



Fusion Splicing





45S Standard Kit



45S on Tripod

Fujikura 45S Fusion Splicer

The 45S cladding alignment fusion splicer is changing the way people splice fiber in small to mid-fiber count applications. This Fujikura splicer debuts a landmark improvement to the fusion splicing process with the ability to prepare and load both fibers simultaneously. The hand-held fiber coating stripper, the SS-05, is capable of stripping two 250 µm coated fibers in the same pass, along with the CT-16A cleaver adapter plate which can likewise accommodate two bare fibers for cleaving. After preparation, the 45S patented sheath clamps enable loading both fibers simultaneously into the splicer with one fiber in each hand. The user can press down on the sheath clamp base to close it while positioning the fiber in the v-grooves. This enables onehanded operation.

Furthermore, the 45S sheath clamps are mechanically linked to the wind protector, so after splicing is finished, opening the wind protector also opens both sheath clamps for quick sleeve positioning and transfer to the tube heater. The 45S tube heater shrinks sleeves much faster than its predecessor with a nominal ~20 second heat time for 60 mm sleeves down from ~26 seconds. The simultaneous fiber preparation capability, automated sheath clamp opening, and a faster tube heater, combine to lower the overall fusion splicing cycle time by \sim 30% or more.

The 45S continues to benefit the user experience with improvements to fiber placement, battery access, and machine ergonomics. Previously, when using sheath clamps, if the cleaved fiber was accidentally set past the electrode centerline, the machine would send an error and require manual intervention. The 45S will now accept this mistake and reverse the fiber to correct position automatically. With a cube form factor, the 45S is easily transported and operated in space-constrained environments. The adjustable screen can alleviate glare from the sun and adjust with abnormal splicer positions confronted in challenging splice locations.

Backed by the best service team in the industry, the Fujikura 45S is the ideal splicer to use when portability, ruggedness, speed, and reliability are needed. If you'd like to see the 45S capabilities first-hand, please contact us at 1-800-235-3423 to arrange a product demonstration at your earliest convenience.

Applications

- 5G Small Cell Site
- FTTx drops and terminations
- MDF/IDF splices and terminations
- Rural fiber deployments and restorations

Features

- Simultaneous fiber preparation with newly patented sheath clamp design
- Sheath clamps automatically opened with the wind protector
- Automatic fiber placement correction
- Active Fusion Control for arc optimization with every splice
- Active Blade Management for cleave quality monitoring and correction
- Easy-access battery, screen position adjustments, and ergonomic adaptations
- Fully ruggedized for shock, moisture and dust resistance

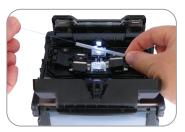


Fujikura 45S Fusion Splicer

Features







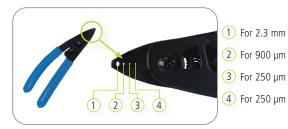
Sleeve Positioning



Work Tray with Neck Strap



CT-16A Adapter Plate on CT-50



Fiber stripper SS-05

Ordering Information

DESCRIPTION	AFL NO.
Fujikura 45S Standard Kit	S018318
Includes: CT-50 cleaver, SS-05 single fiber stripper, 1 pair each FH-70-250 and FH-70-900 fiber holders, SP-04 set plates, ELCT2-16B Spare Electrodes	
(Pair), ADC-21 AC Adapter, BTR-17 Battery Pack (installed), ACC-09 Power Cord, USB-01 USB Cable, AP-02 Alcohol Container, WT-10 work tray,	
ST-03 carrying case strap, TS-03 tripod screw, CC-45 Transit Case, 1 year factory warranty, and instruction manual downloaded from splicer	
Fujikura 45S Kit without Cleaver	S018319
Includes: SS-05 single fiber stripper, 1 pair each FH-70-250 and FH-70-900 fiber holders, SP-04 set plates, ELCT2-16B Spare Electrodes (Pair),	
ADC-21 AC Adapter, BTR-17 Battery Pack (installed), ACC-09 Power Cord, USB-01 USB Cable, AP-02 Alcohol Container, WT-10 work tray,	
ST-03 carrying case strap, TS-03 tripod screw, CC-45 Transit Case, 1 year factory warranty, and instruction manual downloaded from splicer	
One Year Extended Warranty	S012996
Two Year Extended Warranty	S013000

Recommended Accessories

DESCRIPTION	AFL NO.
Cleavers AND STRIPPERS	
CT-50 Fiber Cleaver	S017030
CT-16 Fiber Cleaver	S018330
SS-05 Dual Fiber Stripper	S018327
Fiber Holders	
CLAMP-S35B Loose Buffer Sheath Clamp	S018333
FH-70-250 (250 μm single fiber)	S017111
FH-70-200 (200 μm single fiber)	S017711
FH-70-900 Fiber Holders (900 µm single fiber)	S017113
FH-60-LT900 (900 μm loose buffer tube)	S015181
FUSEConnect® Accessories	
FH-FC-20 (900 µm within 2.0 mm sheathing) (each)	S014696
FH-FC-30 (900 µm within 3.0 mm sheathing) (pair)	S014695
FH-FC-900 (900 μm cable) (each)	S014697
CLAMP-FC-2000 (pair)	S014705
CLAMP-FC-3000 (pair)	S014704

