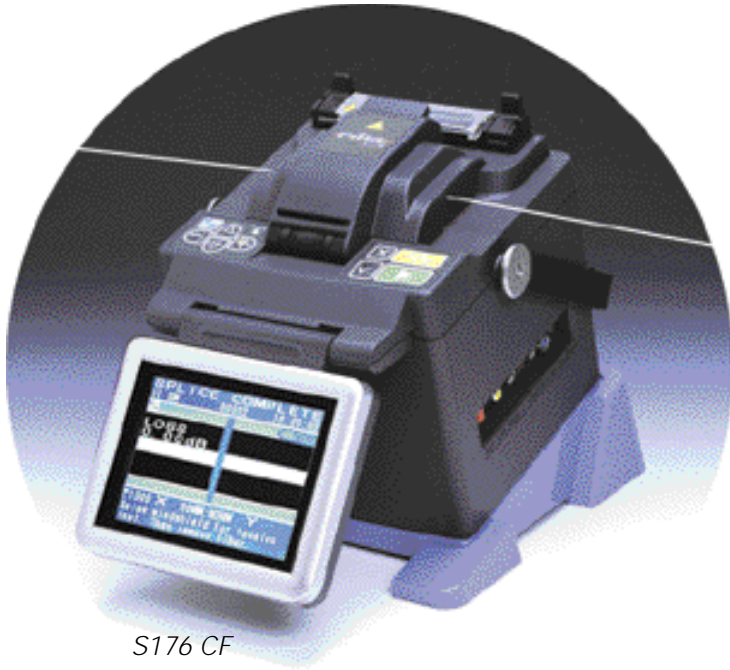


# S176 Series

Core-Aligning Fusion Splicers

## Splicing in 3 Dimensions



S176 CF

- Three different body types to meet your specific ergonomic preferences.
- 11-second splice time.
- Enhanced software that provides greater ease-of-use and convenience.
- Enhanced ergonomics for more comfortable and efficient operation.
- Refined splice chamber design that makes fiber placement easier and protects cameras from dirt and dust.

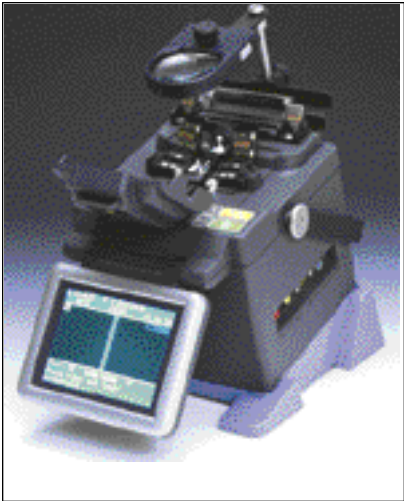


S176 CR



S176 LP

# FITEL®



Model S176CF

Cubic-shaped, Front monitor design

The S176CF is a compact, lightweight 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.

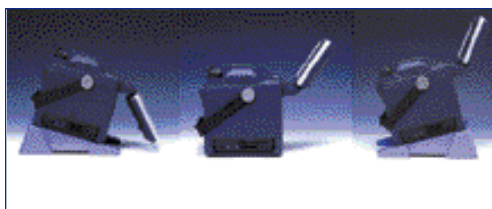
APPLICATIONS AND RECOMMENDED CHOICES

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 35 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.

**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.

**SPECIFICATIONS**

<b>Splicing Method:</b>	Core Alignment (Profile Alignment System)			
<b>Fiber Types:</b>	Single Fiber			
<b>Applicable Fibers:</b>	SM, MM, DS, NZ-DS, EDF, TrueWaveRS®, LEAF®			
<b>Typical Average Splice Loss:</b> (with identical fibers)	<b>SM</b> (0.02dB),	<b>MM</b> (0.01dB),	<b>DS</b> (0.04dB),	<b>TrueWaveRS®</b> (0.03dB), <b>LEAF®</b> (0.03dB)
<b>Splice Time:</b>	11 seconds in high speed mode; 13 seconds in normal mode			
<b>Heating Time:</b>	85 seconds for 60mm sleeves; 40 seconds for 20mm sleeves			
<b>Coating Diameter/ Clad Diameter:</b>	100-1000µm / 80-150µm			
<b>Splice Programs:</b>	35 pre-installed, 29 user programmable			
<b>Splice Tension Test:</b>	200g (with modification 450 g)			
<b>Recommended Cleave Length:</b>	5-16 mm / 250 µm, 16 mm / 900µm coating (Contact us for 10 mm / 900µm)			
<b>Protection Sleeve Programs:</b>	7 pre-installed, 1 user programmable			

