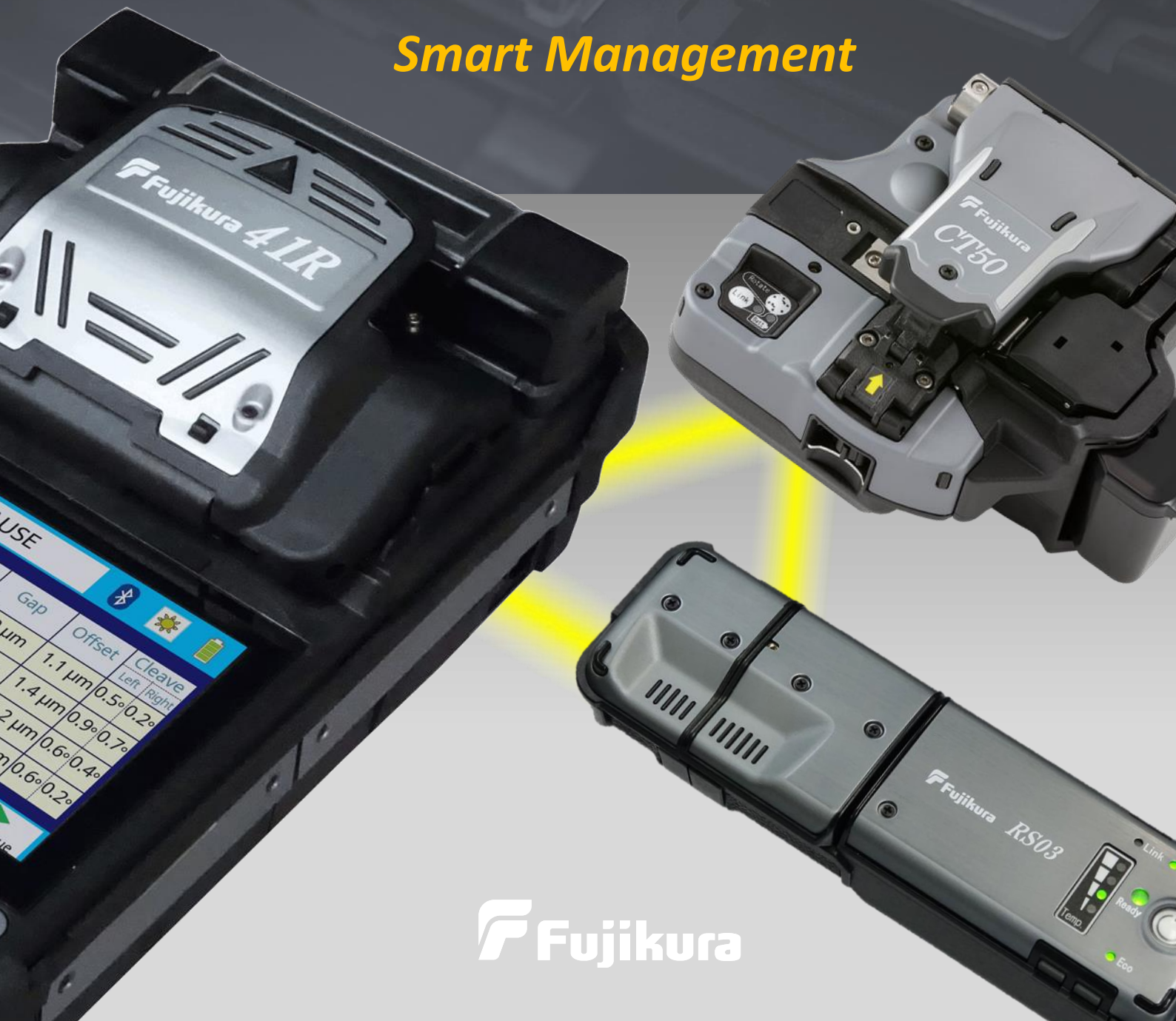
ACTIVE BLADE MANAGEMENT
technology

Mass Fusion Splicer Kit

41R

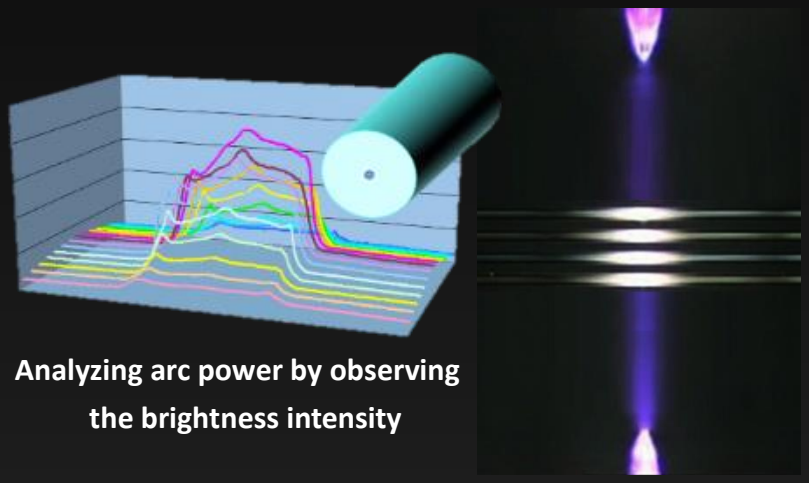
Smart Management



Fujikura

Mass Fusion Technology

The 41R mass fusion splicer has a wide heating area for up to 4 fibers. The wide electrode gap melts the fibers uniformly and has real-time arc discharge control by analyzing the arc's brightness intensity. The 41R does not have active core alignment mechanisms, however, during