

High-end Fusion Splicer

S185LDF/S185PMLDF

for LDF splicing

for LDF & PM-LDF splicing



S185LDF



S185PMLDF

Fusion Splicers for LDF and PMLDF splicing up to 500µm

Low splice loss

Compact size

High capacity built-in battery (Optional)

LCD touch panel provides easy operation

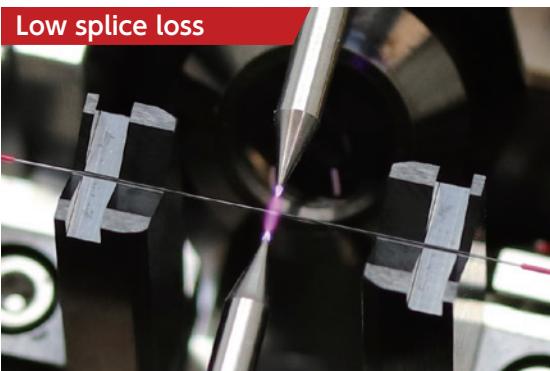
Fiber clamps land gently to prevent damage to the fiber

Remote control by Wi-Fi communication

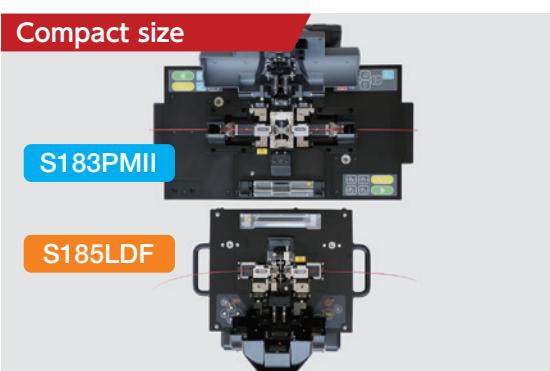
The FITEL S185LDF / S185PMLDF High-end Fusion Splicers are designed for splicing up to 500µm cladding fiber with low splice loss.

The powerful and compact design has been optimized for the Fiber laser industry. The new fiber alignment mechanism achieves low splice loss. The new design allows for the fiber clamps to land gently to reduce the possibility of damage to fiber. Battery operation and a compact design make transportation easy for the LDF Fusion splicer.

■ Features



Precise alignment with resolution of 0.03µm for fiber axis.



Footprint is 46% smaller than previous model.



Easy and intuitive touch panel operation and GUI.



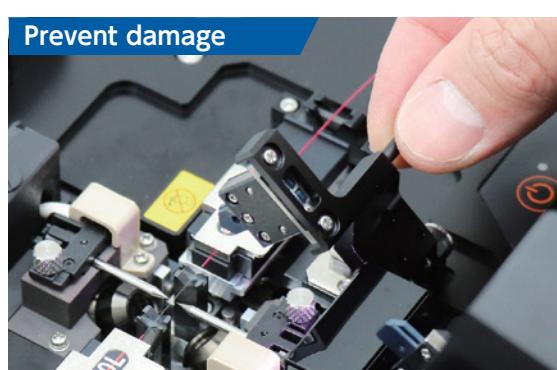
Remote control is available by Wi-Fi.



Fiber clamps land gently to prevent damage to the fiber.



Battery operation and a compact design make transportation easy.



Releasing the fiber clamp links allow the fiber clamps to be placed without closing the canopy.



Automatically adjusts image when LCD display is flipped.

