



AMVC8/ADVC8 TWO-STAGE, VARIABLE SPEED GAS FURNACE

80% AFUE

HEATING INPUT: 60,000-100,000 BTU/H

Standard Features

- MillionAir® stainless-steel, dual-diameter tubular heat exchanger
- Two-stage gas valve operates on two-stage or single-stage thermostats
- ComfortNet™ Communications System compatible
- Efficient and quiet variable-speed ECM circulator motor gently ramps up or down according to heating or cooling demand
- SureStart® Silicon Nitride igniter designed for long igniter life
- Furnace control board with self-diagnostics and provisions for electronic air cleaner and 120-volt or 24-volt humidifiers
- Low constant fan speed circulates air throughout the home.
- Quiet, two-speed induced draft blower
- California Low NOx emissions-compliant models available

MILLION-AIR
STAINLESS-STEEL
HEAT EXCHANGER

Cabinet Features

- Fully insulated, heavy-gauge steel cabinet with durable baked-enamel finish
- Designed for multi-position installation: upflow, horizontal left or right
- Removable bottom for side- or bottom-return applications
- Convenient left or right connection for gas/electric service
- Coil and furnace fit flush for most installations



Contents

Nomenclature	2
Product Specifications	3
Dimensions	4
Airflow Data	6
Wiring Diagram	11
Accessories	12



* Complete warranty details available from your local dealer or at www.amana-hac.com. To receive the Lifetime Unit Replacement Limited Warranty and Lifetime Heat Exchanger Limited Warranty (in both cases, good for as long as you own your home) plus the 10-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Online registration is not required in California or Québec.

NOMENCLATURE

	A	M	V	C	8	060	4	C	*	*	*
	1	2	3	4	5	6,7,8	9	10	11	12	13
Brand	A Amana® Brand								Revisions		
									Major and Minor Revisions		
Airflow Direction	C Downflow/Horizontal D Dedicated Downflow H High Airflow K Dedicated Upflow M Upflow/Horizontal								NOx		
									N Natural Gas X Low NOx		
Description/Motor	V Two-Stage/Variable-speed H Two-Stage/Multi-speed S Single-Stage/Multi-speed E Two-Stage/High-Efficiency								Cabinet Width		
									A 14" B 17½" C 21" D 24½"		
SystemType	C ComfortNet™ Communicating System								Maximum CFM @ 0.5" ESP		
									3 1200 4 1600 5 2000		
AFUE	95 95% 8 80% 9 90%+								MBTU/h		
									040: 40,000 100: 100,000 060: 60,000 120: 120,000 080: 80,000		



