



INSTALLATION INSTRUCTIONS

AVADAMP2

Motorized Ventilation Air Damper for MHP and MCE Units

This manual must be left with the homeowner for future reference.



This is a safety alert symbol and should never be ignored. When you see this symbol on labels or in manuals, be alert to the potential for personal injury or death.

⚠ WARNING

The MagicPak® unit must be installed with approved wall sleeve and louver accessories for safe operation. Improper installations could result in property damage, personal injury, or death.

⚠ WARNING

Adequate safety precautions should be taken to protect personnel. Improper installations could result in property damage, personal injury, or death.

⚠ CAUTION

Only qualified technicians may install this service item.

Shipping and Packing List

Item	Qty
Damper Assembly	1
Wire Harness	1
Strain Relief Fitting	1
Wire Tie (Arrowhead)	1
Screw (#10 x 1/2")	1
Label (Wiring Diagram)	1
Instructions	1

General

The Motorized Ventilation Air Damper opens when the indoor blower is operating. The damper closes when the indoor blower is off.

IMPORTANT: Control of the Motorized Damper requires a field-supplied current sensing relay. This relay is used to sense the indoor blower line voltage wire to determine when the blower is operating.

The relay must have normally open, 24V contacts capable of supporting 0.5 A.

Manufactured By
Allied Air Enterprises LLC
A Lennox International, Inc. Company
215 Metropolitan Drive
West Columbia, SC 29170



(P) 508077-01

Unit indoor blower motor amp draws range from 0.4 A to 2.5 A, depending on model, blower CFM, and unit external static. Depending on the relay applied, the blower wire may need to be wrapped multiple times through the relay's sensing opening. The lowest blower CFM for an installation (typically continuous fan operation) will have the lowest amp draw. Testing relay operation on an application's lowest blower CFM will determine the minimum number of wraps required to trigger the relay.

IMPORTANT: The quantity and conditions of outdoor ventilation air being introduced must be accounted for in the load calculations for the unit installation. See Figure 1.

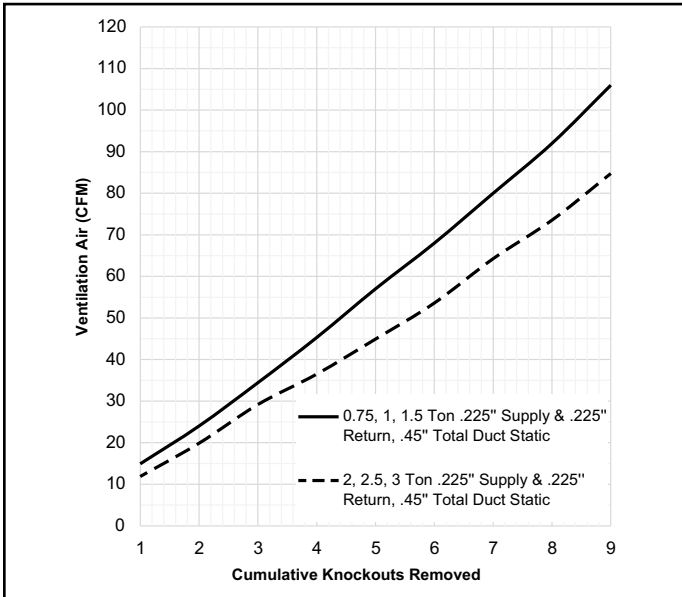


Figure 1.

		Ventilation Air (CFM) *				
		Total External Static Pressure (supply + return) **				
Cumulative Knockouts Removed		0.1	0.2	0.3	0.4	0.5
		0.75, 1.0, 1.5 TON	# 1 Only	7	9	12
#1 thru #2	10		15	20	24	28
#1 thru #3	12		18	25	32	38
#1 thru #4	18		28	36	45	54
#1 thru #5	23		35	46	57	69
#1 thru #6	27		41	54	67	80
#1 thru #7	32		48	63	78	93
#1 thru #8	37		55	73	90	107
#1 thru #9	41		61	80	100	118
2.0, 2.5, 3.0 TON	# 1 Only	21	20	19	17	16
	#1 thru #2	28	27	25	24	22
	#1 thru #3	35	33	32	30	28
	#1 thru #4	45	42	40	38	35
	#1 thru #5	55	52	49	46	43
	#1 thru #6	66	62	59	55	52
	#1 thru #7	79	75	71	66	62
	#1 thru #8	91	86	81	76	71
	#1 thru #9	105	99	94	88	82

* Assumes proper speed tap adjustments to maintain nominal supply air CFM
 ** Assumes equal supply and return static pressures

Table 1.