■ Specification

| Description | S185LDF | S185PMLDF |
|---|--|---|
| Applicable fibers* ¹ | SM, MM, DS, NZDS, High-Index, EDF, LDF | SM, MM, DS, NZDS, High-Index, EDF, LDF, PMF |
| Cladding diameter | | 80 to 500 µm |
| Coating diameter | 160 to 2000 µm (In Fiber holder) 160 to 900 µm (Coating clamp splice) | 160 to 1300 µm (In Fiber holder) 160 to 900 µm (Coating clamp splice) |
| Fiber cleave length | | 3 to 4 mm (Coating clamp splice) 8 to 11 mm (Cladding clamp splice) |
| Typical splice loss* ² | | SM (ITU-T G652): 0.014 dB |
| Typical extinction ratio* ² | - | PANDA: 40 dB* ³ (Angle offset: 0.6 degree) |
| Return loss | | >60 dB |
| Typical splice time* ⁴ | 15 s (SM by cladding clamp splice) | 15 s (SM by cladding clamp splice) 40 s (PANDA by cladding clamp splice) |
| Tension strength | | 1.96 N (+0% to +20%) |
| Applicable protection sleeve length | | 10 to 60 mm |
| Typical heat time | | 35 s (S922:40 mm sleeve) |
| Splice programs | | Max.200 |
| Heater programs | | Max.100 |
| Splice data storage | | Max. 1000 including 4 images before and after splice |
| Fiber image magnification on LCD | | 104 X, 278 X or 556 X |
| Dimension | | 210 W x 180 D x 150 H mm |
| Weight (without Battery) | 4.5 kg | 4.75 kg |
| Monitor | | 4.3" wide color LCD with touch panel |
| Data output | | USB ver. 2.0 type A: 1 port USB ver. 2.0 mini B: 1 port |
| Battery capacity (Optional)* ⁵ | | Typical 60 splice / heat cycles |
| Operating temperature | | 0 to 40°C |
| Storage temperature | | -40 to 60°C |
| Humidity | | 0 to 90% (Non-condensing) |
| Power source | | AC input 100 to 240 V (50/60 Hz) |

*1 Fibers should be applied to ITU-T standard. In case of other fibers, depending on the type of fiber, the optimization of splice program may be needed or the splice result may not be satisfied.

*2 These are references. Depending on the environment and condition, the number vary.

*3 Extinction ratio 40 dB is measured in the condition that the initial extinction ratio is more than 50 dB and there is the splice with 0.6 degree of rotation offset.

*4 This value is references. Depending on the type of fiber and condition of fiber on splicer, the number can vary.

*5 This value can produce using fully charged brand new battery at room temperature 20 degree C. Depending on the condition of the battery and operation environment, the number can vary.

■ Standard package

| Item | P/N | Quantity | | | | | | | |
|------------------------|--------------------|----------|--------|--------|--------|-----------|--------|--------|--------|
| | | S185LDF | | | | S185PMLDF | | | |
| | | -00 | -01 | -10 | -11 | -00 | -01 | -10 | -11 |
| S185LDF Main body | S185LDF-X-A-0001 | 1 | 1 | 1 | 1 | - | - | - | - |
| S185PMLDF Main body | S185PMLDF-X-A-0001 | - | - | - | - | 1 | 1 | 1 | 1 |
| Hard Carrying Case | HCC-12 | - | 1 | - | 1 | - | 1 | - | 1 |
| Built-in Battery Pack | S947B | - | - | 1 | 1 | - | - | 1 | 1 |
| AC Adapter | S981A | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| AC Cable Cord | - | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Z Stage Lock | ZL-01 | 1 pair | 1 pair | 1 pair | 1 pair | 1 pair | 1 pair | 1 pair | 1 pair |
| Spare Electrode | ELR-03 | 1 pair | 1 pair | 1 pair | 1 pair | 1 pair | 1 pair | 1 pair | 1 pair |
| Electrode Sharpener | D5111 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Cleaning Brush | VGC-01 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| User Manual | - | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |



Standard Package (S185LDF)



Hard Carrying Case

■ Ordering number form

S185 A - B C

| Mark | Category | Code | Remark |
|------|--------------------|-------|-----------|
| A | Splicer model | LDF | S185LDF |
| | | PMLDF | S185PMLDF |
| B | Battery | 0 | None |
| | | 1 | Included |
| C | Hard carrying case | 0 | None |
| | | 1 | Included |

