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Goodman PCBFM103S

Goodman PCBFM103S Furnace Electronic Control Board Instruction Manual

Genuine Original Equipment Manufacturer (OEM) Part

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of the Goodman PCBFM103S Furnace Electronic Control Board. This component is a genuine Original Equipment Manufacturer (OEM) part designed to ensure compatibility and optimal performance with your Goodman furnace system. Please read this manual thoroughly before attempting any installation or service.

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 servicing to prevent electrical shock.
- Ensure all wiring connections comply with local and national electrical codes.
- Wear appropriate personal protective equipment (PPE) during installation and service.
- Verify that the replacement board is the correct model for your furnace. Refer to your furnace's documentation.

3. SETUP AND INSTALLATION

The Goodman PCBFM103S Electronic Control Board is a direct replacement for compatible Goodman furnace models. Follow these steps carefully:

1. **Power Disconnection:** Turn off all electrical power to the furnace at the main service panel. Confirm power is off using a voltage tester.
2. **Access the Control Board:** Open the furnace access panel to locate the existing control board.
3. **Document Connections:** Before disconnecting any wires, take clear photographs or make detailed diagrams of all wire connections to the old control board. This is crucial for correct re-installation.
4. **Disconnect Wires:** Carefully disconnect all wires and harnesses from the old control board. Note the position of each connector.
5. **Remove Old Board:** Unmount the old control board from its housing. It may be secured by screws or clips.
6. **Install New Board:** Mount the new Goodman PCBFM103S control board in the same location as the old one, securing it with the original fasteners.

7. **Connect Wires:** Refer to your photographs or diagrams and carefully reconnect all wires and harnesses to the new control board. Ensure all connections are secure and correctly seated.



Image 1: The Goodman PCBFM103S Furnace Electronic Control Board. This image shows the front view of the control board with various connectors and components, illustrating its design for proper wiring during installation.

9. **Close Access Panel:** Once all connections are verified, close and secure the furnace access panel.
10. **Restore Power:** Restore electrical power to the furnace at the main service panel.

4. OPERATING INSTRUCTIONS

The Goodman PCBFM103S Electronic Control Board operates automatically once installed and power is restored. It manages the furnace's sequence of operations, including ignition, fan control, and safety shutdowns.

- Upon power-up, the board will initiate a self-check sequence.
- When a call for heat or cool is received from the thermostat, the board will activate the appropriate components (e.g., igniter, gas valve, blower motor).
- Note that this board may have a 12-second blower motor start delay, which is a normal operational characteristic for some models.
- Observe the diagnostic LED on the control board (if present) for status indications or error codes. Refer to your furnace's main manual for LED code interpretations.

5. MAINTENANCE

The electronic control board itself requires no routine maintenance. However, regular maintenance of the overall furnace system is crucial for its longevity and efficient operation.

- Ensure the furnace area is kept clean and free of dust and debris, which can accumulate on electronic components.
- Periodically inspect wiring connections for tightness and signs of wear or corrosion.
- It is recommended to have your furnace system inspected and serviced annually by a qualified HVAC technician.

6. TROUBLESHOOTING

If your furnace is not operating correctly after installing the PCBFM103S control board, consider the following troubleshooting steps. Always disconnect power before inspecting components.

- **No Power:** Check the circuit breaker and ensure the furnace access panel is fully closed, as some models have safety interlocks.
- **Furnace Not Starting:** Verify all wire connections to the control board are secure and correctly matched according to your diagrams. Check the thermostat settings.
- **Blower Motor Issues:** If the blower motor does not start or runs continuously, check the fan settings on your thermostat and the wiring to the blower motor relay on the control board.

- **Diagnostic Codes:** If the control board has a diagnostic LED, observe its flash pattern. Consult your furnace's main instruction manual for a list of error codes and their meanings.
- **Professional Assistance:** If issues persist, contact a qualified HVAC technician for diagnosis and repair.

7. SPECIFICATIONS

Part Number	PCBFM103S
Item Model Number	PCBFM103S-C
Item Weight	5 ounces
Product Dimensions	4.5 x 4.5 x 4.5 inches
Item Package Quantity	1

8. WARRANTY INFORMATION

For specific warranty details regarding the Goodman PCBFM103S Furnace Electronic Control Board, please consult your product retailer or refer to the official Goodman website. Warranty terms may vary based on purchase location and installation by a qualified professional.

9. SUPPORT

If you require technical assistance, have questions about installation, or need to report a product issue, please contact Goodman customer support or a certified HVAC technician. Always provide the model number (PCBFM103S) and any relevant diagnostic codes when seeking support.

Goodman Official Website: www.goodmanmfg.com