

INSTALLATION INSTRUCTIONS

For the replacement of Secondary Heat Exchanger

Part Numbers 1174980, 1174981, 1174982 & 1177461

This kit is designed to replace the secondary heat exchanger on the
95% **N9MPX, *9UHX, *9MPX & *9MVX** Furnaces


* Denotes Brand (T, H or C)

SAFETY CONSIDERATIONS

Improper installation, adjustment, alteration, service, maintenance, or use can cause explosion, fire, electrical shock, or other conditions which may cause death, personal injury, or property damage. Consult a qualified installer, service agency, or your distributor or branch for information or assistance. The qualified installer or agency must use factory-authorized kits or accessories when modifying this product. Refer to the individual instructions packaged with the kits or accessories when installing.

Follow all safety codes. Wear safety glasses, protective clothing, and work gloves. Use quenching cloth for brazing operations. Have fire extinguisher available. Read these instructions thoroughly and follow all warnings or cautions included in literature and attached to the unit. Consult local building codes, the current editions of the National Fuel Gas Code (NFCG) NFPA 54/ANSI Z223.1, National Electrical Code (NEC) NFPA 70.

In Canada refer to the current editions of the National standards of Canada CAN/CSA-B149.1 and .2 Natural Gas and Propane Installation Codes, and Canadian Electrical Code CSA C22.1.

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

Kit Part	Used with Models		
1177461	---	---	*9MVX040F
1174980	*9UHX060F	*9MPX060F	*9MVX060F
1174981	*9UHX080J	*9MPX080J	*9MVX080J
1174982	*9UHX100L	*9MPX100L	*9MVX100L

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INTRODUCTION

This instruction covers installation of the secondary heat exchanger kit part number 1174980, 1174981, 1174982 & 1177461 for all 95% furnaces.

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 Supplied with Each Kit	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



WARNING

FIRE EXPLOSION AND ELECTRICAL HAZARD

Failure to follow this warning could result in property damage, personal injury, and/or death.
Turn off gas and electric supplies to unit before beginning any installation or modification.
Turn off electric power supply at disconnect switch or service panel before starting installation. Tag and lockout shutoff(s) with appropriate device warning labels. There may be more than one disconnect.
Follow the operating instructions on label attached to furnace.



CAUTION

UNIT OPERATION HAZARD

Failure to follow this caution may result in unit damage or improper operation.
Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.



ATTENTION

D'EQUIPMENT D'OPERATION

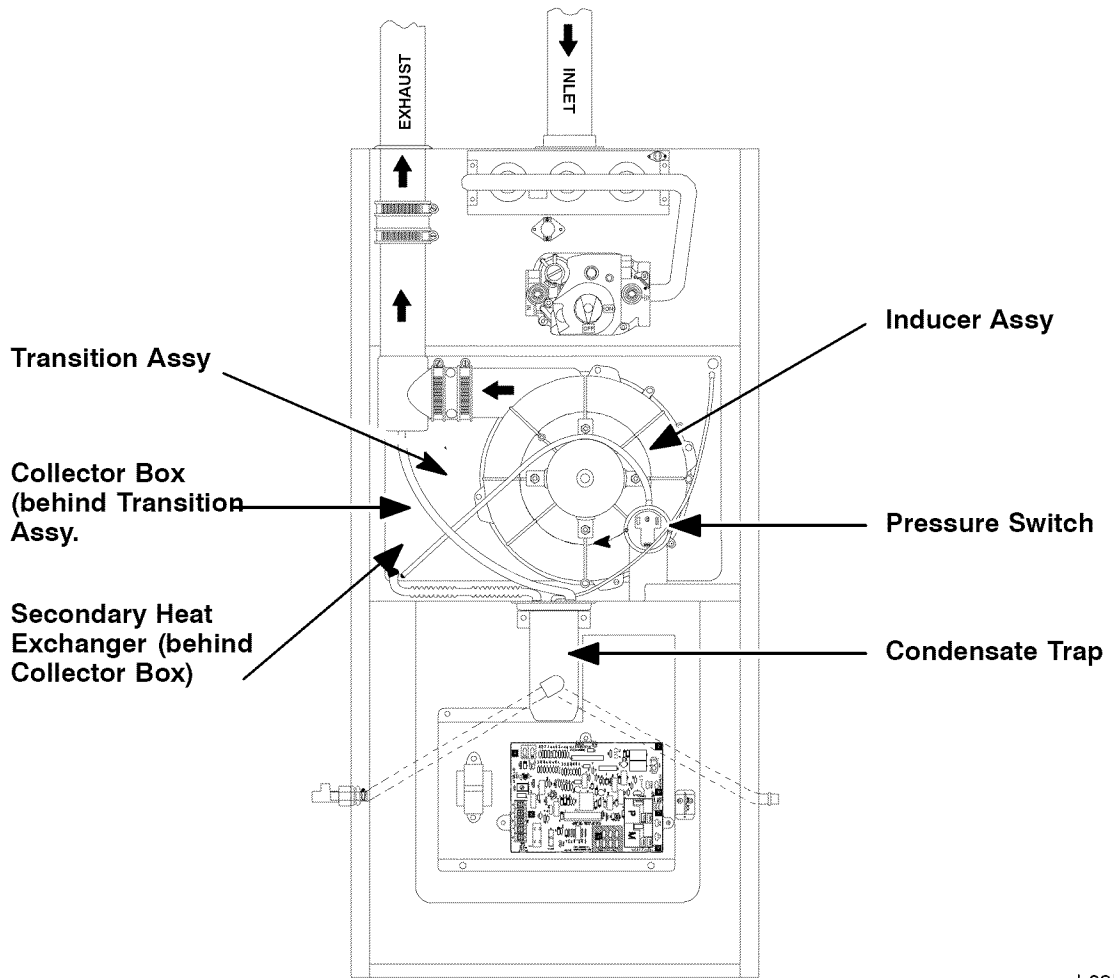
Lors des opérations d'entretien des commandes, étiqueter tous les fils avant de les déconnecter. Toute erreur de câblage peut être une source de danger et de panne.



