Fujikura

90S+

SINGLE-FIBRE CORE ALIGNMENT SPLICER

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Setting a new standard for fusion splicers.

The 90S+ is bristling with new and enhanced features specifically developed to help you work faster and with greater precision.

The 90S+ makes the splicing process faster and simpler because it has been designed by our engineers, for engineers like you: this is a core alignment splicer with you at its core. It has been conceived and built to enable you to work faster, with exceptionally precise results and unparalleled ease of use.

Fujikura has been at the forefront of fibre optic splicing technology since its inception. As the technology evolved in the 1970s, we were pushing it forwards. We continue to do the same thing today, which is why the 90S+ is packed with features to ensure it delivers optimal results every time.

Active Fusion Control and Active Blade Management—headline Fujikura technologies—play a significant role in ensuring consistent low loss results, but there's even more to this machine. With its intelligent design and market-first automated features, including the wind protector and fibre retention clamps, the 90S+ is also our fastest ever core alignment splicer. To make the most of that speed, the 90S+ makes things fast and intuitive. Intuitive operation comes from thoughtful design - a new internal structure which matches the protection sleeve to the fusion splice point, ensuring that successful splicing is accomplished without the need for the user to touch the 90S+ once the splice process has started.

Rugged

The 90S+ is made from precision machined metal and thermoplastic parts and has impact protection from its rugged rubber-derived bumpers.

Adaptable

Our iconic yellow case functions as a workstation which adapts to your workspace. An adjustable 4.9-inch colour TFT touch screen ensures perfect operation in all lighting conditions.

User-friendly

90S+ electrodes come as an assembly and don't require a screwdriver to replace. When it comes to lighting, as the sheath clamp opens on the opposite side of the illumination lamp, the sheath clamp area is illuminated without shadow.

Every splice optimised

ACTIVE FUSION
CONTROL TECHNOLOGY

The 90S+ analyses both cleave end faces and applies optimal fusion control to deliver a significant reduction in splice loss and less chance of having to rework splices. It also uses real-time fusion parameter control by analysing the fibre brightness intensity during splicing - contributing to stable, low-loss splice results.

ACTIVE BLADE
MANAGEMENT TECHNOLOGY

The 90S+ and CT50 cleaver are equipped with wireless data connectivity. This capability provides automatic cleaver blade rotation when the 90S+ judges that the blade is worn. The 90S+ displays the remaining blade life and informs the user when a blade height change, blade position change, or new blade is required. The 90S+ can simultaneously connect with up to two CT50 cleavers.

Automated features, faster results

The automated features of the 90S+ are fully customisable to suit your preferred workflow.

The 90S+ boasts an array of automatic features which make the splice process faster and more convenient, while delivering exceptional low-loss results. This is a splicer which allows you to complete the entire splicing process from splicing to heating, without touching the machine and only moving the fibre. The automatic wind protector makes an obvious contribution here, but it can also be used manually. The fibre retention clamps also support automated operations. When the sheath clamps open automatically after splicing, the fibre retention clamps gently hold the spliced fibre to keep it from flying out. The retention clamps release when the fibre is lifted by the operator.

SPECIFICATION

FIBRE ALIGNMENT METHOD	Active core alignment
SPLICEABLE FIBRE COUNT	Single-fibre
FIBRE TYPE	Single-mode and multi-mode optical fibre
CLADDING DIAMETER	80µm - 150µm
SHEATH CLAMP COATING	3000µm maximum coating diameter
SHEATH CLAMP CLEAVE LENGTH[1]	5mm - 16mm
ITU-T G.652 SPLICE LOSS[2]	Avg. 0.02dB
ITU-T G.651 SPLICE LOSS[2]	Avg. 0.01dB
ITU-T G.653 SPLICE LOSS[2]	Avg. 0.04dB
ITU-T G.655 SPLICE LOSS[2]	Avg. 0.04dB
ITU-T G.657 SPLICE LOSS[2]	Avg. 0.02dB
SM FAST MODE SPLICE TIME[3]	Avg. 7 to 9 seconds
PROTECTION SLEEVE TYPE	Heat-shrinkable sleeve
SLEEVE LENGTH	Max. 66mm
SLEEVE DIAMETER	Max. 6mm before shrinking
60MM SLIM MODE HEAT TIME[4]	Avg. 9 to 10 seconds
60MM MODE HEAT TIME[4]	Avg. 13 to 15 seconds
FIBRE TENSILE TEST FORCE	Approx. 2.0N
ELECTRODE LIFE[5]	Approx. 5,000 splices
WIDTH	Approx. 170mm without projection
DEPTH	Approx. 173mm without projection
HEIGHT	Approx. 150mm without projection
WEIGHT	Approx. 2.8kg including battery
OPERATING TEMPERATURE	-10 to 50°C
STORAGE TEMPERATURE	-40 to 80°C
OPERATING HUMIDITY	0 to 95% RH non-condensing
OPERATING ALTITUDE	Max. 5000m
AC ADAPTOR INPUT	AC100 to 240V, 50/60Hz, Max. 1.5A
BATTERY TYPE	Rechargeable lithium-ion
BATTERY OUTPUT	Approx. DC14.4V, 6,380mAh
BATTERY CAPACITY[6]	Approx. 300 splice and heat cycles
BATTERY RECHARGE TEMPERATURE RANGE	0 to 40°C
BATTERY STORAGE TEMPERATURE	-20 to 30°C
BATTERY LIFE[7]	Approx. 500 recharge cycles
LCD DISPLAY	4.9-inch colour TFT touch screen
DISPLAY MAGNIFICATION	Approx. 200x - 320x
V-GROOVE ILLUMINATION	LED lamp
PC INTERFACE	USB 2.0 Mini B connector
EXTERNAL LED LAMP INTERFACE	USB 2.0 A connector Approx. DC5V, 500mA
WIRELESS CONNECTIVITY[8]	Bluetooth® 4.1 LE
SPLICE MODE DATA STORAGE	100 splice modes
HEAT MODE DATA STORAGE	30 heat modes
SPLICE RESULT DATA STORAGE	20,000 splices
SPLICE IMAGE DATA STORAGE	100 images
TRIPOD SCREW HOLE	1/4-20UNC

