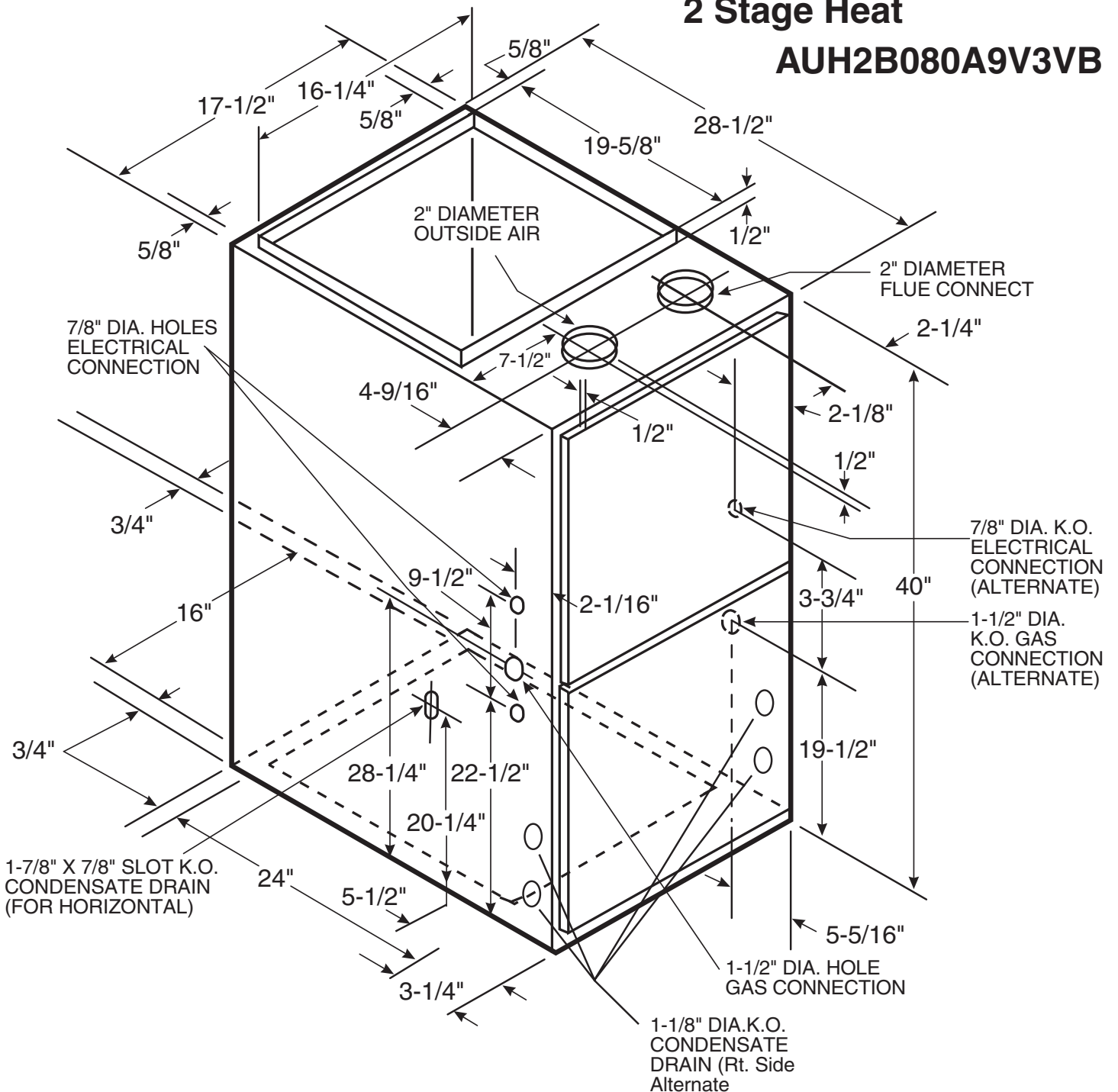


TAG: _____

SPECIFICATION

**Upflow/Horizontal
Direct Vent Gas Furnace
Variable Speed Inducer
2 Stage Heat**

AUH2B080A9V3VB



*UH2B080A9V3V FURNACE HEATING AIRFLOW (CFM) AND POWER (WATTS) VS. EXTERNAL STATIC PRESSURE WITH FILTER									
					50,440 77,600				
	AIRFLOW SETTING	DIP SWITCH SETTING			EXTERNAL STATIC PRESSURE				
		SW 7	SW 8		0.1	0.3	0.5	0.7	0.9
HEATING 1ST STAGE	LOW	ON	ON	CFM	800	800	800	800	800
				TEMP. RISE	56	56	56	56	56
				WATTS	105	140	180	220	265
	MEDIUM LOW	OFF	ON	CFM	860	880	890	920	910
NORMAL **	ON	OFF	TEMP. RISE	52	51	50	48	49	
			WATTS	115	165	215	265	320	
			CFM	960	990	1000	1020	1010	
HIGH	OFF	OFF	TEMP. RISE	46	45	44	44	44	
			WATTS	150	200	230	310	350	
			CFM	1080	1110	1120	1120	1080	
HEATING 2ND STAGE	LOW	ON	ON	TEMP. RISE	41	40	40	40	41
				WATTS	195	255	315	365	390
				CFM	1100	1100	1120	1120	1090
	MEDIUM LOW	OFF	ON	TEMP. RISE	62	62	61	61	63
NORMAL **	ON	OFF	WATTS	205	260	320	370	400	
			CFM	1210	1240	1260	1260	1130	
			TEMP. RISE	57	55	54	54	61	
HIGH	OFF	OFF	WATTS	265	340	410	470	430	
			CFM	1360	1390	1400	1360	1210	
			TEMP. RISE	50	49	49	50	57	
HIGH	OFF	OFF	WATTS	365	445	500	535	475	
			CFM	1360	1390	1400	1350	1180	
			TEMP. RISE	50	49	49	51	58	
					355	450	520	535	465

NOTES:
* First letter may be "A" or "T"
** Factory setting

*UH2B080A9V3V FURNACE COOLING AIRFLOW (CFM) AND POWER (WATTS) VS. EXTERNAL STATIC PRESSURE WITH FILTER											
