

504,903M
07/04

HEPA INTERLOCK KIT

INSTALLATION INSTRUCTIONS FOR HEPA INTERLOCK KIT (X2680) TO BE USED WITH HEPA BYPASS AIR FILTRATION SYSTEM

Shipping & Packing List

Package 1 of 1 contains the following:

- 1 - Current sensing relay (X4421)
- 1 - 24V AC coil relay (56L68)
- 1 - Mounting bracket
- 1 - 18 AWG black wire with two female insulated spade connectors
- 2 - #8 - 32 X 3/8" screws
- 1 - 1/2" strain relief
- 3 - Wire ties
- 2 - 1/4" spade terminals for low voltage connection

Shipping Damage

Check equipment for shipping damage. If you find any damage, immediately contact the last carrier.

Application

Use this HEPA interlock kit (X2680) to cycle the HEPA bypass air filtration system (UL-listed HEPA series) with the air handling unit (UL-listed CB Series or CSA-certified G Series).

Installation

⚠ WARNING



Electric shock hazard. Can cause injury or death. Before attempting to perform any service or maintenance, turn the electrical power to unit OFF at disconnect switch(es). Unit may have multiple power supplies.

- 1 - Disconnect the electrical power from the HEPA filter and air handler.
- 2 - Remove the HEPA filter lid.
- 3 - Unscrew the two motor bracket screws that are across from the on/off switch. See figure 1.
- 4 - Secure the L-shaped mounting bracket to the HEPA filter bracket. See figure 3.
- 5 - Use the provided screws to secure the 24V AC coil relay to the L-shaped bracket (label side up). See figure 3.

- 6 - Disconnect the blue wire from the on/off switch. Connect the blue wire to terminal 5 on the 24V AC coil relay. See figures 2 and 3.
- 7 - Connect one end of the provided black wire to terminal 7 on the 24V AC coil relay. Connect the other end of the black wire to the center prong of the on/off switch. See figures 2 and 3.
- 8 - Remove the snap hole plug and cut a hole in the insulation in front of the hole. See figure 3.
- 9 - Insert a field-supplied two-wire thermostat cable through the hole.
- 10 - Connect one end of the thermostat cable to the A and B terminals of the 24V AC coil relay.
- 11 - Use two of the provided wire ties to bundle the high voltage wires separately from the thermostat wires (24V). Make sure that none of the wires touch the blower wheel.
- 12 - Use the remaining wire tie to bundle the thermostat wires (24V) together. Ensure that the thermostat wires remain separate from the high voltage wires. Make sure that none of the wires touch the blower wheel.
- 13 - Install the strain relief fitting around the thermostat cable, and insert the strain relief through the hole.

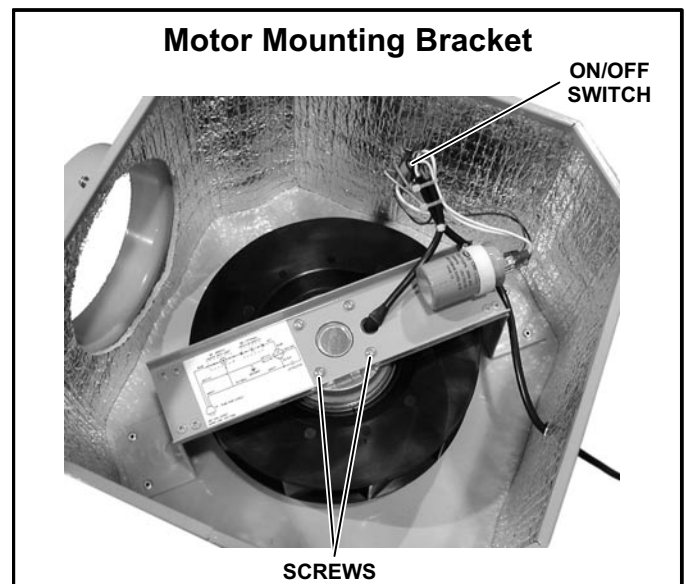


Figure 1



24V AC Coil Relay (K209) Terminals

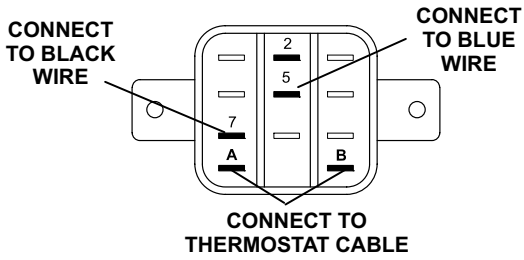


Figure 2

24V AC Coil Relay (K209)