SPECIFICATIONS

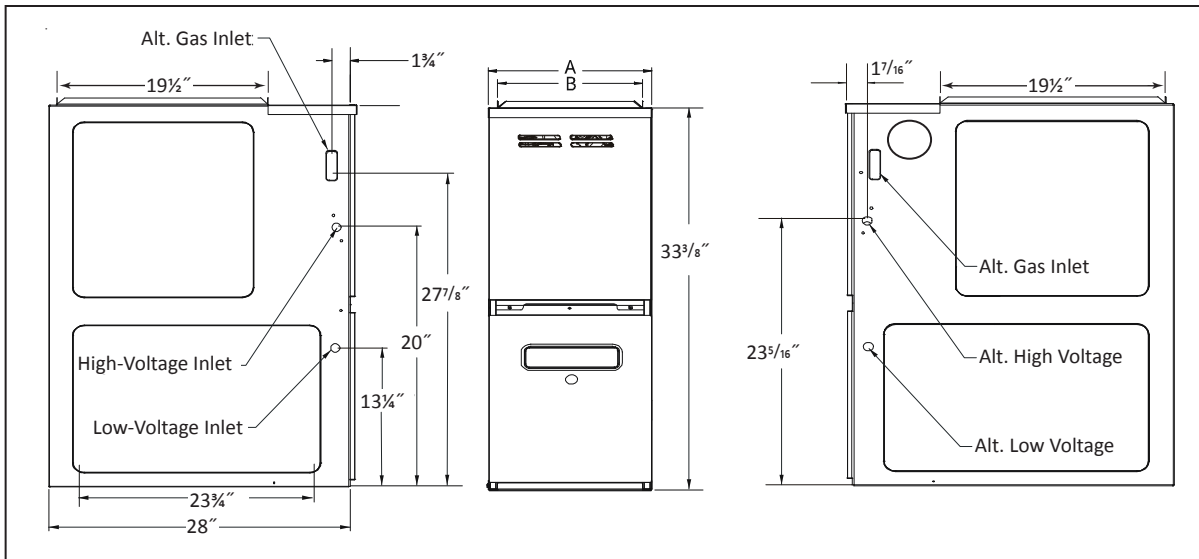
	AMVC8 0604B*B	AMVC8 0805C*B	AMVC8 1005C*B	ADVC8 0603B*B	ADVC8 0805C*B	ADVC8 1005C*B
HEATING CAPACITY						
High Fire Input (BTU/h) ¹	60,000	80,000	100,000	60,000	80,000	100,000
High Fire Output (BTU/h) ¹ (below)						
Natural Gas	48,000	64,000	80,000	48,000	64,000	80,000
LP Gas	48,000	64,000	80,000	48,000	64,000	80,000
Low Fire Input (BTU/h) ¹	42,000	56,000	70,000	42,000	56,000	70,000
Low Fire Output (BTU/h) ¹ (below)						
Natural Gas	33,600	44,800	56,000	33,600	44,800	56,000
LP Gas	33,600	44,800	56,000	33,600	44,800	56,000
AFUE ²	80	80	80	80	80	80
Available AC @ 0.5" ESP	1.5 - 4.0	2.0 - 5.0	2.0 - 5.0	1.5 - 3.0	2.0 - 5.0	2.0 - 5.0
Temperature Rise Range (° F)	20 - 50	20 - 50	25 - 55	30-60	35 - 65	35-65
CIRCULATOR BLOWER						
Size (D x W)	10" x 8"	10" x 10"	10" x 10"	10" x 8"	10" x 10"	10" x 10"
Horsepower - RPM	¾	¾	¾	¾	¾	¾
Speed	Variable	Variable	Variable	Variable	Variable	Variable
Vent Diameter ²	4"	4"	4"	4"	4"	4"
No. of Burners	3	4	5	3	4	5
Disposable Filter Size (in ²)	610	813	1,016	474	569	711
ELECTRICAL DATA						
Min. Circuit Ampacity ³	12.1	12.1	12.1	12.1	12.1	12.1
Max. Overcurrent Device (amps) ⁴	15	15	15	15	15	15
SHIP WEIGHT (LBS)	152	178	194	155	177	193

- ¹ Natural Gas BTU/h; for altitudes above from 0' to 4,500' above sea level, reduce input rating 4% for each 1,000' above 4,500' altitude. Low-fire rate is 75% of high-fire rate.
- ² DOE AFUE based upon Isolated Combustion System (ICS)
- ³ Minimum Circuit Ampacity = (1.25 x Circulator Blower Amps) + ID Blower amps. Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.
- ⁴ Maximum Overcurrent Protection Device refers to maximum recommended fuse or circuit breaker size. May use fuses or HACR-type circuit breakers of the same size as noted.

NOTES

- All furnaces are manufactured for use on 115 VAC, 60 Hz, single-phase electrical supply.
- Gas Service Connection ½" FPT
- Important: Size fuses and wires properly and make electrical connections in accordance with the National Electrical Code and/or all existing local codes.

AMVC8 DIMENSIONS



DIMENSIONS

MODEL	A	B
AMVC80604B**	17 1/2"	16"
AMVC80805C**	21"	19 1/2"
AMVC81005C**	21"	19 1/2"

MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS

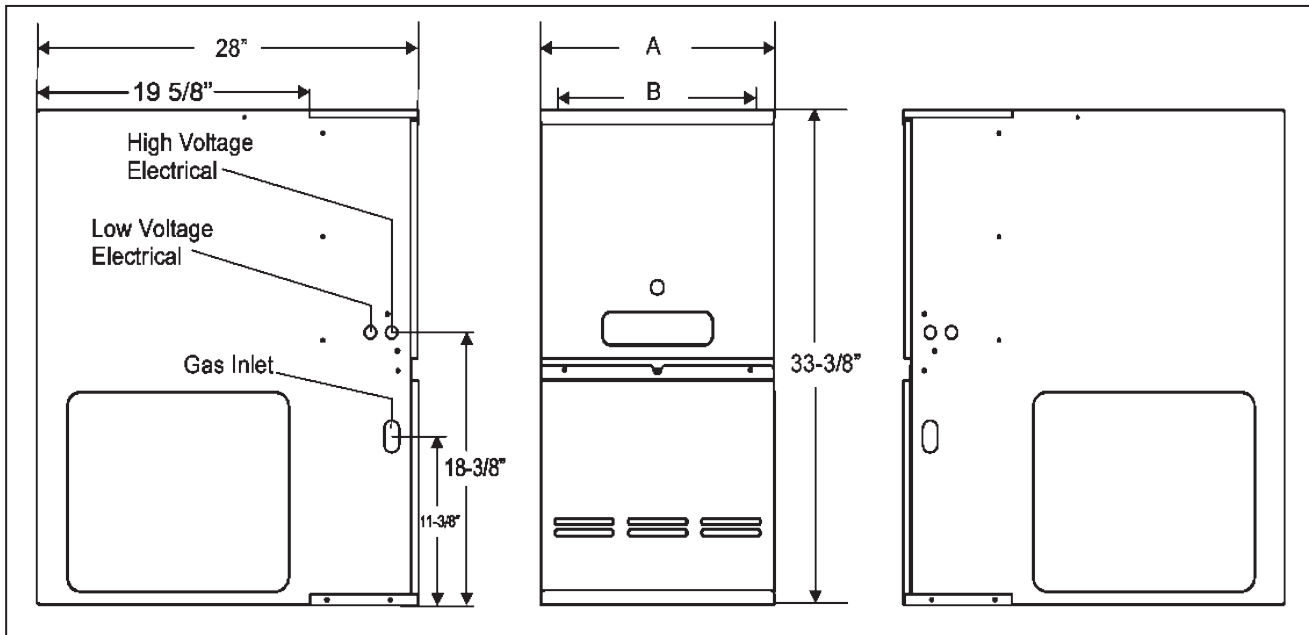
SIDES	REAR	FRONT ¹	VENT ²		TOP
			SW	B	
1	0	3	6	1	1

