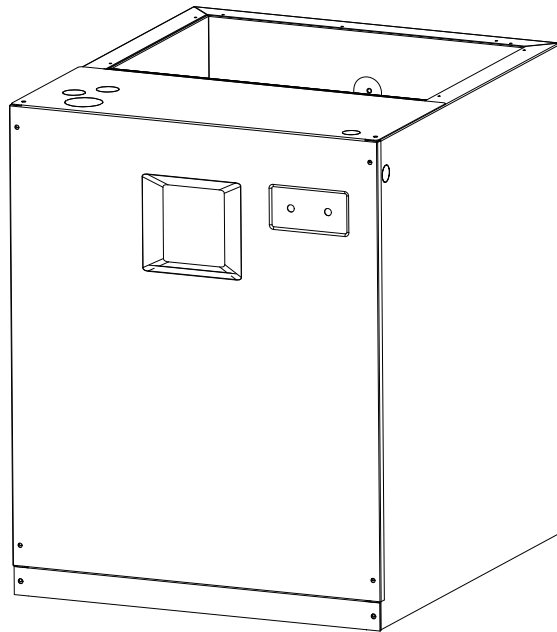


Installation Instructions

Modular Indoor Blower



These instructions are primarily intended to assist qualified individuals experienced in the proper installation of heating and/or air conditioning appliances. Some local codes require licensed installation/service personnel for this type equipment. All installations must be in accordance with these instructions and with all applicable national and local codes and standards.

Before beginning the installation, read these instructions thoroughly and follow all warnings and cautions in the instructions and on the unit. When performing brazing operations have a fire extinguisher readily available and use a quenching cloth and brazing shield.

Improper installation, service, adjustment, or maintenance can cause fire, electrical shock or other conditions which may result in personal injury or property damage. Unless otherwise noted in these instructions, only factory authorized kits or accessories may be used when modifying this product.

1. MODULAR BLOWER SPECIFICATIONS

Modular Indoor Blowers are intended to be mated with specific NORDYNE C6 cased coils; reference the Technical Specifications for coil mating combinations.

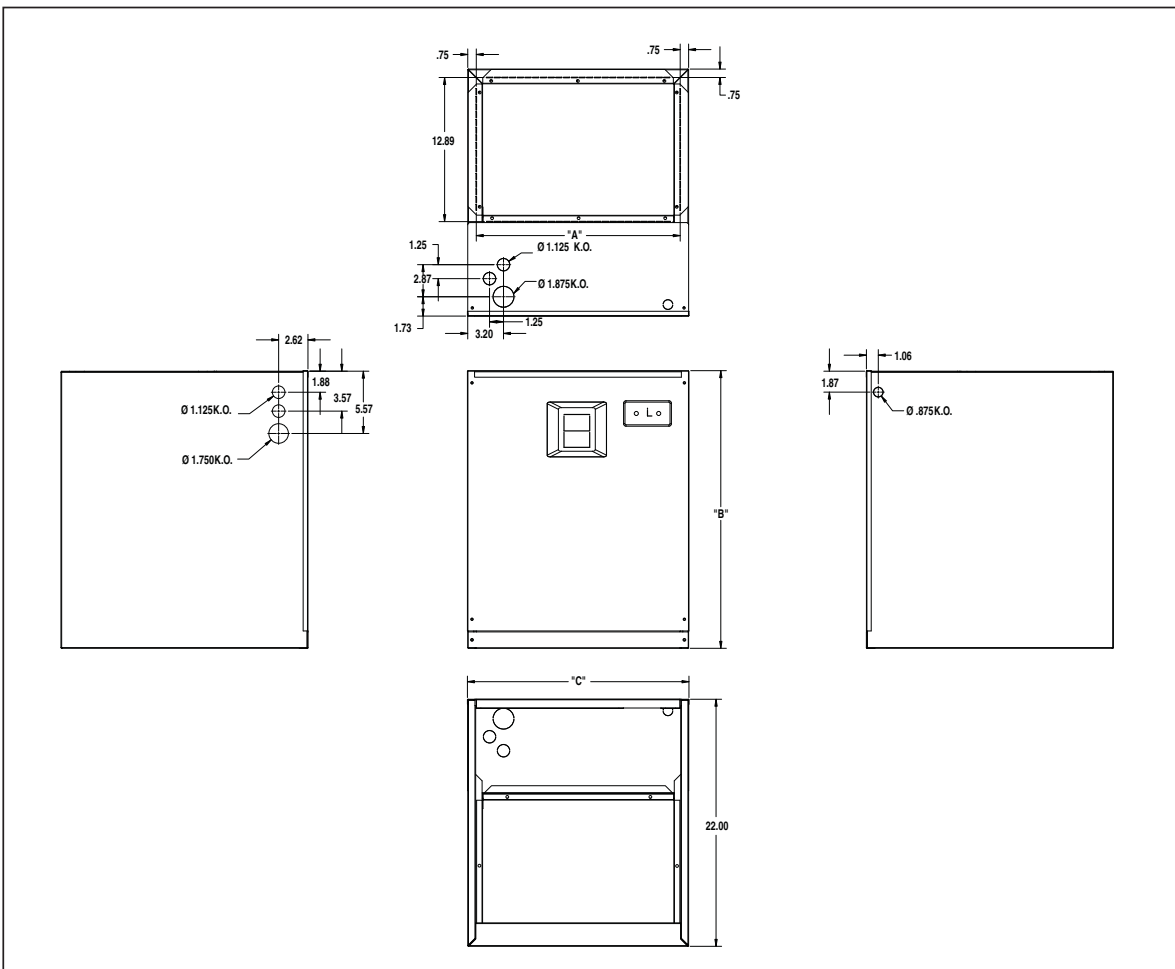
Modular Indoor Blowers are designed and approved for attic, basement, alcove, closet and crawl space installations.

Modular Indoor Blowers may be applied in upflow, downflow or horizontal-left and -right discharge applications.

Dimensional drawing for the unit is shown in Figure 1.

Field-installed electric heater kits are available. Available heater kits for these units are listed in the Technical Specifications. Instructions for installing the electric heaters are included with the heaters. See Table 1 for list of available heater kits.

Air handlers set up with 15 kw or more of electric heat will normally be configured for multiple-circuit power supply. They may, however, be connected to a single-circuit power supply with the addition of a single circuit accessory kit (See Technical Specifications). Select the wire size and over-current protection in accordance with the minimum circuit ampacity and maximum over-current protection shown in Table 1.



Cabinet Size	DIM "A"	DIM "B"	DIM "C"
A	12.75	24.75	14.25
B	12.75	24.75	17.50
C	18.25	27.45	21.00

Figure 1. Unit Dimensions

2. INSTALLATION REQUIREMENTS

Check Equipment — All installations shall be made as described in these installation instructions and in accordance with all applicable national and local codes including the requirements of local utilities.