OUTDOOR UNIT SIZE (TONS)	AIRFLOW SETTING	DIP SWITCH SETTING					EXTERNAL STATIC PRESSURE				
		SW 1	SW 2	SW 3	SW 4		0.1	0.3	0.5	0.7	0.9
2.0	LOW (350 CFM/TON)	ON	ON	OFF	ON	CFM	750	750	750	720	710
	NORMAL (400 CFM/TON)	ON	ON	OFF	OFF	WATTS	84	122	154	185	221
						CFM	840	840	840	840	820
2.5	LOW (350 CFM/TON)	OFF	ON	OFF	ON	WATTS	109	146	181	226	264
	NORMAL (400 CFM/TON)	OFF	ON	OFF	OFF	CFM	940	940	940	940	940
						WATTS	136	177	215	274	318
3.0	LOW (350 CFM/TON)	ON	OFF	OFF	ON	CFM	850	850	870	890	890
	NORMAL (400 CFM/TON)	ON	OFF	OFF	OFF	WATTS	113	150	200	250	295
						CFM	960	990	1000	1020	1010
3.5	LOW (350 CFM/TON)	OFF	ON	ON	OFF	WATTS	150	200	230	305	350
	NORMAL (400 CFM/TON)	OFF	ON	ON	OFF	CFM	1080	1110	1120	1120	1080
						WATTS	195	255	315	365	390
3.5	LOW (350 CFM/TON)	ON	OFF	OFF	ON	CFM	1020	1020	1040	1050	1050
	NORMAL (400 CFM/TON)	ON	OFF	OFF	OFF	WATTS	175	225	280	330	375
						CFM	1170	1180	1200	1200	1130
3.5	LOW (350 CFM/TON)	OFF	OFF	ON	OFF	WATTS	240	300	365	415	420
	NORMAL (400 CFM/TON)	OFF	OFF	OFF	OFF	CFM	1290	1320	1350	1340	1150
						WATTS	310	410	470	520	440
3.5	LOW (350 CFM/TON)	OFF	OFF	ON	OFF	CFM	1170	1190	1210	1210	1100
	NORMAL (400 CFM/TON)	OFF	OFF	OFF	OFF	WATTS	250	315	370	435	405
						CFM	1360	1390	1400	1360	1210
3.5	LOW (350 CFM/TON)	OFF	OFF	ON	OFF	WATTS	365	445	500	535	475
	NORMAL (400 CFM/TON)	OFF	OFF	ON	OFF	CFM	1360	1390	1400	1350	1180
						WATTS	355	450	520	535	460