Installation

- Turn OFF electrical power to unit.

NOTE: Some units have dual circuit power supplies. Confirm both circuits are OFF.
- Remove Filter Compartment Access and Blower Compartment Access Panels (see Figure 2).
- Remove Filter Retainer and factory-installed Indoor Air Filter.
- Locate Ventilation Air Chase within Filter Compartment.
- Remove Chase Cover Plates (see Figure 2):
 - Remove Knockout Plate (4 screws / locations A, B, C, D; see Figure 3).
 - Remove Seal Plate.
 - Open individual openings in Knockout Plate based on desired Ventilation Air as outlined in Table 1.
 - Reinstall Knockout Plate using 2 screws in location B and C (see Figure 3). Leave front and rear screws removed.

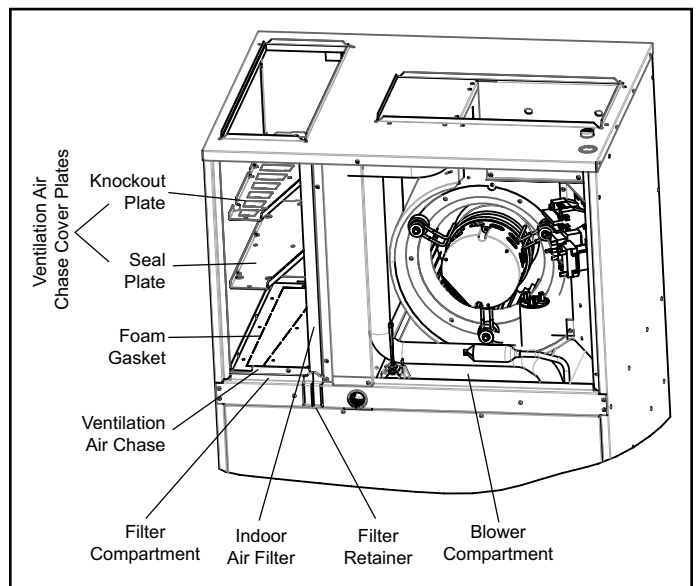


Figure 2. Access Panel & Ventilation Chase Cover Plate Removal

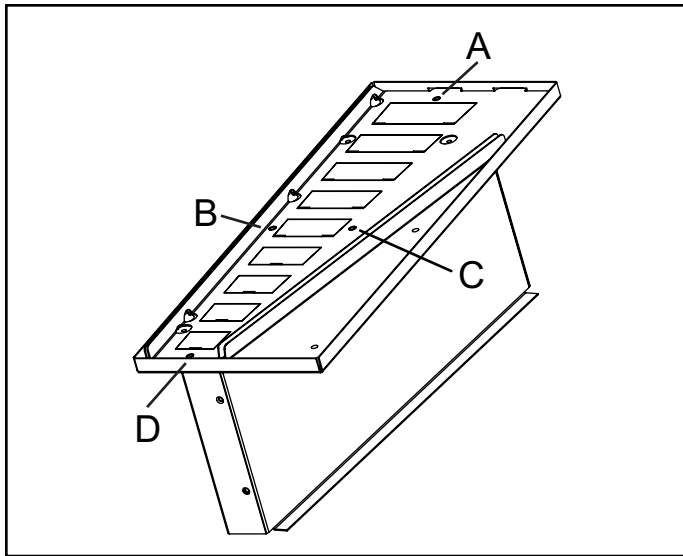


Figure 3. Chase Assembly

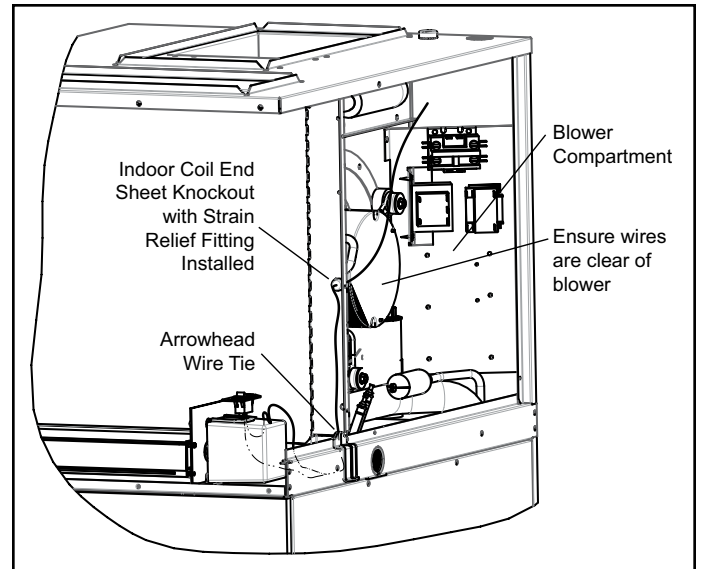


Figure 5. Route Wiring

6. Install Damper (see Figure 4).
 - a. Guide alignment tabs into slots at rear of chase.
 - b. Lower Damper into position and secure Front Face Plate with provided screw.

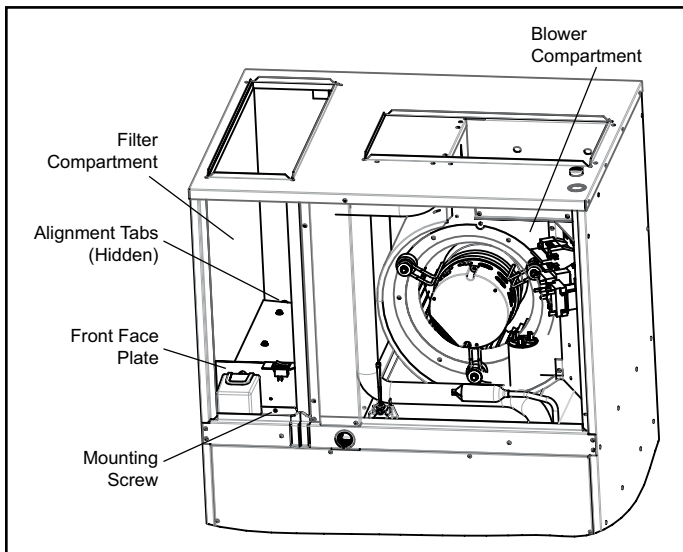


Figure 4. Ventilation Air Damper Installation

7. Remove Knockout from Indoor Coil End Sheet using a flat blade screwdriver (see Figure 5).
8. Install supplied Wire Harness.
