AIR FLOW DATA (CFM)

High/Low Speed Cooling and Heat Pump CFM										
CFM										
Cool Tap	ADJ Tap	MVC08B		MVC12B		MVC14D		MVC16C		MVC20D	
		High	Low	High	Low	High	Low	High	Low	High	Low
A	B	1022	562	1350	878	1425	1037	1760	1144	1935	1316
B	B	795	437	1238	804	1425	910	1540	1001	1772	1152
A	A	900	495	1200	780	1425	926	1600	1040	1800	1170
B	A	700	385	1100	715	1250	813	1400	910	1575	1024
A	C	783	431	1050	683	1268	824	1424	926	1665	1082
C	B	766	421	1125	731	1344	874	1320	858	1491	969
B	C	609	335	963	626	1113	723	1246	810	1457	947
D	B	568	312	900	585	1120	728	1100	715	1350	878
C	A	675	371	1000	650	1200	780	1200	780	1325	861
D	A	500	275	800	520	1000	650	1000	650	1200	780
C	C	587	323	875	569	1068	694	1068	694	1226	797
D	C	435	239	700	455	890	579	890	579	1110	722
m^3/min											
Cool Tap	ADJ Tap	MVC08B		MVC12B		MVC14D		MVC16C		MVC20D	
		High	Low	High	Low	High	Low	High	Low	High	Low
A	B	28.9	15.9	38.2	24.8	40.4	29.4	49.8	32.4	54.8	37.3
B	B	22.5	12.4	35.0	22.8	40.4	25.8	43.6	28.3	50.2	32.6
A	A	25.5	14.0	34.0	22.1	40.4	26.2	45.3	29.4	51.0	33.1
B	A	19.8	10.9	31.1	20.2	35.4	23.0	39.6	25.8	44.6	29.0
A	C	22.2	12.2	29.7	19.3	35.9	23.3	40.3	26.2	47.1	30.6
C	B	21.7	11.9	31.9	20.7	38.1	24.7	37.4	24.3	42.2	27.4
B	C	17.2	9.5	27.3	17.7	31.5	20.5	35.3	22.9	41.3	26.8
D	B	16.1	8.8	25.5	16.6	31.7	20.6	31.1	20.2	38.2	24.8
C	A	19.1	10.5	28.3	18.4	34.0	22.1	34.0	22.1	37.5	24.4
D	A	14.2	7.8	22.7	14.7	28.3	18.4	28.3	18.4	34.0	22.1
C	C	16.6	9.1	24.8	16.1	30.2	19.7	30.2	19.7	34.7	22.6
D	C	12.3	6.8	19.8	12.9	25.2	16.4	25.2	16.4	31.4	20.4
High/Low Speed Heat CFM											
CFM											
Heat Tap		MVC08B		MVC12B		MVC14D		MVC16C		MVC20D	
		High	Low	High	Low	High	Low	High	Low	High	Low
A		1025	980	1225	1020	1425	1050	1650	1200	1825	1150
B		960	960	1150	950	1325	1000	1550	1150	1775	1050
C		725	725	950	750	1125	950	1375	1050	1570	1000
D		580	580	725	725	900	900	1150	1000	1375	950
m^3/min											
Heat Tap		MVC08B		MVC12B		MVC14D		MVC16C		MVC20D	
		High	Low	High	Low	High	Low	High	Low	High	Low
A		29.0	27.8	34.7	28.9	40.4	29.7	46.7	34.0	51.7	32.6
B		27.2	27.2	32.6	26.9	37.5	28.3	43.9	32.6	50.3	29.7
C		20.5	20.5	26.9	21.2	31.9	26.9	38.9	29.7	44.5	28.3
D		16.4	16.4	20.5	20.5	25.5	25.5	32.6	28.3	38.9	26.9

