## **Fusion Splicing Systems**





#### FSM-18S

## **FSM-18S Fusion Splicer**

The FSM-18S Fusion Splicer is a low cost, fixed V-groove, single fiber fusion splicer with the same robust features offered in other high end models. The new rugged construction adds improved reliability by resisting shock, dust and rain, and withstands a 30" drop test.

New features such as automatic tube heater operation, user-selectable clamping method (sheath clamp or fiber holder system), automated monitor image orientation and battery charge capability during splicer operation provide the end user a reliable productivity tool. New software is included with each splicer and provides the user with the ability to download splice data to a PC for splice data reporting, download splicer operating software via the internet to maintain peak performance and download video images from the splicer to enhance technical support.

#### **Features**

- Rugged construction providing shock, dust and moisture resistance
- Dual monitor position with automatic image orientation
- Automatic arc calibration
- User-selectable fiber clamping method sheath clamp or fiber holders
- Auto-start tube heater
- Color LCD display and anti-reflective coating for excellent visibility in bright sunlight
- Simultaneous battery charge and splicer operation
- Long life battery (up to 150 splice/heat cycles per charge)
- Detachable work table incorporated into the transit case
- Data and video download software and splicer upgrade software included; software upgrades through PC application via the internet
- Green friendly RoHS and WEEE compliant



#### **Ordering Information**

DESCRIPTION	AFL NO.
FSM-18S Fusion Splicer (machine only) Includes: ADC-13 AC Adapter, ACC-14 AC Cord, Spare Electrodes (pair), S60A Sheath Clamp, USB Cable, Splicer Carrying Strap, Quick Reference Guide, Video Instruction Manual, JP-05 Splice Sleeve Cooling Tray and Transit Case with Carrying Strap	S014527
FSM-18S Fusion Splicer Kit (with cleaver) Includes: CT30A Cleaver, ADC-13 AC Adapter, ACC-14 AC Cord, Spare Electrodes (pair), S60A Sheath Clamp, USB Cable, Splicer Carrying Strap, Quick Reference Guide, Video Instruction Manual, JP-05 Splice Sleeve Cooling Tray and Transit Case with Carrying Strap	S014528
FSM-18S Fusion Splicer Kit (with cleaver, battery and cord) Includes: BTR-08 Battery, DCC-14 Battery Charge Cord, CT30A Cleaver, ADC-13 AC Adapter, ACC-14 AC Cord, Spare Electrodes (pair), S60A Sheath Clamp, USB Cable, Splicer Carrying Strap, Quick Reference Guide, Video Instruction Manual, JP-05 Splice Sleeve Cooling Tray and Transit Case with Carrying Strap	S014560
One Year Extended Warranty	S012996
Two Year Extended Warranty	S013000



# **FSM-18S Fusion Splicer**

#### **Accessories Recommended for the FSM-18S**

DESCRIPTION	AFL NO.
Cleavers	
CT-30A Cleaver	S014080
Fiber Holders (pairs)	
FH-60-250 Fiber Holder	S014548
FH-60-900 Fiber Holder	S014549
FH-60-160 Fiber Holder	S014690
FH-60-LT900 Fiber Holder	S015181
Batteries and Power Cords	
ADC-13 AC Adapter	S014535
ACC-14 AC Power Cord	S014536
BTR-08 Battery (160 splice/heat cycles)	S014540
DCC-14 Battery Charge Cord (BTR-08)	S014541
DCC-12 Power Cord	S013552
(connects ADC-13 to cigarette lighter socket)	
DCC-13 Power Cord	S013556
(connects ADC-13 to power source via alligator clips)	

DESCRIPTION	AFL NO.	
Sheath Clamps		
CLAMP-S60A Sheath Clamp	S014550	
(8 mm min. cleave for 250 μm, 16 mm min. cleave for 900 μm)		
CLAMP-S60B Sheath Clamp	S014551	
(8 mm min. cleave for 250 μm and 900 μm)		
CLAMP-S60C Sheath Clamp	S014552	
(16 mm cleave for 900 μm loose tube fiber)		
CLAMP-S60D Sheath Clamp	S014750	
(8 mm - 16 mm cleave for 900 μm loose tube fiber)		
Miscellaneous		
ELCT2-20A Electrodes	S013532	
Portable Tripod Workstation (see product profile for more detail)	S014773	
ASW-02 Splicing Workstation (see product profile for more detail)	S010532	
JP-05 Splice Sleeve Cooling Tray	S014537	
CC-24-18S Transit Case	S014557	

### **Specifications**

PARAMETER	VALUE
Model	FSM-18S Fusion Splicer
Applicable Fibers	Single-mode (G.652 & G.657), Multimode (G.651), DS (G.653), NZDS (G.655)
Cladding Diameter	125 µm
Coating Diameter	100 µm to 1000 µm
Fiber Cleave Length	8 to 16 mm with 250 µm coating diameter, 16 mm with 900 µm coating diameter
Typical Average Splice Loss	0.05 dB with SM, 0.02 dB with MM, 0.08 dB with DS, 0.08 dB with NZDS, measured by cut-back method relevant to ITU-T and IEC standards
Splicing Time	Typical 11 seconds with standard single-mode fiber
Arc Calibration Method	Automatic, real-time by using results of previous splice when in AUTO mode; manual arc calibration function available
Splicing Modes	100 preset and user programmable modes
Splice Loss Estimate	Based upon dual camera cladding axis alignment data
Storage of Splice Result	Last 2000 results to be stored in the internal memory
Fiber Display	X or Y, or both X and Y simultaneously; front or rear monitor display options with automated image orientation
Magnification	300X for single X or Y view, or 187X for X and Y view
Viewing Method	Dual cameras with 4.1 inch TFT color LCD monitor with anti-reflective coating
Operating Condition	0 to 3,660m above sea level, 0 to 95% RH, -10 to 50°C respectively
Mechanical Proof Test	1.96 to 2.25N
Tube Heater	Built-in tube heater with 30 heating modes; auto-start function
Tube Heating Time	Typical 30 seconds with FP-03 sleeve, 35 seconds with FP3 (40), 35-55 seconds with Fujikura micro sleeves
Protection Sleeve Length	60 mm, 40 mm, micro
Splice/Heat with Battery	Typical 150 cycles with power save functions activated
Power Supply	Auto voltage selection from 100 to 240V AC or 10 to 15V DC with ADC-1, 13.2V DC with BTR-08 battery
Terminals	USB 1.1 (USB-B type) for PC communication, Mini-DIN (6-pin) for HJS-02/03 and SH-8 tube heater
Wind Protection	Maximum wind velocity of 15m/s (34 mph)
Dimensions	136 W x 161 D x 143 H (mm) / 5.3 W x 6.3 D x 5.6 H (inches)
Weight	2.1 kg (4.6 lbs) with AC adapter ADC-11; 2.5kg (5.5 lbs) with BTR-08 battery