Charles Fiber Sealed Drop Closure
FSDC-M Series
General Description and Installation

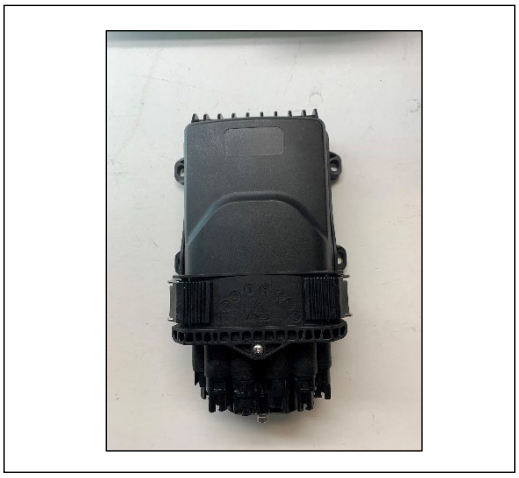


Figure 1 FSDC-M

1. GENERAL INTRODUCTION

1.1 Document Purpose

This document provides installation instructions for the Charles Fiber Sealed Drop Closure - Miniature (FSDC-M). A typical FSDC-M is shown in Figure 1.

-NOTE-

Hereafter the Charles Fiber Sealed Drop Closure -Miniature will be referred to as the "FSDC-M" or "closure."

1.2 Product Purpose

The FSDC-M a sealed splice closure (IP68 rated) used in fiber splicing applications where a single feed fiber must be split into multiple drop connections.

1.3 Product Mounting and Location

The FSDC-M is a sealed unit that can be aerial strand mounted, aerial strand mounted, pedestal mounted, or below grade.

2. PRODUCT DESCRIPTION

FSDC-M is a fiber splice closure that has eight drop ports.

The FSDC-M dimensions are shown in Figure 2. The FSDC-M ships with a kit of tools and accessories, shown in Figure 3.

This unit is for di-electric cables with non-metallic strength members only.

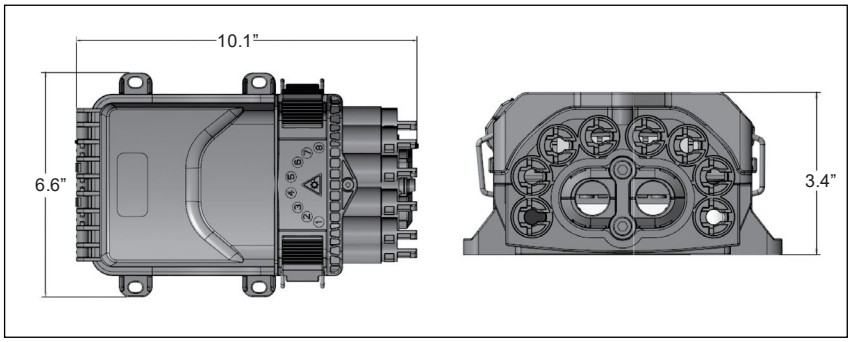


Figure 2 FSDC-M Dimensions

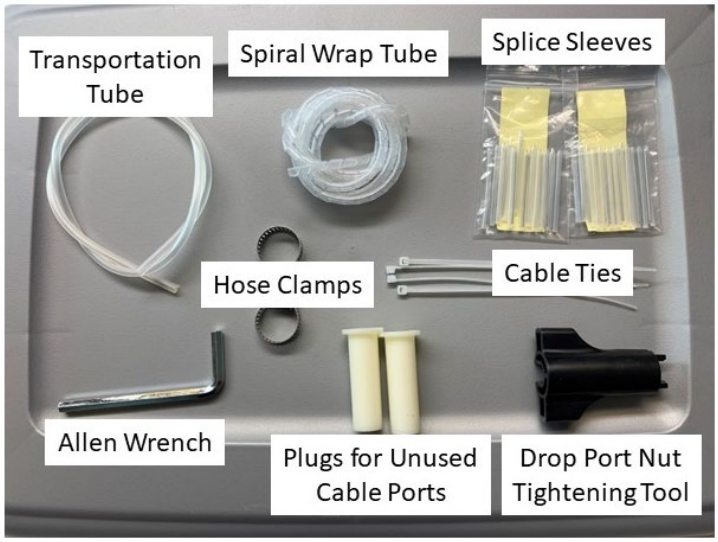


Figure 3 Tools and Accessories

3. SAFETY PRECAUTIONS

— WARNING—

Risk of serious eye damage! Never look into the end of a fiber optic line or use a magnifier in the presence of laser light or radiation. Exercise caution when installing, testing or maintaining live circuits. If eyes are exposed to laser light or radiation occurs, immediately seek treatment by a medical professional.