Requirements and Codes — Electrical power wiring must be made in accordance with all applicable local codes and ordinances, and with the current revision of the National Electric Code (ANSI/NFPA 70). Air ducts must be installed in accordance with the standards of the National Fire Protection Association “Standard for Installation of Air Conditioning and Ventilation Systems” (NFPA 90A), “Standard for Installation of Residence Type Warm Air Heating and Air Conditioning Systems” (NFPA 90B), these instructions, and all applicable local codes.

National Fire Protection Association, Inc.
Battery March Park
Quincy, Maine 02269
www.nfpa.org
(617) 770-3000

Location — To insure proper condensate drainage, the unit must be installed in a level position within 1/4 inch over the height, width, and depth of the unit. The best system performance will be obtained if the unit is located in a centralized position with respect to the air distribution system. Refer to Cased Coil Installation Instructions for proper condensate drain connections.

When an air handler is installed in or above a living space, the installation of an auxiliary drain pan under the entire unit is required to reduce the possibility of property damage. Additionally, it is recommended that an approved water level indicator or float switch device be used to shut down the unit in the event water is detected in the auxiliary drain pan.

All servicing and cleaning of the air handler can be done from the front. Adequate horizontal clearances should be provided to allow for service and care of the unit. A minimum 24 inch clearance at the front of the unit is recommended. These units are suitable for attic, closet, crawl space or alcove installation at zero clearance from combustibles.

		240 VAC, 50 & 60Hz Single Phase						208 VAC, 60Hz Single Phase						
		Aux. Heat Installed (Nom. KW)	NONE	005H	008H	010H	015H	020H	NONE	005H	008H	010H	015H	020H
Single Circuit	***Min. Circuit Amp.	7.5	32.5	46.6	57.5	82.5	107.5		7.5	29.1	41.2	50.8	72.4	94.0
	*Wire AWG 75°C	14	8	8(6**)	6	4(3**)	2		14	10(8**)	8	6	4	3
	Maximum Over-current Rating	15	40	50	60	90	125		15	30	50	60	80	100

Multiple Circuit	Circuit A	***Min. Circuit Amp.	7.5	32.5	46.6	57.5	57.5	57.5	7.5	29.1	41.2	50.8	50.8	50.8
		*Wire AWG 60°C	14	8	6	4	4	4	14	10(8**)	6	6	6	6
		*Wire AWG 75°C	14	8	8(6**)	6	6	6	14	10(8**)	8	6	6	6
		Maximum Over-current Rating	15	40	50	60	60	60	15	30	50	60	60	60
	Circuit B	***Min. Circuit Amp.	-	-	-	-	25.0	50.0	-	-	-	-	21.6	43.3
		*Wire AWG 60°C	-	-	-	-	10	6	-	-	-	-	10	6
		*Wire AWG 75°C	-	-	-	-	10	8	-	-	-	-	10	8
		Maximum Over-current Rating	-	-	-	-	30	60	-	-	-	-	25	50
	Circuit C	***Min. Circuit Amp.	-	-	-	-	-	-	-	-	-	-	-	-
		*Wire AWG 60°C	-	-	-	-	-	-	-	-	-	-	-	-
		*Wire AWG 75°C	-	-	-	-	-	-	-	-	-	-	-	-
		Maximum Over-current Rating	-	-	-	-	-	-	-	-	-	-	-	-

*All wire sizes for copper conductors only, based on NEC Table 310-16.

**Required for C-cabinet variable speed.

***Circuit ampacity slightly higher for variable speed. See label on blower.

Table 1. Minimum Ampacity and Maximum Overcurrent Protection

MATING/JOINING THE UNITS

Modular Indoor Blowers are intended to be mated with specific NORDYNE cased coils; reference the Technical Specifications for coil mating combinations.

For shipping purposes, the rear bracket and Downflow-Joining bracket are located in the unit's heater box. Remove these two parts from the heater box before beginning.

The following instructions outline the procedure to join the modular unit with a cased coil in upflow, downflow, and horizontal left and right configurations.

Upflow Mating — Before mating the modular unit with the cased coil, remove the screws in the bracket above the door located on the coil case. Wipe clean the mating flanges on both units surfaces and apply the black neoprene gasket tape to the top of the coil case flanges except for the rear flange; making sure to not leave any gaps on the front and side flanges.

Carefully place the modular blower cabinet on top of the coil case making sure not to damage the coil case flanges. The units will be flush in front with an overhang in the back as shown in Figure 2.

Remove the lower front bracket from the modular unit. Attach the front joining bracket to the front of the modular unit using the screw holes that were for the lower front bracket, and to the coil

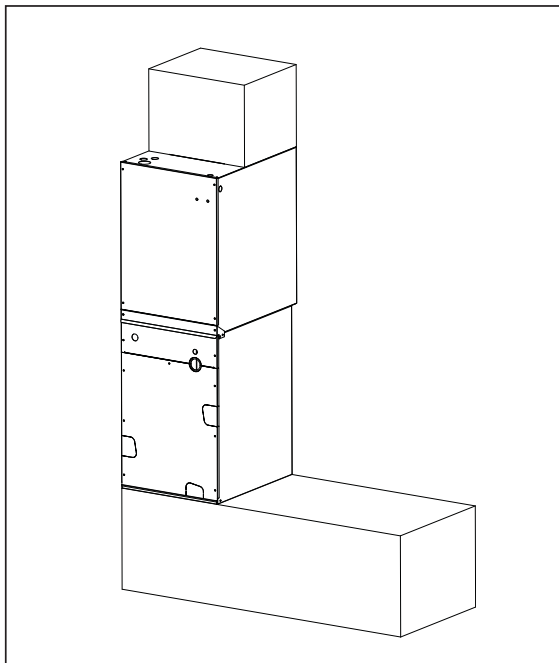


Figure 2. Upflow Installation

case using the screw holes that were for the top panel as shown in Figure 3.

Obtain the Rear Joining Bracket which was previously removed from the outlet heater box. Position the bracket flush to the sides and back

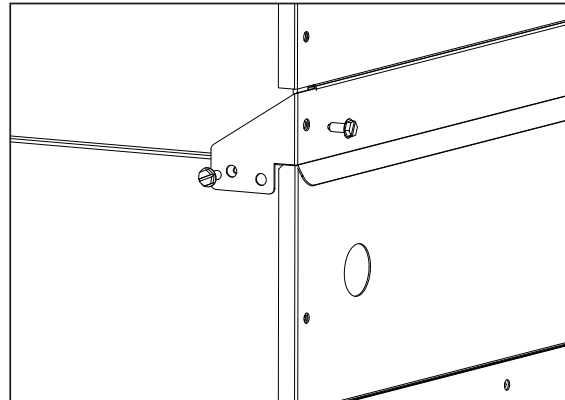


Figure 3. Upflow Mating

of the units with the 1/2" insulation facing the rear gap between the units (see Figure 4.) and fasten the bracket to the bottom flanges with the provided screws. Next, fasten the bracket to the coil case with the provided self-tapping screws.

