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ClimaTek 50X57-289-01

ClimaTek 50X57-289-01 OEM Upgraded Furnace Control Circuit Board User Manual

Brand: ClimaTek

Model: 50X57-289-01

1. INTRODUCTION

This manual provides essential information for the safe and effective installation, operation, and maintenance of the ClimaTek 50X57-289-01 OEM Upgraded Furnace Control Circuit Board. This circuit board is designed as a direct replacement for part # 50X57-289-01 and is compatible with various White Rodgers furnace systems.

Please read this manual thoroughly before attempting any installation or service. Retain this manual for future reference.

2. SAFETY INFORMATION

WARNING: Improper installation, adjustment, alteration, service, or maintenance can cause property damage, personal injury, or loss of life. Installation and service must be performed by a qualified installer, service agency, or the gas supplier.

- Always disconnect electrical power to the furnace before installing or servicing the control board. Failure to do so can result in electrical shock, personal injury, or death.
- Ensure all wiring connections comply with local and national electrical codes.
- Verify that the replacement board is compatible with your specific furnace model before installation.
- Handle the circuit board by its edges to avoid damaging electronic components due to static electricity.

3. PRODUCT OVERVIEW

The ClimaTek 50X57-289-01 is an OEM upgraded furnace control circuit board designed for reliable performance and direct compatibility. It serves as the central control unit for your furnace, managing various functions such as ignition, fan operation, and safety monitoring.

Key Features:

- Direct OEM replacement for part # 50X57-289-01.
- Enhanced design for durability and longevity.

- Compatible with White Rodgers and other specified furnace systems.

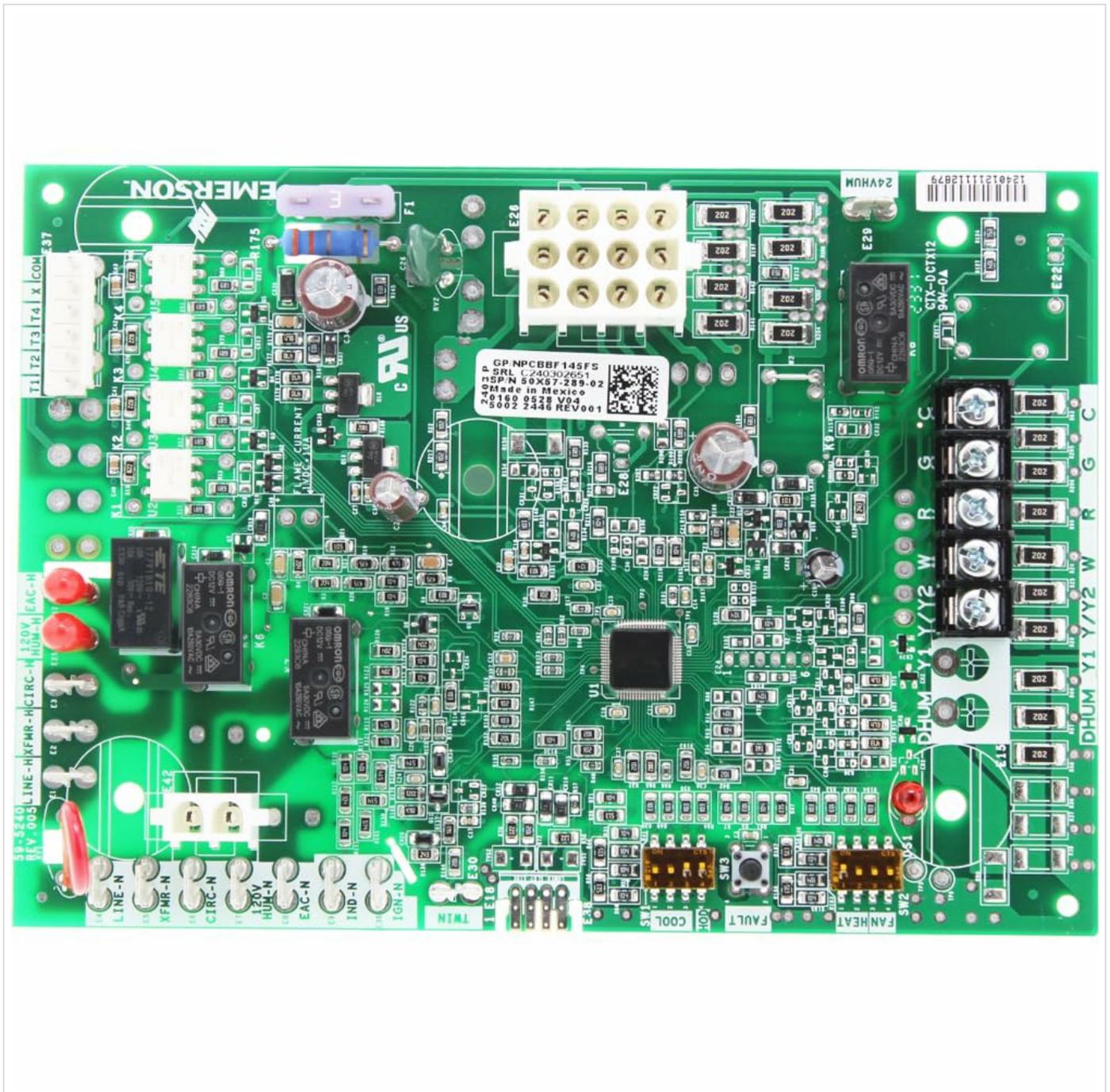


Figure 1: ClimaTek 50X57-289-01 Furnace Control Circuit Board. This image displays the green circuit board with various electronic components, relays (OMRON), fuses (F1), and terminal blocks. Key labels visible include R, G, C, W, Y1/Y2, DHUM for thermostat connections, and LINE-N, XFMR-N, CIRC-N, EAC-N, IND-N, IGN-N for power and accessory connections. Dip switches (SW2, SW3) are present for configuration, along with indicators for FAULT, COOL, and FAN HEAT. The board also features an Emerson logo and a label indicating part number GP/NPCBBF145FS and SP/N 50X57-289-01.

