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> Honeywell Y8610U-6006/U Universal Retrofit Spark Ignition Conversion Kit Instruction Manual

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1. INTRODUCTION

The Honeywell Y8610U-6006/U Universal Retrofit Spark Ignition Conversion Kit is designed to upgrade existing atmospheric standing pilot systems to an intermittent pilot ignition system. This conversion enhances energy efficiency by eliminating the continuously burning pilot flame, which is only ignited when there is a call for heat. This kit is suitable for use with natural gas or LP gas applications in furnaces, boilers, and other heating appliances.

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 service must be performed by a qualified installer, service agency, or gas supplier.
- Disconnect power supply before wiring to prevent electrical shock or equipment damage.
- Ensure all gas connections are tight and leak-free after installation. Use a leak detection solution, not an open flame.
- Verify proper operation after installation.
- Do not attempt to repair or replace any part of the kit if you are not qualified. Contact a professional.

3. PACKAGE CONTENTS

The Honeywell Y8610U-6006/U kit includes the following components:

- Gas valve (VR8304M3558)
- Ignition module
- Pilot burner hardware
- Ignition cable
- Wiring harness



OFF

11008

WARNING

EXPLOSION HAZARD
Severe Injury
Death Can Result
Do not take cover
Do not use
Do not use
Do not use
Call service center
does not work
Stop

PV
WV
WV

PV
WV
WV

11008

Image 1: Overview of the Honeywell Y8610U-6006/U kit components, including the ignition module, wiring harness, and ignition cable.

4. SETUP & INSTALLATION

Installation of this kit requires technical expertise and should ideally be performed by a qualified HVAC technician or gas professional. The process involves working with gas lines and electrical components. Refer to the detailed assembly instructions included with your kit for specific wiring diagrams and mounting procedures.

4.1 Pre-Installation Checks

- Ensure the existing appliance is compatible with an intermittent pilot system.
- Verify the gas type (natural or LP) matches the kit's capabilities.
- Turn off the main gas supply to the appliance and disconnect electrical power.

4.2 Component Installation Overview

1. **Remove Existing Components:** Carefully remove the old standing pilot assembly and gas valve, ensuring all gas and electrical connections are properly sealed or disconnected.
2. **Mount New Gas Valve:** Install the new VR8304M3558 gas valve in the same location as the old valve, ensuring proper alignment and secure gas connections.
3. **Install Pilot Burner:** Mount the new pilot burner hardware in the correct position to ensure reliable ignition and flame sensing. This may require minor modifications depending on the specific furnace model.
4. **Mount Ignition Module:** Secure the ignition module in an accessible location, away from excessive heat or moisture.
5. **Wire Components:** Connect the ignition module, gas valve, pilot burner, and appliance controls using the provided wiring harness and ignition cable. Pay close attention to the wiring diagram provided in the kit's specific instructions. Ensure all connections are secure and properly insulated.
6. **Check for Gas Leaks:** After all gas connections are made, turn on the main gas supply and use a non-corrosive leak detection solution to check for any gas leaks.
7. **Restore Power:** Once all connections are secure and leak-free, restore electrical power to the appliance.

5. OPERATION

The intermittent pilot system operates automatically. When the thermostat calls for heat, the ignition module initiates a spark to light the pilot flame. Once the pilot flame is established and sensed, the main gas valve opens, allowing the main burner to ignite. When the call for heat ends, both the main burner and the pilot flame extinguish.

5.1 Initial Startup

1. Ensure all gas and electrical connections are secure.
2. Turn on the main gas supply and electrical power.
3. Set the thermostat to call for heat. The system should initiate a trial for ignition.
4. Observe the pilot and main burner ignition sequence.

5.2 Normal Operation

During normal operation, the system will cycle on and off as dictated by the thermostat. The ignition module continuously monitors the pilot flame and will shut down the gas supply if the flame is not detected, ensuring safe operation.

6. MAINTENANCE

Regular maintenance of your heating appliance is crucial for its longevity and efficient operation. While the Y8610U-6006/U kit itself requires minimal maintenance, it is part of a larger system that should be inspected annually by a qualified technician.

- **Annual Inspection:** Have a qualified technician inspect the entire heating system, including the pilot burner, ignition module, and gas valve, for proper operation, wear, and potential leaks.
- **Pilot Burner Cleaning:** Ensure the pilot burner orifice and flame sensor are free from dust, lint, or corrosion. A dirty pilot burner can lead to ignition failures.
- **Wiring Check:** Verify that all electrical connections are secure and that the ignition cable is free from damage.

7. TROUBLESHOOTING

Before attempting any troubleshooting, ensure the power supply to the appliance is disconnected. If you are not comfortable performing these checks, contact a qualified service technician.

Problem	Possible Cause	Solution
Pilot does not light.	No gas supply; dirty pilot orifice; faulty ignition cable; faulty ignition module.	Check gas supply; clean pilot orifice; inspect/replace ignition cable; replace ignition module.
Main burner does not ignite after pilot lights.	Weak pilot flame; faulty flame sensor; faulty gas valve.	Adjust pilot flame; clean/replace flame sensor; replace gas valve.
System cycles on and off rapidly (short cycling).	Improper thermostat setting; airflow issues; overheating.	Check thermostat settings; ensure clear air filters and vents; consult technician for overheating issues.
No heat.	No power; gas supply off; thermostat malfunction; system lockout.	Check circuit breaker; ensure gas valve is open; verify thermostat operation; reset system by cycling power.

7.1 LED Flame Indication

The ignition module may feature an LED indicator to assist with troubleshooting. Refer to the specific instructions provided with your kit for the meaning of different LED flash codes, which can indicate various operational states or fault conditions.

8. SPECIFICATIONS

Feature	Detail
Model Number	Y8610U-6006/U
Brand	Honeywell
Power Source	Corded Electric
Compatible Devices	Honeywell control panels (Vista series and others), other compatible supporting intermittent pilot systems
Item Dimensions (L x W x H)	7.5 x 6.5 x 4.75 inches
Connectivity Technology	Wired
Installation Type	Screw-In

Feature	Detail
Item Weight	1 pound (16 ounces)
Included Components	Gas valve, ignition module, pilot burner hardware, cable, wiring harness, VR8304M3558
UPC	085267311526

9. WARRANTY & SUPPORT

9.1 Warranty Information

Warranty details for the Honeywell Y8610U-6006/U Universal Retrofit Spark Ignition Conversion Kit are typically provided with the product packaging or can be found on the official Honeywell website. Please retain your proof of purchase for warranty claims.

9.2 Technical Support

For technical assistance, troubleshooting beyond this manual, or to locate a qualified service professional, please visit the official Honeywell support website or contact their customer service department. Contact information can usually be found on the product packaging or on the Honeywell website.

You can visit the Honeywell Store for more information: [Honeywell Store](#)

