

FieldSmart SCD Case Installation Manual

# FieldSmart Small Count Delivery (SCD) Case Installation Manual

SCD-CASE-5 (5" base) and  
SCD-CASE-6 (6" base)

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Part #:  
Rev: A  
Updated: 8.2011



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### Technical Support

Clearfield, Inc. can be contacted for any issues that arise with the supplied product.

If you need to return the supplied product, you must contact the Clearfield, Inc. Customer Service Department to request a Returned Materials Authorization (RMA) number.

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## FieldSmart SCD Case Installation Manual

### Introduction

The FieldSmart Small Count Delivery SCD Case is the industry's only universal drop cable enclosure for use with any drop cable media in all application environments. The solution provides configuration flexibility in the FTTH last mile access point with an innovative, intuitive and modular approach, while utilizing proven traditional sealed closure techniques.

FieldSmart SCD Case allows you to standardize drop cable deployment methodologies with a single enclosure system. The identical enclosure is shipped with associated mounting hardware to be placed:

- on a strand
- on a pole
- in an above-grade pedestal, or
- in below-grade level vault environments

The FieldSmart SCD Case extends its flexibility by supporting the feeder or distribution drop option of your choice, including the

- Miniflex Quik-Push drop cable,
- Industry-standard flat drop or round OSP cable using industry standard or HFOC connectors.

The system also supports direct splicing to the feeder or to the outbound legs of splitters in distributed split architecture.

## SCD Case Overview

### *Opening the SCD Case*

The SCD case is accessed by removing the compression clamp at the bottom of the case. The 5" case utilizes a metal clamp and the 6" clamp utilizes a plastic clamp.



Remember to remove the cover slowly so the inside "O" Ring around the terminal base stays in place. If cover is tight, tap around base with a screwdriver handle to break cover loose. DO NOT damage area where sealing clamp seats.



## Locking the SCD Case

Both sizes of SCD can be secured by different means. They both accept a paddle lock as shown below, it is also possible to use a “bud tag” or a security bolt.

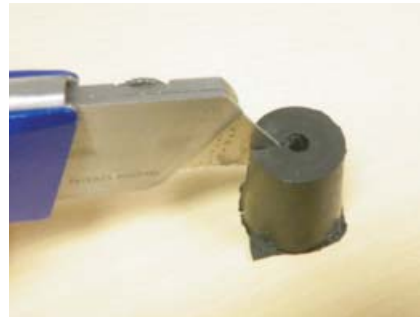


## Sealing cables in the SCD Case using the tapered single cable grommets

Use the buried service wire gauge, attached to the cover, to determine correct grommet. The wire gauge has six tapered holes to measure the proper size of the buried service wire. Insert the service wire into the larger end of the tapered hole, starting with the largest hole. The largest hole the buried service wire will NOT go through determines the correct size sealing grommet.



Each tapered hole has a number that corresponds with a number on the sealing grommet. Make certain both numbers are the same on the gauge and the grommet.



For flat drop cables, the sealing grommet labeled 3-4 is to be used. In order to accommodate the flat shape of the cable you will need to slice open one side of the grommet.

**CAUTION:** Use of other than the correct sealing grommet is certain to produce service failure. **DO NOT** use tape or other substance in lieu of the correct sealing grommets

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Remove the reusable plug from the base in the location where the cable is intended to be installed.

Insert the cable through the base of the from the outside. Place the sealing grommet over the end of the cable and slide along the length of the cable to the local location.

The flat drop cable is installed into the grommet by sliding the cable into the slot on the side of the grommet.

Lubricate the outside of the sealing grommet with the lubricant provided.

**NOTE: DO NOT** lubricate the incoming cable as this will remove friction required for grommet installation

Insert the sealing grommet into the hole, pressing with fingers as far as possible. Pull service wire from under terminal while pushing on top of grommet until seated. The sealing grommet is properly installed when the top surface of sealing grommet is slightly below top surface of terminal base

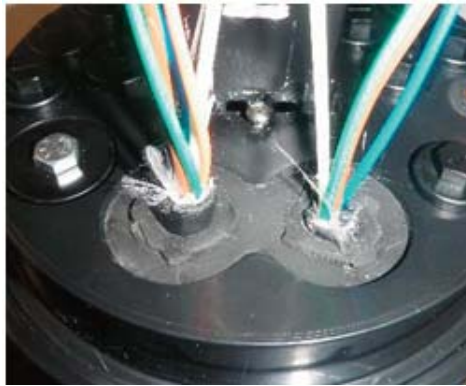
**NOTE:** It is important to let the grommet set and the grease dry for 15 minutes before moving to ensure a solid seal.

