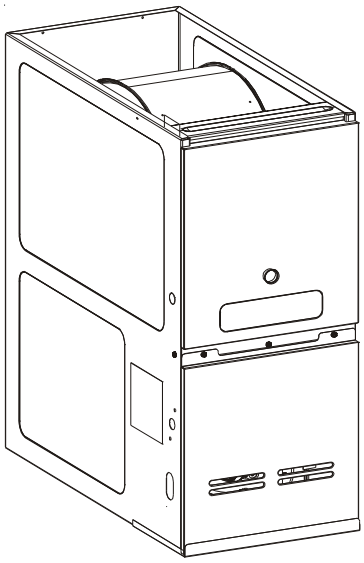
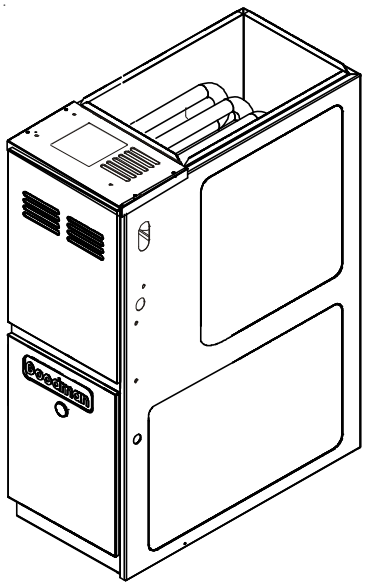
TECHNICAL MANUAL

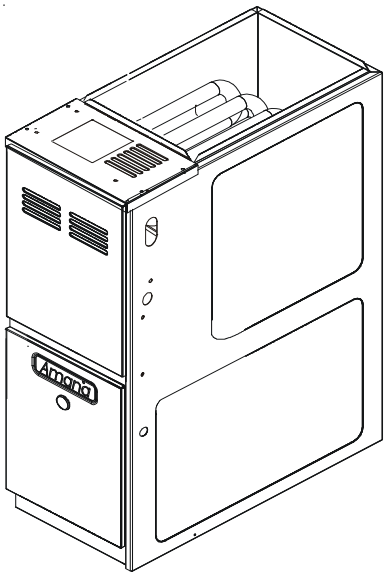
ComfortNet™ CONTROL SYSTEM

ADVC8/AMVC8
GMVC8
80% Gas Furnace Units

- Refer to Service Manual RS6610004 for installation, operation, and troubleshooting information.
- All safety information must be followed as provided in the Service Manual.
- Refer to the appropriate Parts Catalog for part number information.
- Models listed on page 3.







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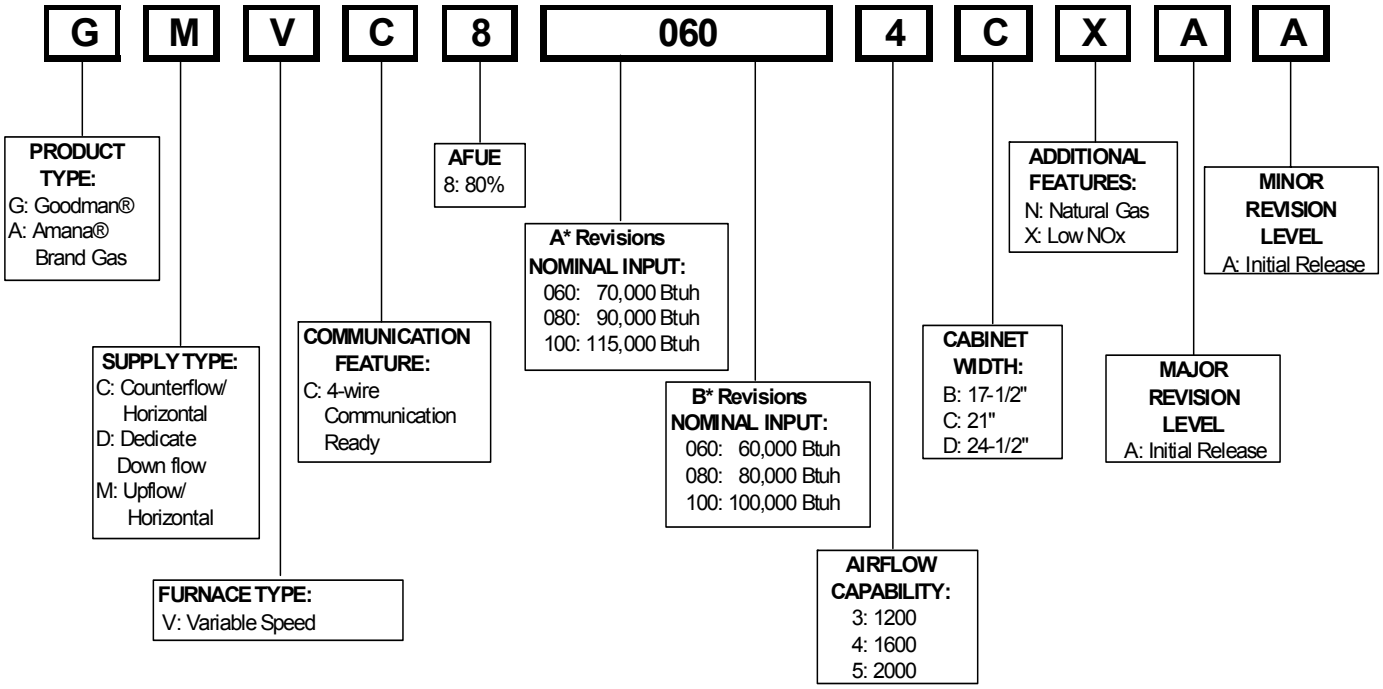
This manual is to be used by qualified, professionally trained HVAC technicians only. Goodman does not assume any responsibility for property damage or personal injury due to improper service procedures performed by an unqualified person.

RT6622015r1
November 2011

PRODUCT IDENTIFICATION

The model and manufacturing number are used for positive identification of component parts used in manufacturing. Please use these numbers when requesting service or parts information.



⚠ WARNING

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 **Goodman will not be responsible for any injury or property damage arising from improper service or service procedures. If you install or perform service on this unit, you assume responsibility for any personal injury or property damage which may result. Many jurisdictions require a license to install or service heating and air conditioning equipment.**

⚠ WARNING **Installation and repair of this unit should be performed ONLY by individuals meeting the requirements of an "entry level technician", at a minimum, as specified by the Air-Conditioning, Heating, and Refrigeration Institute (AHRI). Attempting to install or repair this unit without such background may result in product damage, personal injury or death.**

PRODUCT IDENTIFICATION

The model and manufacturing number are used for positive identification of component parts used in manufacturing. Please use these numbers when requesting service or parts information.

AMVC80604B*A*	AMVC80604B*B*
AMVC80805C*A*	AMVC80805C*B*
AMVC81005C*A*	AMVC81005C*B*
ADVC80603B*A*	ADVC80603B*B*
ADVC80805C*A*	ADVC80805C*B*
ADVC81005C*A*	ADVC81005C*B*
GMVC80604B*A*	GMVC80604B*B*
GMVC80805C*A*	GMVC80805C*B*
GMVC81005C*A*	GMVC81005C*B*

**These models available in Natural Gas and Low NOx.*

⚠ WARNING **The United States Environmental Protection Agency ("EPA") has issued various regulations regarding the introduction and disposal of refrigerants introduced into this unit. Failure to follow these regulations may harm the environment and can lead to the imposition of substantial fines. These regulations may vary by jurisdiction. Should questions arise, contact your local EPA office.**

⚠ WARNING **Do not connect or use any device that is not design certified by Goodman for use with this unit. Serious property damage, personal injury, reduced unit performance and/or hazardous conditions may result from the use of such non-approved devices.**

⚠ WARNING **To prevent the risk of property damage, personal injury, or death, do not store combustible materials or use gasoline or other flammable liquids or vapors in the vicinity of this appliance.**

PRODUCT DESIGN

General Operation

Models covered by this manual come with a new 4-wire communicating PCB. When paired with a compatible communicating indoor unit and a CTK0*** communicating thermostat, these models can support 4-wire communication protocol and provide more troubleshooting information. These models are also backward compatible with the legacy thermostat wiring.

The ADVC8, AMVC8, and GMVC8 furnaces are equipped with an electronic ignition device to light the burners and an induced draft blower to exhaust combustion products.

An interlock switch prevents furnace operation if the blower door is not in place. Keep the blower access doors in place except for inspection and maintenance.

These furnaces are also equipped with a self-diagnosing electronic control module. In the event a furnace component is not operating properly, the control module's dual 7-segment LED's will display an alpha-numeric code, depending upon the problem encountered. These LED's may be viewed through the observation window in the blower access door. Refer to the *Troubleshooting Chart* for further explanation of the LED codes and *Abnormal Operation - Integrated Ignition Control* section in the Service Instructions for an explanation of the possible problem.

The rated heating capacity of the furnace should be greater than or equal to the total heat loss of the area to be heated. The total heat loss should be calculated by an approved method or in accordance with “ASHRAE Guide” or “Manual J-Load Calculations” published by the Air Conditioning Contractors of America.

*Obtain from: American National Standards Institute 1430 Broadway New York, NY 10018

Location Considerations

- The furnace should be as centralized as is practical with respect to the air distribution system.
- Do not install the furnace directly on carpeting, tile, or combustible material other than wood flooring.
- When suspending the furnace from rafters or joists, use 3/8" threaded rod and 2” x 2” x 1/8” angle as shown in the Installation and Service Instructions. The length of the rod will depend on the application and clearance necessary.
- When installed in a residential garage, the furnace must be positioned so the burners and ignition source are located not less than 18 inches (457 mm) above the floor and protected from physical damage by vehicles.

⚠ WARNING

TO PREVENT POSSIBLE PERSONAL INJURY OR DEATH DUE TO ASPHYXIATION, THIS FURNACE MUST BE CATEGORY I VENTED. DO NOT VENT USING CATEGORY III VENTING.

Notes:

1. Category I Venting is venting at a non-positive pressure. A furnace vented as Category I is considered a fan-assisted appliance and the vent system does not have to be “gas tight.”

NOTE: Gas furnaces with induced draft blowers draw products of combustion through a heat exchanger allowing, in some instances, common venting with natural draft appliances (i.e. water heaters).

All installations must be vented in accordance with National Fuel Gas Code NFPA 54/ANSI Z223.1 - latest edition. In Canada, the furnaces must be vented in accordance with the National Standard of Canada, CAN/CSA B149.1 and CAN/CSA B149.2 - latest editions and amendments.

NOTE: The vertical height of the Category I venting system must be at least as great as the horizontal length of the venting system.

2. Line voltage wiring can enter through the right or left side of the furnace. Low voltage wiring can enter through the right or left side of furnace.
3. Conversion kits for propane gas and high altitude natural and propane gas operation are available. See High Altitude Derate chart for details.

Accessibility Clearances (Minimum)

Unobstructed front clearance of 24" **for servicing** is recommended.

MINIMUM CLEARANCE TO COMBUSTIBLE MATERIALS - INCHES

Sides	Rear	Front*	Vent		Top
			SW	B	
1	0	3	6	1	1

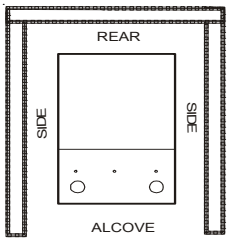
* 24" clearance for serviceability recommended.

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

Note: In all cases accessibility clearance shall take precedence over clearances from the enclosure where accessibility clearances are greater. All dimensions are given in inches.

PRODUCT DESIGN

Alcove Illustration



24" at front is required for servicing or cleaning.

Note: In all cases accessibility clearance shall take precedence over clearances from the enclosure where accessibility clearances are greater. All dimensions are given in inches.

