## VEVOR ALK-T3

# VEVOR ALK-T3 Fiber Fusion Splicer Instruction Manual

Model: ALK-T3

## 1. Product Overview

The VEVOR ALK-T3 Fiber Fusion Splicer is a high-precision optical fiber splicing machine designed for efficient and reliable fiber optic connections. It features 4 high-precision motors, clad alignment technology, and a 5-inch color touch screen for clear operation. This device is compatible with various fiber types including SM, MM, DS, NZDS, UI, BUI, and EDF, utilizing a versatile 3-in-1 fiber holder. Its robust design ensures durability in diverse environmental conditions.


Figure 1: VEVOR ALK-T3 Fiber Fusion Splicer. This image shows the overall design of the splicer, highlighting its display and fiber handling components.

## 2. Setup and Initial Preparation

Before operating the VEVOR ALK-T3 Fiber Fusion Splicer, ensure all components are present and the device is properly prepared for use.

### 2.1 Unpacking and Inspection

1. Carefully unpack the fusion splicer and all accessories from the portable case.
2. Verify that all items listed in the 'Professional All-in-One Kit' are present.
3. Inspect the splicer for any visible damage that may have occurred during transit.

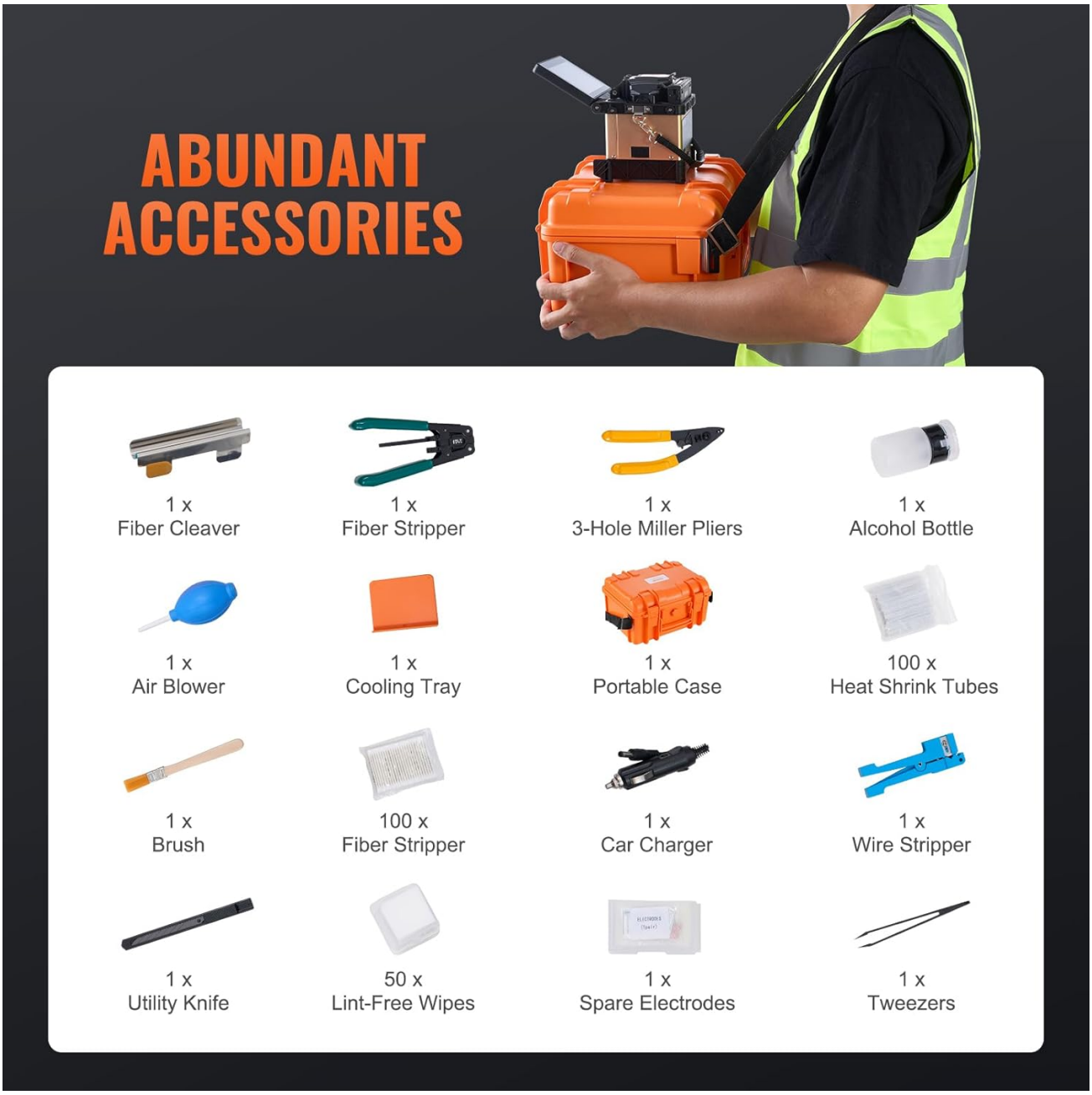


Figure 2: Abundant Accessories. This image displays the comprehensive kit included with the splicer, such as a fiber cleaver, stripper, alcohol bottle, and portable case.

## 2.2 Charging the Battery

The splicer is equipped with a 7800mAh high-capacity rechargeable battery. For optimal performance, ensure the battery is fully charged before extended use.

- Connect the provided power adapter to the splicer's charging port.
- Plug the adapter into a suitable power outlet.
- The charging indicator on the device will show the charging status. A full charge allows for over 260 continuous fusion splicing and heating cycles.


