

# Fujikura 90S



The 90S is a single fibre core alignment fusion splicer setting a new standard in the market for fusion splicing. The 90S is packed with a whole host of new and enhanced features specifically developed with the objective to enable the user to work faster with higher precision. Overall process time has been significantly improved against our previous model (70S+). This has been achieved with a combination of improvements to the reaction time of the automated wind protectors and automated heater, new fibre retention clamps, improved universal sheath clamps and a redesigned internal structure that matches the protection sleeve to the fusion splice point which enables splicing to be achieved without the need of the user to touch the 90S once the process has started.

## FEATURES/BENEFITS

- Market leading high precision and accurate core alignment technology with advanced image processing technology
- Improved automatic wind protector design which reduces overall splice time but can also be used in manual style
- High capacity lithium-ion battery (up to 300 splices)
- Patented easy splice protector positioning system
- Universal sheath clamps for standard 250 um fibre but also 900 um loose tube fibre types.
- Fibre Retention clamps
- Enabled with Fujikura's unique "Active Blade Management Technology" with new capability to link up to 2 CT50 cleavers simultaneously.
- A completely redesigned multi-function carry case and workstation
- Tool-less replaceable electrodes
- Touch screen

## APPLICATIONS

- FTTx
- Telecom
- Data Centre
- Broadcast

**SPECIFICATIONS**

ITEM	SPECIFICATION	
Fiber alignment method	Active core alignment	
Fiber count can be spliced	Single fiber	
Applicable fiber	Fiber type	Single mode optical fiber Multi mode optical fiber
	Cladding dia.	80 to 150µm
Applicable coating	Sheath clamp	Coating dia. : Max. 3,000µm Cleave length : 5 to 16mm *1
	Fiber splice performance	Splice loss *2
ITU-T G.651 : Avg. 0.01dB		
ITU-T G.653 : Avg. 0.04dB		
ITU-T G.655 : Avg. 0.04dB		
ITU-T G.657 : Avg. 0.02dB		
Applicable protection sleeve	Splice time *3	SM FAST mode : Avg. 7 to 9sec. AUTO mode : Avg. 14 to 16sec.
	Sleeve type	Heat shrinkable sleeve
Sleeve heat performance	Sleeve length	Max. 66mm
	Sleeve dia.	Max. 6.0mm before shrinking
	Heat time *4	60mm slim mode : Avg. 9 to 10sec. 60mm mode : Avg. 13 to 15sec.
Fiber tensile test force	Approx. 2.0N	
Electrode life *5	Approx. 5,000 splices	
Physical description	Dimensions W	Approx.170mm without projection
	Dimensions D	Approx.173mm without projection
	Dimensions H	Approx.150mm without projection
	Weight	Approx. 2.8kg including battery
Environmental condition	Temperature	Operate : -10 to 50 degreeC Storage : -40 to 80 degreeC
	Humidity	Operate : 0 to 95%RH non-condensing Storage : 0 to 95%RH non-condensing
	Altitude	Max. 5,000m
AC adaptor	Input	AC100 to 240V, 50/60Hz, Max. 1.5A
	Type	Rechargeable Lithium Ion
Battery pack	Output	Approx. DC14.4V / 6,380mAh
	Capacity *6	Approx. 300 splice and heat cycles
	Temperature	Recharge : 0 to 30 degreeC Storage : -20 to 30 degreeC
	Battery life *7	Approx. 500 recharge cycles
Display	LCD monitor	TFT 5 inches with touch screen
	Magnification	200 to 320x
Illumination	V-grooves	LED lamp
	PC	USB2.0 Mini B type
Interface	External LED lamp	USB2.0 A type Approx. DC5V, 500mA
	Ribbon Stripper	Mini DIN 6pin DC12V, Max. 1A
	Wireless *8	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	1/4-20UNC	
Other features	Automatic functions	Splice mode select by fiber type analysis
		Discharge power calibration
		Wind protector : open/close
	Reference guide	Sheath clamp : open
		Heater lid : open/close
		Heater clamp : open/close
		Video and PDF file stored in splicer
Sheath clamp	Easy sleeve positioning clamp	
Electrode	Replaceable without tool	

**Notes**

\*1: Cleave length range depending on fiber type

5 to 16mm : 125 $\mu$ m cladding dia. / 250 $\mu$ m coating dia.

