

## ClimaTek ClimaTek Repl for GmanB13707-35

# ClimaTek Upgraded Replacement Furnace Fan Control Circuit Board

Model: B13707-35, B1370735, B1370735S

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## 1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your new ClimaTek Upgraded Replacement Furnace Fan Control Circuit Board. This board is designed as a direct replacement for various Goodman, Amana, and Janitrol furnace models, specifically replacing part numbers B13707-35, B1370735, B1370735S, 1005-83-1724, SST-B, PCBFM103, 1005-171B, and 1818W002116, PCBFM131S. Please read this manual thoroughly before proceeding with installation or operation to ensure safe and correct usage.

## 2. Safety Information

**WARNING:** Electrical shock hazard. Disconnect power before servicing. Failure to do so can result in serious injury or death.

- Always disconnect all electrical power to the furnace unit before installing or servicing the control board.
- Installation should only be performed by a qualified technician or a person with adequate knowledge of HVAC electrical systems.
- Wear appropriate personal protective equipment (PPE), including safety glasses and insulated gloves.
- Ensure all wiring connections are secure and correctly matched according to the furnace manufacturer's specifications and the new board's terminals.
- Do not bypass any safety devices.
- Verify proper grounding of the furnace system.

# 3. Installation Instructions

## 3.1 PRE-INSTALLATION CHECKLIST

- Confirm that the new ClimaTek control board is the correct replacement for your furnace model and existing part number.
- Gather necessary tools: screwdriver set, wire strippers, multimeter (optional, for testing).
- Take clear photographs of the existing wiring connections on the old board for reference. Label wires if necessary.

## 3.2 STEP-BY-STEP INSTALLATION

1. **Disconnect Power:** 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 multimeter if available.
2. **Access Old Board:** Open the furnace access panel to expose the existing control board.
3. **Disconnect Wiring:** Carefully disconnect all wires from the old control board. Refer to your photographs and labels to ensure accurate re-connection later.
4. **Remove Old Board:** Unscrew or unclip the old control board from its mounting brackets.
5. **Install New Board:** Position the new ClimaTek control board in the same location as the old one. Secure it using the existing screws or clips. The board is designed for direct replacement, requiring no electrical modifications or adapters.
6. **Connect Wiring:** Reconnect all wires to the new control board, matching them exactly to the connections on the old board. Ensure all connections are firm and secure.
7. **Close Panel:** Close and secure the furnace access panel.
8. **Restore Power:** Turn on the circuit breaker and then the main power switch for the furnace.
9. **Test Operation:** Initiate a heating or cooling cycle to verify the furnace and fan operate correctly.

