



Fusion Splicing



Bluetooth®

90S+

Fujikura 90S+ Fusion Splicer

The Fujikura 90S+ core alignment fusion splicer solves common problems seen in the field—from splicing poor quality legacy fiber to automated equipment maintenance and upkeep. The Fujikura 90S+ can be use in multiple field splicing applications including bend-insensitive fibers in drop cables, long-haul terrestrial and submarine LEAF® fibers, loose buffer fiber, splice-on connectors, and the list goes on. The speed and accuracy of the 90S+ make it suitable for certain production and specialty environments where high output, tight packaging, and low loss requirements are required.

Regardless of your scenario, the Fujikura 90S+ is designed to keep you in the field with an extended battery life of 300 splice and heat cycles. With its multiple automated and easy-to-use features, the 90S+ alleviates the need for traditional operation tasks such as frequent arc calibrations, cleaver blade rotations, cleaver usage tracking, and manual splicing operations. A redesigned work tray, cooling tray, and optional cable clamp make the 90S+ kit more versatile than its predecessors in adapting to varying work conditions and environments.

When splicing loose buffer fiber, additional sheath clamps are not needed. The standard universal sheath clamp now handles both loose and tight buffer fibers. The new Active Fusion Control (AFC) technology improves splice losses for fibers that possess a poor cleave angle. Combined with Active Blade Management between the splicer and cleaver, the Fujikura 90S+ contains a robust set of splicing features that will reduce the likelihood of poor splice installations or repairs.



In Work Tray

Features

- Cleaver tracking and upkeep with wireless communication
- Improved real-time arc control for fibers with poor cleave angles
- Automated wind protector, sheath clamps and splice operation
- Loose and tight buffer with same sheath clamp
- Lithium-ion battery with 300 splices/shrinks per charge
- PC software and 90S+ manual downloaded from splicer
- Multi-function transit case with integrated workstation

Applications

- Distribution fiber repair
- Long-haul network installation
- Field termination with splice-on connectors
- Access network installation
- Fanout kits, pigtails and splice cassettes
- OSP cable installation and repair
- Optical modules – splitters, couplers, MUXs, EDFAs and attenuators



Wind Protector Open

Fujikura 90S+ Fusion Splicer

Ordering Information

DESCRIPTION	AFL NO.
90S+ Fusion Splicer (machine only) Includes: ADC-20 AC Adapter, ACC-14 AC Cord, BTR-15 Battery, ELCT2-16B Spare Electrodes (pair), Sheath Clamps, SP-03 Fiber Holder Set Plates, USB-01 Cable, Alcohol Dispenser, Screwdriver, Splicer Carrying Strap, Quick Reference Guide, TS-03 Tripod Screw, Work Tray J-Plate, SS03 single fiber stripper, CC39 Transit Case with Carrying Strap and Two Year Warranty	S017519
90S+ Fusion Splicer Kit (with cleaver) Includes: CT50 Cleaver, ADC-20 AC Adapter, ACC-14 AC Cord, BTR-15 Battery, ELCT2-16B Spare Electrodes (pair), Sheath Clamps, SP-03 Fiber Holder Set Plates, USB-01 Cable, Alcohol Dispenser, Screwdriver, Splicer Carrying Strap, Quick Reference Guide, TS-03 Tripod Screw, Work Tray J-Plate, SS03 single fiber stripper, CC39 Transit Case with Carrying Strap and Two Year Warranty	S017521
90S+ Fusion Splicer without Bluetooth (machine only) Includes: ADC-20 AC Adapter, BTR-15 Battery, ACC-14 AC Cord, ELCT2-16B Spare Electrodes (pair), Sheath Clamps, SP-03 Fiber Holder Set Plates, USB-01 Cable, Alcohol Dispenser, Screwdriver, Splicer Carrying Strap, Quick Reference Guide, TS-03 Tripod Screw, Work Tray J-Plate, SS03 Single Fiber Stripper, CC39 Transit Case with Carrying Strap and Two Year Warranty	S017520
One Year Extended Warranty	S012996
Two Year Extended Warranty	S013000

Recommended Products for the 90S+

DESCRIPTION	AFL NO.
Cleavers	
CT08 Cleaver	S017004
CT50 Cleaver	S017030
Fiber Holders (pair)	
FH-70-250 (250 µm coated fiber)	S017111
FH-70-900 (900 µm jacketed fiber)	S017113
FH-70-160 (160 µm coated fiber)	S017095
FH-70-200 (200 µm coated fiber)	S017711
FH-60-LT900 (Loose buffer 900 µm fiber)	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
Power Supply Options and Equipment	
ADC-20 AC Adapter	S017513
ACC-14 AC Power Cord	S014536
BTR-15 Battery	S017512
DCC-20 Power Cord (connects AC Adapter to cigarette lighter socket)	S017527
DCC-21 Power Cord (connects AC Adapter to power source via alligator clips)	S017528

