

# Power Vent Retrofit Kit Accessory For Use With Packaged Terminal Air Conditioner or Heat Pump

Cancels: New

IHK 84-07-9  
11/01/03

## Installation Instructions

### SAFETY CONSIDERATIONS

Only trained, qualified personnel and service mechanics should modify and install any electrical accessories on packaged terminal air conditioners or heat pumps.

### PACKAGE CONTENTS

ITEM	QUANTITY
Vent Assembly	1
Door Motor Assembly	1
Transformer Assembly	1
Screw, no. 10 x $\frac{3}{4}$ -in. Long Hex Head	7
Wire Tie with Securing Hole	1
Black Wire	1
Spring	1

### INTRODUCTION

These instructions cover the installation of the Accessory Power Vent Retrofit Kit (see Fig. 1). When installed, the power vent will provide fresh air to the indoor space.

On standard units the power vent will operate with the compressor or electric heater; and will automatically open or close the vent door, depending on whether the compressor or electric heater is energized or not. The power vent will not operate in fan only mode on standard models.

On Remote Control (RC) models the power vent will operate with the fan. When the unit fan is running the door will open and the power vent will provide fresh air. When the unit fan is off, the power vent door will close and the fresh air fan will stop.

### INSTALLATION

#### **⚠ WARNING**

Disconnect all power to unit to avoid possible electrical shock during installation.

All wiring must comply with local electrical codes and NEC (National Electrical Code).

#### Step 1 — Disconnect All Power to Unit

- Turn selector switch to off position.
- Unplug the unit service cord.

**Step 2 — Remove Front Panel** — Firmly grasping the panel at the center top and center bottom, pull the panel upward at the bottom and forward at the top to release magnetic latches and partition hooks.

#### Step 3 — Remove the Unit from the Wall Sleeve

- Remove the four mounting screws that secure the PTAC (packaged terminal air conditioner) unit to the wall sleeve (2 screws per side).
- Grasp the sides of the unit and slide it from the sleeve.

#### **⚠ WARNING**

The chassis weighs between 110 and 150 lb. Take proper safety precautions to avoid injury when lifting and moving the chassis.

#### **⚠ CAUTION**

The unit base pan may have water in it. Tilt the unit back slightly when removing it from the sleeve to drain some of the water into the sleeve.

#### Step 4 — Remove Existing Vent Door Assembly (See Fig. 2)

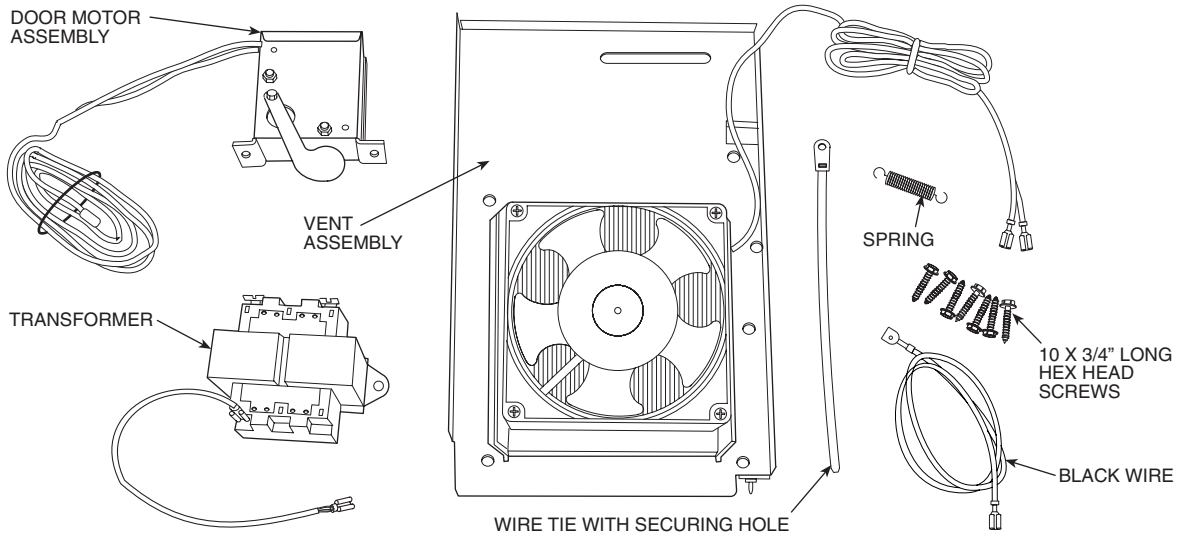
- Remove the cable clamp and discard.
- Cut vent cable at vent door hinge.
- Remove vent door knob by removing screw. Pull vent cable and vent cable sleeve out and discard.
- Remove vent filter and door by using a small flat head screwdriver, to pry the filter from the partition at the 4 points of attachment. Discard door and filter.

