

GAS UNITS KITS AND ACCESSORIES



503,657M 7/97

Supersedes 502,850M

HEAT EXCHANGER AND GAS VALVE/IGNITION CONTROL REPLACEMENT KIT

INSTALLATION INSTRUCTIONS FOR HEAT EXCHANGER AND GAS VALVE /IGNITION CONTROL REPLACEMENT KIT (26J9001PR) USED WITH G20 SERIES FURNACES WITH STANDING PILOT IGNITION

SHIPPING AND PACKING LIST

Dallas, Texas

Package 1 of 1 contains:

- 1 Heat exchanger
- 3 Strip of insulation
- 1 Draft hood Gasket
- 1 Metal strip
- 1 Warning sticker
- 1- Wiring harness
- 1 Gas valve/Ignition control replacement kit 20H77 (LB-62095BA)
 - 1- Ignition control (Johnson)
 - 1- Stand-off bracket
 - 1- Gas valve (Honeywell)
 - 1- Pilot burner assembly (includes sensor)
 - 2- #8 32 X 3/4" thread-forming screws
 - 2- #8 32 X 1/2" thread-forming screws
 - 6- Wires
 - 4- Wiring diagram sticker

SHIPPING DAMAGE

Check all components for shipping damage. Consult last carrier immediately if damage is found.

GENERAL

These instructions are intended as a general guide and do not supersede local codes in any way. Information regarding the installation of gas valve/ignition control replacement kit 20H77, is provided in these installation instructions. (Disregard the Lennox installation instructions provided in kit 20H77).

APPLICATION

This kit allows the changeover to electronic ignition from standing pilot on G20 series units. The existing heat exchanger and gas valve must be removed and replaced. A gas valve replacement kit with electronic ignition control and wiring harness is included to complete the changeover. See table 1 for unit model numbers and corresponding heat exchanger replacement kits.

TABLE 1		
MODEL NUMBER	PART NUMBER	HEAT EXCHANGER
G20Q2-50	19,168	LB-25922BAC
G20Q3E-75	19,169	LB-25922BAD
G20Q4E-75	19,170	LB-25922BAE
G20Q3/4E-100	19,771	LB-25922BAF
G20Q5/6E-100	19,172	LB-25922BAG
G20E-125	19,173	LB-25922BAH
G20E-150	19J74	LB-25922BAJ

REQUIREMENTS

Installation must be made in compliance with local codes. In absence of local codes the installation must comply with the current National Fuel Gas Code (ANSI-Z223.1) and the current National Electrical Code (ANSI/NFPA No. 70).

The National Fuel Gas Code is available from: American National Standards Institute, Inc. 1430 Broadway New York, New York 10018

The National Electrical Code is available from: National Fire Protection Association 470 Atlantic Avenue Boston, Massachusetts 02210

INSTALLATION

Heat Exchanger Replacement (Refer to figure 1 & 2)

- 1 Turn off electrical power and gas supply.
- 2 Remove access panels.
- 3 Disconnect gas supply piping from unit.
- 4 Remove top strip.
- 5 Remove cabinet cap.
- 6 Remove draft hood.
- 7 Mark and disconnect wiring from gas valve, limit control, vent safety shut-off switch, flame roll-out switch and damper prove switch.
- 8 Remove limit control.

- 9 Remove four burner box damper assembly mounting screws, burner box damper assembly and damper prove switch cover.
- 10 Disconnect pilot tubing at gas valve.
- 11 Remove gas manifold securing screws and gas manifold. Then, pull all burners from heat exchanger.
- 12 Remove pilot burner assembly from main burner assembly. Disconnect pilot tubing from pilot burner assembly. Discard pilot burner.
- 13 Remove burner box assembly securing screws. Pull burner box assembly forward until side of burner box touches blower deck lip. Mark the location and the width of the burner box sides onto the blower deck lip. See figure 2. Cut the lip at markings and bend the tabs down. Remove burner box assembly from cabinet.
- 14-Remove heat exchanger.
- 15-Remove insulation from vestibule panel side pieces.









