SERVICE INSTALLER'S GUIDE

ALL phases of this installation must comply with NATIONAL, STATE AND LOCAL CODES

Models:

KIT14668

KIT14668- VARIABLE SPEED INDUCER

IMPORTANT-This document is customer property and is to remain with this unit.
Please return to service information pack upon completion of work.

⚠ WARNING — DISCONNECT POWER BEFORE SERVICING

KIT14668, VARIABLE SPEED INDUCER
KIT COMPONENTS
See Figure 1

Item No.	Drawing No.	Description	Qty.
1	B342853P01	FILTER-EMI	1
2	A342856P01	BEAD-FERRITE	2
3	B342181P01	HARNESS-SHIELDED	1
4	B342004P10	WIRE-MSC.-RPS	1
5	B342004P09	WIRE-MSC.-RPS	1
6	B342004P08	WIRE-MSC.-RPS	1
7	A903105P06	STRAIN RELIEF	1
8	A342970P01	DRILL-TWIST	1
9	N156P1506B	SCREW 8-15 HXW 3/8	3
10	A342946P01	QUICK CONNECT	2
11	A343030P01	LABEL-WIRING DIAGRAM	1
12	342854P01	LABEL-CONVERSION	1

APPLICATION:

The Variable Speed Inducer Kit is to be used on *UY/*DY, *UX-R/*DX-R, *UX2/*DX2, *UH2/*DH2 models. This Kit helps to reduce the frequency noise generated by running the inducer motor.

UPFLOW INSTRUCTIONS

1. Install EMI Filter. (See instructions on Page 3)
2. Install Ferrite Beads. (See instructions on Page 5 and Figure 11)
3. Disconnect the 4 pin connector from the inducer motor.
4. Disconnect the 4 pin connector from the control board.

NOTE: The existing harness is secured within the main wiring harness bundle. It can remain in place and does not have to be removed from the furnace.

5. Remove the door mounting channel from the blower deck in order to route the new shielded cable harness from the control board to the inducer.

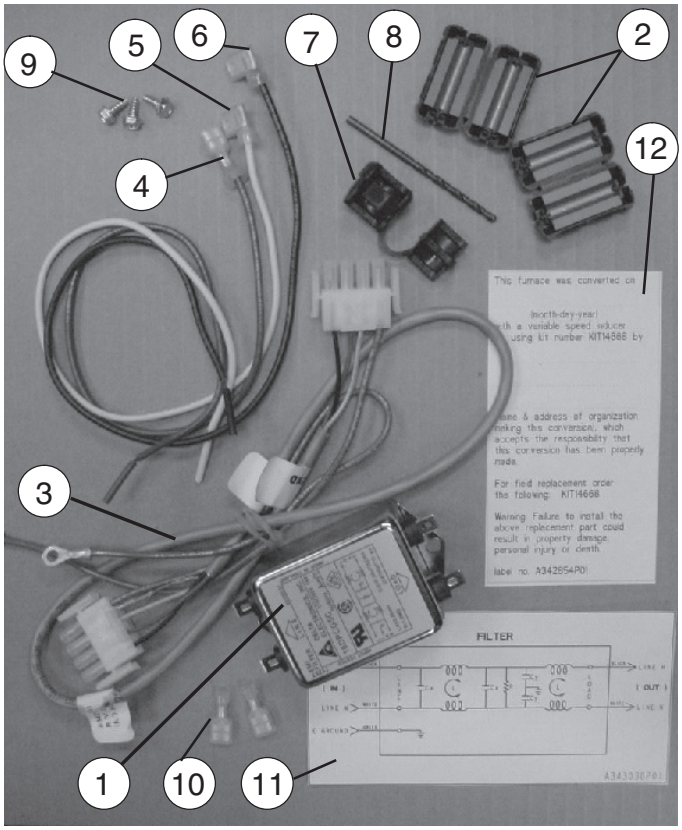


FIGURE 1

6. Locate the end of the shielded cable harness labeled “INDUCER END” and connect the 4 pin connector to the inducer. Secure the Green ground lead found on the 4 pin connector to the pressure switch mounting plate. See Figure 2.

