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SHARP TV LC-65N7000U T-CON Board 1146021 Instruction Manual

Model: LC-65N7000U T-CON 1146021 | Brand: TV PARTS USA

1. PRODUCT OVERVIEW

This document provides essential information for the SHARP TV LC-65N7000U T-CON (Timing Controller) Board, part number 1146021. This board is a critical component responsible for processing video signals and transmitting them to the TV's display panel. It is intended as a replacement part for the specified SHARP TV model.

Compatibility: This T-CON board is specifically designed for the SHARP TV model LC-65N7000U. It is crucial to verify that the part number 1146021 matches the board being replaced, as different versions of the same TV model may use varying components.

2. SAFETY INFORMATION

Working with electronic components, especially inside a television, carries inherent risks. Please observe the following safety precautions:

- **Disconnect Power:** Always unplug the television from the main power outlet before attempting any installation, removal, or inspection of internal components.
- **Discharge Capacitors:** Large capacitors within the TV can store electrical charges even after being unplugged. Exercise caution and allow sufficient time for discharge or use appropriate tools to safely discharge them.
- **Professional Installation Recommended:** Installation of this T-CON board requires technical knowledge and experience with television repair. If you are not comfortable performing this procedure, it is highly recommended to seek assistance from a qualified technician.
- **Handle with Care:** Electronic boards are sensitive to electrostatic discharge (ESD). Use an anti-static wrist strap and work on an anti-static mat to prevent damage to the board. Avoid touching components directly.

3. INSTALLATION GUIDE

This section outlines the general steps for replacing a T-CON board. Specific disassembly and reassembly

procedures may vary depending on the television model. Refer to your TV's service manual for detailed instructions.

Pre-Installation Checks:

- Ensure the replacement T-CON board (part number 1146021) is identical to the original board.
- Prepare a clean, well-lit workspace with appropriate tools (screwdrivers, anti-static mat, anti-static wrist strap).

Installation Steps:

1. **Power Off and Disconnect:** Ensure the TV is unplugged from all power sources.
2. **Access the TV Back Panel:** Carefully remove the back cover of the television. This usually involves unscrewing multiple screws.
3. **Locate the T-CON Board:** The T-CON board is typically located at the top or bottom center of the TV panel, often covered by a metal shield.
4. **Disconnect Cables:** Gently disconnect all ribbon cables (LVDS cables) and power cables connected to the existing T-CON board. Be extremely careful with the delicate ribbon cables and their connectors.
5. **Remove Old Board:** Unscrew and carefully remove the faulty T-CON board.
6. **Install New Board:** Position the replacement T-CON board (1146021) in place and secure it with the screws.
7. **Reconnect Cables:** Reconnect all ribbon cables and power cables, ensuring they are seated correctly and securely. Improper connection can lead to display issues.
8. **Test Functionality:** Before reattaching the back cover, temporarily plug in the TV and power it on to verify proper display functionality. If the display is working correctly, power off and unplug the TV again.
9. **Reassemble TV:** Carefully reattach the TV's back cover and secure all screws.

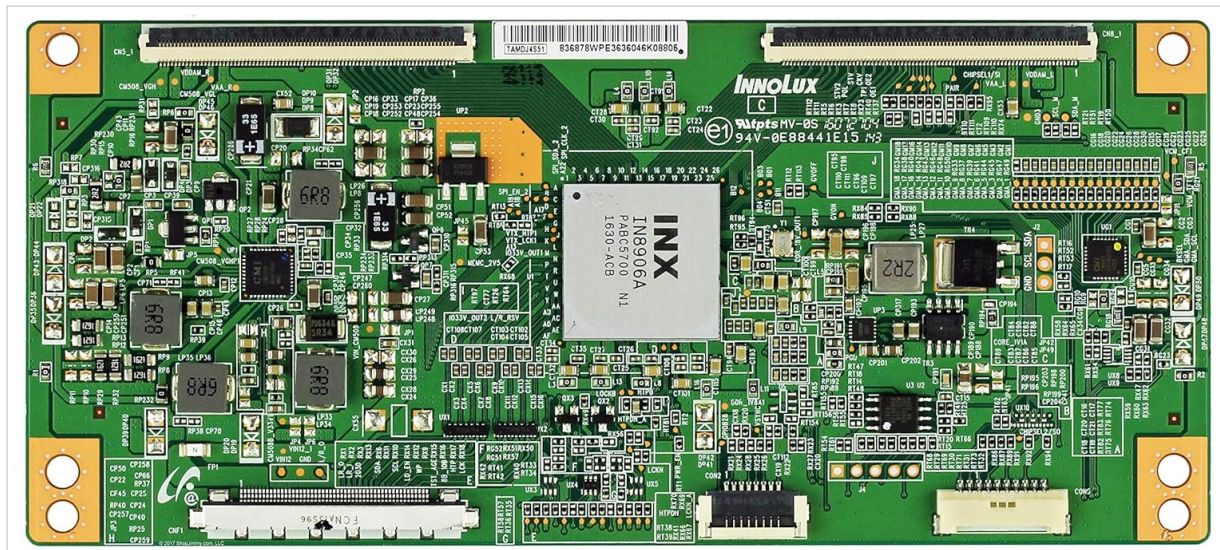


Image 1: Top view of the SHARP TV LC-65N7000U T-CON Board 1146021. This image displays the component side of the board, showing various integrated circuits, capacitors, resistors, and connectors. Key identifiers such as 'INNO LUX' and 'TNB9006' are visible, confirming the board's model and manufacturer. The LVDS input connector and multiple ribbon cable outputs to the display panel are also clearly depicted.