#### Step 5 — Cut and Remove Insulation Above Vent Opening (See Fig. 2 and 3)

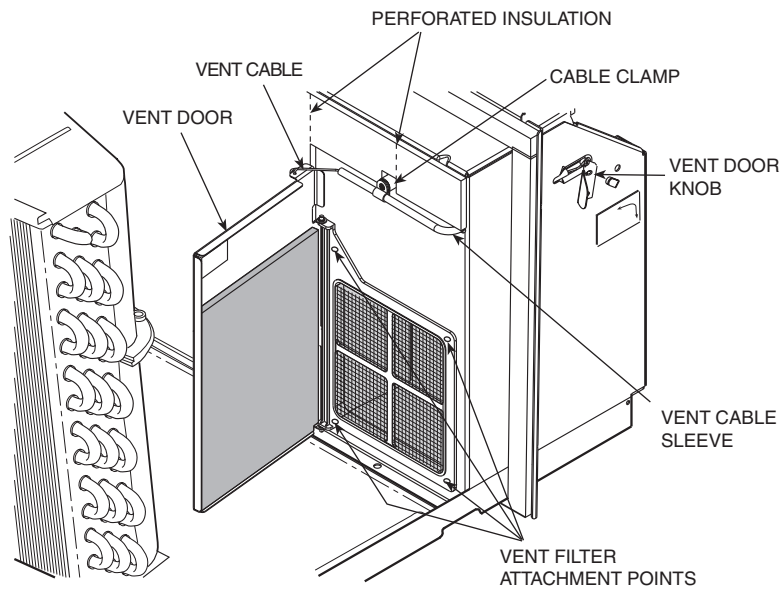
- Use a utility knife to cut along perforated area on insulation above vent opening.
- Remove insulation from partition wall in perforated area.

#### Step 6 — Mount Vent Assembly (See Fig. 4)

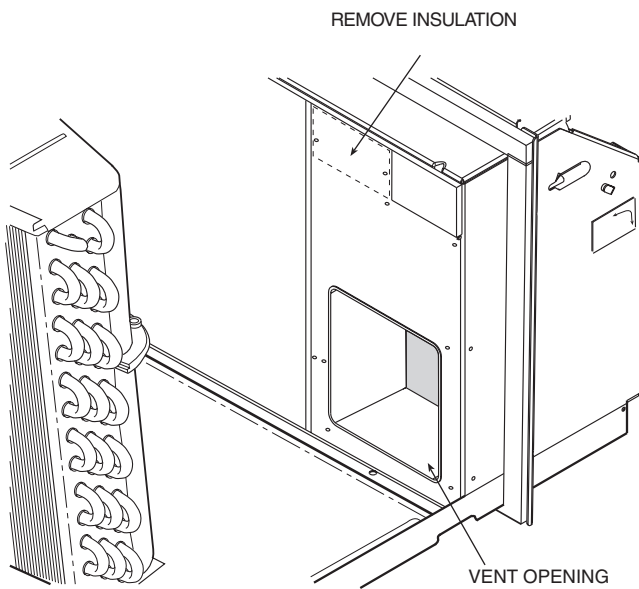
- Install vent assembly onto partition using three no. 10 x  $\frac{3}{4}$  in. hex head screw.
- Route fan power wire at upper left hand corner of assembly.



