INSTALLATION MANUAL

MODULAR AIR HANDLERS MODELS: MA - 115V







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SECTION I: GENERAL

This modular air handler provides the flexibility for installation in any upflow, downflow, or horizontal application. These versatile models may be used for cooling or heat pump operation with or without electric heat. A BRAND LABEL (available from Distribution) may be applied to the center of the blower access panel.

The unit can be positioned for bottom return air in the upflow position, top return air in the downflow position, and right or left return in the horizontal position.

Top and side power wiring and control wiring, accessible screw terminals for control wiring and easy to install electric heaters all combine to make the installation easy, and minimize installation cost.

SECTION II: SAFETY



This is a safety alert symbol. When you see this symbol on labels or in manuals, be alert to the potential for personal injury.

Understand and pay particular attention to the signal words **DANGER**, **WARNING**, or **CAUTION**.

DANGER indicates an **imminently** hazardous situation, which, if not avoided, will result in death or serious injury.

WARNING indicates a **potentially** hazardous situation, which, if not avoided, **could result in death or serious injury**.

CAUTION indicates a potentially hazardous situation, which, if not avoided <u>may result in minor or moderate injury.</u> It is also used to alert against unsafe practices and hazards involving only property damage.

A WARNING

FIRE OR ELECTRICAL HAZARD

Failure to follow the safety warnings exactly could result in serious injury, death or property damage. A fire or electrical hazard may result causing property damage, personal injury or loss of life.

WARNING

Improper installation may create a condition where the operation of the product could cause personal injury or property damage. Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual for assistance or for additional information, consult a qualified contractor, installer or service agency.

A CAUTION

This product must be installed in strict compliance with the installation instructions and any applicable local, state, and national codes including, but not limited to building, electrical, and mechanical codes.

- Install this air handler only in a location and position as specified in SECTION III of these instructions.
- Always install the air handler to operate within the air handler's intended maximum outlet air temperature. Only connect the air handler to a duct system which has an external static pressure within the allowable range, as specified on the air handler rating plate.
- 3. When an air handler is installed so that supply ducts carry air circulated by the air handler to areas outside the space containing the air handler, the return air shall also be handled by duct(s) sealed to the air handler casing and terminating outside the space containing the air handler.
- The air handler is not to be used for temporary heating of buildings or structures under construction.
- The size of the unit should be based on an acceptable heat loss or gain calculation for the structure. ACCA — Manual J or other approved methods may be used.

SAFETY REQUIREMENTS

- Failure to carefully read and follow all instructions in this manual can result in air handler malfunction, death, personal injury and/or property damage. This air handler should be installed in accordance with all national and local building/safety codes and requirements, local plumbing or wastewater codes, and other applicable codes.
- Refer to the unit rating plate for the air handler model number, and then see the dimensions page of this instruction for supply air plenum dimensions in Figure 4. The plenum must be installed according to the instructions.
- Provide clearances from combustible materials as listed under Clearances to Combustibles.
- Provide clearances for servicing ensuring that service access is allowed for electric heaters and blower.
- Check the rating plate and power supply to be sure that the electrical characteristics match.
- Air handler shall be installed so the electrical components are protected from water.
- 7. Installing and servicing heating/cooling equipment can be hazardous due to the electrical components. Only trained and qualified personnel should install, repair, or service heating/cooling equipment. Untrained service personnel can perform basic maintenance functions such as cleaning and replacing the air filters. When working on heating/cooling equipment, observe precautions in the manuals and on the labels attached to the unit and other safety precautions that may apply.
- 8. These instructions cover minimum requirements and conform to existing national standards and safety codes. In some instances these instructions exceed certain local codes and ordinances, especially those who have not kept up with changing residential and non-HUD modular home construction practices. These instructions are required as a minimum for a safe installation.