[1] Cleave length range depending on fiber type 5mm to 16mm: 125µm cladding diameter and 250µm coating diameter 10mm to 16mm: 125µm cladding diameter and 400 or 900µm coating diameter 5mm to 10mm: 80µm cladding diameter and 160µm coating diameter 5mm to 16mm: 150µm cladding diameter and 250µm coating diameter

[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 appearing on LCD monitor to the estimated loss displayed. The average splice time changes depending on the environmental conditions, fiber type, and fiber characteristics.

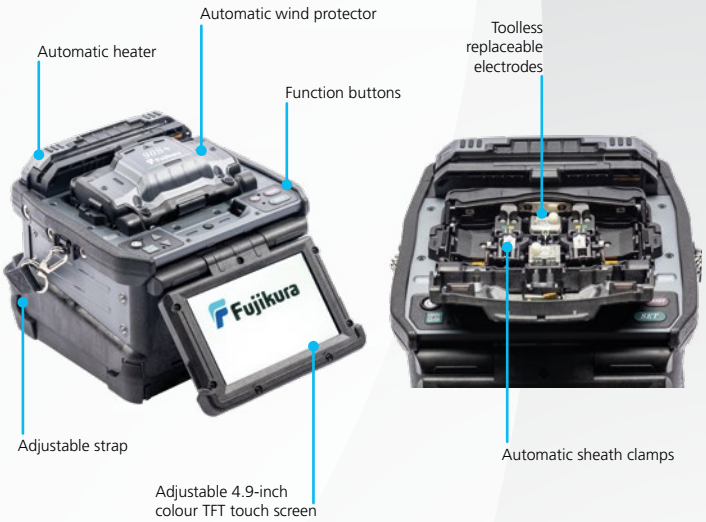
[4] Measured at room temperature with the AC adapter. The heat time is defined from the start beep sound to the finish beep sound. The average heat time changes depending on the environmental conditions, sleeve type and battery pack condition.

[5] The electrode life changes depending on the environmental conditions, fiber type and splice modes.

[6] Test condition [1] Splice and heat time: 1 minute cycle [2] Using the splicer power save settings [3] Using a healthy 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.



Splice+ app

Splice+ allows you to edit device settings, update firmware, access tutorials, record splice locations via GPS and automatically upload splice results to Google Drive.

IN THE BOX

ITEM	PART NUMBER
CORE ALIGNMENT FUSION SPLICER	90S+
BATTERY	BTR-15
AC ADAPTOR	ADC-20
AC POWER CABLE	ACC-14, 15, 16, 17 or 18
USB CABLE	USB-01
FUSION SPLICER STRAP	ST-02
SPARE ELECTRODES	ELCT2-16B
CARRY CASE	CC-39
WORK TRAY LEFT	WT-09L
WORK TRAY RIGHT	WT-09R
WORK TRAY J-PLATE	JP-09
TRIPOD SCREW	TS-03
CARRY CASE STRAP	ST-03
ALCOHOL DISPENSER	AP-02
QUICK REFERENCE GUIDE	QRG-02-E
FIBRE STRIPPER	SS03 or SS01
FIBRE CLEAVER	CT50

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