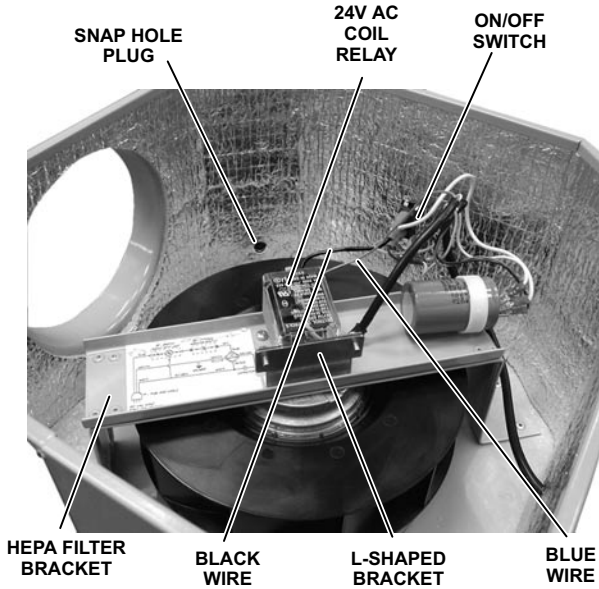
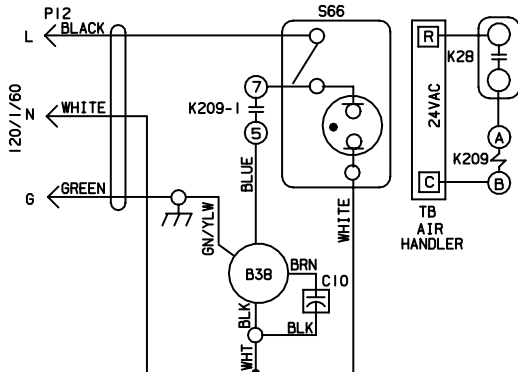


Figure 3

HEPA Interlock Kit Schematic Diagram



KEY	DESCRIPTION
B38	MOTOR-HEPA BLOWER
C10	CAPACITOR-BLOWER MOTOR
K28	RELAY-CURRENT SENSING
K209,-1	RELAY-24V AC COIL
P12	PLUG
S66	SWITCH-ON/OFF
TB	TERMINAL BLOCK-AIR HANDLER

Figure 4

⚠ IMPORTANT

Low AC voltage (mV) may be present at the 24V AC coil relay "A" terminal when the blower motor is off. This is normal for solid-state devices.

- 14 - Disconnect power from the air handler. Remove the unit access panel.
- 15 - Locate the common (neutral) wire which is connected to the blower inside the air handler. Disconnect the common (neutral) wire and pass the end of the wire through the opening in the solid-state current sensing relay. Reconnect the wire to the common terminal on the blower.
- 16 - Either secure the current sensing relay close by using a field-provided screw or allow the current sensing relay to hang from the common wire.
- 17 - Use a wire nut to connect one wire from the current sensing relay (K38) to one of the thermostat cable wires. See figure 5.
- 18 - Connect the other wire from the current sensing relay to the R terminal on the air handler terminal block. See figure 5.
- 19 - Connect the remaining thermostat cable wire to the C terminal of the air handler terminal block. See figure 5.

HEPA Interlock Kit Field Wiring

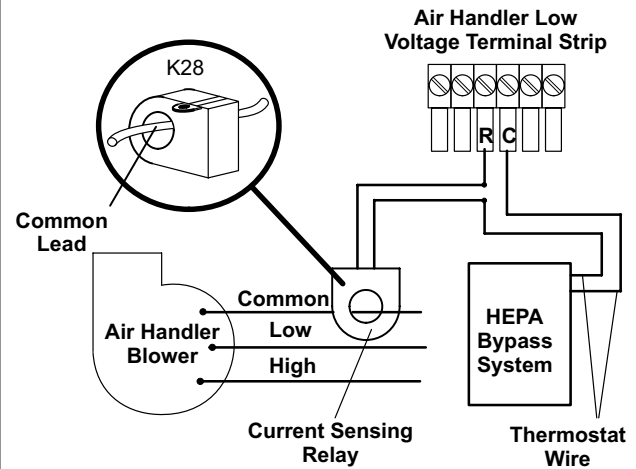


Figure 5

Turning Power on to the Air Handler

- 1 - Replace the air handler access panel.
- 2 - Restore electrical power to the air handler.

Turning Power on to HEPA Filter

- 1 - Replace the HEPA filter lid.
- 2 - Reconnect the power plug to a grounded 120V, 60Hz outlet.
- 3 - Turn on the HEPA filter.