# COMMSCOPE<sup>®</sup>

# Installation Instructions

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# **HIGH DENSITY OFDC-C12**

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# **1** General product information

#### 1.1 Dimensions







#### 1.2 Cable range

Position	Cable diameter (Inches)	Capacity
Feeder	0.22 - 0.83	2
Branch	0.22 - 0.67	2
Drop	0 - 0.21	12-24
Flat drop	0.3 x 0.17	12



N°	Description	N°	Description
1	Loop basket	5	Drop cable positions
2	Main tray	6	Outside bracket for drop cables
3	Drop tray	7	Branch cable positions
4	Splitter/TAP tray	8	Feeder cable positions

# 2 Warnings and Cautions

- 2.1 Follow the installation instruction steps to ensure the performance of the closure. It is necessary to take precautions and keep the working space clean to protect the closure sealing materials and splices.
- 2.2 Exposure to laser radiation can seriously damage the retina of the eye. Do not look into the ends of any optical fiber. Do not assume the laser power is turned off or that the fiber is disconnected at the other end. Looking into the ends of any optical fiber is entirely at your own risk. A protective cap or hood MUST be immediately placed over any radiating adapter or optical fiber connector to avoid the potential of dangerous amounts of radiation exposure. This practice also prevents dirt particles from entering the connector and adapter.
- 2.3 Fiber optic cables may be damaged if bent or curved to a radius that is less than the recommended minimum bend radius. Always observe the recommended bend radius limit when installing fiber optic cables and patch cords.

#### 3 Kit content







N°	Description	#
1	Closure with organizer	1
2	Hose clamps (range: 0.313 - 0.875 inches)	4
3	Hose clamps (range: 0.313 - 1.15 inches)	2
4	Small lugs	4
5	Large lugs	2
6	Metal bracket	1

N°	Description	#
7	Blind plugs drop ports	4
8	Blind plugs main/branch ports	12
9	Cable ties white	12
10	Cable ties black	24
11	Foam tape	3
12	Wedge	1



- 4.1 Open the closure by lifting the two top latches using a screwdriver.
- 4.2 Open the cover.



4.3 Install the wedge to keep the cover in place (if needed) and loosen the two top screws to release the organizer.4.4 Lift out the organizer and remove the protective paper from the gel block.

### 5 Feeder and branch cable

#### 5.1 Feeder and branch cable preparation



Number	Description	Preparation
1	Jacket	MIDSPAN: Make a window cut of 86.5 Inches. Make sure the reversal point (SZ) is in the middle. CABLE END: Remove 42 +/- 1 Inch from the cable jacket. Apply layer of foam at the jacket end.
2	Rigid strength member	Leave 2 $+/-$ 0.2 Inches (or verify with the bracket)
3	Subunits	Clean the subunits, remove all grease if required.



5.1.1 Feeder cables are installed at the 2 inside positions of the bracket. Branch cables are installed at the 2 outside positions.

5.1.2 Position the cable end with the edge of the bracket as shown and cut the strength member to length.



5.1.3 Secure the strength member with the appropriate metal lug and secure the cable jacket with the appropriate hose clamp.

#### 5.2 Feeder and branch cable installation

#### 5.2.1 Remove gel cups

Verify with table below if the gel cup in the selected port should be removed or should be kept in place. If removed, the gel cups in the bottom cover should be removed. Follow the steps below to remove the gel cups.

Feeder/main ports (port 2 + port 3)		
Cable diameter < 0.71 Inches	Keep gel cup in place	
Cable diameter ≥ 0.71 Inches	Remove gel cup	



Branch ports (port 1 + port 4)		
Keep gel cup in place		
Remove gel cup		



5.2.1.1

Select the correct port at the organizer side. For instance, port 3.



5.2.1.2 Select the correct port at the bottom cover (For instance port 3) and cut out the gel cup. Remark that the positions in the bottom cover are the reflection of the positions in the organizer.

#### 5.2.2 Install the bracket onto the organizer



5.2.4 The bracket is properly locked behind the snap features in the organizer. Install a blind plug in the unused ports.

Remark: Cables (branch or feeder) can be added when the bracket is already installed.

Note: Modifying branch and feeder after customer hook up required customer disconnection.

#### 5.3 Routing to the front

Note: Same routing and stripping point for both loose buffer tubes and microsheath cables.



5.3.1 Two options are possible to route to the front side. Second option provides more fiber on the trays to make the splice. This routing always should be done before putting and securing the loop in the basket.

5.3.2 Ensure that the fibers requiring splicing always enter the main tray from opposite sides. For reference, see the example where the feeder and branch start on the same side but cross over to enter the main tray from opposite sides.



5.3.3 Route the subunit under the lips of the side flanges of the loop basket (first option routing). Secure the tube with a cable tie to the organizer as shown.

5.3.4 Hinge the drop tray open to let pass the subunit. Indicate the stripping point as shown. Strip the subunit to this mark and clean all fibers per standard practice.

Note: All unused fibers must be routed and stored on front side of tray.



5.4.1 Coil the remaining subunits and secure the bundle with cable ties to the loop basket side flanges.

5.4.2 Routing additional subunits to the front is still possible with the loop installed, using the first option. Secure it under the cable ties and route under the lips of the side flanges to the front side. Also branch subunits are routed the same, but opposite way.