NOTES: * First letter may be "A" or "T"
1. At continuous fan setting: Heating or Cooling airflows are approximately 50% of selected cooling value.
2. LOW airflow (350 cfm/ton) is COMFORT & HUMID CLIMATE setting;
NORMAL airflow (400 cfm/ton) is typical setting;
HIGH airflow (450 cfm/ton) is DRY CLIMATE setting.

INDOOR BLOWER TIMING

Heating: The ICM Fan Control controls the variable speed indoor blower. The blower "on" time is fixed at 45 seconds after ignition. The FAN-OFF period is field selectable by dip switches #2 and #3 on the Integrated Furnace Control at 60, 100, 140, or 180 seconds. The factory setting is 100 seconds, (See unit wiring diagram).

Cooling: The fan delay-off period is set by dip switches on the ICM Fan Control board connected to the Integrated Furnace Control. The options for cooling delay off is field selectable by dip switches #5 and #6. However, dip switch #1 on the Integrated Furnace Control must be set to "ON" for cooling mode to function properly.

The following table and graph explain the delay-off settings:

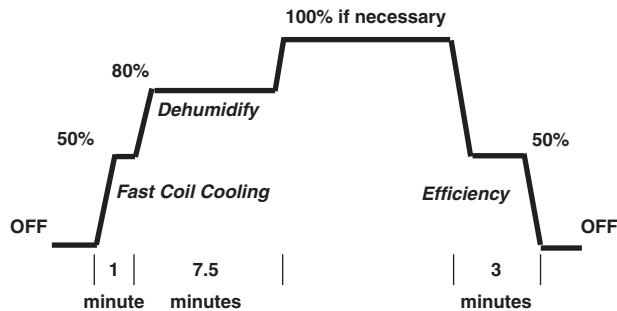
** - This selection provides a ramping up and ramping down of the blower speed to provide improved comfort, quietness, and potential energy savings. The graph below shows the ramping process.

COOLING OFF - DELAY OPTIONS

SWITCH SETTINGS		SELECTION	NOMINAL AIRFLOW
5 - OFF	6 - OFF	NONE	SAME
5 - ON	6 - OFF	1.5 MINUTES	100% *
5 - OFF	6 - ON	3 MINUTES	50%
5 - ON	6 - ON	**	50 - 100%

* - This setting is equivalent to BAY24X045 relay benefit

** - This selection provides **ENHANCED MODE**, which is a ramping up and ramping down of the blower speed to provide improved comfort, quietness, and potential energy savings. See Wiring Diagram notes on the unit or in the Service Facts for complete wiring setup for **ENHANCED MODE**. The graph which follows, shows the ramping process.



GENERAL DATA ^①

MODEL	*UH2B080A9V3VB
TYPE	Upflow / Horizontal
RATINGS ^②	
1st Stage Input BTUH	52,000
1st Stage Capacity BTUH (ICS) ^③	50,440
2nd Stage Input BTUH	80,000
2nd Stage Capacity BTUH (ICS) ^③	77,600
AFUE	97
Temp. rise (Min.-Max.) °F.	35 - 65
BLOWER DRIVE	DIRECT
Diameter - Width (In.)	10 x 8
No. Used	1
Speeds (No.)	Variable
CFM vs. in. w.g.	See Fan Performance Table
Motor HP	1/2
R.P.M.	Variable
Volts / Ph / Hz	115/1/60
FLA	7.7
COMBUSTION FAN - Type	Centrifugal
Drive - No. Speeds	Direct - Variable
Motor HP - RPM	1/50 - 5000
Volts / Ph / Hz	33 - 110/3/60 - 180
FLA	1.0
FILTER — Furnished?	Yes
Type Recommended	High Velocity
Hi Vel. (No.-Size-Thk.)	1 - 17x25 - 1 in.
VENT — Size (in.)	2 Round
HEAT EXCHANGER	
Type - Fired	Aluminized Steel - Type I
-Unfired	
Gauge (Fired)	20
ORIFICES — Main	
Nat. Gas Qty. — Drill Size	4 — 45
L.P. Gas Qty. — Drill Size	4 — 56
GAS VALVE	Redundant - Two Stage
PILOT SAFETY DEVICE	
Type	Hot Surface Igniter
BURNERS — Type	Multiport Inshot
Number	4
POWER CONN. — V/Ph/Hz ^④	115/1/60
Ampacity (In Amps)	10.8
Max. Overcurrent Protection (Amps)	15
PIPE CONN. SIZE (IN.)	1/2
DIMENSIONS	H x W x D
Crated (In.)	41-3/4 x 19-1/2 x 30-1/2
WEIGHT	
Shipping (Lbs.)/Net (Lbs)	168 / 156

