

# S183PMII ver.2 / S184PM-SLDF ver.2

## S183PMII ver.2 Fusion Splicer S184PM-SLDF ver.2 Fusion Splicer

- A New Standard in the Field for High-End/  
Super High-End Fusion Splicing Applications

**NEW**

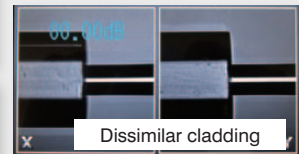
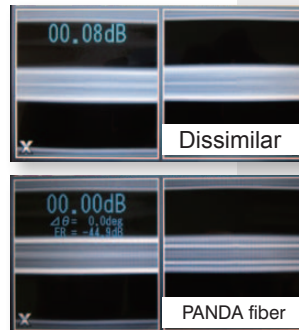


- **Features of ver.2**
  1. Optimization of rotational adjustment for PANDA fiber
  2. Intuitive manual splicing
  3. Splicing dissimilar fiber mode
- Splicing various types of fibers  
(Similar/Dissimilar, Dissimilar cladding, Polarization, High-strength, Very large diameter)
- Intuitive GUI interface
- Interlocking of measuring instrument
- Improving reliability and productivity for manufacture optical component

## Features and applications

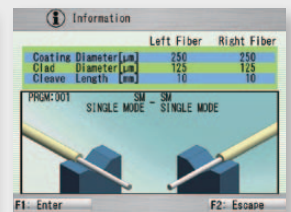
### Speciality Splicing Mode Easy

The advanced features of S183PMII and S184PM-SLDF allow you to splice today's and tomorrow's most exotic fiber types. Whether performing high-strength splices, splicing small cladding fibers (80 μm), large cladding fibers (S183PMII: 500 μm, S184PM-SLDF: 1200 μm), PM fibers or erbium doped fiber, S183PMII and S184PM-SLDF are the splicer for your high-end application.



### Quick Loading & Automatic Machine Adjustment

S183PMII and S184PM-SLDF automatically adjust for different fiber coating and cladding sizes. There is no need to exchange v-grooves, or fiber clamps. In addition, S183PMII and S184PM-SLDF have been designed so that the user simply loads the fiber and closes the lid to begin the splice process. There is no need to lower or set fiber clamps before beginning your splice.

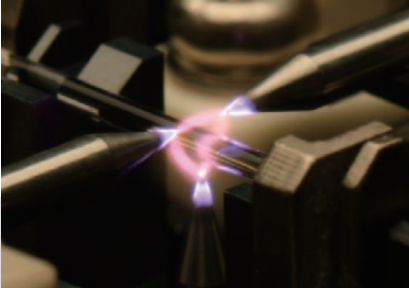


### Automatic Fiber Holder Release

S183PMII and S184PM-SLDF automatically perform a tensile proof test on the fiber and releases the holder lid to avoid twisting the fiber after the splice. This automation eliminates the need for the user to manually open and reset the splicer after each fusion splice.

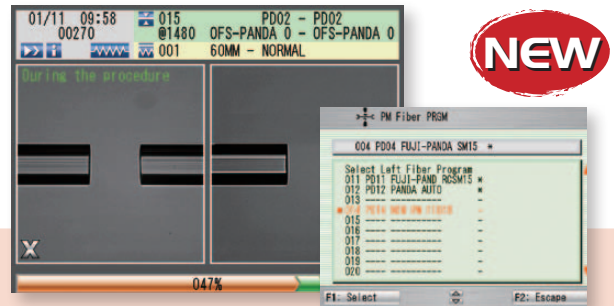


**S183PMII ver.2 and S184PM-SLDF ver.2 are designed especially for the demanding OEM, R&D, production and other special applications of optical components industry**



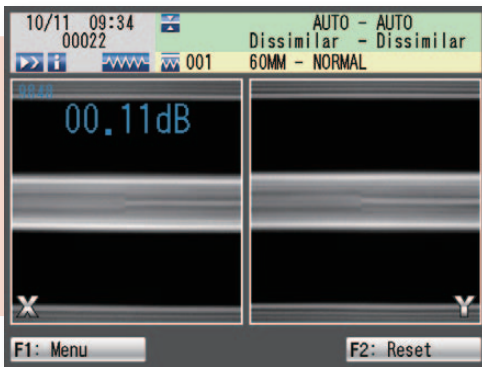
**Three electrodes “Ring of fire”**

The S184PM-SLDF ver.2 Fusion Splicer has three electrodes instead of the standard two electrodes. This groundbreaking technology makes the plasma field (temperature field) wider and adjustable and realizes splicing super large diameter fiber.