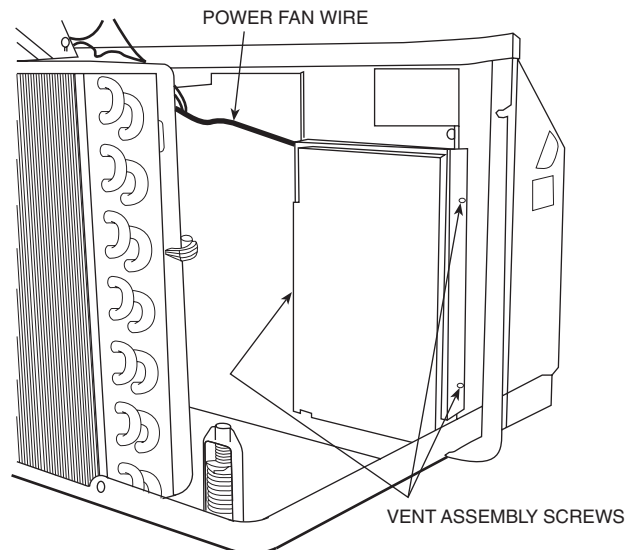
**Fig. 1 — Power Vent Kit Contents**



**Fig. 2 — Unit Vent Assembly**



**Fig. 3 — Remove Insulation Above Vent Opening**



**Fig. 4 — Mount Vent Assembly**

**Step 7 — Install the Spring on the Vent Assembly** — Install the spring on the vent assembly from the flange hole on the vent door to the hole located in the mount. For ease of installation, install mount end first with door open. See Fig. 5 for details.

**Step 8 — Mount Door Motor Assembly** — Mount door motor assembly by using two no. 10 x 3/4 in. hex head screws above vent assembly. See Fig. 6.

NOTE: Vent door must be open and actuator arm must be behind spring.

**Step 9 — Mount Transformer in Control Box**

- Open control box by removing the 2 control box securing screws at the top.
- Install transformer at designated location shown in Fig. 7, using the remaining two no. 10 x 3/4 in. long hex head screws. Install the screws from the outside of the control box in.

**Step 10 — Route Wires from Vent Fan and Door Motor to Control Box (See Fig. 8)**

- Install wire tie with securing hole using the left unit motor mount partition screw. Route wires using the wire tie.
- Route wires through existing fan motor wire retaining clip.
- Feed wires through existing hole in the back of the control box. This will require the removal and replacement of the seal, either insulation or perma-gum, to eliminate air infiltration.

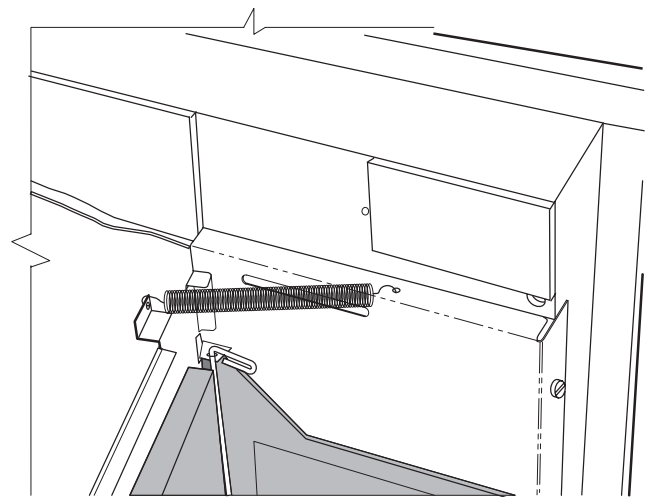
**Step 11 — Wire Power Vent Assembly (See Fig. 9 and 10)**

- On standard units, remove orange wire from FCS1 connection  
On remote control units, remove gray wire from printed circuit board FAN connection.
- Connect piggyback terminal of black wire, included in kit, to FCS1 on standard units or to FAN on printed circuit board for remote control units.  
Connect single terminal of black wire to transformer primary side.

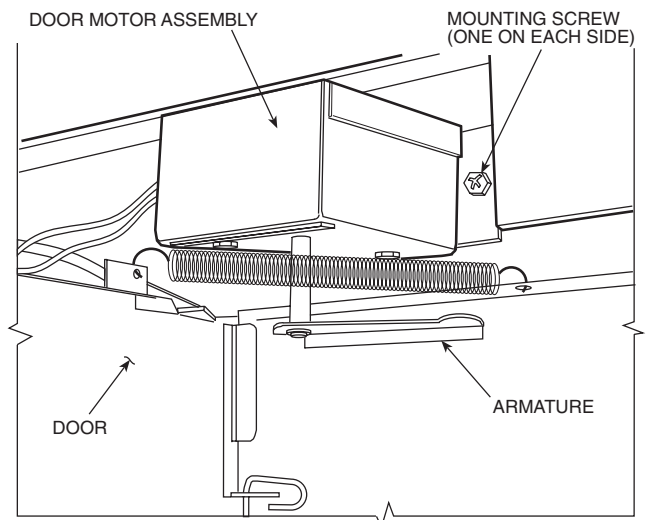
**IMPORTANT:** The 208/230-volt transformer has 2 primary taps, a 208 volt and a 230/240 volt. Be sure to connect the black wire to the correct primary voltage terminal of the transformer, either 208 v or 230/240 v. See Fig. 7.

