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SPECIFICATIONS

for

Clad Alignment Fusion Splicer 32S kit

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SPECIFICATIONS

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This document covers specifications for Clad Alignment Fusion Splicer 32S kit, which is designed for splicing single-count optical fiber for telecommunication use.

The 32S kit consists of clad alignment fusion splicer 32S, optical fiber cleaver CT16 and related accessories.

The 32S kit equips "**Simultaneous Fiber Preparation**". It provides stripping and cleaving both LR fibers simultaneously. The 32S kit also follows the function of "Active Fusion Control Technology" from conventional model.



Clad Alignment Fusion Splicer 32S kit

1. Conformity regulations

The 32S conforms below regulations to secure safety.

Regulations		Detail
Product Safety	EU	EMC: Electro Magnetic Compatibility Directive 2014/30/EU EMI: EN55011 EMI: Electro Magnetic Interference EMS: EN61000-6-2 EMS: Electro Magnetic Susceptibility
		LVD: Low Voltage Directive 2014/35/EU EN62368-1
	UK	EMC : Electro Magnetic Compatibility Regulations 2016 S.I. 2016/696 EMI: BSEN55011 EMI: Electro Magnetic Interference EMS: BSEN61000-6-2 EMS: Electro Magnetic Susceptibility
		Electrical Equipment (Safety) Regulations 2016 S.I. 2016/1101 BSEN62368-1
Hazardous substances	EU	RoHS: Restriction of Hazardous Substances Directive 2011/65/EU, (EU)2015/863
	UK	RoHS: The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 S.I. 2012/3032

2. Specifications

2.1 32S specifications

2.1.1 Technical specifications

The 32S precise clad to clad alignment mechanism achieves low splicer loss, e.g. average 0.03dB for ITU-T G.652 fibers. The average splicing time is 6 to 7 sec in case of SM-FAST mode.

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. 125 μ m
Applicable coating	Sheath clamp	Coating dia.: Max. 3,000 μ m
		Cleave length : 5 to 16mm * ¹
	Fiber holder	Coating dia. : Refer to options
		Cleave length : Approx. 10mm
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. SM AUTO mode : Avg. 8 to 10sec.
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

Notes: Cleave length range depending on fiber type.

*1 5 to 16mm: 125 μ m cladding dia. and 250 μ m coating dia.
10 to 16mm: 125 μ m cladding dia. and 400 or 900 μ 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. 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.

2.1.2 Physical and Environmental specifications

The 32S design, compact size and light weight, enables to carry it and use in various environment conditions.

Item		Specification
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. 5,000m

2.1.3 Power supply

The 32S equips lithium ion battery pack.

The capacity provides 200 splice and heat cycles when using 60mm mode and 230 splice and heat cycles when using 60mm slim mode heating mode per one charge.

Item		Specification	
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	60mm mode :	Approx. 200 splice and heat cycles
		60mm slim mode :	Approx. 230 splice and heat cycles
	Temperature	Operate :	-10 to 50 °C
		Recharge :	0 to 40 °C
		Long Term Storage :	-20 to 30 °C
	Short term Storage within 30days:	-20 to 50 °C	
Battery life *7	Approx. 500 recharge cycles		

Notes: *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.

2.1.4 Other specifications

The 32S equips 4.95 inches size LCD monitor with touch screen.

It provide up to x300 magnifications fiber image. Touch screen provides easy operation.

USB 2.0 Mini B type interface provide data transfer function with PC.

Item		Specification
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
Software for PC	Splicer firmware update via internet	
	Parameter upload and download	

2.2 CT16 specifications

2.2.1 Technical specifications

The CT16 cleaves single optical fiber.

Item		Specification
Applicable fiber	Fiber type	Single mode optical fiber Multi mode optical fiber
	Fiber count	2 Single fibers
	Cladding dia.	Approx. 125 μ m
Applicable coating	Fiber setting plate	AD-16A : Max. 900 μ m coating diameter 1 fiber + Max. 250 μ m 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 *8 AD-16B *C.D. : coating diameter C.D. = 250 μ m or less: 5 to 20mm *8 250 μ m < C.D. <=900 μ m: 10 to 20mm 900 μ m < C.D. <=3mm: 14 to 20mm
	Fiber holder	Approx. 10mm
Cleave angle*9	Single fiber	Avg. 0.3 to 0.9 degrees
Blade life *10		Approx. 48,000 fiber cleaves

Notes: *8 When the cleave length is less than 10mm, the coating diameter should be 250 μ m 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.