DESCRIPTION	AFL NO.
Power Supply Options	
BTR-17 Battery Pack	S018324
ADC-21 AC Adapter	S018168
ACC-09 Power Cord	S014390
Miscellaneous	
WT-10 Work Tray	S018336
TS-03 Tripod Screw	S017524
ST-03 Carrying Case and Work Tray Strap	S017549
CLAMP-DC-12 drop cable clamp on work tray	S017550
ELCT2-16B Electrodes	S017103
CC-45 Transit Case	S018326
Splicer V-Groove Cleaning Kit	S014397
USB-01 USB Cable	S014777
SP-04 Fiber Holder Set Plates	S018332
AD-16A Adapter Plate (CT-50 and CT-16 up to 900 um)	S018328
Portable Tripod Workstation (see web listing for more detail)	S014773



Fujikura 45S Fusion Splicer

Specifications

Illumination V-grooves LED lamp PC USB2.0 MINI B type	PARAMETER		VALUE
Fiber count can be spliced Applicable fiber Applicable fiber Applicable fiber Applicable coating Applicable protection seve Applicable protection sleeve Applicable protection sleeve Sleeve length Applicable protection sleeve Applicable protection slee			Active cladding alignment
Applicable fiber Fiber type Cladding dia. Approx. 125 µm Applicable coaling Applicable coaling Applicable coaling Fiber Holder Fiber Holder Fiber Holder Fiber Holder Fiber Splice loss '? Fiber Splice performance Fiber splice protection sleeve Splicing time '¹ Splicing time time time time time time time time			
Applicable fiber Cladding dia. Approx. 125 μm Sheath Clamp Coating diameter: Max. 3,000 μm Cleave length: 5 to 1 fo mm " Fiber Holder Fiber Holder Fiber Holder Fiber splice performance Fiber			
Cladding dia. Approx. 125 µm Ceave length: 5 to 16 mm '1 Coating diameter: Max 3,000 µm Cleave length: 5 to 16 mm '1 Coating diameter: 160 µm -3,000 µm based on available fiber holder options Cleave length: Approx. 10 mm TIU-T 6,052; Avg., 0,038B TIU-T 6,055; Avg., 0,056B TIU-T 6,055; Avg., 0,038B TIU-T 6,055; Avg., 0,038B TIU-T 6,055; Avg., 0,038B TIU-T 6,055; Avg., 0,056B TIU-T 6,055; Avg., 0,038B TIU-T 6,055; Avg.	Applicable fiber	Fiber type	
Sheath Clamp Clasting diameter: Nax. 3,000 µm	P.F.	Cladding dia.	
Applicable coating Fiber Holder Coating diameter: 160 µm = 3,000 µm based on available fiber holder options Cleave length: 160 µm = 3,000 µm based on available fiber holder options Cleave length: Approx. 10 mm ITU-T 6.651: Avg. 0.03d8 ITU-T 6.651: Avg. 0.03d8 ITU-T 6.651: Avg. 0.05d8 ITU-T 6.651			
Fiber Holder Coating diameter: 160 µm = 3,000 µm based on available fiber holder options Cleave length: Approx. 10 mm			
Cleave length: Approx. 10 mm	Applicable coating		
Fiber splice performance		Fiber Holder	
Fiber splice performance		Splice loss *2	
Fiber splice performance			
ITU-1 G.655; Avg. 0.05d8 ITU-1 G.655; Avg. 0.05d8 ITU-1 G.655; Avg. 0.03d8 Itu-1 G.655; Avg. 0			
TIU-T G.657: Ayg. 0.03dB	Fiber splice performance		
Splicing time "3 SM FAST mode: Avg. 8 to 18 sec.	riser spines periormanes		
Splicing time 3 Sieve type Heat shrinkable sleeve Sleeve length Max. 6.0 mm before shrinking Sleeve dia. Max. 6.0 mm before shrinking Sleeve dia. Max. 6.0 mm before shrinking 60 mm mode: Avg. 21 to 23 sec. 60 mm slim mode: Avg. 16 to 18 sec. 7 Approx. 2.0 N Electrode life 3 Dimensions W Approx. 13 mm without projection Dimensions D Approx. 13 mm without projection Approx. 123 mm without projection Weight Approx. 1.4 kg including battery Operate : 10 to 50°C Environmental condition Humidity Operate : 0 to 95% non-condensing Altitude Ax 5,000 m Ax 5,000 m Attitude Ax 5,000 m Ax 5,000 m Attitude Ax 5,000 m Ax 5,000 m Act adaptor Input Act 10 to 240% 50/6014z, Max. 1A Output Approx. DC 194, Max. 2.1A Output Approx. DC 194, Max. 2.1A Output Approx. DC 194, VA 32, 23, 24, 24, 24, 32, 32, 32, 32, 32, 32, 32, 33, 32, 32			
Sleeve type Heat shrinkable sleeve Max. 6.6 mm Sleeve dia. Max. 6.6 mm Max. 6.6 mm Sleeve dia. Max. 6.6 mm Max. 6.6 mm Max. 6.0 mm Max		Splicing time ^{^3}	
Applicable protection sleeve Sleeve length Sleeve dia. Max. 66 mm Max. 6.0 mm before shrinking 60 mm mode: Avg. 21 to 23 sec. 60 mm slim mode: Avg. 21 to 23 sec. 60 mm slim mode: Avg. 16 to 18 sec. Fiber tensile test force Electrode life "5 Approx. 6,000 splices Dimensions W Approx. 13 mm without projection Dimensions D Approx. 13 mm without projection Dimensions D Approx. 14 kg including battery Operate: -10 to 50°C Storage: -40 to 80°C Environmental condition Humidity AC adaptor Battery pack Battery pack Battery pack Battery pack Battery pack Battery life "7 Approx. DC 19 Approx. DC 19 Approx. 200 splice & heat cycles 60 mm slim heat mode: Approx. 200 splice & heat cycl		Sleeve type	
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Fiber tensile test force Electrode life "5 Electrode life "5 Dimensions W Approx. 131 mm without projection Approx. 132 mm without projection Approx. 131 mm without projection Approx. 123 mm without projection Approx. 121 mm without projection Weight Approx. 121 mm without projection Weight Approx. 124 mm without projection Approx. 125 mm without projection Weight Approx. 126 mm without projection Approx. 127 mm without projection Weight Approx. 128 mm without projection Approx. 128 mm without projection Approx. 121 mm without projection Approx. 121 mm without projection Approx. 126 mm without projection Approx. 128	Sleeve heat performance	Heat time *4	
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Dimensions W Approx.131 mm without projection			
Physical description Dimensions D Approx. 123 mm without projection	Electrode me	Dimensions W	
Physical description Dimensions H Approx. 1.21 mm without projection			
Weight Approx. 1.4 kg including battery	Physical description		
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Humidity Altitude Altitude Max. 5,000 m AC adaptor AC adaptor Input AC100 to 240V, 50/60Hz, Max. 1A Output Approx. DC 19V, Max. 2.1A Iype Rechargeselbe Lithium Ion Output Approx. DC14.4V / 3,190mAh Capacity "6 Capacity "6 Capacity "6 Operate: -10 to 50°C Recharge: 0 to 40°C Short term storage of 30 days: -20 to 50°C Long term storage: -20 to 30°C Battery life "7 Approx. 500 recharge cycles Display LCD monitor Magnification V-grooves Illumination V-grooves Interface External LED lamp VSB 2.0 A type Approx. DC5V, 500mA	Environmental condition	Humidity	
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Display Magnification Approx. 132 to 300X Illumination V-grooves LED lamp PC USB2.0 MINI B type Interface USB 2.0 A type Approx. DC5V, 500mA	Display		
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Approx. DC5V, 500mA	Interface		
		Wireless *8	