Approved for line contact in the horizontal position.

¹ 24" clearance for serviceability recommended.

² Single Wall Vent (SW) to be used only as a connector. Refer to the venting tables outlined in the Installation Manual for additional venting requirements.

ADVC8 DIMENSIONS



DIMENSIONS

MODEL	A	B
ADVC80603B**	17½"	16"
ADVC80805C**	21"	19½"
ADVC81005C**	21"	19½"

MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS

SIDES	REAR	FRONT ¹	VENT ²		TOP
			SW	B	
1	0	3	6	1	1

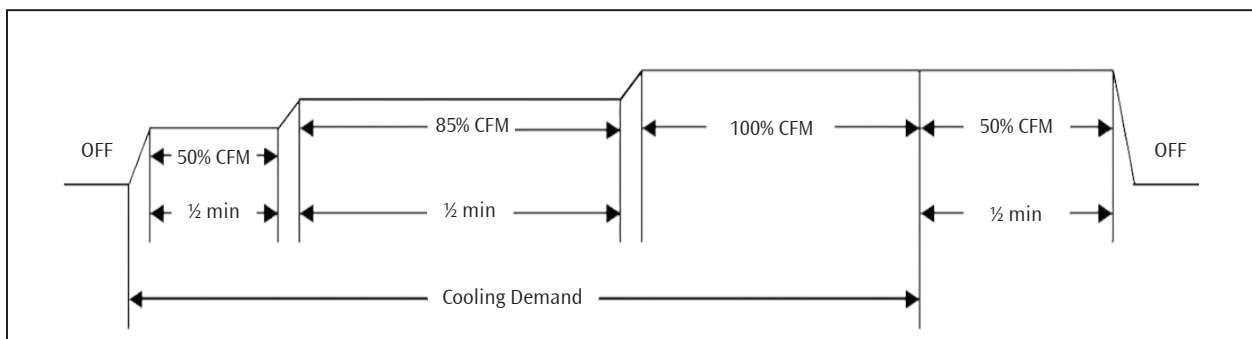
Approved for line contact in the horizontal position.

¹ 24" clearance for serviceability recommended.

² Single Wall Vent (SW) to be used only as a connector. Refer to the venting tables outlined in the Installation Manual for additional venting requirements.

AUTO-COMFORT MODE

During Auto-Comfort mode, the furnace ramps up to 50% of the demand for half a minute. It then ramps to 85% of the full cooling demand airflow and operates there for approximately 7½ minutes. The motor then steps up to the full demand airflow. This mode spends a half minute at 50% airflow OFF delay.