*9 Measured with an interferometer at room temperature, not with a splicer. A new blade was used to cleave the single fibers. The average cleave angle changes depending on the environmental conditions, blade condition, operating method, and cleanliness.

*10 The blade life changes depending on the environmental conditions, operating method, and the fiber type cleaved.

2.2.2 Physical and Environmental specifications

The CT16 design, compact size and light weight, enables to carry it and use in various environment conditions.

Item		Specification
Physical description	Dimensions W	Approx. 106mm without projection* ¹¹
	Dimensions D	Approx. 95.5mm without projection* ¹¹
	Dimensions H	Approx. 49mm without projection* ¹¹
	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

Note: *11 Measured in a condition when closing the lever

2.2.3 Other specifications

The precise mechanism enables you to replace blade and clamp arm by yourself.

Item		Specification
Other features	Blade rotation	Manual rotation dial
	Replaceable parts	Blade
		Clamp arm
	Holder base, Fiber scrap box	Left and right can be swapped
Fiber cleave	Can cleave two single fibers	

3. Standard items

The 32S kit standard package includes below items. You can select AC power cord type according to your region.

Item	Model	Qty
Clad Alignment Fusion Splicer	32S	1 pc
Battery Pack *12	BTR-17	1 pc
AC Adapter	ADC-21	1 pc
AC Power Cord	ACC-08 (Japan type) -09 (US type) -10 (UK type) -11 (EU type) -12 (AU type)	1 pc
USB Cable	USB-01	1 pc
Electrodes, for spare	ELCT2-16B	1 pair
Carrying Case	CC-44	1 pc
Quick Reference Guide	QRG-08-E	1 pc
PC Setting Guide	SG-09-E	1 pc
Warning and Cautions	WAC-02-E	1 pc
Splice Test Report		1 pc
Single Fiber Stripper	SS05	1 pc
Optical Fiber Cleaver	CT16	1 pc
Fiber Scrap Collector	FDB-06	1 pc
Fiber Setting Plate	AD-16A	1 pc
Hexagonal Wrench	HEX-01	1 pc
Instruction Manual	M-CT16-E	1 pc

Notes: *12 Please follow IATA regulation when shipping the battery by air.

4. Options

4.1 32S options

Choosing options make various range of splicing.

Item	Model	Remark
Battery Pack	BTR-17	Battery pack for replacement
Electrodes	ELCT2-16B	Electrodes for replacement
Fiber Holder	FH-70-200	200 μ m coating diameter
	FH-70-250	250 μ m coating diameter
	FH-70-900	900 μ m coating diameter
	FH-70-160	160 μ m coating diameter
	FH-70-500	500 μ m coating diameter
	FH-60-DC250	250 μ m in drop wire cable
	FH-FC-20	900 μ m in 2mm diameter cable
	FH-FC-30	900 μ m in 3mm diameter cable
	FH-60-LT900	900 μ m loose buffer cable
Fiber Holder Set Plate	SP-04	Fiber Holder Set Base
Sheath Clamp	CLAMP-S35B	900 μ m loose buffer cable
Single Fiber Stripper	SS05	Stripped to 125/125/250/900 μ m diameter
	SS03	Stripped to 125/250/900 μ m diameter
	SS01	Stripped to 125 μ m diameter only
Protection sleeve	FP-03	60mm, Max. 900 μ m coating diameter
	FP-03(L=40)	40mm, Max. 900 μ m coating diameter
	FP-03M	FP-03 with non-magnetic material
	FPS01-400-15	15mm, Max. 400 μ m coating diameter
	FPS01-400-20	20mm, Max. 400 μ m coating diameter
	FPS01-400-25	25mm, Max. 400 μ m coating diameter
	FPS01-400-34	34mm, Max. 400 μ m coating diameter
	FPS01-400-40	40mm, Max. 400 μ m coating diameter
	FPS01-900-20	20mm, Max. 900 μ m coating diameter
	FPS01-900-25	25mm, Max. 900 μ m coating diameter
	FPS01-900-34	34mm, Max. 900 μ m coating diameter
	FPS01-900-45	45mm, Max. 900 μ m coating diameter
	FPS01-DC-60	60mm, for drop cable & indoor cable
Tripod Mount Set	M-952056	1/4-20UNC, parts set

4.2 CT16 options

Choosing cleaver options make various range of splicing.

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

Note: Specifications described herein are based or tested on Fujikura standards
Descriptions and specifications are subject to change without prior notice.

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