INSPECTION

As soon as a unit is received, it should be inspected for possible damage during transit. If damage is evident, the extent of the damage should be noted on the carrier's freight bill. A separate request for inspection by the carrier's agent should be made in writing. Also, before installation the unit should be checked for screws or bolts, which may have loosened in transit. There are no shipping or spacer brackets which need to be removed.

Also check to be sure all accessories such as heater kits, suspension kits, and coils are available. Installation of these accessories or field conversion of the unit should be accomplished before setting the unit in place or connecting any wiring, electric heat, ducts or piping.

LIMITATIONS

These units must be wired and installed in accordance with all national and local safety codes.

Voltage limits are as follows:

Air Handler Voltage	Voltage code	¹ Normal Operating Voltage Range
115-1-60	11	104-126

1. Rated in accordance with ARI Standard 110, utilization range "A".

Airflow must be within the minimum and maximum limits approved for electric heat, indoor coils and outdoor units.

Entering Air Temperature Limits						
Wet Bulb Temp.°F Dry Bulb Temp. °F						
Min.	Max.	Min.	Max.			
57	72	65	95			

SECTION III: UNIT INSTALLATION

CLEARANCES

Clearances must be taken into consideration, and provided for as follows:

- 1. Refrigerant piping and connections minimum 12" recommended.
- Maintenance and servicing access minimum 36" from front of unit recommended for blower motor / coil replacement.
- Condensate drain lines routed to clear filter and panel access.
- Filter removal minimum 36" recommended.

LOCATION

Location is usually predetermined. Check with owner's or dealer's installation plans. If location has not been decided, consider the following in choosing a suitable location:

- Select a location with adequate structural support, space for service access, clearance for air return and supply duct connections.
- 2. Use hanging brackets to wall mount unit as shown.
- Normal operating sound levels may be objectionable if the air handler is placed directly over some rooms such as bedrooms, study,
- Select a location that will permit installation of condensate line to an open drain or outdoors allowing condensate to drain away from structure.
- When an indoor coil is installed in an attic or above a finished ceiling, an auxiliary drain pan should be provided under the air handler as is specified by most local building codes.
- 6. Proper electrical supply must be available.

NOTICE

In severe high humidity or high temperature indoor unit environments, seal duct system with mastic and insulate completely with adequate fiberglass insulation using vapor barrier on the outside.

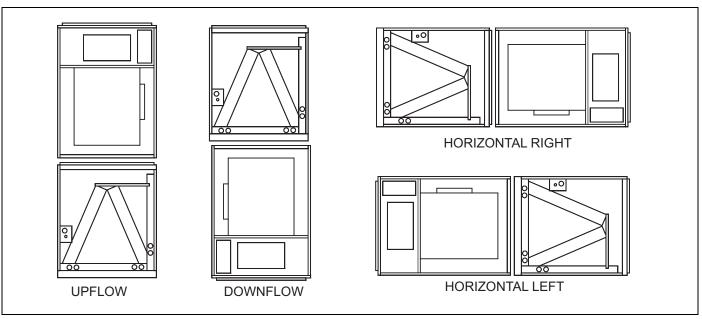


FIGURE 1: Typical Installation with MC or FC indoor Coil

DOWNFLOW AND HORIZONTAL CONVERSION

These air handler units are supplied ready to be installed in a upflow, downflow and left or right hand horizontal position.

If the unit is to be installed with an indoor coil, refer to Figure 1 for unit positioning information.

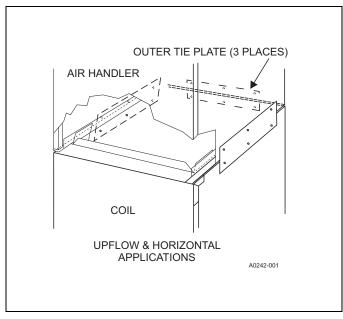


FIGURE 2: Coil and Air Handler Attachment Details

AIR HANDLER AND COIL UPFLOW AND HORIZONTAL

- 1. Apply neoprene gasket to top of coil casing.
- 2. Rotate four coil duct flanges into the up position.
- 3. Position blower casing over coil opening.
- 4. Attach three tie plates to external sides and back of air handler casing and coil using screws. Refer to Figure 2.
- 5. Remove coil access panel and coil filter door.
- 6. Slide the coil out of the coil cabinet, and set coil to the side.
- 7. Locate 2" wide foam gasket.
- Apply foam gasket over the air handler and coil mating seams and duct flanges on the interior of both unit sides and the interior of the back. Refer to Figure 3.
- Slide the coil into the housing, and install the coil access panel and coil filter door.