Remove any excess lubricant from the grommet and base.



### **Sealing cables in the SCD Case using the figure 8 dual cable grommet**

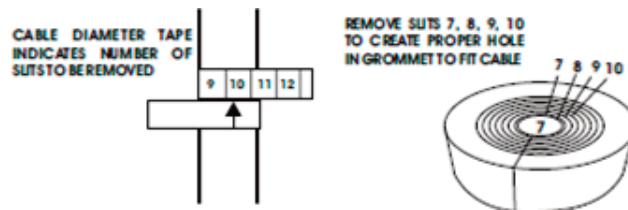
The hour glass shaped sealing grommet is a solid grommet with two sets of circular slits. These circular slits can be removed to form a cable grommet that accommodates cables of different diameters. The double cable entrance grommet with the lay in feature allows for a looped cable to be installed into the base.



The circular slits will accommodate cables from .4" through 1.8" in diameter.

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The cable diameter can best be determined by the use of the diameter tape provided. Wrap the diameter tape around the cable with the numbered side exposed.



An arrow on the diameter tape will point to a number corresponding to a slit in the sealing grommet. A number indicating the smallest slit is located at the center of each sealing grommet. Count each slit from that number stopping at the number indicated by the arrow on the diameter tape. Remove the unwanted portion of the cable entrance with snips.

A correctly fitted sealing grommet has an opening nearest the cable diameter yet completely closes over the cable without undue force.

Test fit the grommets over the cables before final assembly to assure a proper fit.

Using a small amount of lubricant, lubricate all the sealing surfaces of the sealing grommet including the internal surface touching the cable and the side slit of the grommet. Also lubricate the surface of the base where the grommet will meet the plastic.

Two cables can enter the case through this grommet as well as a midspan opening of a cable.

**NOTE:** DO NOT LUBRICATE BETWEEN THE ANULAR RINGS.

**NOTE:** Too much lubricant will cause the grommet to fall out and too little will make insertion difficult.

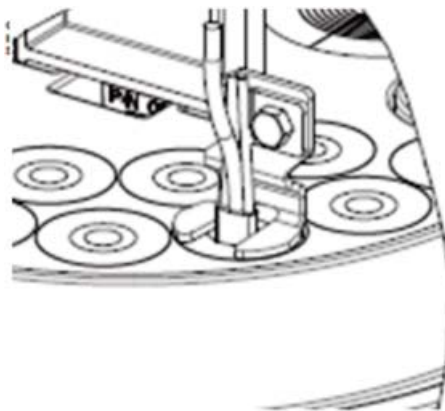
**NOTE:** It is important to let the grommet set and the grease dry for 15 minutes before moving to ensure a solid seal.

## Strength Member Tie Off

There is also a two place strength member tie off location on the rear of the bulkhead for larger count incoming cable.



The strength members of drop cables can be secured using the optional strength member clamps. The clamp can be secured to the strength member close to cable exit of the base.



## Bringing Miniflex Products Into The SCD Case

The tuff duct can be installed in the same fashion as a regular OSP cable. **NOTE:** the toning wire will need to be peeled back and the jacket smoothed out before installing into the base.



Once the tuff duct is installed into the SCD Case, the tuffnut cable can then be pushed per the usual methods.

**NOTE:** Too much lubricant will cause the grommet to fall out and too little will make insertion difficult.

**NOTE:** It is important to let the grommet set and the grease dry for 15 minutes before moving to ensure a solid seal.

## Installing the Grounding Stud in the SCD Case

The SCD Case grounding kit is composed of the following parts:  
2 flat washers, 1 ground stud, 2 lock washers, 1 sealing grommet and 2 nuts.

