

## LDMLAX A-87S

# LDMLAX A-87S Fiber Optic Fusion Splicer Instruction Manual

Brand: LDMLAX | Model: A-87S

## 1. INTRODUCTION

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This manual provides detailed instructions for the safe and efficient operation, setup, and maintenance of the LDMLAX A-87S Automatic Fiber Optic Fusion Splicer. The A-87S is a high-precision instrument designed for splicing various types of optical fibers, featuring automatic core alignment, a 3.5-inch TFT color LCD display, and a versatile fiber fixture system. Please read this manual thoroughly before using the device.

## 2. SAFETY INFORMATION

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Always observe the following safety precautions to prevent injury and damage to the equipment:

- Do not expose the splicer to rain or moisture.
- Ensure the power supply voltage matches the device requirements.
- Avoid looking directly into the fiber end during splicing, as invisible laser light may be present.
- Handle optical fibers with care; they are fragile and can cause splinters.
- Keep the splicing area clean and free of debris.
- Only use accessories and replacement parts approved by LDMLAX.

## 3. PACKAGE CONTENTS

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Verify that all items listed below are present in your package:

- 1 x Optical Fiber Fusion Splicer Kit (includes A-87S Splicer)

- Matching Battery (built-in)
- Power Adapter
- Fiber Cleaver
- Fiber Strippers
- Alcohol Dispenser
- Other essential tools and accessories



Product weight (plus fusion splicing chassis): 4.4KG



Product weight (plus fusion chassis + carton): 5.1KG

The complete package for the A-87S Fiber Optic Fusion Splicer, including the splicer unit, power adapter, carrying case, fiber cleaver, fiber strippers, alcohol dispenser, and other essential tools for fiber optic splicing.

## 4. SETUP

### 4.1 Initial Inspection

Upon unpacking, inspect the splicer and all accessories for any signs of damage. If any damage is found, do not operate the device and contact customer support.

## 4.2 Charging the Battery

The A-87S comes with a built-in 11.1V 4800mAh lithium battery. Before first use, fully charge the battery using the provided power adapter. A full charge typically takes 3.5 hours.

## 4.3 Powering On/Off

Press and hold the power button to turn the splicer on or off. The 3.5-inch TFT color LCD display will illuminate upon startup.

## 4.4 Language Settings

The device supports both Chinese and English languages. Navigate through the display menu to select your preferred language for operation.



The A-87S Fiber Optic Fusion Splicer features a 3.5-inch TFT color LCD display for clear operation and monitoring. The display content can be flipped for convenient two-way use, and the system supports both Chinese and English languages.

## 5. OPERATING INSTRUCTIONS

## 5.1 Fiber Preparation

1. **Strip the Fiber:** Use a fiber stripper to remove the protective coating from the fiber end, exposing the bare fiber.
2. **Clean the Fiber:** Clean the bare fiber with an alcohol wipe to remove any contaminants.
3. **Cleave the Fiber:** Use a precision fiber cleaver to create a clean, perpendicular end face on the fiber. Ensure the cleave length is appropriate for the splicer (e.g., 8-16mm for coating below 250 $\mu$ m).

## 5.2 Placing Fiber in the Fixture

The A-87S features a multifunctional three-in-one fixture, suitable for bare fiber, pigtail, jumper, and leather cable. Carefully place the prepared fiber ends into the V-grooves of the splicer's fixture. Ensure the fiber is seated correctly and securely.



This image demonstrates the versatile three-in-one clamp system of the A-87S fusion splicer. It is designed for fully automatic fiber splicing and is suitable for bare fiber, pigtail, patch cord, and leather cable, providing broad compatibility for different FTTx fiber optic cables.

## 5.3 Splicing Process

Close the splicer lid. The A-87S will automatically perform core alignment using its four-motor high-precision system and initiate the splicing process. The typical connection time is approximately 9 seconds.



An internal view of the A-87S fusion splicer, illustrating its four-motor high-precision automatic core alignment system. It also features a V-type high-power automatic heater for efficient heat shrinking and LED lighting for night work. The device offers 17 splice modes and 9 heating modes.

#### 5.4 Heating Process

After splicing, place the splice protection sleeve over the splice point and move it into the heating oven. The A-87S features a V-type high-power automatic heater. The typical heating time is 26 seconds, but this can be adjusted, along with the heating temperature, through the device settings.

# Fully automatic Optical fiber fusion splicer

★ Chinese/English

★ Dual system



9 seconds welding

Heating can be set

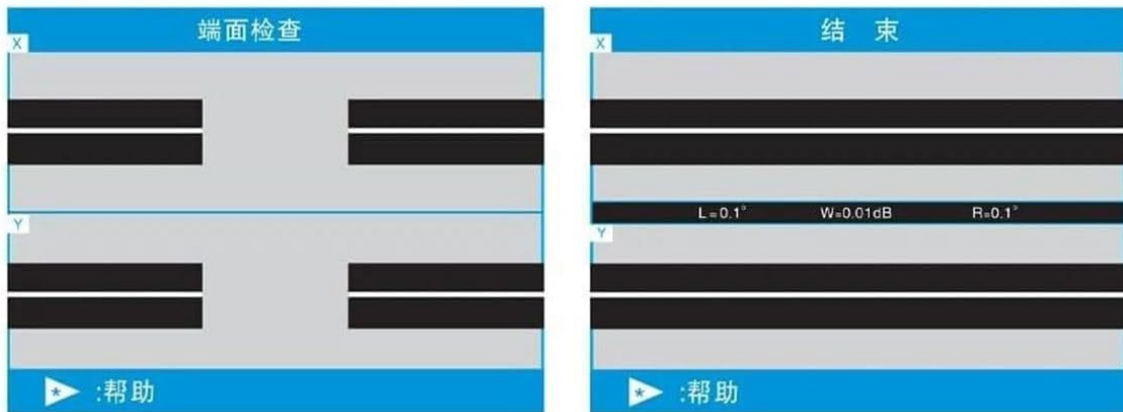
This image highlights the fully automatic operation of the A-87S fusion splicer, capable of completing a splice in approximately 9 seconds. The device supports both Chinese and English language systems.

