

Inducer Housing/Motor Mount Replacement Kit

Cancels: IIK 330A-40-4

IIK 330A-40-6
6-98

Installation Instructions → Part No. 310348-757 and -758

NOTE: Read the entire instruction before starting the installation.
This symbol → indicates a change since the last issue.

SAFETY CONSIDERATIONS

Installing and servicing heating equipment can be hazardous due to gas and electrical components. Only trained personnel should install or service heating equipment.

Untrained personnel can perform basic maintenance functions such as cleaning and replacing filters. All other operations should be performed by trained service personnel. When working on heating equipment, observe precautions in the literature, on tags, and on labels attached to the unit.

Follow all safety codes. Wear safety glasses and work gloves. Have a fire extinguisher available.

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 **would** result in minor personal injury or product and property damage.

WARNING

Turn off gas and electrical supplies to unit before beginning any installation or modification. Follow operating instructions on label attached to furnace. Failure to follow this warning could result in personal injury or death.

INTRODUCTION

→ This instruction covers the installation of the inducer housing/motor mount replacement kit Part No. 310348-757 or -758 in all non-condensing, induced-draft furnaces in 40-in. cabinets.

Replacement kit Part No. 310348-757 should be used with all units requiring a 4-in. vent connector; replacement kit Part No. 310348-758 should be used with units requiring a 5-in. vent connector.

These kits supersede kits Part No. 31348-755 and -756 which do not include information on a new Tog-L-Loc process. The Tog-L-Loc process mechanically bonds the inducer to the collector box, eliminating the problem of screw heads hitting the inducer wheel.

DESCRIPTION AND USAGE

The inducer housing/motor mount replacement kit is used to repair or upgrade the inducer housing relief box assembly and inducer motor mounting hardware.

The inducer housing/motor mount replacement kit contains the following items:

Inducer housing assembly	1
Shaft seal	1
Motor support	1
Motor plate	1
→ Screw	7
Grommet	3
Gasket	2
Installation Instructions	1

INSTALLATION

Step 1—Remove Inducer Housing and Relief Box and Inducer Motor Assembly

1. Turn off gas and electrical supplies to furnace.
2. Remove blower and control access doors.
3. Disconnect and remove vent pipe.
4. Unplug inducer motor.
5. Disconnect wires from pressure switch and draft safeguard switch.
6. Remove screws securing relief box to top plate (upflow) or to blower shelf (downflow/horizontal).
7. Disconnect pressure switch tube from collector box fitting.
8. Remove and save 3 assembly mounting screws and remove inducer motor assembly (motor, wheel, and mount) from inducer housing. Be careful not to damage inducer wheel during removal. Note which screw retains the motor's green ground wire for use when reassembling inducer.
9. Carefully measure location of wheel to motor support for correct position when reassembling. Loosen inducer wheel setscrew using an allen wrench, and remove wheel from motor shaft. (See Fig. 1.)

CAUTION

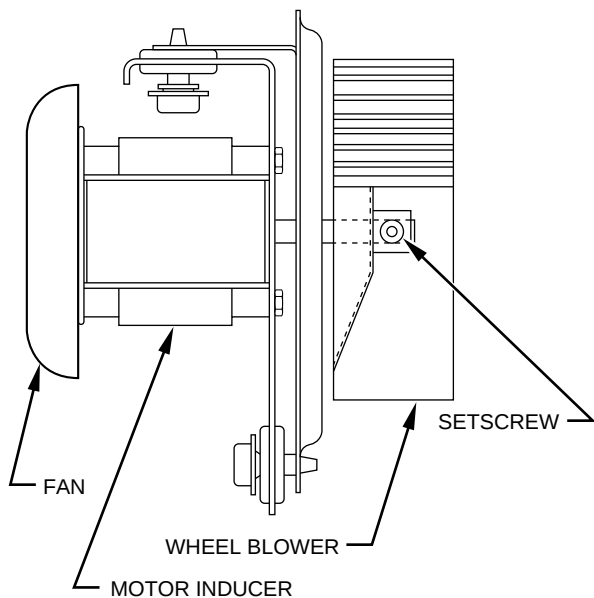
Failure to reassemble inducer wheel the correct distance from motor support may result in loss of performance or mechanical interference.