AMVC8 AIRFLOW DATA

HIGH- OR SINGLE-STAGE COOLING SPEEDS

AMVC80604B**		
COOLING SPEED TAP	ADJUST TAP	CFM ¹
A	Minus (-)	540
	Normal	600
	Plus (+)	660
B	Minus (-)	720
	Normal	800
	Plus (+)	880
C	Minus (-)	990
	Normal	1,100
	Plus (+)	1,210
D	Minus (-)	1,260
	Normal	1,400
	Plus (+)	1,540

AMVC80805C**		
COOLING SPEED TAP	ADJUST TAP	CFM ¹
A	Minus (-)	720
	Normal	800
	Plus (+)	880
B	Minus (-)	990
	Normal	1,100
	Plus (+)	1,210
C	Minus (-)	1,260
	Normal	1,400
	Plus (+)	1,540
D	Minus (-)	1,620
	Normal	1,800
	Plus (+)	1,980

AMVC81005C**		
COOLING SPEED TAP	ADJUST TAP	CFM ¹
A	Minus (-)	720
	Normal	800
	Plus (+)	880
B	Minus (-)	990
	Normal	1,100
	Plus (+)	1,210
C	Minus (-)	1,260
	Normal	1,400
	Plus (+)	1,540
D	Minus (-)	1,620
	Normal	1,800
	Plus (+)	1,980

LOW-STAGE COOLING SPEEDS

AMVC80604B**		
COOLING SPEED TAP	ADJUST TAP	CFM ¹
A	Minus (-)	351
	Normal	390
	Plus (+)	429
B	Minus (-)	468
	Normal	520
	Plus (+)	572
C	Minus (-)	644
	Normal	715
	Plus (+)	787
D	Minus (-)	819
	Normal	910
	Plus (+)	1,001

AMVC80805C**		
COOLING SPEED TAP	ADJUST TAP	CFM ¹
A	Minus (-)	468
	Normal	520
	Plus (+)	572
B	Minus (-)	644
	Normal	715
	Plus (+)	787
C	Minus (-)	819
	Normal	910
	Plus (+)	1,001
D	Minus (-)	1,053
	Normal	1,170
	Plus (+)	1,287

AMVC81005C**		
COOLING SPEED TAP	ADJUST TAP	CFM ¹
A	Minus (-)	468
	Normal	520
	Plus (+)	572
B	Minus (-)	644
	Normal	715
	Plus (+)	787
C	Minus (-)	819
	Normal	910
	Plus (+)	1,001
D	Minus (-)	1,053
	Normal	1,170
	Plus (+)	1,287

¹ @ .1" to .8" W.C. ESP

AMVC8 AIRFLOW DATA (CONT.)

HEATING SPEEDS

AMVC80604B**
(RISE RANGE: 20° - 50°F)

COOLING SPEED TAP	ADJUST TAP	LOW-STAGE CFM ¹	HIGH-STAGE CFM ¹	RISE (°F)
A	Minus (-)	790	1125	46
	Normal	875	1250	41
	Plus (+)	960	1375	38
B	Minus (-)	850	1215	43
	Normal	945	1350	38
	Plus (+)	1040	1485	35
C	Minus (-)	915	1305	40
	Normal	1015	1450	36
	Plus (+)	1115	1595	33
D	Minus (-)	975	1395	37
	Normal	1085	1550	33
	Plus (+)	1195	1705	30

AMVC81005C**
(RISE RANGE: 25° - 55°F)

COOLING SPEED TAP	ADJUST TAP	LOW-STAGE CFM ¹	HIGH-STAGE CFM ¹	RISE (°F)
A	Minus (-)	1090	1555	55
	Normal	1210	1725	49
	Plus (+)	1330	1900	45
B	Minus (-)	1105	1575	54
	Normal	1225	1750	49
	Plus (+)	1350	1925	44
C	Minus (-)	1120	1600	53
	Normal	1245	1775	48
	Plus (+)	1370	1955	44
D	Minus (-)	1135	1620	53
	Normal	1260	1800	47
	Plus (+)	1385	1980	43

AMVC80805C**
(RISE RANGE: 20° - 50°F)

COOLING SPEED TAP	ADJUST TAP	LOW-STAGE CFM ¹	HIGH-STAGE CFM ¹	RISE (°F)
A	Minus (-)	945	1350	49
	Normal	1050	1500	44
	Plus (+)	1155	1650	40
B	Minus (-)	1010	1440	46
	Normal	1120	1600	42
	Plus (+)	1230	1760	38
C	Minus (-)	1070	1530	44
	Normal	1190	1700	39
	Plus (+)	1310	1870	36
D	Minus (-)	1135	1620	41
	Normal	1260	1800	37
	Plus (+)	1385	1980	34

¹ @ .1" to .8" W.C. ESP

NOTES

- These charts are for furnaces installed at 0' - 4,500'. At higher altitudes, a properly de-rated unit will have the same temperature rise at a particular CFM, while the ESP at that CFM will be lower.
- The installation must be adjusted to obtain a temperature rise within the range listed on the furnace nameplate.
- Do not operate above .5" w.c. ESP in heating mode.
- Propane gas installations will have a high-stage rise approximately 4°F lower than shown in the tables.