① Central Furnace heating designs are certified to ANSI Z21.47 / CSA 2.3

② For U.S. applications, above input ratings (BTUH) are up to 2,000 feet, derate 4% per 1,000 feet for elevations above 2,000 feet above sea level.

For Canadian applications, above input ratings (BTUH) are up to 4,500 feet, derate 4% per 1,000 feet for elevations above 4,500 feet above sea level.

③ Based on U.S. government standard tests.

④ The above wiring specifications are in accordance with National Electrical Code; however, installations must comply with local codes.

Mechanical Specifications

NATURAL GAS MODELS

Central Heating furnace designs are certified by to ANSI Z21.47 / CSA 2.3 for both natural and L.P. gas. Limit setting and rating data were established and approved under standard rating conditions using American National Standards Institute standards.

SAFE OPERATION

The Integrated System Control has solid state devices, which continuously monitor for presence of flame, when the system is in the heating mode of operation. Dual solenoid combination gas valve and regulator provide additional safety.

QUICK HEATING

Durable, cycle tested, heavy gauge **aluminized steel heat exchanger** quickly transfers heat to provide warm conditioned air to the structure. **Low energy power vent blower**, to increase efficiency and provide a positive discharge of gas fumes to the outside.

BURNERS

Multiport Inshot burners will give years of quiet and efficient service. All models can be converted to **L.P. gas** without changing burners.

INTEGRATED SYSTEM CONTROL

Exclusively designed operational program provides total control of furnace limit sensors, blowers, gas valve, flame control and includes self diagnostics for ease of service. Also contains connection points for E.A.C./Humidifier.

ENERGY EFFICIENT OPERATION

Furnace is certified to leak 2% or less of nominal air conditioning CFM delivered when pressurized to .5" water column with all inlets, outlets, and drains sealed.

AIR DELIVERY

The variable speed blower motor has sufficient airflow for most heating and cooling requirements and will switch from heating to cooling speeds on demand from room thermostat. The blower door safety switch will prevent or terminate furnace operation when the blower door is removed.

SECONDARY HEAT EXCHANGER

The FREEDOM 95 has a special type 29-4C™ stainless steel secondary heat exchanger to reclaim heat from flue gases which would normally be lost instead.

STYLING

Heavy gauge steel and “wrap-around” cabinet construction is used in the cabinet with baked-on enamel finish for strength and beauty. The heat exchanger section of the cabinet is completely lined with foil faced fiberglass insulation. This results in quiet and efficient operation due to the excellent acoustical and insulating qualities of fiberglass. Built-in bottom pan and alternate bottom, left or right side return air connection provision.

FEATURES AND GENERAL OPERATION

The FREEDOM 95 High Efficiency Gas Furnaces utilize an Adaptive Heat Up Silicon Nitride Hot Surface Ignition system, which eliminates the waste of a constant burning pilot. The integrated system control lights the main burners upon a demand for heat from the room thermostat. Complete front service access.

- Low energy power venter
- Vent proving pressure switch.

The manufacturer has a policy of continuous product and product data improvement and reserves the right to change specifications and design without notice.

American Standard
Heating & Air Conditioning
6200 Troup Highway
Tyler, TX 75711-9010
www.americanstandardair.com