**SPECIFICATIONS CONTINUED:****Dimensions/Weight:**

**CF/CR:** 6.7" W x 8" D x 7.1" H / 8.4lbs  
(169W x 202.5D x 179.5H mm / 4.2kg)

**LP:** 7.5" W x 10.7" D x 5.7" H / 10.5lbs.  
(190W x 272D x 144Hmm / 4.7kg)

**Monitor:** 5" color, 264x magnification

**Splice Memory:** 2000 Splices

**V-groove Lighting:** White LED

**Operating Environments:**

**Temperature:** 14° to 122°F (-10° to +50°C)

**Humidity:** 90% at 100°F (38°C)

**Altitude:** 12,000 ft. (3658m)

**Storage :** -40° to 140°F (-40° to 60°C)

**Splice Data Output:** RS232C

**Video Output:** PIN

**Loss Estimation Parameters:** Cleave angle, offset, tilt, micro-bending

**Splice Inspection Parameters:** Cleave angle, fiber end gap, core eccentricity, bubbling at splice point

**Power:**

- AC: 100/120, 200/240 V 50/60 Hz
- DC: 10-16.5V.  
(CF/CR requires DC adapter for DC input)
- Battery: 12V Ni-mH insertable battery pack for CF/CR only
- AC: 100/120, 200/240 V 50/60 Hz

**Languages:** 16

**Other Features:**

- Short cut key
- Auto start mode
- Auto sleep mode
- Remote control from PC
- Attenuation splicing: 0 to 10dB by 0.1dB
- Environmental sensor at the splice point
- Fiber dimension measurement function

**STANDARD PACKAGE FOR S176 CF & CR**

Description	Model No.	Qty.
S176CF (CR) Main body	S176-F(R)-A-0001-A	1
S176CF/CR Carrying Case	S176-X-A-0010-A	1
16mm 900 $\mu$ m Fiber Holders	S176-X-A-0016-A	1 pair
Ni-mH Battery Pack	S940	1
Protection Sleeve Heater	S176-X-A-0011-A	1
AC/DC Converter	S950	1
AC Power Cord	S176-X-S-0002-A	1
Recharging Cable	S176-X-A-0017-A	1
Spare Electrodes	S176-X-S-0004-A	1 pair
Wedge-Shaped Base	S176-X-S-0005-A	1
S176 User's Manual (English)	S176-X-S-0007-A	1

**OPTIONAL PARTS FOR S176CF & CR**

Description	Model No.	Qty.
Cooling Tray	176-X-A-0012-A	1
10mm 900 $\mu$ m 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

**STANDARD PACKAGE FOR S176LP**

Description	Model No.	Qty.
S176LP Main body	S176-L-A-0001-A	1
AC Power Cord	S176-X-S-0002-A	1
Spare Electrodes	S176-X-S-0004-A	1 pair
S176 User's Manual (English)	S176-X-S-0007-A	1
Protection Sleeve Heater	S176-X-A-0011-A	1
16mm 900 $\mu$ m Fiber Holders	S176-X-A-0016-A	1 pair
S176LP Carrying Case	S176-L-A-0021-A	1

**OPTIONAL PARTS FOR S176LP**

Description	Model Number	Qty.
Heater Cover	S176-X-A-0024-A	1
RS232C Cord	S176-X-A-0015-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
High Capacity Battery	S942	1
S176RCP CD	S176-X-A-0023-A	1
Extra Sleeve Heater	S532A	1
10mm 900 $\mu$ m Fiber Holders	S176-X-A-0013-A	1 pair