- Reconnect orange wire to FCS1 connection on standard units and gray wire to printed circuit board FAN connection on remote control units (piggyback to black wire).
- Connect white wire from transformer primary side C connection to C connection on capacitor (piggyback to pink wire on C connection of capacitor).
- Connect both door motor wires to transformer secondary goal post terminals, polarity not important.
- Connect both fan motor wires to transformer secondary goal post terminals, polarity not important.

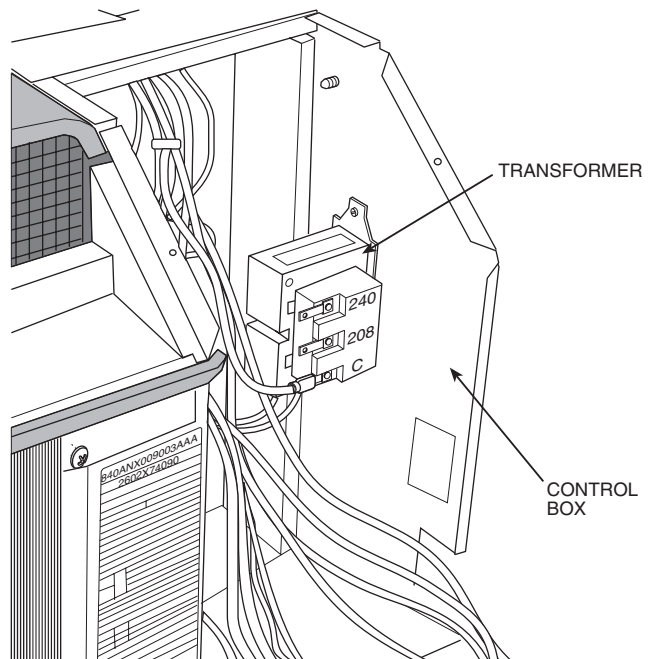
**Step 12 — Secure Control Box Cover** — Close control box and secure at top with the 2 screws removed earlier.



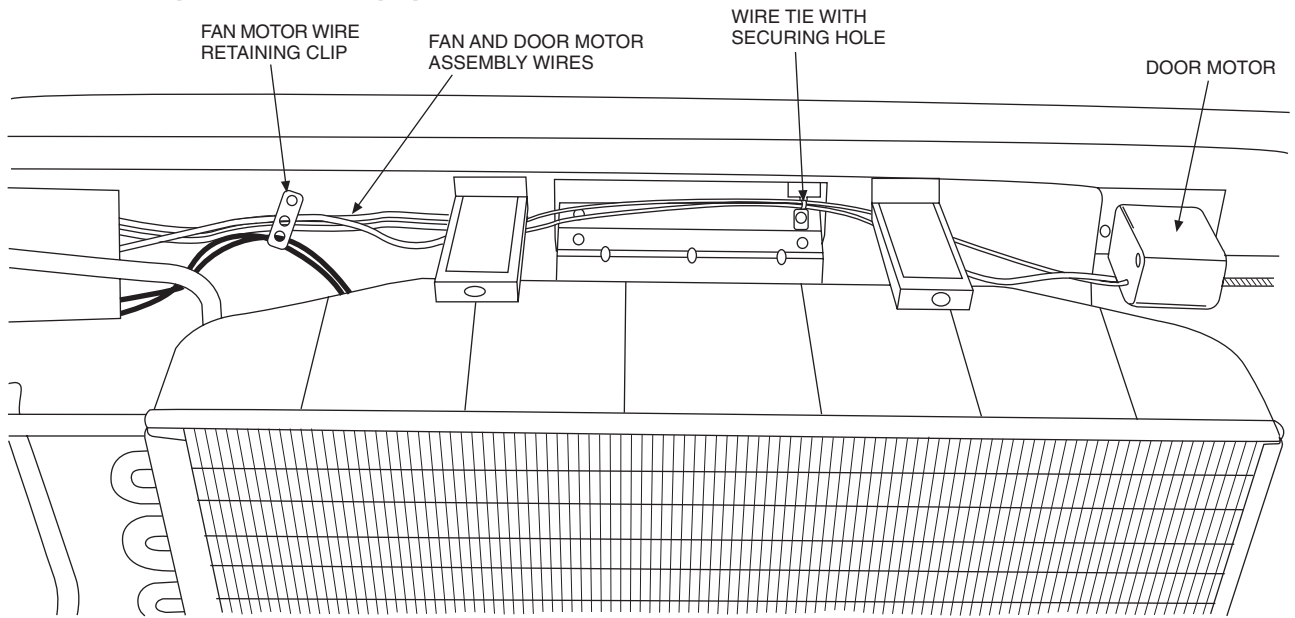
**Fig. 5 — Install Spring on Vent Door**