⚠ WARNING

The cabinet must have an uninterrupted or unbroken ground according to National Electrical Code, ANSI/NFPA 70 - "latest edition" and Canadian Electrical Code, CSA C22.1 or local codes to minimize personal injury if an electrical fault should occur.
Failure to follow this warning could result in an electrical shock, fire, injury, or death.

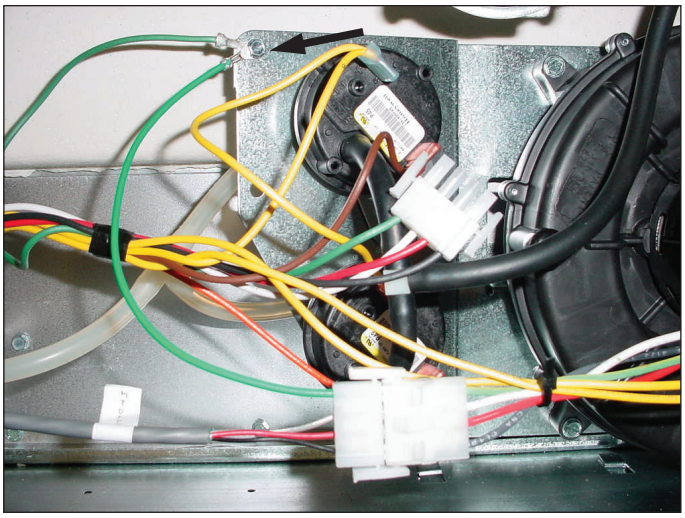


FIGURE 2 UPFLOW

7. Locate the end of the shielded cable harness labeled “CONTROL END” and connect the 4 pin connector to the control. Secure the Green ground lead found on the 4 pin connector to the sheet metal control mounting platform using one of the existing mounting screws. See Figure 3.

NOTE: Proper grounding of the shielded harness is critical in providing for reduction of electrical noise interference. Confirm that the green ground leads are adequately secured to the sheet metal.

⚠ WARNING

Disconnect power to the unit before removing the blower door.
Failure to follow this warning could result in personal injury from moving parts.

⚠ CAUTION

Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

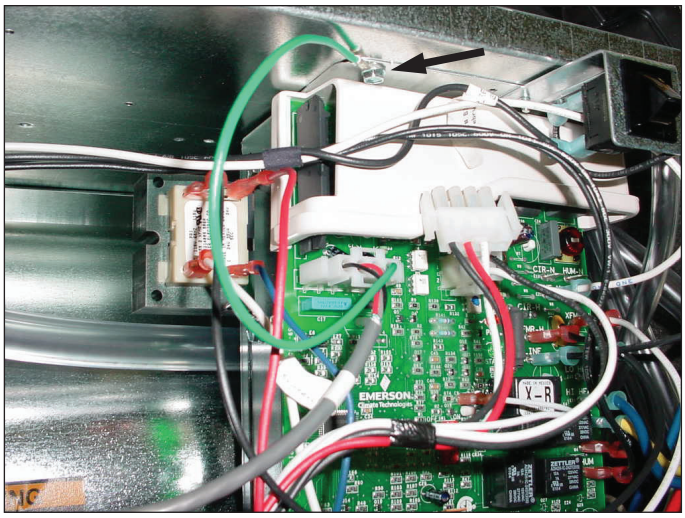


FIGURE 3 UPFLOW

DOWNFLOW INSTRUCTIONS

1. Install EMI Filter. (See instructions on Page 3)
2. Install Ferrite Beads. (See instructions on Page 5 and Figure 11)
3. Disconnect the 4 pin connector from the control board.
4. Disconnect the 4 pin connector from the inducer motor.

