

**FITEL**  
FUSION SPLICERS

# S153A

*Bound to* **Innovate**

**e: Friendly**  
Zero emission

## Hand Held Active Alignment Splicer

**NEW**

### FITEL NEW Fusion Splicer

The Fitel S153A using “Active V-Groove alignment” is the first choice for low cost field splicing equipment.

The Active V-Groove technology used on the S153A delivers low loss splices with ease while eliminating common Fixed V-Groove splicing errors.

Using the same rugged metal body as also-new FITEL S178, S153A is designed to endure harsh operating conditions by improving shock/impact resistance with rubber pads embedded on 4 corners of the splicer body. It also achieves water resistance compliant to IPX2 and dust resistance compliant to IP5X.



**IP-52**



Another key feature of the S153A is the significantly reduced operation time. Protection sleeve shrink time is mere 25 seconds, while splicing requires only 9 seconds. Power saving technology used in these machines allows up to 200 splicing cycles (splicing and heating) with 2 built in rechargeable batteries.

By combining ease of use, improved speed, precision, durability and portability, the S153A Fusion Splicer becomes your first choice for a versatile low cost splicer with a wide range of applications.

**FURUKAWA ELECTRIC**

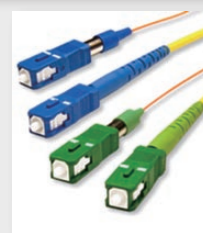
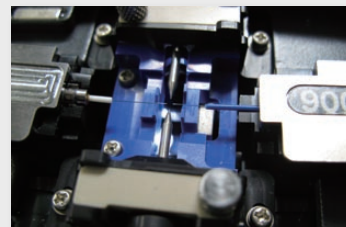
## Key features

- **Active V-groove**, More Reliable than conventional Fixed V-groove machines
- **Rugged and compact hand held design** for demanding environmental conditions
- **Fast splice (9 sec)** at super low loss and **Fast Heating (25 sec)**<sup>\*1</sup>
- **200 cycles (Splicing & Heating)** with Fitel series battery configuration<sup>\*2</sup>
- **Available for All METRO/LAN/FTTx fibers** including ultra bend-insensitive fibers (e.g. EZ-Bend™)
- **Splicer is compatible with the Seikoh Giken and Diamond Splice-on-connector (SOC)**
- **Easy maintenance** - Toolless electrode replacement/mirror free alignment system
- **Easy Software upgrade** via the Internet
- **Easily exchanged fiber holder systems** (tight holder/fiber holder/SOC holder)
- **PC interface software** to allow user manage splicing programs and results
- **Auto-start** shrink sleeve oven feature
- **Improved GUI** to further enhance ease-of-use
- **Large memory** for storing data (2,000 splice data) and image (100 images)
- **RoHS compliant**

<sup>\*1</sup> By using semi-auto mode for splicing and pre-heating mode for heating.

<sup>\*2</sup> By using 2-batteries, semi-auto mode for splicing and regular made for heating.

### Compatible with Splice-on-connector (SOC)



### FITEL Splicer SOC partners



## Under Tough Environment

S153A passed criteria as below <sup>\*3</sup>;

### Drop Resistance

76 cm Drops from 5 different angles



### Water Resistance

IPX2 rating drip proof <sup>\*4</sup>



### Dust Resistance

IP5X rating dust proof <sup>\*5</sup>



<sup>\*3</sup> Above tests were performed at Furukawa Electric Co., Labs, and do not guarantee that the machine will be undamaged under these conditions.

<sup>\*4</sup> IPX2 rating drip proof means that the machine can be exposed to 3 mm/min drip from 4 different angles with 15° tilt for 2.5 min each and still functions.

<sup>\*5</sup> IP5X rating dust proof means that the machine can be exposed to dust particles with a diameter of 0.1 to 25 µm for 8 hours and still functions.