Horizontal Left and Right Mating — reference the upflow mating directions from the previous paragraphs. Make sure to account for the coil orientation by configuring the coil drain pan assembly properly. You may also reference the multi-position procedures from the cased coil Installation Instructions.

Downflow mating — Before mating the modular indoor blower with the cased coil, remove the lower front bracket located on the modular air handler making sure to save the screws. Flip the modular unit upside down, wipe clean the mating flanges on both unit surfaces and apply the black neoprene gasket tape to the modular units bottom side flanges which are now facing upward since the unit was flipped; making sure to not leave any gaps on the sides.

Carefully place the coil case on top of the modular air handler making sure that the units are flush in the front and on the sides with a "step" fit up in the back as shown in Figure 5.

Obtain the front-joining bracket which was previously removed from the outlet heater box. Remove the lower cased coil door, remove the screws on the side of the coil case holding the lower tie bar, keeping the tie bar in place. Attach the front joining bracket to the cased coil and lower tie bar using the screw holes where the lower tie bar was attached. Attach the front

joining bracket to the front of the modular unit where the lower front bracket was removed. Replace the cased coil door.

Obtain the Rear Joining Bracket which was previously removed from the outlet heater box. Position the bracket flush to the sides and back of the units with the 1/2" insulation facing the rear gap between the units (see Figure 4.) and fasten the bracket to the bottom flanges with the provided screws. Next, fasten the bracket to the coil case with the provided self-tapping screws.

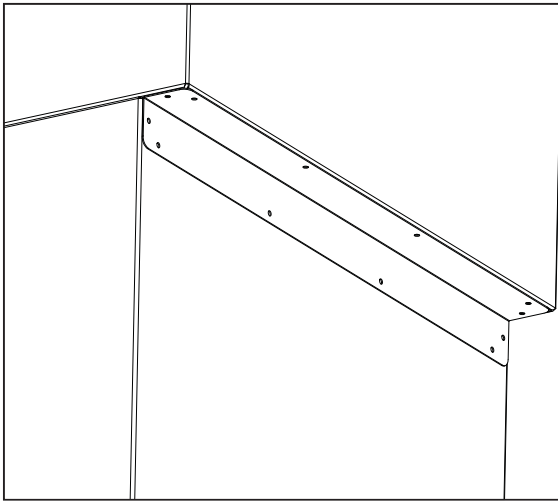


Figure 4. Rear Joining Bracket

3. AIR DUCTS, FILTERS, HORIZONTAL APPLICATIONS

Air ducts should be installed in accordance with the standards of the National Fire Protection Association "Standard for Installation of Air Conditioning and Ventilation Systems" (NFPA 90A), "Standard for Installation of Residence Type Warm Air Heating and Air Conditioning Systems" (NFPA 90B), these instructions, and all applicable local codes.

Use transition fittings if the supply and/or return air openings of the unit do not match the duct openings. These transitions should be dimensioned in accordance with standard practice as specified in the ASHRAE recommendations for duct transitions.

Flexible connectors should be used between the unit and the ductwork to prevent transmission of vibration from the unit to the structure. If electric heater kits are installed, heat resistant material must be used for the flexible connector at the supply air end of the unit.

Air Filter Installation — Modular Indoor Blowers are not equipped with filter racking; however NORDYNE strongly recommends

that the filter be located in the return air duct system. Installing the filter and replacing it every three months will increase air quality throughout the home.

WARNING:

Never operate the unit without a filter or with the doors removed. Dust and lint in the return air can build up on internal components, resulting in a loss of efficiency, equipment damage, and possible fire risk.

Upflow Applications — All Modular Indoor Blowers are factory shipped ready for upflow configuration; all return air must enter from the bottom of the unit. A typical installation of the unit in a ducted return air mode is shown back on Figure 2.

Downflow Applications — All Modular Indoor Blowers are factory shipped ready for downflow configuration; all return air in downflow applications must enter through the top of the unit. A typical installation of the unit in a downflow application is shown in Figure 5.

Horizontal Left And Horizontal Right — Modular Indoor Blowers are shipped from the factory ready for horizontal left applications and horizontal right applications.

In many applications when joined with a C6 cased coil the shorter horizontal drain pan

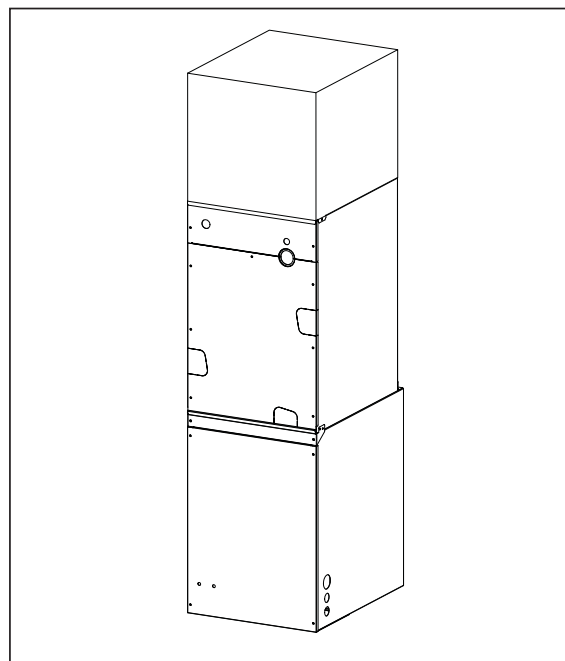


Figure 5. Downflow Installation

extension which is included with the MB6, must be used. This is to avoid any interference with the extension included with the C6 and the blower.

The unit may also be installed in a horizontal application with the unit suspended from the ceiling. A typical installation of the unit in a suspended horizontal application is shown on Figure 6.

NOTE: In all horizontal applications in which the unit is installed above a finished ceiling and/or living space, a secondary drain pan must be installed under the entire unit to avoid damage to the ceiling in the event of condensate overflow. Additionally, it is recommended that an approved water level indicator or float switch device be used to shut down the unit in the event water is detected in the auxiliary drain pan.

Supply Air Ducts—Bend up the flanges on the top of the unit and connect the supply air duct over them. Secure the duct to the flange, using appropriate fasteners for the type of duct used. Seal the joint between the duct and the unit to avoid air leakage and sweating. The supply air ductwork must be of noncombustible material for the first 24 inches from the unit.