NOTE: The existing harness is secured within the main wiring harness bundle. It can remain in place and does not have to be removed from the furnace.

5. Route the new shielded cable harness from the control board to the inducer.
6. Locate the end of the shielded cable harness labeled “INDUCER END” and connect the 4 pin connector to the inducer. Secure the Green ground lead found on the 4 pin connector to the blower deck. See Figure 4.

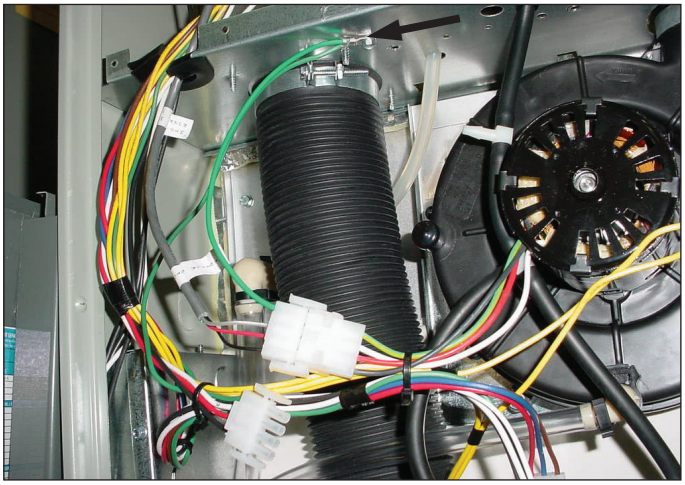


FIGURE 4 DOWNFLOW

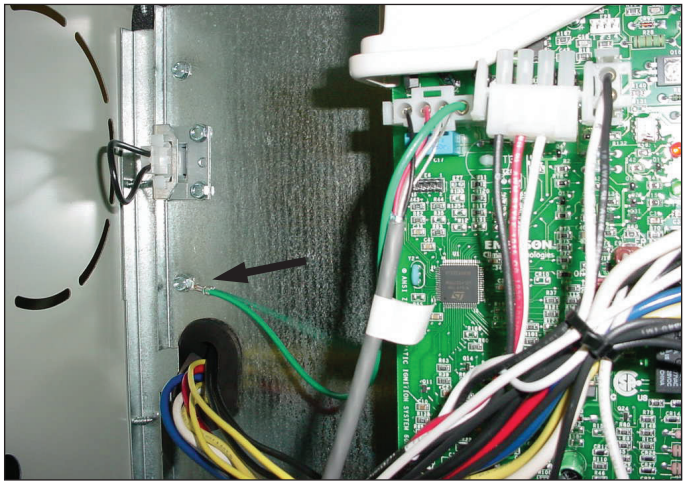


FIGURE 5 DOWNFLOW

7. Locate the end of the shielded cable harness labeled “CONTROL END” and connect the 4 pin connector to the control. Secure the Green ground lead found on the 4 pin connector to the sheet metal blower panel found behind the control mounting platform using one of the existing mounting screws. See Figure 5.

NOTE: Proper grounding of the shielded harness is critical in providing for reduction of electrical noise interference. Confirm that the Green ground leads are adequately secured to the sheet metal.

EMI Filter Install Procedure

1. Unscrew screw holding junction box cover onto Junction Box.
2. Remove wire tie pin from junction box cover.
3. Remove Junction Box Cover from furnace.
4. Using appropriate guide from Installer’s Guide, drill 2 holes with provided drill bit. See Figure 6.
5. Remove bottom left knockout from junction box cover (if knockout is in use – use alternate knockout).

⚠ CAUTION

The integrated furnace control is polarity sensitive. The hot leg of the 115 VAC power must be connected to the BLACK field lead.