■ Optional components

| Item | P/N | Quantity |
|---------------------------------------|------------|----------|
| 160 µm Coating Fiber Holder | S713S-160 | 1 pair |
| 250 µm Coating Fiber Holder | S713S-250 | 1 pair |
| 300 µm Coating Fiber Holder | S713S-300 | 1 pair |
| 400 µm Coating Fiber Holder | S713S-400 | 1 pair |
| 550 µm Coating Fiber Holder | S713S-550 | 1 pair |
| 650 µm Coating Fiber Holder | S713S-650 | 1 pair |
| 900 µm Coating Fiber Holder | S713S-900 | 1 pair |
| 1300 µm Coating Fiber Holder | S713S-1300 | 1 pair |
| 550 µm Coating BW Fiber Holder | S713B-550 | 1 pair |
| Customized Fiber Holder ^{*6} | S713S-XXX | 1 pair |
| Hard Carrying Case | HCC-12 | 1 |
| Built-in Battery Pack ^{*7} | S947B | 1 |
| USB Cable | USB-01 | 1 |
| Wi-Fi Dongle | WFD-01 | 1 |



Fiber Holder

*6 Available Suitable size Fiber holder depending on the coating diameter of splicing fiber.

*7 Built-in Battery Pack should be installed by the authorized distributor or the repair center in Furukawa Electric group.

■ Related tools

| Item | Part Number | Specification |
|--|-------------------------|----------------------------------|
| Stripper | S218R-Plus | Cladding diameter 125 µm only |
| | 3SAE Thermal Stripper | Cladding diameter 80 to 1000 µm |
| Cleaver | S326A | Cladding diameter 125 µm only |
| | NorthLab ProCleave LD | Cladding diameter 125 to 550 µm |
| Cleaner | 3SAE LCCII | Cladding diameter 125 to 1000 µm |
| | 3SAE Ultrasonic Cleaner | – |
| Protection sleeve | S921/S922 | Coating diameter 900 µm or less |
| | S928A-20/25/35 | Coating diameter 400 µm or less |
| Fiber end face interferometer & microscope | NorthLab Proview | Cladding diameter 125 to 720 µm |



S218R-Plus



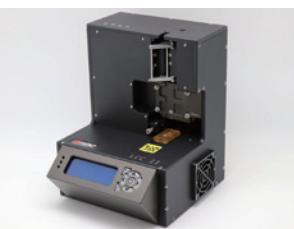
3SAE Thermal Stripper



S326A



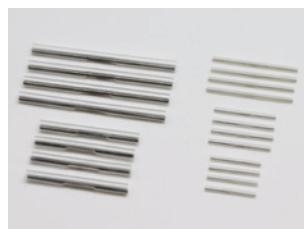
NorthLab ProCleave



3SAE LCCII



3SAE Ultrasonic Cleaner



Protection sleeve



NorthLab Proview

Contact Us :

FURUKAWA ELECTRIC CO., LTD.

Head Office:

Tokiwabashi Tower,
2-6-4, Otemachi, Chiyodaku,
Tokyo 100-8322, Japan
Tel: + 81-3-6281-8500
www.furukawa.co.jp
fec.abr_opt_splicer@furukawaelectric.com

Europe:

Furukawa Electric Europe Ltd.
Furukawa House,
2 Farriers Yard,
London, W6 8AH, UK
Tel: + 44-(0)-20-7313-5300
Fax: + 44-(0)-20-7313-5310
www.furukawa.co.uk
splicers@furukawa.co.uk

North & South America:

OFS Fitel, LLC
2000 Northeast Expressway
Norcross, Georgia 30071, U.S.A
Toll free: + 1-866-452-9516
Tel: + 1-678-783-1090
Fax: + 1-678-783-1093
www.ofsoptics.com
splicers@ofsoptics.com

China:

**Furukawa Shanghai, Ltd.
Beijing Branch**
Room 314, Beijing Fortune Building,
No.5, North Dongsanhuan Road,
Beijing 100004 P.R. China
Tel: + 86-10-8591-0608
Fax: + 86-10-8591-0609
www.furukawa-sh.cn

South East Asia:

Furukawa Electric Singapore Pte. Ltd.
60 Albert Street, #13-10 OG
Albert Complex, Singapore
189969
Tel: + 65-6224-4686
Fax: + 65-6336-2635
comms@furukawa.com.sg

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