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QIIRUN QIIRUN-6481B

Fiber Optic Fusion Splicer User Manual

Model: QIIRUN-6481B | Brand: QIIRUN

1. INTRODUCTION

This manual provides comprehensive instructions for the safe and efficient operation, maintenance, and troubleshooting of your QIIRUN 6481B Series Fiber Optic Fusion Splicer. This device is designed for precise optical fiber splicing, offering advanced features for professionals in the telecommunications and fiber optics industry. Please read this manual thoroughly before using the product to ensure optimal performance and longevity.



Figure 1.1: QIIRUN 6481B Fiber Optic Fusion Splicer

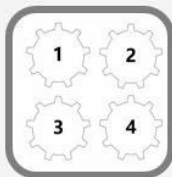
2. KEY FEATURES

The QIIRUN 6481B Series Fiber Optic Fusion Splicer incorporates several advanced features to enhance splicing efficiency and accuracy:

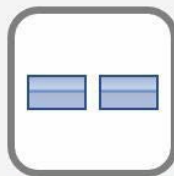
- **4 High Precision Motors:** Ensures accurate fiber alignment for minimal splicing loss.
- **Fast Splicing & Heating:** Achieves 7-second splicing and 18-second heating for rapid task completion.
- **Ultra-Low Splicing Loss:** Delivers an impressive 0.02dB ultra-low splicing loss.
- **5mm Fusion for Ultra-Short Cleave Length:** Supports efficient splicing even with very short fiber cleaves.
- **320 Times Image Magnification:** Provides clear and detailed fiber views for precise operation.
- **Extensive Data Storage:** Stores 300 groups of splice modes, 100 groups of heating modes, and 10,000 groups of fusion records.

- **4.3-inch Touch Screen:** Features a graphical user interface for intuitive and smooth operation.
- **All-in-One Fixture:** Compatible with various optical fibers, jumpers, and rubber-insulated wires.
- **Dual-Directional Fusion Capability:** Allows for flexible fiber placement and splicing.
- **High Precision Ceramic V-groove and Presser Foot:** Ensures convenient and accurate fiber loading, simplifying cleaning and maintenance.
- **Intelligent Heat Shrink:** The heater activates only when fiber is detected, preventing accidental burns.
- **Pluggable Large-Capacity Lithium-Ion Battery:** A 6800mAh battery supports up to 220 splicing and heating cycles for extended field work.
- **Compact and Durable Design:** Water-resistant, dust-resistant, shock-resistant, and high-temperature resistant for reliable performance in various environments.

Technical Facts



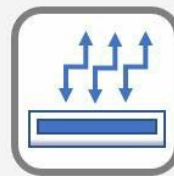
4
High
Precision
Motors



Cladding
Alignment



7s
Splicing
Time



18s
Heating
Time



0.02dB
Splicing
Loss

Figure 2.1: Technical Facts of the Splicer

Detail Speaks



Compatible with
0.25/0.9/3.0mm fiber
/flat/drop cable



Silicon Keypad, Waterproof,
Dust Proof, Comfortable hand
feeling



Bright built-in
Lighting



USB / SD / External
Power Port



Detachable
Protective Pad

Figure 2.2: Touch Screen and Battery Features

3. PRODUCT OVERVIEW AND COMPONENTS

Familiarize yourself with the main components of the Fiber Optic Fusion Splicer:

First Look



Figure 3.1: Main Components of the Splicer

- **Electrodes:** Generate the arc for fiber fusion.
- **Ceramic V-groove:** Holds the fiber securely in place during splicing.
- **Wind Shield:** Protects the splicing area from environmental interference.
- **Ceramic Presser Foot:** Applies gentle pressure to the fiber for proper alignment.
- **4.3-inch HD Touch Screen:** Displays operation interface and fiber images.
- **Optical Fiber Fixture:** Secures various types of optical fibers.
- **Key Pad Area:** Provides physical buttons for navigation and control.
- **Strap Buckles:** For attaching a carrying strap.
- **SD / USB Ports:** For data transfer and external power.
- **Heater:** For heat shrinking protection sleeves.
- **Cooling Tray:** For cooling heat-shrunk fibers.

Toolbox with useful accessories



Packing List

Fusion Splicer * 1

Toolbox * 1

Charger & Adaptor * 2

Fiber Cleaver * 1

Cooling Tray * 1

Miller & Stripper * 2

Battery Pack * 1

Spare Electrode * 2

Cleaning Tool Set * 1

Figure 3.2: Detailed Features

4. SETUP

Before first use, ensure the splicer is properly set up:

1. **Unpacking:** Carefully remove all components from the carry case. Verify that all items listed in the packing list are present.
2. **Battery Installation:** The splicer comes with a pluggable lithium-ion battery. Ensure it is securely inserted into its compartment. The battery is designed for easy removal and replacement.
3. **Protective Pad:** The splicer includes a detachable protective pad that enhances its dust and shock resistance. Attach this pad to the bottom of the unit for added durability, especially during field operations.
4. **Power On:** Press the power button to turn on the splicer. The 4.3-inch touch screen will illuminate, displaying the main interface.

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Video 4.1: Demonstrates the installation of the battery and the protective pad, highlighting the splicer's robust design and accessible ports.

