Clad Alignment Fusion Splicer

35S

The Essential Splicer

Faster operation
User-friendly design
Consistent quality

Fujikura

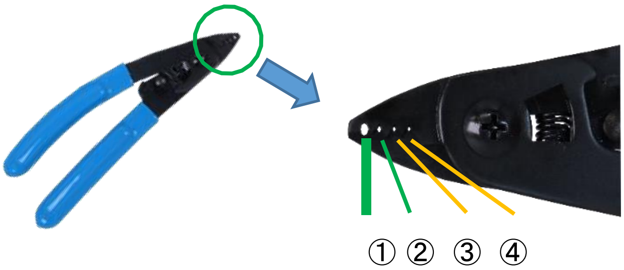
Faster operation

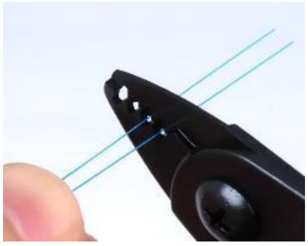
■Simultaneous fiber preparation

Fiber preparation, stripping, cleaving, and setting in the splicer usually needs repeating separately for both left and right-side fibers. The 35S process does away with that and enables simultaneous fiber preparation thanks to the new SS05 double fiber stripper, the new AD-16A fiber adapter for the CT16 cleaver and the clever set plate mechanism of the 35S itself.

●Simultaneous fiber stripping

The SS05 fiber stripper is equipped with four blades: ① for 2mm/3mm, ② for 900µm, ③④ for 250µm fibers. Using blades ③ & ④ allows simultaneous stripping of 250µm fibers.

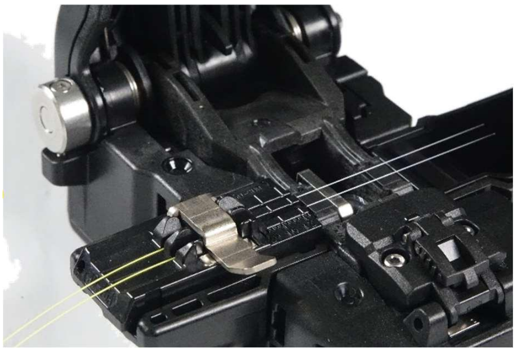




Fiber Stripper SS05

●Simultaneous fiber cleaving

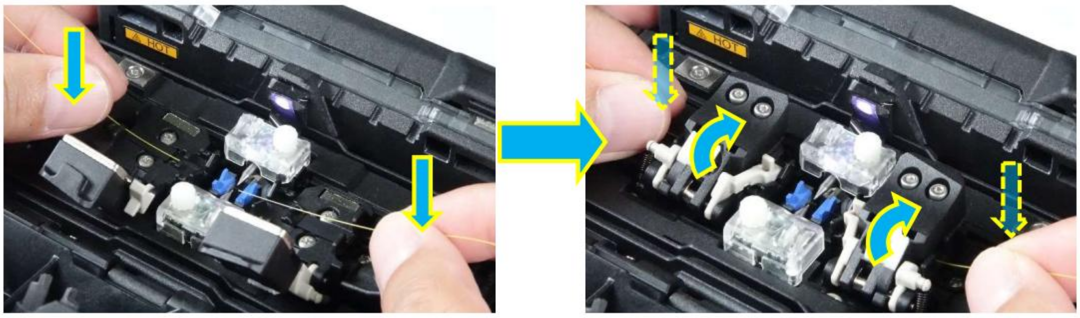
The new AD-16A fiber adapter for the CT16 cleaver is equipped with two grooves. Placing one fiber in each groove provides simultaneous cleaving.



Optical Fiber Cleaver CT16

●Simultaneous fiber setting

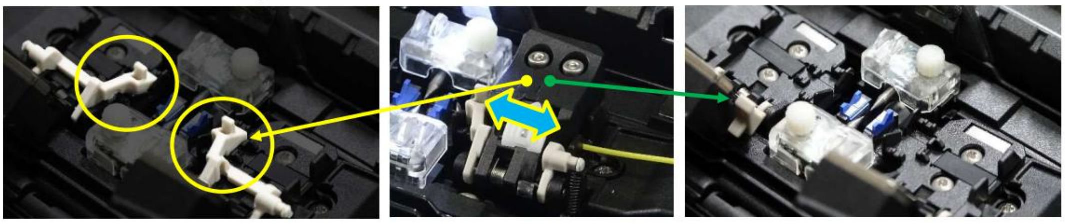
Previous fusion splicers required two-handed operation to close fiber clamp and hold the fiber. Thanks to a new clamp mechanism, the 35S close with fiber setting and provides one-handed fiber setting and simultaneous fiber setting.



