

Commscope FOSC450-BS-4-R1-1-T0V

CommScope FOSC 450 Series Fiber Optic Splice Closure User Manual

Model: FOSC450-BS-4-R1-1-T0V

INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the CommScope FOSC 450 Series Fiber Optic Splice Closure. This single-ended, O-ring sealed dome closure is designed for splicing feeder and distribution cables in various environments, ensuring robust and reliable fiber optic network connections.

PRODUCT OVERVIEW

The FOSC 450 Series closure is engineered for robust performance and ease of use in fiber optic network deployments. Key features include:

- Single-ended, O-ring sealed dome closure design.
- Gel cable sealing technology for easy cable addition or removal.
- Compatibility with most common cable types: e.g., loose tube, central core, ribbon fiber.
- Hinged FOSC splice trays for convenient access to any splice without disturbing other trays.
- Suitable for aerial, pedestal, and underground (up to 5 meters) environments.
- Compatibility with CommScope's CWDM modules and optical splitter trays.



Figure 1: CommScope FOSC 450 Series Fiber Optic Splice Closure. The image displays the closure in two states: on the left, the internal splice tray assembly is visible, showing multiple hinged trays for fiber management; on the right, the black dome cover is shown, which seals the internal components.

SETUP AND INSTALLATION

Pre-Installation Checklist

- Verify all components are present and undamaged.
- Ensure proper tools are available (e.g., fiber cleaver, fusion splicer, cable preparation tools).
- Review local safety guidelines and regulations before beginning installation.

Cable Preparation

Prepare the feeder and distribution cables according to standard fiber optic cable preparation procedures. This includes stripping the outer jacket, cleaning, and exposing the optical fibers to the required lengths.

Closure Assembly

1. Open the FOSC 450 Series dome closure by releasing the O-ring seal and detaching the dome from the base.
2. Route the prepared cables through the designated cable entry ports. Utilize the gel cable sealing technology to ensure a watertight seal around each cable.
3. Secure the cables within the closure base using the provided cable retention mechanisms to prevent strain on the fibers.
4. Organize the optical fibers within the splice trays. The hinged design of the trays allows for easy access and management of individual fibers.

OPERATION: FIBER SPLICING

Splicing Procedure

1. Clean and cleave the optical fibers to be spliced according to the specifications of your fusion splicer and fiber type.
2. Perform fusion splicing of the fibers, ensuring low loss connections as per network requirements.
3. Protect the spliced fibers using heat-shrink splice protectors and place them securely within the splice tray grooves.
4. Manage excess fiber length by coiling it within the designated fiber management areas of the splice trays, ensuring bend radius compliance to prevent signal degradation.
5. Repeat for all necessary splices, utilizing all available splice trays as needed.

Closure Sealing

1. Once all splicing and fiber management are complete, ensure all splice trays are properly closed and secured within the closure base.
2. Align the dome cover with the base of the closure, ensuring the O-ring is correctly seated.
3. Engage the O-ring seal and secure the dome cover firmly to the base, ensuring a complete and watertight seal.
4. Verify the integrity of all cable seals and the main dome seal to prevent environmental ingress.

MAINTENANCE

The CommScope FOSC 450 Series closure is designed for minimal maintenance. However, periodic inspections are recommended, especially after extreme weather events or if network performance issues arise.

- **External Inspection:** Periodically check the closure for any physical damage, cracks, or signs of tampering.
- **Cable Entry Points:** Verify that cable seals remain intact and no moisture ingress is apparent around the cable entry points.
- **Cleaning:** If necessary, clean the exterior of the closure with a damp cloth. Avoid using harsh chemicals or abrasive materials.
- **Re-entry:** If re-entry is required for network changes or troubleshooting, carefully follow the sealing procedure outlined in the "Closure Sealing" section to ensure the integrity of the seal is maintained upon re-closure.

TROUBLESHOOTING

This section addresses common issues that may arise during the installation or operation of the FOSC 450 Series closure.

Problem	Possible Cause	Solution
Moisture inside closure	Improper sealing of dome or cable entry ports.	Re-open closure, inspect O-ring and gel seals for debris or damage. Re-seal carefully, ensuring proper alignment and pressure.

Problem	Possible Cause	Solution
High splice loss	Poor fiber cleave, dirty fibers, incorrect splicer settings, or excessive fiber bending.	Re-cleave and clean fibers thoroughly. Verify splicer settings. Ensure proper fiber management within trays, avoiding tight bends.
Difficulty closing dome	Fibers or components obstructing the seal, or O-ring misalignment.	Ensure all fibers and splice trays are properly seated and not protruding. Check O-ring for debris or damage and ensure it is correctly positioned in its groove.

SPECIFICATIONS

Attribute	Detail
Model Number	FOSC450-BS-4-R1-1-T0V
Type	Fiber Optic Splice Closure, Dome Type
Splice Capacity	Up to 144 splices (depending on tray configuration)
Cable Ports	6-Port, Single-Ended
Sealing Technology	O-ring sealed dome, Gel cable sealing
Environmental Rating	Suitable for aerial, pedestal, and underground (up to 5 meters) environments
Dimensions (Approx.)	30 x 12 x 8 inches (Package Dimensions)
Manufacturer	CommScope
UPC	888063131547

WARRANTY AND SUPPORT

For warranty information and technical support regarding your CommScope FOSC 450 Series Fiber Optic Splice Closure, please refer to the official CommScope website or contact their customer service directly. Regulatory compliance information (ISO 9001:2015, RoHS, REACH-SVHC) is available from CommScope.

Manufacturer: CommScope
Website: www.commscope.com
Contact: Please refer to the CommScope website for regional contact information and support channels.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question