AIR HANDLER AND COIL DOWNFLOW

- 1. Position blower casing over duct connection and secure such that the supply air end of the blower is down.
- 2. Apply neoprene gasket to return-air side of air handler.
- 3. Place coil casing over blower return opening.
- 4. Attach three tie plates to external sides and back of air handler casing and coil using screws. Refer to Figure 2.
- 5. Remove coil access panel and coil filter door.
- 6. Slide the coil out of the coil cabinet, and set coil to the side.
- 7. Locate 2" wide foam gasket.
- Apply foam gasket over the air handler and coil mating seams and duct flanges on the interior of both unit sides and the interior of the back. Refer to Figure 3.
- Slide the coil into the housing, and install the coil access panel and coil filter door.

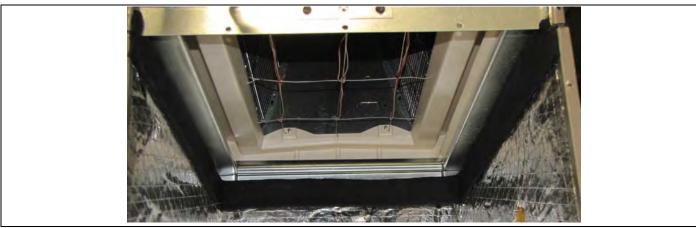


FIGURE 3: Gasket Location

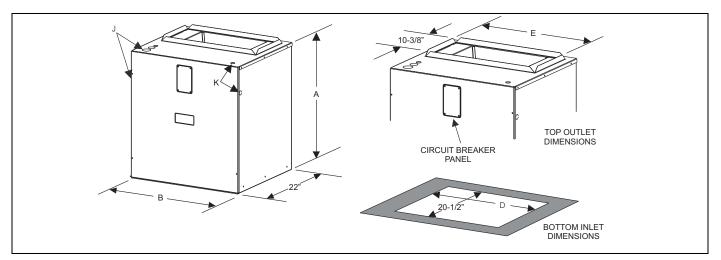


FIGURE 4: Dimensions & Duct Connection Dimensions

TABLE 1: Dimensions

MA		Dimer	Wiring Knockouts ¹			
MODELS	Α	В	D	E	J	K
III ODEEO	Height	Width			Power	Control
12B		17-1/2	16-1/2	14-19/32	7/8"	
16C	25	21	20	18-3/32	1-3/8" (1")	7/8" (1/2")
20D		24-1/2	23-1/2	21-19/32	1-23/32" (1-1/4")	

^{1.} Actual size (Conduit size).

DUCT CONNECTORS

▲ WARNING

Use 1/2" screws to connect ductwork to bottom of unit. Longer screws will pierce the drain pan and cause leakage. If pilot holes are drilled, drill only though field duct and unit bottom flange.

Air supply and return may be handled in one of several ways best suited to the installation. Refer to Figure 4 for dimensions for duct inlet and outlet connections.

The vast majority of problems encountered with combination heating and cooling systems can be linked to improperly designed or installed duct systems. It is therefore highly important to the success of an installation that the duct system be properly designed and installed.

Use flexible duct collars to minimize the transmission of vibration/noise into the conditioned space. If electric heat is used, non-flammable material must be used.

Where return air duct is short, or where sound may be a problem, sound absorbing glass fiber duct liner should be used inside the duct. Insulation of duct work is a must where it runs through an unheated space during the heating season or through an uncooled space during the cooling season. The use of a vapor barrier is recommended to prevent absorption of moisture from the surrounding air into the insulation.