— WARNING —

Cable and fiber cleaning solvents may contain hazardous or harmful materials. Maintain good housekeeping practices and refer to the SDS when working with cleaning solvents or similar products.

Shards and cleaved glass fibers are very sharp and can easily pierce the skin. Use tweezers to pick up cut glass fibers and place them in a specifically designated container. Do not consume any food products near the cable installation site.

Corrugated metal or armor in feed cables is very sharp when cut or exposed. Exercise extreme caution to prevent personal injury. Use protective work gloves when handling armored cable.

— CAUTION —

Perform all bonding and grounding prior to making any electrical and communications connections.

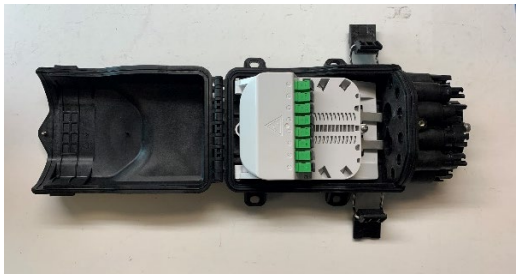
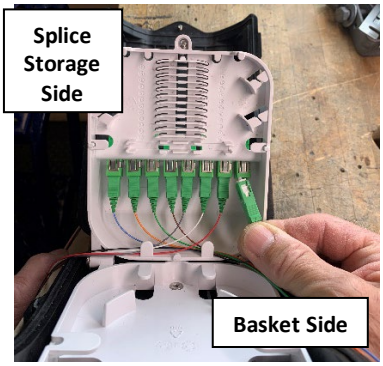
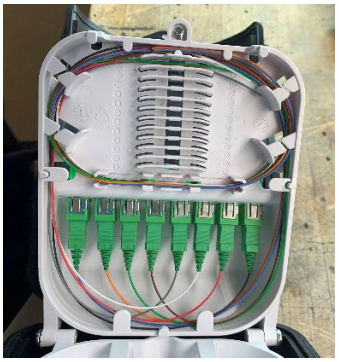
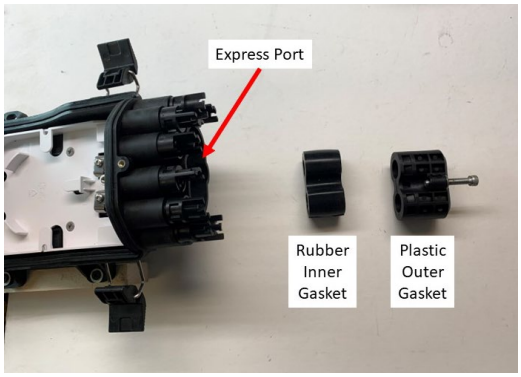
Be careful not to damage any buried cables or service wires while digging either to expose cables or to prepare a hole or trench, or while driving stakes. Buffer tubes and fibers are sensitive to excessive bending, pulling, and crushing forces. To avoid kinking of buffer tubes and fiber damage or breakage, exercise great care when working with fiber, and do not exceed or violate minimum bend radius requirements for fibers, buffer tubes, and cables.

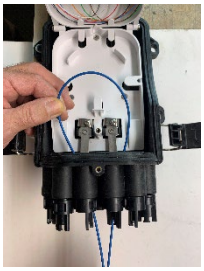
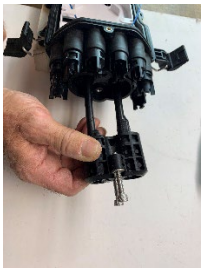
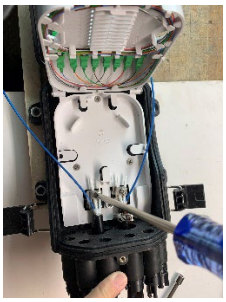
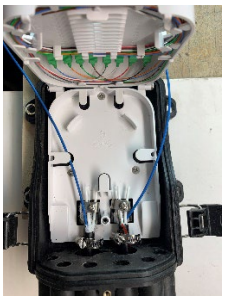
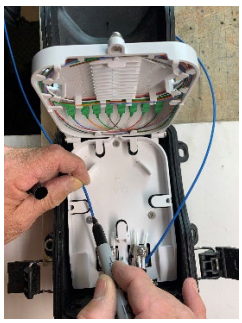
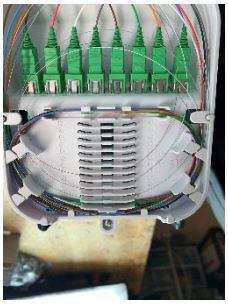
4. INSTALLATION