CONTINUOUS FAN SPEEDS

MODEL	FURNACE MAXIMUM CFM	CONTINUOUS FAN SPEED ^{1,2}
AMVC80604B**	1760	440
AMVC80805C**	2000	500
AMVC81005C**	2000	500

¹ Continuous fan speed is 25% of furnace maximum CFM

² Three continuous fan speeds are possible with the CTK01AA thermostat: 25%, 50%, and 75% of furnace maximum CFM

ADVC8 AIRFLOW DATA

HIGH- OR SINGLE-STAGE COOLING SPEEDS

ADVC80603B**

COOLING SPEED TAP	ADJUST TAP	CFM ¹
A	Minus (-)	540
	Normal	600
	Plus (+)	660
B	Minus (-)	720
	Normal	800
	Plus (+)	880
C	Minus (-)	900
	Normal	1,000
	Plus (+)	1,100
D	Minus (-)	1,080
	Normal	1,200
	Plus (+)	1,320

ADVC80805C**

COOLING SPEED TAP	ADJUST TAP	CFM ¹
A	Minus (-)	720
	Normal	800
	Plus (+)	880
B	Minus (-)	990
	Normal	1,100
	Plus (+)	1,210
C	Minus (-)	1,260
	Normal	1,400
	Plus (+)	1,540
D	Minus (-)	1,620
	Normal	1,800
	Plus (+)	1,980

ADVC81005C**

COOLING SPEED TAP	ADJUST TAP	CFM ¹
A	Minus (-)	765
	Normal	850
	Plus (+)	935
B	Minus (-)	1,035
	Normal	1,150
	Plus (+)	1,265
C	Minus (-)	1,305
	Normal	1,450
	Plus (+)	1,595
D	Minus (-)	1,665
	Normal	1,850
	Plus (+)	2000*

LOW-STAGE COOLING SPEEDS

ADVC80603B**

COOLING SPEED TAP	ADJUST TAP	CFM ¹
A	Minus (-)	351
	Normal	390
	Plus (+)	429
B	Minus (-)	468
	Normal	520
	Plus (+)	572
C	Minus (-)	585
	Normal	650
	Plus (+)	715
D	Minus (-)	702
	Normal	780
	Plus (+)	858

ADVC80805C**

COOLING SPEED TAP	ADJUST TAP	CFM ¹
A	Minus (-)	468
	Normal	520
	Plus (+)	572
B	Minus (-)	644
	Normal	715
	Plus (+)	787
C	Minus (-)	819
	Normal	910
	Plus (+)	1,001
D	Minus (-)	1,053
	Normal	1,170
	Plus (+)	1,287

ADVC81005C**

COOLING SPEED TAP	ADJUST TAP	CFM ¹
A	Minus (-)	497
	Normal	553
	Plus (+)	608
B	Minus (-)	673
	Normal	748
	Plus (+)	822
C	Minus (-)	848
	Normal	943
	Plus (+)	1,037
D	Minus (-)	1,082
	Normal	1,203
	Plus (+)	1,323

¹ @ .1" to .8" W.C. ESP

NOTES

- These charts are for furnaces installed at 0' - 4,500'. At higher altitudes, a properly de-rated unit will have the same temperature rise at a particular CFM, while the ESP at that CFM will be lower.
- THE INSTALLATION MUST BE ADJUSTED TO OBTAIN A TEMPERATURE RISE WITHIN THE RANGE LISTED ON THE FURNACE NAMEPLATE.
- Propane gas installations will have a high-stage rise approximately 4° lower than shown in the tables.

ADVC8 AIRFLOW DATA (CONT.)

HEATING SPEEDS

ADVC80603B**
(RISE RANGE: 30° - 60°F)

COOLING SPEED TAP	ADJUST TAP	LOW-STAGE CFM ¹	HIGH-STAGE CFM ¹	RISE (°F)
A	Minus (-)	660	945	55
	Normal	735	1050	49
	Plus (+)	810	1155	45
B	Minus (-)	725	1035	50
	Normal	805	1150	45
	Plus (+)	885	1265	41
C	Minus (-)	790	1125	46
	Normal	875	1250	41
	Plus (+)	960	1375	38
D	Minus (-)	850	1215	43
	Normal	945	1350	38
	Plus (+)	1040	1485	35

ADVC80805C*B
(RISE RANGE: 35° - 65°F)

COOLING SPEED TAP	ADJUST TAP	LOW-STAGE CFM ¹	HIGH-STAGE CFM ¹	RISE (°F)
A	Minus (-)	850	1,215	55
	Normal	945	1,350	49
	Plus (+)	1,040	1,485	45
B	Minus (-)	915	1,305	51
	Normal	1,015	1,450	46
	Plus (+)	1,115	1,595	42
C	Minus (-)	975	1,395	48
	Normal	1,085	1,550	43
	Plus (+)	1,195	1,705	39
D	Minus (-)	1,040	1,485	45
	Normal	1,155	1,650	40
	Plus (+)	1,270	1,815	37

