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> Longer 3D Printer Motherboard Installation and Operation Manual for LK1, LK2, LK4, LK5, Alfawise U20, and U30

## Longer 8541730770

# Longer 3D Printer Motherboard Installation and Operation Manual

Model: 8541730770

Compatible with Longer LK1, LK2, LK4, LK5, Alfawise U20, and U30 3D Printers

## 1. INTRODUCTION

This manual provides essential information for the safe and effective installation, operation, and maintenance of your Longer 3D Printer Motherboard. This motherboard is an original replacement part designed for compatibility with Longer LK1, LK2, LK4, LK5, Alfawise U20, and U30 3D printers. Please read this manual thoroughly before proceeding with any installation or operation.

## 2. SAFETY INFORMATION

### **WARNING: Electrical Shock Hazard**

- Always disconnect the 3D printer from the power source before installing, removing, or performing any maintenance on the motherboard or other components.
- Ensure your hands are dry and free of static electricity before handling the motherboard. Use an anti-static wrist strap if available.
- Do not expose the motherboard to moisture or extreme temperatures.
- Only qualified personnel should perform repairs or modifications.
- Verify all connections are secure and correctly oriented before reapplying power. Incorrect wiring can cause damage to the motherboard and other printer components.

## 3. PACKAGE CONTENTS

Please verify that all items listed below are included in your package. If any items are missing or damaged, contact Longer customer support.

- Longer 3D Printer Motherboard (Model: 8541730770)
- Connection Cables (for build plate and other peripherals)





Image: Included connection cables and small mounting hardware components.

## 4. SETUP AND INSTALLATION

Follow these steps carefully to install the new motherboard into your 3D printer.

### 1. Prepare the Printer:

- Power off your 3D printer and unplug it from the wall outlet.
- Allow the printer to cool down completely if it was recently in operation.
- Open the printer's control box or access panel to expose the existing motherboard.

### 2. Disconnect Old Motherboard:

- Carefully photograph or label all cable connections before disconnecting them. This will aid in reassembly.
- Disconnect all cables from the old motherboard.
- Unscrew and remove the old motherboard from its mounting points.

### 3. Install New Motherboard:

- Position the new Longer motherboard in the printer's control box.
- Secure the new motherboard using the provided mounting hardware or the original screws. Ensure it is firmly seated.

### 4. Reconnect Cables:

- Refer to your photographs or labels and carefully reconnect all cables to the new motherboard. Pay close attention to polarity and correct port assignment.
- Ensure all connectors are fully seated and secure.

### 5. Close Printer:

- Close the printer's control box or access panel.

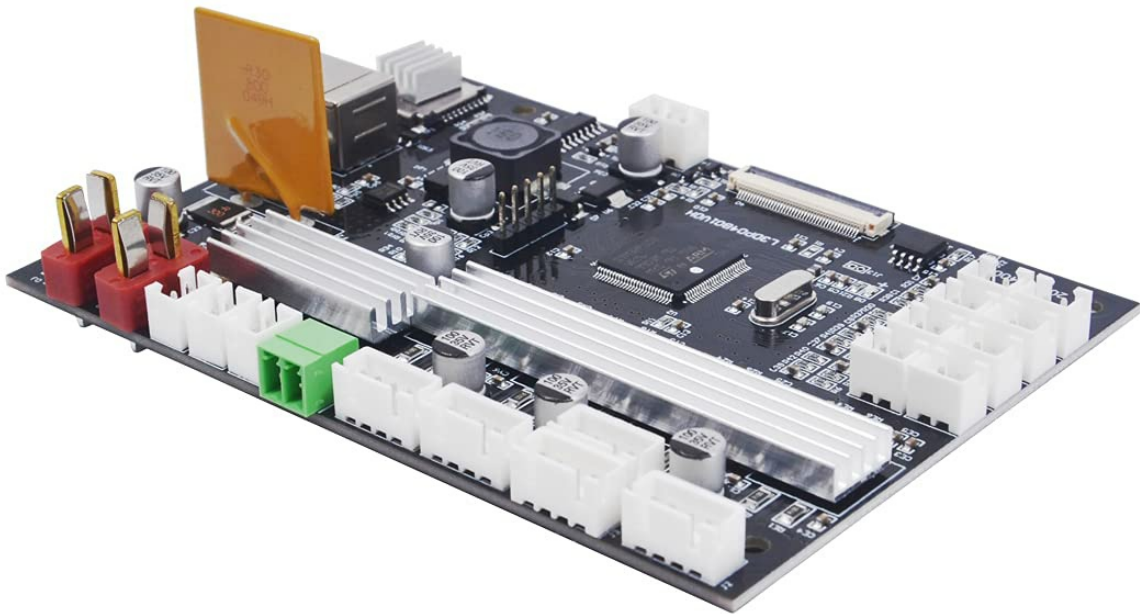


Image: Angled view of the motherboard, showing various connection points for reference during installation.