NOTE: If wheel is difficult to remove, lightly sand any scale or rust buildup from end of motor shaft. Apply a small amount of penetrating oil to shaft and hub. Tap lightly on hub only. DO NOT tap or pry on any other areas of wheel.

10. Remove 3 grommet screws.

NOTE: Two pairs of mounting holes are provided on motor plate. Usage varies depending on application. If old motor plate also has 2 pairs of motor mounting holes, carefully note which 2 are used and use same 2 on new motor plate during reassembly.

Manufacturer reserves the right to discontinue, or change at any time, specifications or designs without notice and without incurring obligations.



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Fig. 1—Wheel and Setscrew Location

⚠ CAUTION

Use of incorrect mounting holes may result in loss of performance or mechanical interference.

- 11. Remove following items from old inducer assembly for use on new assembly:
 - a. Pressure switch
 - b. Flue tab (located in inducer housing outlet), if applicable or flue choke plate (located in inducer housing inlet), if applicable
 - c. Draft safeguard switch
- 12. Remove 3 screws securing inducer assembly (motor, wheel, and mount) to inducer housing and remove inducer assembly.

⚠ CAUTION

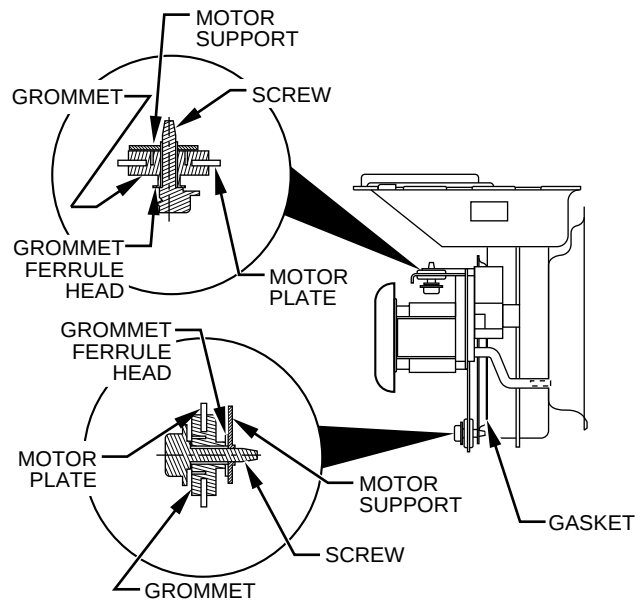
- Failure to support inducer assembly during removal may damage the inducer wheel.
- 13. Remove 4 screws inside inducer housing and remove housing assembly from furnace.
- **NOTE:** Units produced in January 1998 and later do not use 4 screws inside of inducer housing. Instead, they use a Tog-L-Loc process to connect the inducer to the collector box. The Tog-L-Loc process mechanically bonds the assemblies together. To separate the 2 assemblies, use a 1/4-in. drill bit and drill out the 8 stakes. (See Fig. 3.)
- 14. Discard old gasket.

Step 2—Reassemble Inducer and Install New Inducer Housing and Relief Box Assembly

- 1. Install 3 new grommets (provided in kit) on new motor plate. See Fig. 2 for correct orientation of grommets.

NOTE: If grommets are installed incorrectly, vibration in assembly could result.

