



Manuals.plus /

› Trane Parts /

› American Standard & Trane TUD080R936K5 OEM Replacement Hot Surface Ignitor User Manual

Trane Parts TUD080R936K5_Ignitor

American Standard & Trane TUD080R936K5 OEM Replacement Hot Surface Ignitor User Manual

Model: TUD080R936K5_Ignitor

1. INTRODUCTION AND PRODUCT OVERVIEW

This manual provides essential information for the safe and effective installation, operation, and maintenance of the American Standard & Trane TUD080R936K5 OEM Replacement Hot Surface Ignitor. This component is a genuine OEM (Original Equipment Manufacturer) part designed for compatibility with a wide range of American Standard and Trane furnace units.

The hot surface ignitor is a critical component in modern gas furnaces, responsible for igniting the gas burner. This specific ignitor is a silicon-nitride type, known for its durability and rapid heating capabilities.

Key Features:

- **OEM Component:** Ensures perfect fit and performance as per manufacturer specifications.
- **Silicon-Nitride Hot Surface Ignitor:** Provides reliable and efficient ignition.
- **80V Operating Voltage:** Standard voltage for compatible furnace systems.
- **Includes Bracket and Screws:** Facilitates straightforward installation.
- **Wide Compatibility:** Commonly used in hundreds of different American Standard and Trane furnaces.



Figure 1.1: The retail packaging for the American Standard & Trane TUD080R936K5 OEM Replacement Hot Surface Ignitor. The box is white with black text, indicating "ServiceFirst" and "IGN00145, IGNITOR, SILICON-NITRIDE, 80V, INCLUDES BRACKET, SCREWS AND INSTALLERS GUIDE."

2. SAFETY INFORMATION

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

- Always disconnect power to the furnace before attempting any installation, maintenance, or service. Failure to do so can result in electrical shock or death.
- Gas appliances can be dangerous. Installation and service should only be performed by a qualified installer, service agency, or gas supplier.
- Wear appropriate personal protective equipment (PPE), such as gloves and eye protection, during installation and handling.
- Handle the ignitor carefully. Silicon-nitride ignitors are fragile and can break if dropped or mishandled.
- Ensure all wiring connections are secure and correct according to the furnace manufacturer's specifications.
- Do not bypass any safety controls or interlocks.

3. PACKAGE CONTENTS

Upon opening the package, verify that all components are present and undamaged:

- 1 x American Standard & Trane OEM Hot Surface Ignitor (Silicon-Nitride, 80V)
- 1 x Mounting Bracket
- Mounting Screws
- Installation Guide (often included with the ignitor itself)



Figure 3.1: The American Standard & Trane TUD080R936K5 Hot Surface Ignitor. It shows the ceramic ignitor element with two wires leading to a white plastic connector, alongside a metal mounting bracket.

4. SETUP AND INSTALLATION

This ignitor is an OEM replacement part. Installation should be performed by a qualified HVAC technician. The following steps are general guidelines and may vary based on your specific furnace model. Always refer to your furnace's service manual for detailed instructions.

1. **Power Disconnection:** Locate the main power switch for your furnace and turn it OFF. For added safety, turn off the circuit breaker supplying power to the furnace.
2. **Gas Supply Shut-off:** Turn off the gas supply to the furnace at the main gas valve.
3. **Access the Ignitor:** Open the furnace access panel. The ignitor is typically located near the main burner assembly.
4. **Disconnect Old Ignitor:** Carefully disconnect the electrical connector from the old ignitor. Remove the screws or clips securing the old ignitor and its bracket. Note its orientation for proper installation of the new part.
5. **Install New Ignitor:** Attach the new ignitor to the provided mounting bracket using the new screws. Ensure the ignitor element is positioned correctly as per the original installation.
6. **Mount New Ignitor:** Secure the new ignitor assembly into the furnace using the existing mounting points. Ensure it is firmly in place and correctly aligned with the burner.
7. **Connect Wiring:** Connect the electrical connector of the new ignitor to the furnace wiring harness. Ensure a secure and proper connection.
8. **Restore Access:** Close and secure the furnace access panel.
9. **Restore Utilities:** Turn on the gas supply to the furnace. Restore electrical power to the furnace by turning on the circuit breaker and the furnace power switch.
10. **Test Operation:** Initiate a call for heat from your thermostat to test the furnace operation. Observe the ignitor heating up and igniting the gas.