Some installations with a short, straight run from the unit to the first branch takeoff may require acoustical lining inside the supply air ductwork. Acoustical insulation must be in accordance with the current revision of the Sheet Metal and Air Conditioning Contractors National Association (SMACNA) application standard for duct liners.

Duct lining material must be UL classified batts or blankets with a fire hazard classification of FHC-25/50 or less. Fiber ductwork may be used in place of internal duct liners if the fiber ductwork is in accordance with the current revision of the SMACNA construction standard on fibrous glass ducts.

Fibrous ductwork and internal acoustical lining must be NFPA Class I air ducts when tested per UL Standard 181 for Class 1 ducts.

Through-the-Floor Installations—Whenever the supply or return air ducts pass through the floor, a 1/4" thick noncombustible resilient gasket must be used between the duct, unit and floor.

Ductwork in Unconditioned Spaces — All ductwork located in unconditioned space must be adequately insulated to prevent excess duct loss and condensation. All externally insulated

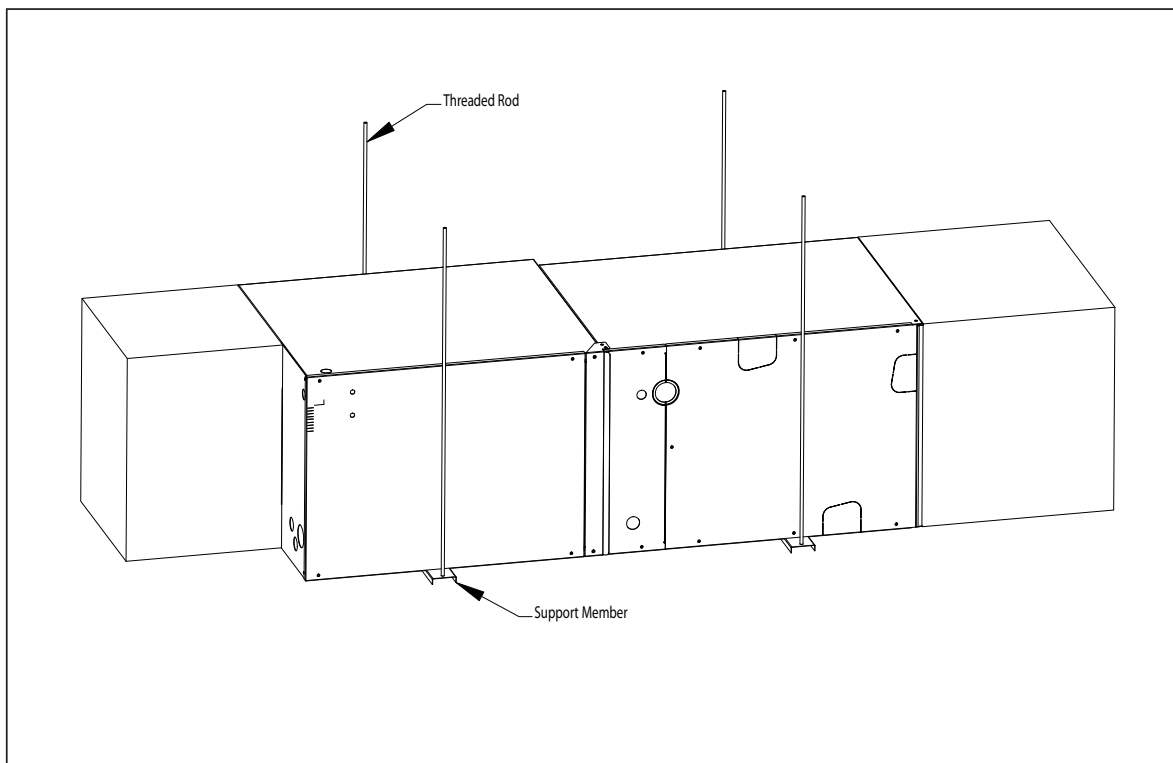


Figure 6. Typical Horizontal Installation Using Threaded Rod and Supporting Members (Shown in Horizontal Left Position)

ductwork must have an adequate vapor seal. Consult your Distributor for the recommended type and thickness of insulation for your area as required by local codes.



WARNING:

To avoid the risk of electric shock, personal injury or death, disconnect all electrical power to the unit before performing any maintenance or service. The unit may have more than one electrical power supply.

4. ELECTRICAL WIRING

General — Electrical power wiring must be made in accordance with all applicable local codes and ordinances, and with the current revision of the National Electric Code (ANSI/NFPA 70). If any of the original wire as supplied with the unit must be replaced, it must be replaced with wire material having the same gauge and temperature rating.

Line Voltage — Before proceeding with the electrical connections, make certain that the voltage, frequency, and phase of the supply source are the same as those specified on the rating plate. Also, verify that the service provided by the utility is sufficient to handle the additional load imposed by this equipment.

See the unit wiring label for proper high and low voltage wiring. Make all electrical connections in accordance with the National Electric Code and any applicable local codes or ordinances.

Use a separate branch electrical circuit for this unit. A disconnecting means must be located within sight of, and readily accessible to, the unit. When electric heat packages with circuit breakers are field-installed, the circuit breaker may be used as a disconnecting means in most applications. Reference the NEC and Local Codes for Disconnect requirements.

208/240 volt units are shipped from the factory wired for 240 volt transformer operation. For 208 volt operation, remove the lead from the transformer terminal marked 240v and connect it to the terminal marked 208v. For maximum ampacity and overcurrent protection, see Table 1.

Provide power supply (or supplies) for the unit in accordance with Table 1, the unit wiring diagram and the unit rating plate.

When an H6HK heater kit is installed: Connect the 2 wire plug of the air handler with the mating 2 wire plug of the heater kit. Connect the line voltage leads to the circuit breaker or terminal block provided. Connect the heater kit plug with the mating receptacle on the air handler control board.

When a heater kit is not installed: Remove the 2 wire plug of the air handler by cutting the wires and discarding the plug. Strip the ends of the 2 air handler wires and connect to the line-voltage leads with the 2 wire nuts provided.

Use copper wire only for the line voltage power supply to this unit. Aluminum supply wire may be used if a heater kit is installed. Use UL listed conduit and a conduit connector for connecting the supply wires to the unit and for obtaining proper grounding. Grounding may also be accomplished by using the grounding lug provided in the control box.