Refer to the movie

■Faster fiber transportation time

The 35S is equipped with a mechanism linking the wind protector and fiber clamp so when you open wind protector, the fiber clamps opens automatically.
The 35S is also equipped with retention clamps which are reputed by our conventional fusion splicer models. The retention clamps prevent the fiber from jumping out after the fiber clamps are opened. These mechanisms work in tandem to provide easy fiber handling and a reduction in the time it takes to transfer the fiber to the heater.



Fiber retention clamps

Refer to the movie

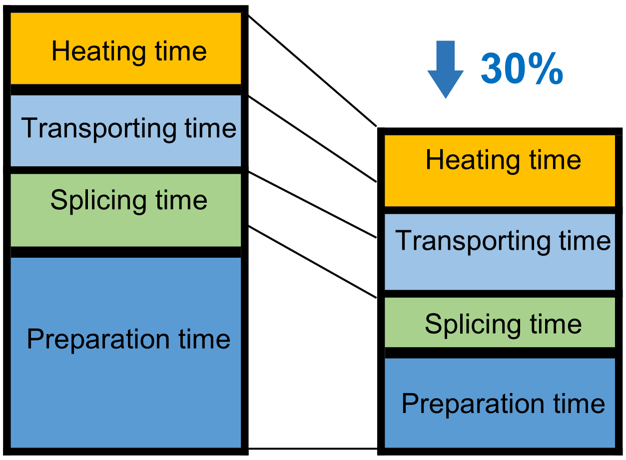
■Faster heating time

The heater for shrinking the reinforcing sleeve is designed to heat the reinforcing sleeve between two heaters in the front and rear. It shorten 15% of the heating time in case of using FP-03 sleeve.

※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.

■30% faster than previous model

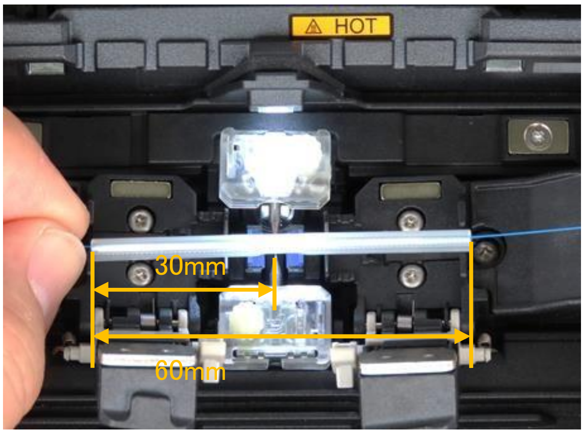
Thanks to the way the 35S streamlines the preparation process, reduces transport time and delivers faster heating, it is 30% faster than the 31S+ it replaces.



Previous Model

35S

■Easy sleeve positioning



The space between the edges of the left and right fiber clamp edges is 60mm, as per the image to the left. This distance allows for easy sleeve positioning, with the splice point positioned in the middle of the sleeve. The scale on the heater shows the guide for other sleeve lengths, for example 40mm.

■Removable battery

The removable battery makes replacement easy and convenient

.

■Smaller footprint

The cube shape provides a reduced base area while also giving the user a large operating space.