the discharge, the effects of fiber surface tension minimize preexisting offsets.



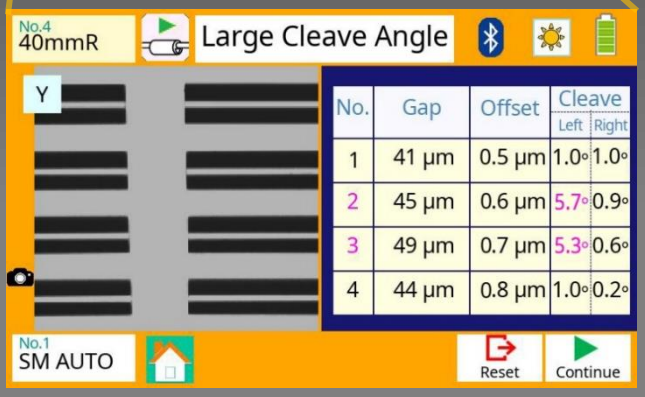
Analyzing arc power by observing the brightness intensity

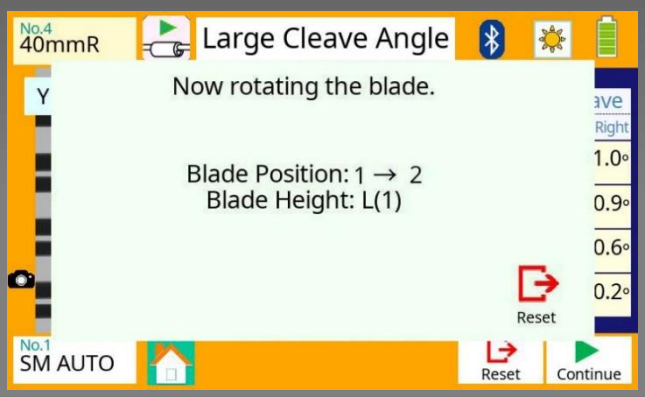
Active Blade Management Technology

1. Automatic Blade Rotation

The 41R fusion splicer and CT50 fiber cleaver are enabled with wireless data connectivity. This capability allows automatic cleaver blade rotation when the splicer judges the blade is worn.

