

FTTx All In One Fusion Splicer

US Patent 11/912,109

Swift-F1

The Revolution of a Splicer



Features

- ⦿ The Single All In One Device (strip, clean, cleave, splice, sleeve)
- ⦿ Operation Time : 60 sec (incl. connector assembly, 0.9mm fiber)
- ⦿ No Scratches on the Fiber with Heating Stripping by Automatic Motor, 3.5Kgf.
- ⦿ Even a Beginner can Use Easily

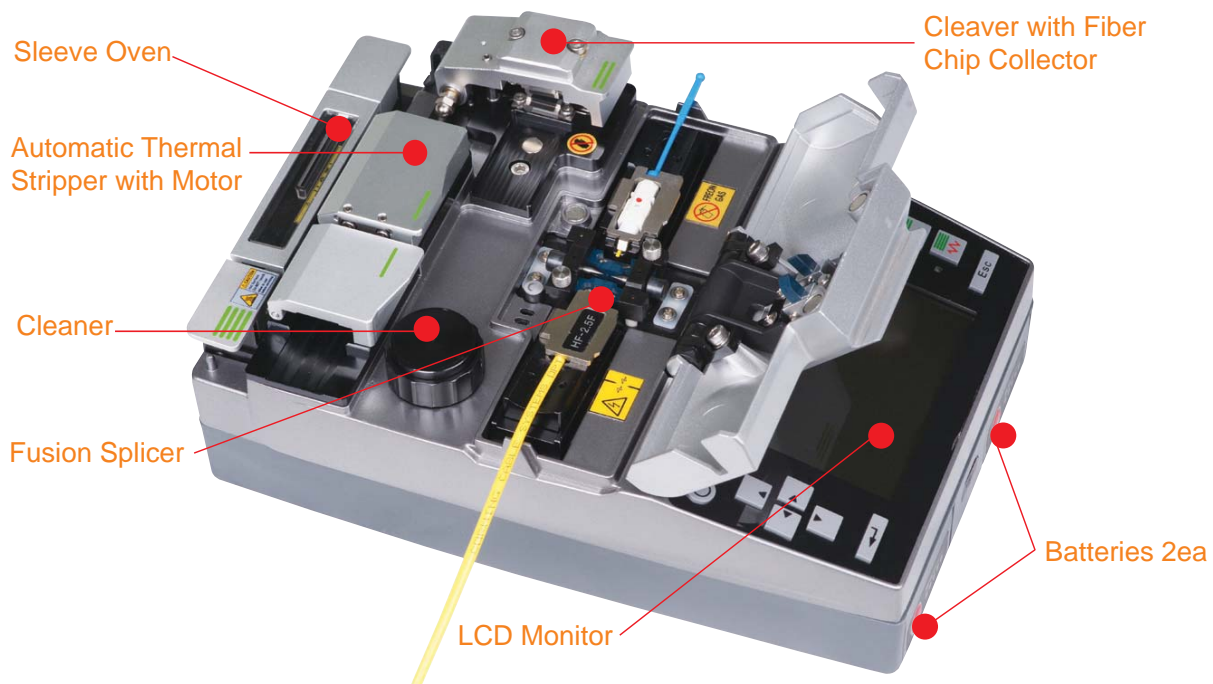
Swift-F1

Swift F1 is the highly sophisticated and integrated clad alignment fusion splicer, which has been designed to perform the major 5 multifunctional features systematically: heating, stripping(No scratches on the fiber → No broken fiber in harsh environment), cleaning, cleaving, splicing and sleeving.

The Swift F1 has been designed for fusion splicing and splice-on connector (Swift Connector) of FTTH network applications.

The structural and complementary features of Swift F1 have been applied to the design of Swift Connectors to resolve the problems of mechanical connectors in past: low quality, weak durability and high maintenance cost. Swift F1 has turned around the way that the connector users, who were used to thinking previously, as from the installation and maintenance costs of splice-on connector, had been more expensive than a mechanical connector to more cost effective than mechanical connector purchasing cost of splice-on connector.

Swift F1 is a versatile fusion splicer which can perform all kinds of FTTH fusion splicing for the ordinary 0.25mm, 0.9mm, 2mm~3mm cable, indoor cable and others splicing connectors. Swift F1 is possible to perform such operations - entire FTTx splicing, FTTH connector splicing, ODF (cope with patch code) and other splicing.