DESCRIPTION	AFL NO.
Miscellaneous	
SS03 Single fiber stripper (3 hole)	S017098
SS01 Single fiber stripper (1 hole)	S017099
ELCT2-16B Electrodes	S017103
SP-03 Fiber Holder Set Plates	S017518
S90 Universal Sheath Clamps	S017696
Portable Tripod Workstation (see product profile for more detail)	S014773
ASW-02 Splicing Workstation (see product profile for more detail)	S010532
WT-09R Work Tray Right	S017515
WT-09L Work Tray Left	S017516
JP-09 Work Tray J-Plate	S017517
JP-10 J-Plate (Cooling tray attaches to splicer)	S017522
JP-10-FC J-Plate with Fiber Clamps	S017523
TS-03 Tripod Screw (90 Series)	S017524
ST-02 Fusion Splicer Strap	S017525
CLAMP-DC-12 (Drop cable clamp for work tray)	S017550
USB-01 Cable	S014777
CC39 Transit Case	S017514
Splicer V-Groove Cleaning Kit	S014397



Fiber Holders

- Wide range of sizes for various applications
- Loose & Tight Buffer options available



Portal Tripod Work Station

- Sturdy work tray supports the splicer, cleaver and accessories
- Tripod supports a load capacity of up to eleven pounds



V-Groove Cleaning Kit

- Removes environmental contamination from the v-groove of the splicer
- Maintains performance and ensures fiber alignment

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Specifications

PARAMETER	VALUE		
Fiber Alignment Method	Active core alignment		
Fiber Count Can Be Spliced	Single fiber		
Applicable Fiber	Fiber Type	Single-mode optical fiber Multimode optical fiber	
	Cladding Dia.	80 to 150 µm	
Applicable Coating	Sheath Clamp	Coating dia.: Max. 3,000 µm Cleave length: 5 to 16 mm	
	Fiber Splice Performance	Splice Loss	ITU-T G.652: Avg. 0.02 dB
ITU-T G.651: Avg. 0.01 dB			
ITU-T G.653: Avg. 0.04 dB			
ITU-T G.654: Avg. 0.04 dB			
ITU-T G.655: Avg. 0.04 dB			
ITU-T G.657: Avg. 0.02 dB			
Applicable Protection Sleeve	Sleeve Type	SM FAST mode: Avg. 8 to 10 sec.	
		SM AUTO mode: Avg. 11 to 13 sec.	
		AUTO mode: Avg. 14 to 16 sec.	
Sleeve Heat Performance	Sleeve Length	Heat-shrinkable sleeve	
		Sleeve Dia.	Max. 66 mm
			Max. 6.0 mm before shrinking
Fiber Tensile Test Force	Heat Time	60 mm slim mode: Avg. 9 to 10 sec.	
		60 mm mode: Avg. 13 to 15 sec.	
Electrode Life	Approx. 2.0 N		
Physical Description	Approx. 5,000 splices		
	Dimensions W	Approx. 170 mm without projection	
	Dimensions D	Approx. 173 mm without projection	
	Dimensions H	Approx. 150 mm without projection	
	Weight	Approx. 2.8 kg including battery	
Environmental Condition	Temperature	Operate: -10 to 50°C	
		Storage: -40 to 80°C	
		Humidity	Operate: 0 to 95% RH non-condensing Storage: 0 to 95% RH non-condensing
AC Adaptor	Altitude	Max. 5,000 m	
		Input	AC100 to 240 V, 50/60 Hz, Max. 1.5 A
Battery Pack	Type	Rechargeable Lithium Ion	
	Output	Approx. DC 14.4V / 6,380 mAh	
	Capacity	Approx. 300 splice and heat cycles	
	Temperature	Recharge: 0 to 30°C	
		Storage: -20 to 30°C	
	Battery Life	Approx. 500 recharge cycles	
Recharge Time	Approx. 5-8 hours from empty		
Display	LCD Monitor	TFT 5 inches with touch screen	
	Magnification	200 to 320x	
illumination	V-Grooves	LED lamp	
Interface	PC	USB2.0 Mini B type	
	External Led Lamp	USB2.0 A type, Approx. DC5V, 500 mA	
	Ribbon Stripper	Mini DIN 6 pin, DC12V, Max. 1A	
	Wireless	Bluetooth 4.1 LE	
Data Storage	Splice Mode	100 splice modes	
	Heat Mode	30 heat modes	
	Splice Result	20,000 splices	
	Splice Image	100 images	
Screw Hole For Tripod	1/4-20 UNC		
Other Features	Automatic Functions	Splice mode select by fiber type analysis	
		Discharge power calibration	
		Wind protector: open/close	
		Sheath clamp: open	
		Heater lid: open/close	
	Heater clamp: open/close		
Reference Guide	Video and PDF file stored in splicer		
Sheath Clamp	Easy sleeve positioning clamp		
Electrode	Replaceable without tool		