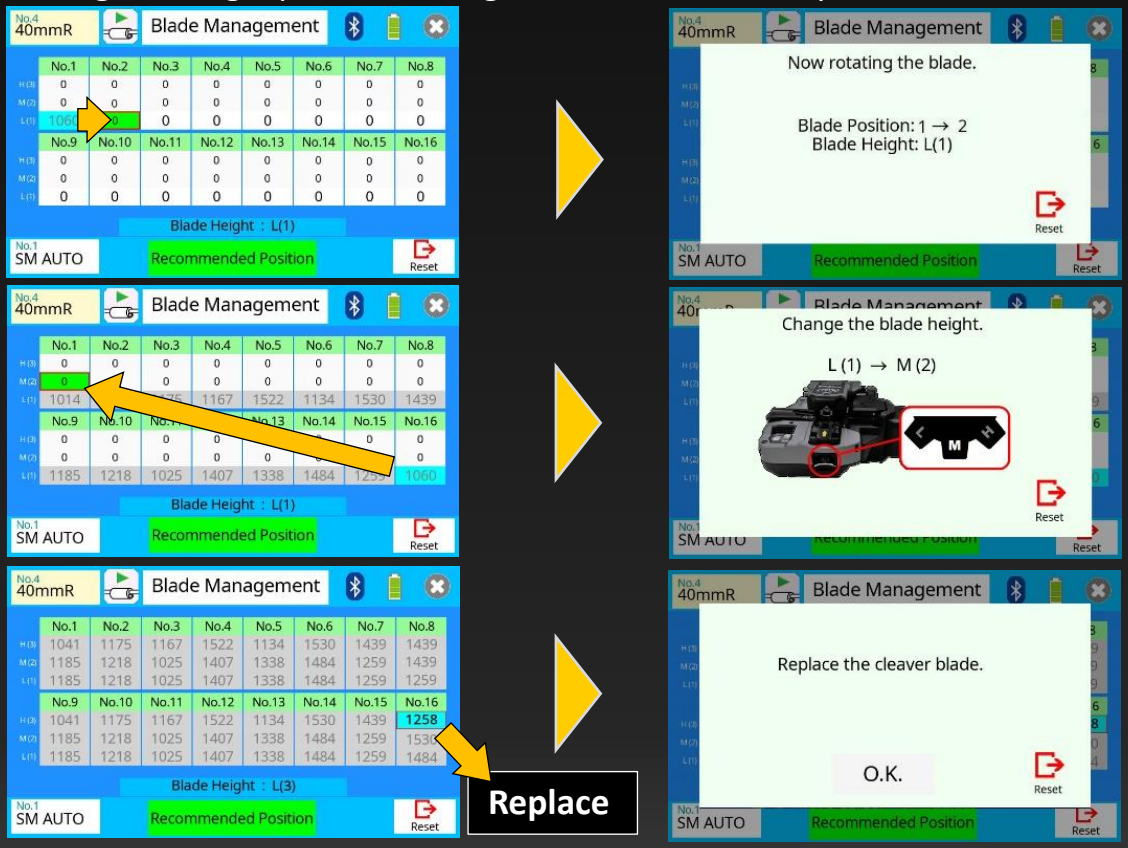
Motorized blade rotation





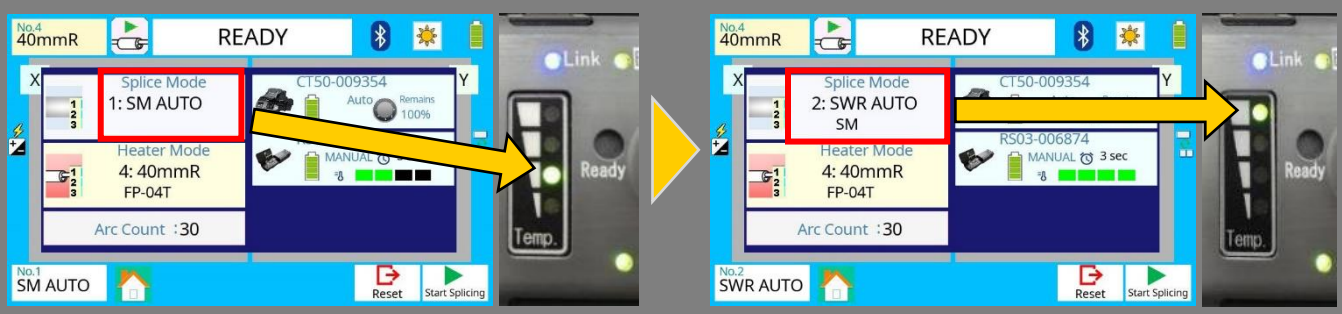
2. Blade Life Management

The 41R fusion splicer displays the remaining blade life and informs the user when a blade height change, position change, or new blade is required.