High Altitude Derate

When this furnace is installed at high altitude, the appropriate High Altitude orifice kit must be installed. This is required due to the natural reduction in the density of both the gas fuel and combustion air as altitude increases. The kit will provide the proper design certified input rate within the specified altitude range.

High altitude kits are purchased according to the installation altitude and usage of either natural or propane gas. Refer to the chart above for a tabular listing of appropriate altitude ranges and corresponding manufacturer's high altitude Natural Gas and Propane Gas kits. For a tabular listing of appropriate altitude ranges and corresponding manufacturer's High Altitude Pressure Switch kits, refer to either the *Pressure Switch Trip Points & Usage Chart* in this manual or the *Accessory Charts* in Service Instructions.

INPUT PER BURNER - 22,500 BTUH NATURAL GAS / 20,000 BTUH L.P.								
	ELEVATION ABOVE SEA-LEVEL (FEET)							
	2000	**3000**	**4000**	**4500**	**5000**	**6000**	**7000**	**8000**
US BURNER ORIFICE	44 / 55	44 / 55	45 / 56		45 / 56	46 / 57	47 / 58	47 / 58
CANADA BURNER ORIFICE	44 / 55			47 / 57				

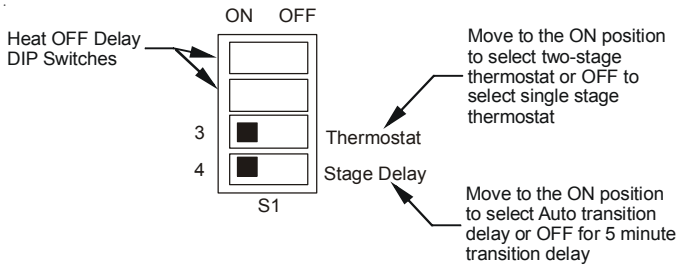
HA-02 HIGH ALTITUDE CONVERSION KIT REQUIRED

Tabled data is based upon the furnace input being reduced for altitudes above sea level. U.S. 4% per 1,000 feet.
Canada 10% derate for 2,000-4,000 feet.

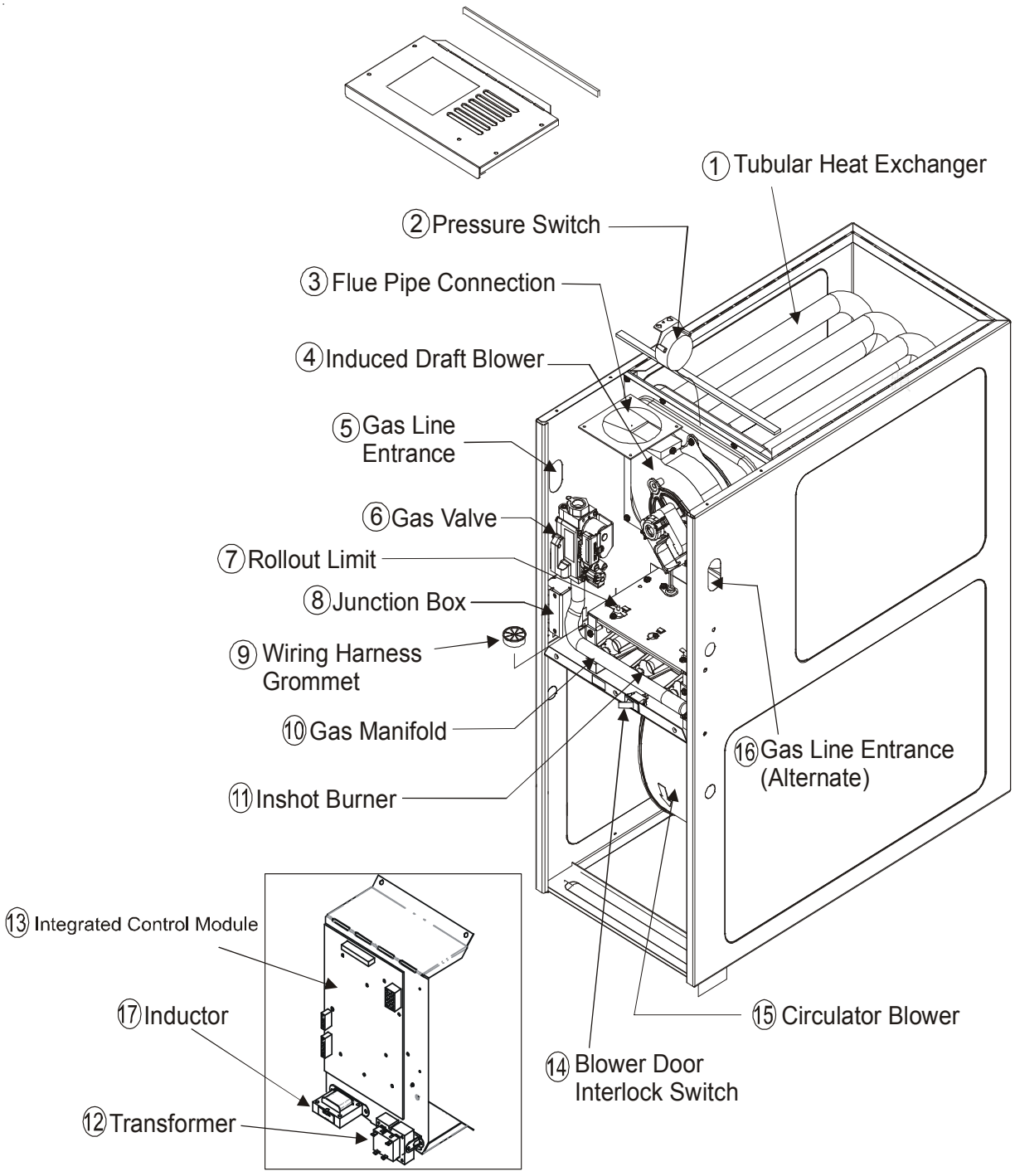
Single Stage Thermostat

A single-stage thermostat with only one heating stage may be used to control this furnace. The application of a single-stage thermostat does not offer "true" thermostat-driven two-stage operation, but provides a *timed* transition from low to high fire. The furnace will run on low stage for a fixed period of time before stepping up to high stage to satisfy the thermostat's call for heat. The delay period prior to stepping up can be set at either a fixed 5 minute time delay or a load based variable time between 1 and 12 minutes (AUTO mode). If the AUTOmode is selected, the control averages the cycle times of the previous three cycles and uses the average to determine the time to transition from low stage to high stage.

To use a single-stage thermostat, turn off power to the furnace, move the thermostat selection DIP switch to the OFF position. Set the desired transition time by setting the transition delay DIP switch to the desired ON/OFF position. Turn power back on. Refer to the following figure.



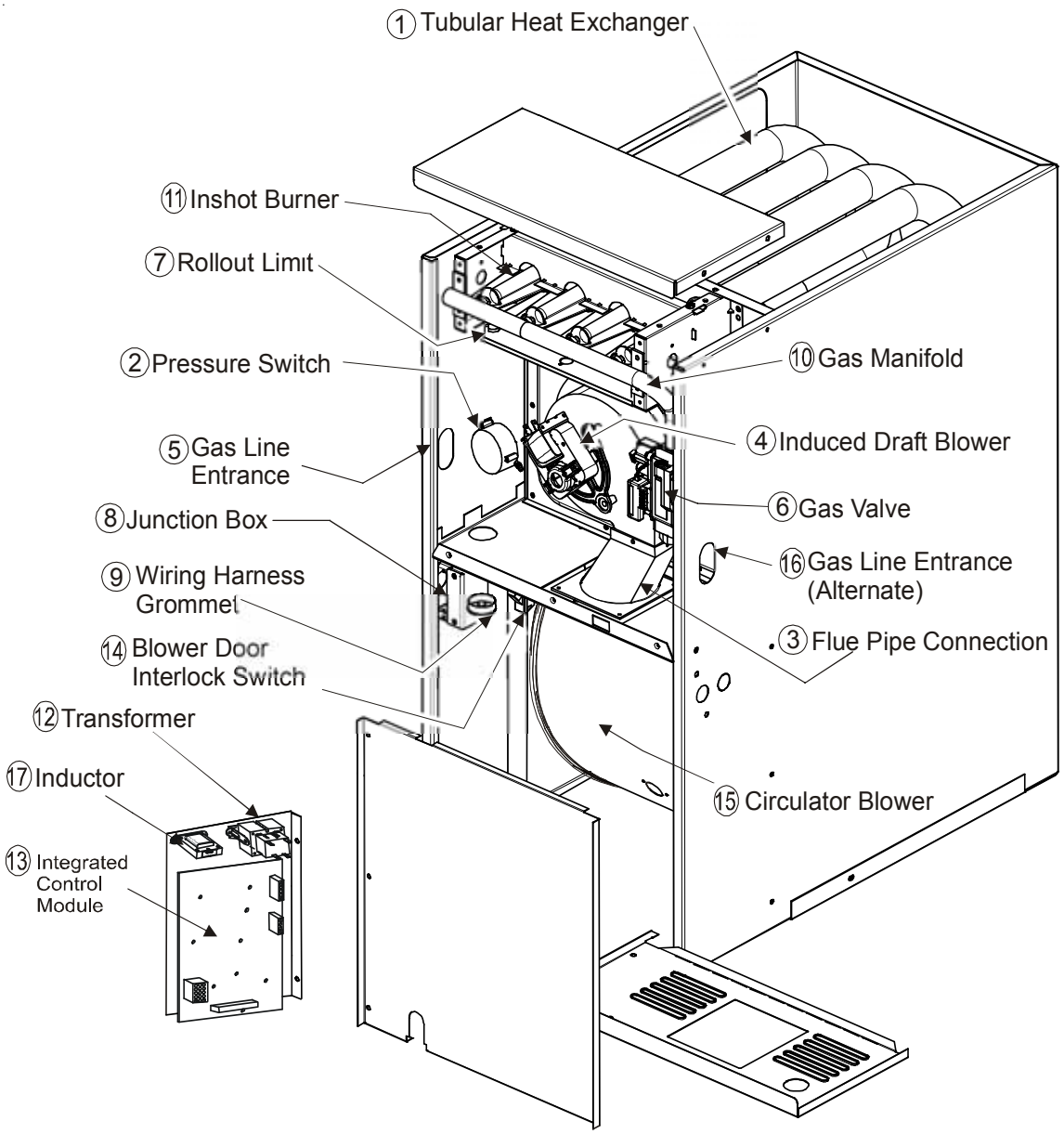
COMPONENT IDENTIFICATION



Upflow/Horizontal

1 Tubular Heat Exchanger
2 Pressure Switch
3 Flue Pipe Connection
4 Induced Draft Blower
5 Gas Line Entrance
6 Gas Valve
7 Rollout Limit
8 Junction Box
9 Wiring Harness Grommet
10 Gas Manifold
11 Inshot Burner
12 Transformer
13 Integrated Control Module
14 Blower Door Interlock Swtich
15 Circulator Blower
16 Gas Line Entrance (Alternate)
17 Inductor

