



S178A

Hand-Held Core-Alignment Fusion Splicer

FITEL NEW Fusion Splicer

The S178 is new state-of-art core alignment product in the Fitel S17x series. It is equipped with newly developed optical alignment system that cuts the entire splicing time by 20%. It also incorporates an improved heating mechanism, which shortens the protection sleeve shrinking time by more than 30%. The new battery system can provide splicing cycle (splicing/heating) up to 200 without additional attached battery unit. The rubber protection corners and metal body frame make this unit very rugged, robust and strong. Finally the size of this new unit is much smaller compared to its previous models and weight is also significantly reduced.

The S178 ushers in a whole new range of applications for core alignment splicing – it delivers better precision, accuracy, and automated functionality with speed, portability, convenience and robustness. It becomes your versatile best choice for FTTx, LAN, backbone, long-haul installation, data-center or OEM applications. It can be used in conventional telecommunication industry, as well as enterprise and other industries, such as oil & gas.

The strong body and new canopy design of S178 makes it available to be used in any kind of environment without compromising the performance. The innovative mirror free alignment system makes maintenance work much easier. And newly incorporated USB 2.0 communication interface makes the machine communicate with PC and transfer data and video image much faster and more reliable.

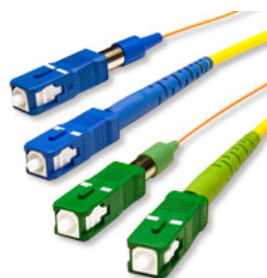
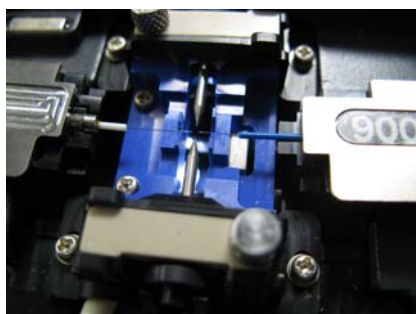
Key features

- Rugged and compact hand held design to endure any kind of environmental conditions
- Fast splice (7 sec) at super low loss and Fast Heating (25 sec)*1
- 200 cycles (Splicing & Heating) with 2 batteries
- Available for All METRO/LAN/FTTx fibers including ultra bend-insensitive fibers (e.g. EZ-Bend™)
- Applicable for Splice-on-connector(SOC) – Both Seiko Giken Connectors and Diamond Connectors available
- Easy maintenance – Easy 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 recipes and splicing 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 and Telcordia (GR-765-Core) compliant

*1 By using Semi-auto mode for splicing and pre- heating mode for heating

Applicable for Splice-on-connector (SOC)

FITEL Splicer SOC partners



[Click to view larger](#)



Under Tough Environment

S178A passed criteria as below*2;

- Drop resistance - 76 cm Drops from 5 different angles
- Water resistance - IPX2 rating drip proof (Exposed to 3mm/min drip for 10 mins with 15° tilt)
- Dust Resistance – IP5X rating dust proof (Exposed to dust particles with a diameter of 0.1 to 25µm for 8 hours)

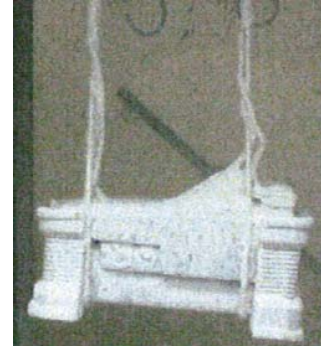
* Above tests were performed at Furukawa Electric Lab, and they do not guarantee that the machine will not be damaged under these conditions.



