

Installation Instructions


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

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. Have a fire extinguisher available. Read these instructions thoroughly and follow all warnings or cautions include in literature and attached to the unit. Consult local building codes, the current editions of the National Fuel Gas Code (NFGC) NFPA 54/ANSI Z223.1 and the National Electrical Code (NEC) NFPA 70.

In Canada, refer to the current editions of the National Standards of Canada CAN/CGA-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 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 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.

WARNING

FIRE, EXPLOSION, ELECTRICAL SHOCK HAZARD

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

Before installing or servicing unit, always turn off main electrical and gas to unit and tag with appropriate lockout. There may be more than one disconnect switch.

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, safety glasses and gloves when handling parts and servicing furnaces.

CAUTION

UNIT DAMAGE HAZARD

Failure to follow this caution may result in improper and dangerous operation.

Label all wires prior to disconnection when servicing controls.

INTRODUCTION

This instruction covers installation of the high output permanent split capacitor (PSC) inducer motor kit Part No. 320725-754 and 320725-755 on models 340MAV, 340AAV, 345MAV, 350MAV, 350AAV, 353AAV, 490AAV, 58MCA, 58MCB, 58MEB, 58MSA, 58MXA, 58MXB, PG9MAA and PG9MAB Condensing Gas Furnaces. See Table 1 for kit applicability.

DESCRIPTION AND USAGE

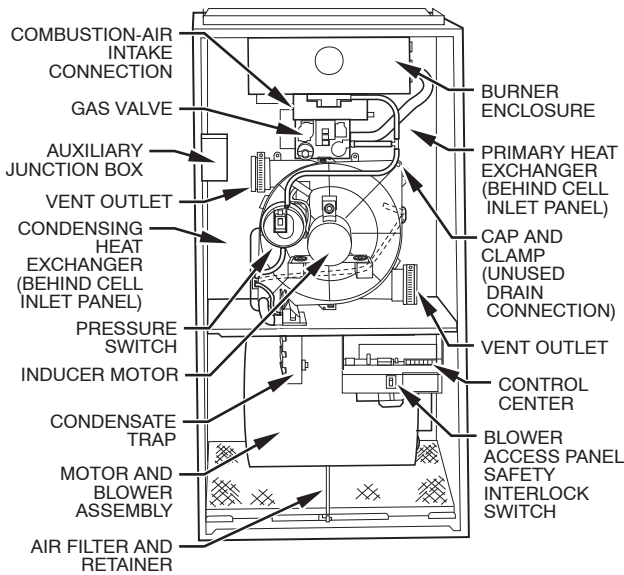
Use this PSC inducer motor kit to replace a failed inducer motor assembly.

This kit contains the following items:

Inducer assembly	1
Installation Instructions	1

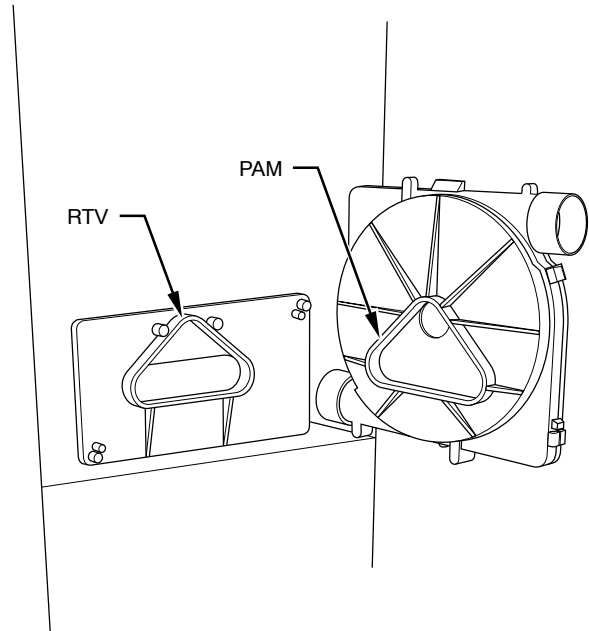
NOTE: Inducer assembly consists of motor and fan, capacitor, wheel, motor mount, inducer cover, inducer housing, vent cap, and vent clamp.