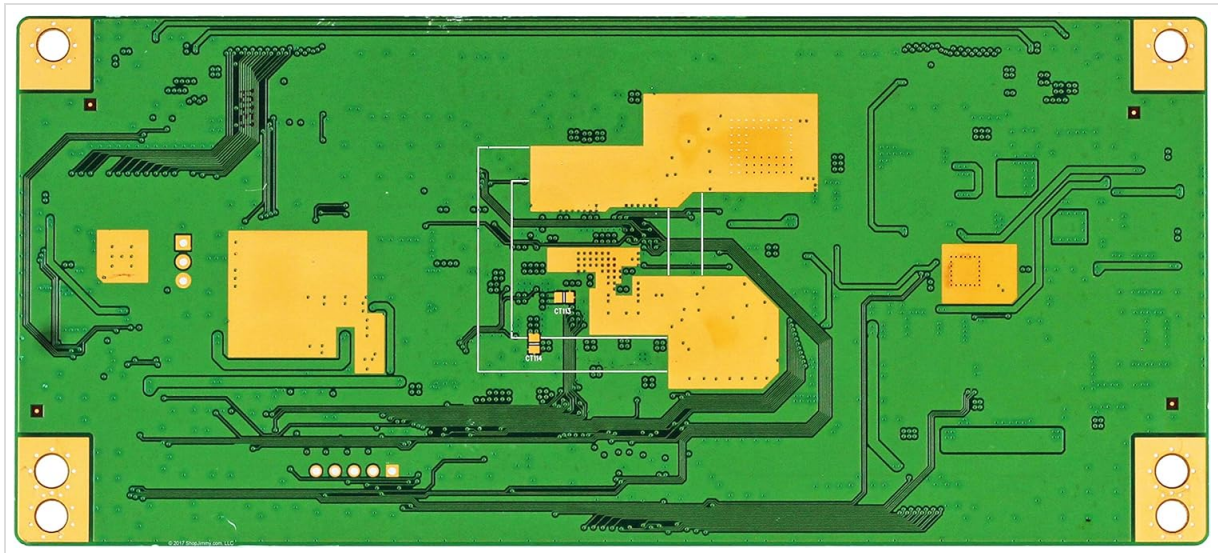


Image 2: Bottom view of the SHARP TV LC-65N7000U T-CON Board 1146021. This image shows the solder mask and traces on the underside of the printed circuit board. It highlights the routing of electrical pathways and the mounting points for components on the top side. The four corner mounting holes are visible, indicating how the board is secured within the television chassis.

4. FUNCTIONALITY OF THE T-CON BOARD

The T-CON board acts as an intermediary between the TV's main board and the LCD/LED panel. Its primary functions include:

- **Signal Conversion:** It converts the digital video signals received from the main board into a format suitable for the display panel.
- **Timing Control:** It generates precise timing signals to synchronize the operation of the display panel's gate and source drivers, ensuring pixels are updated correctly.
- **Voltage Regulation:** It provides various voltage levels required for the operation of the display panel.

A malfunctioning T-CON board can lead to a variety of display problems.

5. MAINTENANCE

The T-CON board itself requires minimal maintenance once installed. However, proper handling during installation and any subsequent servicing is crucial:

- **Cleanliness:** Ensure the board and its connectors are free from dust and debris. Use compressed air or a soft, dry brush for cleaning.
- **Avoid Physical Stress:** Do not bend, drop, or apply excessive force to the board.
- **ESD Protection:** Always use anti-static precautions when handling the board to prevent damage from electrostatic discharge.

6. TROUBLESHOOTING

If your television is experiencing display issues after replacing the T-CON board, consider the following common troubleshooting steps:

- **No Picture / Black Screen:** Verify that all cables, especially the LVDS cables connecting the main board to the T-CON and the T-CON to the panel, are securely seated. Check for any signs of damage to the cables.
- **Distorted Image / Lines on Screen:** This can indicate a loose or improperly connected ribbon cable.

Re-seat all ribbon cables carefully. It could also point to a faulty panel or a problem with the main board.

- **Incorrect Colors / Fading Image:** Similar to distorted images, check cable connections. If the issue persists, the problem might lie with the display panel itself or the main board's video processing.
- **Intermittent Display:** Check for loose connections or potential overheating. Ensure proper ventilation around the T-CON board area.

If troubleshooting does not resolve the issue, it is advisable to consult a professional television repair technician.

7. SPECIFICATIONS

- **Product Type:** T-CON (Timing Controller) Board
- **Compatible TV Model:** SHARP LC-65N7000U
- **Part Number:** 1146021
- **Manufacturer:** TV PARTS USA (as supplier)
- **Condition:** Used, tested, and guaranteed 100% to work.
- **ASIN:** B079Q9NPX2

8. WARRANTY INFORMATION

This T-CON board is supplied by TV PARTS USA. As per the product description, this item is used but has been tested and is guaranteed 100% to work upon receipt. For specific details regarding returns or any implied warranty beyond initial functionality, please refer to the seller's terms and conditions at the point of purchase.

9. SUPPORT

For technical assistance or further inquiries regarding this T-CON board, it is recommended to contact the seller, TV PARTS USA, directly through the platform where the purchase was made. For general television repair advice or if you are unsure about performing the installation yourself, please consult a certified electronics technician.

Always prioritize safety and professional guidance when dealing with internal television components.