Swift-F1 Examples



Chest Harness Work Table



From Premise Enclosure



On a Telephone pole






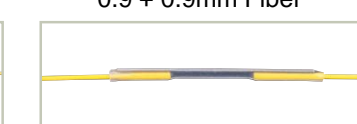


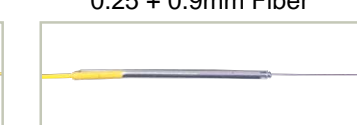








In a Bucket Truck

	<p>Stripper- high tensile force by heating stripping-3.5kg/f</p> <ul style="list-style-type: none"> • No scratches by heating stripping • Over 1 million stripping with an electric motor. • Stripping time - 1.5 sec
	<p>Cleaner</p> <ul style="list-style-type: none"> • The cleaning of V-Groove is the most Important, due to the V-Groove splicing method.
	<p>Cleaving</p> <ul style="list-style-type: none"> • One-Action Cleaving • Oil Damper System • Built-in Rubbish bin
	<p>Sleeving</p> <ul style="list-style-type: none"> • Place the ferrule in the oven so  mark face the front(user). • Heating Time : 15sec(0.9mm Fiber)

Compatible for SOC Connector
Telcordia-GR-326 Comptible

Fiber to Fiber Splicing & Fiber Holder Types.

<p>HF-250</p> 	<p>HF-250</p> 	<p>0.25 + 0.25mm Fiber</p> 	<p>Sleeve Size 1.0mm × 2.3mm × 45mm</p>
<p>HF-900</p> 	<p>HF-900</p> 	<p>0.9 + 0.9mm Fiber</p> 	
<p>HF-250</p> 	<p>HF-900</p> 	<p>0.25 + 0.9mm Fiber</p> 	
<p>HF-IN</p> 	<p>HF-IN</p> 	<p>Indoor + Indoor Cable</p> 	<p>Sleeve Size 3.5mm × 4.0mm × 45mm</p>
<p>HF-2.5F</p> 	<p>HF-2.5F</p> 	<p>3.0 + 3.0mm Cable</p> 	

Splice-on Connector Assembly Order: 1kit / 60sec(0.9mm fiber)