 - a. Carefully route Wire Harness through Indoor Coil End Sheet Knockout, with stripped leads towards Blower Compartment and terminated leads towards Filter Compartment.
 - b. Connect the terminated lead ends of the Wire Harness to Damper Motor and ON/OFF Switch (see Figure 5).
 - c. Route wiring along bottom of Filter Compartment to avoid interference with Filter removal / installation.

- d. Install provided Arrowhead Wire Tie and Strain Relief Fitting and secure wiring (see Figure 5).
 - e. Route stripped lead ends of Wire Harness into blower compartment for connection with field-provided relay and wiring. Ensure wires will not interfere with blower operation (apply field-provided wire ties as necessary).
9. Install field-supplied current sensing relay and associated wiring. Depending on the relay applied, the blower wire may need to be wrapped multiple times through the relay's sensing opening. Secure relay and wiring to ensure they will not interfere with indoor blower operation (see Figure 6 for MHP or Figure 7 for MCE)
10. Reinstall Indoor Air Filter and Filter Retainer.
11. Verify Damper ON/OFF switch is in ON position.
12. Reinstall Blower Compartment Access Panel.
13. Turn ON unit power.
16. Verify proper operation in each mode (Fan, Cooling, Heating).
17. Reinstall Filter Compartment Access Panel.
18. Apply Wiring Diagram Label to Filter Compartment Access Panel.