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Fig. 1 - Inducer Motor Assembly in Upflow Furnace Orientation



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Fig. 2 - Inducer Housing to Collector Box Gasket

Table 1 – Kit Applicability

KIT PART NO.	UNIT													
	340MAV 350MAV 490AAV		345MAV 353AAV		340AAV 350AAV		58MCA 58MXA		58MEB 58MSA		58MCB 58MXB		PG9MAA PG9MAB	
	Size	Series	Size	Series	Size	Series	Size	Series	Size	Series	Size	Series	Size	Series
320725 -754	060120	D and Later Series	060120	A and Later Series	060120	A and Later Series	120-20	130 and Later Series	120-20	100 and Later Series	120-20	100 and Later Series	060120	A and Later Series
320725 -755	060140	D and Later Series	--	--	060140	A and Later Series	140-20	130 and Later Series	--	--	140	100 and Later Series	060140	A and Later Series

INSTALLATION

Step 1 — Remove Old Motor Assembly

1. Turn off gas and electrical supplies to unit.
2. Remove main furnace door.
3. Disconnect vent pipe from inducer housing by loosening coupling clamp on vent pipe. Move pipe out of furnace casing.
4. Remove drain tube from inducer motor mounting cover plate.
5. Remove pressure switch tubes. (See Fig. 1.)
 - a. Remove tube attached to pressure switch from collector box.
 - b. Remove tube attached to pressure switch from burner enclosure and gas valve.
6. Remove screw securing pressure switch and capacitor to inducer housing.
7. Disconnect motor lead connector from quick-connect.
8. Remove 4 bolts attaching inducer housing assembly to heat exchanger cell panel.

Step 2 — Install New Motor Assembly

1. Inspect seal on collector box. (See Fig. 2.)

NOTE: If collector box seal is damaged in any way, it must be repaired. To repair, apply sealant releasing agent such as PAM cooking spray or equivalent (must not contain corn or canola oil, halogenated hydrocarbons or aromatic contents to prevent inadequate sealing) to inducer housing. Apply a small bead of G.E. RTV 162, G.E. 6702, or Dow-Corning RTV 738 sealant to

groove in collector box. G.E. 162 (P771-9003) is available through RCD in 3-oz. tubes.

2. Remove 4 bolts and spacers from old inducer housing assembly.
3. Install spacers in new inducer housing.
4. Insert bolts through inducer housing.

NOTE: Inserting bolts at this time will add to the ease of their installation later.

5. Install new inducer housing assembly to heat exchanger cell panel by aligning guide pins in collector box.

NOTE: Do not pinch collector box pressure tube when assembling inducer housing to collector box.

6. Tighten 4 bolts securing inducer housing assembly to heat exchanger cell panel.
7. Remove screw securing capacitor and reuse to secure pressure switch and capacitor to inducer motor mounting cover plate.
8. Reconnect pressure switch tubes. See tubing label on furnace for proper connections.
 - c. Connect tube from burner enclosure and gas valve to pressure switch.
 - d. Connect tube from collector box to pressure switch.
9. Reconnect motor leads to quick-connect.

10. Reconnect drain tube to inducer motor mounting cover plate.

11. Remove cap and clamp from unused drain connection on old inducer motor mounting cover plate and install on new inducer motor mounting cover plate.
12. Connect vent pipe by inserting pipe through elastomeric (rubber) coupling and then fully into inducer housing outlet. Tighten coupling clamp screw(s) to 15 in.-lb of torque.

WARNING

FIRE, EXPLOSION AND ELECTRICAL SHOCK HAZARD

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

After completing installation, vent pipe must be installed and fully seated against inducer housing internal stop. Coupling clamp screw(s) must be tightened to 15 in.-lb of torque to prevent disassembly of vent from furnace, and to prevent vent gas and condensate leakage.

13. Turn on gas and electrical supplies to unit.
14. Check for gas leaks.

WARNING

FIRE, EXPLOSION AND ELECTRICAL SHOCK HAZARD

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

Never check for gas leaks with an open flame. Use a commercially available soap solution made specifically for the detection of leaks to check all connections.

15. Check furnace operation through 2 complete cycles.
16. Reinstall main furnace door.

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