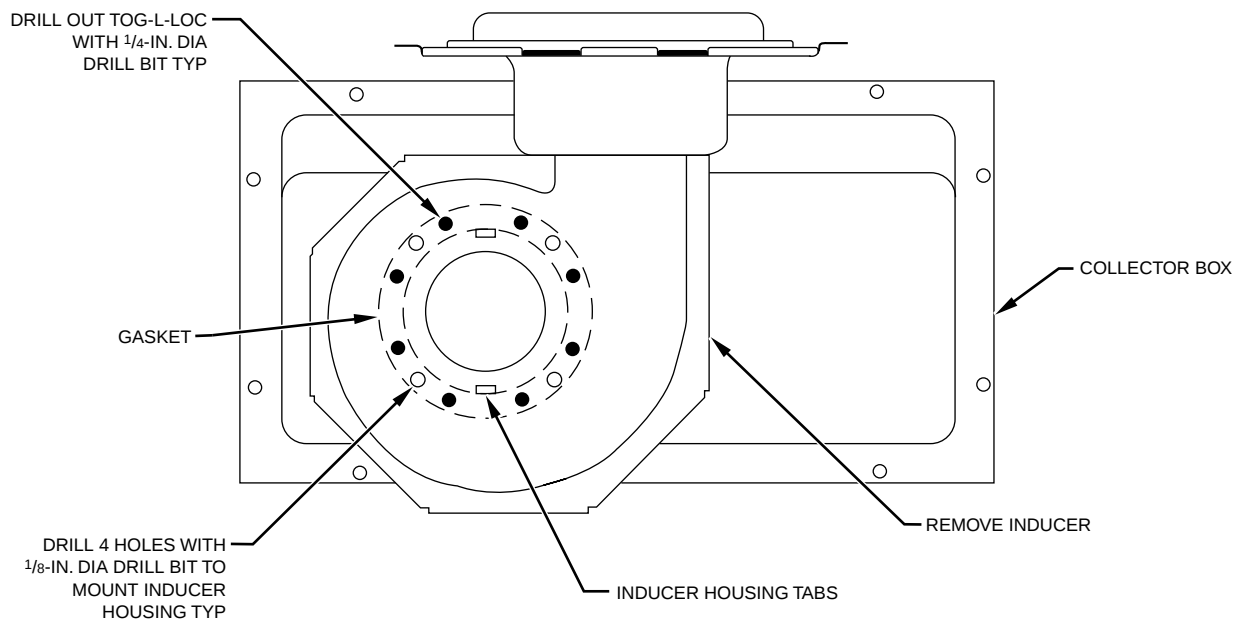
- 2. Fasten new motor plate to motor using original screws. When installed correctly, rotation arrow stamped into motor plate should be on same side as motor. If a shaft seal is used, install new shaft seal provided in kit on motor plate and center on motor shaft.



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Fig. 2—Proper Grommet Position

- 3. Fasten motor plate to motor support through grommets using 3 new grommet screws provided in kit.
 - 4. Reinstall inducer wheel. The wheel must be located using measurement taken during disassembly. Adjust flat on shaft to line up with setscrew and tighten setscrew firmly.
- NOTE:** If necessary, when installing new gaskets, a small amount of RTV may be used to affix gaskets to housing to aid in reassembly.
- 5. Align inducer housing so outlet is facing up and place new gasket provided in kit between collector box and inducer housing inlet.
 - 6. Set inducer tabs into slots provided in collector box.
 - 7. Using original screws, secure new inducer housing and relief box to collector. Reinstall choke plate if used.
 - **NOTE:** If the inducer housing and collector box assembly utilized the Tog-L-Loc process, place inducer housing in front of collector box and mark mounting hole locations. Use 1/8-in. drill bit and drill 4 mounting holes in collector box.
 - 8. Including new gasket, install inducer motor assembly in inducer housing and fasten with 3 original mounting screws. Make certain the inducer motor ground wire is reinstalled in original location.
- NOTE:** The 3 original mounting screws are shorter in length than the other screws. Use of longer screws will result in interference between the screws and the inducer wheel.
- 9. Spin black plastic cooling fan on inducer motor to be certain there is no interference inside of inducer housing. If interference occurs, wheel must be readjusted.
 - 10. Secure relief box top to top plate (upflow) or to blower shelf (downflow/horizontal).
 - 11. Install following items from old assembly onto new assembly:
 - a. Pressure switch
 - b. Flue tab
 - c. Draft safeguard switch
 - 12. Connect pressure switch tubing to collector box fitting.
 - 13. Using wiring diagram located on blower access door, reconnect:



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→ **Fig. 3—Tog-L-Loc Inducer Assembly**

- a. Pressure switch
- b. Draft safeguard switch
- c. Inducer motor plug
14. Secure vent pipe to relief box with screw.
15. Replace blower access door.
16. Turn on gas and electrical supplies to furnace.
17. Replace control access door.
18. Check furnace through 1 complete heating cycle for proper operation.
19. Set room thermostat to desired temperature.

SERVICE TRAINING

Packaged Service Training programs are an excellent way to increase your knowledge of the equipment discussed in this manual, including:

- Unit Familiarization
- Maintenance
- Installation Overview
- Operating Sequence

A large selection of product, theory, and skills programs is available, using popular video-based formats and materials. All include video and/or slides, plus companion book.

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