HEATING ELEMENT LOGIC

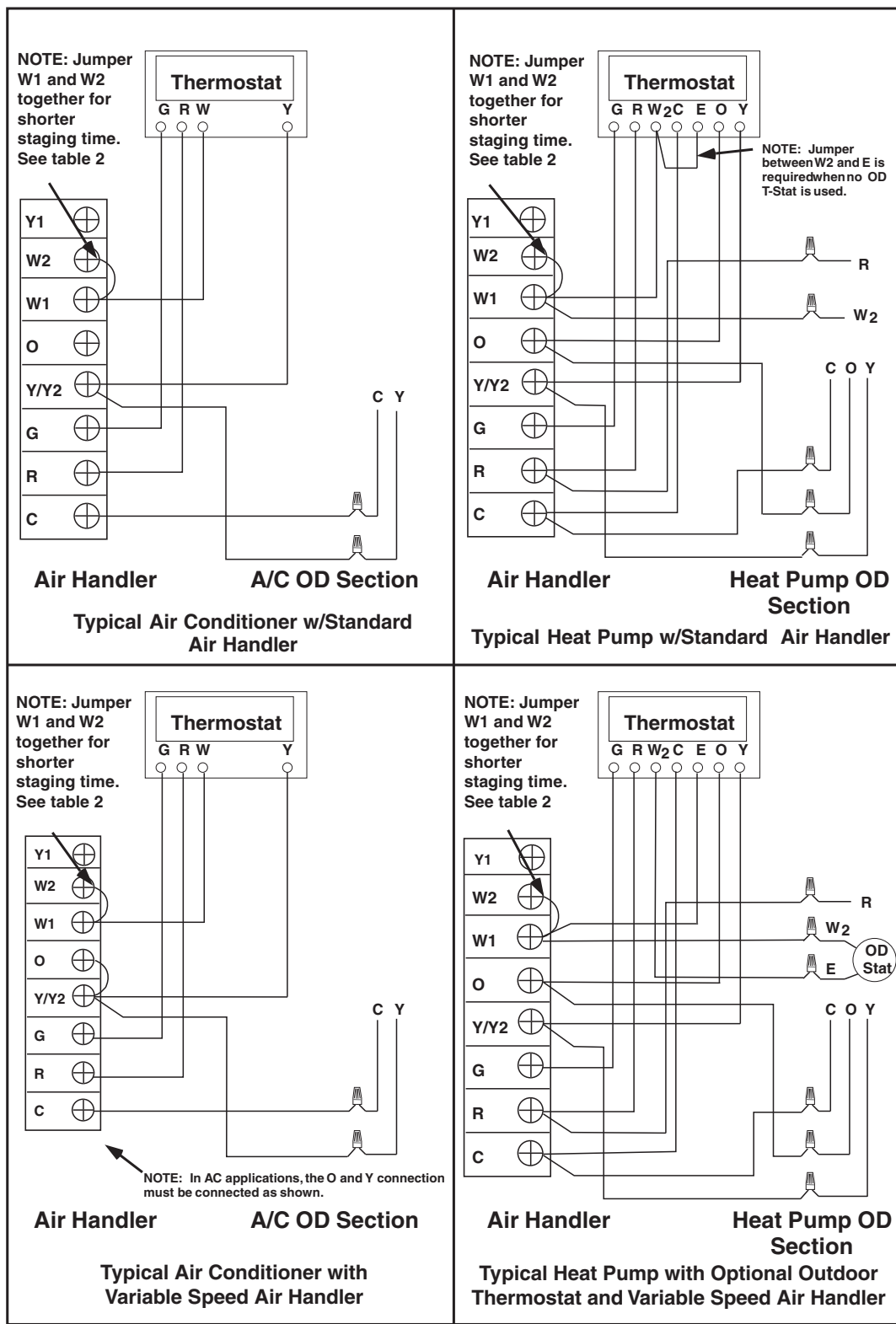
The control board in the air handler controls the timing sequence of the elements. Depending on the thermostat connection, there are 2 timing sequence variations that can be chosen. See table 2 for element sequence timing. The board also is equipped with a 3 second blower on delay and a 15 second blower off delay.



WARNING:

The unit cabinet must have an uninterrupted and unbroken electrical ground to minimize the risk of personal injury if an electrical fault should occur. This ground may consist of electrical wire or approved conduit when installed in accordance with existing national or local codes.

Low Voltage — Install the grommet, which is packed with the unit, in the hole for low-voltage wires. When the low voltage wires are positioned in this grommet, the grommet will prevent chafing and/or shorting of the low voltage leads. Connect