## 5.5 Display and Menu Navigation

The 3.5-inch TFT color LCD display provides real-time monitoring of the splicing process with 400X magnification. The display content can be flipped for convenient two-way operation. Use the navigation buttons to access and adjust settings for 17 groups of splice modes and 9 groups of heating modes. The internal memory saves up to 5000 updated connection results.

## 400x focusing, real-time amplifying fiber

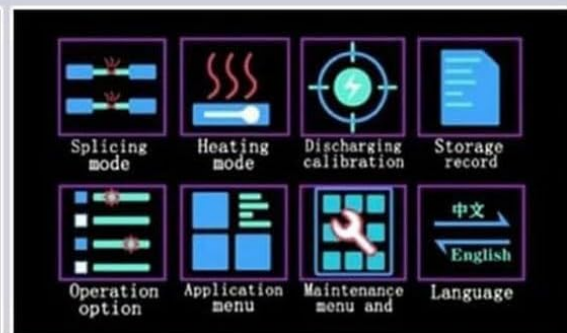
Splice loss: 0.02dB(SM), 0.01dB(MM), 0.04dB(DS/NZDS)



### Chinese system



### English system



Free switching between Chinese and English systems  
(with Chinese and English manuals)

The 3.5-inch TFT color LCD display of the A-87S fusion splicer, showing the English language interface. Users can easily switch between Chinese and English systems, accessing menus for splicing, heating, discharge calibration, storage records, operation options, application menus, maintenance, and language settings.

## 6. MAINTENANCE

### 6.1 Cleaning Electrodes and V-Grooves

Regularly clean the electrodes and V-grooves to ensure optimal splicing performance. Use a soft, lint-free cloth and alcohol. Dirty electrodes can lead to poor splice quality and increased splice loss. Replace electrodes when they show signs of wear or degradation.

### 6.2 Display Cleaning

Clean the display screen with a soft, dry cloth. Avoid using abrasive cleaners or solvents.

### 6.3 Battery Care

To prolong battery life, avoid fully discharging the battery frequently. Store the splicer in a cool, dry place when not in use for extended periods, and ensure the battery has some charge.

## 7. TROUBLESHOOTING

This section provides solutions to common issues you might encounter. For problems not listed here, please contact customer support.

- **Poor Splice Quality/High Loss:** Check fiber cleave quality, clean electrodes and V-grooves, ensure fibers are properly seated, and verify splice mode settings.
- **Splicer Not Powering On:** Ensure the battery is charged or the power adapter is connected correctly.
- **Display Issues:** Restart the device. If the problem persists, contact support.
- **Heating Failure:** Check heating mode settings and ensure the heating element is clean.

## 8. SPECIFICATIONS

Feature	Specification
Item Type	Fiber Optic Fusion Splicer
Material	ABS
Magnification	400X (X axes or Y axes)
Return Loss	Better than 60dB
Typical Connection Time	9 seconds
Typical Heating Time	26 seconds (adjustable)
Cladding Diameter	80-150 $\mu$ m
Coating Diameter	100-1000 $\mu$ m
Cutting Length (Coating < 250 $\mu$ m)	Approx. 8-16mm
Cutting Length (Coating 250-1000 $\mu$ m)	Approx. 16mm
Heat Shrink Tubing	60mm, 40mm, and micro shrink tubing
Display	3.5in TFT color LCD display
External Interface	USB interface
Splice Mode Groups	17 groups
Heating Mode Groups	9 groups
Connection Loss Storage	Internal memory saves 5000 results
Built-In Battery	11.1V 4800mAh lithium battery

Feature	Specification
Power Supply	Built-in lithium battery, charging via adapter
Applicable Fibers	SM (G.652, G.657), MM (G.651), DS (G.653), NZDS (G.655), custom fiber types
Optical Fiber Fixture	Multifunctional (bare fiber, pigtail, jumper, leather cable; replaceable for SC/FTTx connectors)
Package Dimensions	3.94 x 3.94 x 3.94 inches (Product specific)
Item Weight	12.13 pounds
Manufacturer	LDMLAX
Item Model Number	20250422

# Standard fusion splicer

A-87S



This image provides the physical dimensions of the A-87S fusion splicer's carrying case (330mm x 183mm x 213mm) and the overall product packaging (375mm x 220mm x 280mm). The product weight with the fusion splicing chassis is 4.4KG, and with

the chassis plus carton is 5.1KG.

## **9. WARRANTY INFORMATION**

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Please refer to your purchase documentation or contact the seller for specific warranty terms and conditions applicable to the LDMLAX A-87S Fiber Optic Fusion Splicer. Keep your proof of purchase for warranty claims.

## **10. CUSTOMER SUPPORT**

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If you have any questions, require technical assistance, or encounter issues not covered in this manual, please do not hesitate to contact LDMLAX customer support. We are committed to providing prompt and helpful solutions.