



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 one-handed 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 ~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.



45S Standard Kit



45S on Tripod

Applications

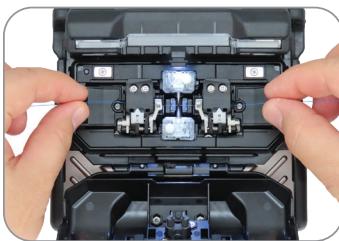
- 5G Small Cell Site
- FTTx drops and terminations
- MDF/IDF splices and terminations
- Rural fiber deployments and restorations

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

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Features



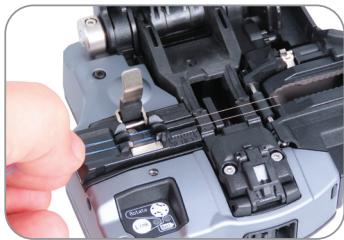
Simultaneous Fiber Loading



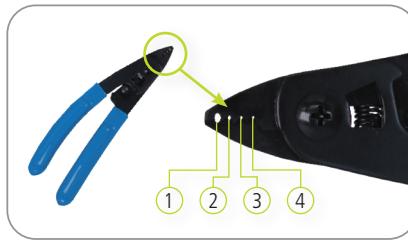
Sleeve Positioning



Work Tray with Neck Strap



CT-16A Adapter Plate on CT-50



Fiber stripper SS-05

- ① For 2.3 mm
- ② For 900 µm
- ③ For 250 µm
- ④ For 250 µm

Ordering Information

DESCRIPTION	AFL NO.
Fujikura 45S Standard Kit 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	S018318
Fujikura 45S Kit without Cleaver 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	S018319
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 Single Fiber Stripper	S017098
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 µm)	S018328
Portable Tripod Workstation (see web listing for more detail)	S014773

Fujikura 45S Fusion Splicer

Specifications

PARAMETER	VALUE
Fiber alignment method	Active cladding alignment
Fiber count can be spliced	Single fiber
Applicable fiber	Fiber type Single mode optical fiber Multi mode optical fiber Cladding dia. Approx. 125 µm
Applicable coating	Sheath Clamp Coating diameter: Max. 3,000 µm Cleave length: 5 to 16 mm *1 Fiber Holder Coating diameter: 160 µm – 3,000 µm based on available fiber holder options Cleave length: Approx. 10 mm
Fiber splice performance	Splice loss *2 ITU-T G.652: Avg. 0.03dB ITU-T G.651: Avg. 0.01dB ITU-T G.653: Avg. 0.05dB ITU-T G.655: Avg. 0.05dB ITU-T G.657: Avg. 0.03dB Splicing time *3 SM FAST mode: Avg. 6 to 7 sec. SM AUTO mode: Avg. 8 to 10 sec.
Applicable protection sleeve	Sleeve type Heat shrinkable sleeve Sleeve length Max. 66 mm Sleeve dia. Max. 6.0 mm before shrinking
Sleeve heat performance	Heat time *4 60 mm mode: Avg. 15 to 22 sec. 60 mm slim mode: Avg. 15 to 17sec.
Fiber tensile test force	Approx. 2.0 N
Electrode life *5	Approx. 6,000 splices
Physical description	Dimensions W Approx.131 mm without projection Dimensions D Approx.123 mm without projection Dimensions H Approx.121 mm without projection Weight Approx. 1.4 kg including battery
Environmental condition	Temperature Operate : -10 to 50°C Storage : -40 to 80°C Humidity Operate : 0 to 95% non-condensing Storage : 0 to 95% non-condensing Altitude Max. 5,000 m
AC adaptor	Input AC100 to 240V, 50/60Hz, Max. 1A Output Approx. DC 19V, Max. 2.1A
Battery pack	Type Rechargeable Lithium Ion Output Approx. DC14.4V / 3,190mAh Capacity *6 60 mm heat mode: Approx. 200 splice & heat cycles 60 mm slim heat mode: Approx. 230 splice & heat cycles 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 Temperature Battery life *7 Approx. 500 recharge cycles
Display	LCD monitor TFT 4.95 inches with touch screen Magnification Approx. 132 to 300X
Illumination	V-grooves LED lamp
Interface	PC USB2.0 MINI B type External LED lamp USB 2.0 A type Approx. DC5V, 500mA Wireless *8 Bluetooth® 5.2



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Specifications

PARAMETER	VALUE
Data storage	Splice mode
	Heat mode
	Splice result
	Fiber image
Screw hole for tripod	1/4-20UNC
Other features	Automatic functions
	Blade management and control
	Splice start
	Heater start
	Reference guide
	Open with/without wind protector
	Close when setting fiber
	Easy sleeve positioning design
	Electrode
PC Software	Tool-less replacement
	Splicer firmware update via internet
PC Software	Parameter Upload and download

NOTES:

- *1 Cleave length range depending on fiber type
 - 5 – 16 mm: 125 µm cladding dia. And 250 µm coating dia.
 - 10 – 16 mm: 125 µm cladding dia. And 400 or 900 µm 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 batter 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.