3. Stripping Condition Control

When the user changes the splice mode, e.g. from 4 fiber ribbon splice mode to SWR fiber splice mode, the ribbon stripper RS03 automatically changes its heating temperature and time with a wireless command from the splicer.



Heat temperature changes in accordance with Splice mode

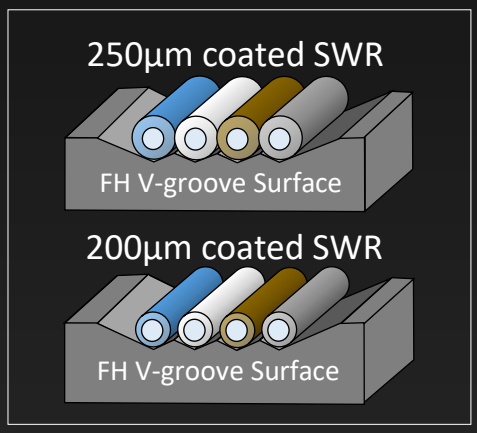
Universal Features

1. Universal Fiber Holder

The FH-70-4 fiber holder is compatible with many types of fiber ribbon, such as 0.3mm or 0.4mm thick encapsulated ribbons and 200µm or 250µm coated Spider Web Ribbon (SWR). The 250 µm pitch V-grooves in the FH-70-4 fiber holder simplify SWR loading and ribbon preparation.

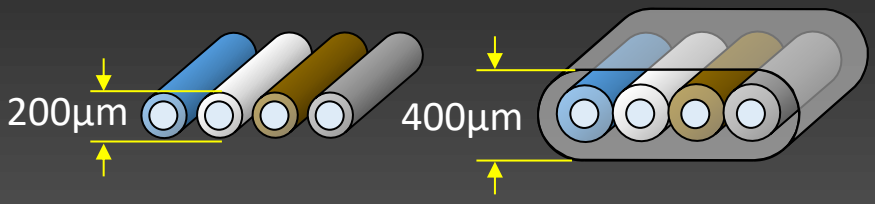
SWR

FH-70-4



2. Universal Ribbon Stripper

The RS series ribbon strippers are compatible with 200 µm to 400µm coated fibers without replacing the stripper blades.