## 5. INITIAL OPERATION AND FIRMWARE

After installation, follow these steps for initial power-up and to ensure proper functionality.

### 1. Power On:

- Plug the 3D printer back into the wall outlet.
- Turn on the printer's power switch.
- Observe the printer's display and listen for any unusual sounds.

### 2. Firmware Verification/Update:

- The motherboard may come with pre-installed firmware. However, it is recommended to verify that the correct firmware version for your specific printer model (LK1, LK2, LK4, LK5, U20, or U30) is installed.
- If the firmware is incorrect or outdated, or if you experience issues like a non-responsive touchscreen (as noted in some user experiences), you may need to flash the correct firmware.
- Visit the official Longer support website for the latest firmware files and detailed instructions on how to perform a firmware update. Typically, this involves loading firmware onto an SD card and inserting it into the motherboard.

### 3. Initial Test:

- Perform a basic functional test, such as moving the print head axes and heating the hot end and print bed, to confirm all components are responding correctly.

## 6. MAINTENANCE

Proper maintenance can extend the lifespan of your motherboard and ensure consistent performance.

- **Dust Removal:** Periodically, with the printer powered off and unplugged, use compressed air or a soft brush to gently remove dust accumulation from the motherboard and its components. Dust can lead to overheating and component failure.
- **Connection Checks:** Occasionally inspect all cable connections to ensure they remain secure and free from corrosion. Loose connections can cause intermittent issues.
- **Environmental Control:** Operate your 3D printer in a clean, dry environment with stable temperatures to prevent damage to electronic components.

## 7. TROUBLESHOOTING

If you encounter issues after installing the new motherboard, refer to the following common problems and solutions.

Problem	Possible Cause	Solution
Printer does not power on.	Loose power connection, faulty power supply, incorrect wiring.	Check all power connections. Ensure the power supply is functional. Re-verify wiring against diagrams.
Touchscreen/LCD does not work.	Incorrect firmware, loose display cable.	Verify the display cable is securely connected. Flash the correct firmware for your specific printer model.
Motors are not moving or moving incorrectly.	Loose motor cables, incorrect motor driver settings (firmware).	Check all motor cable connections. Ensure the firmware is correct and configured for your printer's motor setup.
Hot end or print bed not heating.	Loose heater/thermistor connections, faulty components, firmware issue.	Verify heater and thermistor connections. Check for any visible damage to wires or components. Ensure firmware supports your heating elements.

Problem	Possible Cause	Solution
Printer behaves erratically.	Incorrect firmware, loose connections, electrical interference.	Ensure correct firmware is installed. Check all connections. Isolate the printer from other electronics if interference is suspected.

If these steps do not resolve your issue, please contact Longer customer support for further assistance.

## 8. SPECIFICATIONS

Feature	Detail
Product Dimensions	1.57 x 5.91 x 5.91 inches
Item Weight	8.1 ounces
Manufacturer	Longer
ASIN	B07P3HGWRB
Item Model Number	8541730770
Date First Available	February 21, 2019
Compatibility	Longer LK1, LK2, LK4, LK5, Alfawise U20, U30 3D Printers

## 9. WARRANTY AND SUPPORT

Longer is committed to providing quality products and customer satisfaction. For warranty information, technical support, or assistance with your motherboard, please contact Longer directly.

Users have reported positive experiences with Longer's support team, including quick responses for firmware-related inquiries.

- **Online Resources:** Visit the official Longer website for product information, FAQs, and firmware downloads.
- **Contact Support:** Refer to the Longer website for contact methods such as email, live chat, or phone support.

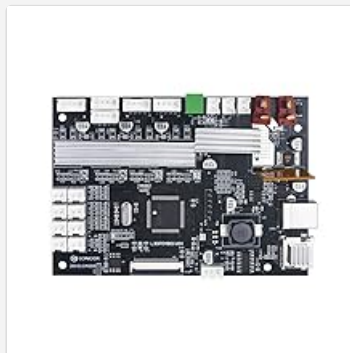


Image: A Longer 3D printer, representing the compatible devices for this motherboard.