The supply air duct should be properly sized by use of a transition to match unit opening. All ducts should be suspended using flexible hangers and never fastened directly to the structure. This unit is not designed for non-ducted (freeblow) applications. Size outlet plenum or transition to discharge opening sizes shown in Figures 4 and 5.

Duct work should be fabricated and installed in accordance with local and/or national codes. This includes the standards of the National Fire Protection Association for Installation of Air-Conditioning and Ventilating Systems, NFPA No. 90B.

DUCT WORK TRANSITION

Duct work that is not designed to match the supply air opening can cause turbulence inside the plenum box. This turbulence can change the air flow patterns across the heat kit limit switch. If the factory suggested transition can not be fabricated, it is recommended a block off plate (approximately 8" in height and running the full width of the plenum) be attached to the supply opening.

Refer to Figure 5 as a visual aid.

NOTICE

This will not alleviate problems caused by improper installation. When receiving intermittent fault codes pertaining to the limit switch always double check your airflow CFM, motor speed and static pressures.

The use of this block off plate will keep better air circulation across the limit switch.

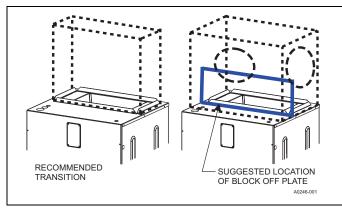


FIGURE 5: Duct Work Transition

AIR FILTERS

A CAUTION

Equipment should never be operated without filters.

Air filters and filter racks must be field supplied.

HORIZONTAL SUSPENSION

For suspension of these units in horizontal applications, it is recommended to use angle steel support brackets with threaded rods, supporting the units from the bottom, at the locations shown in Figure 6.

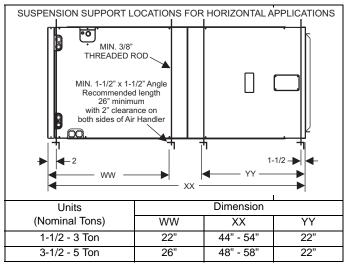


FIGURE 6: Typical Horizontal Installation

SECTION IV: LOW VOLTAGE CONTROL CONNECTIONS

The 24 volt power supply is provided by an internally wired low voltage transformer which is standard on all models. See the unit wiring label.

Field supplied low voltage wiring can exit the unit on the top right hand corner or the right hand side panel. Refer to Figure 4.

Remove desired knockout and pierce foil faced insulation to allow wiring to pass through. Use as small of a hole as possible to minimize air leakage.

Install an appropriate size plastic bushing in the selected hole and keep low voltage wiring as short as possible inside the control box.

To further minimize air leakage, seal the wiring entry point at the outside of the unit.

The field wiring is to be connected at the screw terminals of the control board. Refer to Figures 7 and 10.

NOTICE

All wiring must comply with local and national electrical code requirements. Read and heed all unit caution labels.

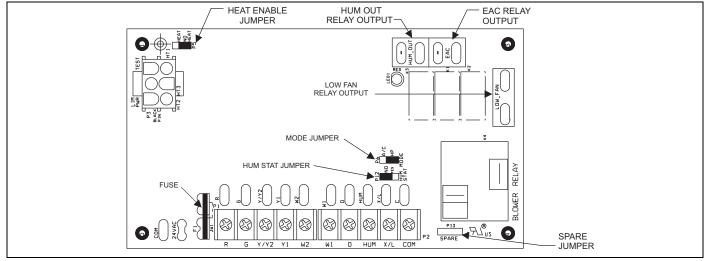


FIGURE 7: Control Board

TABLE 2: Low Voltage Connections

Terminal	Signal	Comment
R	24 VAC power (fused)	
G	Continuous Fan operation	
Y/Y2	Second or full stage compressor operation	
Y1	First stage compressor operation	Not used with outdoor units having one stage compressors.
W2	Second stage heat operation	
W1	First stage heat operation	
0	Reversing valve operation	24 VAC will be present at this terminal when the MODE jumper is in the AC position. This is normal.
HUM	Humidity switch input	24 VAC will be present at this terminal when the HUM STAT jumper is in the NO position. This is normal.
X/L	Connection point for heat pump fault indicator	This terminal is a connection point only and does not affect air handler control operation.
COM	24 VAC common	

The low voltage connections may be connected to the screw terminals or the quick connect terminals. The screw terminals and the quick connect terminals are physically connected on the control board.