COMPONENT IDENTIFICATION



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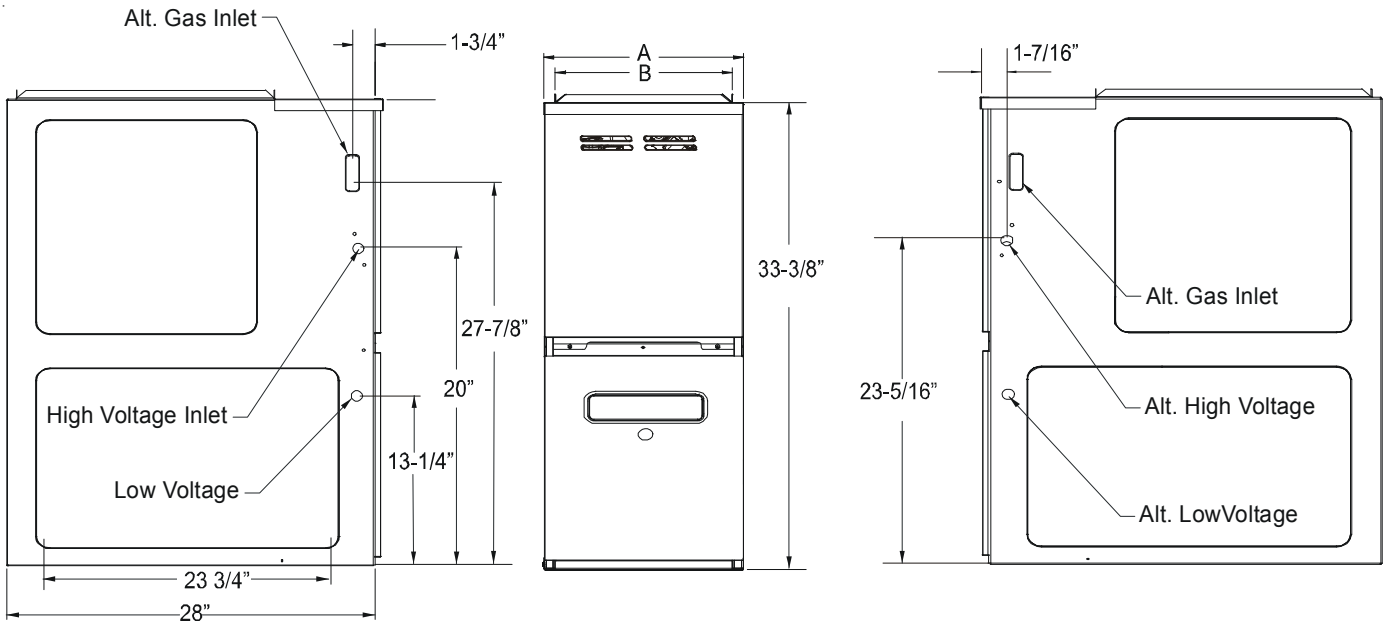
PRODUCT DIMENSIONS AMVC8/GMVC8____X*

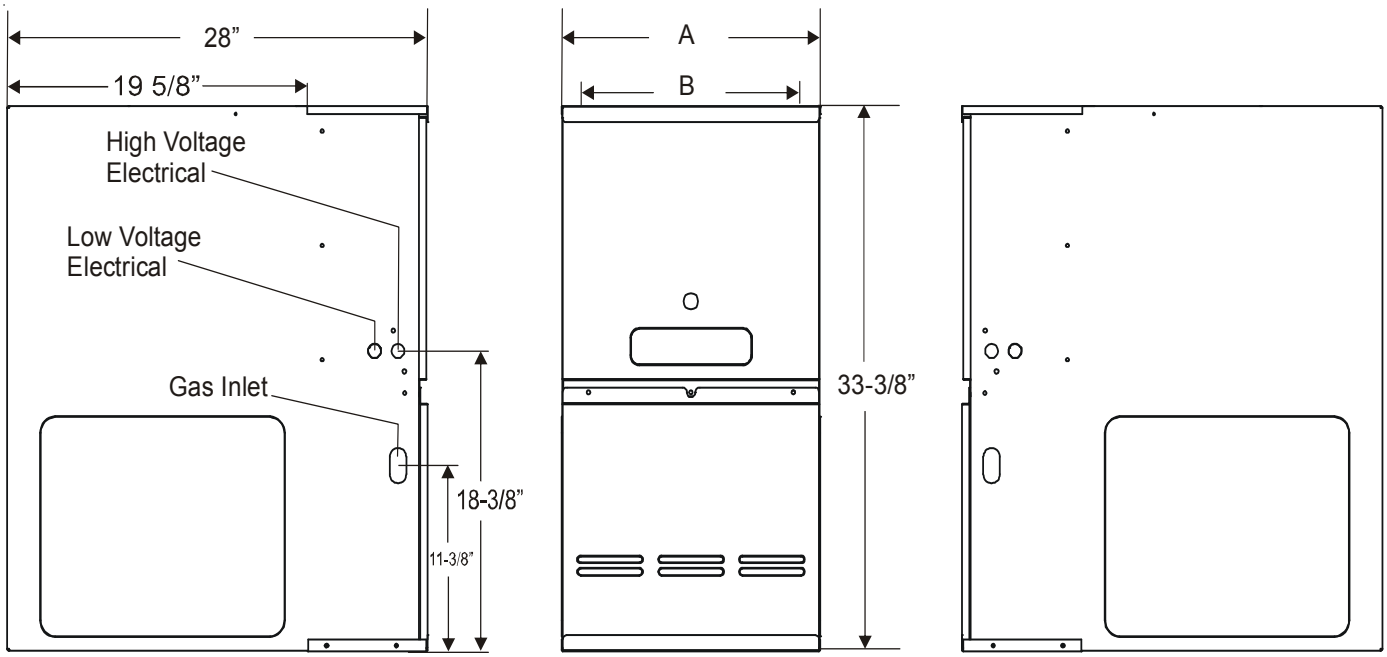


MODELS	A	B
AMVC80604B*** GMVC80604B***	17-1/2	16
AMVC80805C*** GMVC80805C*** AMVC81005C*** GMVC81005C***	21	19-1/2

All dimensions are in inches.

PRODUCT DIMENSIONS

ADVC8_____X*



MODEL	A	B	NON-COMBUSTIBLE FLOOR BASE
ADVC80603B***	17 1/2	16	SBT17
ADVC80805C*** ADVC81005C***	21	19 1/2	SBT21

All dimensions are in inches.

PRESSURE SWITCH TRIP POINTS AND USAGE CHART SQUARE NOSE			
MODEL	TRIP POINT ID BLOWER PRESSURE SWITCH - LOW STAGE	TRIP POINT ID BLOWER PRESSURE SWITCH - HIGH STAGE	ID BLOWER PRESSURE SWITCH PART #
AMVC80604B*A* GMVC80604B*A*	-0.30	-0.65	0130F00049
AMVC80805C*A* GMVC80805C*A*	-0.30	-0.60	0130F00050
AMVC81005C*A* GMVC81005C*A*	-0.30	-0.60	0130F00050
ADVC80603B*A*	-0.30	-0.55	B1370210
ADVC80805C*A*	-0.30	-0.55	B1370210
ADVC81005C*A*	-0.30	-0.55	B1370210

PRIMARY LIMIT					
Part Number	0130M00063	20162904	20162903	0130F00067	0130F00071
Open Setting (°F)	140	150	160	190	200
AMVC80604B*A* GMVC80604B*A*	---	---	1	---	---
AMVC80805C*A* GMVC80805C*A*	1	---	---	---	---
AMVC81005C*A* GMVC81005C*A*	---	1	---	---	---
ADVC80603B*A*	---	---	---	1	---
ADVC80805C*A*	---	---	---	1	---
ADVC81005C*A*	---	---	---	---	1

ROLLOUT LIMIT SWITCHES	
Part Number	10123529
Open Setting (°F)	300
AMVC80604B*** GMVC80604B***	2
AMVC80805C*** GMVC80805C***	2
AMVC81005C*** GMVC81005C***	2
ADVC80603B***	1
ADVC80805C***	1
ADVC81005C***	1

AUXILIARY LIMIT SWITCHES	
Part Number	0130F00038
Open Setting (°F)	120
AMVC80604B*** GMVC80604B***	1
AMVC80805C*** GMVC80805C***	1
AMVC81005C*** GMVC81005C***	1
ADVC80603B***	1
ADVC80805C***	1
ADVC81005C***	1

PRESSURE SWITCH TRIP POINTS AND USAGE CHART SQUARE NOSE			
MODEL	TRIP POINT ID BLOWER PRESSURE SWITCH - LOW STAGE	TRIP POINT ID BLOWER PRESSURE SWITCH - HIGH STAGE	ID BLOWER PRESSURE SWITCH PART #
AMVC80604B*B* GMVC80604B*B*	-0.35	-0.65	0130F00049
AMVC80805C*B* GMVC80805C*B*	-0.35	-0.65	0130F00049
AMVC81005C*B* GMVC81005C*B*	-0.30	-0.55	B1370210
ADVC80603B*B*	-0.30	-0.55	B1370210
ADVC80805C*B*	-0.35	-0.65	0130F00049
ADVC81005C*B*	-0.35	-0.65	0130F00049

PRIMARY LIMIT				
Part Number	0130M00063	20162905	0130F00036	0130F00067
Open Setting (°F)	140	145	180	190
AMVC80604B*B* GMVC80604B*B*	1	---	---	---
AMVC80805C*B* GMVC80805C*B*	1	---	---	---
AMVC81005C*B* GMVC81005C*B*	---	1	---	---
ADVC80603B*B*	---	---	---	1
ADVC80805C*B*	---	---	---	1
ADVC81005C*B*	---	---	1	---

ROLLOUT LIMIT SWITCHES	
Part Number	10123529
Open Setting (°F)	300
AMVC80604B*** GMVC80604B***	2
AMVC80805C*** GMVC80805C***	2
AMVC81005C*** GMVC81005C***	2
ADVC80603B***	1
ADVC80805C***	1
ADVC81005C***	1

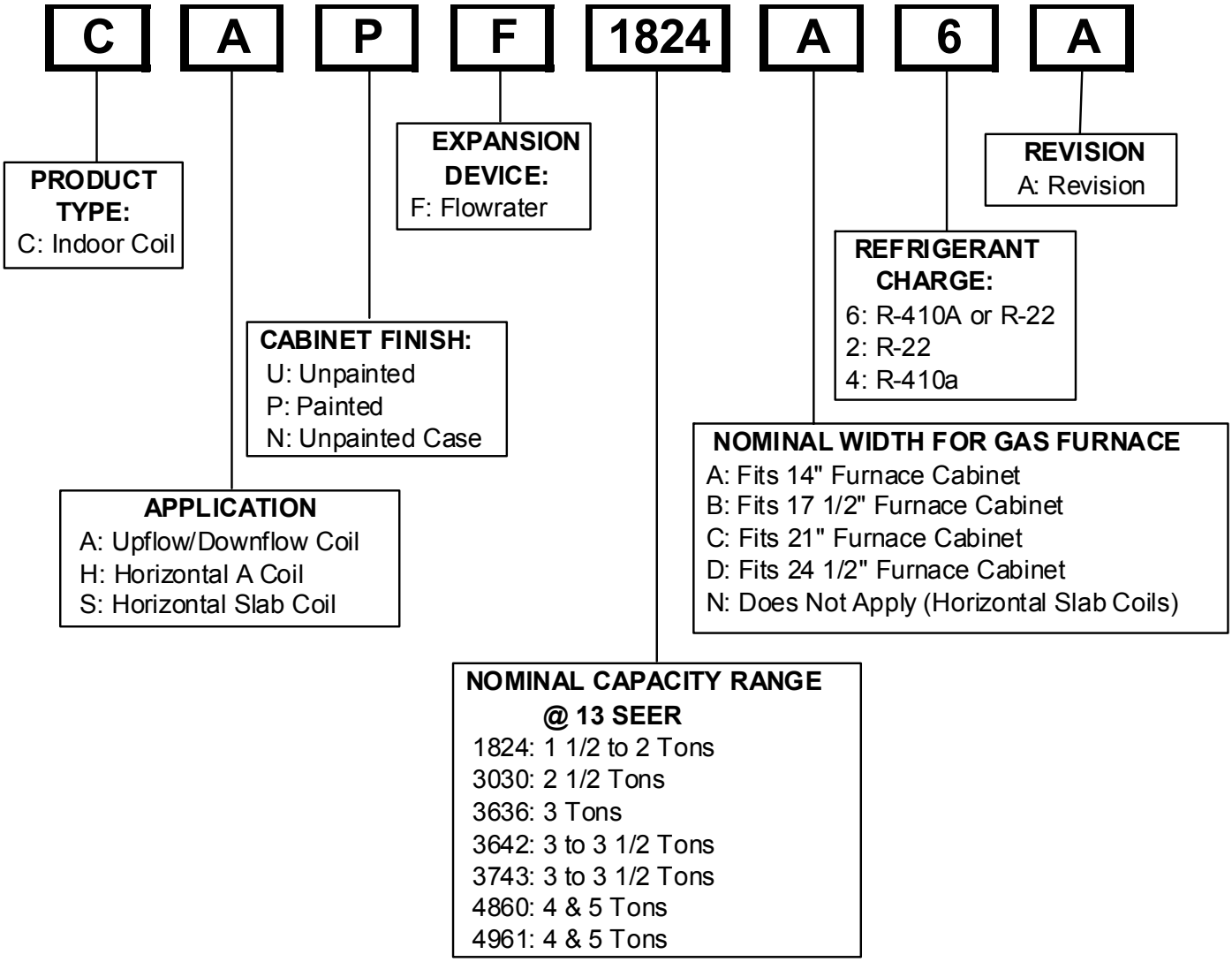
AUXILIARY LIMIT SWITCHES	
Part Number	0130F00038
Open Setting (°F)	120
AMVC80604B*** GMVC80604B***	1
AMVC80805C*** GMVC80805C***	1
AMVC81005C*** GMVC81005C***	1
ADVC80603B***	1
ADVC80805C***	1
ADVC81005C***	1

