

**INSTALLATION INSTRUCTIONS FOR REPLACEMENT HEAT EXCHANGER KITS
FOR USE WITH 80% EFFICIENCY UPFLOW/HORIZONTAL FURNACES**

⚠ WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a licensed professional HVAC installer (or equivalent), service agency or the gas supplier.

⚠ WARNING

Disconnect power before servicing unit.

Shipping & Packing List

Package 1 of 1 contains the following:

- 1 - Heat exchanger assembly
- 1 - Collector box gasket
- 1 - Orifice plate gasket
- 1 - Heat exchanger support
- 1 - Primary limit (Kit 612998-02, -10, -13, -18, -20, -22 only)
- 1 - Blower deck baffle (Kit 612998-12 only)

Application

See table 1 for unit capacities, cabinet width and corresponding replacement kits.

**Table 1
Heat Exchanger Replacement Kits**

Unit Capacities	Cabinet Width	Replacement Kit No.	Replacement Catalog No.
045	A -- 14-1/2"	612998-10	14D59
045X	A - 14-1/2"	612998-22	14D73
070	A -- 14-1/2"	612998-01	14D50
070	B - 17-1/2"	612998-18	14D67
070X	B - 17-1/2"	612998-13	14D62
090	B -- 17-1/2"	612998-02	14D51
090	C -- 21"	612998-03	14D52
090X	C -- 21"	612998-20	14D69
110	C -- 21"	612998-04	14D53
110X	C - 21"	612998-21	14D70
135	D -- 24-1/2"	612998-05	14D54

Installation

**Table 2
Models Requiring Primary Limit Replacement**

Furnace	Motor Type	Capacity
Single-Stage	PSC	45,000
Single-Stage	Constant Torque	45,000 70,000
Two-Stage	Variable Speed (ICM)	90,000

Refer to figure 1 as you disassemble the the unit. Place papers or protective covering in front of the furnace before removing the heat exchanger assembly.

- 1 - Turn off both electrical and gas power supplies to furnace.
- 2 - Remove flue pipe and top cap if necessary from the unit.
- 3 - Label the wires from gas valve, rollout switches, primary limit switch, secondary switch and make-up box then disconnect them.
- 4 - Remove the screws that secure the combustion air inducer/pressure switch assembly to the collector box.
- 5 - Remove the collector box located behind the combustion air inducer.
- 6 - Disconnect gas supply piping. Remove the screw securing the burner box cover and remove cover. Remove the four screws securing the burner manifold assembly to the vestibule panel and remove the assembly from the unit.
- 7 - Remove screws securing burner box and remove burner box.
- 8 - Remove primary limit. Set aside.

NOTE - See table 2 to determine if the primary limit is to be replaced.

- 9- Remove screws from both sides, top and bottom of vestibule panel.
- 10- Remove heat exchanger. It may be necessary to spread cabinet side to allow more room. If so, remove five screws from the left side or right side of cabinet. See figure 2.