HUMIDITY SWITCH INPUT

The air handler control is designed to work with a humidity control that closes when the humidity is below the set-point. The control is open when the humidity is above the set-point. This humidity control may be referred to as a humidistat or a dehumidistat.

The humidity switch controls both humidification and de-humidification operation of the control. The control provides humidification using the HUM OUT relay output and de-humidification by lowering the blower speed. This is accomplished using the LOW FAN output and a field installed two-speed fan relay kit for non-variable speed models and the de-humidification input of the motor for variable speed models. The humidity switch should be connected to the R and HUM terminals of the control. See Figure 10.

SECTION V: REQUIRED CONTROL SET-UP

IMPORTANT

The following steps must be taken at the time of installation to insure proper system operation.

- Consult system wiring diagram to determine proper thermostat wiring for your system.
- 2. HEAT ENABLE jumper must be set to NO HEAT position.
- If a humidstat is installed, change HUM STAT jumper from NO to YES.
- Set the MODE jumper to A/C (Air Conditioner) or HP (Heat Pump) position depending on the outdoor unit included with the system.

FUNCTIONALITY AND OPERATION

Jumper Positions

Refer to Figure 7 for details of control board showing component locations.

Heat Enable Jumper

The jumper must be in the NO HEAT position. This unit cannot be used with heat.

With the jumper in the NO HEAT position, the control will not energize the heat relay outputs or sense the limit switch input.

If the jumper is not present, the control will operate as if the jumper is in the HEAT position. If the jumper is not present and a heat kit is not present, the control will sense an open limit condition and the blower will run continuously.

Hum Stat Jumper

The HUM STAT jumper configures the control to monitor the humidity switch input. With the jumper in the NO position, the control will energize the HUM terminal with 24 VAC continually. With the jumper in the YES position, the control will monitor the HUM input to control the HUM OUT output to control an external humidifier.

If the jumper is not present, the control will operate as if the jumper is in the YES position.

Mode Jumper

The MODE jumper configures the control to operate properly with an air conditioner (AC position) or heat pump (HP position). With the jumper in the AC position, the control will energize the O terminal with 24 VAC continually. With the jumper in the HP position, the O input signal is received from the room thermostat.

If the jumper is not present, the control will operate as if the jumper is in the HP position.

SPARE Jumper

The control includes a spare jumper that can be used if a jumper is lost. The SPARE jumper does not have any effect on the operation of the control

Status and Fault Codes

The control includes an LED that displays status and fault codes. These codes are shown in Table 3. The control will display the fault codes until power is removed from the control or the fault condition is no longer present.

TABLE 3: Fault Codes

Fault or Status Condition	LED1 (RED) Flash Code
Status	
No power to control	OFF
Normal operation	2s ON / 2s OFF
Control in test mode	Rapid Flash
Control failure	ON
Limit Faults	
Limit switch currently open (not in lockout)	1
Multiple limit openings with no call for heat	2
Multiple limit openings during one call for heat	3
Single long duration limit opening	4
Multiple long duration limit openings	5
Fan failure	6
Wiring Related Faults	
Simultaneous call for heating and cooling	7
Internal Control Faults	
Control recovered from internal event	9

External Relay Outputs

The control includes three outputs to drive external relays having 24 VAC coils. The outputs have a maximum rating of 1.0 Amp pilot duty at 24 VAC.