PRODUCT DESIGN

Coil Matches:

A large array of Amana® brand coils are available for use with the ADVC8 furnaces, in downflow applications, and with AMVC8 and GMVC8 furnaces, in either upflow or horizontal applications. These coils are available in both cased and uncased models (with the option of a field installed TXV expansion device). These 80%+ furnaces match up with the existing Amana® brand coils as shown in the chart below.

Coil Matches (for Goodman® and Amana® Brand units using R22 and R-410A):



- All CAPF coils in B, C, & D widths have insulated blank off plates for use with one size smaller furnaces.
- All CAPF coils have a CAUF equivalent.
- All CHPF coils in B, C & D heights have an insulated Z bracket for use with one size smaller furnace.
- All proper coil combinations are subject to being ARI rated with a matched outdoor unit.

PRODUCT DESIGN

Thermostats:

ComfortNet™ CTK0* Thermostat Kit**

Refer to the product marketing literature for a complete list of thermostats offered.

Filters:

Filters are required with this furnace and must be provided by the installer. The filters used must comply with UL900 or CAN/ULCS111 standards. Installing this furnace without filters will void the unit warranty

Upflow Filters

Return air filters may be installated at the furnace side and/or bottom return openings. The furnace bottom return opening and side openings will accommodate the following filter sizes depending on cabinet size:

Side Return Opening(s)		
Cabinet Width (in.)	Nominal Filter Size (in.)	Approx. Flow Area (in^2)
All	16 x 25 x 1	400

Bottom Return Opening		
Cabinet Width (in.)	Nominal Filter Size (in.)	Approx. Flow Area (in^2)
14	12 x 25 x 1	300
17-1/2	14 x 25 x 1	350
21	16 x 25 x 1	400
24-1/2	20 x 25 x 1	500

Refer to Minimum Filter Area tables to determine filter area requirement. **NOTE:** Filters can also be installed elsewhere in the duct system such as a central return.

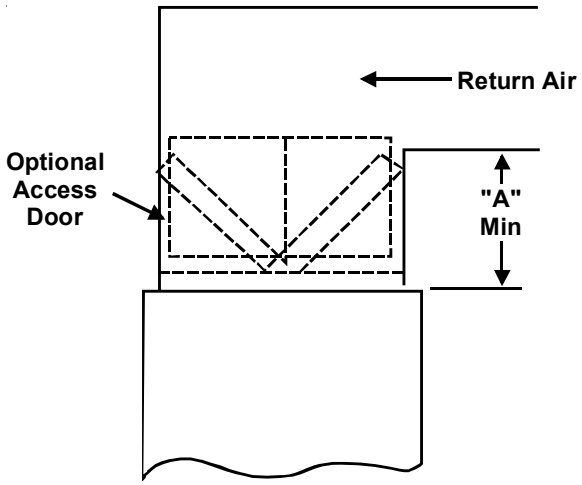
MINIMUM FILTER SIZES	
FURNACE INPUT	FILTER SIZE
60M	768 in^2
80M	960 in^2
100M	1022 in^2

DISPOSABLE NOMINAL 300 F.M. FACE VELOCITY

PRODUCT DESIGN

Downflow Filters

Return air filters may be installated at the at the downflow top return. A field supplied center filter support must be provided by the installer in order to use the top return. The furnace will accommodate the following downflow top return filter sizes depending on cabinet size:



Counterflow Top Return				
Cabinet Width	Filter Area (in^2)	Qty	Filter Size (in)	Dimension "A" (in)
17 1/2	600	2	15 X 20 X 1	14.2
21				13.0
24 1/2				11.3
17 1/2	800	2	20 X 20 X 1	19.7
21				18.8
24 1/2				17.7
17 1/2	1000	2	25 X 20 X 1	25.0
21				24.3
24 1/2				23.4

Refer to Minimum Filter Area tables to determine filter area requirement. **NOTE:** Filters can also be installed elsewhere in the duct system such as a central return.

FURNACE SPECIFICATIONS AMVC8***A*

MODEL	AMVC800604B*A*	AMVC80805C*A*	AMVC81005C*A*
Btuh Input (US) High Fire	70,000	90,000	115,000
Output (US) High Fire	57,000	74,000	93,000
Btuh Input (US) Low Fire	49,000	63,000	80,000
Output (US) Low Fire	39,200	50,400	64,000
A.F.U.E.	80%	80%	80%
Rated External Static (" w.c.)	.10 - .50	.10 - .50	.10 - .50
Temperature Rise (°F)	20 - 50	20 - 50	25 - 55
High Stage Pressure Switch Trip Point (" w.c.)	-0.65	-0.60	-0.60
Low Stage Pressure Switch Trip Point (" w.c.)	-0.30	-0.30	-0.30
Blower Wheel (D" x W")	10 x 8	10 x 10	10 x 10
Blower Horsepower	3/4	3/4	3/4
Blower Speeds Max CFM @ 0.5 E.S.P.	Refer to airflow charts in this manual.		
Power Supply	115-60-1	115-60-1	115-60-1
Minimum Circuit Ampacity (MCA)	12.1	12.1	12.1
Maximum Overcurrent Device	15	15	15
Transformer (VA)	40	40	40
Heat Anticipator (Amps)	0.7	0.7	0.7
Primary Limit Setting (°F)	160	140	150
Auxiliary Limit Setting (°F)	120	120	120
Rollout Limit Setting (°F)	300	300	300
Fan Delay On Heating	30 secs.	30 secs.	30 secs.
Off Heating *	150 secs.	150 secs.	150 secs.
Fan Delay On Cooling	5 secs.	5 secs.	5 secs.
Off Cooling	45 secs.	45 secs.	45 secs.
Fan Delay On - Fan Only	5 secs.	5 secs.	5 secs.
Gas Supply Pressure (Natural/Propane) (" w.c.)	7 / 11	7 / 11	7 / 11
Manifold Pressure (Natural/Propane) High Stage (" w.c.)	3.5 / 10	3.5 / 10	3.5 /10
Manifold Pressure (Natural/Propane) Low Stage ("w.c.)	1.9 / 6.0	1.9 / 6.0	1.9 / 6.0
Orifice Size (Natural/Propane)	#43 / #55	#43 / #55	#43 / #55
Number of Burners	3	4	5
Vent Connector Diameter (inches)	4	4	4
Shipping Weight (lbs.)	138	156	163

* Off Heating - This fan delay timing is adjustable (90, 120, 150 or 180 seconds), 150 seconds as shipped.

1. These furnaces are manufactured for natural gas operation. Optional Kits are available for conversion to propane gas operation.
2. For elevations above 2000 ft. the rating should be reduced by 4% for each 1000 ft. above sea level. The furnace must not be derated, orifice changes should only be made if necessary for altitude.
3. The total heat loss from the structure as expressed in TOTAL BTU/HR must be calculated by the manufactures method in accordance with the "A.S.H.R.A.E. GUIDE" or "MANUAL J-LOAD CALCULATIONS" published by the AIR CONDITIONING CONTRACTORS OF AMERICA. The total heat loss calculated should be equal to or less than the heating capacity. Output based on D.O.E. test procedures, steady state efficiency times output.
4. Minimum Circuit Ampacity calculated as: (1.25 x Circulator Blower Amps) + I.D. Blower Amps.

FURNACE SPECIFICATIONS AMVC8***B*

MODEL	AMVC800604B*B*	AMVC80805C*B*	AMVC81005C*B*
Btuh Input (US) High Fire	60,000	80,000	100,000
Output (US) High Fire	48,000	64,000	80,000
Btuh Input (US) Low Fire	42,000	56,000	70,000
Output (US) Low Fire	33,600	44,800	56,000
A.F.U.E.	80%	80%	80%
Rated External Static (" w.c.)	.10 - .50	.10 - .50	.10 - .50
Temperature Rise (°F)	20 - 50	20 - 50	25 - 55
High Stage Pressure Switch Trip Point (" w.c.)	-0.65	-0.65	-0.55
Low Stage Pressure Switch Trip Point (" w.c.)	-0.35	-0.35	-0.30
Blower Wheel (D" x W")	10 x 8	10 x 10	10 x 10
Blower Horsepower	3/4	3/4	3/4
Blower Speeds Max CFM @ 0.5 E.S.P.	Refer to airflow charts in this manual.		
Power Supply	115-60-1	115-60-1	115-60-1
Minimum Circuit Ampacity (MCA)	12.1	12.1	12.1
Maximum Overcurrent Device	15	15	15
Transformer (VA)	40	40	40
Heat Anticipator (Amps)	0.7	0.7	0.7
Primary Limit Setting (°F)	140	140	145
Auxiliary Limit Setting (°F)	120	120	120
Rollout Limit Setting (°F)	300	300	300
Fan Delay On Heating	30 secs.	30 secs.	30 secs.
Off Heating *	150 secs.	150 secs.	150 secs.
Fan Delay On Cooling	5 secs.	5 secs.	5 secs.
Off Cooling	45 secs.	45 secs.	45 secs.
Fan Delay On - Fan Only	5 secs.	5 secs.	5 secs.
Gas Supply Pressure (Natural/Propane) (" w.c.)	7 / 11	7 / 11	7 / 11
Manifold Pressure (Natural/Propane) High Stage (" w.c.)	3.5 / 10	3.5 / 10	3.5 /10
Manifold Pressure (Natural/Propane) Low Stage ("w.c.)	1.9 / 6.0	1.9 / 6.0	1.9 / 6.0
Orifice Size (Natural/Propane)	#45 / #55	#45 / #55	#45 / #55
Number of Burners	3	4	5
Vent Connector Diameter (inches)	4	4	4
Shipping Weight (lbs.)	138	156	163

* Off Heating - This fan delay timing is adjustable (90, 120, 150 or 180 seconds), 150 seconds as shipped.