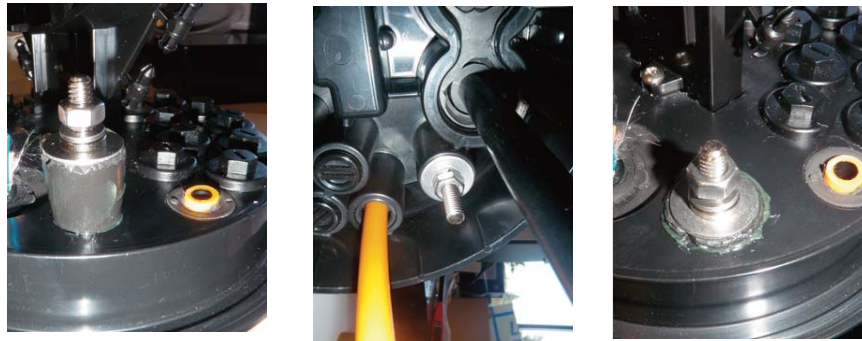


Assemble the parts in the order shown, leave off the last washer lock washer and nut. It may require some grease to help slide the grommet into place on the stud.

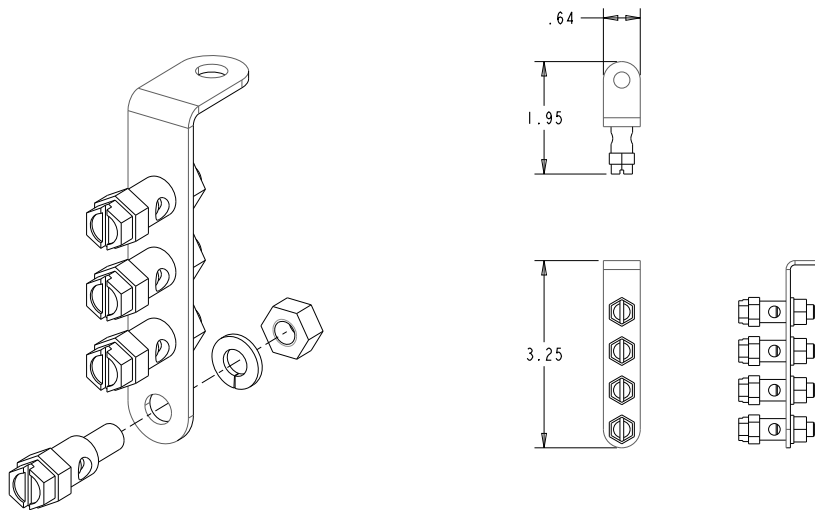


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Place a small layer of the grease provided with the cable sealing grommets around the outside of the sealing grommet. Next, press the grommet into the base using one of the smaller cable entrance holes. The grommet can then be secured using the washer, lock washer and nut from the bottom side.



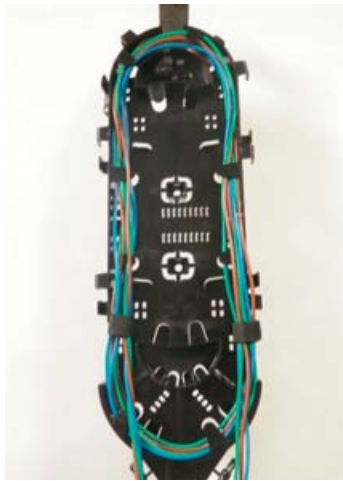
A multiple location grounding plate can also be attached to the grounding stud if desired



## Routing Cable Slack in the SCD Case

Excess slack can be stored in the SCD case in several different manners.

Ring cut cables can be stored on the rear of the bulkhead as shown below.



Both cases can accommodate a maximum of 40 feet of slack. To determine the maximum length of a mid-span opening available, divide 40 by the number of buffer tubes stored. For example, for a 48 fiber cable, you can store 10 feet of mid-span opening.

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The buffer tube that will be spliced can be routed through the top of the base and transitioned to the front. Then extra slack can be stored on the front of the bulkhead before it will be spliced.



Additional buffer buffer tube or incoming drop storage is located around the outside of the bulkhead insert. **Note:** The fiber is stored either on the front or back of the insert when at the bottom.



## Mounting the xPAK into the SCD Case

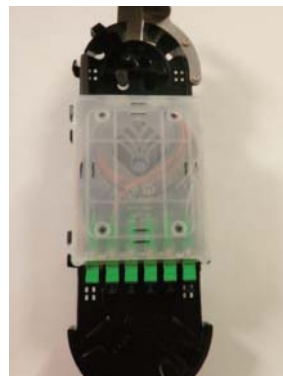
When using an xPAK in the SCD Case, (the 5" holds 1 xPAK, the 6" holds 2 xPAKs) the mounting tabs will need to be removed from the bulkhead using a side cutter or utility knife. Be sure to cut all connective material flush to the sides of the coupler.