* On single stage systems connect to Y/Y2 to obtain selected cooling speed

Figure 7. Typical Air Conditioning and Heat Pump System Connections

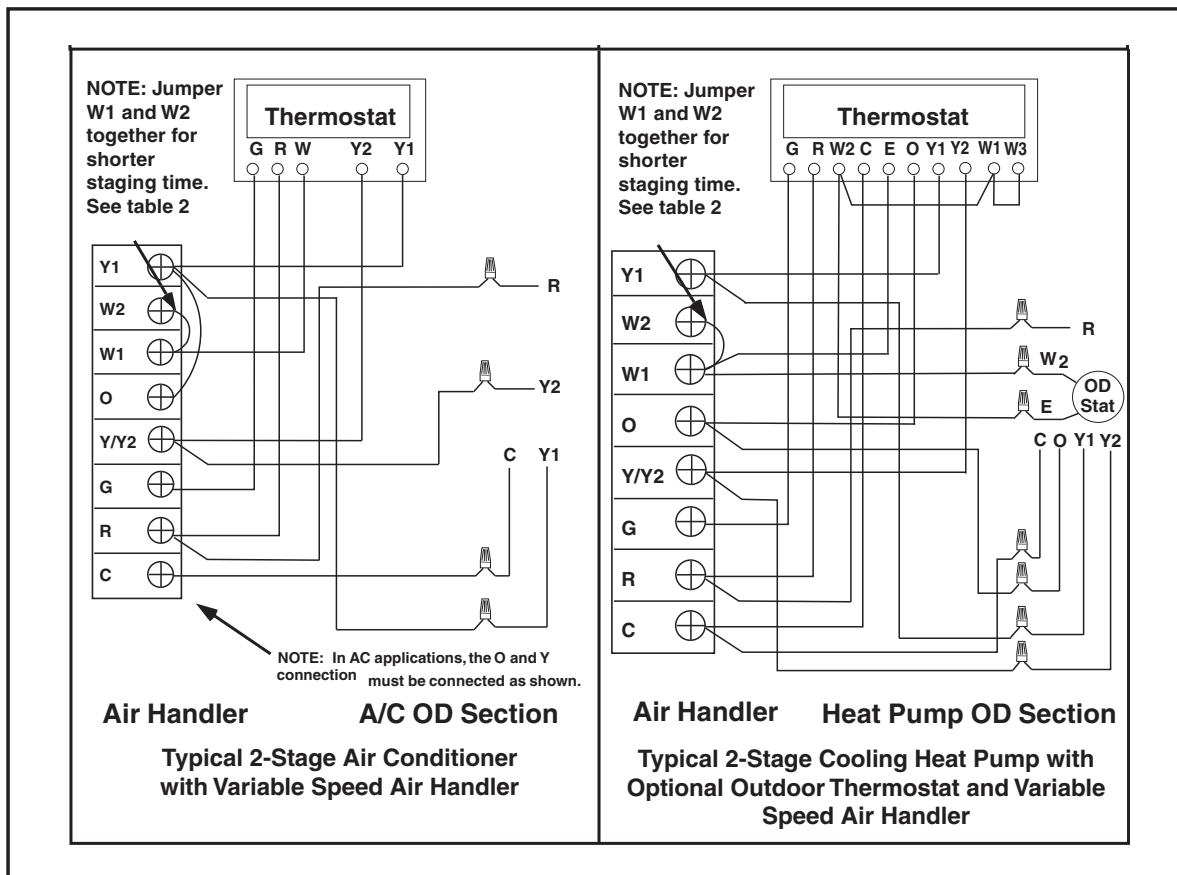


Figure 8. Typical 2-Stage Air Conditioning and 2-Stage Heat Pump System Connections

the low-voltage wiring to the thermostat and the outdoor unit and the appropriate screw terminal located on the control board.

NOTE: Where local codes require that the thermostat wiring must be routed through a conduit or raceway, splices can be made inside the unit; however, all wiring must be NEC Class 1 and must be separated from incoming power leads.

IMPORTANT! On variable speed models when the unit is used in an air conditioning system, connect the “O” terminal to the “Y” terminal. See Figures 7 & 8.

! CAUTION:

Isolation must be maintained from the external Class 2 output of any transformer in a cooling circuit. Use a thermostat with isolating contacts to prevent inter-connection of Class 2 outputs.

Check all factory wiring per the unit wiring

diagram and inspect the factory wiring connections to be sure none were loosened in transit or installation.

! CAUTION:

Make sure all doors are installed before restoring power to the unit.

5. START-UP AND ADJUSTMENT

General — Prior to start-up, verify that:

1. The line voltage power leads are securely connected and that the unit is properly grounded.
2. The low voltage wires are securely connected to the correct leads from the unit.
3. The upper and lower doors are in place and securely connected to the unit.

NOTE: The control board is programmed with a 40 second off delay in the cooling mode for optimum system performance and efficiency.

Selecting Proper Blower Speed for Multi-Speed Units — The blower speed is preset at

the factory for operation at the same speed for heating and cooling, by using the blower motor jumpering terminal on the blower motor and connecting it to the desired speed with both the red and black wires connected to the jumpering terminal. For optimum system performance and comfort, it may be necessary to change the factory set speed. To change the blower speed, disconnect all electrical power to the unit and remove the upper door. Remove the black and red wires from the blower motor jumpering terminal. Discard the blower motor jumpering terminal.

Connect the heating speed wire (red) and the cooling speed wire (black) to the desired blower speed marked on the terminal block of the blower motor. On standard 3-speed motors terminal 4 = Hi speed, terminal 5 = Med. speed and terminal 6 = Low speed. MB6EM units are equipped with 5 selectable blower speeds. Terminal 1=Low speed, terminal 2=Medium Low speed, terminal 3=Medium speed, terminal 4=Medium Hi speed and terminal 5=Hi speed

Replace the upper door and secure it to the unit. Restore power to the unit.

Selecting continuous low speed fan operation (Standard Blower) — The air handler is equipped with the option of continuous low speed fan operation. When G is energized without Y/Y2, the air handler will operate using the heating speed. With G & Y/Y2 or Y/Y2 is energized, the air handler will operate in the selected cooling speed (including 40 sec blower-off delay).

NOTE: To achieve continuous low speed fan operation Y must be connected at the air handler.

Selecting Proper Airflow for Variable Speed Units — Variable speed air handlers are equipped with a microprocessor-controlled variable speed motor that is pre-programmed to deliver optimum airflow in a variety of conditions and system configurations. Before operation, the

Control Signal	Operation	Board Action
W1 only	On	Stage 1 Heat on instantly Heat blower on after 3 second delay Stage 3 & 5 Heat on after 1 minute delay Stage 2 Heat on after 2 minute delay Stage 4 & 6 Heat on after 3 minute delay
	Off	Heat stages off instantly Blower off after 15 second delay
W1 & W2	On	Stage 1 Heat on instantly Heat blower on after 3 second delay Stage 3 & 5 Heat on after 10 second delay Stage 2 Heat on after 20 second delay Stage 4 & 6 Heat on after 30 second delay
	Off	Heat stages off instantly Blower off after 15 second delay
W1 & Y/Y2	On	Stage 1 Heat on instantly Cool blower on after 3 second delay Stage 3 & 5 Heat on after 1 minute delay Stage 2 Heat on after 2 minute delay Stage 4 & 6 Heat on after 3 minute delay
	Off	Heat stages & Cool blower off instantly Heat blower energizes and then turns off after 15 second delay
W1, W2 & Y/Y2	On	Stage 1 Heat on instantly Cool blower on after 3 second delay Stage 3 & 5 Heat on after 10 second delay Stage 2 Heat on after 20 second delay Stage 4 & 6 Heat on after 30 second delay
	Off	Heat stages and Cool blower off instantly Heat blower energizes and then turns off after 15 second delay

Table 2. Heating Element Logic

air handler must be configured to match the unit with the system, system options, and climatic conditions. Once configured, the air handler responds directly to the thermostat inputs, as well as the optional humidistat (Section 6). During normal operation, the motor will gradually change speeds during start-up, shut down, when thermostat inputs change, and when the duct static pressure changes (vents closed or opened, filter clogging, etc.). The air handler is configured by setting the selector switches and removing jumper connectors as directed below. **IMPORTANT! This air handler has been designed to give the installer maximum flexibility to optimize system performance, efficiency, and comfort. Because there are so many different ways to set up the air handler it is important to read and follow these directions carefully.**

Determining Nominal System Capacity— In order to select the appropriate airflows for the air handler the nominal system capacity must be known. The nominal system capacity is always the nominal capacity of the outdoor unit. In some cases the nominal system capacity is not the same as the nominal capacity of the air handler. Always refer to the nominal capacity of the outdoor unit to determine the nominal system capacity.

Selecting the Basic Cooling/Heat Pump Airflow— The basic cooling/heat-pump airflow is selected by setting switches 1 through 4 on the thermostat input board located on the blower. All airflows for other modes of operation (except electric heat) are determined by this basic setting.

Table 3 shows the basic airflow values versus the airflow selector switch settings. Table 3 also shows the range of basic air flow settings recommended for each nominal system capacity. “Fan Only” would deliver 50% of the selected cooling airflow.