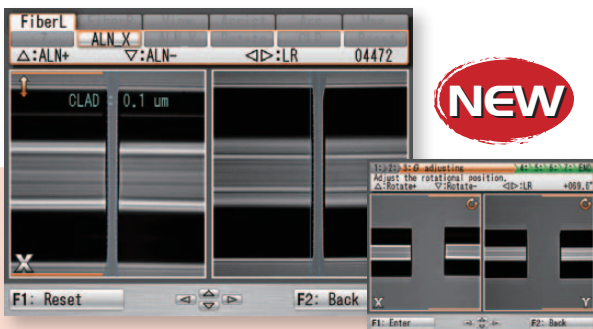
**Automatic Optimization of rotational adjustment for PANDA fiber**

New PANDA fiber is analyzed and the optimum program for rotational adjustment is automatically created. Unknown PANDA fiber can be easily spliced.



**Splicing dissimilar fiber mode**

This function adjusts the parameters automatically based on the setting fibers, and achieves accurate splicing with dissimilar core diameter splicing. If there is no fusion program, this function is useful for any combinations of fibers with dissimilar core diameter splicing.



**Intuitive Manual Splicing**

The new design uses intuitive operation to control motors. With many support tools (Automatic alignment, Automatic rotational adjustment and so on), a complicated fiber can be spliced effortlessly by Manual splicing.



**Advanced of control and workability by PC connection**

“SmartFuse” has many functions: Export image, splice data and existing splice programs. Modify and import (to the splicer) new splice programs. Connect the splicer to feedback measurement instruments.

New functions are available for existing S183PMII and S184PM-SLDF by updating software. Please contact us for more information.

## SPECIFICATIONS

Item	S183PMII ver.2	S184PM-SLDF ver.2
	Applicable Fibers	SM, MM, DSF, NZD, EDF, PMF, LDF, PCF, HighΔ
Cladding Diameter	80 to 500 μm	80 to 1200 μm
Coating Diameter	160 to 2000 μm	160 to 2000 μm
Fibers Cleave Length	3 to 5 mm with coating clamping 9 to 11 mm with bare fiber clamping	5 mm with coating clamping 9 to 11 mm with bare fiber clamping
Sweep Length	±1.9 mm	±1.9 mm
Typical Insertion Loss (Similar Fiber Splicing)	0.02 dB for identical SM/0.01 dB for identical MM 0.04 dB for identical DSF/0.05 dB for identical PMF	0.03 dB for identical SM
Typical Insertion Loss (Dissimilar Fiber Splicing)	0.15 dB (SMF to DSF) 0.25 dB (SMF to HI980 Fiber)	0.15 dB (SMF to DSF) 0.25 dB (SMF to HI980 Fiber)
Extinction Ration (Cross Talk) (Similar Fiber Splicing)	-40 dB (0.6 degree) (PANDA Fiber) -32 dB (1.4 degree) (BOW-TIE Fiber)	-35 dB (1.0 degree) (PANDA Fiber) -30 dB (1.8 degree) (BOW-TIE Fiber)
Extinction Ration (Cross Talk) (Dissimilar Fiber Splicing)	-30 dB (1.8 degree) (PANDA Fiber to BOW-TIE Fiber)	-28 dB (2.3 degree) (PANDA Fiber to BOW-TIE Fiber)
Return Loss	>60dB	>60dB
Splice Time	15 seconds for identical SM Fibers 35 seconds for identical PM Fibers (cladding clamping) 55 seconds for identical PM Fibers (coating clamping)	20 seconds for identical SM Fibers 45 seconds for identical PM Fibers (cladding clamping)
Heating Time	51 seconds for 60 mm sleeves 40 seconds for 40 mm sleeves	51 seconds for 60 mm sleeves 40 seconds for 40 mm sleeves
Manual Splicing Mode	Gap setting Manual alignment (X, Y, θ) Support Tool for Manual splicing	Gap setting Manual alignment (X, Y, θ) Support Tool for Manual splicing
Auto Splicing Mode	SM•MM•DSF automatic recognition Splicing dissimilar fiber PANDA fiber Auto	SM•MM•DSF automatic recognition Splicing dissimilar fiber PANDA fiber Auto
Splice Programs	70 Default/150 Available	41 Default/150 Available
Heating Programs	10 Default/12 Available	10 Default/12 Available
Sleeve	20, 40, 60 mm	20, 40, 60 mm
Tensile Strength	Typical 300 kpsi (25N) with High strength splice (125μm cladding fiber)	Typical 300 kpsi (25N) with High strength splice (125μm cladding fiber)
Magnification	215X & 430X	215X & 430X
Splice Memory	Maximum 2000 splices	Maximum 2000 splices
Size	350W × 197D × 154H mm	350W × 197D × 154H mm
Weight	8.5 kg	8.8 kg
Monitor	6.5" colour LCD monitor	6.5" colour LCD monitor
Video Output	Analog RGB	Analog RGB
Data Interface	USB ver.1.1 end Ethernet	USB ver.1.1 end Ethernet
Operating Temperature	0 to +40°C (without excessive humidity)	0 to +40°C (without excessive humidity)
Storage Temperature	-40 to +60°C (without excessive humidity)	-40 to +60°C (without excessive humidity)
Power Source	AC 100 to 240 V (50/60 Hz, AC Adaptor)	AC 100 to 240 V (50/60 Hz, AC Adaptor)

