Model X77i Micro Fusion Splicer
A LANscape® Solutions Product

Applications
- Long-haul, CATV, telco and LAN applications

- Accurately splices current, legacy, dissimilar and specialty fiber types

- Splices 900 µm pigtails utilizing three-dimensional core alignment technology – the core detection system (CDS) mode

Description
The X77i Micro Fusion Splicer is the latest iteration of Corning Cable Systems' best-selling unit. The X77i splicer offers the active core alignment accuracy of Corning Cable Systems LID-SYSTEM™ Unit as well as the speed and versatility of a camera-based passive core-alignment technology, core detection system (CDS).

With the increasing number of applications for splicing dissimilar and specialty fibers, the LID-SYSTEM Unit is a necessity for low-loss splices. The X77i Micro Fusion Splicer is the perfect combination of precise operation and ease of use in one cost-effective machine.

Features / Benefits
- Two-in-one alignment unit offering direct active alignment with LID-SYSTEM Unit Technology and fast 3-axis camera-based passive core-alignment with core detection system (CDS)

- Utilizes automatic fusion time to optimize each splice (LID-SYSTEM Unit)

- Graphical user interface for easy menu navigation

- Auto-Start feature begins the splice process when the fiber flaps close

- Includes an external AC power adapter/charger and three internal batteries

Model X77i Micro Fusion Splicer | Photo LAN787

Model X77i Micro Fusion Splicer Carry-On Case | Photo NS81

- 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)
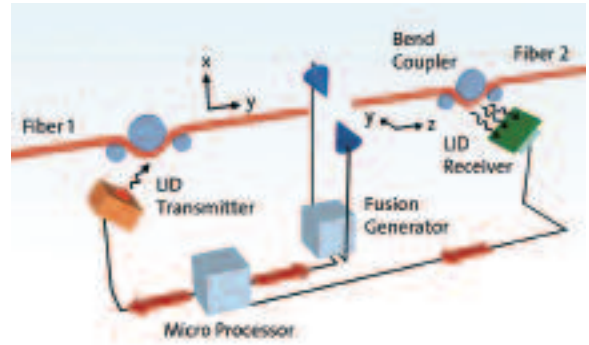
- RDUP listed (formerly RUS)

CORNING
LANscape®
Solutions

Product Specifications

Model X77i Micro Fusion Splicer
A LANscape® Solutions Product

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 X77i 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 Technology | Drawing ZA-2736
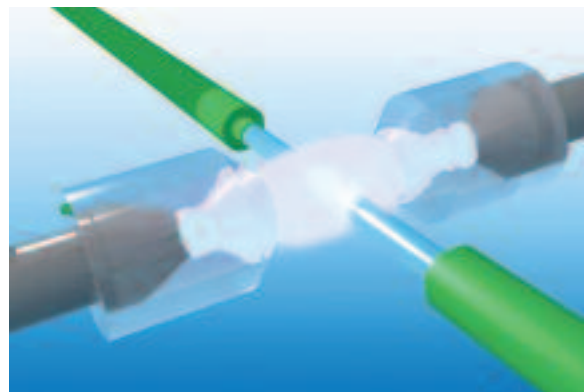
Core Detection System (CDS)

The X77i is now equipped with a secondary method for core alignment (CDS) based on cameras. This technology, although not as accurate as the LID-SYSTEM, allows for fast core alignment (15s) even on 900 µm single-mode fibers. The X77i is also capable of automatically choosing the best alignment method for the application at hand.

Core Detection System Technology (CDS) | Photo NS135

Precise and Durable Electrodes (P&D)

Precise and durable (P&D) electrodes for the X77i 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 Electrodes (P&D) | Drawing ZA-2737