Fujikura 45S Fusion Splicer

Specifications

PARAMETER		VALUE
Data storage	Splice mode	100 splice modes
	Heat mode	30 heat modes
	Splice result	20,000 splices
	Fiber image	100 images
Screw hole for tripod		1/4-20UNC
		Fusion control
	Automatic functions	Blade management and control
		Splice start
		Heater start
	Reference guide	PDF file stored on splicer
Other features		Open with/without wind protector
	Sheath clamp	Close when setting fiber
		Easy sleeve positioning design
	Electrode	Tool-less replacement
	PC Software	Splicer firmware update via internet
	1 C Joitwale	Parameter Upload and download

NOTES:

- *1 Cleave length range depending on fiber type
 - 5-16 mm: 125 μ m cladding dia. And 250 μ m coating dia.
 - 10 16 mm: 125 μ m cladding dia. And 400 or 900 μ m coating dia.
- *2 Measured with cut-back method relevant to ITU-T and IEC standard after splicing Fujikura identical fibers. The average splice loss changes depending on the environmental condition and fiber characteristics.
- *3 Measured at room temperature. The definition of splice time is from the fiber image appearing on the LCD monitor to the estimated splice loss. The average splice time changes depending on the environmental conditions, fiber type, and fiber characteristics.
- *4 Measured at room temperature with the AC adapter. The heat time is defined from the start beep sound to the finish beep sound. The average heat time changes depending on the environmental conditions, sleeve type, and battery pack condition. In addition, since the heating operation is constantly optimized, the average heating time changes depending on the usage conditions of the fusion splicer.
- *5 The electrode life changes depending on the environmental conditions, fiber type, and splice modes used.
- *6 Test Conditions
 - Splice and heat time: 1 minute cycle
 - Using the splicer power save settings, subject to our testing condition
 - Using a new battery
 - Room temperature
 - The battery capacity changes when testing in different conditions than above
- *7 The battery capacity decreases to half after approx. 500 discharge and recharge cycles. The battery life is shortened further when using outside of the storage and operating temperature ranges, or if completely discharged when stored for an extended period without recharging.
- *8 Bluetooth mark and logos are registered trademarks of Bluetooth SIG, Inc.