Note: The 15+ SEER variable speed air handlers that are matched with a 2-stage cooling outdoor unit, are programmed to operate at 75% of the selected airflow while the system is in the lo-cool mode and 100% of the selected airflow while in hi-cool mode.

NOTE: The CFM values listed in the tables are not dependent on duct static pressure. The motor automatically compensates for changes in duct static pressure (within the limits of the motor).

For maximum capacity and energy efficiency,

select an airflow at or near the top of the range for that nominal capacity. For maximum dehumidification, select an airflow near the middle or bottom of the range for that nominal capacity. Additional information on humidity control can be found in the sections labeled “Humidistat” and “Delay Setting”.

NOTE: If coil icing is observed, the basic cooling/heat-pump airflow selected may be too low. Double-check to be sure the setting selected is within the range shown in Table 3. Also check to be sure the system is properly charged (see outdoor unit Installation Instructions). If icing continues to occur, raise the selected airflow one or two steps.

When operating in the heat pump mode, a higher basic airflow setting will increase the energy efficiency and capacity but will also decrease the supply air temperature.

Selecting the Minimum Electric Heat Airflow— The minimum electric heat airflow is selected by setting switches 5 and 6. Selecting the minimum electric heat airflow sets the minimum air flow that will be produced whenever electric heater kits are used. When the electric heater kits are energized along with a heat pump, the airflow may be higher depending on the basic cooling/heat-pump airflow setting.

Reference Table 4 for recommended minimum electric heat airflow settings. The minimum electric heat airflow setting may be set higher, but must never be set lower than the setting shown in Table 4.

Selecting the Delay Profile— The delay profile is selected by setting switches 7 and 8 (see Table 5). Delay profile selection controls the start-up and shut-down characteristics of the air handler. By varying the start-up and shut-down characteristics of the air handler the system can be optimized for energy efficiency, humidity control, and comfort.

Select “Delay A” or “Delay B” for highest energy efficiency. “Delay A” has a two-step “on” delay. The blower will begin operation at 31% airflow for 30 seconds. The second step operation is 75% airflow for 30 seconds. After the two-step “on” delay has been completed, the blower operation will be 100% until the thermostat has been satisfied. “Delay A” also provides a 60 second “off” delay at 50% airflow.

“Delay B” has a single step 30 second “on” delay at 50% airflow. “Delay B” also provides

a 90 second “off” delay at 50% airflow. Select the delay profile which is most suited to the application.

The “De-Hum.” delay profile may be used when humidity control is desired without the use of the optional humidistat. If the “De-Hum.” delay profile is selected, the air handler will run at 75% airflow for the first 10 minutes of each cooling cycle. If the “De-Hum.” delay profile is selected, the basic cooling/heat-pump speed should be selected at or near the top of the range for that nominal capacity (see Table 3).

6. OPTIONAL HUMIDISTAT (Variable Speed Only)

The optional humidistat may be installed in the return air duct to provide excellent humidity control when needed and maximum system capacity and energy efficiency when humidity levels are normal. The humidistat senses when humidity in the return air stream is above a preset level (field adjustable) and sends a signal to the motor to reduce the airflow so that more moisture may be removed until the humidity level drops. The air handler is pre-programmed for humidistat operation. Remove jumper connector installed between the two terminals marked “HUM” on the circuit board.

Note: The 15+ SEER air handlers that are matched with a 2-stage cooling outdoor unit and the humidistat is installed will not drop below 75% of the selected blower speed when the system is operating in low-cool mode and the humidistat opens.

Installation—Install the humidistat in the return air duct as directed in the installation instructions included with the kit. Wire the humidistat through the low-voltage wire entrance in the air handler (Figure 1) to the quick-connect terminals marked “HUM”. Wire the humidistat to open on rise in humidity.

7. CARE AND MAINTENANCE

General — For continued high performance, and to minimize the risk of equipment failure, it is essential that periodic maintenance be performed on this equipment. The ability to properly perform maintenance on this equipment requires certain mechanical skills and tools. If you do not possess these skills, contact your dealer for maintenance. Consult your local dealer as to the availability of a maintenance contract.

Do not store any of the following on, or in contact

with, the unit: Rags, brooms, vacuum cleaners, or other cleaning tools, spray or aerosol cans, soap powders, bleaches, waxes, cleaning compounds, plastics or plastic containers, paper bags or other paper products, gasoline, kerosene, cigarette lighter fluid, dry cleaning fluids, paint thinners, or other volatile fluids.

Proper maintenance is most important to achieve the best performance from an air handler. At a minimum, this maintenance should include the following items.

1. Inspect and clean or replace the air filter at the beginning of each heating and cooling season, or more frequently as required.
2. Inspect the cooling coil, drain pan, and condensate drain at the beginning of each cooling season for cleanliness. Clean these components as necessary using a mild detergent and water. Flush the coil, drain pan, and condensate drain after cleaning to remove all detergent. Use caution when cleaning these components so that the insulation does not become wet.
3. Inspect the blower motor and wheel for cleanliness at the beginning of each heating and cooling season. Clean the motor as necessary.
4. Inspect electrical connections for tightness at the beginning of each heating and cooling season. Service as necessary.



WARNING:

Use caution when removing parts from this unit. Personal injury can result from sharp metal edges present in all equipment of sheet metal construction.

A-CABINET									
CFM	Switch Number				Nominal Capacity				
	1	2	3	4	1.5	2	2.5	3	
540	0	0	0	1					
600	0	0	0	0					
660	0	0	1	0					
715	1	0	0	1					
790	1	0	0	0					
870	1	0	1	0					
915	0	1	0	1					
955	1	1	0	1					
1015	0	1	0	0					
1060	0	1	1	0					
1075	1	1	0	0					
1165	1	1	1	0					

A-CABINET											
CFM	Switch Number				Nominal Capacity						
	1	2	3	4	1.5	2	2.5	3	3.5	4	
720	0	0	0	1							
800	0	0	0	0							
850	1	0	0	1							
880	0	0	1	0							
945	1	0	0	0							
1040	1	0	1	0							
1085	0	1	0	1							
1140	1	1	0	1							
1205	0	1	0	0							
1265	1	1	0	0							
1325	0	1	1	0							
1390	1	1	1	0							

A-CABINET											
CFM	Switch Number				Nominal Capacity						
	1	2	3	4	3	3.5	4	5			
1075	0	0	0	1							
1135	1	0	0	1							
1225	0	0	0	0							
1295	1	0	0	0							
1380	0	0	1	0							
1460	1	0	1	0							
1525	0	1	0	1							
1625	1	1	0	1							
1740	0	1	0	0							
1860	1	1	0	0							
1960	0	1	1	0							
2090	1	1	1	0							