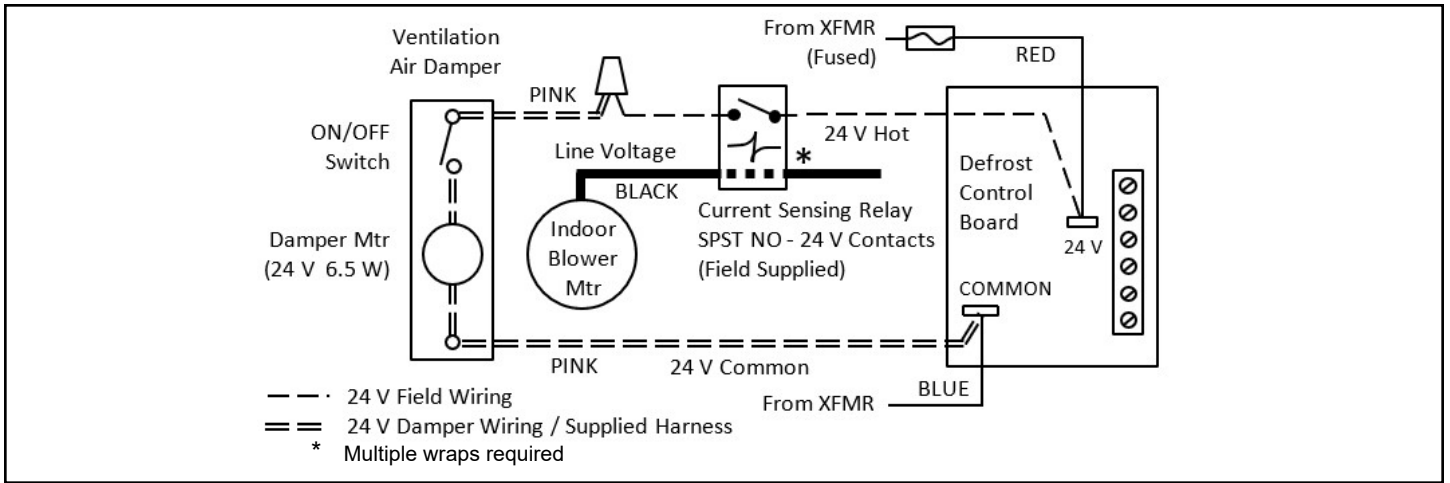


Figure 6. MHP Ventilation Air Damper Wiring

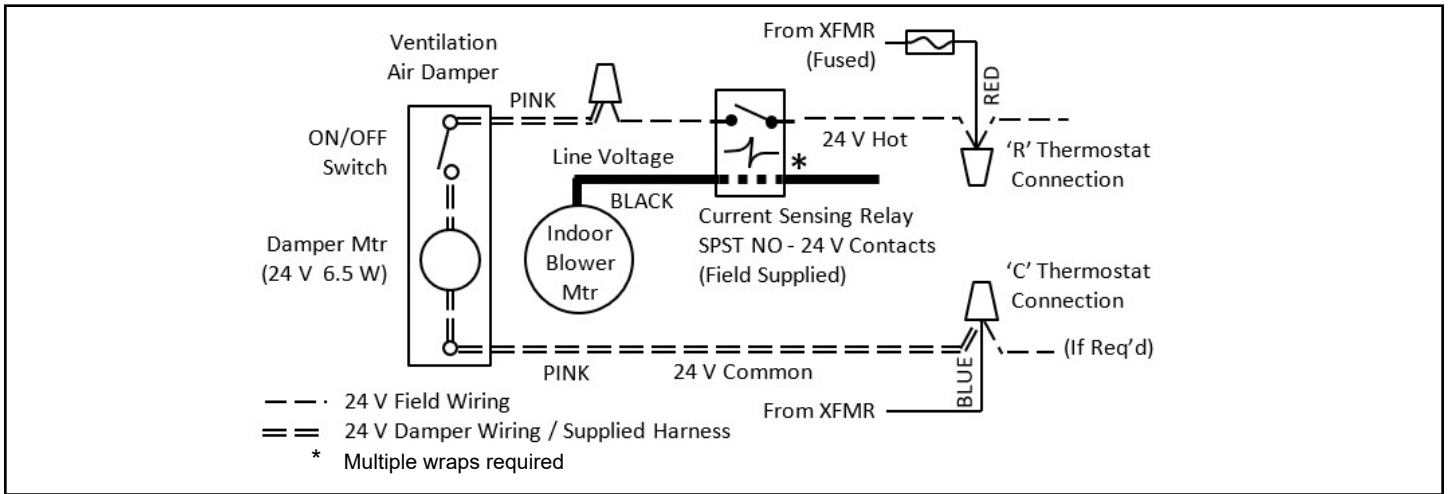


Figure 7. MCE Ventilation Air Damper Wiring