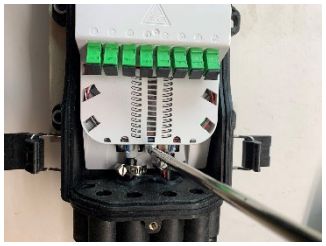
Gather the following equipment to perform the FSDC-M installation.

- Philips and flathead screwdrivers
- 5 mm (or 3/16") Allen wrench (ball-ended ,T-handle is recommended)
- Measuring tape
- Cable marking tool
- Bag of accessories (provided with the FSDC-M)
- Knife or snips (to cut grommets)
- Buffer tube stripper tool (score/cut buffer tubes)
- Fiber optic stripper tool
- Fiber splicing tools and equipment
- Safety glasses and work gloves

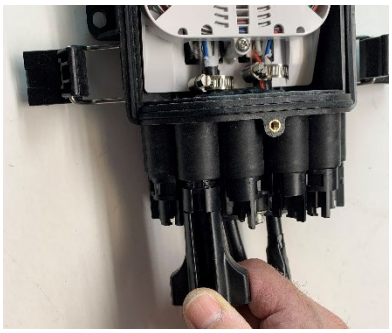
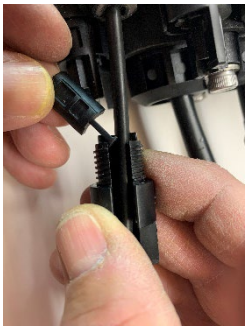
4.1 Route Express Cable Loop into Closure

Step Number	Instruction	
1	Unlatch the two hinged ports to open the FSDC-M. Loosen the Philips head screw to open the splice tray.	
2	Open the splice tray so that the splice storage side and the basket side are visible. Connect the pigtails to the adapters in the splice side or the output ports of a splitter if using a splitter in the FSDC-M. Route the pigtails inside the splice side of the tray.	 
3	Locate the express port (oval port) on the bottom of the FSDC-M. Use a 5 mm (or 3/16") Allen wrench to remove the sealing components.	
4	Slit the rubber inner gasket apart on the outsides. Set the gaskets aside.	

5	Pull a 6.5 to 7.0 foot length of unsheathed cable (single buffer tube) into the express loop port.	
6	Take the rubber inner gasket and place it around the two sides of the cable that enter the express port. Push this grommet inward into the express loop port. Fit the plastic outer gasket around the cables. Push this gasket into the express loop port. Fully tighten the screw that holds the outer grommet in place.	 
7	Guide the strength members on each side of the buffer tube loop under the strength member clamps. Tighten the clamps using a Philips screwdriver. Use a hose clamp on each side of the cable loop to secure in place. Make sure to secure the hose clamps over the sheathed portion of the cable (clamps included in the accessory bag).	 
8	Mark the points on the buffer tube where it enters each side of the basket (approximately 3” above the strength member clamps). Use a buffer tube slitting tool to remove the slit buffer tubes between the two marks.	
9	Route the buffer tube fibers into the basket and the splice tray in a similar manner as the routing of the pigtails. Replace the clear cover on the splice tray.	 

10	Close the splice tray, ensuring that fibers do not get pinched. Use a Phillips screwdriver to close the tray. The drop connectors are now accessible.	

4.2 Drop Cable Installation

Step Number	Instruction	
1	Use the drop port tightening tool from the bag of tools to open a drop port nut.	
2	Remove the grommet from inside the drop port. Cut a slit on one side of this grommet so that the grommet can be placed around the drop cable. Place the grommet around the cable and then push the grommet into the drop port.	
3	The drop port nut has a removable section so that the cable can be inserted into the nut. Remove this section, Insert the cable in the slot, then replace the insert. Replace the drop port nut in the drop port and use the tightening tool to tighten the nut Hand tighten until it stops. Do not over tighten.	
4	Bring the connector end into the closure and plug it into the adapter. Repeat steps 1 to 4 for each drop cable. Close the FSDC-M outer cover when all fiber routing is complete.	