ADVC81005C**
(RISE RANGE: 35° - 65°F)

COOLING SPEED TAP	ADJUST TAP	LOW-STAGE CFM ¹	HIGH-STAGE CFM ¹	RISE (°F)
A	Minus (-)	975	1395	61
	Normal	1085	1550	55
	Plus (+)	1195	1705	50
B	Minus (-)	1040	1485	57
	Normal	1155	1650	52
	Plus (+)	1270	1815	47
C	Minus (-)	1105	1575	54
	Normal	1225	1750	49
	Plus (+)	1350	1925	44
D	Minus (-)	1135	1620	53
	Normal	1260	1800	47
	Plus (+)	1385	1980	43

NOTES

- These charts are for furnaces installed at 0' - 4,500'. At higher altitudes, a properly de-rated unit will have the same temperature rise at a particular CFM, while the ESP at that CFM will be lower.
- The installation must be adjusted to obtain a temperature rise within the range listed on the furnace nameplate.
- Do not operate above .5" w.c. ESP in heating mode.
- Propane gas installations will have a high-stage rise approximately 4°F lower than shown in the tables.

¹ @ .1" to .8" W.C. ESP

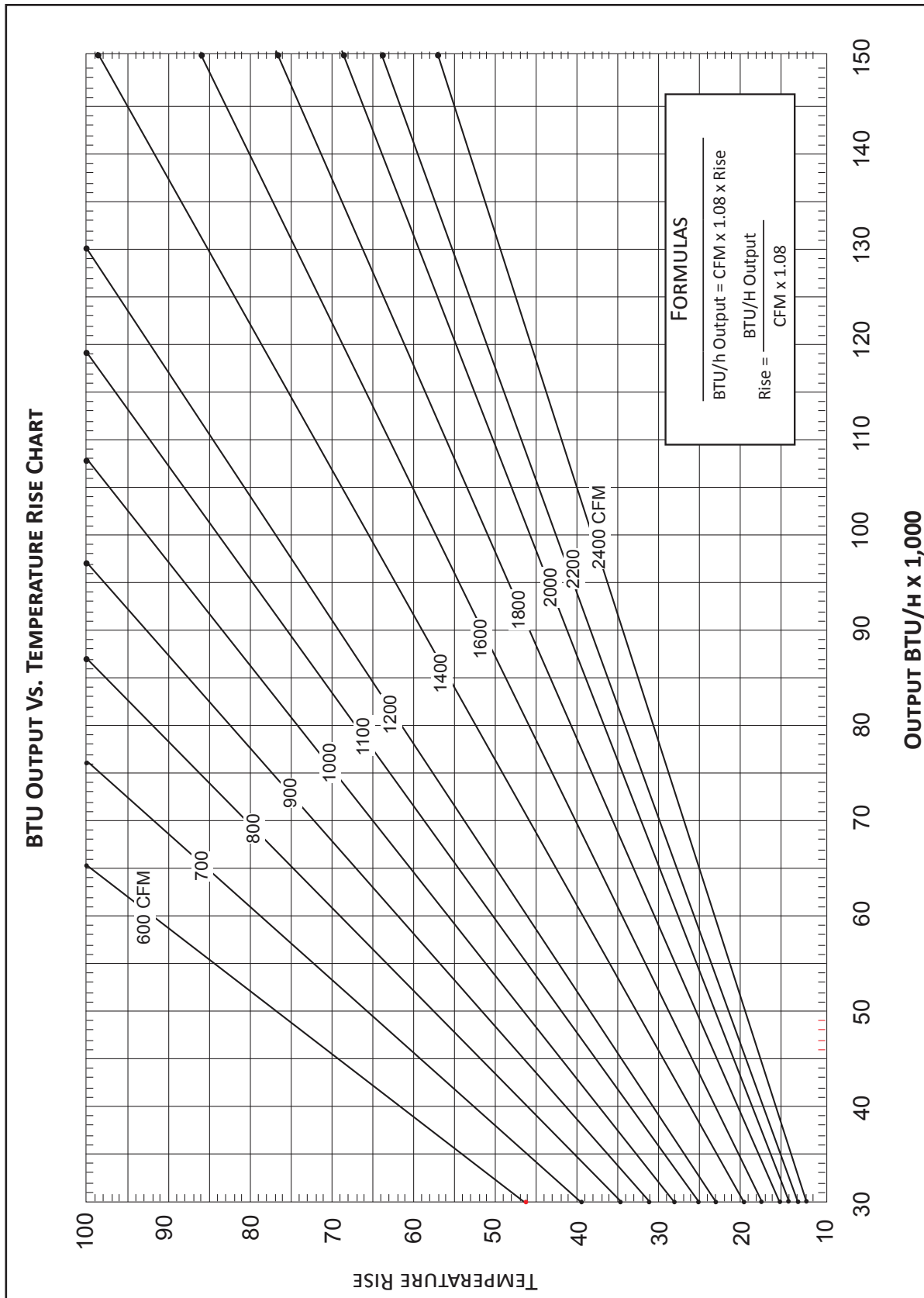
CONTINUOUS FAN SPEEDS

MODEL	FURNACE MAXIMUM CFM	CONTINUOUS FAN SPEED ^{1,2}
ADVC80603B**	1760	530
ADVC80805C**	2000	600
ADVC81005C**	2000	600

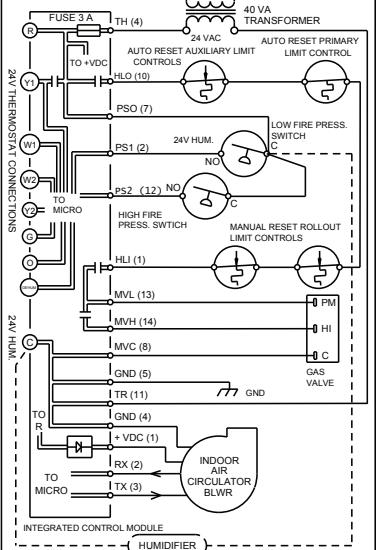
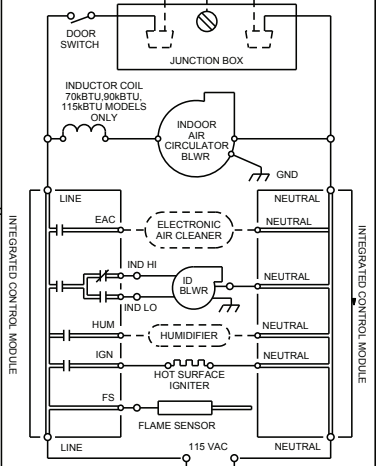
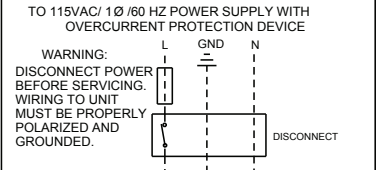
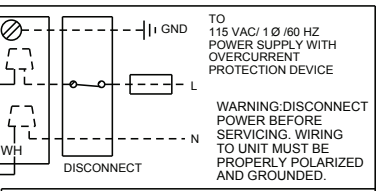
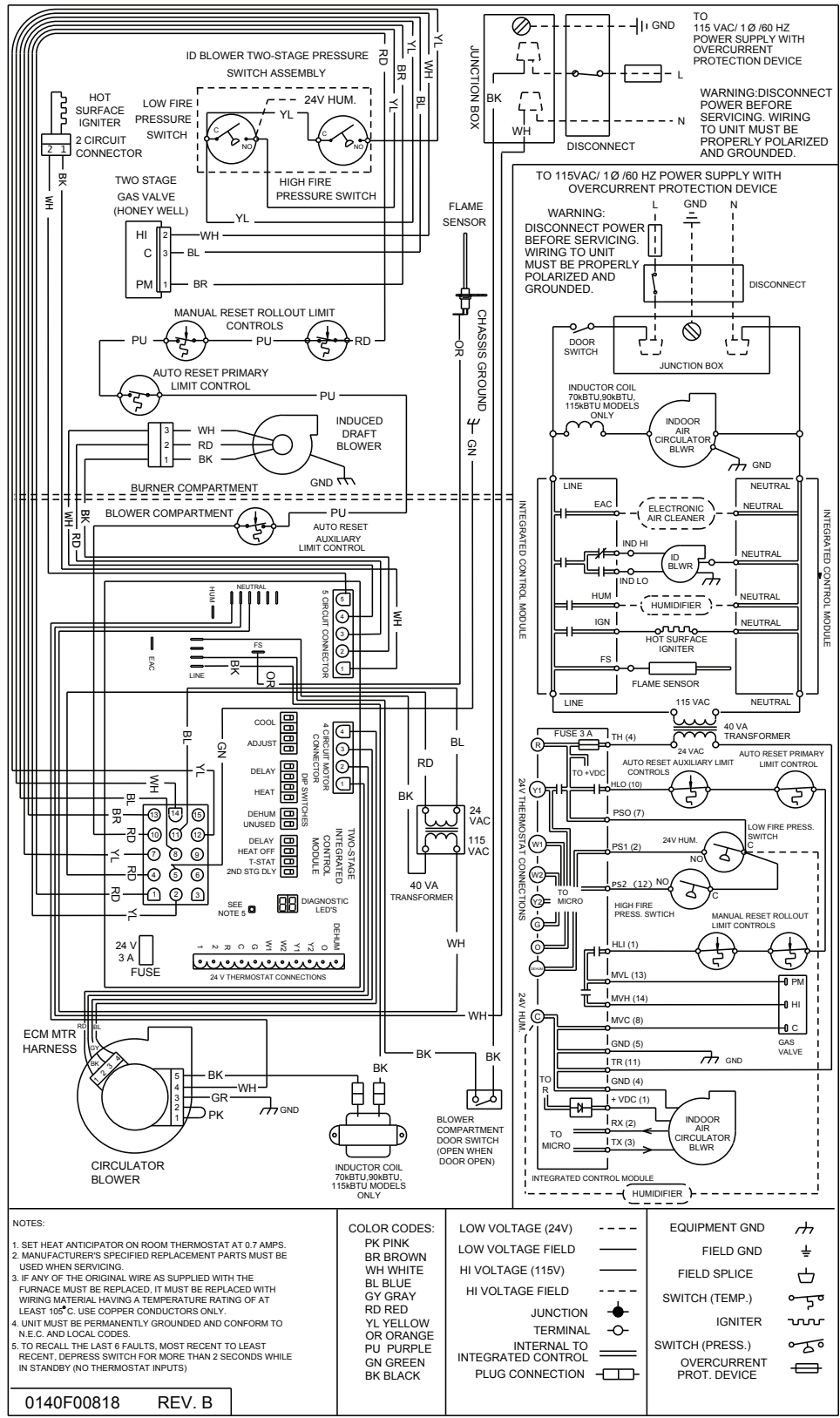
¹ Continuous fan speed is 25% of furnace maximum CFM