40% reduced base area

Previous Model

35S

Consistent quality

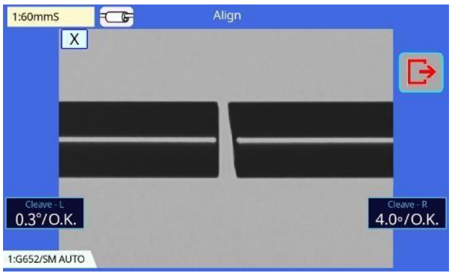
■Active Fusion Control

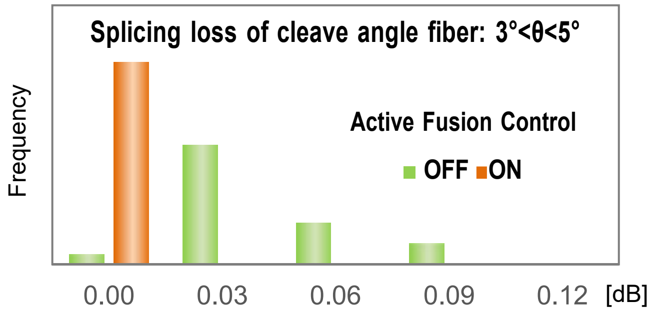
The 35S is equipped with Fujikura Active Fusion Control Technology, which analyses the fiber image during fusion and controls the arc discharge accordingly. The result is stable splice loss irrespective of the environment.

ACTIVE FUSION
CONTROL TECHNOLOGY

●Control by fiber cleaved surface

A bad cleave end face is a potential reason for high splice loss. The 35S can address this because it's equipped to control fusion according to the condition of the cleaved surface. This function helps reduce splice loss by compensating for poor cleaves.

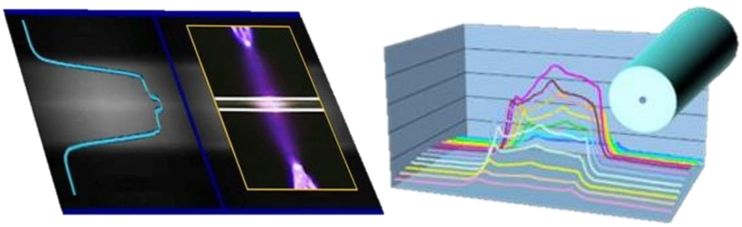




※Fujikura test result of ITU-T G652 fibers measured by cut-back method.
The splice loss may vary depending on operating environment or fiber characteristics.

●Real-time fusion control

The 35S analyses the fiber image during fusion and controls fusion power according to the real-time condition of the fiber. This helps to minimize splice loss irrespective of the environment.



Analyzing fiber image during fusion

This process also provides Warm Splice Image (WSI) technology. WSI analyses during the splice and provides loss estimation, even though the 35S is a clad alignment splicer.
It would help to prevent the case of "good loss estimation but bad actual loss".

35S Standard Items

Item	Model	Qty
Clad Alignment Fusion Splicer	35S	1 pc
(1) Battery Pack *	BTR-17	1 pc
(2) AC Adapter	ADC-21	1 pc
(3) AC Power Cord	ACC-08, 09, 10, 11 or 12	1 pc
(4) USB Cable	USB-01	1 pc
(5) Electrodes, for spare	ELCT2-16B	1 pair
(6) Carrying Case	CC-44	1 pc
(7) Quick Reference Guide	QRG-08-E.	1 pc
Single Fiber Stripper	SS05	1 pc
Optical Fiber Cleaver	CT16	1 pc
(1) Fiber Scrap Collector	FDB-06	1 pc
(2) Fiber Setting Plate	AD-16A	1 pc
(3) Hexagonal Wrench	HEX-01	1 pc

∗ Please follow IATA regulation when shipping the battery by air

35S 	(1) 	(2) 	(3) 	(4) 
(5) 	(6) 	(7) 	SS05 	CT16 
(1) 	(2) 	(3) 		