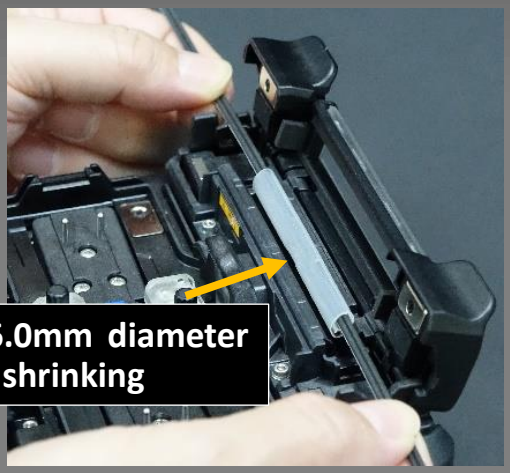


Available thickness range

RS03

3. Universal Tube Heater

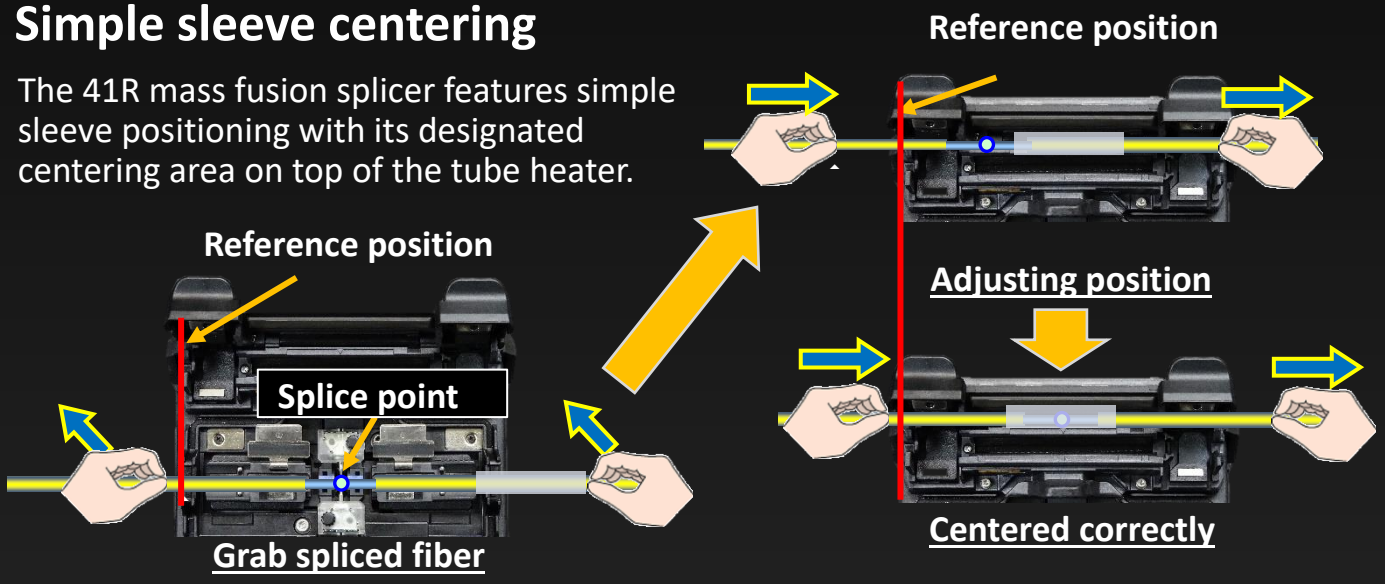
The 41R mass fusion splicer can accommodate a max 6.0mm diameter heat sleeve before shrinking. As a result, it supports a wide range of protection sleeve sizes.



User Friendly

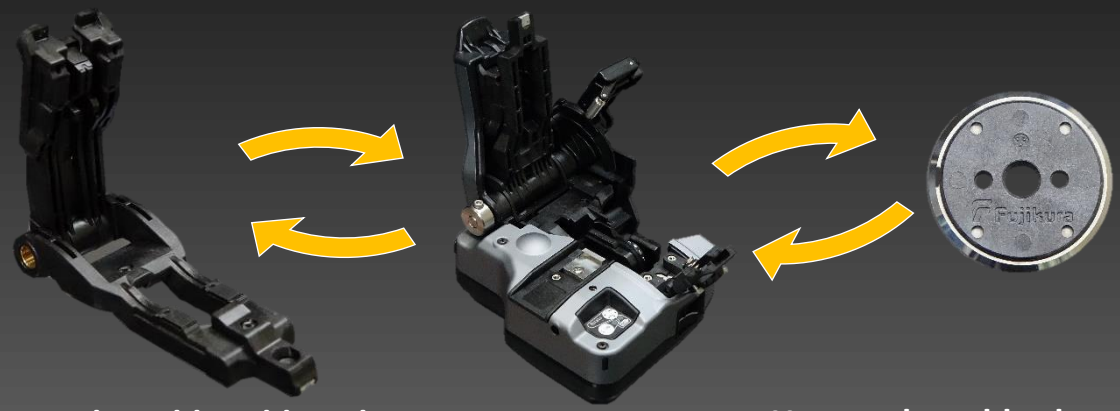
1. Simple sleeve centering

The 41R mass fusion splicer features simple sleeve positioning with its designated centering area on top of the tube heater.



2. Easy Maintenance

The CT50 fiber cleaver has a user replaceable blade and rubber clamps - there's no need to send the device to a service center for blade or clamp replacement.



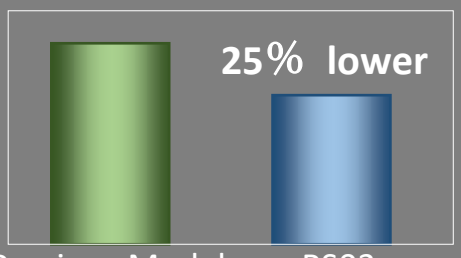
User replaceable rubber clamps

User replaceable cleaver blade

3. Lower Stripping Force

The RS series ribbon stripper has an ergonomic design and requires lower stripping force than the previous stripper.

