

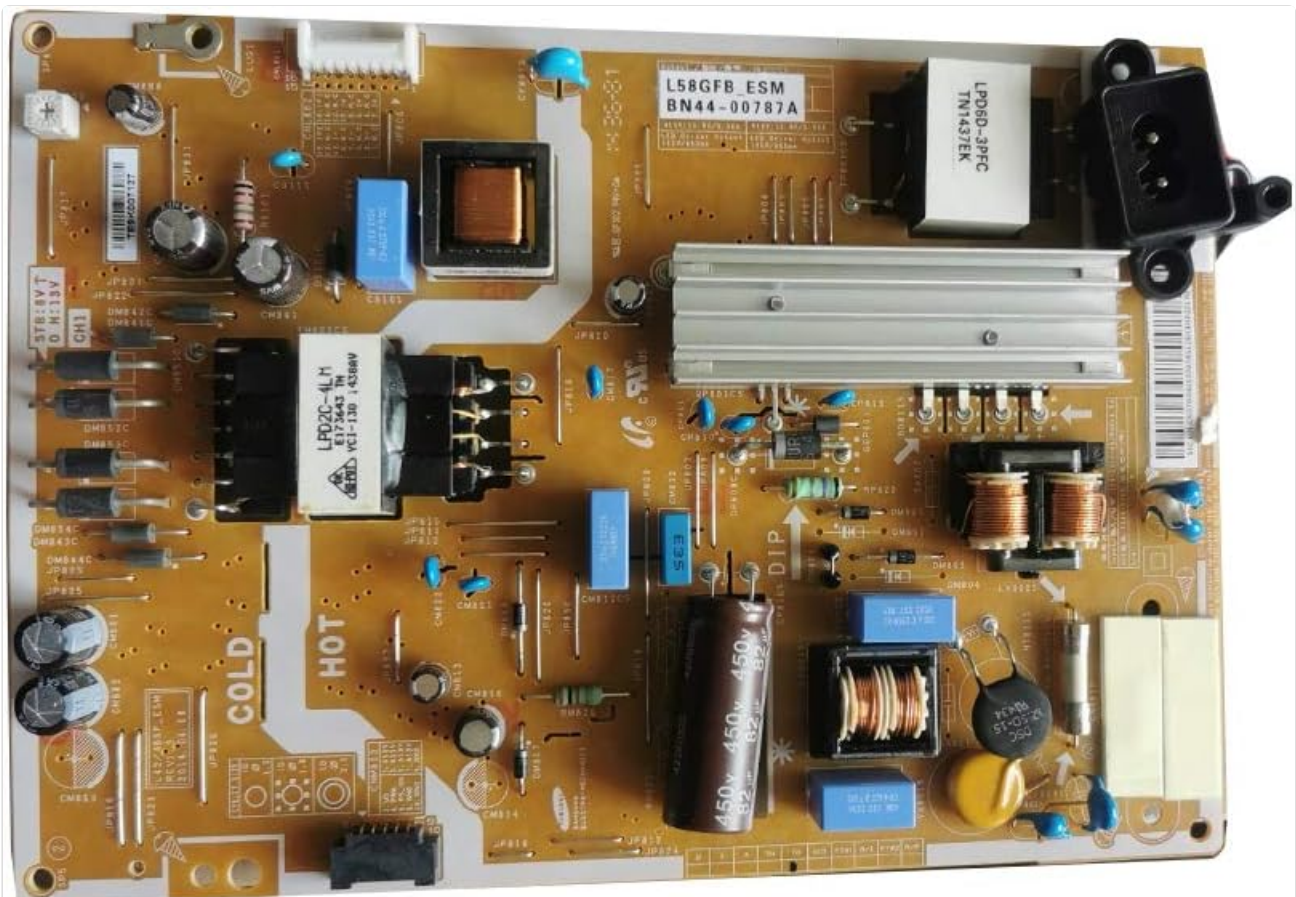
aikeec BN44-00787A L58GFB-ESM

Power Supply Board BN44-00787A L58GFB-ESM User Manual

Brand: aikeec | Model: BN44-00787A L58GFB-ESM

1. OVERVIEW

The aikeec BN44-00787A L58GFB-ESM is a replacement power supply board specifically designed for the Samsung UA58H5288AJ television model. This component is crucial for converting incoming AC power into the various DC voltages required to operate the television's internal circuits, including the main board, backlight, and audio systems. Proper installation of this board can restore power functionality to a non-responsive television.



A detailed view of the aikeec BN44-00787A L58GFB-ESM power supply board. The board is brown with various electronic components including capacitors, inductors, transformers, and heat sinks. Key labels like 'L58GFB ESM BN44-00787A' and 'HOT'/'COLD' sections are visible. There are multiple connectors and screw mounting points.

2. SAFETY INFORMATION

Before attempting any installation or repair, please read and understand the following safety precautions. Failure to do so may result in electric shock, injury, or damage to the product or television.