NOTES: Air handler units have been tested to UL 1995 / CSA 22.2 standards up to 0.50" wc. external static pressure.
Dry coil conditions only, tested without filters.
For optimal performance, external static pressures of 0.2" to 0.5" are recommended. Applications above 0.5" are not recommended. Above 0.5" CFM is reduced by 2% per 0.1" increase in static.
The ADJ tap does not affect the HEAT tap setting
Low speed cooling used only with two stage outdoor units. Speed is preset to 65% of high speed.
Dehumidification speed is 85% of jumper selected COOL tap and ADJUST tap
When operating in both heat pump and electric heat modes, the airflow (CFM) will be per HEAT tap CFM values only.
At some settings, LOW COOL and/or LOW HEAT airflow may be lower than what is required to operate an airflow switch on certain models of electronic air cleaners. Consult the instructions for the electronic air cleaner for further details
Airflow (CFM) indicator light (LED2) flashes once for every 100 CFM (i.e.: 12 flashes is 1200 CFM) - blinks are approximate +/- 10% of actual CFM

FAULT CODES

Fault or Status Condition	LED1 (RED)
Status	**Flash Code**
No power to control	OFF
Internal control fault	ON
2 sec on 2 sec off heartbeat	Normal
0.1 sec on, 0.1 sec off	Test mode
Call for heat and cool at the same time	7
Model Plug Not inserted	8
Internal fault self-corrected, attempting normal operation	9

See installation instructions for further details on these blower delay profiles.

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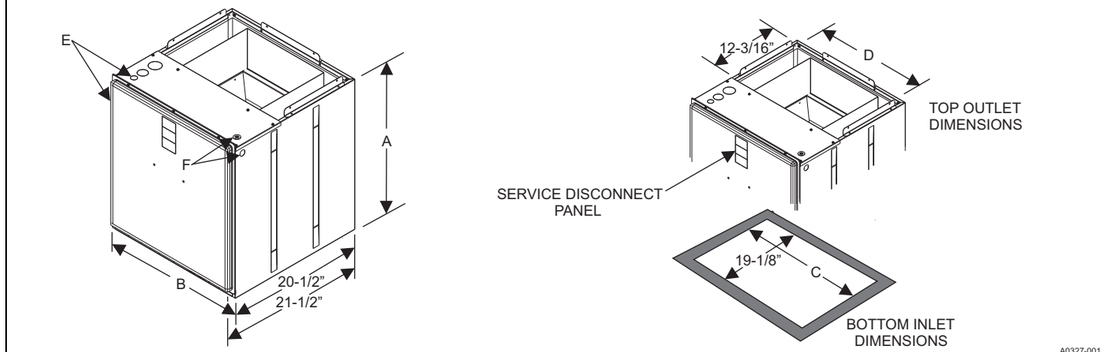
Supersedes: Nothing

York International Corp.
5005 York Drive
Norman, OK 73069

QUICK REFERENCE GUIDE

MODULAR VARIABLE SPEED ECM MULTI-POSITION RESIDENTIAL AIR HANDLERS

This document does not replace the installation instructions, which must be referred to for detailed information.



DIMENSIONS[1]

Models	Dimensions[1]				Wiring Knockout Dimensions[1, 2]		Models	Dimensions[3]	
	A	B	C	D	E	F		A	B
	Height	Width			Power (Conduit)	Control (Conduit)		Height	Width
MVC08BN21	21-1/2	17-1/2	16-1/2	16-1/2	7/8 (1/2) 1-3/8 (1) 1-23/32 (1-1/4)	7/8 (1/2)	MVC08BN21	21-1/2	17-1/2
MVC12BN21	21-1/2	17-1/2	16-1/2	16-1/2			MVC12BN21	21-1/2	17-1/2
MVC14DN21	22-1/2	24-1/2	23-1/2	23-1/2			MVC14DN21	22-1/2	24-1/2
MVC16CN21	22-1/2	21	20	20			MVC16CN21	22-1/2	21
MVC20DN21	22-1/2	24-1/2	23-1/2	23-1/2			MVC20DN21	22-1/2	24-1/2

1. All dimensions are in inches.
2. Knockout size (conduit size in parentheses).
3. All dimensions are in inches.

NOTES:

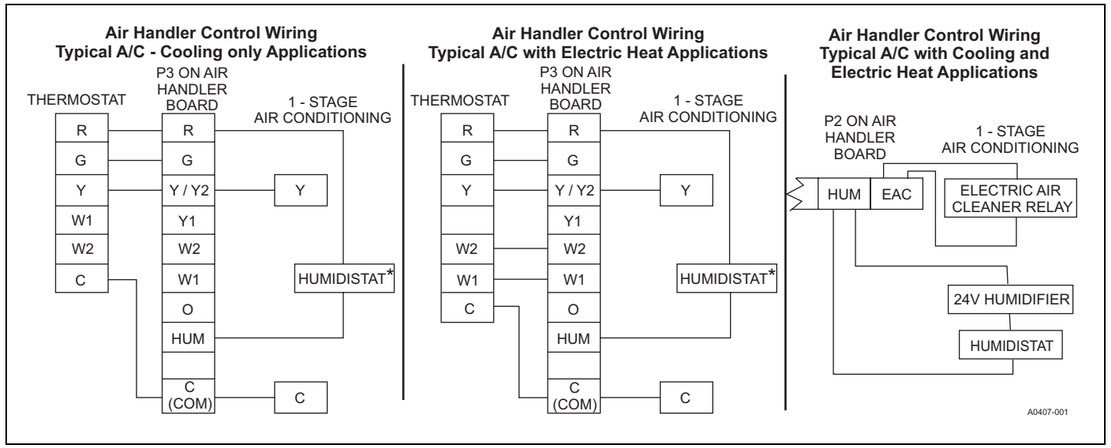
1. The controls may require correct polarity on the power supply and a proper ground.
2. These units are rated for use with single phase 230 or 208 volts supply power.
3. Use of flexible duct connectors are recommended.
4. Supply air duct work must remain the size of the supply opening for the first 12" before transition to correct duct size.
5. Return and supply duct may be fastened to the bottom or sides of the air handler using screws no longer than 1/2" in length.
6. Line voltage electrical knockouts are available on left top and left casing side. See installation instructions for information on proper sizing of over current protection and supply wire sizes.
7. Low voltage electrical knockouts are available on right top and right casing side.
8. Seal electrical openings and duct connections to prevent air infiltration.
9. If the air handler is used with an indoor coil and is to be installed above a finished ceiling, a secondary drain pan is recommended.
10. At start up, measure external duct static, and adjust blower speed accordingly.

CLEARANCES

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

1. Refrigerant piping and connections - minimum 12" recommended.
2. Maintenance and servicing access - minimum 36" from front of unit recommended for blower motor / coil replacement.
3. Condensate drain lines routed to clear filter and panel access.
4. Filter removal - minimum 36" recommended.
5. The duct work connected to this unit is designed for zero clearance to combustible materials.
6. A combustible floor base accessory is available for downflow applications of this unit, if required by local code.

TYPICAL THERMOSTAT CONNECTION

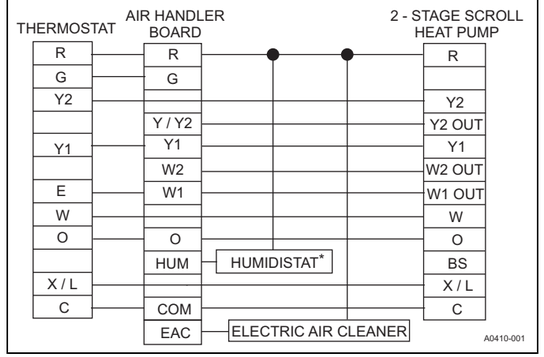


* Optional dehumidification humidistat switch contacts open on humidity rise.

NOTES:

1. "Y/Y2" Thermostat wire must be connected for full CFM and applications requiring 60 second blower off delay for SEER enhancement.
2. Move HUM STAT jumper on air handler control board to YES position if humidistat is used.
3. For heat pump applications - set AC/HP jumper on air handler control board to the HP position.