Ergonomic Design

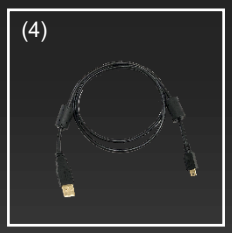


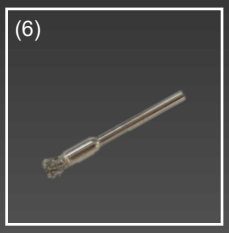
Standard Package

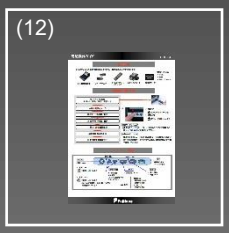
41R Standard package

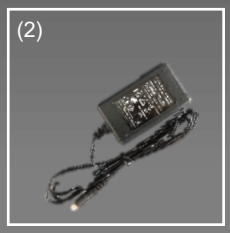
Item	Model	Qty
Mass Fusion Splicer	41R	1 pc
(1) Battery Pack *	BTR-11A	1 pc
(2) AC Adapter	ADC-19A	1 pc
(3) AC Power Cord	ACC-08, 09, 10, 11 or 12	1 pc
(4) USB Cable	USB-01	1 pc
(5) Electrodes, for spare	ELCT2-16B	1 pair
(6) V-groove Cleaning Brush	VCB-01	1 pc
(7) Carrying Case	CC-36	1 pc
(8) Work tray	WT-08	1 pc
(9) Tripod Screw	TS-03	2 pcs
(10) Carrying Case Strap	ST-03	1 pc
(11) Alcohol Dispenser	AP-02	1 pc
(12) Quick Reference Guide	QRG-04-E or J	1 pc
Single Fiber Stripper	SS03	1 pc
Ribbon Fiber Stripper	RS03	1 pc
(1) Battery Pack *	BTR-12A	1 pc
(2) AC Adapter	ADC-09A	1 pc
(3) AC Power Cord	ACC-08, 09, 10, 11 or 12	1 pc
(4) Blade Cleaning Brush	BRS-02	1 pc
(5) Hexagonal Wrench	HEX-01	1 pc
Optical Fiber Cleaver	CT50	1 pc
(1) Fiber Scrap Collector	FDB-05	1 pc
(2) Fiber Setting Plate	AD-10-M24	1 pc
(3) Case	CC-37	1 pc
(4) Hexagonal Wrench	HEX-01	1 pc

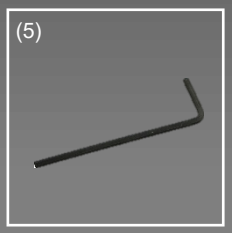
* Please follow IATA regulation when shipping the battery by air.

