

### 5059

Pilot Relight Control

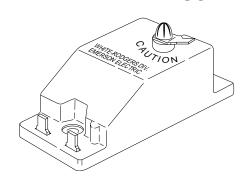
### INSTALLATION INSTRUCTIONS

**Operator: Save these instructions for future use!** 

FAILURE TO READ AND FOLLOW ALL INSTRUCTIONS CAREFULLY BE-FORE INSTALLING OR OPERATING THIS CONTROL COULD CAUSE PER-SONAL INJURY AND/OR PROPERTY DAMAGE.

**DESCRIPTION** 

The 5059 Pilot Relight Control is a low voltage control that generates ignition sparks. It is energized by the thermostat on a call for heat. Once flame is established, the control senses the flame and stops sparking. If the pilot flame is extinguished during a call for heat, the relight control will begin sparking immediately upon sensing absence of flame. The control delivers very low current sparks (approximately 6,000 volts).



### **PRECAUTIONS**

If in doubt whether you wiring is millivolt, line, or low voltage, have it inspected by a qualified heating and air conditioning contractor, electrician, or someone familiar with basic electricity and wiring.

Do not exceed the specification ratings.

All wiring must conform to local and national electrical codes and ordinances.

This control is a precision instrument, and should be handled carefully. Rough handling or distorting components could cause the control to malfunction.

# **A** CAUTION

To prevent electrical shock and/or equipment damage, disconnect electrical power to the system, at the main fuse or circuit box, until installation is complete.

## **▲** CAUTION

Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.

Following installation or replacement, follow appliance manufacturer's recommended installation/service instructions to insure proper operation.

This control is not intended for use in locations where it may come in direct contact with water. Suitable protection must be provided to shield the control from exposure to water (dripping, spraying, rain, etc.).

## **⚠** WARNING

Do not use on circuits exceeding specified voltage. Higher voltage will damage the control and may cause shock or fire hazard.

### - SPECIFICATIONS

#### **Electrical Rating:**

24 VAC (30 VAC max.) 60 Hz 0.030 Amps

#### Mounting:

Surface mount or 2" x 4" switch box

### **Ambient Temperature Range:**

-40°F to +175°F



## NOTE

This control requires a connection to a dead metal ground for proper control operation (mounting screws provided accomplish this requirement). When used in a grounded secondary circuit,  $T_2$  terminal must be connected to ground.

Some furnace manufacturers paint their furnaces. If so, the paint must be scraped from both sides of a furnace where the grounded mounting hole (identified by a chassis ground symbol on the 5059 pilot relight control) comes in contact with the furnace wall (see figs. 1 and 2). To ensure a positive equipment ground, make a final continuity check between the control grounding hole and the furnace using an ohmmeter.

#### **INSTALL THE 5059 CONTROL**

Mount the control inside the furnace in a position so that you have enough high voltage spark wire to reach the electrode, but not to expose the control to excessive high temperature conditions caused by the burner flame. The 5059 control can be mounted directly onto the furnace or can be mounted on a standard 2" x 4" switch box.

The 5059 control has a ¼" male spade high voltage coil connection. You must first install the rubber boot over the wire, then strip about ¾" of insulation off the high voltage wire and install a ¼" female spade connector (provided in parts envelope) using a standard crimping tool (see fig. 3). Install the rubber boot over the high voltage coil connection as shown in fig. 3. (see fig. 3).

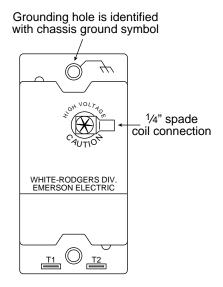


Figure 1. 5059 Pilot Relight Control (top view)

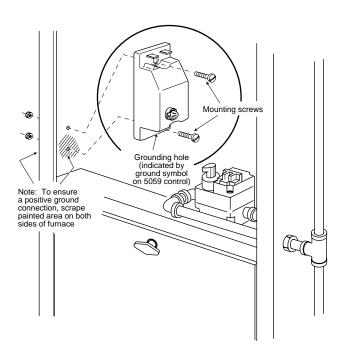


Figure 2. Installing the 5059 control

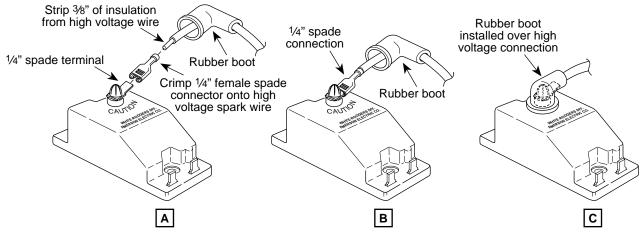


Figure 3. Installing the high voltage wire

## **A** CAUTION

To prevent electrical shock and/or equipment damage, disconnect electrical power to the system at the main fuse or circuit breaker box, until installation is complete.

## **NOTE**

The typical wiring diagram (fig. 4) shows only the terminal identification and wiring hook-up. Always refer to wiring instructions provided by the equipment manufacturer for system hook-up operation.

When used in a grounded secondary circuit,  $T_2$  terminal must be connected to a ground.

All wiring should be installed according to national and local electrical codes and ordinances.

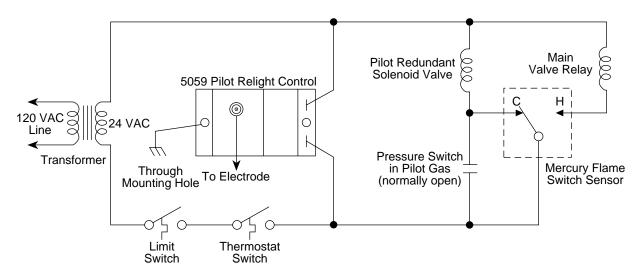


Figure 4. Typical wiring diagram

If you need further information about this product, please write to

White-Rodgers Division, Emerson Electric Co. 9797 Reavis Road St. Louis, MO 63123-5398 Attention: Technical Service Department