Manuals+ — User Manuals Simplified.

FAST-SC-SM-6 Connect Single Mode

AFL FAST-SC-SM-6 Connect Single Mode Owner's Manual

Contents

AFL FAST-SC-SM-6 Connect Single Mode

Product Information

- FASTConnect connectors are factory pre-polished and field-installable connectors that eliminate the need for hand polishing.
- They ensure precision fiber alignment, offer low-loss termination for single-mode and multimode optical fibers and come with a factory pre-cleaved fiber stub.
- FUSEConnect utilizes fusion splicing technology to terminate connectors in the field, providing true APC performance for SC/APC and LC/APC configurations.
- They are compatible with Fujikura fusion splicers and most other fiber-holder-based fusion splicing platforms.

Product Usage Instructions

FASTConnect Connector Usage

1. Identify the cable size for termination (4.8 mm).
2. Select the appropriate connector type and quantity based on your requirements.
3. Remove the factory-installed wedge clip from the connector upon completion of termination.
4. Use a Visual Fault Identifier (VFI) to confirm physical contact once the translucent wedge is engaged.

FUSEConnect Connector Usage

1. Utilize a fusion splicer to terminate the connector in the field.
2. Select the correct connector boot type based on the cable size and connector type needed.
3. Follow fusion splicing procedures for optimal performance.

FAQ

Q: What is the difference between FASTConnect and FUSE Connect?

A: FASTConnect connectors are pre-polished field-installable connectors that eliminate hand polishing, while FUSEConnect utilizes fusion splicing technology for the termination in the field.

INTRODUCTION

FASTConnect® Field Installable Connectors

- FASTConnect is factory-polished, field-installable connectors that eliminate the need for hand polishing in the field.
- Proven mechanical splice technology ensuring precision fiber alignment, a factory pre-cleaved fiber stub, and a proprietary index-matching gel combine to offer an immediate low-loss termination to either single-mode or multimode optical fibers.
- FASTConnect is compatible with 250 μm and 900 μm optical fibers, as well as 2.0 mm, 3.0 mm, and 4.8 mm (SC only) cordage.
- All primary fiber types are supported and each connector is color-coded per industry-standard requirements to aid in identification during and after installation.
- A factory-installed wedge clip (included with each connector) is removed and discarded upon completion of the termination.
- Incorporated into this device is an innovative, translucent wedge enabling the use of a common VFI to provide a "pass/fail" signal once physical contact is achieved.

FEATURES

- Pre-stubbed, factory-polished ferrule
- No epoxy required
- Precision mechanical alignment ensures low-loss
- Fiber can be reseated

SPECIFICATIONS

PARAMETERS	INSERTION LOSS		RETURN LOSS AT ROOM TEMPERATURE		OPERATING TEMPERATURE
	AVERAGE (DB)	MAXIMUM (DB)	AVERAGE (DB)	MAXIMUM (DB)	
SM UPC	0.2	0.5	≤ -50	≤ -45	-40 to +75°C
SM APC-AU*	0.3	0.6	≤ -55	≤ -50	-40 to +75°C
MM PC	0.1	0.5	≤ -25	≤ -20	-40 to +75°C

AU denotes angled polish with a flat cleaved fiber

APPLICATIONS

- Premise environments

- Connections at the desk for LAN environments
- Patch panels
- Direct equipment termination

ORDERING INFORMATION

For cable size: 900 µm

CONNECTOR TYPE	QTY/PACK	AFL NO.				
		UPC SM (BLUE)	APC SM-AU (GREEN)	PC 62.5 µm MM (BEIGE)	PC 50 µm MM (BLACK)	PC 50 µm LOMMF (AQUA)
SC	6	FAST-SC-SM-6	FAST-SC-SMAU-6	FAST-SC-MM62.5-6	FAST-SC-MM50-6	FAST-SC-MM50L-6
	100	FAST-SC-SM-100	FAST-SC-SMAU-100	FAST-SC-MM62.5-100	FAST-SC-MM50-100	FAST-SC-MM50L-100
ST	6	FAST-ST-SM-6	N/A	FAST-ST-MM62.5-6	FAST-ST-MM50-6	FAST-ST-MM50L-6
	100	FAST-ST-SM-100	N/A	FAST-ST-MM62.5-6	FAST-ST-MM50-100	FAST-ST-MM50L-100
LC	6	FAST-LC-SM-6	N/A	FAST-LC-MM62.5-6	FAST-LC-MM50-6	FAST-LC-MM50L-6
	100	FAST-LC-SM-100	N/A	FAST-LC-MM62.5-100	FAST-LC-MM50-100	FAST-LC-MM50L-100