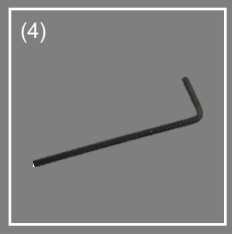












Specifications

41R Specifications

Item		Specification
Fiber alignment method		Self cladding alignment with melting surface tension
Fiber count can be spliced		Up to 4 fiber ribbon
Applicable fiber	Fiber type	Single mode optical fiber
		Multi mode optical fiber
	Cladding dia.	Approx.125µm
Applicable coating	Fiber holder	Coating shape. : Refer to options
		Cleave length : 10mm
Fiber splice performance	Splice loss *1	ITU-T G.652 : Avg. 0.05dB
		ITU-T G.651 : Avg. 0.02dB
		ITU-T G.653 : Avg. 0.08dB
		ITU-T G.655 : Avg. 0.08dB
		ITU-T G.657 : Avg. 0.05dB
	Splice time *2	SM FAST mode : Avg. 10 to 12sec.
		SM AUTO mode : Avg. 15 to 18sec.
Applicable protection sleeve	Sleeve type	Heat shrinkable sleeve
	Sleeve length	Max. 66mm
	Sleeve dia.	Max. 6.0mm before shrinking
Sleeve heat performance	Heat time *3	40mm FP-04T mode : Avg. 29 to 30sec.
		Single 60mm mode: Avg. 25 to 27sec.
Fiber tensile test force		Approx. 2.0N
Electrode life *4		Approx. 2,000 splices
Physical description	Dimensions W	Approx.131mm without projection
	Dimensions D	Approx.201mm without projection
	Dimensions H	Approx.79mm without projection
	Weight	Approx. 1.2kg 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. 3,700m
AC adaptor	Input	AC100 to 240V, 50/60Hz, Max. 1.35A
Battery pack	Type	Rechargeable Lithium Ion
	Output	Approx. DC14.4V / 3,360mAh
	Capacity *5	Approx. 140 splice and heat cycles
	Temperature	Recharge : 0 to 40 degreeC
		Storage : -20 to 30 degreeC
Display	LCD monitor	TFT 5 inches with touch screen
	Magnification	Approx. 44 to 66X
Illumination	V-grooves	LED lamp
Interface	PC	USB2.0 Mini B type
	External LED lamp	USB2.0 A type Approx. DC5V, 500mA
	Wireless *6	Bluetooth 4.1 LE
Data storage	Splice mode	100 splice modes
	Heat mode	30 heat modes
	Splice result	10,000 splices
	Splice image	100 images
Screw hole for tripod		1/4-20UNC
Other features	Automatic functions	Splice mode select by fiber count analysis
		Discharge power calibration
	Reference guide	PDF file stored in splicer
	Electrode	Replaceable without tool

41R Options

Item	Model	Remark
Fiber holder	FH-70-250	250µm coating diameter
	FH-70-900	900µm coating diameter
	FH-70-2	2 fiber ribbon
	FH-70-4	4 fiber ribbon
	FH-FC-20	900µm in 2mm diameter jacket
	FH-FC-30	900µm in 3mm diameter jacket
	FH-60-LT900	900µm loose buffer fiber
Transfer Clamp	CLAMP-DC-12	Transferring drop cable on work tray
Protection sleeve	FP-04(T)	40mm up to 8 fiber ribbon

Notes

*1: 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.

*2: 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.

*3: 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.

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

*5: 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.

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SS01/03 Specifications

Item	SS01	SS03
1) Stripping coating dia.	250um	250um
Fiber dia. after stripping	125um cladding	125um cladding
2) Stripping coating dia.	None	900um
Fiber dia. after stripping	None	250um coating
3) Stripping coating dia.	None	2000 to 3000um
Fiber dia. after stripping	None	900um coating
Dimension	Approx. 164 x 45 x 5mm	
Weight	Approx. 100g	

Fiber Protection Sleeve Specifications

Item	FP-03/FPS series	FP-04/05 series
Outer tube material	Polyethylene	
Inner tube material	Ethylene-Vinyl Acetate	
Strength member	Stainless	Quartz glass
Heat shrink operation	Temperature: -10 to 50 degreeC	
	Humidity: 0 to 95% non-condensing	
Storage	Temperature: -40 to 60 degreeC	
	Humidity: 0 to 95% non-condensing	

Specifications

CT50 Specifications

Item		Specifications
Applicable fiber	Fiber type	Single mode optical fiber
		Multi mode optical fiber
	Fiber count	Up to 16 fiber ribbon
	Cladding dia.	Approx. 125um
Applicable coating	Fiber plate	AD-10-M24 : Max. 900µm coating diameter
		AD-50 : Max. 3mm coating diameter
	Fiber holder	Coating shape. : Refer to splicer options
Cleave length	Fiber setting plate	AD-10-M24 : 5 to 20mm *1
		AD-50 [CD : coating diameter] CD= 250µm or less : 5 to 20mm *1 250µm < CD < 1000µm : 10 to 20mm 1000µm < CD < 3mm : 14 to 20mm
	Fiber holder	Approx. 10mm
Cleave angle *2	Single fiber	Avg. 0.3 to 0.9 degrees
	Fiber ribbon	Avg. 0.3 to 1.2 degrees
Blade life *3		Approx. 60,000 fiber cleaves
Physical description	Dimensions W	Approx. 120mm without projection *4
	Dimensions D	Approx. 95mm without projection *4
	Dimensions H	Approx. 58mm without projection *4
	Weight	Approx. 305g including battery and AD-10-M24
Environmental condition	Temperature	Operate : -10 to 50 degreeC
		Storage : -40 to 80 degreeC
	Humidity	Operate : 0 to 95% non-condensing
		Storage : 0 to 95% non-condensing
Battery		2 pieces of LR03/AAA dry battery
Wireless interface *5		Bluetooth 4.1 LE
Screw hole for tripod		1/4-20UNC
Other features	Blade rotation	Motorized rotation
		Manual rotation dial
	Replaceable parts	Blade
		Clamp arm