1. These furnaces are manufactured for natural gas operation. Optional Kits are available for conversion to propane gas operation.
2. For elevations above 2000 ft. the rating should be reduced by 4% for each 1000 ft. above sea level. The furnace must not be derated, orifice changes should only be made if necessary for altitude.
3. The total heat loss from the structure as expressed in TOTAL BTU/HR must be calculated by the manufactures method in accordance with the "A.S.H.R.A.E. GUIDE" or "MANUAL J-LOAD CALCULATIONS" published by the AIR CONDITIONING CONTRACTORS OF AMERICA. The total heat loss calculated should be equal to or less than the heating capacity. Output based on D.O.E. test procedures, steady state efficiency times output.
4. Minimum Circuit Ampacity calculated as: (1.25 x Circulator Blower Amps) + I.D. Blower Amps.

FURNACE SPECIFICATIONS GMVC8***A*

MODEL	GMVC80604B*A*	GMVC80805C*A*	GMVC1005C*A*
Btuh Input (US) High Fire	70,000	90,000	115,000
Output (US) High Fire	57,000	74,000	93,000
Btuh Input (US) Low Fire	49,000	63,000	80,000
Output (US) Low Fire	39,200	50,400	64,000
A.F.U.E.	80%	80%	80%
Rated External Static (" w.c.)	.10 - .50	.10 - .50	.10 - .50
Temperature Rise (°F)	20 - 50	20 - 50	25 - 55
High Stage Pressure Switch Trip Point (" w.c.)	-0.65	-0.60	-0.60
Low Stage Pressure Switch Trip Point (" w.c.)	-0.30	-0.30	-0.30
Blower Wheel (D" x W")	10 x 8	10 x 10	10 x 10
Blower Horsepower	3/4	3/4	3/4
Blower Speeds Max CFM @ 0.5 E.S.P.	Refer to airflow charts in this manual.		
Power Supply	115-60-1	115-60-1	115-60-1
Minimum Circuit Ampacity (MCA)	12.1	12.1	12.1
Maximum Overcurrent Device	15	15	15
Transformer (VA)	40	40	40
Heat Anticipator (Amps)	0.7	0.7	0.7
Primary Limit Setting (°F)	160	140	150
Auxiliary Limit Setting (°F)	120	120	120
Rollout Limit Setting (°F)	300	300	300
Fan Delay On Heating	30 secs.	30 secs.	30 secs.
Off Heating *	150 secs.	150 secs.	150 secs.
Fan Delay On Cooling	5 secs.	5 secs.	5 secs.
Off Cooling	45 secs.	45 secs.	45 secs.
Fan Delay On - Fan Only	5 secs.	5 secs.	5 secs.
Gas Supply Pressure (Natural/Propane) (" w.c.)	7 / 11	7 / 11	7 / 11
Manifold Pressure (Natural/Propane) High Stage (" w.c.)	3.5 / 10	3.5 / 10	3.5 /10
Manifold Pressure (Natural/Propane) Low Stage ("w.c.)	1.9 / 6.0	1.9 / 6.0	1.9 / 6.0
Orifice Size (Natural/Propane)	#43 / #55	#43 / #55	#43 / #55
Number of Burners	3	4	5
Vent Connector Diameter (inches)	4	4	4
Shipping Weight (lbs.)	138	156	163

* Off Heating - This fan delay timing is adjustable (90, 120, 150 or 180 seconds), 150 seconds as shipped.

1. These furnaces are manufactured for natural gas operation. Optional Kits are available for conversion to propane gas operation.
2. For elevations above 2000 ft. the rating should be reduced by 4% for each 1000 ft. above sea level. The furnace must not be derated, orifice changes should only be made if necessary for altitude.
3. The total heat loss from the structure as expressed in TOTAL BTU/HR must be calculated by the manufactures method in accordance with the "A.S.H.R.A.E. GUIDE" or "MANUAL J-LOAD CALCULATIONS" published by the AIR CONDITIONING CONTRACTORS OF AMERICA. The total heat loss calculated should be equal to or less than the heating capacity. Output based on D.O.E. test procedures, steady state efficiency times output.
4. Minimum Circuit Ampacity calculated as: (1.25 x Circulator Blower Amps) + I.D. Blower Amps.

FURNACE SPECIFICATIONS GMVC8***B*

MODEL	GMVC80604B*B*	GMVC80805C*B*	GMVC81005C*B*
Btuh Input (US) High Fire	60,000	80,000	100,000
Output (US) High Fire	48,000	64,000	80,000
Btuh Input (US) Low Fire	42,000	56,000	70,000
Output (US) Low Fire	33,600	44,800	56,000
A.F.U.E.	80%	80%	80%
Rated External Static (" w.c.)	.10 - .50	.10 - .50	.10 - .50
Temperature Rise (°F)	20 - 50	20 - 50	25 - 55
High Stage Pressure Switch Trip Point (" w.c.)	-0.65	-0.65	-0.55
Low Stage Pressure Switch Trip Point (" w.c.)	-0.35	-0.35	-0.30
Blower Wheel (D" x W")	10 x 8	10 x 10	10 x 10
Blower Horsepower	3/4	3/4	3/4
Blower Speeds Max CFM @ 0.5 E.S.P.	Refer to airflow charts in this manual.		
Power Supply	115-60-1	115-60-1	115-60-1
Minimum Circuit Ampacity (MCA)	12.1	12.1	12.1
Maximum Overcurrent Device	15	15	15
Transformer (VA)	40	40	40
Heat Anticipator (Amps)	0.7	0.7	0.7
Primary Limit Setting (°F)	140	140	145
Auxiliary Limit Setting (°F)	120	120	120
Rollout Limit Setting (°F)	300	300	300
Fan Delay On Heating	30 secs.	30 secs.	30 secs.
Off Heating *	150 secs.	150 secs.	150 secs.
Fan Delay On Cooling	5 secs.	5 secs.	5 secs.
Off Cooling	45 secs.	45 secs.	45 secs.
Fan Delay On - Fan Only	5 secs.	5 secs.	5 secs.
Gas Supply Pressure (Natural/Propane) (" w.c.)	7 / 11	7 / 11	7 / 11
Manifold Pressure (Natural/Propane) High Stage (" w.c.)	3.5 / 10	3.5 / 10	3.5 /10
Manifold Pressure (Natural/Propane) Low Stage ("w.c.)	1.9 / 6.0	1.9 / 6.0	1.9 / 6.0
Orifice Size (Natural/Propane)	#45 / #55	#45 / #55	#45 / #55
Number of Burners	3	4	5
Vent Connector Diameter (inches)	4	4	4
Shipping Weight (lbs.)	138	156	163

* Off Heating - This fan delay timing is adjustable (90, 120, 150 or 180 seconds), 150 seconds as shipped.

1. These furnaces are manufactured for natural gas operation. Optional Kits are available for conversion to propane gas operation.
2. For elevations above 2000 ft. the rating should be reduced by 4% for each 1000 ft. above sea level. The furnace must not be derated, orifice changes should only be made if necessary for altitude.
3. The total heat loss from the structure as expressed in TOTAL BTU/HR must be calculated by the manufactures method in accordance with the "A.S.H.R.A.E. GUIDE" or "MANUAL J-LOAD CALCULATIONS" published by the AIR CONDITIONING CONTRACTORS OF AMERICA. The total heat loss calculated should be equal to or less than the heating capacity. Output based on D.O.E. test procedures, steady state efficiency times output.
4. Minimum Circuit Ampacity calculated as: (1.25 x Circulator Blower Amps) + I.D. Blower Amps.

FURNACE SPECIFICATIONS ADVC8***A*

MODEL	ADVC80603B*A*	ADVC80805C*A*	ADVC81005C*A*
Btuh Input (US) High Fire	70,000	90,000	115,000
Output (US) High Fire	56,000	72,000	92,000
Btuh Input (US) Low Fire	51,000	63,000	80,500
Output (US) Low Fire	40,800	50,400	64,400
A.F.U.E.	80%	80%	80%
Rated External Static (" w.c.)	.10 - .50	.10 - .50	.10 - .50
Temperature Rise (°F)	30 - 60	35 - 65	35 - 65
High Stage Pressure Switch Trip Point (" w.c.)	-0.55	-0.55	-0.55
Low Stage Pressure Switch Trip Point (" w.c.)	-0.30	-0.30	-0.30
Blower Wheel (D" x W")	10 x 8	10 x 10	10 x 10
Blower Horsepower	3/4	3/4	3/4
Blower Speeds Max CFM @ 0.5 E.S.P.	Refer to airflow charts in this manual.		
Power Supply	115-60-1	115-60-1	115-60-1
Minimum Circuit Ampacity (MCA)	12.1	12.1	12.1
Maximum Overcurrent Device	15	15	15
Transformer (VA)	40	40	40
Heat Anticipator (Amps)	0.7	0.7	0.7
Primary Limit Setting (°F)	190	190	200
Auxiliary Limit Setting (°F)	120	120	120
Rollout Limit Setting (°F)	300	300	300
Fan Delay On Heating	30 secs.	30 secs.	30 secs.
Off Heating *	150 secs.	150 secs.	150 secs.
Fan Delay On Cooling	5 secs.	5 secs.	5 secs.
Off Cooling	45 secs.	45 secs.	45 secs.
Fan Delay On - Fan Only	5 secs.	5 secs.	5 secs.
Gas Supply Pressure (Natural/Propane) (" w.c.)	7 / 11	7 / 11	7 / 11
Manifold Pressure (Natural/Propane) High Stage (" w.c.)	3.5 / 10	3.5 /10	3.5 /10
Manifold Pressure (Natural/Propane) Low Stage ("w.c.)	1.9 / 6.0	1.9 / 6.0	1.9 / 6.0
Orifice Size (Natural/Propane)	#43 / #55	#43 / #55	#43 / #55
Number of Burners	3	4	5
Vent Connector Diameter (inches)	4	4	4
Shipping Weight (lbs.)	112	124	130

* Off Heating - This fan delay timing is adjustable (90, 120, 150 or 180 seconds), 150 seconds as shipped.

1. These furnaces are manufactured for natural gas operation. Optional Kits are available for conversion to propane gas operation.
2. For elevations above 2000 ft. the rating should be reduced by 4% for each 1000 ft. above sea level. The furnace must not be derated, orifice changes should only be made if necessary for altitude.
3. The total heat loss from the structure as expressed in TOTAL BTU/HR must be calculated by the manufactures method in accordance with the "A.S.H.R.A.E. GUIDE" or "MANUAL J-LOAD CALCULATIONS" published by the AIR CONDITIONING CONTRACTORS OF AMERICA. The total heat loss calculated should be equal to or less than the heating capacity. Output based on D.O.E. test procedures, steady state efficiency times output.
4. Minimum Circuit Ampacity calculated as: (1.25 x Circulator Blower Amps) + I.D. Blower Amps.