## STANDARD PACKAGE

Description	P/N	Quantity	
		S183PMII ver.2	S184PM-SLDF ver.2
① S183PMII Main Body	S183-P2-A-0001	1	-
① S184PM-SLDF Main Body	S184-PS-A-0001	-	1
② 250 μm Coating Fiber Holders	S710S-250	1 pair	1 pair
② 400 μm Coating Fiber Holders	S710S-400	1 pair	1 pair
② 900 μm Coating Fiber Holders	S710S-900	1 pair	1 pair
Fiber Holders for LDF	S710S-LDF	-	1 pair
③ AC Adaptor	S974A	1 pair	1 pair
④ AC Adaptor	S975A	-	1 pair
⑤ AC Cable	-	1	2
⑥ Electrodes for Regular Fiber (Spare)	S960	1 pair (2 pieces)	-
⑥ Electrodes Set for Regular Fiber	S184-XA-0012	-	1 pair (3 pieces)
⑥ Electrodes Set for LDF (Spare)	S184-XA-0011	-	1 pair (3 pieces)
⑩ Z Stage Lock	S183-X2-A-0010	1 pair	1 pair
⑪ Change Tool for Vertical Electrode	S184-XA-0004	-	1
Electrode Sharpener	D5111	1	1
Operation Manual	FTS-331	1	-
	FTS-340	-	1



## OPTIONAL ACCESSORIES

Description	P/N	Quantity	
		S183PMII ver.2	S184PM-SLDF ver.2
② 160μm Coating Fiber Holders	S710S-080	1 pair	1 pair
Special Fiber Holder (custom-made)*)	-	1 pair	1 pair
Fiber Holders for LDF	S710S-LDF	1 pair	1 pair
Fiber Holders for Loose Tube	S710S-LT	1 pair	1 pair
⑥ Electrodes for Regular Fiber	S960	1 pair (2 pieces)	-
⑦ Electrodes for LDF	S968	1 pair (2 pieces)	-
⑥ Electrodes Set for Regular Fiber	S184-XA-0012	-	1 pair (3 pieces)
⑥ Electrodes Set for LDF	S184-XA-0011	-	1 pair (3 pieces)
⑫ Fiber Transporter	S183-X2-A-0002	1	1
SmartFuse (Software)	SWP-01	1	1

\* This is the custom-made item. Please inform us about the coating diameter in the range of 100-2000 μm.



⑥ Electrodes for Regular fiber      ⑦ Electrodes for LDF      ⑧ Electrodes Set for Regular fibre

⑨ Electrodes Set for LDF      ⑩ Change Tool for Vertical Electrode      ⑫ Fiber Transporter

## ■ Related product

### Tool for preparing optical fiber

#### Stripper: S218R



Thermal stripper for single fiber (0.25 to 0.40 mm).

#### Stripper: S218H



Thermal stripping of single fiber (0.25, 0.90 mm) can strip high-strength by exclusive.

#### Cleaver: S325A



Cleaver for Std. 125 μm cladding fiber.

#### Cleaver: S325S80



Cleaver for 80 μm cladding fiber.

#### Ultrasonic Cleaver: EFC-11



High-strength cleaver made by NorthLab Photonics. Cleaver for 80 to 200 μm cladding fiber.

#### LDF Cleaver: LCCII



Large Diameter Cleaver made by 3SAE Technologies. Cleaver for 125 to 1000 μm cladding fiber.

### Protection Sleeves

#### Sleeve: S921/S922



Sleeve for single fiber of 0.25 to 0.90 mm.  
S921: 60mm  
S922: 40mm

#### Sleeve: for small diameter fiber S928 Series



Sleeve for small diameter single fiber of 0.25 to 0.40 mm.  
S928A-20: 20mm  
S928A-25: 25mm  
S928A-35: 35mm

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