Drop Test



Water test



Dust Test

Specification

Applicable fibers	SMF, MMF, DSF, NZDSF, BIF/UBIF(Bend insensitive fiber)
Fibers cleave length	5 - 16 mm for 250 um fiber, 10 -16 mm for 900um tight buffer
Cladding Diameter	80 -150um
Coating Diameter	160 - 900um
Typical Insertion Loss (similar fiber splicing)	0.02dB for SMF, 0.01dB for MMF, 0.03dB for NZDSF, 0.04dB for EZ-Bend
Splice Programs	Up to 150
Automatic splicing selection	SM: SMF, DSF, NZDSF, BIF/UBIF(Bend insensitive fiber) MM: MMF
Heat Program	Up to 18
Auto heating start	available
Dimension	127W x 199D x 105H mm (Not including shock absorber) 159W x 231D x 130 H mm (Including shock absorber)
Fiber Holding	Tight Holder (Loose tube applicable) or Fiber Holder System
Weight	1.9 kg (without battery), 2.3kg (with two batteries)
Splice time	7 seconds (Semi-auto mode), 9 seconds (Regular mode)
Applicable Sleeves	40/60mm
Heating time	25 seconds for 40mm and 60 mm sleeves (Pre-heating mode) 31 seconds for 40mm and 60 mm sleeves (Regular mode)
Return loss	>60dB
Tension Test	1.96 N
Magnification	101x, 304x or 608x
Monitor	3.5" color LCD monitor
Video output/Data interface	USB 2.0
Splice memory	maximum 2000 splices
Image capture capacity	Last 100 images to be automatically captured + Up to 24 images to be stored permanently
Display user interface	GUI
Battery capacity	80 splice/heat cycles with single battery 200 splice/heat cycle with dual batteries
Displaying language	20 languages (e.g. English, Spanish, Japanese, Chinese)
Operating temperature	-10 to + 50 degree C (without excessive humidity)
Storage temperature	-40 to +60 degree C (without excessive humidity)
Power source	AC 100 to 240V (50/60Hz), DC Input 11 to 17 V
Worktable	Available

Standard Package

Item	Part Number	Qty	Remark
S178A Main body	S178-A-A-0001	1	
Hard Carrying Case	HCC-01	1	
Battery Pack	S943	1/2	Depending on the package
Battery Charger	S958B	1	
Spare Electrodes	S969	1pair	
AC Adaptor for S178	S976A	1	
AC Adaptor for S958	S977A	1	
AC Cable Cord	-	2	For S976A/S977A
Electrode Sharpener	D5111	1	
User Manual	FTS – 347	1	

Optional Component

Item	Part Number	Qty	Remark
Soft Carrying Case	SCC-01	1	
Cooling Tray	CTX-01	1	
Angled Stand	AGS-01	1	15 degree angled stand
Working Belt	WBT-01	1	
USB Cable	USB-01	1	
Car Cigarette Cable	CDC-01	1	
Transporter	TRP-01	1	
Cleaning Brush	VGC-01	1	
Tight Holder			
16mm Cleave length	S712T-016	1 pair	
10mm Cleave length	S712T-010	1 pair	
Fiber Holder			
160um coating diameter fiber	S712S-160	1 pair	
250um coating diameter fiber	S712S-250	1 pair	
500um coating diameter fiber	S712S-500	1 pair	
900um coating diameter fiber	S712S-900	1 pair	
SOC Holders			
Seiko Giken FC/SC connector	S712C-SG-009	1 pair	
Seiko Giken LC connector (9mm)	S712C-LC-009	1 pair	
Seiko Giken LC connector (5mm)	S712C-LC-005	1 pair	
Diamond E-2000 connector	S712C-DM-012	1 pair	
Diamond F-3000 connector	S712C-DM -025	1 pair	
SmartFuse	SF-01	1	Software Interface for Machine

Ordering Number Form

S 1 7 8 A – [X1] - [X2]

Category	Code	Remark
X1	1	16mm Tight Holder S712T-016
	2	10mm Tight Holder S712T-010
	3	Fiber Holder System
X2	1	1 pack (with 1 S958 battery charger and 1 S977 AC adaptor)
	2	2 packs (with 1 S958 battery charger and 1 S977 AC adaptor)



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