ensure the plungers are engaged to hold the drawer up.
- Step 3:** Slide the drawer back into the housing, ensuring that no fibers are crimped in the process. Lock, if applicable.
- Step 4:** Route jumper and ribbon slack around the radius protection guides on either side of the housing. Store any additional jumper slack on the frame or in a slack storage shelf per standard company practices.

8. TESTING

8.1 Provisioning Tests

Equipment should be tested from the source (or central office) to receiver at the time of provisioning to verify signal continuity and acceptable loss limits. Use an optical power meter to verify signal continuity and determine loss measurements are within specified local standards.

8.2 Troubleshooting Tests

An optical power meter can be used to perform the first step in troubleshooting. A power meter designed for measuring only dBm power levels is suitable for maintenance purposes.

For high attenuation:

- Remove connector and reclean connector and adapter.
- Verify cable ties are not too tight.
- Maintain appropriate fiber bend radius. Make sure there are no sharp bends.

Once a fault is isolated to the installed cable link, an OTDR (Optical Time Domain Reflectometer) is needed. An OTDR can locate fiber events and measure the losses attributable to cable, connectors, splices, and/or other components. The graphical display of loss over a cable's entire length provides the most revealing analysis and documentation available on a cable link, commonly referred to as its signature trace. Corning Cable Systems recommends performing an OTDR analysis to document the integrity of the cable system, locate and measure each event or component, and uncover faults throughout the cable. Follow the instructions provided with the OTDR tester you are using

9. GROWTH

If the housing is not fully populated with the maximum number of connections at the time of installation, additional connections may be added until the housing reaches its capacity.

10. MAINTENANCE

The unit requires very little maintenance to ensure fibers and parts remain in good condition.

- External components may be cleaned occasionally with a damp, nonabrasive cloth.
- Check nuts, bolts, and screws; tighten as needed.
- Check fiber optic cable to make sure bends do not exceed the minimum bend radius.
- Check cables for unnecessary strain, for crimping or crushing at entries and exits, and for damage.
- Check unit record labels to make sure all are clear and accurate.

Acronyms

ANSI	American National Standards Institute
OTDR	Optical Time Domain Reflectometer
UCC	Universal Cable Clamp

Glossary

Adapter

A mechanical media termination device designed to align and join fiber optic connectors; often referred to as a coupling, bulkhead, or interconnect sleeve.

Cable

An assembly of optical fibers and other material providing mechanical and environmental protection.

Connector

A mechanical device used to align and join two fibers together to provide a means for attaching to and decoupling from a transmitter, receiver, or another fiber (patch panel).

Jumper

Optical fiber cable that has connector(s) installed on both ends.