FURNACE SPECIFICATIONS ADVC8***B*

MODEL	ADVC80603B*B*	ADVC80805C*B*	ADVC81005C*B*
Btuh Input (US) High Fire	60,000	80,000	100,000
Output (US) High Fire	48,000	64,000	80,000
Btuh Input (US) Low Fire	42,000	56,000	70,000
Output (US) Low Fire	33,600	44,800	56,000
A.F.U.E.	80%	80%	80%
Rated External Static (" w.c.)	.10 - .50	.10 - .50	.10 - .50
Temperature Rise (°F)	30 - 60	35 - 65	35 - 65
High Stage Pressure Switch Trip Point (" w.c.)	-0.55	-0.65	-0.65
Low Stage Pressure Switch Trip Point (" w.c.)	-0.30	-0.35	-0.35
Blower Wheel (D" x W")	10 x 8	10 x 10	10 x 10
Blower Horsepower	3/4	3/4	3/4
Blower Speeds Max CFM @ 0.5 E.S.P.	Refer to airflow charts in this manual.		
Power Supply	115-60-1	115-60-1	115-60-1
Minimum Circuit Ampacity (MCA)	12.1	12.1	12.1
Maximum Overcurrent Device	15	15	15
Transformer (VA)	40	40	40
Heat Anticipator (Amps)	0.7	0.7	0.7
Primary Limit Setting (°F)	190	190	180
Auxiliary Limit Setting (°F)	120	120	120
Rollout Limit Setting (°F)	300	300	300
Fan Delay On Heating	30 secs.	30 secs.	30 secs.
Off Heating *	150 secs.	150 secs.	150 secs.
Fan Delay On Cooling	5 secs.	5 secs.	5 secs.
Off Cooling	45 secs.	45 secs.	45 secs.
Fan Delay On - Fan Only	5 secs.	5 secs.	5 secs.
Gas Supply Pressure (Natural/Propane) (" w.c.)	7 / 11	7 / 11	7 / 11
Manifold Pressure (Natural/Propane) High Stage (" w.c.)	3.5 / 10	3.5 /10	3.5 /10
Manifold Pressure (Natural/Propane) Low Stage ("w.c.)	1.9 / 6.0	1.9 / 6.0	1.9 / 6.0
Orifice Size (Natural/Propane)	#45 / #55	#45 / #55	#45 / #55
Number of Burners	3	4	5
Vent Connector Diameter (inches)	4	4	4
Shipping Weight (lbs.)	112	124	130

* Off Heating - This fan delay timing is adjustable (90, 120, 150 or 180 seconds), 150 seconds as shipped.

1. These furnaces are manufactured for natural gas operation. Optional Kits are available for conversion to propane gas operation.
2. For elevations above 2000 ft. the rating should be reduced by 4% for each 1000 ft. above sea level. The furnace must not be derated, orifice changes should only be made if necessary for altitude.
3. The total heat loss from the structure as expressed in TOTAL BTU/HR must be calculated by the manufactures method in accordance with the "A.S.H.R.A.E. GUIDE" or "MANUAL J-LOAD CALCULATIONS" published by the AIR CONDITIONING CONTRACTORS OF AMERICA. The total heat loss calculated should be equal to or less than the heating capacity. Output based on D.O.E. test procedures, steady state efficiency times output.
4. Minimum Circuit Ampacity calculated as: (1.25 x Circulator Blower Amps) + I.D. Blower Amps.

BLOWER PERFORMANCE SPECIFICATIONS

AMVC8/GMVC8 Heating Speed Charts

AMVC80604B*** GMVC80604B*** (Rise Range: 20° - 50°F)				
Heating Speed Tap	**Adjust Tap**	**Low-Stage CFM**	**High-Stage CFM**	**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

AMVC80805C*** GMVC80805C*** (Rise Range: 20° - 50°F)				
Heating Speed Tap	**Adjust Tap**	**Low-Stage CFM**	**High-Stage CFM**	**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

AMVC81005C*** GMVC81005C*** (Rise Range: 25° - 55°F)				
Heating Speed Tap	**Adjust Tap**	**Low-Stage CFM**	**High-Stage CFM**	**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

1. Units are shipped without filter(s). CFM in chart is without filter(s).
2. All furnaces shipped with heating speed set at "B" and cooling speed set at "D". Installer should adjust blower speed as needed. The first task is to determine the proper aiflow for the cooling system.
3. For most cooling applications, about 400 CFM per ton is desirable.
4. The chart is for information only. For satisfactory operation, external static pressure not to exceed value shown on rating plate.
5. Do not operate above 0.5" w.c. ESP in heating mode. Operating between 0.5" w.c. and 0.8" w.c. is tabulated for cooling purposes only.
6. * Motor CFM maximum.

BLOWER PERFORMANCE SPECIFICATIONS

AMVC8/GMVC8 High (Single) Stage Cooling Speed Charts

AMVC80604B*** GMVC80604B***			AMVC80805C*** GMVC80805C***			AMVC81005C*** GMVC81005C***		
Cooling Speed Tap	**Adjust Tap**	**CFM[1]**	**Cooling Speed Tap**	**Adjust Tap**	**CFM[1]**	**Cooling Speed Tap**	**Adjust Tap**	**CFM[1]**
A	Minus (-)	540	A	Minus (-)	720	A	Minus (-)	720
	Normal	600		Normal	800		Normal	800
	Plus (+)	660		Plus (+)	880		Plus (+)	880
B	Minus (-)	720	B	Minus (-)	990	B	Minus (-)	990
	Normal	800		Normal	1100		Normal	1100
	Plus (+)	880		Plus (+)	1210		Plus (+)	1210
C	Minus (-)	990	C	Minus (-)	1260	C	Minus (-)	1260
	Normal	1100		Normal	1400		Normal	1400
	Plus (+)	1210		Plus (+)	1540		Plus (+)	1540
D	Minus (-)	1260	D	Minus (-)	1620	D	Minus (-)	1620
	Normal	1400		Normal	1800		Normal	1800
	Plus (+)	1540		Plus (+)	1980		Plus (+)	2,000*

AMVC8/GMVC8 Low Stage Cooling Speed Charts

AMVC80604B*** GMVC80604B***			AMVC80805C*** GMVC80805C***			AMVC81005C*** GMVC81005C***		
Cooling Speed Tap	**Adjust Tap**	**CFM[1]**	**Cooling Speed Tap**	**Adjust Tap**	**CFM[1]**	**Cooling Speed Tap**	**Adjust Tap**	**CFM[1]**
A	Minus (-)	351	A	Minus (-)	468	A	Minus (-)	468
	Normal	390		Normal	520		Normal	520
	Plus (+)	429		Plus (+)	572		Plus (+)	572
B	Minus (-)	468	B	Minus (-)	644	B	Minus (-)	644
	Normal	520		Normal	715		Normal	715
	Plus (+)	572		Plus (+)	787		Plus (+)	787
C	Minus (-)	644	C	Minus (-)	819	C	Minus (-)	819
	Normal	715		Normal	910		Normal	910
	Plus (+)	787		Plus (+)	1001		Plus (+)	1001
D	Minus (-)	819	D	Minus (-)	1053	D	Minus (-)	1053
	Normal	910		Normal	1170		Normal	1170
	Plus (+)	1001		Plus (+)	1287		Plus (+)	1287

1. Units are shipped without filter(s). CFM in chart is without filter(s).
2. All furnaces shipped with heating speed set at "B" and cooling speed set at "D". Installer should adjust blower speed as needed. The first task is to determine the proper aiflow for the cooling system.
3. For most cooling applications, about 400 CFM per ton is desirable.
4. The chart is for information only. For satisfactory operation, external static pressure not to exceed value shown on rating plate.
5. Do not operate above 0.5" w.c. ESP in heating mode. Operating between 0.5" w.c. and 0.8" w.c. is tabulated for cooling purposes only.
6. * Motor CFM maximum.

BLOWER PERFORMANCE SPECIFICATIONS

AMVC8/GMVC8 Continuous Fan Speed Chart

Continous Fan Speeds		
Model	**Furnace Maximum CFM**	**Continuous Fan Speed[1,2]**
AMVC80604B*** GMVC80604B***	1760	530
AMVC80805C*** GMVC80805C***	2000	600
AMVC81005C*** GMVC81005C***	2000	600

[1] Continuous fan speed is 25% of furnace maximum CFM
[2] Three continuous fan speeds are possible with the CTK0*** thermostat: 25%, 50%, and 75% of furnace maximum CFM

ADVC8 Continuous Fan Speed Chart

Continous 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 CTK0*** thermostat: 25%, 50%, and 75% of furnace maximum CFM

1. Units are shipped without filter(s). CFM in chart is without filter(s).
2. All furnaces shipped with heating speed set at "B" and cooling speed set at "D". Installer should adjust blower speed as needed. The first task is to determine the proper aiflow for the cooling system.
3. For most cooling applications, about 400 CFM per ton is desirable.
4. The chart is for information only. For satisfactory operation, external static pressure not to exceed value shown on rating plate.
5. Do not operate above 0.5" w.c. ESP in heating mode. Operating between 0.5" w.c. and 0.8" w.c. is tabulated for cooling purposes only.
6. * Motor CFM maximum.

BLOWER PERFORMANCE SPECIFICATIONS

ADVC8 Heating Speed Chart

ADVC80603B*** (Rise Range: 30° - 60°F)				
Heating Speed Tap	**Adjust Tap**	**Low-Stage CFM**	**High-Stage CFM**	**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*** (Rise Range: 35° - 65°F)				
Heating Speed Tap	**Adjust Tap**	**Low-Stage CFM**	**High-Stage CFM**	**Rise (°F)**
A	Minus (-)	850	1215	55
	Normal	945	1350	49
	Plus (+)	1040	1485	45
B	Minus (-)	915	1305	51
	Normal	1015	1450	46
	Plus (+)	1115	1595	42
C	Minus (-)	975	1395	48
	Normal	1085	1550	43
	Plus (+)	1195	1705	39
D	Minus (-)	1040	1485	45
	Normal	1155	1650	40
	Plus (+)	1270	1815	37

ADVC81005C*** (Rise Range: 35° - 65°F)				
Heating Speed Tap	**Adjust Tap**	**Low-Stage CFM**	**High-Stage CFM**	**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

1. Units are shipped without filter(s). CFM in chart is without filter(s).
2. All furnaces shipped with heating speed set at "B" and cooling speed set at "D". Installer should adjust blower speed as needed. The first task is to determine the proper aiflow for the cooling system.
3. For most cooling applications, about 400 CFM per ton is desirable.
4. The chart is for information only. For satisfactory operation, external static pressure not to exceed value shown on rating plate.
5. Do not operate above 0.5" w.c. ESP in heating mode. Operating between 0.5" w.c. and 0.8" w.c. is tabulated for cooling purposes only.
6. * Motor CFM maximum.

BLOWER PERFORMANCE SPECIFICATIONS

ADVC8 High (Single) Stage Cooling Speed Charts

ADVC80603B***			ADVC80805C***			ADVC81005C***		
Cooling Speed Tap	**Adjust Tap**	**CFM[1]**	**Cooling Speed Tap**	**Adjust Tap**	**CFM[1]**	**Cooling Speed Tap**	**Adjust Tap**	**CFM[1]**
A	Minus (-)	540	A	Minus (-)	720	A	Minus (-)	765
	Normal	600		Normal	800		Normal	850
	Plus (+)	660		Plus (+)	880		Plus (+)	935
B	Minus (-)	720	B	Minus (-)	990	B	Minus (-)	1035
	Normal	800		Normal	1100		Normal	1150
	Plus (+)	880		Plus (+)	1210		Plus (+)	1265
C	Minus (-)	900	C	Minus (-)	1260	C	Minus (-)	1305
	Normal	1000		Normal	1400		Normal	1450
	Plus (+)	1100		Plus (+)	1540		Plus (+)	1595
D	Minus (-)	1080	D	Minus (-)	1620	D	Minus (-)	1665
	Normal	1200		Normal	1800		Normal	1850
	Plus (+)	1320		Plus (+)	1980		Plus (+)	2,000*

ADVC8 Low Stage Cooling Speed Charts

ADVC80603B***			ADVC80805C***			ADVC81005C***		
Cooling Speed Tap	**Adjust Tap**	**CFM[1]**	**Cooling Speed Tap**	**Adjust Tap**	**CFM[1]**	**Cooling Speed Tap**	**Adjust Tap**	**CFM[1]**
A	Minus (-)	351	A	Minus (-)	468	A	Minus (-)	497
	Normal	390		Normal	520		Normal	553
	Plus (+)	429		Plus (+)	572		Plus (+)	608
B	Minus (-)	468	B	Minus (-)	644	B	Minus (-)	673
	Normal	520		Normal	715		Normal	748
	Plus (+)	572		Plus (+)	787		Plus (+)	822
C	Minus (-)	585	C	Minus (-)	819	C	Minus (-)	848
	Normal	650		Normal	910		Normal	943
	Plus (+)	715		Plus (+)	1001		Plus (+)	1037
D	Minus (-)	702	D	Minus (-)	1053	D	Minus (-)	1082
	Normal	780		Normal	1170		Normal	1203
	Plus (+)	858		Plus (+)	1287		Plus (+)	1323

1. Units are shipped without filter(s). CFM in chart is without filter(s).
2. All furnaces shipped with heating speed set at "B" and cooling speed set at "D". Installer should adjust blower speed as needed. The first task is to determine the proper aiflow for the cooling system.
3. For most cooling applications, about 400 CFM per ton is desirable.
4. The chart is for information only. For satisfactory operation, external static pressure not to exceed value shown on rating plate.
5. Do not operate above 0.5" w.c. ESP in heating mode. Operating between 0.5" w.c. and 0.8" w.c. is tabulated for cooling purposes only.
6. * Motor CFM maximum.