HUM OUT

The HUM OUT output can be used to drive an external relay or solenoid (24 VAC coil) to control a humidifier. The output is energized when the HUM input is energized, the HUM STAT is in the YES position, and the control has a thermostat call for heating (heat pump or electric heat).

EAC

The EAC output can be used to drive an external relay (24 VAC coil) to control an electronic air cleaner. The output is energized whenever the blower relay on the control is energized. Models having a high efficiency non-variable speed motor use the EAC output as an input to the motor. The EAC output can also be used to drive an electronic air cleaner relay as long as the load of the EAC relay does not exceed 1.0 Amp. An additional connection to the EAC terminals must be made using a piggyback terminal or similar device.

LOW FAN

The LOW FAN output can be used to drive an external relay (24 VAC coil) that switches the power input to the motor to a lower speed tap.

The LOW FAN output is energized when the control has the following inputs as shown in Table 4.

TABLE 4: Low Fan Control Inputs

Input	Operational Mode		
G	Continuous Fan operation		
Y1 or Y1 and O	First stage compressor operation		
Y/Y2 and HUM de-energized with HUM STAT jumper in YES position	Dehumidification during cooling		

Blower Delays

The control includes the following blower delays as shown in Table 5:

TABLE 5: Blower Delays

Condition	Blower Delay
Following call for cooling	60 seconds
Following call for heat pump heating	30 seconds

SECTION VI: LINE POWER CONNECTIONS

Power may be brought into the unit through the supply air end of the unit (top when unit is vertical) or the left side panel. Refer to Figure 4. Use the hole appropriate to the unit's orientation in each installation to bring conduit from the disconnect. The power lead conduit should be terminated at the electrical control box (refer to Figure 8). Refer to Table 7 to determine proper wire sizing. To minimize air leakage, seal the wiring entry point at the outside of the unit.

SECTION VII: BLOWER SPEED

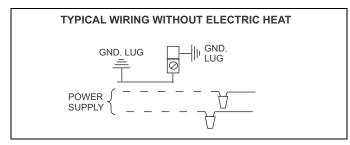


FIGURE 8: Line Power Connections

CONNECTIONS

All air handlers, contain 3-speed blower motors which are prewired to the control board.

Adjust blower motor speed to provide airflow within the minimum and maximum limits approved for indoor coil, electric heat and outdoor unit. Speed tap adjustments are made at the motor terminal block, Refer to Figure 9. Airflow data is shown in Table 8.

Connect motor wires to motor speed tap receptacle for speed desired. See wiring label for motor wiring details.

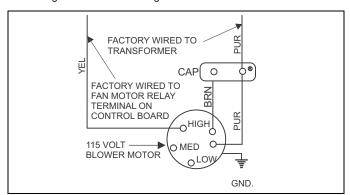


FIGURE 9: Blower Speed Connections

SECTION VIII: UNIT DATA

TABLE 6: Physical and Electrical Data

Models: N	IA	12B	16C	20D			
Blower - D	iameter x Width	10 x 9	10 x 10	11 x 10			
Motor	HP	3/4	1	1			
IVIOLOI	Nominal RPM	1075	1075	1075			
Voltage		115V	115V	115V			
Amps	Full Load (115)	9.8	11.4	11.2			
	Туре	DISPOSABLE OR PERMANENT					
Filter ¹	Size	16 x 20 x 1	20 x 20 x 1	24 x 20 x 1			
	Permanent Type Kit	1PF0601BK	1PF0602BK	1PF0604BK			
Filter Rack		1FR0617	1FR0621	1FR0624			
Shipping / Operating Weight (lbs.)		82 / 78	82 / 78 90 / 84				

^{1.} Field Supplied

TABLE 7: Electrical Data - Cooling Only (60 Hz)

Medala	Total Motor Amps	Minimum Circuit Ampacity	M 0 0 D1 4/	Minimum Wire Size	
Models MA	60 Hertz	60 Hertz	Max. O.C.P. ¹ Amps/ Type	Minimum Wire Size A.W.G.	
IIIA	115V	115V	туре	A.W.O.	
12B	9.8	12.3	15	14	
16C	11.4	14.0	15	14	
20D	11.2	14.3	15	14	

^{1.} OCP = Over Current Protection device, must be HACR type Circuit Breaker or Time Delay fuse.