# 5.5 Splicing feeder to branch





Make splice per local practice and store the splice protector in the bottom position of the splice tray.

**Note:** Each splice holder position can accommodate 3 splice protectors, giving the tray a total capacity of 144 splices. The fiber guidance pen can be used to position all the fibers under the lips.

**Note:** The top position of the main tray is still accessible to store splices when drops are installed. Store the overlength in loops in the pocket respecting following rules:

- Avoid bulging of the fiber.
- Make sure all fibers are properly positioned under the lips.
- 5.5.2 Illustration shows an example of a fully routed main tray with 144 splices.

**Note:** Additional splice capacity is available on the upper tray. Maximum 48 splices with micro-cable or bare fiber.

#### 5.6 Route feeder fiber to drop splice tray



5.6.1 If drop splices will be made on the drop splice tray, the feeder fiber should be routed to the drop splice tray before installing the drops.

Note: Each splice holder position can accommodate 3 splice protectors, giving the tray a total capacity of 144 splices.

# **6** Factory installed splitter and taps



A splitter or tap can be installed in the factory. The output fibers can be connectorized. The output fibers are routed to the dedicated tray.

#### 7 Install the organizer



7.1 Slide the organizer under the 2 top screws.

7.2 Tighten the two top screws using a Phillips screwdriver, and the center bolt located above the gel block on the organizer using a 3/16" Allen wrench.

# 8 Drop cable installation (splice version)

### 8.1 Install 1 or 2 cable(s) per drop port



Number	Description	Preparation
1	Jacket	Remove the cable jacket over a length of 39 Inches.
2	Strength member	Cut all strength member types
3	Subunits	Clean the subunits, remove all grease if required.
4	Foam	Degrease the jacket and add a wrap of foam 2 Inches from the jacket end.

**Note:** For flat cable install two wraps of foam/ Only 1 standard flat cable or 2 mini-flat cable per port is possible. 2 mini-flat cables are double stacked per port.

**Note:** If using toneable drop cable, remove tone wire from jacket to ensure the tone wire is not in the gel. Smooth the drop cable jacket, so it doesn't have any burrs or webbing left.



8.1.1 Secure the cable with two cable ties to the external metal bracket.

8.1.2 Cut a piece of 0.78 Inches of the gel strip. Place the gel on top of the first cable. Cut one of the 2 black cable ties of the first cable.

8.1.3 Put the second drop cable on top of the gel strip and push down. Gel conforms to a U-shape around the cable. Secure both cables together: internal with one white cable tie, external with 2 black cable ties to the metal bracket.



8.1.4 In order to avoid damaging the second cable, the lips in the cover need to be removed. To do this, break off the plastic lip with a pair of pliers. To avoid sharp edges, use sandpaper afterwards. **Note:** this procedure should be done for cables larger than or equal to 0.12 Inches.

#### 8.2 Splicing on drop tray and main tray



8.2.1 The drops can be spliced to the feeder in the top area (if still free) in the main tray. Route the drop subunit to the top of the tray and make the transition to the main tray. Make splice per local practice and store the splice protector in the first splice protector holder location (top). One position can hold up to 3 splice protectors. Store the over lengths in loops as shown (using the fiber guides). Make sure all fibers are properly positioned under the lips.

8.2.2 Optional, drops can also be spliced on the drop tray if the feeder fibers are already brought to this tray. The advantage is that only the demarcation should be opened to install the drop cable and make the splice. See section 9 how to open the demarcation cover.

The splice holder can hold 3x4 splices. 2 Splice holders can be placed on the tray. Strip the drop fiber in a straight section. Make splice per local practice and store the splice protector in the first splice protector holder location (top). Store the over lengths in loops in the over length storage. Make sure all fibers are properly positioned under the lips.

# 9 Connectorized drop cable installation

# 9.1 Pre-connectorized drops (SC)

9.1.1 Remove dust caps of the adapter port and connector. Clean per standard practice. Position the connector in the correct orientation (rib facing to the right).

9.1.2 Connect the SC-connectorized cable to its assigned port. A clicking sound is observed when the connector is properly seated.

9.1.3 Each cable should be routed to a separate entrance port. Dress each cable in the gel seal.

**Note:** External cable fixation bracket is recommended to retain the cable outside the closure.

#### 9.2 Drops spliced to connector

It is also possible to splice the not connectorized drop cable to a pigtail. The area under the connectors is foreseen with dovetails to install splice protector holders.



9.3.1 Prepare cable per standard practice (foam) and secure the cable to the bracket with two black cable ties.

#### Install blind plugs 10

#### Organizer loop side



Ensure that all unused ports are fitted with a blind plug.

#### Organizer drop side





11.1 Remove the wedge and store it inside the closure next to the organizer. Close the cover.

11.2 Close all latches using a screwdriver.

#### 12 Demarcation cover



12.1 After first day installation, the drop area can be accessed by only opening the demarcation cover. Open the 2 bottom latches with a screwdriver and hinge the demarcation cover.

12.2 The demarcation cover can be locked in open position as shown.

12.3 Connectorized drops can be added. Non connectorized drops can be spliced to the feeder fibers if the feeder fibers are routed up front to this tray.

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