

333713-751
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SECONDARY HEAT EXCHANGER REPLACEMENT

Installation Instructions

This kit is designed to replace the secondary heat exchanger kit part number 333713-751 through 333713-753 for all 95% PG9YAA furnaces.

NOTE: Read the entire instruction manual before starting the installation.

SAFETY CONSIDERATIONS

Installing and servicing heating equipment can be hazardous due to gas and electrical components. **Only trained and qualified personnel should install, repair, or service heating equipment.** Untrained personnel can perform basic maintenance functions such as cleaning and replacing air filters. All other operations must be performed by trained service personnel. When working on heating equipment, observe precautions in literature, on tags, and on labels attached to or shipped with unit and other safety precautions that may apply.

These instructions cover the minimum requirements and conform to existing national standards and safety codes. In some instances, these instructions exceed certain local codes and ordinances, especially those that may not have kept up with changing residential construction practices. We require these instructions as a minimum for a safe installation.

Wear safety glasses and work gloves. Have a fire extinguisher available during start-up and adjustment procedures and service calls.

Recognize safety information. This is the safety-alert symbol . When you see this symbol on the furnace and in instructions or manuals, be alert to the potential for personal injury.

Understand the signal words DANGER, WARNING, and CAUTION. These words are used with the safety-alert symbol. DANGER identifies the most serious hazards which **will** result in severe personal injury or death. WARNING signifies a hazard which **could** result in personal injury or death. CAUTION is used to identify unsafe practices which **may** result in minor personal injury or product and property damage. NOTE is used to highlight suggestions which **will** result in enhanced installation, reliability, or operation.

CAUTION

UNIT OPERATION HAZARD

Failure to follow this caution may result in improper unit operation.

Label all wires prior to disconnection when servicing controls.

CAUTION

CUT HAZARD

Failure to follow this caution may result in personal injury.

Sheet metal parts may have sharp edges or burrs. Use care and wear appropriate protective clothing and gloves when handling parts.

INTRODUCTION

This instruction covers installation of the secondary heat exchanger kit part number 333713-751 through 333713-753 for all 95% PG9YAA series furnaces.

WARNING

FIRE EXPLOSION AND ELECTRICAL HAZARD

Failure to follow this warning could result in personal injury, death, or property damage.

Turn off gas and electric supplies to unit before beginning any installation or modification.

Follow the operating instructions on label attached to furnace.

PART NUMBER	BTUH
333713-751	60,000
333713-752	80,000
333713-753	100,000

DESCRIPTION AND USAGE

Use this secondary heat exchanger kit to replace a failed secondary heat exchanger. This secondary heat exchanger kit contains the following items:

PARTS LIST

DESCRIPTION	QTY.
Secondary Heat Exchanger/Panel Assembly (includes insulation)	1
Panel Assembly Screws	20 max.
Turbulators, Short	14 max.
Turbulators, Long	14 max.
Collector Box Gasket	1
Transition Assembly Gasket	1
Inducer Assembly Gasket	1
Installation Instructions	1

If any part is missing, immediately contact your parts supplier. Not all parts will be used.