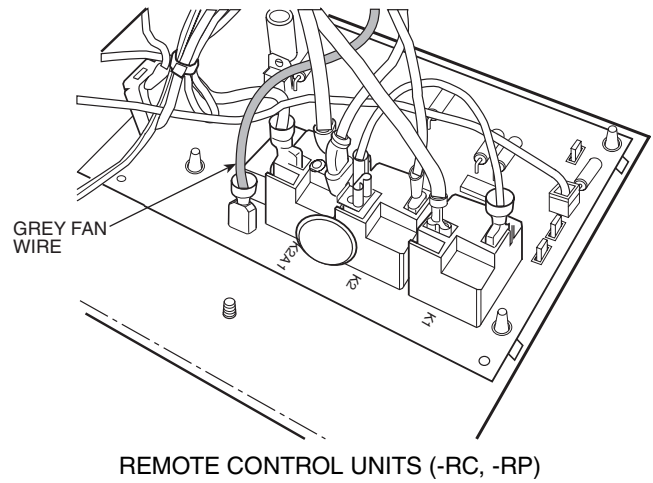
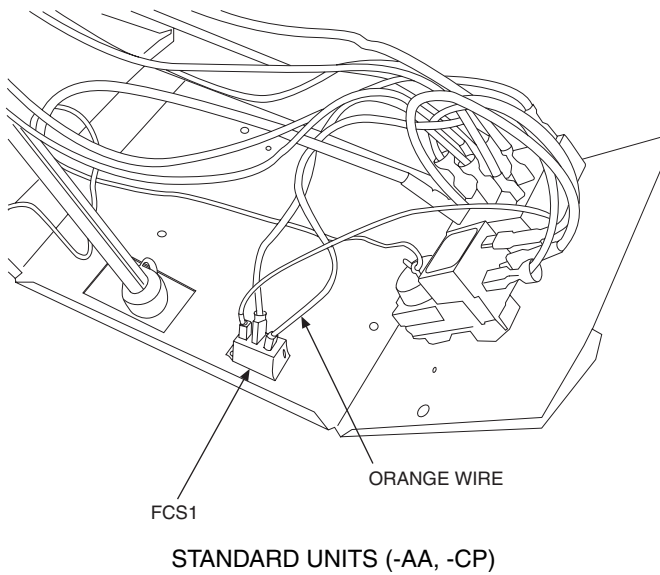
**Fig. 6 — Door Motor Assembly Mounting**



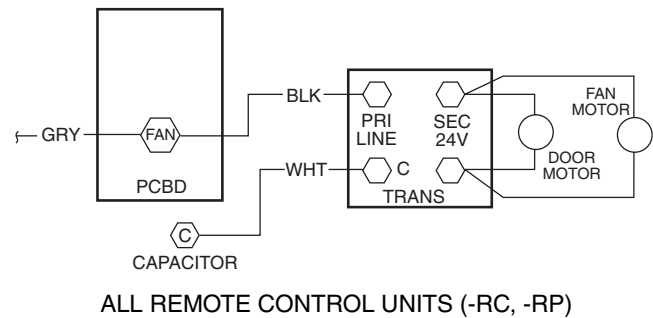
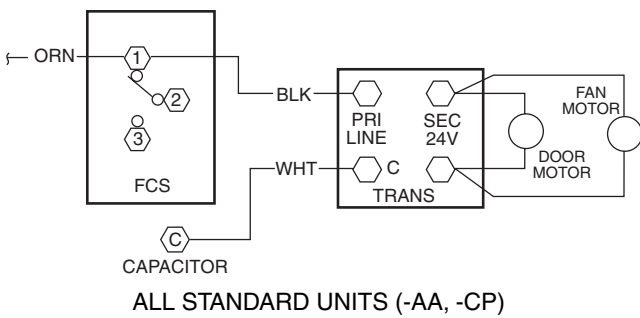
**Fig. 7 — Power Vent Transformer Assembly Mounting**



**Fig. 8 — Power Vent Wire Routing**



**Fig. 9 — Power Vent Wiring Connections**



LEGEND

- FCS** — Fan Cycle Switch
- PCBD** — Printed Circuit Board
- TRANS** — Transformer

**Fig. 10 — Power Vent Wiring Diagram**

