

### REPLACES

Replaces: *Carrier LH33WZ512 and comparable ignition controls.*

### FEATURES

- Spark Ignition Control Module
- Microprocessor based
- For use with intermittent pilot boilers, furnaces and other heating appliances
- 100% safety lockout
- Compatible with LP or Natural Gas

### SPECIFICATIONS

**Control Voltage:** Line 24 VAC (18-30 VAC) @ 50/60Hz

**Prepurge:** None

**Lockout:** 5-6 minutes

**Retries:** None

**Operating Temp.:** -40°F (-40°C) to 75°C (176°F)

**Relative Humidity:** 0% to 95% non-condensing

**Relay Contact Rating:** 1 amp @ 24 VAC

**Trail for Ignition:** 90 seconds

**Flame Failure Response Time:** 0.8 sec. max.

**Spark Frequency:** 60 Hz

### SAFETY CONSIDERATIONS

Only trained personnel should install or service heating equipment. When working with heating equipment, be sure to read and understand all precautions in the documentation, on labels, and on tags that accompany the equipment. Failure to follow all safety guidelines may result in damage to equipment, severe personal injury or death.

### REMOVE EXISTING CONTROL

**CAUTION #1!** To service control, and prior to disconnection, label all wires. Failure to do so may result in wiring errors that can cause dangerous operation. Failure to turn off gas and electric supplies can result in explosion, fire, death, or personal injury.

1. Turn thermostat to OFF position or set it to the lowest possible setting.
2. Turn OFF electrical supply to furnace/appliance.
3. Turn OFF gas supply to furnace/appliance.
4. Label each wire with the correct terminal designation.
5. Disconnect the power supply and the thermostat lead wires from the existing ignition control.

### INSTALLING AND TESTING NEW CONTROL

1. Mount the **ICM296** control using a pair of #6 or #8 sheet metal screws. Leave a minimum ¼ inch high clearance from the tip of the spark igniter.
2. Connect the wiring harness with the 6-pin connector to the mating connector on the **ICM296** control.
3. Attach ignition lead to the **ICM296** control. If the lead cable includes a wire terminal, cut off the wire terminal and push the unstripped end over the metal spike on the top of the **ICM296** igniter module. Make sure that the metal spike is in contact with the wire in the ignition cable.
4. Apply 24 VAC to the **ICM296** control; check for sparking at the spark electrode.
5. Turn on the gas supply. The pilot burner should light and the sparking should stop.
6. Turn off the gas supply. Sparking should commence immediately.
7. Turn the 24 VAC input to the **ICM296** control off, then quickly back on to ensure that the sparking unit shuts off within the 5-6 minute lockout time period.
8. Once it is verified that the control is operating properly, set the thermostat below the room temperature to interrupt the 24 VAC input for 3-5 seconds, then reset the thermostat to the desired temperature.
9. Turn on the gas supply.

### MODE OF OPERATION

Upon a call for heat from the thermostat, 24 VAC is applied to the **ICM296** control, the pilot valve is energized, and sparking begins immediately. The sparking stops when the flame is sensed. A new trial for ignition begins upon flame loss.

### WIRING DIAGRAM