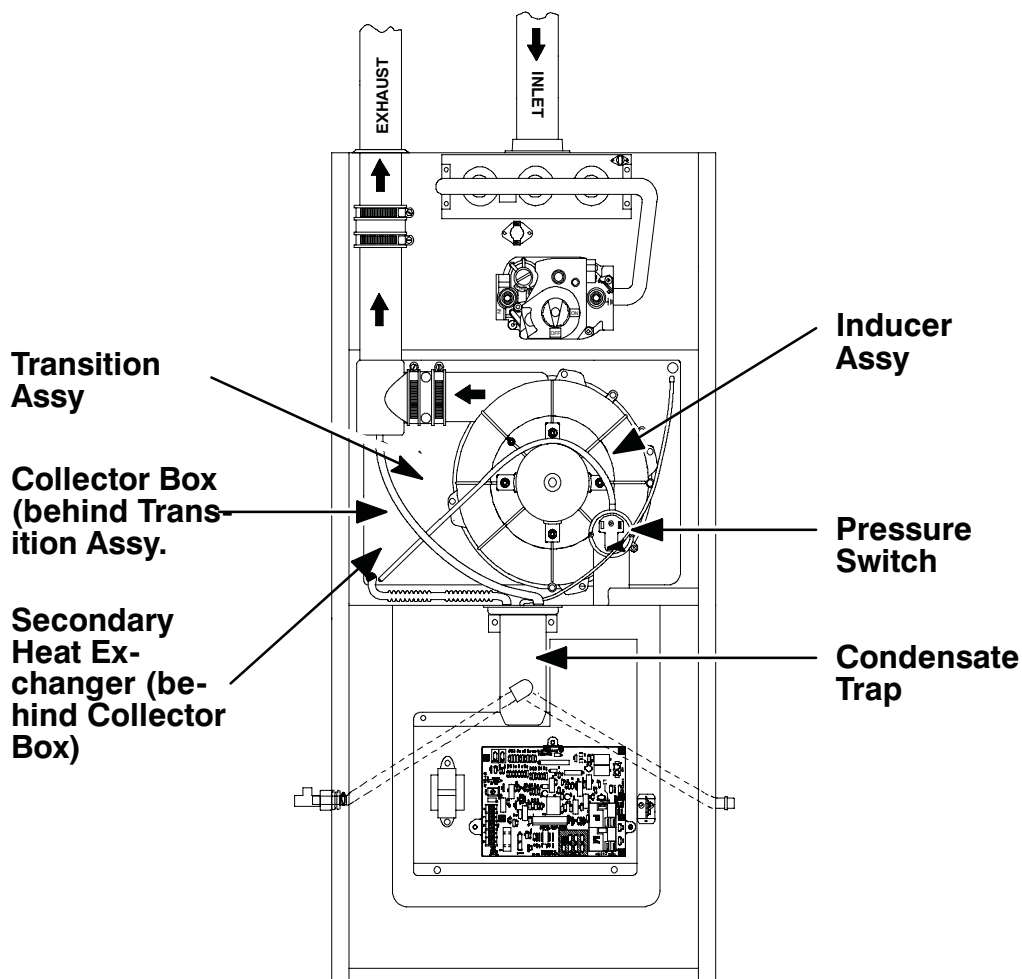


Fig. 1 - PG9YAA Furnace

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INSTALLATION

Step 1 — Disconnect Wires and Tubing

Label wires and tubing prior to disconnection.

1. Turn off gas and electrical supplies to furnace.
2. Remove main furnace door.
3. Remove blower access door.
4. Detach electrical junction box.
5. Disconnect all wires from the inducer assembly.
6. Disconnect wires from the pressure switch assembly.
7. Disconnect all drain and pressure switch tubes from the transition assembly and pressure switch assembly (**Fig. 2**).