1. Put cable on the holder



2. Strip, Clean, Cleave



3. Put ferrule on the holder



4. Strip, Clean, Cleave



5. Splice



6. Sleeve



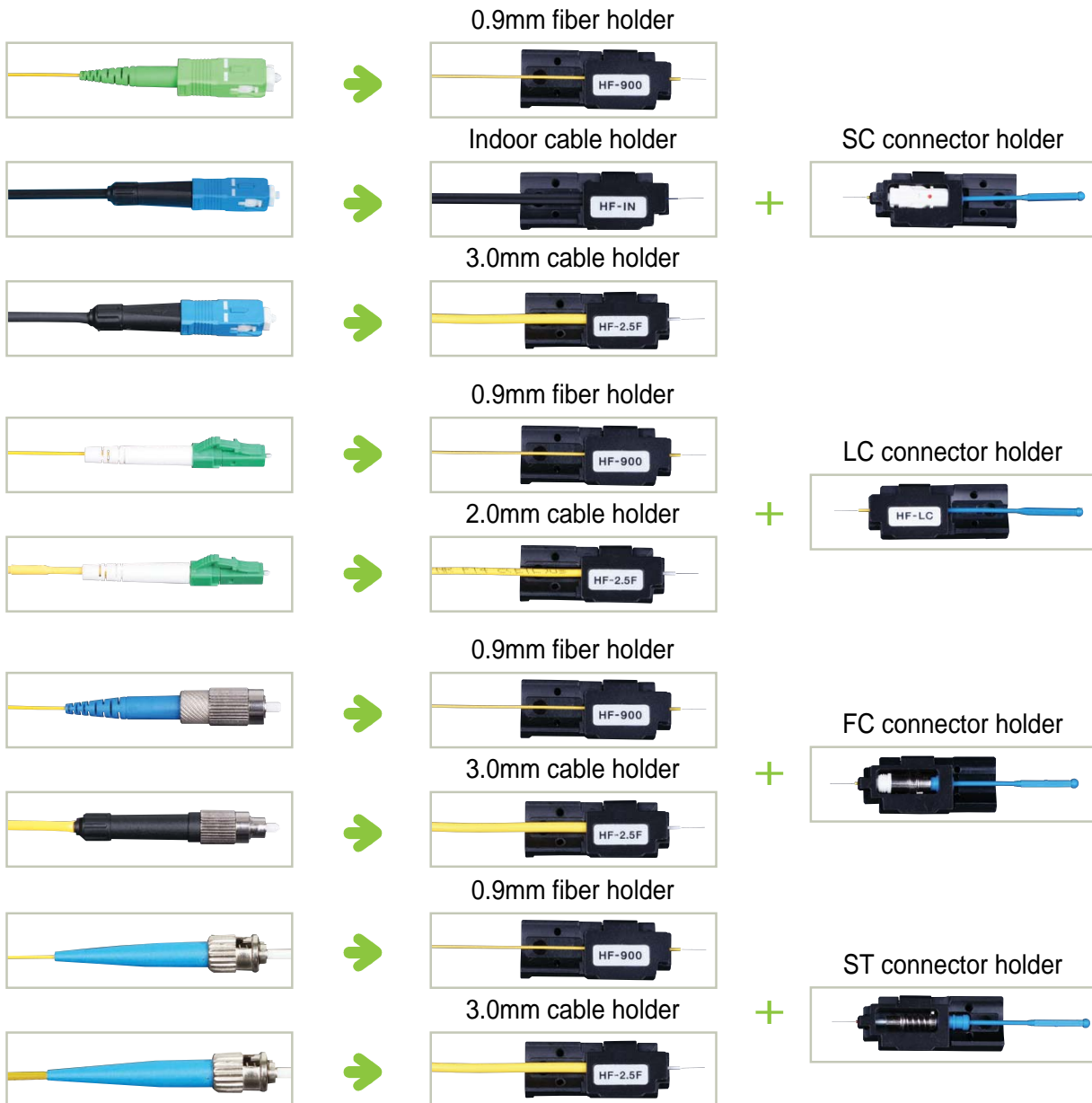
7. Assemble boot



8. Complete

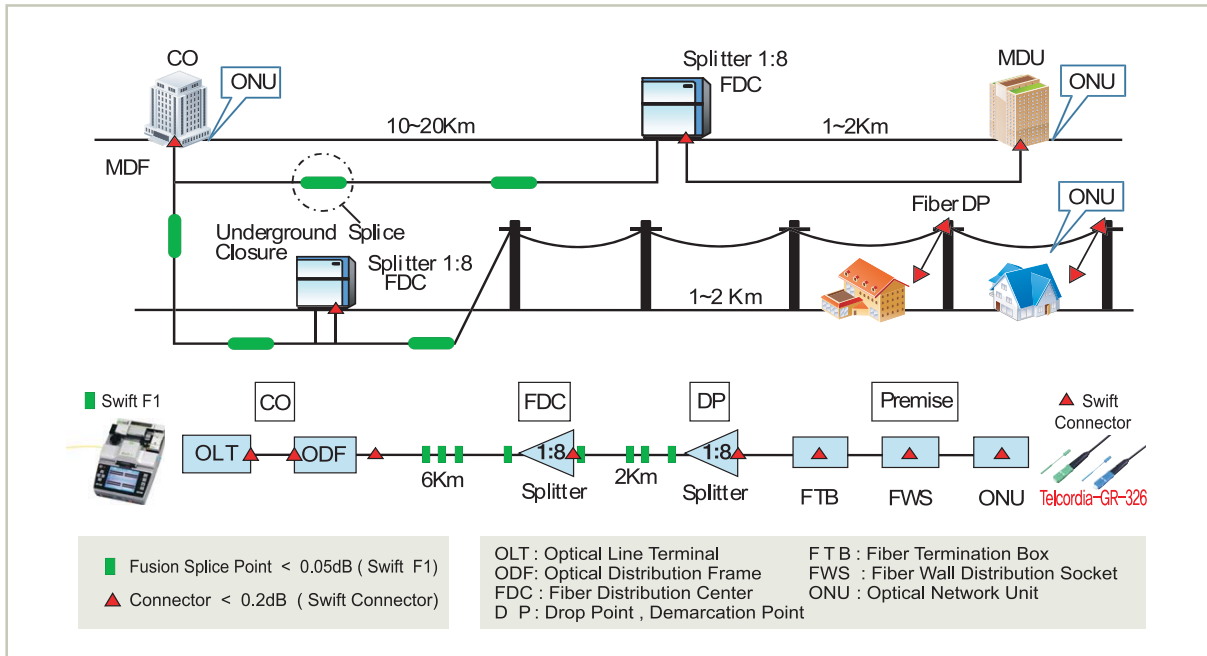


The Choice of Holder by Connector Type

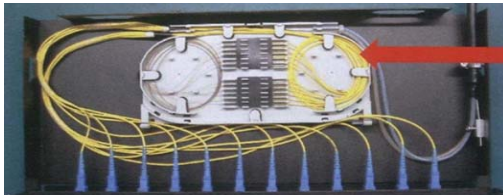


Standard FTTx Network

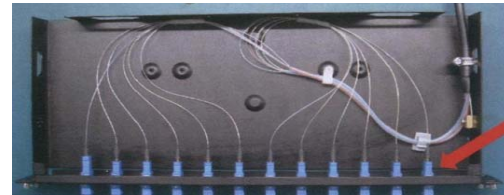
Perfect Solution with Swift F1 and Swift Connector