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.

Figure 1**Furnace**

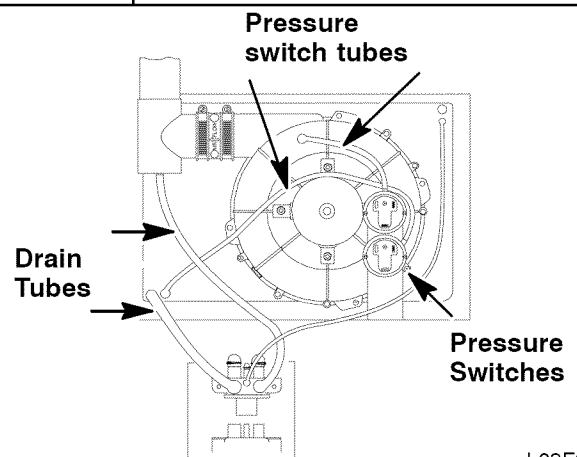
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INSTALLATION

Step 1 – Disconnect Wires and Tubing

Label wires and tubing prior to disconnection.

- A. Turn off gas and electrical supplies to furnace.
- B. Remove main furnace door.
- C. Remove blower access door.
- D. Detach electrical junction box.
- E. Disconnect all wires from the inducer assembly.
- F. Disconnect wires from the pressure switch assembly.
- G. Disconnect all drain and pressure switch tubes from the transition assembly and pressure switch assembly (**Figure 2**).

Figure 2**Two Stage – Two Pressure Switches**

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Step 2 – External Component removal

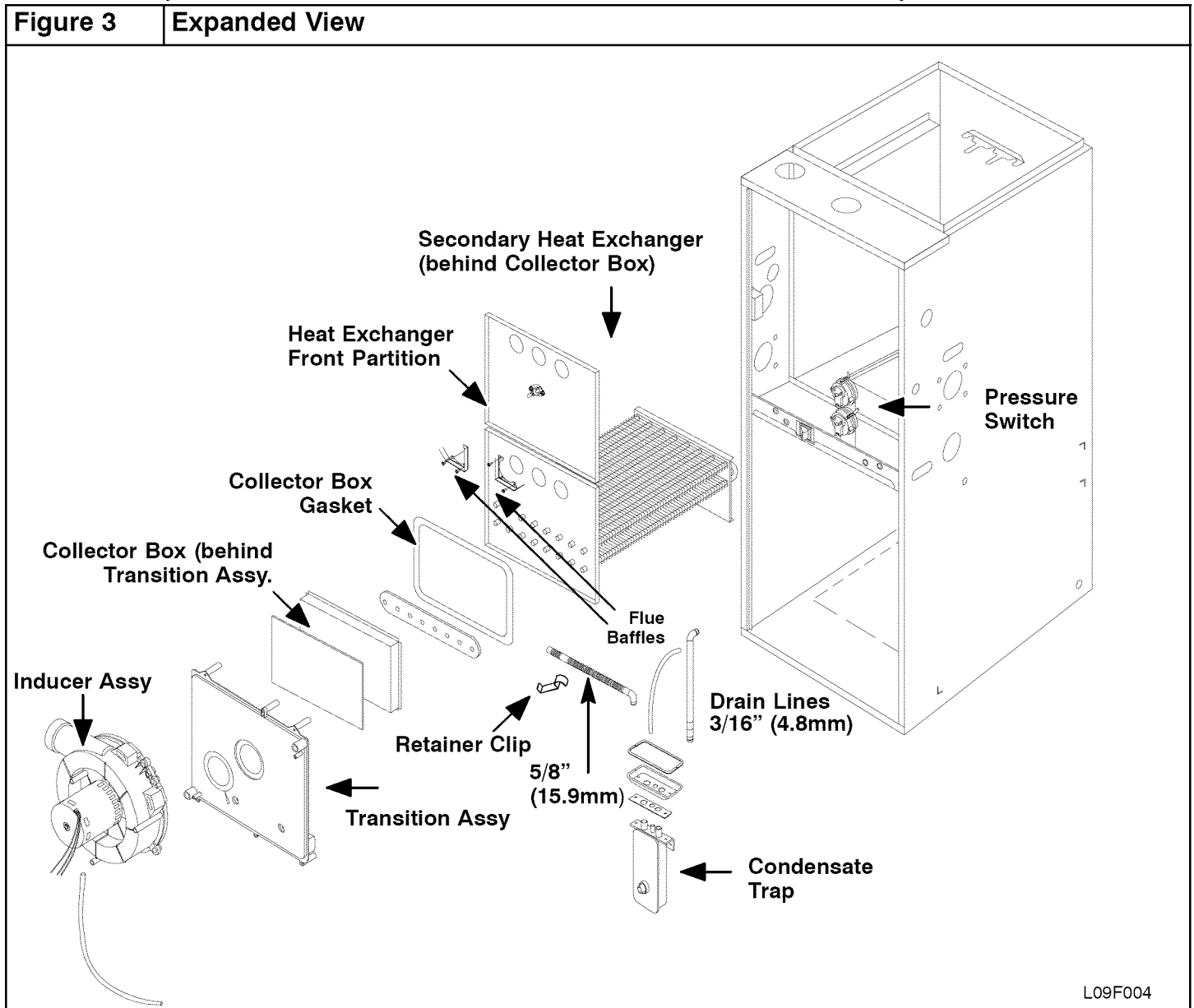
Note: There may be condensate left in the tubes/heat exchanger. Spilled condensate may be slippery.

