Model X77 Micro Fusion Splicer

An Evolant® Solutions Product

Applications

- All telco, CATV, FTTx and LAN applications
- Accurately splices dissimilar and specialty fibers
- Splicing 900 µm pigtails via core detection system (CDS) mode
- New construction or old-grade fiber splicing

Description

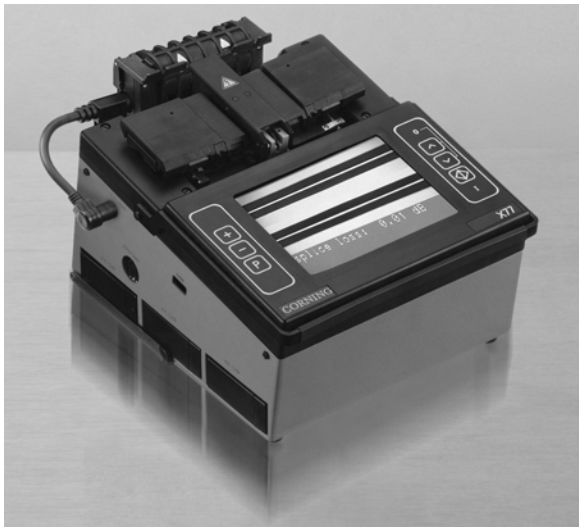
The X77 Micro Fusion Splicer is Corning Cable Systems' best-selling unit. This splicer offers the core alignment accuracy of Corning Cable Systems LID-SYSTEM™ Unit as well as the recent addition of a camera-based core-alignment technology, core detection system (CDS), for speed and versatility.

With the increasing number of applications for splicing dissimilar and specialty fibers, the LID-SYSTEM Unit is a necessity for low-loss splices. The X77 Micro Fusion Splicer is the perfect combination of precision operation and ease of use, both in a cost-effective machine.

The X77 Micro Fusion Splicer offers 13 factory-optimized programs for single-mode, multimode and specialty fibers, as well as 192 user-defined programs. Up to 5200 splice-loss values can be stored for downloading to a text file for system records. Messages and splice-loss results are shown on the fusion splicer's 5.5-in high-resolution LCD screen with contrast adjustment. A tilt stand on the splicer base provides improved viewing and operation orientation.

Features / Benefits

- Both a precision LID-SYSTEM® Unit for direct core alignment and a fast 3-axis camera based core detection system (CDS)
- Utilizes automatic fusion time to optimize each splice (LID-SYSTEM Unit)



Model X77 Micro Fusion Splicer | Photo SEH151

Model X77 Micro Fusion Splicer Carry-On Case (open) | Photo NS72

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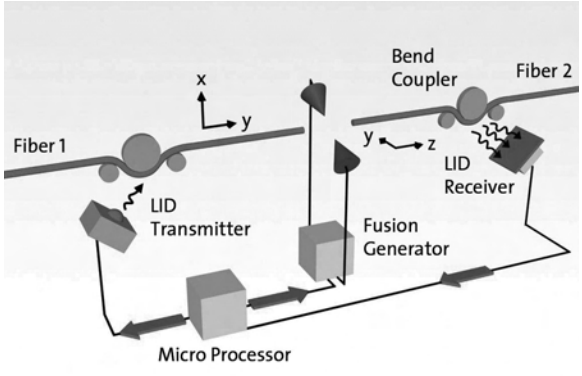
Features / Benefits *(continued)*

- Auto-Start feature begins the splice process when the fiber flaps close
- Includes an external AC power adapter/charger and three internal batteries
- Rugged, watertight "carry-on" style carrying case
- Maintenance-free precise and durable (P&D) electrodes
- Ultra-fast heat-shrink oven (20 second heating time on 60 mm heat-shrinks)
- USB work lamp (optional)
- Capable of building attenuators by using programmable splice loss program (up to 10 dB)

Model X77 Micro Fusion Splicer Carry-On Case (closed) | Photo NS73

LID-SYSTEM™ Unit Technology

The accuracy of the LID-SYSTEM Unit and its power-through splice-loss measurement method eliminates the time-consuming task of evaluating splices with an OTDR. The single-mode LID-SYSTEM Unit first optimizes core alignment in each of the X, Y and Z axes. When the fusion process begins, the X77 Micro Fusion Splicer's unique auto fusion time control monitors the power level through the splice and completes the fusing process when splice loss is at a minimum – ensuring the best splice possible. Finally, the LID-SYSTEM Unit measures splice loss by comparing power levels before and after the fusion process.