5. OPERATING INSTRUCTIONS

Follow these steps for successful fiber optic fusion splicing:

1. Fiber Preparation:

- Clean the fiber using appropriate cleaning tools (e.g., lint-free wipes and alcohol).
- Use the miller stripper to remove the fiber coating, exposing the bare fiber.
- Cleave the fiber using the high-quality fiber cleaver to achieve a precise, clean end face.

2. Fiber Loading:

- Open the wind shield and the fiber clamps.
- Carefully place the prepared fibers into the ceramic V-grooves, ensuring they are properly seated. The built-in lighting assists in precise placement.
- Close the fiber clamps and then the wind shield. The splicer will automatically begin alignment.

3. Splicing Process:

- The splicer's 4 high-precision motors will align the fibers. Monitor the alignment on the touch screen.
- Once aligned, the splicer will automatically initiate the fusion process. This typically takes 7 seconds.
- After fusion, the splicing loss will be displayed on the screen.

4. Heat Shrinking:

- Carefully open the wind shield and fiber clamps.
- Place a protection sleeve over the spliced area.
- Transfer the fiber with the sleeve to the intelligent heat shrink oven. The heater will activate automatically upon fiber detection.
- The heating process takes approximately 18 seconds. Once complete, remove the fiber and place it on the cooling tray.

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Video 5.1: Overview of the splicer's touch screen interface and navigation through various functions and settings.

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Video 5.2: Demonstrates the complete fiber splicing process, from fiber placement to fusion and heat shrinking.

6. MAINTENANCE

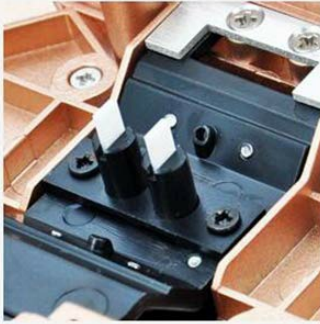
Regular maintenance ensures the longevity and optimal performance of your splicer:

- **Cleaning the V-groove and Presser Foot:** Regularly clean the ceramic V-groove and presser foot with a cotton swab and alcohol to prevent dust and fiber debris from affecting splicing accuracy.
- **Electrode Replacement:** The electrodes have a limited lifespan. Replace them when the splicer indicates or when

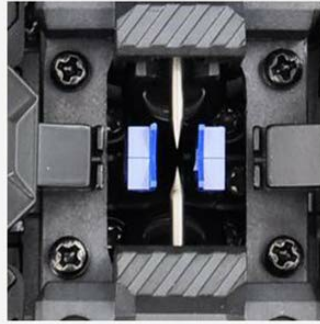
splicing performance degrades. Spare electrodes are included in the kit.

- **General Cleaning:** Keep the splicer clean and free from dust. Use a soft, dry cloth for external surfaces.
- **Battery Care:** Charge the battery regularly, even when not in use, to maintain its health. Store the splicer and battery in a cool, dry place.

High Precision



Ceramic Presser Foot



Ceramic V-groove

- Fiber Loading more Convenient & Accurate
- Easy for Clean & Maintenance

Intelligent Heat Shrink

- Heater won't work until fiber is detected by the embedded sensor
- Avoid scalding



Figure 6.1: Ceramic V-groove and Intelligent Heat Shrink



Touch Screen & Graphics Interface

- **4.3** inches Touch Screen with protective panel
- **GUI** Interface, easy and intuitive to operate
- **320** times magnification

Large Capacity Battery

- **Pluggable** Li-ion
- **6800mAh**
- **220** times of Splicing & Heating
- **Satisfying** your whole day operation



Figure 6.2: Included Accessories and Cleaning Tools

7. TROUBLESHOOTING

This section addresses common issues you might encounter and their potential solutions:

Problem	Possible Cause	Solution
High Splicing Loss	Dirty V-groove/electrodes, poor fiber cleave, worn electrodes.	Clean V-groove and electrodes. Re-cleave fiber. Replace electrodes if worn.
Splicer Not Powering On	Low battery, faulty battery, power adapter issue.	Charge battery. Check battery connection. Test with power adapter.
Fiber Not Aligning	Improper fiber placement, dirty V-groove, motor malfunction.	Ensure fibers are correctly seated. Clean V-groove. Contact support if motors are faulty.

Problem	Possible Cause	Solution
Heater Not Working	Fiber not detected, heater element fault.	Ensure fiber is correctly placed in the heater. Contact support if heater is faulty.

8. SPECIFICATIONS

Detailed technical specifications for the QIIRUN 6481B Series Fiber Optic Fusion Splicer:

Attribute	Value
Product Dimensions	6.06 x 4.72 x 5.12 inches; 3.97 Pounds
Item Model Number	QIIRUN-6481B
Batteries	1 Lithium Ion batteries required (included)
Date First Available	October 17, 2020
Manufacturer	CETI
ASIN	B08LBRGLJR
Brand	QIIRUN
Power Source	Battery Powered
Style	Digital
Color	Gold
Item Weight	1.8 Kilograms

9. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please refer to the official QIIRUN website or contact their customer service directly. A detailed User Guide (PDF) is also available for download from the product's Amazon listing page for further reference.

Additional resources:

- Official User Guide (PDF): [Download Here](#)
- QIIRUN Store on Amazon: [Visit Store](#)