FIGURE 3

- 16 Install replacement insulation strips on sides and bottom of replacement heat exchanger vestibule panel. Then, install replacement drafthood gasket around drafthood opening of heat exchanger. Refer to figure 3.
- 17 Install replacement heat exchanger in cabinet.
- 18 Connect existing pilot tubing to replacement pilot burner. (If existing pilot tubing is not serviceable, use new field provided tubing.) Connect replacement white high temperature wire to pilot burner sensor. Secure pilot burner assembly to main burner with existing screw. (If existing screw not serviceable, use new field provided screw.) Then, slide all burners into heat exchanger.
- 19 Re-install burner box assembly by sliding it back into furnace through the slots in the blower deck lip. Close blower deck lip tabs. Position metal strip (provided) over blower deck lip to seal blower compartment. Affix warning sticker (provided) to the center of replacement metal strip.

Gas Valve/Ignition Control Replacement

- 1 Remove existing gas valve from manifold and install replacement gas valve to manifold.
- 2 Re-install gas manifold assembly with existing screws.
- 3 Re-install damper prove switch cover and burner box damper assembly with existing screws.

4 – Carefully open damper by hand to ensure that damper spring closes damper correctly and that damper prove switch is engaged when damper is open.

NOTE-USE EXTREME CARE WHEN OPENING DAMPER DOOR TO PREVENT PERMANENT DAMAGE TO THE DAMPER MOTOR.

- 5 Re-install existing limit control.
- 6 Re-install existing drafthood.
- 7 Re-install existing cabinet cap.
- 8 Re-install existing top strip.
- 9 Install replacement stand-off bracket to replacement ignition control with two #8 32 x 3/4" thread-forming screws (provided). Locate ignition control on right side of vestibule panel. Drill to 9/64" holes and secure ignition control with two #8 32 X1/2" thread-forming screws (provided).

NOTE - LOCATE IGNITION CONTROL WITH TERMINALS TO THE LEFT FOR WIRE CONNECTIONS.

10 – Rewire unit as shown in figure 4. Route wires to the right side of the manifold and wire tie them into a bundle.

IMPORTANT – DO NOT INCLUDE IGNITION LEAD IN ANY GROUP OF BUNDLED WIRES. ROUTE IGNITION LEAD SEPARATELY.

11 - Reconnect gas supply.

12-Restore gas to unit.

IMPORTANT – CAREFULLY CHECK ALL PIPING CONNECTIONS FOR GAS LEAKS. PILOT LINE CONNECTIONS MUST BE CHECKED WITH THE UNIT OPERATING (INTERMITTENT IGNITION SYSTEMS).

Some soaps used for leak detection are corrosive to certain metals. Rinse piping thoroughly after leak test has been completed. Do not use matches, candles, flame or other sources of ignition to check for gas leaks.

- 13-Affix replacement unit wiring diagram over existing diagram located on the blower access panel.
- 14 Follow start-up and adjustment section.

START-UP AND ADJUSTMENT

BEFORE LIGHTING smell all around the appliance area for gas. Be sure to smell next to the floor because some types of gas are heavier than air and will settle on the floor.

Use only your hand to move the gas control knob. Never use tools. If the knob will not move by hand, do not try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.

To place unit in operation

- 1 Make sure thermostat is set below room temperature and power is turned off to unit.
- 2 This appliance is equipped with an ignition device which automatically lights the pilot burner. DO NOT try to light the pilot burner by hand.
- 3 Turn knob on gas valve to OFF. Do not force.
- 4 Wait 15 minutes to clear out any gas. If you then

smell gas, immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions. If you do not smell gas go to next step.

- 5 Turn knob on gas valve to ON.
- 6 Turn on all electrical power to unit.
- 7 Set thermostat to above room temperature.
 NOTE—When unit is initially started, steps 1 through 7 may need to be repeated to purge air from pilot line.
- 8 Check gas line supply pressure with unit operating. The minimum pressure as shown on the unit rating plate must be available. Then check and adjust manifold pressure to the value indicated on the unit rating plate.
- 9 Set heat anticipator setting to 0.90 amps for electro-mechanical thermostat and 0.10 amps for electronic thermostat.
- 10 Run unit through at least three complete cycles to check for normal operation.
- 11-Set thermostat to desired setting.
- 12 Replace access panels.