BLOWER PERFORMANCE SPECIFICATIONS

Circulator Blower Speed Adjustment Switches

Switch Bank: S3		
Cooling Speed Taps	DIP Switch No.	
	1	2
A	OFF	OFF
B	ON	OFF
C	OFF	ON
D*	ON	ON
(*Indicates factory setting)		

Switch Bank: S3		
Adjust Taps	DIP Switch No.	
	3	4
Normal*	OFF	OFF
10%	ON	OFF
-10%	OFF	ON
Normal	ON	ON
(*Indicates factory setting)		

Switch Bank: S4		
Heating Speed Taps	DIP Switch No.	
	7	8
A	OFF	OFF
B*	ON	OFF
C	OFF	ON
D	ON	ON
(*Indicates factory setting)		

Note: There are dual 7-segment LED's adjacent to the selection dipswitches. The airflow rounded to the nearest 100 CFM, is displayed on the dual 7-segment LED's. The CFM display alternates with the operating mode.

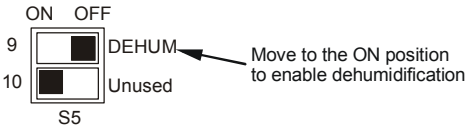
Example:

If the airlfow demand is 1230 CFM, the LED's will display 12. If the airflow demand is 1275 CFM, the LED's will display 13.

Note: Continuous fan speed will be *25%* of the furnace's maximum airflow capability. If the furnace maximum CFM capaibility is 1760 CFM, the continuous fan speed will be 0.30 X 1760 CFM = 530 CFM.

Example: If the furnace maximum CFM capaibility is 1760 CFM, the continuous fan speed will be 0.30 X 1760 CFM = 530 CFM.

Dehumidification Enable Switch



Note: The optional usage of a dehumidistat allows the furnace's circulator blower to operate at a slightly lower speed (85% of desired speed) during a combined thermostat call for cooling and dehumidistat call for dehumidification. This can be done through an independent dehumidistat or through a thermostat's DEHUM terminal (if available). This lower blower speed enhances dehumidification of the conditioned air as it passes through the AC coil. For proper function, a dehumidistat applied to this furnace must operate on 24 VAC and utilize a switch which *opens on humidity rise.*

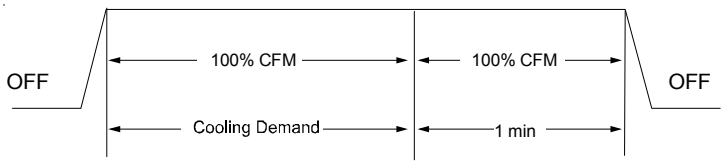
1. Units are shipped without filter(s). CFM in chart is without filter(s).
2. All furnaces shipped with heating speed set at "B" and cooling speed set at "D". Installer should adjust blower speed as needed. The first task is to determine the proper aiflow for the cooling system.
3. For most cooling applications, about 400 CFM per ton is desirable.
4. The chart is for information only. For satisfactory operation, external static pressure not to exceed value shown on rating plate.
5. Do not operate above 0.5" w.c. ESP in heating mode. Operating between 0.5" w.c. and 0.8" w.c. is tabulated for cooling purposes only.
6. * Motor CFM maximum.

BLOWER PERFORMANCE SPECIFICATIONS

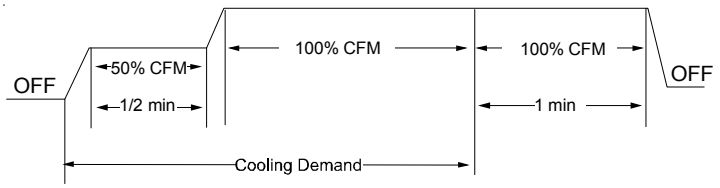
Ramping Profile

Switch Bank: S4		
Ramping Profiles	DIP Switch No.	
	5	6
A*	OFF	OFF
B	ON	OFF
C	OFF	ON
D	ON	ON
(*Indicates factory setting)		

Note: The multi-speed circulator blower also offers several custom ON/OFF ramping profiles. These profiles may be used to enhance cooling performance and increase comfort level. The ramping profiles are selected using DIP switches 5 and 6. Refer to the following figure for switch positions and their corresponding taps. Refer to the bullet points below for a description of each ramping profile. Verify CFM by noting the number displayed on the dual 7-segment LED display.



Profile A: provides only an OFF delay of one (1) minute at 100% of the cooling demand airflow.



Profile B: ramps up to full cooling demand airflow by first stepping up to 50% of the full demand for 30 seconds. The motor then ramps to 100% of the required airflow. A one (1) minute OFF delay at 100% of the cooling airflow is provided.

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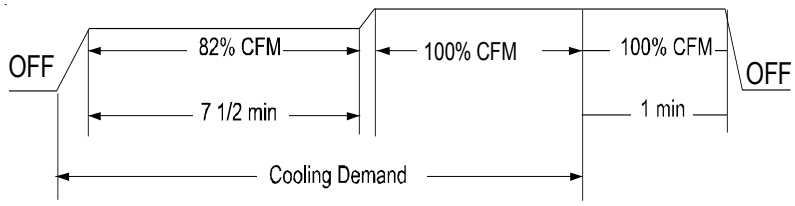
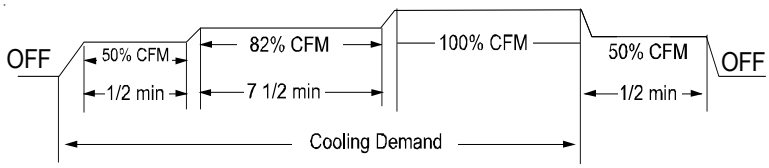
2. All furnaces shipped with heating speed set at "B" and cooling speed set at "D". Installer should adjust blower speed as needed. The first task is to determine the proper aiflow for the cooling system.
3. For most cooling applications, about 400 CFM per ton is desirable.
4. The chart is for information only. For satisfactory operation, external static pressure not to exceed value shown on rating plate.
5. Do not operate above 0.5" w.c. ESP in heating mode. Operating between 0.5" w.c. and 0.8" w.c. is tabulated for cooling purposes only.
6. * Motor CFM maximum.

BLOWER PERFORMANCE SPECIFICATIONS

Ramping Profile



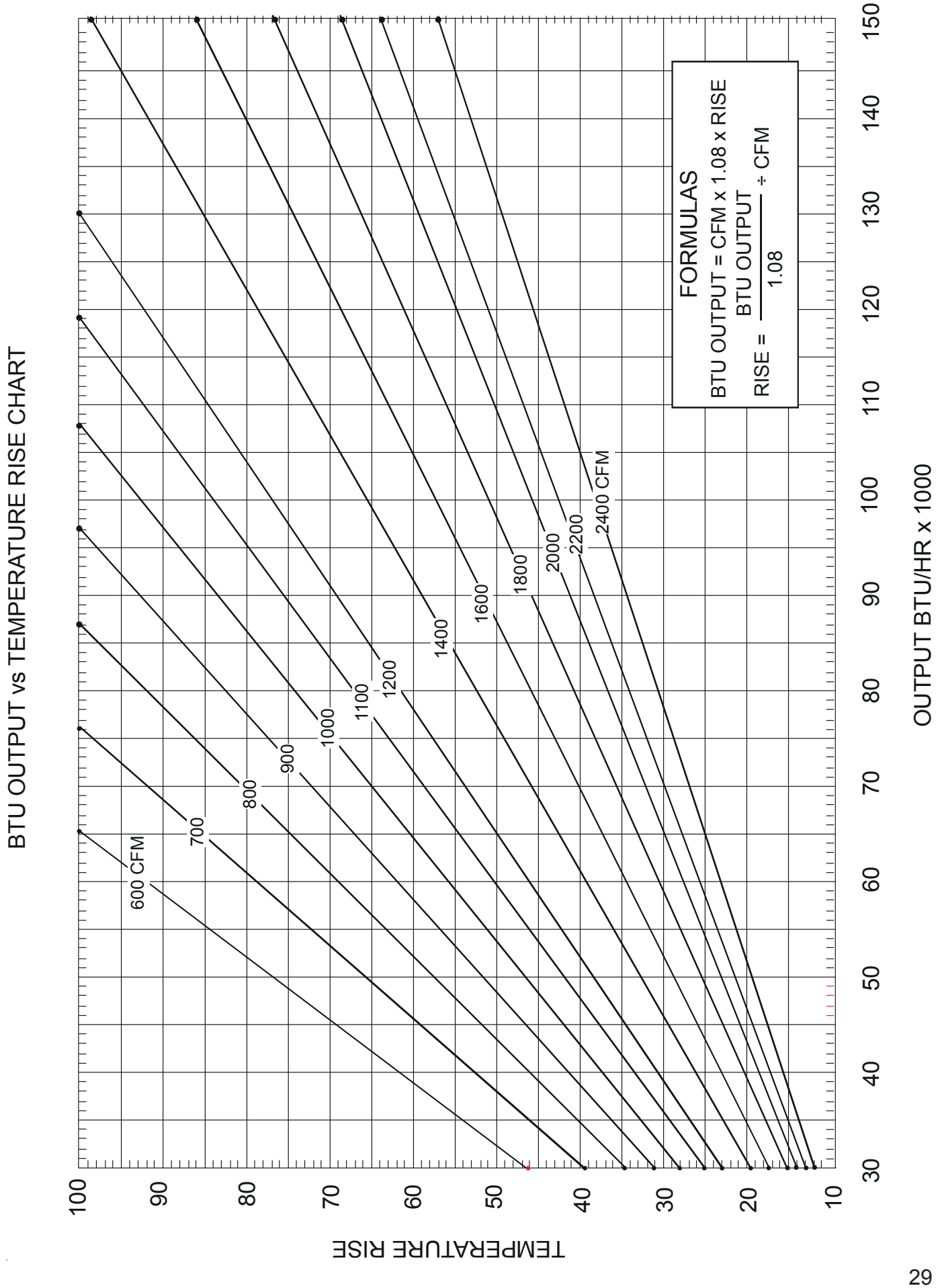
Profile C: ramps up to 82% of the full cooling demand airflow and operates there for approximately 7 1/2 minutes. The motor then steps up to the full demand airflow. Profile C also has a one (1) minute 100% OFF delay.



Profile D: ramps up to 50% of the demand for 1/2 minute, then ramps to 82% of the full cooling demand airflow and operates there for approximately 7 1/2 minutes. The motor then steps up to the full demand airflow. Profile D has a 1/2 minute at 50% airflow OFF delay.