For cable size: 4.8 mm

SC	6	N/A	FAST-SC48-SMAU-6	N/A	N/A	N/A
	100	N/A	FAST-SC48-SMAU-100	N/A	N/A	N/A

- Boot kits are available for 2.0 mm/3.0 mm Simplex cordage
- Requires FAST APC Tool Kit for installation
- AFL NO. is for one pack of 6 pieces
- Laser Optimized Multi-Mode Fiber (LOMMF) compatible with OM3 and OM4 fibers

**FUSEConnect® Fusion Spliced, Field Installable Connectors**

- Uniquely designed, the factory pre-polished ferrule eliminates the need for polishing, adhesives, and crimping in the field, which minimizes the potential for operator error and expensive connector scrap.
- FUSEConnect utilizes a fusion splicer to terminate the connector in the field, addressing return loss concerns

present in analog optical networks.

- This advanced process yields true APC performance for SC/APC and LC/APC configurations. FUSEConnect is compatible with Fujikura fusion splicers and most other fiber-holder-based fusion splicing platforms.

FEATURES

- Field installable splice on connector
- No adhesives, crimping, or polishing
- True APC performance
- Compatible with most fusion splicers
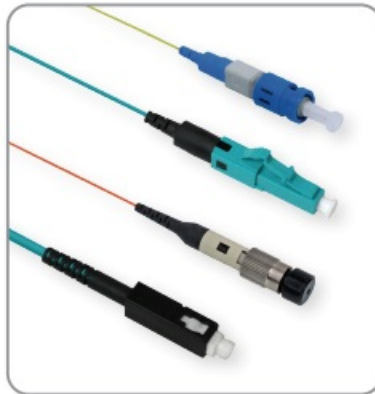
APPLICATIONS

- RF-overlay TP networks
- Cable TV backbone networks
- Outside plant
- FTTD (Desk)
- MDU FTTP cabling
- Data center installation
- Central office connector replacement

SPECIFICATIONS

PARAMETERS	INSERTION LOSS		RETURN LOSS	OPERATING TEMPERATURE
	AVERAGE (DB)	MAXIMUM (DB)		
SM UPC	0.15	0.25	≤ -55	-40 to +75°C
SM APC	0.15	0.25	≤ -65	-40 to +75°C
MM PC	0.10	0.25	≤ -35	-40 to +75°C

ORDERING INFORMATION

CONNECTOR TYPE	BOOT TYPE	AFL NO.***				
		UPC SM (Blue)	APC SM (Green)	PC 62.5 µm MM (Beige)	PC 50 µm MM (Black)	PC 50 µm LOMMF (AQUA) ****
SC	900 µm	FUSE-SC9SMU-6	FUSE-SC9SMA-6	FUSE-SC9M62-6	FUSE-SC9M50-6	FUSE-SC9M50L-6
	3 mm	FUSE-SC3SMU-6	FUSE-SC3SMA-6	FUSE-SC3M62-6	FUSE-SC3M50-6	FUSE-SC3M50L-6
	4.8 mm	FUSE- SC48SMU-6	FUSE- SC48SMA-6	—	—	—
LC	900 µm	FUSE-LC9SMU-6	FUSE-LC9SMA-6	FUSE-LC9M62-6	FUSE-LC9M50-6	FUSE-LC9M50L-6
	2 mm	FUSE-LC2SMU-6	FUSE-LC2SMA-6	FUSE-LC2M62-6	FUSE-LC2M50-6	FUSE-LC2M50L-6
FC	900 µm	FUSE-FC9SMU-6	FUSE-FC9SMA-6	FUSE-FC9M62-6	FUSE-FC9M50-6	FUSE-FC9M50L-6
	2 mm	FUSE-FC2SMU-6	—	FUSE-FC2M62-6	FUSE-FC2M50-6	FUSE-FC2M50L-6
	3 mm	FUSE-FC3SMU-6	—	FUSE-FC3M62-6	FUSE-FC3M50-6	FUSE-FC3M50L-6
ST	900 µm	FUSE-ST9SMU-6	—	FUSE-ST9M62-6	FUSE-ST9M50-6	FUSE-ST9M50L-6
	2 mm	FUSE-ST2SMU-6	—	FUSE-ST2M62-6	FUSE-ST2M50-6	FUSE-ST2M50L-6
	3 mm	FUSE-ST3SMU-6	—	FUSE-ST3M62-6	FUSE-ST3M50-6	FUSE-ST3M50L-6

- Boot kits are available for 2.0 mm/3.0 mm Simplex cordage
- Requires FAST APC Tool Kit for installation
- AFL NO. is for one pack of 6 pieces

- Laser Optimized Multi-Mode Fiber (LOMMF) compatible with OM3 and OM4 fibers

Fusion Spliced Field-Terminated Connectors

FUSEConnect® MPO Fusion Spliced Field-Terminated Connectors

- AFL's FUSEConnect MPO performs as an equivalent to the standard factory-terminated MPO/MTP® assemblies. Designed to utilize standard ribbon, SpiderWeb Ribbon®, or loose tube cable, this connector helps minimize the complexity involved in the termination of a multi-fiber connection, allowing for a reliable and repeatable termination in field applications.
- This updated design for the FUSEConnect MPO replaces the mechanical clamp splice protector with a heat protection sleeve utilizing the on-board splicer heater eliminating the need for a separate mechanical clamp tool.
- The connector is designed for use with the new RT-02 ribbonizing tool which does not require ribbonizing glue resulting in a cleaner termination process.

