

S176 Series Core-Aligning Fusion Splicers

Model S176CF

Cubic-shaped, Front monitor design

The S176CF is a compact, light-weight splicer with the monitor and keypad in front and the protection sleeve heater at the rear. The windshield opens rear-to-front for easy access to the heater. Either AC/DC converter or battery can be inserted into the main body and the detachable, wedge-shaped base tilts the splicer forward for comfortable access to the splice chamber.



Model S176CR

Cubic-shaped, Rear monitor design

The S176CR has the reverse layout of the S176CF, with the protection sleeve heater at the front and the monitor and keypad at the rear. The windshield opens from front to rear for easy removal or transfer of the splice to the protection sleeve heater. Like the S176CF, the CR can be powered by an insertable battery or AC/DC converter and comes with a wedge-shaped base.



Model S176LP

Low Profile design

The low profile design of the LP model is designed for easy and comfortable use. The S176LP integrates the monitor and AC/DC converter into an all-metal body for enhanced durability and quick setup. A large capacity external battery can be attached for remote locations.



APPLICATIONS AND RECOMMENDED CHOICES

Applications	S176CF	S176CR	176LP
Network Installation	●		●
Production Splicing for Manufacturing		●	●
Splice-and-Break for Testing		●	●

KEY FEATURES AND FUNCTIONS OF THE S176CF/CR/LP:

Super Fast Splice Time: 11 SECONDS!

Fitel's best-selling S175 V.2000 fusion splicer provided an industry leading splice time of 17 seconds. Now, the S176 series completes the same process in a blindingly fast 11 SECONDS! Power up your production!!



Enhanced Automation

Just select the "Auto Start Mode" – a feature unique to Fitel — and the S176 initiates the splicing process automatically when the windshield is closed.

Need Specialty Fiber Splicing?

The S176 comes with 42 pre-installed splicing programs, providing optical component manufacturers with programs for specialty and dissimilar fiber splicing (CS980, EDF, NZDSF, etc.).

Need Short Cleave Lengths?

The S176 has ultra narrow v-groove blocks, which allows the user to utilize 5mm cleave lengths (only for 250µm fiber), minimizing the length of bare fiber and allowing for the use of micro-protection sleeves.

Ergonomic Design:

The S176CF and CR models come with a detachable, wedge-shaped base that tilts the splicer forward for easy access to the splice chamber. The CF and CR models are designed specifically to reduce neck and back fatigue associated with high frequency work. Also, the S176CF and CR offers "Reversible Operation". The monitor of either the CF or CR can be rotated up or down and the image "flipped". This allows the operator to use the CF and the CR from the front or back sides.