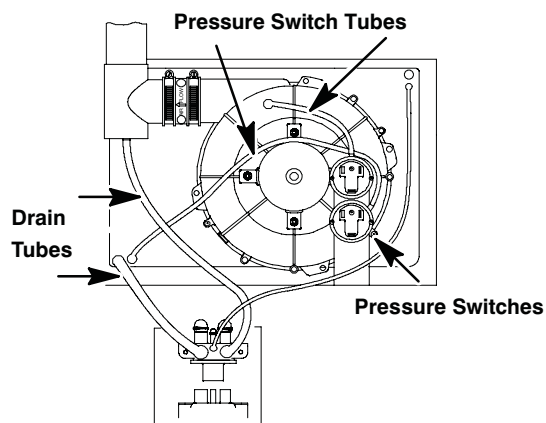
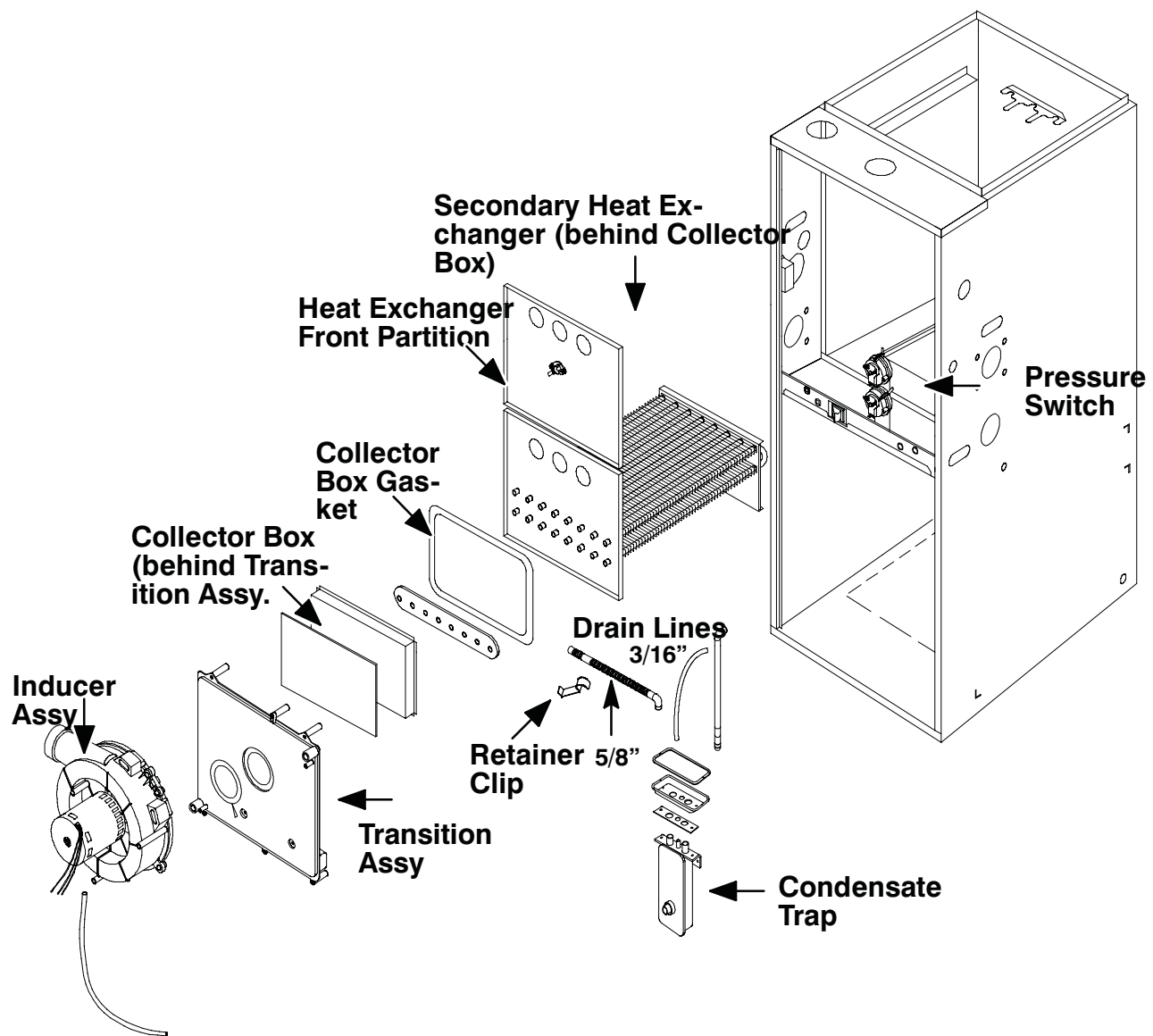


Fig. 2 - Two Stage - Two Pressure Switches

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Fig. 3 - Expanded View

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Step 2 — External Component removal

NOTE: There may be condensate left in the tubes/heat exchanger. Spilled condensate may be slippery.

1. Remove the two (2) screws fastening the pressure switch assembly to the blower deck and remove the assembly from the furnace.
2. Remove the two (2) screws fastening the blower rails to the blower deck.
3. Remove the screw from the middle of the door switch bracket and lift the bracket out of the compartment.
4. Remove the retainer clip supporting the corrugated 5/8" ID drain tube that is connected to the transition assembly from the condensate trap assembly.
5. Disconnect the corrugated 5/8" ID drain tube that is connected to the transition assembly from the condensate trap assembly.
6. Remove the two (2) screws fastening the condensate trap assembly to the blower deck and remove the assembly by pulling the tubes through the opening.