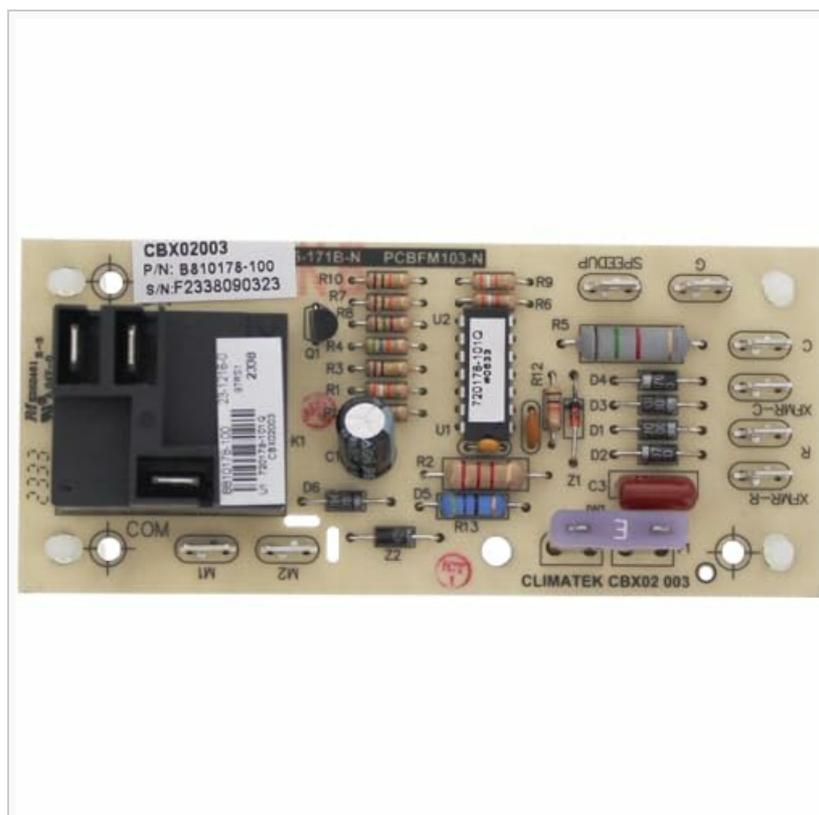


Figure 1: ClimaTek Upgraded Replacement Furnace Fan Control Circuit Board. This image displays the layout of the circuit board, including various components, relays, and terminal connections for wiring. Key labels such as "CBX02003", "P/N: B810178-100", and terminal markings like "COM", "M1", "M2", "G", "C", "XFMR-C", "R", "XFMR-R" are visible, indicating connection points for furnace components.

## 4. Operation

The ClimaTek furnace fan control circuit board is responsible for managing the operation of the furnace's blower fan. Once installed, the board will automatically control the fan based on signals from the thermostat and other furnace components (e.g., heat exchanger temperature sensors). It ensures the fan turns on during heating or cooling cycles and off when not needed, contributing to efficient system operation.

- **Heating Cycle:** When the thermostat calls for heat, the board will activate the igniter, gas valve, and then the blower fan after a short delay to allow the heat exchanger to warm up.
- **Cooling Cycle:** When the thermostat calls for cooling, the board will activate the outdoor condenser unit and the indoor blower fan simultaneously.
- **Continuous Fan:** If your thermostat has a "Fan ON" setting, the board will keep the blower fan running continuously, independent of heating or cooling calls.

## 5. Maintenance

The ClimaTek control board itself requires no routine maintenance. However, regular maintenance of your overall furnace system is crucial for its longevity and efficient operation. This includes:

- **Filter Replacement:** Replace or clean your furnace air filter monthly or as recommended by your furnace manufacturer. A dirty filter can restrict airflow and strain the blower motor and control board.
- **Annual Inspections:** Schedule annual professional HVAC inspections to ensure all components, including the control board, are functioning correctly and safely.
- **Keep Area Clear:** Ensure the area around your furnace is free from obstructions and combustible materials.

## 6. Troubleshooting

If you experience issues after installing the new control board, refer to the following common troubleshooting steps. Always disconnect power before inspecting any internal components.

Problem	Possible Cause	Solution
Furnace not starting / No power	Power disconnected, blown fuse, tripped breaker, loose wiring.	Check furnace power switch and circuit breaker. Inspect wiring connections to the board. Replace any blown fuses (if applicable).
Blower fan not running	Incorrect wiring, faulty thermostat call, motor issue, safety limit tripped.	Verify all fan-related wires are correctly connected. Check thermostat settings. Consult a professional if motor or safety limits are suspected.

Problem	Possible Cause	Solution
Blower fan runs continuously	Thermostat fan setting "ON", stuck relay on board, shorted thermostat wire.	Check thermostat fan setting (set to "AUTO"). If issue persists, disconnect thermostat wires from board to isolate. If fan stops, thermostat or wiring is faulty. If fan continues, board may be faulty.
No heat / No cool	Thermostat issue, gas supply (for heat), refrigerant (for cool), safety lockout.	Ensure thermostat is set correctly. Check gas supply valve. Consult a professional for refrigerant or complex system issues.

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

## 7. Product Specifications

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- **Brand:** ClimaTek
- **Model Number:** ClimaTek Repl for GmanB13707-35 (Replaces B13707-35, B1370735, B1370735S, and others)
- **Compatibility:** Designed for Goodman, Amana, and Janitrol Furnaces
- **Product Dimensions:** 4 x 2 x 4 inches
- **Item Weight:** 1.94 ounces
- **Type:** Air Handler Control Board / Furnace Fan Control Circuit Board

## 8. Warranty & Support

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For specific warranty information regarding your ClimaTek Upgraded Replacement Furnace Fan Control Circuit Board, please refer to the documentation provided with your purchase or contact ClimaTek customer support directly. Keep your proof of purchase for warranty claims.

For technical assistance or support, please visit the official ClimaTek website or contact their customer service department. When contacting support, please have your product model number and purchase details available.