SPECIFICATIONS

Splicing Method:	Core Alignment (Profile Alignment System)
Fiber Types:	Single Fiber
Applicable Fibers:	SM (ITU-T G.652.B/ G652.C), MM (ITU-T G.651), DS (ITU-T G.653), CSF (ITU-T G.654), NZDS (ITU-T G.655), EDF, AllWave®, TrueWave® RS, LEAF®
Typical Average Splice Loss: <i>(with identical fibers)</i>	SM (0.02dB), MM (0.01dB), DS (0.04dB), AllWave® (0.02dB), TrueWave® RS (0.03dB), LEAF® (0.03dB)
Typical Return Loss	60dB
Splice Time:	11 seconds in high speed mode; 13 seconds in normal mode
Heating Time:	85 seconds for 60mm sleeves; 40 seconds for 20mm sleeves
Coating Diameter/ Clad Diameter:	100-1000µm / 80-150µm
Splice Programs:	42 pre-installed, 22 user programmable
Splice Tension Test:	200g (0.4lbs)
Recommended Cleave Length:	5-16 mm / 250 µm, 10 or 16 mm / 900 µm and 400 µm coating
Protection Sleeve Programs:	7 pre-installed, 1 user programmable
Dimensions/Weight: CF/CR:	169W x 202.5D x 179.5H mm / 4.2kg (6.7" W x 8" D x 7.1" H / 8.4lbs)
LP:	190W x 272D x 144H mm / 4.7kg (7.5" W x 10.7" D x 5.7" H / 10.5lbs.)
Monitoring Method:	5" TFT color LCD monitor ; 246x and 123x magnifications with simultaneous X- and Y- views
Splice Memory:	2000 Splices
V-groove Lighting:	White LED
Operating Environments:	
Temperature:	-10° to +50°C (14° to 122°F)
Humidity:	90% at 38°C(100°F)
Altitude:	3658m (12,000 ft.)
Storage:	-40° to 60°C (-40° to 140°F)
Splice Data Output:	RS232C
Video:	NTSC (PIN connector)
Loss Estimation Parameters:	Cleave angle, offset, tilt, micro-bending, fiber end gap, bubbling at splice point
Power:	<ul style="list-style-type: none"> • AC: 100/120, 200/240 V 50/60 Hz • DC: 10-16.5V(CF/CR models require S955 DC adapter for DC input) • Batteries: a. S940: insertable battery pack for CF/CR models; Ni-MH/12V 4.5Ah, 60 splices and heat shrinks at continuous splicing per full charge b. S942: attachable battery pack for LP model; Ni-MH/12V 9.0Ah • Power Consumption: Max. 60W, Typical 21W
Languages:	16
Other Features:	<ul style="list-style-type: none"> • Short cut key • Auto start mode • Auto sleep mode • Remote Control Program (RCP) available for use with PC • Attenuation splicing: 0 to 20dB in 0.1dB increments with RCP • Environmental sensor at the splice point • Fiber dimension measurement function

Short Cut Key:

You can program the Short Cut Key to call up any function in one step.



Variety of Power Sources:

Either an AC/DC converter or battery can be inserted in the body without wiring (models CF and CR only). An external, large capacity battery is also available (for all models) as well as a DC power adapter for car batteries and cigarette lighters.



Protection Sleeve Heater:

The heater can accept micro-protection sleeves (20mm) along with conventional 40mm and 60mm sleeves. Also, you can order the unit without the heater. A cover plate replaces the heater, or an optional accessory can be fixed in its place.



Optional Fiber Holder System:

The fiber holders provide greater ease-of-use and consistency by allowing for precise positioning of the fiber during stripping, cleaving and splicing. You can order this feature pre-installed or as an after-market accessory.



S176 Series Core-Aligning Fusion Splicers

ORDERING NUMBER FORM

S176○○○-○○○

Type	Language of User's Manual	Heat oven	Carrying Case	Battery Pack	Holder Type
CF	E:English	0:None (Heater cover)	0:None (Carton box)	0:None	0:16mm
CR	J:Japanese	1:Built-in	1:Packaged	1:One piece	1:10mm
LP					2:Fiber Holder 3:Loose tube



S176CR Fiber Holder System

How to select Holder type?

Holder type	Description	Typical combination (Cleave length/coating dia./clad dia.)	Remark
0:16mm	16mm Fiber Holders (S176-X-A-0016-A)	5-16mm/250μm/125μm 16mm/400μm/125μm 16mm/900μm/125μm	
1:10mm	10mm Fiber Holders (S176-X-A-0013-A)	5-10mm/250μm/125μm 10mm/400μm/125μm 10mm/900μm/125μm 5mm/150-200μm/80μm	
2:Fiber Holder	Fiber Holder Mount (S176-X-A-0025-A)	5-10mm/250μm/125μm 10mm/400μm/125μm 10mm/900μm/125μm 5mm/150-200μm/80μm	S707-250 (1pair) fiber holders required (option) S707-400 (1pair) fiber holders required (option) S707-900 (1pair) fiber holders required (option) S707-080 (1pair) fiber holders required (option)
3:Loose Tube	Loose Tube Holders (S176-X-A-0027-A)	5-10mm/250μm/125μm	Length of coating + cladding: 20mm LooseTube Dia.:900μm (Loose Tube is NOT clamped.)