Specifications／Items

35S Specifications

Item		Specification
Fiber alignment method		Active clad alignment
Fiber count can be spliced		Single fiber
Applicable fiber	Fiber type	Single mode optical fiber
		Multi mode optical fiber
	Cladding dia.	Approx.125μm
Applicable coating	Sheath clamp	Coating dia. : Max. 3000μm
		Cleave length : 5 to 16mm *1
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
	Splice time *3	SM FAST mode : Avg. 6 to 7sec.
Applicable Protection sleeve	Sleeve type	Heat shrinkable sleeve
	Sleeve length	Max. 66mm
	Sleeve dia.	Max. 6.0mm before shrinking
Sleeve heat performance	Heat time *4	60mm mode : Avg. 15 to 22sec.
		60mm slim mode : Avg. 15 to 17sec.
Fiber tensile test force		Approx. 2.0N
Electrode life *5		Approx. 6,000 splices
Physical description	Dimensions W	Approx.131mm without projection
	Dimensions D	Approx.123mm without projection
	Dimensions H	Approx.121mm without projection
	Weight	Approx. 1.4kg 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
	Altitude	Max. 5000m
AC adaptor	Input	AC100 to 240V, 50/60Hz, Max. 1A
Battery pack	Type	Rechargeable Lithium Ion
	Output	Approx. DC14.4V, 3190mAh
	Capacity *6	60mm mode: Approx. 200 splice and heat cycles
		60mm slim mode : Approx. 230 splice and heat cycles
	Temperature	Recharge: 0 to 40 °C
		Long Term Storage : -20 to 30 °C
	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	USB2.0 A type Approx. DC5V, 500mA
Data storage	Splice mode	100 splice modes
	Heat mode	30 heat modes
	Splice result	20,000 splices
	Splice image	100 images
Other features	Automatic functions	Fusion control Splice Start/Heater Start
	Reference guide	PDF file stored in splicer
	Sheath clamp	Open with/without Wind Protector
		Close with fiber setting
		Easy sleeve positioning clamp
	Electrode	Replaceable without tool

Notes

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

*6 Test condition
(1) Splice and heat time:1 minute cycle
(2) Using the splicer power save settings, subject to our testing condition.
(3) Using a not degraded battery
(4) At room temperature
The battery capacity changes when testing with a 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.

35S Options

Item	Model	Remarks
Fiber Holder	FH-70-200	200μm coating diameter
	FH-70-250	250μm coating diameter
	FH-70-900	900μm coating diameter
	FH-FC-20	900μm in 2mm diameter cable
	FH-FC-30	900μm in 3mm diameter cable
Sheath Clamp	CLAMP-S35B	900μm loose buffer cable
Fiber holder set plate	SP-04	Fiber holder set base
Protection sleeve	FP-03	60mm, Max. 900μm coating diameter
	FP-03(L=40)	40mm, Max. 900μm coating diameter
	FP-03M	FP-03 with magnetic material

Specifications／Items

CT16 Specifications

Item		Specification
Applicable fiber	Fiber type	Single mode optical fiber
		Multi mode optical fiber
	Fiber count	2 single fibers
	Cladding dia.	Approx. 125µm
Applicable coating	Fiber setting plate	AD-16A : Max. 900µm coating diameter 1 fiber + Max. 250µm coating diameter 1 fiber
		AD-16B: Max. 3mm coating diameter
	Fiber holder	Coating shape: Refer to splicer options
Cleave length	Fiber setting plate	AD-16A : 5 to 20mm *1
		AD-16B: *C.D. : coating diameter C.D. = 250µm or less : 5 to 20mm *1 250µm < C.D. < =900µm: 10 to 20mm 900µm < C.D. < =3mm : 14 to 20mm
	Fiber holder	Approx. 10mm
Blade life *3		Approx. 48000 fiber cleaves
Physical description	Dimensions W	Approx. 106mm without projection *4
	Dimensions D	Approx. 95.5mm without projection *4
	Dimensions H	Approx. 49mm without projection *4
	Weight	Approx. 190g including AD-16A
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
Other features	Blade rotation	Manual rotation dial
	Fiber Cleave	Can cleave two single fibers
	Replaceable parts	Blade
		Clamp arm

*1 When the cleave length is less than 10mm, the coating diameter should be 250µm or less. Also, a blade height adjustment is required before cleaving. The average cleave angle is worse than the specification when the cleave length is less than 10mm.
*2 Measured with an interferometer at room temperature, not with a splicer. A new blade was used to cleave both the single fibers and ribbon fibers. The average cleave angle changes depending on the environmental conditions, blade condition, operating method, and cleanliness.
*3 The blade life changes depending on the environmental conditions, operating method, and the fiber type cleaved.
*4 Measured in a condition when closing the lever.

CT16 Options

Item	Model	Remark
Fiber Setting Plate	AD-16B	Optional fiber setting plate
Blade	CB-09	Blade for replacement
Clamp Arm	ARM-CT16-01	Clamp arm with anvil for replacement
Fiber Scrap Collector	FDB-06	Spare scrap collector

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