TABLE 8: Air Flow Data - 60 Hz Models (115 Volt)

			115 Volt - 60 Hz									
Models MA	Models MC	Blower Motor Speed			(CFM ¹ @ E	xternal S	tatic Pres	sure - IW	С		
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	8.0	0.9	1
	MC30B	High	1429	1363	1290	1212	1133	1037	929	670	534	375
	MC35B	Med.	1213	1153	1097	1037	977	896	697	549	453	220
	WCSSB	Low	1075	1032	990	927	873	770	611	494	405	212
		High	1607	1533	1463	1395	1319	1044	851	725	673	673
12B	MC36B	Med.	1308	1258	1197	1146	1097	887	742	648	608	609
		Low	1148	1108	1061	1017	976	807	690	613	582	582
		High	1462	1396	1322	1254	1172	1067	941	693	585	464
	MC43B	Med.	1205	1154	1102	1046	980	897	704	560	441	220
		Low	1075	1020	969	906	842	735	592	470	364	190
	MC42C	High	1959	1874	1802	1708	1606	1486	1408	1264	953	810
		Med.	1631	1587	1542	1473	1395	1315	1218	967	821	533
		Low	1447	1431	1401	1363	1304	1241	1098	844	751	712
	MC42C	High	1825	1742	1660	1578	1486	1396	1306	1187	802	577
16C	MC43C MC35C	Med.	1637	1572	1507	1431	1361	1276	1171	1043	722	493
	WICSSC	Low	1510	1456	1403	1341	1278	1202	1088	785	684	456
	MC48C	High	2018	1895	1772	1649	1525	1402	1279	1156	1033	910
		Med.	1684	1595	1506	1417	1328	1240	1151	1062	973	884
		Low	1561	1476	1392	1308	1223	1139	1055	970	896	801
		High	2226	2190	2103	2035	1931	1845	1683	1541	1465	1328
	MC48D	Med.	2115	2087	2017	1951	1851	1744	1542	1466	1406	1254
		Low	N/A	N/A	N/A	1716	1643	1554	1451	1379	1292	1151
		High	2326	2235	2192	2107	2027	1906	1786	1538	1469	1368
20D	MC60D	Med.	2150	2089	2036	2008	1944	1852	1692	1499	1416	1295
		Low	2012	1923	1834	1718	1676	1600	1447	1389	1311	1200
	MOCAE	High	2357	2321	2254	2191	2139	1951	1859	1656	1556	1472
	MC61D MC62D	Med.	2212	2144	2111	2069	1986	1862	1727	1566	1498	1369
	1010020	Low	2066	1934	1910	1817	1723	1646	1514	1442	1381	1245

1. Includes return air filter, coil, and 10kW electric heater.

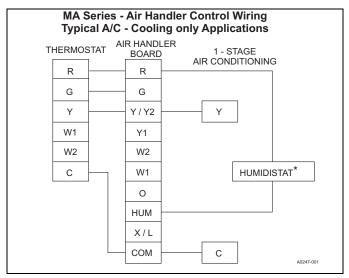


FIGURE 10: Control Wiring

- *Optional humidity switch contacts open on humidity rise. Notes:
- "Y" Terminal on Air Handler Control Board must be connected for full CFM and applications requiring 60 second blower off delay for SEER enhancement.
- 2. If humidistat is used, set HUM STAT jumper to YES.
- MODE Jumper on AH control board should be set to A/C for air conditioners and HP for heat pumps.

SECTION IX: MAINTENANCE

Filters must be cleaned or replaced when they become dirty. Inspect at least once per month. The frequency of cleaning depends upon the hours of operation and the local atmospheric conditions. Clean filters keep unit efficiency high.