4.3 Mounting the Closure

The FSDC-M can be mounted aerially on a strand, in a pedestal, on a wall, or below grade in a vault or BGE.

4.3.1 Aerial Mounting

The FSDC-M can be mounted on an aerial strand using the mounting kit 97-FSDCMAMKT, which includes two adjustable brackets.

1. Use the included hardware to attach the brackets through the mounting holes on the sides of the FSDC-M (Figure 4).
2. Loosen the bolts on the brackets so that the clamps can be hung over the strand.
3. Tighten the clamps around the strand to suspend the unit (Figure 5).

4.3.2 Mounting in a Pedestal

The FSDC-M can be mounted in any Amphenol Charles broadband pedestal that has a center mounting stake. Use the mounting kit 97-FSDCMPEDKIT.

1. Mount the long side of the L brackets to the mounting holes on one side of the FSDC-M.
2. Mount the short side of the L brackets to the pedestal stake (Figure 6).

4.3.3 Mounting in a Handhole or Vault

Generally, the FSDC-M is simply placed in the handhole without any special mounting hardware.

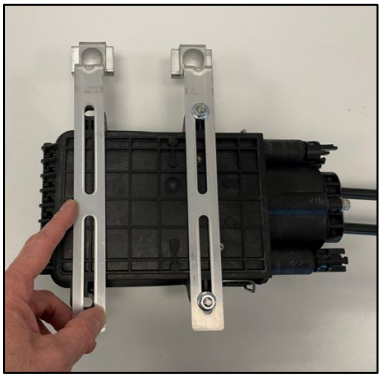


Figure 4
Attach 97-FSDCMAMKT Brackets

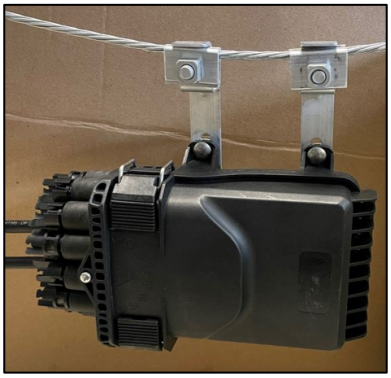


Figure 5
FSDC-M Aerial Strand Mounting

Figure 6
Mount to a Pedestal Stake

5. TECHNICAL ASSISTANCE AND REPAIR SERVICE

For questions on product repair or if technical assistance is required, contact Charles Technical Support.

847-806-8500
techserv@charlesindustries.com (email)
http://www.charlesindustries.com/techserv.htm

6. MODEL NUMBER INFORMATION

FSDC-M Closure Configurations			
Part Number	**Housing**	**Drop Port Grommets**	**Additional Notes**
FSDCM1T8SA8L	FSDC-M with 8 drop ports and 8 SC/APC adapters, 1 24-splice tray	8 Large	
FSDCM1T8SA8M	FSDC-M with 8 drop ports and 8 SC/APC adapters, 1 24-splice tray	8 Medium	
FSDCM1T8LP104A	FSDC-M with 8 drop ports and 8 SC/APC adapters, 1 24-splice tray	8 Large	Ships with 1x4 PLC splitter installed, 250µm fiber stub input, SC/APC output legs
FSDCM1T8LP108A	FSDC-M with 8 drop ports and 8 SC/APC adapters, 1 24-splice tray	8 Large	Ships with 1x8 PLC splitter installed, 250µm fiber stub input, SC/APC output legs

Optional Accessories	
Part Number	**Description**
97-FSDCMAMKT	FSDC-M aerial strand mount kit
97-FSDCMPEDKIT	Mounting kit for FSDC-M into R02, Z02, B05, or B06 series pedestals
97-FSDCLGR4	Replacement large size 7mm drop grommets (kit of 4 pc)
97-FSDCMGR4	Replacement medium size 4.7mm drop grommets (kit of 4 pc)
97-FSDCSGR4	Replacement small size 3mm drop grommets (kit of 4 pc)