The couplers are then inserted into the rectangular dome on the base in the manner shown.



The xPAK with a cable exiting the top of the cassette can then be attached to the bulkhead as shown. The slack of the incoming cable can be stored either on the front of the bulkhead or on the rear.

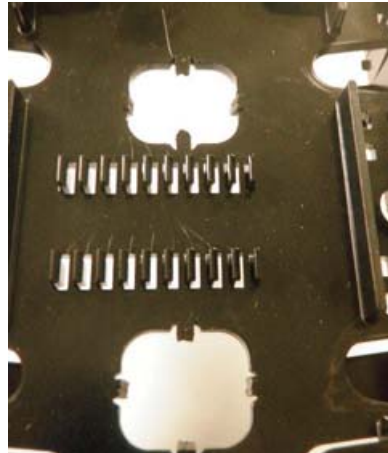


Added support for the xPAK can be installed using a piece of Velcro as described in the optical component section.

## Hard Splicing Fibers in the SCD Case

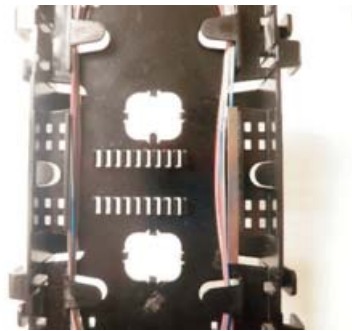
The front of the bulkhead incorporates a splice tray that is capable of up to 9 splices in the 5", or up to 18 splices in the 6".

**NOTE:** the rectangular domes for xPAK mounting can be removed to make room for splicesleeves. They can be removed with a side cutter or utility knife.



## Optical Components in the SCD Case

Optical components can be spliced to drops in the splicing compartment. The optical component will need to be attached to the bulkhead using an RTV adhesive.



A small variety of terminated optical components can be purchased in an xPak. This is limited to 1x2, and 1x3 FBT splitters and standard FSAN WDMS. These xPAK can then be installed as described above.



**NOTE:** If the optical component in the xPAK prevents normal mounting, you can insert a piece of Velcro in the cover as shown then wrap the Velcro and secure the xPAK to the bulkhead



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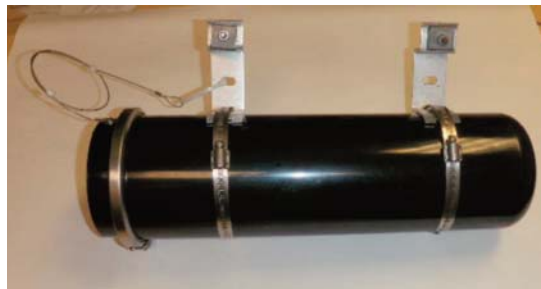
### Aerial Mounting the SCD Case

The SCD Case can be aerially mounted by using the Aerial mount kit.

The kit is installed by first installing the flat plate, washer and lanyard to the base of the SCD Case as shown below.



Then the hanging clamps are attached to the dome using the provided hose clamps. Try to evenly space the clamps as shown below. Finally, use a zip tie to attach the lanyard to the aerial bracket.



The entire assembly can then be mounted to the aerial strand.

## Mounting the SCD Case in a Pedestal

The SCD Case can be mounted into a direct bury pedestal by utilizing the pedestal mounting bracket (supplied with the pedestal). The SCD Case is mounted to the pedestal with a single screw as shown below.



## Mounting the SCD Case in a Buried Vault

The vault mounted bracket can be installed to the side of the CraftSmart Fiber Protection Vault using the vault mounting hardware (ordered separately).



The case can then be mounted to the metal ladder bracket inside the vault as shown below.

This system allows for a tool free removal of the case for technician work. The SCD Case can also be temporarily mounted vertically for ease of work.



## Mounting the SCD Case Using the Wall Mount Bracket

The SCD Case is wall mounted by using the offset mounting bracket, and bolting the bracket to a solid part of the wall.

**Note:** Be sure to use the appropriate fasteners to match your mounting surface.