Using Pigtail Connector



Using Swift Connector



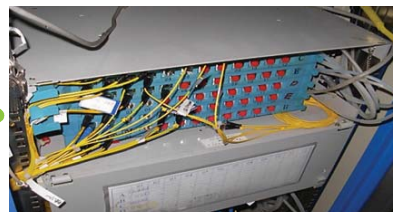
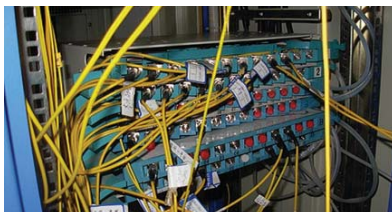
Extra accessories like splice cassette (tray) and sleeve support are not necessary-keeping the space neat.

ODF(Optical Distribution Frame) Applied Case

Before renovation



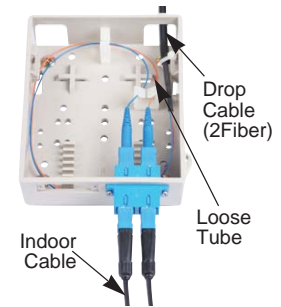
After renovation



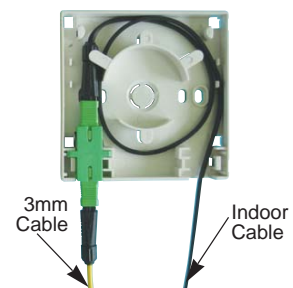
For splice-on connector, it is very easy to maintain and look tidy.