LUBRICATION

The bearings of the blower motor are permanently lubricated.

SECTION X: START UP SHEET

Print Form

Residential Air Handler with Electric Heat Start-Up Sheet

Reset Form

Proper start-up is critical to customer comfort and equipment longevity

Start-Up Date	Company Na	ıme			Start-Up	Гесhnician		
Owner Information								
Name	Ac	dress				Daytime Phone		
City		State or P	rovince		Zip or Postal Code			
						, , , , , , , , , , , , , , , , , , , ,		
Unit Model #			it Serial #					
General Information	n (Check all th							
New Construction	(Crieck all til		flow		0	Horizontal Left		
Retrofit			wn flow		0	Horizontal Right		
Unit Location and Connections (Check all that apply)								
☐ Unit is level ☐ Duct connections are complete: ☐ Supply ☐ Return								
Condensate drain pro	perly connected	l per the ins	tallation ir	nstructions	Conde	ensate trap has been pi	rimed with water	
Filters								
Filters installed Nun	nber of filters	Filt	er size					
Electrical Connecti	ons & Inspe	ection (Co	omplete a	ll that apply)				
○ 208 volts AC	230 volt AC							
Inspect wires and elec	trical connectio	ns 🔲 T	ransforme	r wired properly	for primary	supply voltage	Ground connected	
Line Voltage Measured (Volts AC)	Lo	ow voltage	e value between	"R" and "C'	at control board (Volt	s AC)	
Thermostat wiring i	s complete 🗌	Thermost	at cycle ra	te or heat anticip	oator adjus	ted to Installation Man	ual specifications	
Air Flow Setup								
		COOL	\bigcirc A	С	В	○ c	○ D	
Blower Type	○ ECM	ADJUST	\bigcirc A	С	В	○ c	\bigcirc D	
&		DELAY	\bigcirc A	С	В	○ c	○ D	
Set-Up		HEAT	\bigcirc A	С	В	○ c	○ D	
	○ X-13	<u> </u>	○2	С	3	<u> </u>	<u></u>	
	○ PSC	CLow	○Med	dium Low	Medium	Medium High	○ High	
Supply static (inches of w	ater column)	Supp	ly air dry b	oulb temperature	e	Outside air dry bulb te	mperature	
Return static (inches of wa	ater column)	Retur	n air dry b	oulb temperature	ġ [Return air wet bulb ter	mperature	
Total external static press	Total external static pressure Temperature drop Supply air wet bulb temperature							
Other Jumpers (Che	eck all that app	ly)						
HUM STAT O YES O NO AC/HP O AC O HP CONT FAN O L O M O H								

Continued on next Page

Electric Heat (Con	nplete all that apply)					
Electric heat kit - Model number			Serial number		Rated KW	
Number of elements		Heater 1		Heater 2	Heate	r 3
	Measured Amperage Heater 4			Heater 5	Heate	r 6
	Heater 1 Measured Voltage Heater 4			Heater 2	Heater 2 Heater 3	
				Heater 5		
Hardin at a section				neater 3	Пеасе	
Heating return air dry bulb temperatur				Air temperature rise		
Clean Up Job Site						
Job site has been cleaned, indoor and outdoor debris removed from job site						
Tools have been removed from unit						
All panels have been installed						
Unit Operation and Cycle Test (Complete all that apply)						
Operate the unit through continuous fan cycles from the thermostat, noting and correcting any problems						
Operate the unit through cooling cycles from the thermostat, noting and correcting any problems						
Operate the unit through mechanical heating cycles from the thermostat, noting and correcting any problems						
Operate the unit through emergency heating cycles from the thermostat, noting and correcting any problems						
Owner Education						
Provide owner with the owner's manual						
Explain operation of system to equipment owner						
Explain thermostat use and programming (if applicable) to owner						
Explain the importance of regular filter replacement and equipment maintenance						
Comments and Additional Job Details						