FEATURES

- Field installable splice-on connector
- Heat sleeve style splice protector
- Utilizes RT-02 ribboning tool for glueless termination process
- Only six components
- No adhesives, crimping, or polishing
- Field MPO polarity customization
- Includes 3.0 mm round and flat ribbon boots in each pack

APPLICATIONS

- Connectorization in.
- RF-overlay FTTP networks
- Cable TV backbone networks
- Outside plant
- MDU FTTP cabling
- Connector restoration in the field
- Data center installation
- Patch cord customization in the field

SPECIFICATIONS

PARAMETERS	INSERTION LOSS		RETURN LOSS	OPERATING TEMPERATURE
	AVERAGE (dB)	MAXIMUM (dB)		
SM (OS1)	0.25	0.75	>65 dB	-40 to +75°C
SM (OS1), Low Loss	0.10	0.35	>65 dB	-40 to +75°C
62.5/125 (OM1)	0.10	0.35	>30 dB	-40 to +75°C
50/125 (OM4)	0.10	0.35	>30 dB	-40 to +75°C

ORDERING INFORMATION

For cable size: 3.0 mm (ROUND) and 250 μm (FLAT)

CONNECTOR TYPE MALE/ FEMALE	AFL NO.*			
	APC SM (GREEN)	APC LOW-LOSS SM (MUSTARD)	PC 62.5 μm MM (BEIGE)	PC 50 μm LOMMF (AQUA) **
Male	FUSEMPO-S-SMA-3-M-6	FUSEMPO-S-LSMA-3-M-6	FUSEMPO-S-MM6-3-M-6	FUSEMPO-S-OM4-3-M-6
Female	FUSEMPO-S-SMA-3-F-6	FUSEMPO-S-LSMA-3-F-6	FUSEMPO-S-MM6-3-F-6	FUSEMPO-S-OM4-3-F-6

- AFL NO. is for one pack of 6 pieces
- Laser Optimized Multi-Mode Fiber (LOMMF) compatible with OM3 and OM4 fibers

RT-02 Ribbonizing Tool Ordering Information

AFL NO.	DESCRIPTION
S017465	RT-02 (tool only)
S017464	FH-70-12PC (pair of pitch conversion holders for 200 μm loose fibers)
S017119	FH-70-12 (pair – standard 12F ribbon holders)
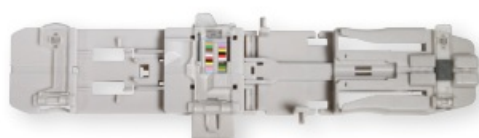
RT-02

RT-02 with FH-70-12PC

FASTConnect Universal Tool Kit

- The FASTConnect Universal Tool Kit provides all of the necessary installation tools required for fiber preparation of 250 μm or 900 μm fibers, or 900 μm, 2 mm, or 3 mm cordage for AFL's pre-polished FAST connectors.
- Included in the kit is the CT50 universal multimode/single-mode cleaver, AFL's premier cleaver with 60,000 cleave blade life, automatic blade rotation, and Bluetooth® capability.
- The carrying case contains all the industry standard termination tools required for fiber preparation, as well as, adequate storage for carrying extra FAST connectors for on-site convenience.

Tool Kit Contents

FEATURES

- Industry-standard fiber preparation tools
- Compact design, flexible yet rugged case
- Complete instructions provided

APPLICATIONS

- Premise environments
- LAN Fiber to the Desk environments
- Patch panel/wiring closets
- FTTx applications
- Quick repair/replacement areas

ORDERING INFORMATION

DESCRIPTION	AFL NO.
FASTConnect Boot Kits for 2.0 mm and 3.0 mm Cordage	
2.0 mm Boot Kit, SC/LC/ST – Pack of 6	FAST-BOOT-2MM-6
2.0 mm Boot Kit, SC/LC/ST – Pack of 100	FAST-BOOT-2MM-100
3.0 mm Boot Kit, SC/LC/ST – Pack of 6	FAST-BOOT-3MM-6
3.0 mm Boot Kit, SC/LC/ST – Pack of 100	FAST-BOOT-3MM-100
FASTConnect® Installation Kits	
FASTConnect High Precision Tool Kit with CT50 Cleaver	CS001201
FASTConnect High Precision Tool Kit without cleaver	CS001201-NC
FASTConnect High Precision Tool Kit with CT16 Cleaver	CS010975