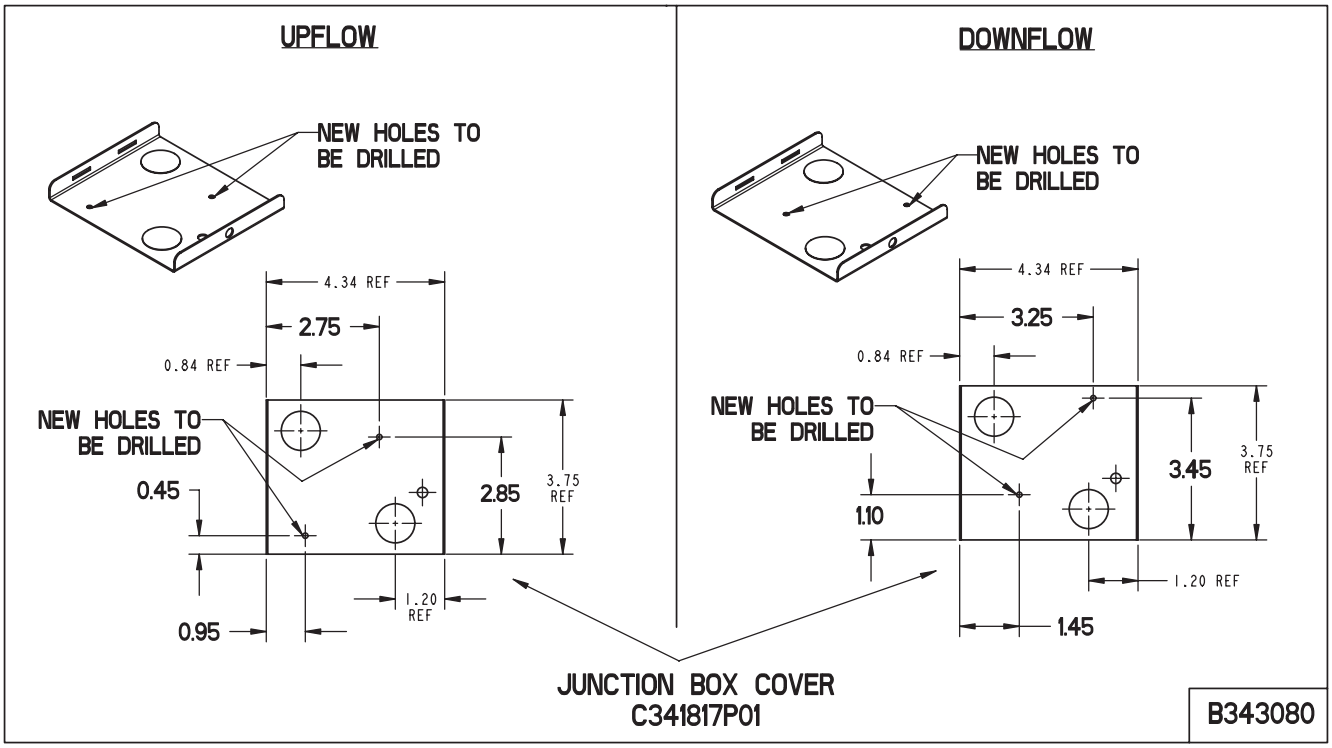


FIGURE 6

6. Attach the EMI Filter with provided screws to the modified junction box cover. See Figure 7.
7. Set Junction Box cover with EMI filter aside.
8. Pull out the two factory installed stripped power leads out of the junction box and out of the bushing in the junction box.
9. Attach provided terminals to the power leads pulled out of junction box in step #8.
10. Attach terminated leads from previous step to Load side of Filter. See Figure 8 and 9 depending on orientation.
11. Attach provided 3 wires to Line side of Filter as shown in provided wiring diagram. See Figure 10.

NOTE: Attach the Wiring Diagram #A343030P01 label into the furnace.

12. Route the free ends of the 3 wires installed in previous step through stress relief bushing provided.
13. Install bushing with wires into knockout cleared in step #5 routing all 3 wires through junction box to the outside of the furnace.
14. Connect the two ground wires to each other now on the outside of the unit.
15. The black and white wires from step # 12 are now the new power leads.
16. Attach junction box cover back onto junction box with screw provided.

