Commscope FOSC450-D6-6-NT-0-D6V

FOSC 450 D6 Splice Closure User Manual

Model: FOSC450-D6-6-NT-0-D6V

Introduction

The CommScope FOSC 450 D6 Splice Closure is a gel-sealed fiber optic closure designed for robust protection of fiber optic splices in aerial applications. This closure features 6 round cable ports and supports up to 288 single fusion splices. Its re-usable compressed gel-sealing technology ensures reliable environmental protection and ease of re-entry.

Safety Information

- Always wear appropriate personal protective equipment (PPE), including safety glasses and gloves, when handling fiber optic cables and tools.
- Do not look directly into the end of a fiber optic cable connected to a light source. Invisible infrared light can cause eye damage.
- Ensure all tools are clean and in good working condition before use.
- Follow all local safety regulations and guidelines for working with electrical and communication infrastructure.
- Keep the work area clean and free of debris to prevent contamination of fiber optic components.

Components and Package Contents

The FOSC 450 D6 Splice Closure package typically includes the following components:

- FOSC 450 D6 Closure Housing (Dome and Base)
- Gel Cable Sealing System
- Splice Trays (quantity may vary based on configuration)
- Cable Entry Ports and Sealing Components
- Mounting Hardware (for aerial applications)
- Instruction Manual (this document)



Image: Components of the FOSC 450 D6 Splice Closure, showing the open housing with splice trays and the cable entry points with sealed cables.

Setup

1. **Preparation:** Ensure the work area is clean and all necessary tools (fiber cleaver, fusion splicer, cable stripping tools, cleaning supplies) are available.
2. **Cable Entry:** Prepare the fiber optic cables according to standard practices, stripping the outer jacket and exposing the buffer tubes. Insert cables into the designated round cable ports on the closure base.
3. **Cable Sealing:** Utilize the re-usable compressed gel-sealing system to create a watertight seal around each cable entry point. Ensure the gel is properly compressed to prevent moisture ingress.
4. **Fiber Routing:** Route the individual fiber strands from the cables into the splice trays. Ensure proper bend radius is maintained to avoid signal loss.
5. **Splicing:** Perform fusion splicing of the fiber optic strands within the splice trays. Secure splice protectors in their designated slots.
6. **Tray Management:** Organize and secure all spliced fibers and excess fiber length within the splice trays. Stack trays as required, ensuring they are properly latched.
7. **Closure Assembly:** Carefully align the dome with the base, ensuring all cables and fibers are properly seated and not pinched. Close the closure, ensuring the gel-sealing system engages correctly.
8. **Mounting:** Secure the assembled closure to the aerial support structure using the provided mounting hardware. Ensure it is firmly attached and positioned to prevent strain on the cables.

Operating

The FOSC 450 D6 Splice Closure is a passive component designed to protect fiber optic splices. Once installed and sealed, it operates by providing a secure, environmentally protected enclosure for the fiber connections. No active user operation is required after initial setup, beyond periodic inspection and maintenance.

Maintenance

- **Periodic Inspection:** Regularly inspect the exterior of the closure for any signs of physical damage, cracks, or

degradation of the sealing components.

- **Cable Integrity:** Check the integrity of the cables entering and exiting the closure for any signs of wear or damage.
- **Cleaning:** If the exterior of the closure becomes dirty, clean it with a damp cloth. Avoid using harsh chemicals that could degrade the material.
- **Re-entry:** If re-entry is required for maintenance or expansion, carefully open the closure by disengaging the sealing mechanism. After work is complete, ensure the gel-sealing system is properly re-engaged and the closure is securely re-sealed. The re-usable gel system allows for multiple re-entries without needing new sealing materials.

Troubleshooting

This section addresses common issues that may arise with the FOSC 450 D6 Splice Closure.

- **Issue:** Moisture ingress inside the closure.
  Possible Cause: Improper sealing during installation or re-entry.
  Solution: Open the closure, inspect the gel-sealing system for proper compression and alignment. Ensure all cable entries are securely sealed. Clean any moisture and re-seal the closure.
- **Issue:** Signal loss or degradation after installation.
  Possible Cause: Improper fiber splicing, excessive bend radius, or damaged fiber.
  Solution: Re-open the closure and inspect splice trays. Verify all splices are secure and fibers are routed correctly without tight bends. Re-splice any damaged fibers. Use an OTDR to pinpoint the exact location of the loss.
- **Issue:** Physical damage to the closure housing.
  Possible Cause: External impact or environmental stress.
  Solution: Assess the extent of the damage. Minor surface damage may not affect performance. Significant cracks or breaches in the housing may require replacement of the closure to maintain environmental protection.

Specifications

Feature	Specification
Product Type	Fiber Optic Splice Closure
Model	FOSC 450 D6
Manufacturer	CommScope
Cable Ports	6 Round Cable Ports
Splice Capacity (Single Fusion)	Up to 288
Sealing Type	Re-usable Compressed Gel-Sealed
Application	Aerial
Dimensions (Approx.)	30 x 14 x 12 inches (Package Dimensions)

Warranty and Support

For information regarding product warranty, technical support, or service, please refer to the official CommScope

website or contact their customer service department. Keep your purchase receipt and product model number (FOSC450-D6-6-NT-0-D6V) readily available when seeking support.

CommScope Official Website: www.commscope.com

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Question

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