1007-100 2310

Generic Carrier HVAC Ignition Module User Manual

Model: 1007-100 2310

1. Safety Information

WARNING: Improper installation, adjustment, alteration, service, or maintenance can cause property damage, injury, or death. Read these instructions thoroughly before installing or servicing this equipment.

- Always disconnect electrical power to the furnace before installing or servicing the ignition module.
- Installation and service must be performed by a qualified installer, service agency, or gas supplier.
- Ensure all wiring connections comply with local and national electrical codes.
- Do not bypass any safety devices.
- Wear appropriate personal protective equipment (PPE) during installation and service.

2. Product Overview

The Generic Carrier HVAC 1007-100 2310 Ignition Module is a critical component designed to control the ignition sequence and monitor the flame in compatible Carrier furnace systems. This module operates at 24 Volts, 60HZ, ensuring reliable and safe operation of your heating system.
It is engineered to fit various Carrier HVAC models, including 58GS 150 160LA, 58DR 075 141AB, and 58GS 125 160GB, providing a direct replacement for the original part.

Figure 2.1: Front view of the 1007-100 2310 Ignition Module, showing its general appearance and housing.

3. Installation Guide

This section provides general instructions for replacing an existing ignition module. Always refer to your specific furnace model's service manual for detailed wiring diagrams and procedures.

3.1 Pre-Installation Steps

1. **Disconnect Power:** Turn off the electrical power to the furnace at the main service panel. Verify power is off using a voltage meter.
2. **Access Module:** Locate the existing ignition module within the furnace control compartment.
3. **Document Wiring:** Before disconnecting any wires, take clear photos or draw a diagram of all wire connections to the old module. Note the color and terminal location of each wire.

3.2 Module Replacement

1. **Remove Old Module:** Carefully disconnect all wires from the old ignition module. Unmount the old module from its position.
2. **Mount New Module:** Position the new 1007-100 2310 Ignition Module in the same location as the old one. Secure it using the appropriate screws or mounting hardware.
3. **Connect Wiring:** Refer to your documented wiring diagram and connect each wire to the corresponding terminal on the new module. Ensure all connections are secure and tight.

Figure 3.1: Rear view of the ignition module, highlighting the various wiring connectors for installation.

Figure 3.2: Side view of the ignition module, showing the mounting tabs for secure installation within the furnace.

3.3 Post-Installation Checks

1. **Verify Connections:** Double-check all wire connections for correctness and security.
2. **Restore Power:** Turn on the electrical power to the furnace.
3. **Test Operation:** Initiate a call for heat from the thermostat and observe the furnace's ignition sequence. Ensure the burner ignites smoothly and operates correctly.
4. **Check for Leaks:** If gas lines were disturbed, check for gas leaks using a soap solution.

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4. Operation

The 1007-100 2310 Ignition Module manages the furnace's ignition process. When a call for heat is received from the thermostat, the module initiates a sequence:

- It activates the draft inducer motor to clear the combustion chamber.
- It then energizes the igniter (either hot surface igniter or spark igniter) to create a flame source.
- Simultaneously, it opens the gas valve to allow gas flow to the burners.
- Once ignition occurs, the module uses a flame sensor to confirm the presence of a flame.
- If a flame is detected, the module continues to monitor it throughout the heating cycle. If no flame is detected within a specified time, the module will attempt re-ignition or enter a lockout state for safety.

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5. Maintenance

The ignition module itself requires minimal maintenance. However, regular maintenance of the overall furnace system is crucial for its longevity and proper function.

- **Annual Furnace Inspection:** Have a qualified HVAC technician inspect your furnace annually. They will check all components, including the ignition system, for wear or malfunction.
- **Keep Area Clear:** Ensure the area around the furnace is free from dust, debris, and flammable materials.
- **Check Wiring:** During annual inspections, ensure all wiring connections to the module are secure and free from corrosion or damage.

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6. Troubleshooting

If your furnace is experiencing issues related to ignition, consider the following troubleshooting steps. Always ensure power is disconnected before inspecting internal components.

Symptom	Possible Cause	Action
No ignition, no spark/glow	No power to module, faulty igniter, faulty module, wiring issue	Check power supply. Inspect igniter for damage. Verify wiring connections. Test module for proper voltage (professional recommended).
Igniter glows/sparks, but no flame	No gas supply, faulty gas valve, clogged burner, faulty module	Check gas supply to furnace. Inspect gas valve operation. Clean burners.

Symptom	Possible Cause	Action
Burner ignites, then immediately shuts off	Dirty or faulty flame sensor, poor ground connection, faulty module	Clean flame sensor rod. Check furnace grounding.
Intermittent ignition	Loose wiring, weak igniter, draft issues, faulty module	Inspect all wiring. Check igniter resistance. Ensure proper furnace venting.

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

7. Specifications

- **Model Number:** 1007-100 2310
- **Voltage:** 24 Volts
- **Frequency:** 60 HZ
- **Product Dimensions:** Approximately 7.5 x 4.1 x 2.4 inches
- **Manufacturer:** Generic
- **Compatibility:** Fits Carrier HVAC 58GS 150 160LA, 58DR 075 141AB, 58GS 125 160GB, and similar models.

8. Warranty and Support

This product is covered by the manufacturer's standard warranty. Please refer to the packaging or contact the retailer for specific warranty terms and conditions. For technical support or assistance, please contact the vendor or a qualified HVAC professional.