CORNING | LANscape®
Solutions

Model X77i Micro Fusion Splicer

A LANscape® Solutions Product

Specifications

Parameter	Specification
Principle Operation	Direct Core Alignment LID-SYSTEM™ Unit, 3-axis alignment, 1300 nm LED
Secondary Operation	Passive core alignment by core detection system technology (CDS)
Fiber Coatings	250 to 900 µm
Fiber Types	Single-mode, specialty single-mode (NZDS, DS, LS, Er), multimode (50 µm and 62.5 µm)
Typical Splice Loss*	Single-mode < 0.02 dB (similar fibers), < 0.05 dB (dissimilar fibers) NZDS < 0.03 dB (similar fibers), < 0.06 dB (dissimilar fibers) Multimode < 0.01 dB
Estimator Accuracy	Typically ± 0.02 dB for the standard single-mode splices when using the LID-SYSTEM Unit Technology mode, typically ±0.03 dB when using CDS mode
Monitor	Color VGA LCD, 139x, 6.4-in diagonal touch screen; external jack for NTSC/PAL output
Splice Protection	Heat-shrink, Splice Pak™ Splice Protector or Crimp & Go® Crimping Device
Ports	USB 1.1, USB 2.0, headphone jack, microphone jack, VGA output
Splice Loss Storage	Limited only by hard drive space (>100,000)
Heat-Shrink Oven	20 seconds on 60 mm heat-shrinks (fastest in the industry); energy efficient design increases battery life of the fusion splicer
Precise and Durable Electrodes	Maintenance-free to the operator (lasts approximately 7000 splices)
Operating Temperature	-15 to +50°C
Storage Temperature	-40 to +80°C
Humidity	93%, non-condensing
Power 　AC 　DC	 100-240 VAC, automatic voltage range selection; 47 to 63 Hz; 100 W maximum 3X, 2.3 Ah, 12 VDC rechargeable batteries provides approximately 70 splices with heat-shrink oven or approximately 2 hours; recharge time approximately 8 hours (see 3-hour charging option; Accessories section)
Dimensions (H x W x D)	216 x 185 x 140 mm (8.5 x 7.3 x 5.5 in)
Weight	3.1 kg (7 lb) without batteries, 5.1 kg (11.25 lb) with batteries

Under common field conditions

CORNING | **LAN**scape®
Solutions

Model X77i Micro Fusion Splicer

A LANscape® Solutions Product

Ordering Information

Part Number	Description
X77i-0SM-T-H	X77i Fusion Splicer with FBC-006 cleaver, carrying case with wheels, fast heat-shrink oven, splice tray holder, AC power supply with US power cord, 12 V rechargeable batteries (quantity of 3), 1-year limited warranty, operators manual, maintenance tool kit
X77i-XSM-T-H	X77i Fusion Splicer with carrying case with wheels, fast heat-shrink oven, splice tray holder, AC power supply with US power cord, 12 V rechargeable batteries (quantity of 3), 1-year limited warranty, operators manual, maintenance tool kit
X77i-0SM-T-C	X77i Fusion Splicer with FBC-006 cleaver, carrying case with wheels, Crimp & Go® Splice Protection Crimping Device, splice tray holder, AC power supply with US power cord, 12 V rechargeable batteries (quantity of 3), 1-year limited warranty, operators manual, maintenance tool kit
X77i-XSM-T-C	X77i Fusion Splicer with carrying case with wheels, Crimp & Go Splice Protection Crimping Device, splice tray holder, AC power supply with US power cord, 12 V rechargeable batteries (quantity of 3), 1-year limited warranty, operators manual, maintenance tool kit
X77i-0SM-T-P	X77i Fusion Splicer with FBC-006 cleaver, carrying case with wheels, Splice Pak™ Splice Protector with transfer arms, splice tray holder, AC power supply with US power cord, 12 V rechargeable batteries (quantity of 3), 1-year limited warranty, operators manual, maintenance tool kit
X77i-XSM-T-P	X77i Fusion Splicer with carrying case with wheels, Splice Pak Splice Protector with transfer arms, splice tray holder, AC power supply with US power cord, 12 V rechargeable batteries (quantity of 3), 1-year limited warranty, operators manual, maintenance tool kit

Accessories

Part Number	Description
FBC-006	High-Performance Cleaver, one-step operation, diamond blade (typically < 0.7º)
FSA-022	Spare Precise and Durable (P&D) Electrodes
2820013-01	X77 (>14K Series) / M90i USB worklight
X7-CARRYONCASE	New "Carry-On" Style Transit Case with wheels
A0398057	Spare Camcorder-style Battery
iLID-STYLUS	Replacement Stylus for use with the touch screen
iLID-FAST-OVEN	Ultra-Fast Heat-Shrink Oven for X77i/M90i 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)
M67-003	Fusion Splicing Tool Kit
TKT-SPLICE	Basic Fusion Splicing Tool Kit
OFT-000	Optical Fiber Access Tool for midspan access