FUSEConnect Tool Kit and Accessories

- The FUSEConnect tool kit provides all the necessary installation tools required for fiber preparation of 900 µm fiber, 2 mm or 3 mm cordage for AFL's FUSEConnect Fusion Spliced Field Installable Connectors except for a fusion splicer and precision cleaver.
- Included in the kit are standard fiber preparation tools and cleaning supplies as well as a FUSEConnect accessory kit and cord splitter tool, which can be bought separately from the tool kit.
- The cord splitter tool is uniquely designed to open the cordage of 2 mm and 3 mm cable allowing the termination of the ST and FC type connectors on simplex cordage.

FUSEConnect Tool Kit Contents

FUSEConnect Accessory Kit

Cord Splitter Tool

FEATURES

- Industry-standard fiber preparation tools
- Compact design, flexible yet rugged case
- Complete instructions provided

APPLICATIONS

- Premise environments
- LAN Fiber-to-the-Desk environments
- Patch panel/wiring closets
- FTTx applications
- Quick repair/replacement areas

ORDERING INFORMATION

DESCRIPTION	AFL NO.
FUSEConnect Installation Kits	
FUSEConnect Accessory Kit	FUSE-AC-KT
FUSEConnect Tool Kit	FUSE-TL-KT
FUSEConnect MPO Tool Kit	FUSE MPO-TL-KT
RT-02 Ribbonizing Tool	FUSE-R2-TL
Cord Splitter Tool	FUSE-ST-TL
FUSEConnect MPO Heater Attachment Tool	FUSE-HT-TL
MPO Boot Kit for Jacketed Ribbon (Pack of 6)	FUSEMPO-BOOT-JK-6

Fiber Cleavers

- Designed for FTTH or other space-constrained applications where ergonomics and durability are key, the CT16 fiber cleaver is compact and can be operated ambidextrously.
- It features a unique fiber adapter, allowing users to cleave two bare fibers simultaneously when paired with the dual fiber stripper, the SS-05.
- The CT50 features automated blade rotation, unprecedented durability, and simplistic maintenance unseen with any other cleaver.
- Paired with a Bluetooth®-enabled Fujikura splicer, cleaver blade positions can be automatically advanced when needed based on cleave count or cleave quality.

CT16 Cleaver

CT50 Cleaver

CT16 FEATURES

- Dual fiber adapter plate for single or two fiber cleaving
- Ambidextrous operation available
- Field replaceable fiber clamp pads and cleaver blade
- Shock resistant for drops up to 30″ in any of six different orientations
- Compact form factor and tool-less blade rotations

CT50 FEATURES

- Motorized blade rotation
- Bluetooth communication
- Shock resistant
- Simple one-step operation
- 60,000 cleave blade life
- Field serviceable

ORDERING INFORMATION

DESCRIPTION	AFL NO.
CT16	
CT16 Fiber Cleaver includes: FDB-06 scrap collector, AD-16A fiber adapter, HEX-01 hex wrench (1.5 mm), M-CT16-E instruction manual, CC-46 carrying case	S018330
CT50	
CT50 Fiber Cleaver includes: AD-50 Adapter Plate, CC-37 Carrying Case and Instruction Manual	S017030

- For more information about AFL's Connector Solutions, Fusion Splicers, Test Equipment, Fiber Management Systems, Closures, and accessories contact us at **800-235-3423** or online at **www.AFLglobal.com**.
- FUSION SPLICING EQUIPMENT

- TEST, INSPECT, CLEANING EQUIPMENT

- APEX® SEALED SPLICE CLOSURES

- ASCEND® HIGH-DENSITY PLATFORM

- **www.AFLglobal.com or 8002353423**
- **LC-01012 Rev. 11, 12.4.2023**
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- **CONNECTOR SOLUTIONS**
- **FASTConnect® | FUSEConnect® | FUSEConnect® MPO**

Documents / Resources

	AFL FAST-SC-SM-6 Connect Single Mode [pdf] Owner's Manual FAST-SC-SM-6, FAST-SC-SMAU-6, FAST-ST-SM-6, FAST-ST-SM-100, FAST-LC-SM-6, FAST-LC-SM-100, FAST-SC-SM-6 Connect Single Mode, FAST-SC-SM-6, Connect Single Mode, Single Mode, Mode

References

- **⌐ AFL - Fiber optic cable, transmission and substation accessories, outside plant equipment, connectors, fusion splicers, test and inspection equipment.**
- **User Manual**