CT50 Options

Item	Model Name	Remark
Fiber Setting Plate	AD-50	Optional fiber setting plate
Blade	CB-08	Blade for replacement
Clamp Arm	ARM-CT50-01	Clamp arm with anvil for replacement
Fiber Scrap Collector	FDB-05	Spare scrap collector
Side cover	SC-CT50-01	Side cover instead of scrap collector
Spacer	SPA-CT08-10	Cleave length 10mm
	SPA-CT08-09	Cleave length 9mm
	SPA-CT08-08	Cleave length 8mm

Notes

*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 than10mm.

*2: Measured with an interferometer at room temperature, not with a splicer. A new blade was used to cleave both the single fibers and 12 fiber ribbons. The cleave length is set from 10 to 16mm. 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

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RS03 Specifications

Item		Specifications
Applicable fiber	Fiber type	Single mode optical fiber
		Multi mode optical fiber
	Fiber count	Up to 16 fiber ribbon
	Cladding dia.	Approx. 125um
	Coating dia.	200 to 400um
Strip length		Max. 35mm
Heat time *1		Approx. 3sec
		Approx. 5sec with Eco-mode
Heat temperature		85 to 140 degree C
Physical description	Dimensions W	Approx.156mm without projection
	Dimensions D	Approx.49mm without projection
	Dimensions H	Approx.37mm without projection
	Weight	Approx. 265g 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
AC adaptor	Input	AC100 to 240V, 50/60Hz, Max. 0.58A
DC adaptor	Input	DC10 to 17V, Approx. 1A
Battery	Type	Rechargeable Lithium Ion
	Output	Approx. DC7.2V / 1,840mAh
	Capacity *2	Approx. 600 times with Eco-mode
	Temperature	Recharge : 0 to 40 degreeC
		Storage : -20 to 30 degreeC
	Battery life *3	Approx. 500 recharge cycles
Wireless interface *4		Bluetooth 4.1 LE
Other features	Strip operation	Lower stripping force design
	Setting change	Controlled from splicer or smartphone

RS03 Options

Item	Model Name	Remark
Spacer	SPA-RS02-08	Coating length 8mm
DC power cord	DCC-11	Splicer to ribbon stripper

Notes

*1: Measured at room temperature. The heat time changes depending on the environmental conditions and fiber coating type.

*2: Tested at room temperature with a not degraded battery and Eco-mode. The number of cycles changes depending on the environmental conditions, stripper settings and battery condition.

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

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Fujikura Ltd.
1-5-1, Kiba, Koto-ku, Tokyo 135-8512, Japan
General inquiries : +81-3-5606-1164
Service & support : +81-43-484-3962 https://www.fujikura.com

Fujikura Asia Ltd.
438A Alexandra Road, Block A Alexandra Technopark #08-03 Singapore 119967
General inquiries, Service & support : +65-6-278-8955
https://www.fujikura.com.sg

Fujikura Europe Ltd.
C51 Barwell Business Park, Leatherhead Road, Chessington, Surrey KT9 2NY,
General inquiries : +44-20-8240-2000
Service & support : +44-20-8240-2020 https://www.fujikura.co.uk

AFL
260, Parkway East, Duncan, SC29334, USA
General inquiries : +1-800-235-3423
Service & support : +1-800-866-3602 https://www.aflglobal.com

Fujikura (China) Co., Ltd.
7th Floor, Shanghai Hang Seng Bank Tower, 1000 Lujiazui Ring Road, Pudong New Area, Shanghai 200120, CHINA
General inquiries, service & support : +86-21-6841-3636 http://www.fujikura.com.cn

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