4. INSTALLATION AND SETUP

This section outlines the general steps for replacing a furnace control board. Due to the complexity and safety risks involved, professional installation is highly recommended.

1. **Power Disconnection:** Locate the main power switch for your furnace and turn it OFF. Additionally, turn off the circuit breaker supplying power to the furnace. Verify power is off using a voltage tester.
2. **Access the Control Board:** Open the furnace access panel to expose the existing control board.

3. **Document Wiring:** Before disconnecting any wires, take clear photographs of all wiring connections to the existing board. Label each wire with its corresponding terminal (e.g., R, G, C, W, Y1/Y2, DHUM, LINE-N, XFMR-N, CIRC-N, EAC-N, IND-N, IGN-N).
 4. **Disconnect Wires:** Carefully disconnect all wires from the old control board.
 5. **Remove Old Board:** Unscrew or unclip the old control board from its mounting brackets.
 6. **Install New Board:** Mount the ClimaTek 50X57-289-01 board in the same location as the old board, ensuring it is securely fastened.
 7. **Reconnect Wiring:** Using your photographs and labels, carefully reconnect all wires to the corresponding terminals on the new board. Ensure all connections are tight and secure. Refer to the terminal labels on the board (e.g., R, G, C, W, Y1/Y2, DHUM, LINE-N, XFMR-N, CIRC-N, EAC-N, IND-N, IGN-N).
 8. **Configuration (Dip Switches):** If your furnace system requires specific configurations, adjust the dip switches (SW2, SW3) on the new board according to your furnace manufacturer's specifications. Consult your furnace manual for correct settings.
 9. **Restore Power:** Close the furnace access panel. Restore power to the furnace at the circuit breaker and then at the furnace's main power switch.
 10. **Test Operation:** Initiate a heating and cooling cycle to verify proper furnace operation.
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5. OPERATING INSTRUCTIONS

The furnace control circuit board operates automatically based on signals from the thermostat and internal safety sensors. There are no direct user controls on the board itself for daily operation.

Indicators:

- **FAULT:** An indicator light (LED) labeled "FAULT" may illuminate to signal an error condition within the furnace system. Refer to the troubleshooting section or your furnace manual for fault code interpretations.
- **COOL / FAN HEAT:** Other indicators like "COOL" and "FAN HEAT" may illuminate to show the current operational mode of the furnace.

Ensure your thermostat is set to the desired temperature and mode (Heat, Cool, Auto) for the furnace to operate correctly.

6. MAINTENANCE

The ClimaTek 50X57-289-01 control board itself requires minimal maintenance. However, regular maintenance of your overall furnace system is crucial for its longevity and efficient operation.

- **Annual Inspection:** Have your furnace inspected annually by a qualified HVAC technician. They can check the control board for any signs of wear or damage, as well as inspect other critical components.
 - **Air Filter Replacement:** Regularly replace or clean your furnace's air filter as recommended by the furnace manufacturer. A dirty filter can restrict airflow, leading to overheating and potential stress on the control board.
 - **Clear Vents:** Ensure all supply and return air vents in your home are unobstructed.
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7. TROUBLESHOOTING

If your furnace is not operating correctly after installing the new control board, consider the following troubleshooting steps. Always disconnect power before inspecting any internal components.

- **No Power:**

- Check the furnace's main power switch and circuit breaker.
- Verify all power connections to the control board (LINE-N, XFMR-N).
- Inspect the fuse (F1) on the control board for continuity. Replace if blown.

- **Furnace Not Responding to Thermostat:**

- Ensure thermostat wiring (R, G, C, W, Y1/Y2, DHUM) is correctly connected to the board.
- Check thermostat settings and battery (if applicable).

- **FAULT Indicator On:**

- The "FAULT" LED indicates an error. Many control boards flash a specific code to indicate the type of fault. Refer to your furnace's service manual for a list of fault codes and their meanings.
- Common faults include issues with ignition, flame sensing, or safety limits.

- **Fan Issues:**

- If the fan is not operating, check the "FAN HEAT" and "COOL" indicators.
- Verify fan motor connections to the board.

If troubleshooting steps do not resolve the issue, contact a qualified HVAC technician for further diagnosis and repair.

8. SPECIFICATIONS

Model Number	50X57-289-01
Replaces Part #	50X57-289-01 (White Rodgers)
Brand	ClimaTek
Product Dimensions	Approximately 3 x 9 x 7 inches
Weight	Approximately 9 ounces
ASIN	B0CVR2BM44

9. WARRANTY AND SUPPORT

For specific warranty details regarding your ClimaTek 50X57-289-01 control board, please refer to the documentation provided with your purchase or contact ClimaTek customer support directly. Warranty terms typically cover manufacturing defects for a specified period.

For technical support or assistance with installation and troubleshooting, it is recommended to consult a qualified HVAC professional. You may also visit the [ClimaTek Store on Amazon](#) for additional product information.