TYPICAL THERMOSTAT WIRING FOR 2-STAGE HEAT PUMP WITH ECM BLOWER MOTOR



* Optional dehumidification humidistat switch contacts open on humidity rise.

NOTES:

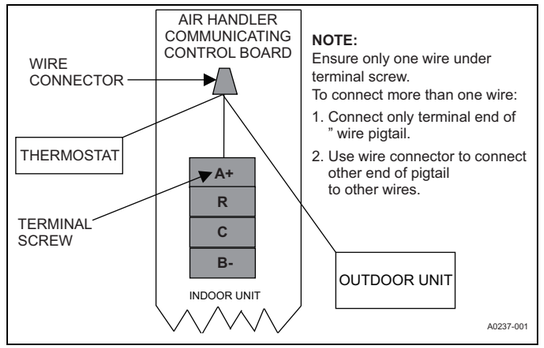
1. "Y/Y2" Thermostat wire must be connected for full CFM and applications requiring 60 second blower off delay for SEER enhancement.
2. Place humidistat jumper on air handler control board to YES.
3. For heat pump applications - set AC/HP jumper on air handler control board to the HP position.

AIR HANDLER WITH COMMUNICATING AC OR HP

IMPORTANT

Do not place more than one wire under any single communication terminal screw (there are four communication terminal screws). If more than one wire must be connected to a terminal screw, attach only the terminal end of a one wire pigtail no longer than 6", and use a wire connector to connect the other end of the pigtail to the other wires. Failure to do this will result in nuisance communication error faults. See Terminal Screw Wire Connection Figure.

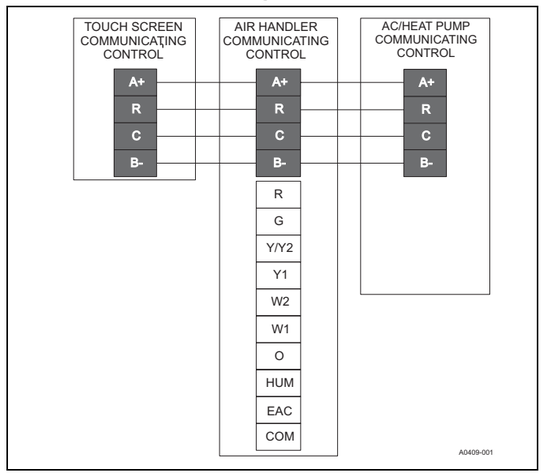
Air Handler and Communicating AC or HP Terminal Screw Wire Connection



NOTE:
Ensure only one wire under terminal screw.
To connect more than one wire:

1. Connect only terminal end of " wire pigtail.
2. Use wire connector to connect other end of pigtail to other wires.

Air Handler and Communicating AC or HP



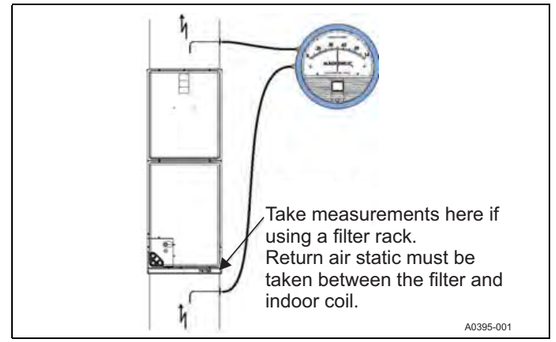
COMFORT SETTING SELECTIONS

DELAY TAP	COMFORT SETTING
A	Normal
B	Humid
C	Dry
D	Temperate

See installation instructions for further details on these blower delay profiles.

EXTERNAL DUCT STATIC

Measure the supply air static pressure. Record this positive number. Measure the return air static pressure. Record this negative number. Treat the negative number as a positive, and add the two numbers together. This is total system static. If a filter rack is installed on the return air end of the air handler or indoor coil section, the return air duct static must be measured between the filter and the indoor coil.