Contact us for other combinations

TYPICAL PACKAGE FOR S176 CF & CR: S176CF(R)E-1110

Description	Model No.	Qty.
S176CF (CR) Main body	S176-F(R)-A-0001-A	1
S176 User's Manual (English)	S176-X-S-0007-A	1
Protection Sleeve Heater	S176-X-A-0011-A	1
S176CF/CR Carrying Case	S176-X-A-0010-A	1
Battery Pack	S940	1
16mm Fiber Holders	S176-X-A-0016-A	1 pair
AC/DC Converter	S950	1
Recharging Cable	S176-X-A-0017-A	1
AC Power Cord	S176-X-S-0002-A	1
AC Plug Adapter	S176-X-S-0003-A	1
Spare Electrodes	S176-X-S-0004-A	1 pair
Electrode Sharpener		1
Wedge-Shaped Base	S176-X-S-0005-A	1

OPTIONAL PARTS FOR S176CF & CR

Description	Model No.	Qty.
Cooling Tray	S176-X-A-0012-A	1
10mm Fiber Holders	S176-X-A-0013-A	1 pair
RS232C Cord	S176-X-A-0015-A	1
Recharging Cable	S176-X-A-0017-A	1
Flexible Lamp	S176-X-S-0018-A	1
Foot Switch	S176-X-A-0019-A	1
Work Table	S176-X-A-0020-A	1
S176RCP CD	S176-X-A-0023-A	1
Battery Recharger / Discharger	S954A	1
Extra Sleeve Heater	S532A	1
DC Adapter	S955	1
High Capacity Battery	S942	1
Heater Cover	S176-X-A-0024-A	1
Fiber Holder Mount	S176-X-A-0025-A	1 pair
Crimping Tool Mount	S176-X-A-0026-A	1
Loose Tube Holders	S176-X-A-0027-A	1 pair
Fiber Holders	S707-250	1 pair
Fiber Holders	S707-400	1 pair
Fiber Holders	S707-900	1 pair
Fiber Holders	S707-080	1 pair

TYPICAL PACKAGE FOR S176LP: S176LPE-1102

Description	Model No.	Qty.
S176LP Main Body	S176-L-A-0001-A	1
S176 User's Manual	S176-X-S-0007-A	1
Protection Sleeve Heater	S176-X-A-0011-A	1
S176LP Carrying Case	S176-X-A-0021-A	1
Fiber Holder Mount	S176-X-A-0025-A	1 pair
AC Power Cord	S176-X-S-0002-A	1
AC Plug Adapter	S176-X-S-0003-A	1
Spare Electrodes	S176-X-S-0004-A	1 pair
Electrode Sharpener		1

OPTIONAL PARTS FOR S176LP

Description	Model Number	Qty.
10mm Fiber Holders	S176-X-A-0013-A	1 pair
RS232C Cord	S176-X-A-0015-A	1
16mm Fiber Holders	S176-X-A-0016-A	1 pair
Flexible Lamp	S176-X-S-0018-A	1
Foot Switch	S176-X-A-0019-A	1
Work Table	S176-X-A-0020-A	1
S176RCP CD	S176-X-A-0023-A	1
Heater Cover	S176-X-A-0024-A	1
Extra Sleeve Heater	S532A	1
High Capacity Battery	S942	1
Crimping Tool Mount	S176-X-A-0026-A	1
Loose Tube Holders	S176-X-A-0027-A	1 pair
Fiber Holders	S707-250	1 pair
Fiber Holders	S707-400	1 pair
Fiber Holders	S707-900	1 pair
Fiber Holders	S707-080	1 pair

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S176 *Series*

THE WORLD'S FASTEST CORE-ALIGNING FUSION SPLICER

Splicing in 3 Dimensions



S176 CF

- Three different body types to meet your specific ergonomic preferences.
- 11-second splice time.
- Refined splice chamber design that makes fiber placement easier and protects cameras from dirt and dust.
- Fiber holder system available for 250/400/900 μ m fibers, allowing greater precision and consistency.
- **NEW!!** Applicable fibers include OFS' AllWave[®] fiber (complies with ITU G.652.C).
- **NEW!!** Fiber holders for 80 μ m cladding fiber and loose-tube fiber now available!



S176CR



S176 LP

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