1. Units are shipped without filter(s). CFM in chart is without filter(s).
2. All furnaces shipped with heating speed set at "B" and cooling speed set at "D". Installer should adjust blower speed as needed. The first task is to determine the proper aiflow for the cooling system.
3. For most cooling applications, about 400 CFM per ton is desirable.
4. The chart is for information only. For satisfactory operation, external static pressure not to exceed value shown on rating plate.
5. Do not operate above 0.5" w.c. ESP in heating mode. Operating between 0.5" w.c. and 0.8" w.c. is tabulated for cooling purposes only.
6. * Motor CFM maximum.

PERFORMANCE

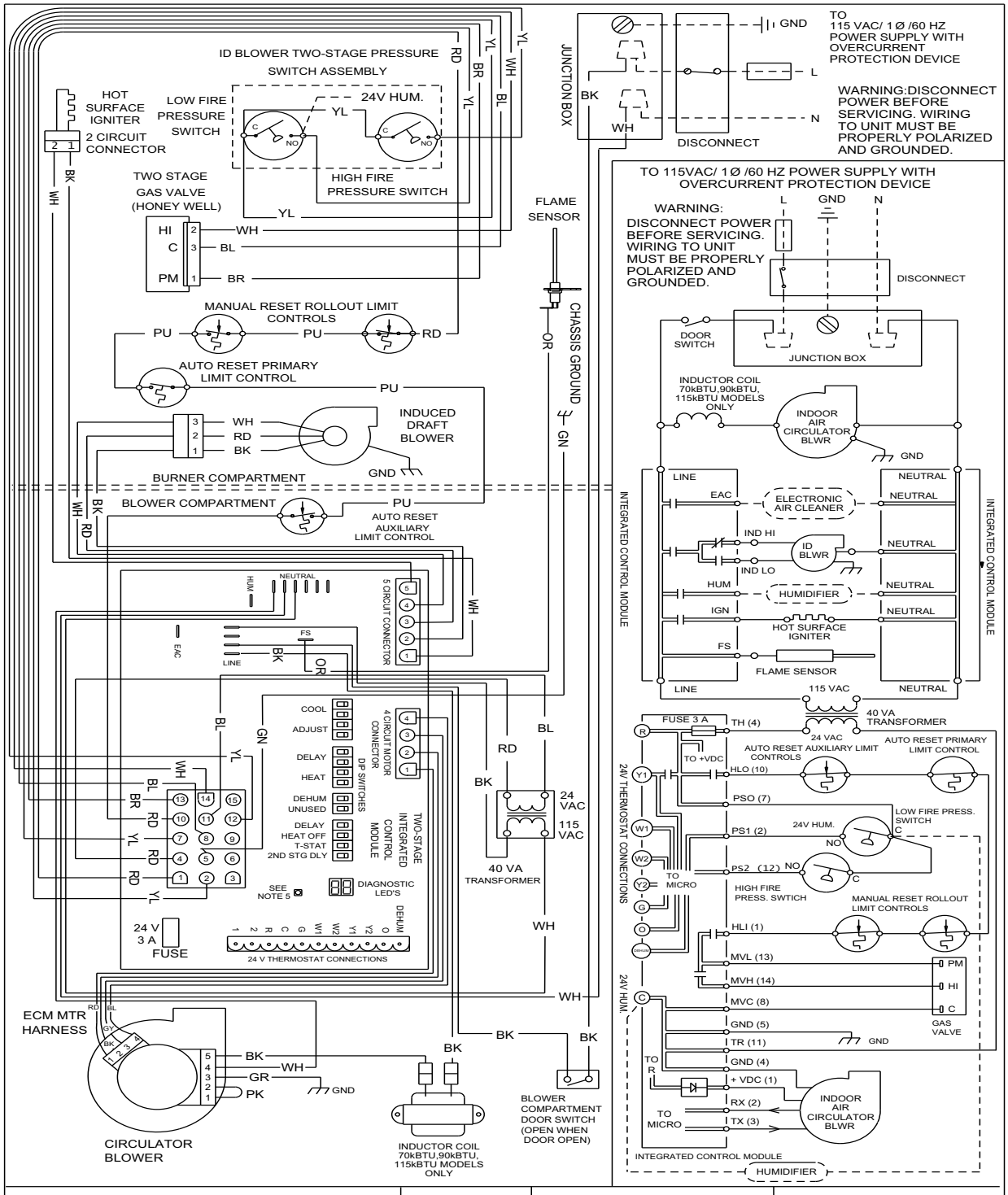


WIRING DIAGRAMS

*MVC8, *DVC8 WIRING DIAGRAM

WARNING

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.



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)

0140F00818 REV. B

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

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

SCHEMATICS

WARNING

HIGH VOLTAGE!
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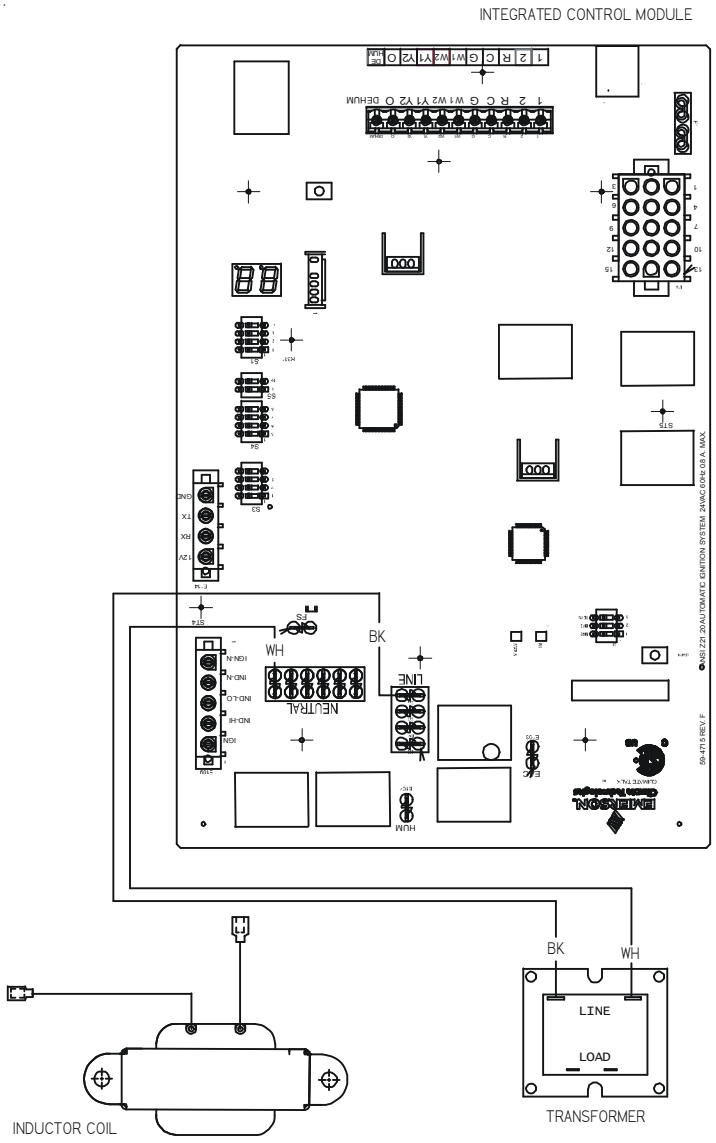

CONTROL ASSEMBLY SCHEMATIC
ADVC8/AMVC8/GMVC8____X* MODEL FURNACES
This schematic is for reference only. Not all wiring is as shown above,
refer to the appropriate wiring diagram for the unit being serviced.

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

SCHEMATICS

WARNING

HIGH VOLTAGE!
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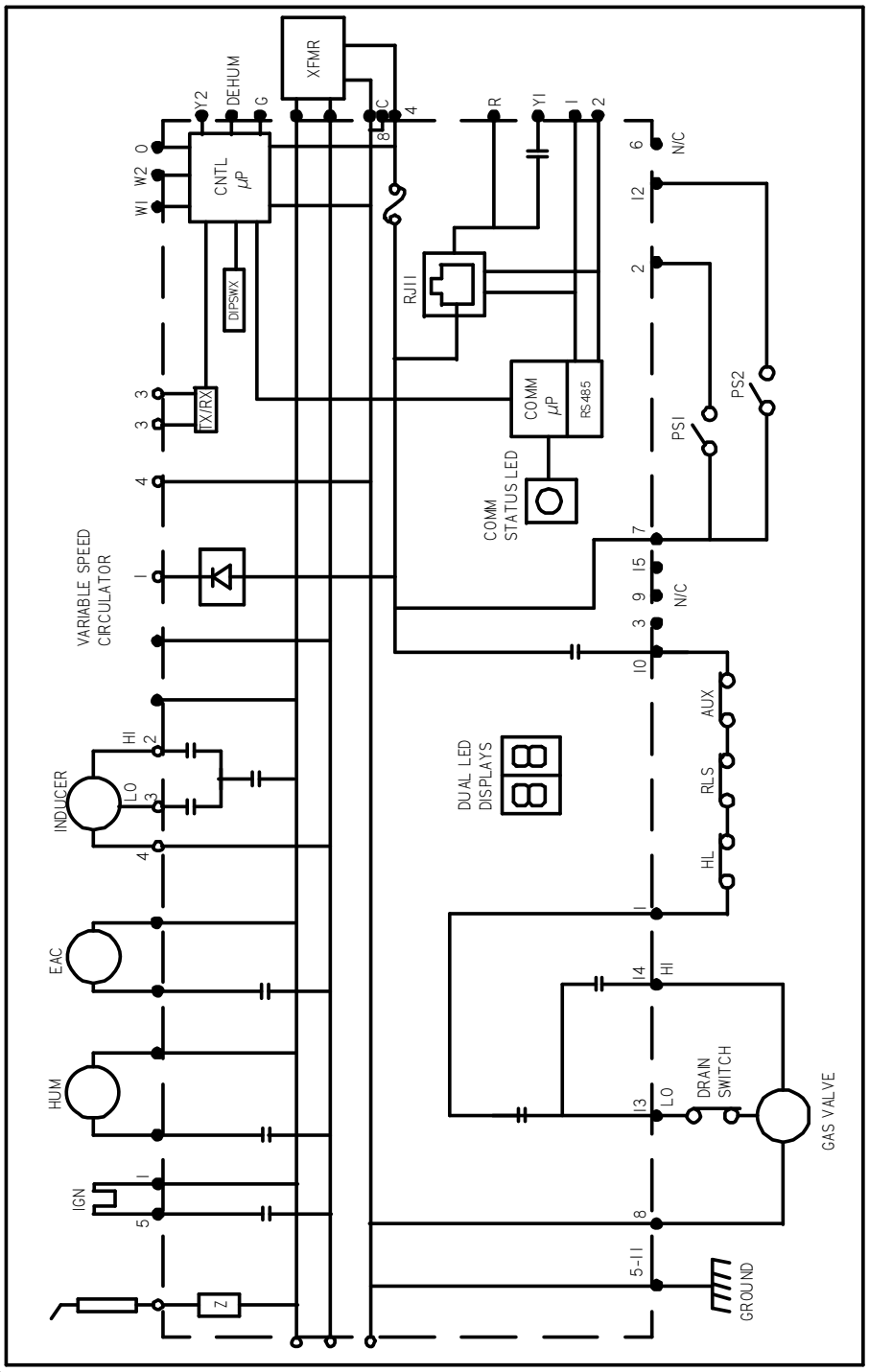

WIRING SCHEMATIC

TYPICAL SCHEMATIC
ADVC8/AMVC8/GMVC8____X* MODEL FURNACES
WR 50C51-289 INTEGRATED IGNITION CONTROL

This schematic is for reference only. Not all wiring is as shown above. Refer to the appropriate wiring diagram for the unit being serviced.

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