ELECTRICAL HEAT: MINIMUM FAN SPEED

Heater Kit Models[1,2]	Nom. kW @240V	Air Handler Models				
		MVC08B	MVC12B	MVC14D	MVC16C	MVC20D
6HK(0,1)6500206	2.4kW	Med Lo (D)	Med Lo (D)	Med Lo (D)	Med (C)	Med Lo (D)
6HK(0,1)6500506	4.8kW	Med (C)	Med Lo (D)	Med Lo (D)	Med (C)	Med Lo (D)
6HK(0,1)6500806	7.7kW	Med Hi (B)	Med Lo (D)	Med (C)	Med (C)	Med Lo (D)
6HK(0,1)6501006	9.6kW	Med Hi (B)	Med Lo (D)	Med (C)	Med (C)	Med Lo (D)
6HK(1,2)6501306	12.5kW	Hi (A)	Med Hi (B)	Med (C)	Med (C)	Med Lo (D)
6HK(1,2)6501506	14.4kW	-	Hi (A)	Med (C)	Med (C)	Med Lo (D)
6HK(1,2)6501806	17.3kW	-	Hi (A)	Med Hi (B)	Med (C)	Med (C)
6HK(1,2)6502006	19.2kW	-	Hi (A)	-	Med Hi (B)	Med (C)
6HK(1,2)6502506	24kW	-	-	-	-	Med (C)

1. (0,1) - 0 = no circuit breaker OR 1 = with circuit breaker.
2. (1,2) - 1 = with circuit breaker, no breaker jumper bar OR 2 = with circuit breaker & breaker jumper bar.

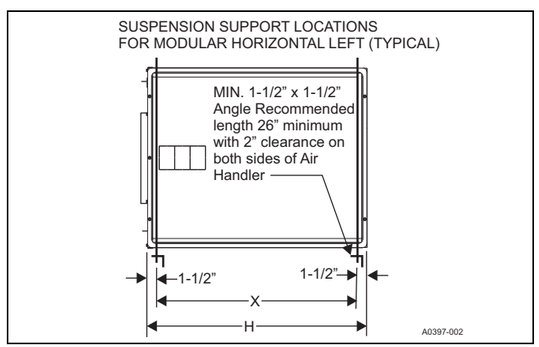
HORIZONTAL SUSPENSION

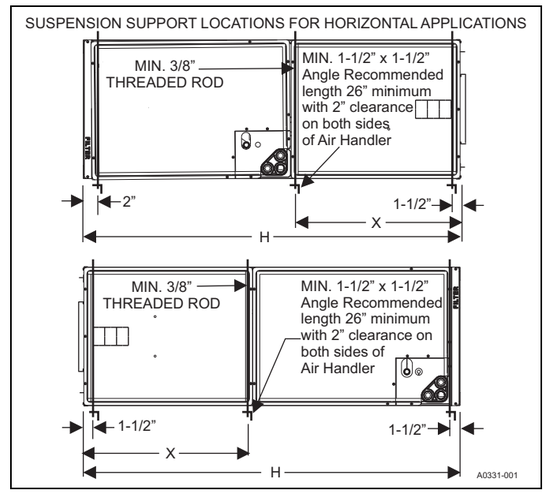
These air handlers may be suspended in horizontal applications. It is recommended to use angle steel support brackets with minimum 3/8" threaded rods, supporting the unit from the bottom. Attach the threaded rods at the locations shown in the Figure 6, leaving enough clearance between door and rod so that doors maybe easily removed for service.

NOTICE

When assembling the support structure, make sure to size to provide clearance for access door removal.

Air Handler Cabinet Size	Dimensions	
	H	X
MVC08B	21-1/2"	18.1/2"
MVC12B		
MVC14D	22-1/2"	19-1/2"
MVC16C		
MVC20D		





(Cabinet Width) Position	Dimensions	
	H	X
(17-1/2") Horizontal Left	40-1/2" – 47-1/2"	20"
(21" thru 24-1/2") Horizontal Left	43-1/2" – 55-1/2"	21"
(17-1/2") Horizontal Right	40-1/2" – 47-1/2"	20"
(21" thru 24-1/2") Horizontal Right	43-1/2" – 55-1/2"	21"