Applied House Field

Outside the Home

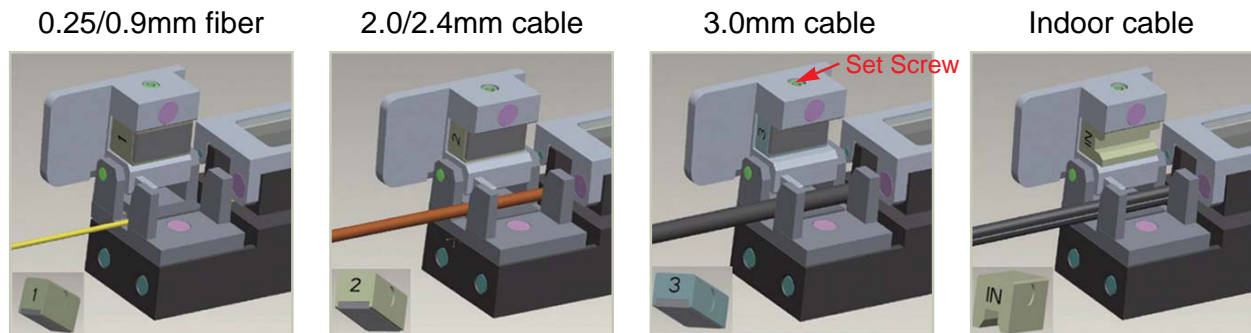


Inside the Home

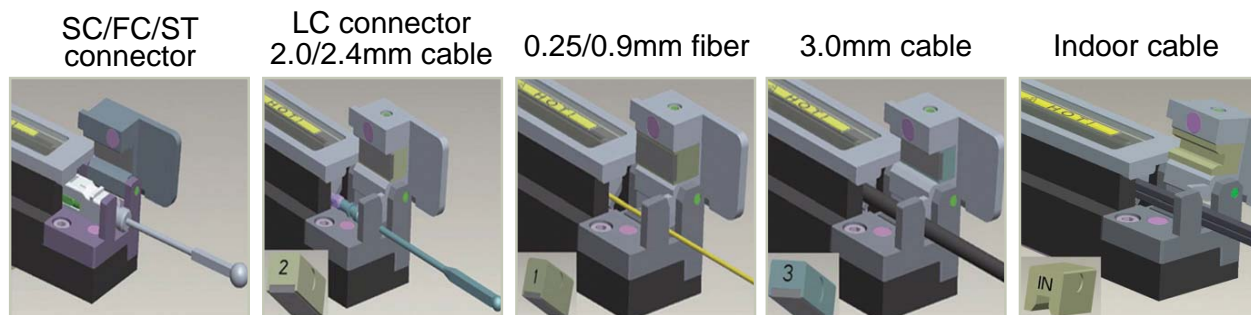


The Choice of a Lever Block by Cable & Connector Type

Choose a lever block on the left side of the oven. (1EA inclusive, 3EA optional)
 (Loosen set screw and then change a block)



Choose a lever block on the right side of the oven. (1EA inclusive, 3EA optional)



Package



SPECIFICATIONS

Subject	Description
Fiber alignment	Fixed V-Groove(Clad to Clad)
Applicable type of fibers	0.25mm, 0.9mm, 2.0mm, 3.0mm, Indoor cable
Fiber count	Single fiber
Applicable fiber dimensions	Cladding diameter: 125 μ m / Coating diameter: 250, 900 μ m
Fiber setting and cleaved length	7.0mm
Splicing modes	Splice mode: 100, Heater mode: 50
Typical Splice Loss	SM: 0.03dB, MM: 0.02dB, DS: 0.06dB, NZDS: 0.06dB
Return loss	> 60dB
Splicing time	Typical 7sec
Splice loss estimate	Available
Sleeve heating time	15sec(0.9mm fiber), 70sec(indoor, 3.0mm cable)
Applicable protection sleeve	45mm(fiber), 28mm or 32mm(connector)
Storage of splice result	The last 2,000 results to be stored in the internal memory.
Tension test	1.96N
Operating condition	Altitude: 0~3,660m above sea level, Temperature: -10 $^{\circ}$ C~50 $^{\circ}$ C, Humidity: 0~95%, Wind: 15m/s, non-condensing
Storage condition	Temperature: -40 $^{\circ}$ C~80 $^{\circ}$ C, Humidity: 0~95%
Dimensions	135(W) \times 200(L) \times 82(H)mm
Weight	1.5kg(body 1.23kg, battery 135g \times 2)
Viewing method and display	Two CMOS cameras and 3.5" color LCD monitor
Fiber view and magnification	X/Y : 170X/190X
Power supply	DC Lithium polymer battery(DC 14.8V, 1400mAh), 100 ~ 240V AC Adapter
No. of splice cycles with battery	Typical 120 cycles(0.9mm fiber)
Electrode life	More than 2,000 times splicing without exchange
Terminals	USB, External power(DC 12V Available for car cigar jack)

STANDARD PACKAGE

Description	Model	Q'ty
Arc Fusion Splicer	F1	1
AC Adapter	F1-1	1
Battery Charger	F1-2	1
Spare Electrodes	EI-19	1set
Battery Pack	F1-B	2
Cooling Tray	CT-01	1
Sleeving Clamp	SC-01	1
Holder	HF-?	Option 1Set(2EA)
Tool Box		1
User Guide CD		1
Carrying Case	Hard Case	1

OPTION PACKAGE

Description	Model	
Battery Pack	F1-B	
Cleaver Blade	BI-05	
DC Adapter	ISFB-02	
Electrode	EI-19	
Fiber Holder	HF-250, HF-900, HF-2.5, HF-IN HF-SC, HF-FC, HF-LC, HF-ST, LF-900	
Sleeve	S09-C	0.9mm Connector, 1.0 \times 2.3 \times 28mm
	S09	9mm Cable, 1.0 \times 2.3 \times 45mm
	S30-C	3.0mm. Indoor Connector, 3.5 \times 4.0 \times 32mm
	S30	3.0mm. Indoor Connector, 3.5 \times 4.0 \times 45mm
Working Table	WK-01(Soft Bag)	
Manual Stripper	MS-01	
SOC Connector	SC, LC, FC, ST Refer to SOC Catalog	