## SPECIFICATIONS

<b>Applicable Fibers</b>	SM (ITU-T G.652), MM (ITU-T G.651), DSF (ITU-T G.653), NZD (ITU-T G.655), BIF/UBIF (Bend insensitive fiber, ITU-T G.657)
<b>Cladding Diameter</b>	80~150 $\mu\text{m}$
<b>Coating Diameter</b>	160~900 $\mu\text{m}$
<b>Fibers Cleave Length</b>	5~16 mm
<b>Average Splice Loss</b>	SM: 0.04 dB, MM: 0.02 dB, DSF: 0.06 dB, NZD: 0.06 dB
<b>Splice Time</b>	9 seconds (semi-auto mode) 11 seconds (regular mode)
<b>Heat Time</b>	25 seconds (S922: 40mm Sleeve, S921: 60mm Sleeve) (Pre-heat mode) 31 seconds (S922: 40mm Sleeve, S921: 60mm Sleeve) (regular mode)
<b>Splice Programs</b>	Max. 150
<b>Heat Programs</b>	Max. 18
<b>Automatic Heating Start</b>	Available
<b>Applicable Sleeves</b>	20/40/60 mm
<b>Fiber Holding</b>	Tight holder (Loose tube applicable) or Fiber Holder System
<b>Tension Test</b>	1.96N
<b>Fiber Image Magnification</b>	76X, 235X
<b>Splice Memory</b>	Max. 2,000
<b>Image capture Capacity</b>	Last 100 images to be automatically captured + Up to 24 images to be stored permanently
<b>Dimension</b>	127W $\times$ 199D $\times$ 105H mm (not including shock absorber) 159W $\times$ 231D $\times$ 130H mm (including shock absorber)
<b>Weight</b>	1.7 kg (without battery) 2.1 kg (with two batteries)
<b>Monitor</b>	3.5" color LCD monitor
<b>Data Output</b>	USB ver.2.0 mini
<b>Diaplaying Language</b>	20 languages (e.g. English, Spanish, Japanese, Chinese)
<b>Battery Capacity</b>	Typical 80 splice/heat cycles with single battery <sup>*6</sup> Typical 200 splice/heat cycles with 2 batteries <sup>*7</sup>
<b>Altitude</b>	5,000 mh
<b>Operating Temperature</b>	-10 to +50 $^{\circ}\text{C}$ (without excessive humidity)
<b>Storage Temperature</b>	-40 to +60 $^{\circ}\text{C}$ (without excessive humidity)
<b>Power Source</b>	AC Input 100 to 240 V (50/60 Hz), DC Input 11 to 17 V

<sup>\*6</sup> The number of the splicing and heating the machine can produce using a fully charged brand new battery at room temperature of 20  $^{\circ}\text{C}$ , semi-auto mode for splicing and regular mode for Heating. Depending on the condition of the batteries and operation environment, the number can vary.

<sup>\*7</sup> The number of the splicing and heating the machine can produce using 2 fully charged brand new batteries at room temperature of 20  $^{\circ}\text{C}$ . Depending on the condition of the batteries and operation environment, the number can vary.

## STANDARD PACKAGE

Item	P/N	Quantity
① S153A Main Body	S153-A-A-0001	1
② Hard Carrying Case	HCC-01	1
③ Battery Pack Depending on the package	S943B	1 or 2
④ Battery Charger	S958B	1
⑤ Spare Electrodes	S969	1pair
⑥ AC Adaptor for S153A	S976A	1
⑦ AC Adaptor for S958B	S977A	1
⑧ AC Cable Cord For S976A/S977A	—	2
⑨ Electrode Sharpener	D5111	1
⑩ Cleaning Brush	VGC-01	1
User Manual	FTS-351	1



⑤ Spare Electrodes



⑨ Electrode Sharpener



⑩ Cleaning Brush

## OPTIONAL COMPONENTS

Item	P/N	Quantity
① Soft Carrying Case	SCC-01	1
② Cooling Tray	CTX-01	1
③ Angled Stand	AGS-01	1
④ Working Belt	WBT-01	1
⑤ USB Cable	USB-01	1
⑥ Car Cigarette Cable	CDC-01	1
⑦ Tight Holder		
16 mm Cleave length	S712T-016	1pair
10 mm Cleave length	S712T-010	1pair
⑧ Fiber Holder		
160 μm coating diameter fiber	S712S-160	1pair
250 μm coating diameter fiber	S712S-250	1pair
500 μm coating diameter fiber	S712S-500	1pair
900 μm coating diameter fiber	S712S-900	1pair
⑨ SOC Holders		
<For Ferrule>		
Seiko Giken FC/SC connector (9 mm)	S712C-SGS9-L	1
Seiko Giken FC/SC connector (5 mm)	S712C-SGS5-L	1
Seiko Giken LC connector (9 mm)	S712C-SGL9-L	1
Seiko Giken LC connector (5 mm)	S712C-SGL5-L	1
Diamond E-2000/F-3000 connector	S712C-DM25-L	1
<For Cordage>		
Seiko Giken Cordage (5 mm)	S712C-SGC5-R	
Seiko Giken Cordage (9 mm)	S712C-SGC9-R	1
Diamond Cordage (5 mm)	S712C-DMC5-R	1
Smart Fuse	SF-01	1
Software Interface for Machine		



③ Angled Stand in Action



④-1 Working Belt in Action



④-2 Working Belt in Action

## ORDERING NUMBER FORM S153A-(X1)-(X2)

Category	Code	Remark
X1	Fiber Holder Type	
	1	16 mm Tight Holder S712T-016
	2	10 mm Tight Holder S712T-010
X2	Number of Battery Pack (S943B)	
	3	Fiber Holder System
	1	1 pack (with 1 S958B battery charger and 1 S977A AC adaptor)
	2	2 packs (with 1 S958B battery charger and 1 S977A AC adaptor)

The Furukawa Electric Group strives to develop environmentally considerate products.



### eFriendly Logo Mark

This logo mark indicates that the products and services satisfy the standards of environmentally friendly products of the Furukawa Electric Group.



Our Group has configured the environmental management system at each of our plants worldwide, and acquired ISO14001 certification.

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