Table 3. Air Flow Selection for Variable Speed Models

A-CABINET										
Nominal KW	CFM	Switch Number								
		1	2	3	4	5	6	7	8	
0-5	700					0	0			
6-9	800					1	0			
10-14	950					0	1			
15	1100					1	1			

B-CABINET										
Nominal KW	CFM	Switch Number								
		1	2	3	4	5	6	7	8	
0-5	700					0	0			
6-10	800					1	0			
11-15	950					0	1			
16-20	110					1	1			

C-CABINET										
Nominal KW	CFM	Switch Number								
		1	2	3	4	5	6	7	8	
0-9	700					0	0			
10-14	950					1	0			
15-20	1100					0	1			
21-30	1500					1	1			

Table 4. Minimum Electric Heat Air Flow

Delay Description	Switch Number							
	1	2	3	4	5	6	7	8
Delay A							0	0
Delay B							0	1
No Delay							1	0
De-Hum							1	1

Note: 0=Off, 1= On

Table 5. Delay Settings (all models)

MB6BM Blower Performance

Dry Coil ESP		0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
0800 A-Cabinet	Low	685	645	605	565	515	465	405	345
	<i>Corrected ESP¹</i>		0.07	0.19	0.30	0.42	0.53	0.65	0.76
	Med	860	825	780	735	680	625	565	500
	<i>Corrected ESP¹</i>			0.11	0.23	0.36	0.48	0.60	0.72
	High	1070	1025	975	920	860	800	730	660
	<i>Corrected ESP¹</i>				0.14	0.27	0.40	0.53	0.67

Dry Coil ESP		0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
1200 A-Cabinet	Low	850	825	795	755	705	645	580	510
	<i>Corrected ESP¹</i>		0.04	0.15	0.27	0.38	0.50	0.62	0.74
	Med	1120	1085	1045	995	940	875	800	715
	<i>Corrected ESP¹</i>			0.04	0.17	0.29	0.42	0.55	0.68
	High	1275	1235	1185	1130	1070	1005	935	860
	<i>Corrected ESP¹</i>				0.10	0.23	0.36	0.49	0.63

Dry Coil ESP		0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
1200 B-Cabinet	Low	995	955	910	845	780	705	610	530
	<i>Corrected ESP¹</i>		0.08	0.19	0.31	0.42	0.54	0.65	0.76
	Med	1335	1290	1235	1175	1100	1015	925	805
	<i>Corrected ESP¹</i>			0.10	0.22	0.34	0.46	0.59	0.71
	High	1470	1425	1360	1300	1225	1135	1050	920
	<i>Corrected ESP¹</i>				0.08	0.22	0.37	0.51	0.65

Dry Coil ESP		0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
1600 C-Cabinet	Low	1035	1005	970	925	875	825	770	710
	<i>Corrected ESP¹</i>		0.11	0.22	0.33	0.44	0.54	0.65	0.76
	Med	1635	1595	1525	1475	1405	1305	1210	1060
	<i>Corrected ESP¹</i>			0.08	0.20	0.32	0.44	0.57	0.69
	High	1910	1840	1760	1685	1595	1495	1395	1250
	<i>Corrected ESP¹</i>				0.14	0.26	0.39	0.52	0.65

Dry Coil ESP		0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
2000 C-Cabinet	Low	1520	1510	1500	1485	1465	1440	1415	1385
	<i>Corrected ESP¹</i>		0.11	0.21	0.31	0.42	0.52	0.62	0.72
	Med	1900	1885	1860	1830	1790	1740	1680	1620
	<i>Corrected ESP¹</i>		0.06	0.16	0.27	0.37	0.48	0.59	0.70
	High	2245	2195	2135	2080	2015	1950	1885	1800
	<i>Corrected ESP¹</i>			0.12	0.23	0.34	0.45	0.56	0.67

¹ ESP estimate with wet coil and filter

MB6EM Blower Performance

Dry Coil ESP		0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
1200 A-Cabinet	Tap 1	840	800	760	715	670	625	580	530
	<i>Corrected ESP¹</i>		0.08	0.19	0.30	0.42	0.53	0.64	0.75
	Tap 2	881	846	810	772	733	693	652	609
	<i>Corrected ESP¹</i>		0.07	0.18	0.29	0.40	0.51	0.62	0.73
	Tap 3	976	942	907	872	836	799	761	722
	<i>Corrected ESP¹</i>		0.03	0.15	0.26	0.37	0.48	0.59	0.70
	Tap 4	1250	1224	1194	1159	1119	1074	1025	971
	<i>Corrected ESP¹</i>				0.08	0.20	0.33	0.45	0.58
	Tap 5	1380	1338	1293	1243	1189	1131	1068	1001
	<i>Corrected ESP¹</i>				0.03	0.16	0.30	0.43	0.56

Dry Coil ESP		0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
1600 B-Cabinet	Tap 1	1000	858	738	639	562	506	473	460
	<i>Corrected ESP¹</i>		0.04	0.18	0.31	0.43	0.54	0.65	0.75
	Tap 2	1099	1014	935	864	800	743	693	650
	<i>Corrected ESP¹</i>			0.11	0.24	0.36	0.48	0.60	0.71
	Tap 3	1318	1277	1234	1187	1139	1087	1033	976
	<i>Corrected ESP¹</i>			0.06	0.18	0.30	0.41	0.53	0.65
	Tap 4	1502	1466	1428	1388	1345	1299	1251	1201
	<i>Corrected ESP¹</i>				0.10	0.21	0.33	0.45	0.57
	Tap 5	1624	1592	1557	1520	1480	1438	1393	1346
	<i>Corrected ESP¹</i>				0.04	0.15	0.27	0.39	0.51

Dry Coil ESP		0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
2000 C-Cabinet	Tap 1	1273	1211	1150	1089	1028	968	907	847
	<i>Corrected ESP¹</i>		0.11	0.22	0.33	0.44	0.54	0.65	0.76
	Tap 2	1501	1452	1402	1352	1303	1253	1204	1155
	<i>Corrected ESP¹</i>		0.07	0.18	0.29	0.40	0.50	0.61	0.72
	Tap 3	1697	1654	1610	1564	1517	1469	1420	1370
	<i>Corrected ESP¹</i>		0.03	0.14	0.25	0.36	0.47	0.58	0.68
	Tap 4	1891	1851	1811	1769	1728	1685	1643	1599
	<i>Corrected ESP¹</i>			0.10	0.21	0.32	0.43	0.53	0.64
	Tap 5	2096	2056	2015	1974	1932	1890	1847	1803
	<i>Corrected ESP¹</i>			0.05	0.16	0.27	0.38	0.49	0.60

¹ ESP estimate with wet coil and filter

**INSTALLER: PLEASE LEAVE THESE
INSTALLATION INSTRUCTIONS
WITH THE HOMEOWNER**



708891B (Replaces 708891A)
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