LID-SYSTEM Unit | Photo ZA-2736

Core Detection System (CDS)

The X77 Micro Fusion Splicer is now equipped with a secondary method for core alignment (CDS) based on cameras. This technology, although not as accurate as the LID-SYSTEM Unit technology, allows for fast core-alignment (15 sec) even on 900 µm single-mode fibers. The X77 Micro Fusion Splicer is also capable of automatically choosing the best alignment method for the application at hand.

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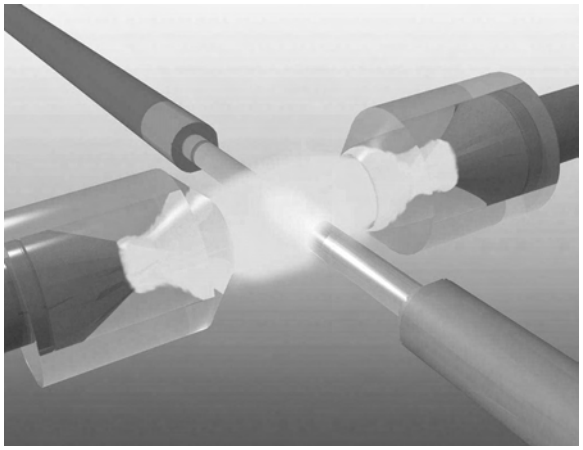
Precise and Durable (P&D) Electrodes

Precise and durable (P&D) electrodes for the X77 Micro Fusion Splicer are absolutely maintenance-free, worry-free, and can reduce the average splice loss up to 50 percent. Permanently attached arc-stabilizers guarantee both high-precision and long-life durability. An electrode cleaning arc, which is applied by the fusion splicer automatically, is sufficient to ensure continued low-loss splicing for approximately 7,000 arcs.



Precise and Durable (P&D) Electrodes | Photo ZA-2737

Specifications

Parameter	Specification
Principle Operation	Direct Core Alignment LID-SYSTEM™ Unit, 3-axis alignment, 1300 nm LED
Fiber Coatings	250 to 900 µm
Fiber Types	Multimode, single-mode, specialty single-mode (non-zero dispersion-shifted (NZDS) single-mode fibers including long-haul, metropolitan and others)
Typical Splice Loss	
Lab	0.02 dB for identical single-mode fibers, 0.01 dB for identical MM fibers, 0.03 for identical NZDS
Field	< 0.05 dB for single-mode
Operating Temperature	-15° to +50°C
Storage Temperature	-40° to +80°C
Humidity	93%, non-condensing
Monitor	Color TFT QVGA LCD, 100x, 5.5-in diagonal
Power	
AC	95-260 V with automatic voltage range selection; 50 to 60 Hz; DC
DC	3x 12 V camcorder rechargeable batteries; recharge time: approximately 8 hours Allows for approximately 3 to 4 hours of use
Dimensions (H x W x D)	216 x 185 x 140 mm (8.5 x 7.3 x 5.5 in)
Weight	2.5 kg (5.5 lb) without batteries, 4.5 kg (9.9 lb) with batteries

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Ordering Information

Part Number	Description
X77-0SM-T-H	X77 Micro Fusion Splicer with FBC-006 precision diamond cleaver, fast heat-shrink oven, standard carry-on case, tilt-base AC/DC power supply and 3 12 V batteries
X77-XSM-T-H	X77 Micro Fusion Splicer with all accessories above except for the FBC-006 cleaver

Accessories

Part Number	Description
X7-CARRYONCASE	New "Carry-On" Style Transit Case with wheels
X7-Fast Oven	New Ultra-Fast (20 sec.) Heat-Shrink Oven for X77 14 Series Fusion Splicers
2806031-01	Heat-Shrink Splice Protection Parts (package of 50, 60 mm long)
X75-010	Crimp & Go® Splice Protection Crimping Device with mounting bracket
FSA-012	Crimp & Go Splice Protection Crimping Device parts (150/pack)
X7-TRANSFER	Splice Pak™ Splice Protector Crimp Adapter with transfer arms
A0276859	Splice Pak Splice Protector, yellow, 250/250 µm (25/pack)
A0295149	Splice Pak Splice Protector, blue, 250/900 µm (25/pack)
A0295150	Splice Pak Splice Protector, green, 900/900 µm (25/pack)
2820013-01	X77 (+14K Series) / M90i USB worklight
M67-003	Fusion Splicing Tool Kit
FSA-022	Precise and Durable (P&D) Electrodes for X77 Series 2000 or higher
TKT-SPLICE	Basic Fusion Splicing Tool Kit
OFT-000	Optical Fiber Access Tool for midspan access
A0398057	Camcorder Battery

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