10 to 16mm : 125 $\mu$ m cladding dia. / 400 or 900 $\mu$ m coating dia.

5 to 10mm : 80 $\mu$ m cladding dia. / 160 $\mu$ m coating dia.

\*2: Measured with a 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 appeared in LCD monitor to the estimated loss displayed. 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.

\*5: The electrode life changes depending on the environmental conditions, fiber type and splice modes.

\*6: Test condition

(1) Splice and heat time : 2 minutes cycle

(2) Using the splicer power save settings

(3) Using a not degraded battery

(4) At room temperature

The battery capacity changes when testing with different conditions from the above.

\*7: The battery capacity decreases to a half after approx. 500 discharge and recharge cycles, The battery life is shortened further when using outside of the storage temperature range, operating temperature range, if completely discharged by storing for a long time without recharging.

\*8: Bluetooth® mark and logos are the registered trademarks of Bluetooth SIG, Inc.

\*9: Please follow IATA regulation when shipping the battery by air.

ITEM	MODEL	REMARK
Battery pack*9	BTR-15	Battery pack for replacement
Electrodes	ELCT2-16B	Electrodes for replacement
	FH-70-250	250µm coating diameter
	FH-70-900	900µm coating diameter
Fiber holder	FH-FC-20	900µm in 2mm diameter cable
	FH-FC-30	900µm in 3mm diameter cable
DC Adapter	DCA-03	Connect AC adapter not through battery
	DCC-20	Car cigar socket to BTR-15/DCA-03
DC power cord	DCC-21	Car battery to BTR-15/DCA-03
Transfer Clamp	CLAMP-DC-12	Transferring drop cable on work tray
	JP-10	Attaching to splicer, not to work tray
J-Plate	JP-10-FC	JP-10 with fiber clamps
Protection sleeve	FP-03	60mm Max. 900µm coating diameter
	FP-03(L=40)	40mm Max. 900µm coating diameter
	FP-03M	FP-03 with non-magnetic material

DESCRIPTION	MODEL NO.	QTY
Core Alignment Fusion Splicer	90S	1pc
(1) Battery Pack*	BTR-15	1pc
(2) AC Adapter	ADC-20	1pc
(3) AC Power Cord	ACC-14, 15, 16 or 17	1pc
(4) USB Cable	USB-01	1pc
(5) Fusion Splicer Strap	ST-02	1pc
(6) Electrodes (spare)	ELCT2-16B	1pair
(7) Fiber Holder Set Plate	SP-03	1pair
(8) Carrying Case	CC-39	1pc
(9) Work Tray Left	WT-09L	1pc
(10) Work Tray Right	WT-09R	1pc
(11) Work Tray J-Plate	JP-09	1pc
(12) Tripod Screw	TS-03	2pcs
(13) Carrying Case Strap	ST-03	1pc
(14) Alcohol Dispenser	AP-02	1pc
(15) Quick Reference Guide	QRG-02-E, C or J	1pc
Single Fiber Stripper	SS03 or SS01	1pc
Optical Fiber Cleaver	CT50	1pc
(1) Fiber Scrap Collector	FDB-05	1pc
(2) Fiber Setting Plate	AD-10-M24	1pc
(3) Case (for Cleaver)	CC-37	1pc
(4) Hexagonal Wrench	HEX-01	1pc

\* Please follow IATA regulation when shipping the battery by air.



SCAN QR FOR PRODUCT PAGE

## FURTHER INFORMATION

- For additional information please contact your sales representative
- To view the product 360 visit the product page (Scan the QR code or visit the link below)
- Downloaded from <https://www.fujikura-telecom.com/product/fujikura-90s>
- Fujikura reserves the right to make changes in this datasheet at any time without notice
- Information in this document is correct as of December 09, 2019

## FUJIKURA EUROPE

C51 Barwell Business Park  
Leatherhead Road, Chessington  
Surrey, KT9 2NY  
United Kingdom