Figure 3: Extended Operation Time. This image highlights the 7800mAh battery, indicating its capacity for prolonged use.

## 3. Operating Instructions

Follow these steps for effective fiber fusion splicing.

### 3.1 Fiber Preparation

1. **Strip the Fiber:** Use the fiber stripper to remove the protective coating from the fiber optic cable, exposing the bare fiber.
2. **Clean the Fiber:** Apply alcohol to a lint-free wipe and carefully clean the stripped fiber to remove any contaminants.
3. **Cleave the Fiber:** Place the cleaned fiber into the fiber cleaver and perform a precise cleave to ensure a clean, perpendicular end face.

Video 1: Operation Guide Video. This video provides a detailed demonstration of the fiber preparation and splicing process.

### 3.2 Placing Fiber in the Holder

The splicer features a 3-in-1 fiber holder compatible with various fiber types.

- Open the fiber holder clamps.

- Carefully place the prepared fiber into the appropriate groove of the 3-in-1 holder. Ensure the fiber end is positioned correctly for splicing.
- Close the clamps to secure the fiber.


Figure 4: 3-in-1 Fiber Holder. This image illustrates the versatile fiber holder, suitable for bare fiber, patch cords, rubber-insulated cables, and pigtail fibers.

### 3.3 Performing the Fusion Splice

1. **Power On:** Turn on the splicer using the power button. The 5-inch color touch screen will display the interface.
2. **Select Splicing Mode:** On the touch screen, select the appropriate splicing program (SplicePROG) for your fiber type.
3. **Initiate Splicing:** Press the 'Run' button on the screen or the physical button to start the automatic splicing process. The splicer will perform clad alignment, fusion, and loss estimation.
4. **Monitor Splicing:** Observe the splicing process on the 5-inch display. The screen offers independent 330x X or Y magnification and simultaneous 200x X/Y display for clear viewing of fiber cores and splicing status.
5. **Heating:** After successful splicing, move the spliced fiber to the heating tray. Select the heating program (HeatPROG) and initiate heating to protect the splice with a heat shrink tube.


Figure 5: Enhance Splicing Efficiency. This image illustrates the rapid 6-second splicing and 13-second heating capabilities of the device.


Figure 6: Visible Splicing Status. The 5-inch HD touch screen provides clear display of splicing loss and cutting angle, with high magnification options.

Video 2: Cladding Alignment Guide Video. This video demonstrates the cladding alignment process, crucial for precise fiber splicing.

## 4. Maintenance

Regular maintenance ensures the longevity and optimal performance of your VEVOR ALK-T3 Fiber Fusion Splicer.

### 4.1 Cleaning

- Use the provided brush and cotton swabs with alcohol to clean the V-grooves, electrodes, and objective lenses regularly.
- Ensure no dust or fiber debris accumulates on the splicing area or display screen.
- The device is designed to be dustproof; however, keeping it clean will prevent operational issues.

### 4.2 Electrode Replacement

Electrodes are consumable parts and require replacement after a certain number of splices or if splicing performance degrades. Refer to the 'Abundant Accessories' image for spare electrodes.

- Power off the splicer and disconnect it from the power source.
- Carefully remove the old electrodes following the instructions in the full user manual.
- Install new electrodes, ensuring they are correctly seated.
- Perform an arc calibration after electrode replacement.

### 4.3 Light Source Calibration

Periodic calibration of the light source ensures accurate splicing results.

Video 3: Light Source Calibration Video. This video guides you through the process of calibrating the splicer's light source.

## 5. Troubleshooting

This section addresses common issues you might encounter with your VEVOR ALK-T3 Fiber Fusion Splicer.

| Problem | Possible Cause | Solution |
|---|---|---|
| High Splicing Loss | Dirty fiber ends, poor cleave, worn electrodes, incorrect splicing parameters. | Clean fiber thoroughly, re-cleave fiber, replace electrodes, verify splicing settings. |
| Splicer Fails to Start | Low battery, power adapter issue, device malfunction. | Charge battery, check power connections, contact support if issue persists. |
| Display Not Responding | Software glitch, touch screen issue. | Restart the device. If unresponsive, contact customer support. |
| Fiber Not Aligned | Dirty V-grooves, fiber not seated correctly, motor issue. | Clean V-grooves, re-seat fiber, perform arc calibration. |

## 6. Specifications

Key technical specifications for the VEVOR ALK-T3 Fiber Fusion Splicer.

| Feature | Detail |
|---|---|
| Model | ALK-T3 |
| Alignment Method | Clad Alignment |
| Number of Motors | 4 |
| Screen Type | 5-inch Color Touch Screen |
| Splicing Time | 6s (Fast), 9s (Standard) |
| Heating Time | 13s |
| Battery Capacity | 7800mAh (260+ cycles) |
| Fiber Holder | 3-in-1 (SM, MM, DS, NZDS, UI, BUI, EDF) |
| Magnification | 330x (X or Y), 1100x (Zoom), 200x (X & Y Simultaneous) |

| Feature | Detail |
|---|---|
| Item Weight | 11.24 lbs / 5.1 kg (including accessories) |
| Dimensions | 5.75 x 5.16 x 5.98 inches (146 x 131 x 152 mm) |
| Environmental Suitability | Dustproof, shatterproof, shockproof; suitable for dry climates, snowstorms, high altitudes, and high-temperature environments. |


Figure 7: Product Specifications. This image provides a visual summary of the splicer's key features and dimensions.

## 7. Warranty and Support

For warranty information, technical support, or service inquiries, please refer to the documentation included with your product or visit the official VEVOR website. Ensure you have your product model number (ALK-T3) and purchase details available when contacting support.