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www.Furukwa America.com

24 hour Tech Support:  
800-756-1121



# S176 Series Direct Core - Aligning Fusion Splicers



## SPECIFICATIONS

<b>Splicing Method:</b>	Core Alignment (Profile Alignment System)
<b>Fiber Types:</b>	Single Fiber
<b>Applicable Fibers:</b>	SM, MM, DS, NZ-DS, EDF, TrueWaveRS®, LEAF® (Similar and dissimilar fibers)
<b>Typical Average Splice Loss:</b> (with identical fibers)	<b>SM</b> (0.02dB), <b>MM</b> (0.01dB), <b>DS</b> (0.04dB), <b>TrueWaveRS®</b> (0.03dB), <b>LEAF®</b> (0.03dB)
<b>Splice Time:</b>	11 seconds in high speed mode; 13 seconds in normal mode
<b>Heating Time:</b>	85 seconds for 60mm sleeves; 40 seconds for 20mm sleeves
<b>Coating Diameter/ Clad Diameter:</b>	100 -1000µm/80-150µm
<b>Splice Programs:</b>	35 pre-installed, 29 user programmable
<b>Splice Tension Test:</b>	200g (0.4lbs)
<b>Cleave Length:</b>	5-16 mm / 250 µm, 16 mm / 900µm coating (Contact us for 10 mm/ 900µm)
<b>Protection Sleeve Programs:</b>	7 pre-installed, 1 user programmable.



**SPECIFICATIONS CONTINUED:****Dimensions/Weight:**

**CF/CR:** 6.7" W x 8" D x 7.1" H / 8.4lbs  
(169W x 202.5D x 179.5H mm / 4.2kg)

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**Splice Data Output:** RS232C

**Video Output:** PIN

**Loss Estimation Parameters:** Cleave angle, offset, tilt, micro-bending

**Splice Inspection Parameters:** Cleave angle, fiber end gap, core eccentricity, bubbling at splice point

**Power:**

- AC: 100/120, 200/240 V 50/60 Hz
- DC: 10-16.5V.  
(CF/CR requires DC adapter for DC input)
- Battery: 12V Ni-mH insertable battery pack for CF/CR only
- AC: 100/120, 200/240 V 50/60 Hz

**Languages:** 16

**Other Features:**

- Short cut key
- Auto start mode
- Auto sleep mode
- Remote control from PC
- Attenuation splicing: 0 to 10dB by 0.1dB
- Environmental sensor at the splice point
- Fiber dimension measurement function

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Protection Sleeve Heater	S176-X-A-0011-A	1
AC/DC Converter	S950	1
AC Power Cord	S176-X-S-0002-A	1
Recharging Cable	S176-X-A-0017-A	1
Spare Electrodes	S176-X-S-0004-A	1 pair
Wedge-Shaped Base	S176-X-S-0005-A	1
S176 User's Manual (English)	S176-X-S-0007-A	1

**OPTIONAL PARTS FOR S176CF & CR**

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10mm 900 $\mu$ m 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

**STANDARD PACKAGE FOR S176LP**

Description	Model No.	Qty.
S176LP Main body	S176-L-A-0001-A	1
AC Power Cord	S176-X-S-0002-A	1
Spare Electrodes	S176-X-S-0004-A	1 pair
S176 User's Manual (English)	S176-X-S-0007-A	1
Protection Sleeve Heater	S176-X-A-0011-A	1
16mm 900 $\mu$ m Fiber Holders	S176-X-A-0016-A	1 pair
S176LP Carrying Case	S176-L-A-0021-A	1

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Flexible Lamp	S176-X-S-0018-A	1
Foot Switch	S176-X-A-0019-A	1
Work Table	S176-X-A-0020-A	1
High Capacity Battery	S942	1
S176RCP CD	S176-X-A-0023-A	1
Extra Sleeve Heater	S532A	1
10mm 900 $\mu$ m Fiber Holders	S176-X-A-0013-A	1 pair



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