⚠ WARNING

Prevent all wires from touching any hot surfaces. Failure to follow this warning could result in dangerous operation, serious injury, death or property damage.

VERIFICATION OF PROPER OPERATION

1. Place the thermostat in the heating mode.
2. Initiate a call for heat by raising the thermostat setting 5 degrees above the room temperature.
3. Observe the furnace: If properly wired, the following start-up sequence should be observed:
   a. The Red LED on the IFC should start a flash sequence.
   b. The draft inducer should energize, and then the ignitor should start to glow.
   c. After the ignitor heat up time has expired, the gas valve should be energized. Listen for the "click", the gas will then ignite.
   d. After 45 seconds, the main blower will turn on.

When proper operation has been verified, set the thermostat back to the desired comfort set point.

4. Sign and attach the mnemonic conversion label (item #12) to the front of the blower door.

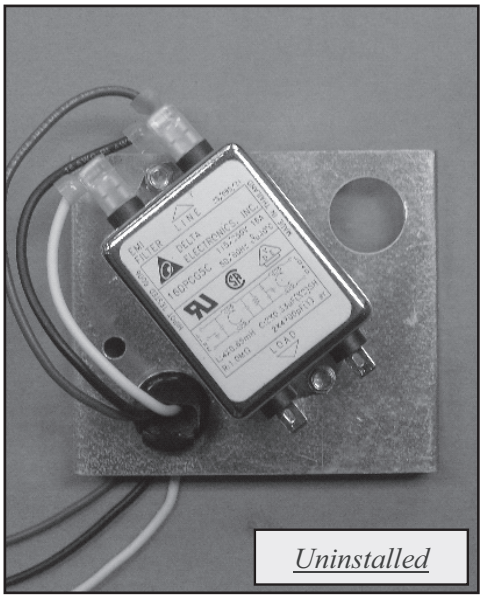


FIGURE 7

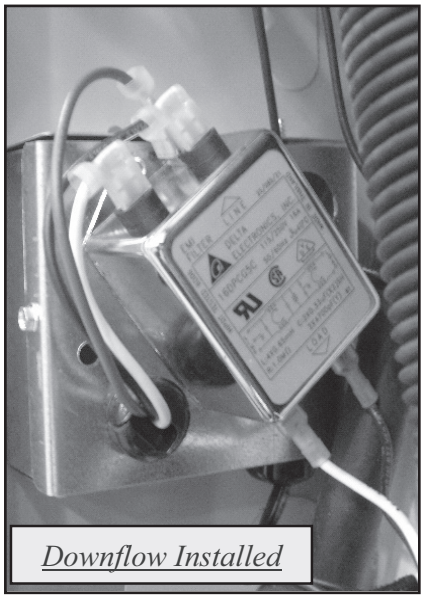


FIGURE 8

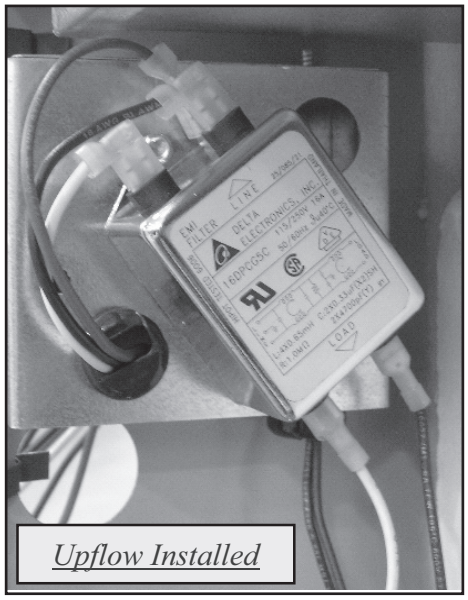


FIGURE 9

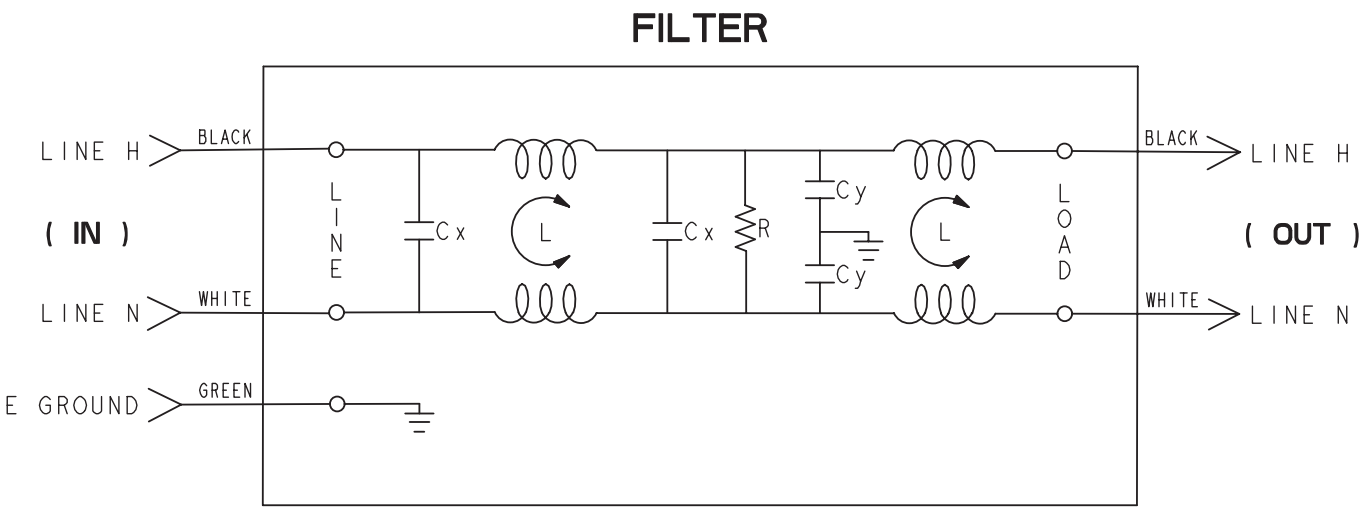
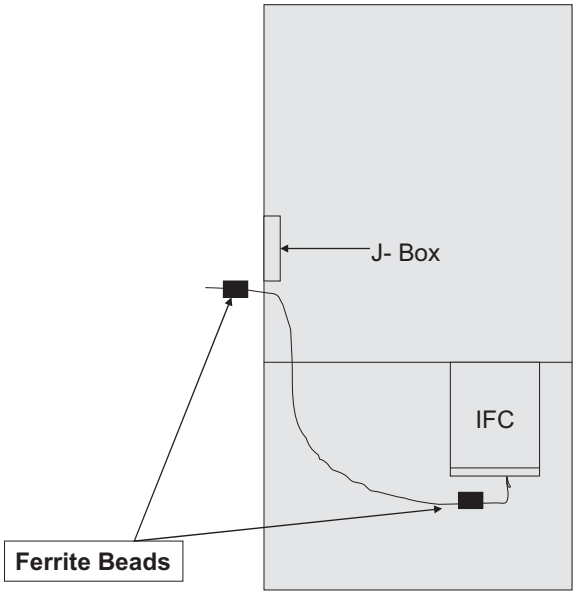


FIGURE 10 Wiring Diagram

A343030P01

Ferrite Bead Installation Procedure



Place Ferrite Beads on Tstat wire at positions shown

• Install one ferrite bead on thermostat wire just before the circuit board and the other on the thermostat wire just outside of the cabinet.

FIGURE 11

NOTES

About Trane and American Standard Heating and Air Conditioning

Trane and American Standard create comfortable, energy efficient indoor environments for residential applications. For more information, please visit www.trane.com or www.americanstandardair.com

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