- **Disconnect Power:** Always unplug the television from the main power outlet and allow sufficient time for capacitors to discharge before touching any internal components.
- **Professional Installation Recommended:** Installation should ideally be performed by a qualified technician due to the presence of high voltage components.
- **Static Electricity:** Wear an anti-static wrist strap or frequently touch a grounded metal object to discharge static electricity, which can damage sensitive electronic components.
- **Handle with Care:** Avoid touching the surface of the board or components unnecessarily. Hold the board by its edges.
- **Ventilation:** Ensure the television's ventilation openings are not blocked after installation to prevent overheating.

3. SETUP AND INSTALLATION

This section outlines the general steps for replacing the power supply board. Specific disassembly and reassembly procedures for your Samsung UA58H5288AJ TV model may vary and should be referenced from the TV's service manual if available.

1. **Preparation:** Lay the television face down on a soft, clean surface to prevent screen damage. Remove the back cover of the television.
2. **Locate Old Board:** Identify the existing power supply board. It is typically the largest board connected directly to the AC power inlet.
3. **Disconnect Cables:** Carefully disconnect all cables connected to the old power supply board. These usually include cables to the main board, backlight inverter, and possibly audio board. Note their positions for reassembly.
4. **Remove Old Board:** Unscrew all mounting screws securing the old power supply board to the TV chassis. Carefully lift and remove the board.
5. **Install New Board:** Place the new aikeec BN44-00787A L58GFB-ESM board into position. Align the screw holes. *Note: Some users have reported minor discrepancies in screw hole alignment compared to the original board. Ensure the board is securely fastened with as many screws as possible without bending the board.*
6. **Reconnect Cables:** Reconnect all cables to their corresponding ports on the new board. Ensure all connections are firm and correctly oriented.
7. **Test Functionality:** Before replacing the back cover, connect the TV to power and perform a brief test to ensure it powers on and functions correctly.
8. **Reassemble:** If the test is successful, disconnect power, then reattach the TV's back cover and secure all screws.

4. OPERATING PRINCIPLES

Once installed, the power supply board operates automatically when the television is connected to an AC power

source. It performs several critical functions:

- **AC-DC Conversion:** Converts the incoming alternating current (AC) from the wall outlet into direct current (DC) required by the TV's internal components.
- **Voltage Regulation:** Provides stable and regulated DC voltages (e.g., 5V, 12V, 24V) to different sections of the TV, such as the main board, T-con board, and LED backlight drivers.
- **Power Management:** Manages power states, including standby mode and full operational mode, based on signals from the main board.
- **Protection Circuits:** Incorporates protection circuits to safeguard against overcurrent, overvoltage, and short circuits, ensuring the longevity of the TV and its components.

5. MAINTENANCE

The aikeec power supply board is designed for long-term reliability and typically requires minimal maintenance. However, following these general guidelines can help ensure its optimal performance:

- **Dust Removal:** Periodically (e.g., once a year) and with the TV unplugged, carefully remove the back cover and use compressed air to gently clear any dust accumulation on the board and other internal components. Dust can impede heat dissipation and lead to component failure.
- **Ventilation:** Ensure the television's ventilation slots are always clear and not obstructed by furniture, walls, or other objects. Proper airflow is essential for cooling the power supply and other internal components.
- **Stable Power:** Connect the television to a stable power source. Using a surge protector can help protect the power supply board from voltage spikes.
- **Avoid Liquids:** Keep liquids away from the television to prevent accidental spills that could damage the internal electronics.

6. TROUBLESHOOTING

If you encounter issues after installing the power supply board, consider the following common troubleshooting steps:

Symptom	Possible Cause	Solution
TV does not power on (no standby light)	Loose power cable, faulty power outlet, incorrect board installation, or other TV component failure.	Check power cable connection. Test the outlet. Re-verify all cable connections on the power board. Ensure the board is securely mounted.
TV powers on but no picture/sound	Main board issue, T-con board issue, backlight issue, or incorrect cable connection from power board.	Ensure all cables from the power board to other components are securely connected. Consult a professional for further diagnosis.
Intermittent power or flickering	Loose connections, unstable power supply, or a failing component on the board.	Check all cable connections. Ensure the power outlet provides stable voltage. If issues persist, the board may be faulty.
Board does not fit perfectly (screw holes misalignment)	Manufacturing tolerance or slight design variation.	Secure the board using as many available screw holes as possible. Ensure the board is stable and not bending. Do not force screws if alignment is significantly off.

If these steps do not resolve the issue, it is recommended to seek assistance from a qualified television repair technician.

7. SPECIFICATIONS

Feature	Detail
Model Number	BN44-00787A L58GFB-ESM
Compatible TV Model	Samsung UA58H5288AJ
Brand	aikeec
Package Dimensions	11.18 x 7.44 x 2.91 inches
Item Weight	13.1 ounces
Compatible Devices	Personal Computer (referring to internal component classification)
Connector Type	ATX (referring to internal component classification)
Output Wattage	550 Watts
Form Factor	ATX (referring to internal component classification)
Cooling Method	Air
Minimum Input Voltage	100 Volts (AC)

8. WARRANTY AND SUPPORT

For information regarding warranty coverage, returns, or technical support, please refer to the specific terms and conditions provided by the seller or manufacturer at the time of purchase. It is recommended to retain your proof of purchase for any warranty claims.

If you require further assistance with installation or troubleshooting beyond the scope of this manual, please contact the seller or a qualified electronics repair professional.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question