BURNER, COMBUSTION AIR INDUCER ASSEMBLY & HEAT EXCHANGER REMOVAL

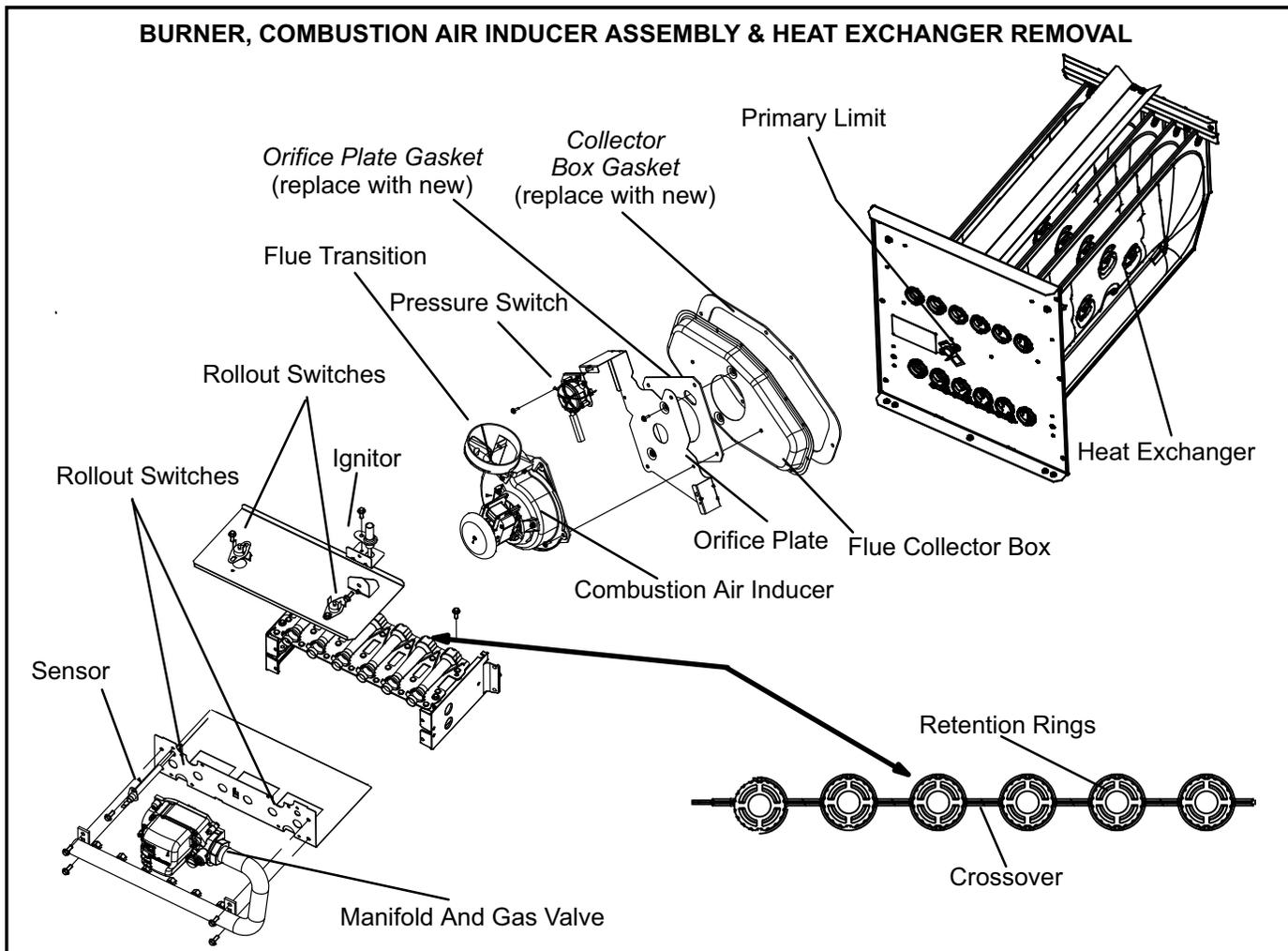


FIGURE 1

- 11- Visually inspect inside the burners and crossovers for any blockage caused by foreign matter. If burners and crossovers are clean move to next step. If necessary, run a vacuum cleaner with a soft brush attachment over the face of burners. Remove any blockage. Figure 1 shows burner detail.
- 12- Visually inspect the combustion air inducer. If the assembly is clean move to the next step. If necessary, use a wire brush to clean. Use compressed air to clean off debris and any rust.
- 13- **-045, -070, -090 & -110 only** - Remove and discard air baffles (figure 3) from both sides of the cabinet.
- 135 only** - Remove blower deck baffle and replace with provided blower deck baffle. Screw holes will correspond between replacement baffle and blower deck. Use existing screws to secure in place. Ensure baffled is oriented with tab facing the back of the unit. See figure 5.
- 14- Remove existing heat exchanger support bracket and discard. Using the same screws install replacement support bracket. Screw holes will correspond between replacement support bracket and blower deck.
- 15- Re-install the existing primary limit in the new heat exchanger vestibule panel.

NOTE - Some models may require a primary limit replacement. See table 2 for these models.
- 16- Reinstall heat exchanger. (Replace the five screws in the cabinet from step 11 (if removed).
- 17- Replace the collector box gasket and orifice plate gasket with gaskets provided. Reinstall collector box and combustion air assembly. Reinstall all screws to the collector box and combustion air inducer. Failure to replace all screws may cause leaks.
- 18- Reinstall burner box, manifold assembly and burner box cover.
- 19- Reconnect all wires.
- 20- Reconnect top cap and vent pipe to combustion air inducer outlet.
- 21- Reconnect gas supply piping.
- 22- Turn on power and gas supply to unit.
- 23 Set thermostat and check for proper operation.
- 24- Check all piping connections, factory and field, for gas leaks. Use a leak detecting solution or other preferred means. **Do not use matches, candles, flame or other sources of ignition to check for gas leaks.**

- 25- If a leak is detected, shut gas and electricity off and repair leak. Repeat until no leaks are detected.
- 26- Replace access panel.