- A. Remove the two (2) screws fastening the pressure switch assembly to the blower deck and remove the assembly from the furnace.
- B. Remove the two screws (2) fastening the blower rails to the blower deck.
- C. Remove the screw from the middle of the door switch bracket and lift the bracket out of the compartment.
- D. Remove the retainer clip supporting the corrugated 5/8" (15.9mm) ID drain tube that is connected to the transition assembly from the condensate trap assembly.

- E. Disconnect the corrugated 5/8" (15.9mm) ID drain tube that is connected to the transition assembly from the condensate trap assembly.
- F. Remove the drain tee or the field supplied vent tube from the inducer assembly.
- G. 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.

- H. 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

- A. Remove the screws fastening the transition assembly to the cell panel and remove the transition assembly and transition assembly gasket from the furnace.

- B. Remove the 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

- A. Remove the screws fastening the secondary heat exchanger cell panel to the cabinet and primary heat exchanger assembly.
- B. Begin sliding the secondary heat exchanger assembly out and lift it over the door divider plate.
- C. Remove the flue baffles and reuse when installing the new heat exchanger. (See Figure 3)

Note: Flue baffles are not provided as a part of the replacement kit.

⚠ CAUTION

PROPERTY DAMAGE RISK

Failure to follow this caution could result in property damage.

The turbulators are loose in the tubes 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

- A. After removing the new secondary heat exchanger from the box and removing any protective material, slide the assembly into the furnace.
- B. 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.
- C. Long turbulators are located in the secondary heat exchanger closest to the circulating air blower and short turbulators are closest to the supply air.

Kit Part	Used with Models			Turbulators - Quantity	
				Short	Long
1177461	---	---	*9MVX040F	8	8
1174980	*9UHX060F	*9MPX060F	*9MVX060F	11	11
1174981	*9UHX080J	*9MPX080J	*9MVX080J	14	14
1174982	*9UHX100L	*9MPX100L	*9MVX100L	14	14

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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

- A. Inspect the collector box gasket and replace with the new one from the kit if needed.
- B. Fasten the collector box/insulation board assembly to the cell panel using the screws that were removed from Step 3B.

- C. Inspect the transition assembly gasket and replace with the new one from the kit if needed.
- D. Fasten the transition assembly to the cell panel using the screws that were removed from Step 3A.
- E. 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

- A. Install the inducer assembly with the four (4) screws removed during Step 2C 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.

- B. 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 2D. Do not forget to install the gasket in this Step.
- C. Install the drain tee or field supplied vent tube into the inducer assembly.
- D. Connect the corrugated 5/8" (15.9mm) ID drain tube from the transition assembly to the condensate trap assembly.
- E. Relocate retainer clip, between the door switch plate and the blower shelf, supporting the corrugated 5/8" (15.9mm) ID drain tube that is connected to the transition assembly from the condensate trap assembly.
- F. Replace the screw in the middle of the door switch plate.
- G. Place the pressure switch assembly on the blower deck and fasten in place with the screws removed from Step 2C.
- H. Replace the two (2) blower rail screws.

Step 8 – Connect Wires and Tubes

- A. Connect all drain and pressure tubes. Ensure that the tubes are not kinked or pinched.
- B. Connect the wires to the pressure switch(es).
- C. Connect all the wires for the inducer assembly.
- D. 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.