If the furnace does not operate correctly after installation, refer to the Troubleshooting section or contact a qualified technician.

5. OPERATING PRINCIPLES

The hot surface ignitor operates as part of the furnace's ignition sequence. When the thermostat calls for heat, the furnace control board sends voltage to the ignitor, causing its silicon-nitride element to heat up rapidly to a very high temperature (glowing red/orange).

Once the ignitor reaches the optimal temperature, the gas valve opens, allowing gas to flow over the hot ignitor. The intense heat from the ignitor ignites the gas, creating a flame. A flame sensor then detects the presence of the flame, signaling the control board to keep the gas valve open and continue the heating cycle. If no flame is detected, the gas valve will close, and the furnace will attempt to re-ignite or enter a lockout state for safety.

6. MAINTENANCE

The hot surface ignitor itself is generally a sealed component and does not require routine maintenance. However, its longevity can be affected by the overall condition of the furnace. Regular professional furnace maintenance is recommended to ensure optimal performance and extend the life of all components, including the ignitor.

- **Annual Furnace Inspection:** Have your furnace inspected annually by a qualified HVAC technician. They can check the ignitor's condition, clean the burner area, and ensure proper gas pressure and airflow.
- **Keep Area Clear:** Ensure the area around the furnace is clear of dust, debris, and flammable materials to prevent blockages and ensure proper ventilation.
- **Air Filter Replacement:** Regularly replace your furnace air filter as recommended by the furnace manufacturer. A dirty filter can restrict airflow, leading to inefficient operation and potential stress on components.

7. TROUBLESHOOTING

If your furnace is not igniting or experiencing issues, the hot surface ignitor may be a contributing factor. Always ensure power and gas supply are on before troubleshooting.

Symptom	Possible Cause	Solution
Furnace cycles, but ignitor does not glow.	Faulty ignitor, no power to ignitor, control board issue.	Check ignitor for cracks or breaks. Verify voltage to ignitor. If ignitor is damaged or no voltage, replace ignitor or consult technician.
Ignitor glows, but gas does not ignite.	No gas supply, faulty gas valve, dirty burners, flame sensor issue.	Ensure gas supply is on. Check for gas valve operation. Clean burners. Inspect and clean flame sensor. Consult technician if issues persist.
Furnace lights, but then shuts off quickly.	Dirty or faulty flame sensor, poor ground connection.	Clean the flame sensor with fine sandpaper or steel wool. Check all ground connections.
Repeated ignition attempts followed by lockout.	Ignitor not heating sufficiently, gas pressure issues, control board fault.	Verify ignitor glows brightly. Check gas pressure. Reset furnace by cycling power. If problem persists, professional diagnosis is required.

For complex issues or if you are unsure about any step, it is highly recommended to contact a certified HVAC professional.

8. SPECIFICATIONS

Specification	Value
Part Type	Hot Surface Ignitor (HSI)
Ignitor Material	Silicon-Nitride
Voltage	80V
Includes	Bracket, Screws, Install Guide
Model Number	TUD080R936K5_Ignitor
Item Weight	13 ounces
Manufacturer	Trane Parts
Replaces / Supersedes	IGN104, IGN-104, IGN0104, IGN-0104, IGN00104, IGN117, IGN00117, IGN00145, IGN145, IGN0145, IGN-0145, IGN00117, IGN-0117, IGN0117, A341947P01, A341948P02, and others



Figure 8.1: An image of a stamp indicating "TRANE OEM COMPONENT" with stars, signifying that the part is an Original Equipment Manufacturer component from Trane.

9. WARRANTY AND SUPPORT

As an OEM replacement part, the warranty for this ignitor is typically provided by the manufacturer, Trane Parts, or the seller. Please refer to your purchase documentation or contact the seller directly for specific warranty terms and conditions.

For technical support, installation assistance, or troubleshooting beyond the scope of this manual, it is recommended to contact a qualified HVAC professional or the manufacturer's customer service if available.

For additional information on Trane products, you may visit the official Trane website or consult authorized Trane dealers.