² Three continuous fan speeds are possible with the CTK01AA thermostat: 25%, 50%, and 75% of furnace maximum CFM

TEMPERATURE RISE RANGE CHART



WIRING DIAGRAM



High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.

WARNING

Wiring is subject to change. Always refer to the wiring diagram or the unit for the most up-to-date wiring.

NOTES:

1. SET HEAT ANTICIPATOR ON ROOM THERMOSTAT AT 0.7 AMPS.
2. MANUFACTURER'S SPECIFIED REPLACEMENT PARTS MUST BE USED WHEN SERVICING.
3. IF ANY OF THE ORIGINAL WIRE AS SUPPLIED WITH THE FURNACE MUST BE REPLACED, IT MUST BE REPLACED WITH WIRING MATERIAL HAVING A TEMPERATURE RATING OF AT LEAST 105°C. USE COPPER CONDUCTORS ONLY.
4. UNIT MUST BE PERMANENTLY GROUNDED AND CONFORM TO N.E.C. AND LOCAL CODES.
5. TO RECALL THE LAST 6 FAULTS, MOST RECENT TO LEAST RECENT, DEPRESS SWITCH FOR MORE THAN 2 SECONDS WHILE IN STANDBY (NO THERMOSTAT INPUTS)

COLOR CODES:

- PK PINK
- BR BROWN
- WH WHITE
- BL BLUE
- GY GRAY
- RD RED
- YL YELLOW
- OR ORANGE
- PU PURPLE
- GN GREEN
- BK BLACK

LOW VOLTAGE (24V)

- LOW VOLTAGE FIELD
- HI VOLTAGE (115V)
- HI VOLTAGE FIELD
- JUNCTION
- TERMINAL
- INTERNAL TO INTEGRATED CONTROL
- PLUG CONNECTION

EQUIPMENT GND

- FIELD GND
- FIELD SPlice
- SWITCH (TEMP.)
- IGNITER
- SWITCH (PRESS.)
- OVERCURRENT PROT. DEVICE

0140F00818 REV. B

ACCESSORIES

MODEL	DESCRIPTION
LPM-06	LP Conversion Kit (Springs & Orifice) ¹
AFE18-60A	Fossil Fuel Kit (must be used in a dual-fuel application with a compatible thermostat)
ASAS	Electronic Air Cleaners (* = -10, -11, -12 or -18)
AMU	Media Air Cleaners (* = 1620, 2020, 1625 or 2025)

¹ White-Rodgers and Honeywell valves

NOTES