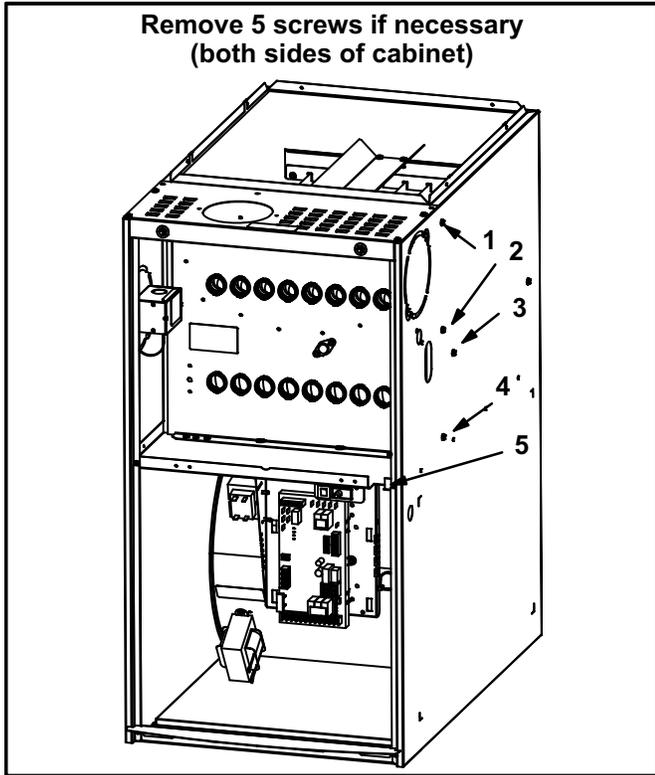


FIGURE 2

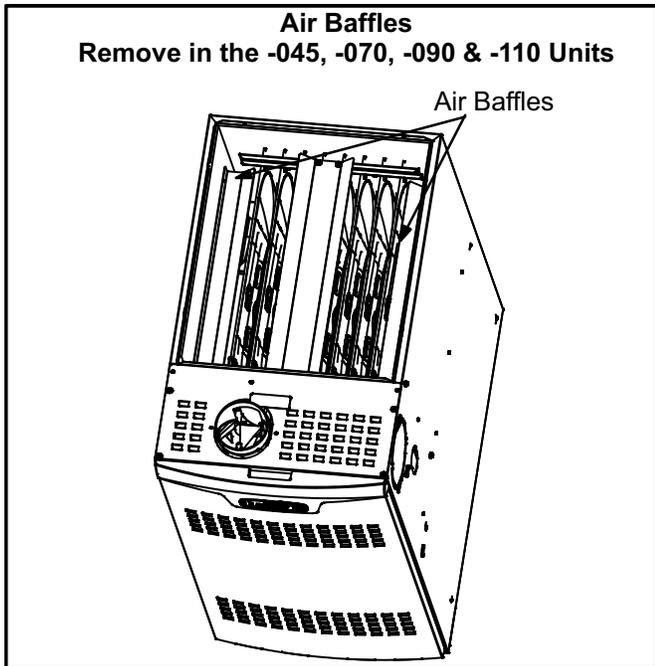


FIGURE 3

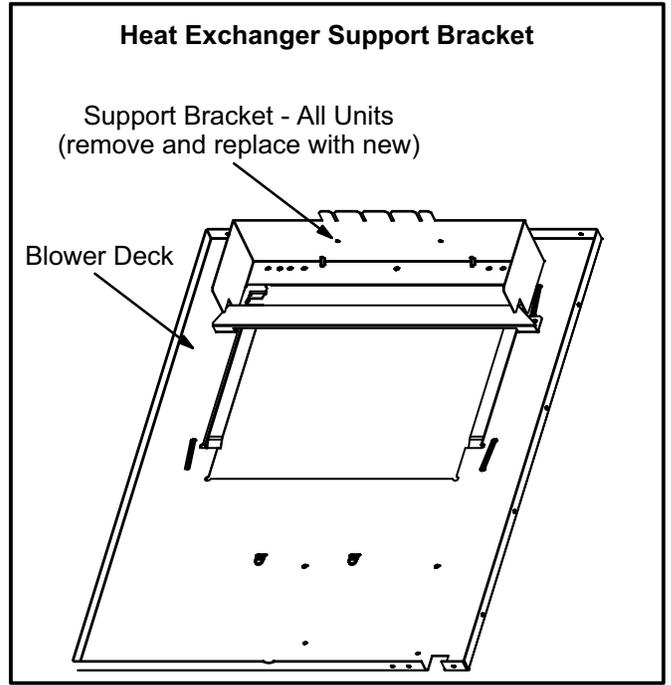


FIGURE 4

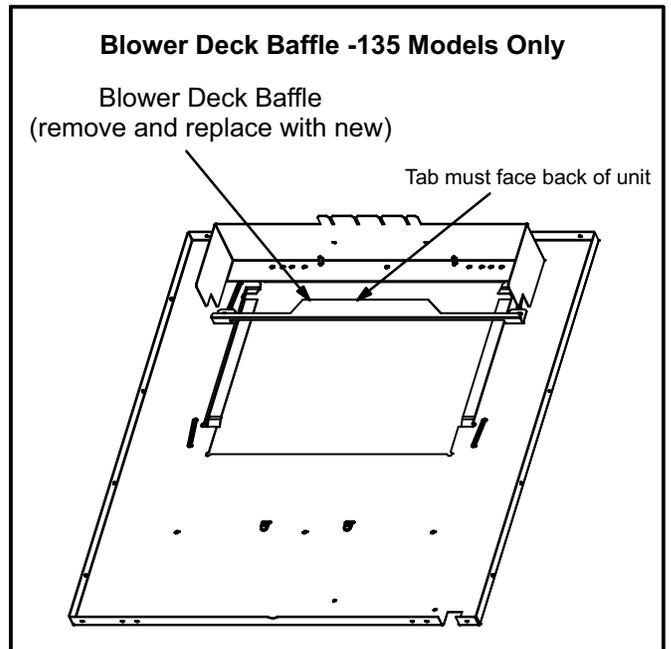


FIGURE 5