NOTE: There may be condensate left in the tubes/heat exchanger. Spilled condensate may be slippery.

7. Remove the four (4) screws fastening the inducer assembly to the transition assembly and remove the inducer assembly from the furnace.

Step 3 - Internal Component Removal

1. Remove the screws fastening the transition assembly to the cell panel (7-11 screws depending on the model) and remove the transition assembly and transition assembly gasket from the furnace.
2. Remove the eight (8) screws fastening the collector box/insulation board assembly to the cell panel and remove it from the furnace along with the collector box gasket.

Step 4 - Secondary Heat Exchanger Removal

1. Remove the screws fastening the secondary heat exchanger cell panel to the cabinet and primary heat exchanger assembly (13-20 screws depending on the model).

2. Begin sliding the secondary heat exchanger assembly out and lift it over the door divider plate.

⚠ CAUTION

PROPERTY DAMAGE RISK

Failure to follow this caution may result in personal injury.

The turbulators are loose in the tube and there may be condensate in the tubes. If condensate is present, possible water damage could occur during removal.

Step 5 - Install New Secondary Heat Exchanger

1. After removing the new secondary heat exchanger from the box and removing any protective material, slide the assembly into the furnace.
2. Line the mating screw holes up and install all the screws that fasten the assembly to the cabinet and primary heat exchanger assembly. New screws were provided with this kit in case any of the screws were damaged during removal.

NOTE: Long turbulators are located in the secondary heat exchanger closest to the circulating air blower and short turbulators are closest to the supply air. See Fig. 3.

KIT PART	BTUH	TURBULATORS (QTY.)	
		SHORT	LONG
333713-751	60,000	11	11
333713-752	80,000	14	14
333713-753	100,000	14	14

NOTE: Some furnaces may not have the full amount of turbulators. When installing the new turbulators, make sure to install a full set.

Step 6 - Installing Internal Components

1. Inspect the collector box gasket and replace with the new one from the kit if needed.
2. Fasten the collector box/insulation board assembly to the cell panel using the eight (8) screws that were removed from Step 3-2.
3. Inspect the transition assembly gasket and replace with the new one from the kit if needed.
4. Fasten the transition assembly to the cell panel using the screws that were removed from Step 3-1.

5. Inspect the inducer assembly gasket located on the front of the transition assembly and replace with the new one from the kit if needed.

NOTE: This gasket has an adhesive on one side which is used to secure it to the transition assembly.

Step 7 - Installing External Components

1. Install the inducer assembly with the four (4) screws removed during Step 2-8 in the same venting position as it was prior to removal.

NOTE: It is recommended to install these screws with a hand tool to prevent damaging/stripping the mating holes in the transition assembly.

2. Feed the drain tubes through the rectangular opening in the blower deck with the condensate trap drain stub facing outwards and fasten the assembly to the blower deck with the screws removed from Step 2-7. Do not forget to install the gasket in this Step.
3. Install the drain tee or field supplied vent tube into the inducer assembly.
4. Connect the corrugated 5/8" ID drain tube from the transition assembly to the condensate trap assembly.
5. Relocate retainer clip, between the door switch plate and the blower shelf, supporting the corrugated 5/8" ID drain tube that is connected to the transition assembly from the condensate trap assembly.
6. Replace the screw in the middle of the door switch plate.
7. Place the pressure switch assembly on the blower deck and fasten in place with the screws removed from Step 2-1.
8. Replace the two (2) blower rail screws.

Step 8 - Connect Wires and Tubes

1. Connect all drain and pressure tubes. Ensure that the tubes are not kinked or pinched.
2. Connect the wires to the pressure switches.
3. Connect all the wires for the inducer assembly.
4. Fasten the electrical junction box to the cabinet.

Now that the secondary heat exchanger replacement is complete, install the blower access door and turn on the gas and electrical supply. Check furnace operation through two (2) cycles. Finally, check for condensate leaks and install the main furnace door.

NOTE: You must prime the trap or furnace may cycle on error until the trap fills.