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› Trane Parts CNT5135 Dual Stage DSI Module Instruction Manual

Trane Parts CNT5135

Trane Parts CNT5135 Dual Stage DSI Module Instruction Manual

Model: CNT5135

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of the Trane Parts CNT5135 Dual Stage Direct Spark Ignition (DSI) Module. This module is designed to control the ignition sequence in compatible HVAC systems, ensuring reliable and efficient operation. Please read this manual thoroughly before attempting any installation or service.



Image 1.1: Top view of the Trane Parts CNT5135 Dual Stage DSI Module circuit board, showing various electronic components including relays, resistors, and capacitors.

2. 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.

- Installation and servicing must be performed by a qualified installer or service agency.
- Disconnect all electrical power to the unit before installing or servicing this module. Failure to do so can result in electrical shock, injury, or death.
- Always verify proper wiring connections before applying power.
- Ensure all local and national electrical codes are followed.
- Do not operate the system if any part is submerged in water. Immediately call a qualified service technician to inspect the system and replace any part of the control system that has been submerged.

3. SETUP AND INSTALLATION

The CNT5135 module is a replacement part designed for specific Trane HVAC systems. Refer to your specific equipment's service manual for detailed wiring diagrams and installation procedures. The following are general guidelines.

3.1 Pre-Installation Steps

1. **Power Disconnection:** Ensure all power to the HVAC unit is completely disconnected at the main breaker.
2. **Access Panel:** Open the control panel or access area where the existing DSI module is located.
3. **Documentation:** Take clear photographs of the existing wiring connections before removal. Label all wires if necessary.

3.2 Module Replacement

1. **Remove Old Module:** Carefully disconnect all wires from the old DSI module. Unmount the old module from its position.
2. **Mount New Module:** Mount the new Trane Parts CNT5135 module in the same location as the old one, ensuring it is securely fastened.
3. **Connect Wiring:** Reconnect all wires to the new module according to the photographs taken earlier and the specific wiring diagram for your HVAC unit. Pay close attention to polarity and terminal designations.
4. **Inspect Connections:** Double-check all connections for tightness and correctness. Ensure no wires are loose or improperly seated.



Image 3.1: Close-up view of the Trane Parts CNT5135 module, highlighting the various wiring terminals and connection points.

3.3 Post-Installation

1. **Close Access Panel:** Securely close any access panels or control covers.
2. **Restore Power:** Restore electrical power to the HVAC unit at the main breaker.
3. **Test Operation:** Initiate a call for heat to verify the module's proper operation and ignition sequence. Observe the system's behavior for any anomalies.

4. OPERATING PRINCIPLES

The Trane Parts CNT5135 is a dual-stage direct spark ignition module. Its primary function is to control the ignition and flame sensing for gas-fired heating appliances. Upon receiving a call for heat from the thermostat, the module initiates a sequence:

- **Pre-Purge:** The module activates the inducer motor to clear the combustion chamber of any residual gases.
- **Ignition Trial (Stage 1):** After pre-purge, the gas valve opens, and the DSI module generates a high-voltage spark to ignite the gas.
- **Flame Sensing:** Once ignition occurs, the module senses the flame presence. If a flame is detected, the module continues to monitor it.
- **Stage 2 Activation (if applicable):** In a dual-stage system, if the demand for heat continues or increases, the module may activate the second stage of heating.
- **Safety Lockout:** If ignition fails after a specified number of attempts, or if the flame is lost during operation, the module will enter a safety lockout mode to prevent unsafe gas accumulation.

The module continuously monitors the system for safe operation and will shut down the gas supply if any unsafe conditions are detected.

5. MAINTENANCE

The Trane Parts CNT5135 DSI Module is designed for reliable operation and typically requires minimal maintenance. However, periodic inspection of the overall HVAC system is recommended by a qualified technician.

- **Visual Inspection:** During routine HVAC system maintenance, visually inspect the module and its wiring for any signs of damage, corrosion, or loose connections.
- **Cleanliness:** Ensure the module and its surrounding area are free from dust, debris, and moisture. Use a soft, dry brush or compressed air for cleaning if necessary, with power disconnected.
- **Component Integrity:** Check for any bulging capacitors or burnt components, which may indicate a fault.

Do not attempt to repair the module yourself. If a fault is suspected, replace the module with an authorized Trane Parts component.

6. TROUBLESHOOTING

Before troubleshooting, ensure all safety precautions are followed. Many issues can be resolved by checking basic system components.

6.1 Common Issues and Solutions

- **No Ignition/No Spark:**
 - Verify power supply to the HVAC unit and the module.
 - Check for proper gas supply to the unit.
 - Inspect the igniter and flame sensor for damage or carbon buildup. Clean or replace as needed.
 - Ensure all wiring connections to the module are secure.
 - Consult the HVAC unit's service manual for specific diagnostic codes or LED indicators on the module.
- **Intermittent Ignition/Flame Loss:**
 - Check flame sensor for proper positioning and cleanliness.
 - Verify adequate combustion air supply and proper venting.
 - Inspect gas pressure.
 - Ensure stable electrical connections.
- **Module Lockout:**
 - Identify the cause of the lockout (e.g., failed ignition attempts, flame loss).
 - Cycle power to the HVAC unit to reset the module. If lockout persists, further investigation by a qualified technician is required.

If troubleshooting steps do not resolve the issue, it is recommended to contact a qualified HVAC service technician.

7. SPECIFICATIONS

Feature	Detail
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Model Number	CNT5135
Type	Dual Stage Direct Spark Ignition (DSI) Module
Brand	Trane Parts
Item Weight	1 Pounds
Manufacturer	Trane Parts
First Available	February 9, 2018



Image 7.1: The Trane Parts CNT5135 module packaged in a brown cardboard box, labeled "CNT5135 DUAL STAGE DIRECT SPARK IGNITION CONTROL".

8. WARRANTY AND SUPPORT

For specific warranty information regarding the Trane Parts CNT5135 Dual Stage DSI Module, please refer to the documentation provided with your original HVAC equipment or contact the seller or Trane Parts directly. Warranty terms can vary based on the point of purchase and installation.

For technical support or service, it is recommended to contact a qualified HVAC technician or an authorized Trane service provider. They have the necessary expertise and tools to diagnose and resolve issues related to your HVAC system and its components.



Image 8.1: A stamp-style logo indicating "TRANE OEM COMPONENT", signifying the module is an original equipment manufacturer part from Trane.