



# Gas Furnaces 95AF2V

## PRODUCT SPECIFICATIONS

### INSTALLATION OPTIONS

- Upflow/Horizontal models

### HEAT EXCHANGER

- Aluminized steel primary heat exchanger with crimped non-welded construction
- Stainless steel secondary heat exchanger
- Flue condensate trap furnished

### BURNERS

- Aluminized steel inshot burners for smooth combustion
- Isolated burner enclosure for quiet operation

### CABINET CONSTRUCTION

- Unitized construction for cabinet integrity
- Bottom or side return air
- Baked on pre-painted steel cabinet finish
- Left or right side gas and electric entry
- Heat exchanger compartment is insulated to increase efficiency and reduce sound levels

### BLOWER

- Efficient ECM variable speed blower motor
- Blower motor features “soft start” and “soft stop” for quiet operation
- Active and passive dehumidification feature
- Dynamically balanced blower wheel with resilient motor mounts for smooth and quiet operation
- Easily removable slide-out blower design

### CONTROLS

- Two-stage gas valve
- Integrated ignition and fan control features self-diagnostic capability
- Hot surface ignitor
- Color-coded control wiring
- Compatible with single or two-stage thermostats for heating

### VENTING

- One or two-pipe venting ready

**95% AFUE**  
**Two-Stage Heat**  
**Variable Speed Blower**  
**29,000 to 90,000 Btuh Input**  
**3 to 5 Tons Add-On Cooling**

NOTE - AVAILABLE IN CANADA ONLY!



Upflow /  
Horizontal



Proper sizing and installation of equipment is critical to achieve optimal performance. Ask your contractor for details or visit <http://www.nrcan.gc.ca>

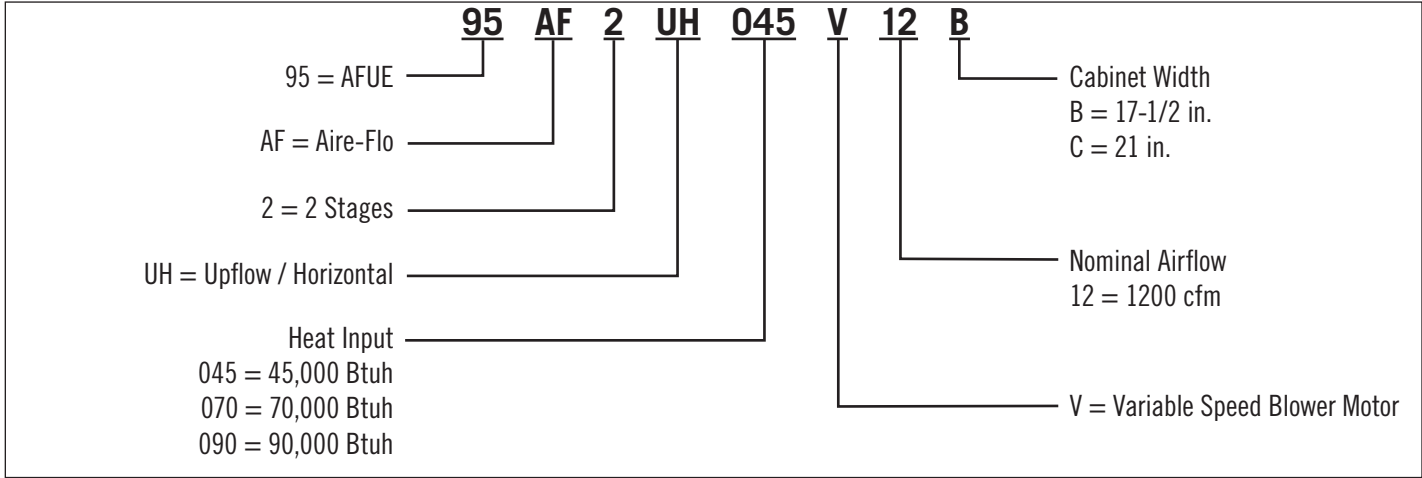
### Warranty

Heat Exchanger - 20 Year Limited  
Parts - 5 Year Limited

# Gas Furnaces

## 95AF2V

### Model Number Identification



### Specifications

Model No.	95AF2UH045V12B		95AF2UH070V12B		95AF2UH090V12C	
	1st Stage	2nd Stage	1st Stage	2nd Stage	1st Stage	2nd Stage
Input Btuh	29,000	44,000	43,000	66,000	57,000	88,000
Output Btuh	28,000	42,000	41,000	62,000	55,000	84,000
AFUE (Isolated Comb. System)	95.0%		95.0%		95.0%	
Temperature Rise (°F)	High	35 – 65	50 – 80		60 – 90	
	Low	20 – 50	25 – 55		30 – 60	
Gas Pipe Size (in.)	1/2		1/2		1/2	
Inlet/Vent Connection in. (diameter)	2		2		2	
Condensate Drain Trap (PVC) - i.d.	3/4		3/4		3/4	
Volts/Hertz/Phase	120/60/1		120/60/1		120/60/1	
Blower Motor Horsepower	1/2		1/2		1/2	
Add-On Cooling (tons)	3		3		3	
Circuit Breaker or Fuse	15		15		15	
Full Load Amps	7.7		7.7		7.7	
Blower Wheel Size (Dia. x Width)	10 x 9		10 x 9		10 x 9	
Shipping Weight (lbs.)	130		136		152	

# Gas Furnaces

## 95AF2V

### Accessories

Model No.		95AF2UH045V12B 95AF2UH070V12B	95AF2UH090V12C	
		Upflow / Horiz.	Upflow / Horiz.	
<b>CABINET</b>				
Horizontal Suspension Kit (Horizontal)		51W10	51W10	
Return Air Base (Upflow)		50W98	50W99	
<b>DRAIN KIT</b>				
Condensate Drain Heat Cable	6 ft.	26K68	26K68	
	24 ft.	26K69	26K69	
Crawlspace Vent Drain Kit		15Z70	15Z70	
<b>FILTER KITS</b>				
<sup>1</sup> Air Filter and Rack Kit (Upflow/Horizontal)	Horizontal (end)		87L96 (18 x 25 x 1)	87L97 (20 x 25 x 1)
	Side Return (Upflow)	Single	44J22	44J22
		10-pack	66K63	66K63
		Size	16 x 25 x 1	16 x 25 x 1
<b>GAS HEATING</b>				
High Altitude Pressure Switch Kit	4501-7500 ft.	14A47 (045) 14A54 (070)	14A57 (090)	
	7501-10,000 ft.	14A50 (045) 14A53 (070)	14A54 (090)	
Natural to LP Conversion Kit	0-7500 ft.	11K51	11K51	
LP to Natural Conversion Kit	0-7500 ft.	77W09	77W09	
Natural Gas High Altitude Orifice Kit	7501-10,000 ft.	73W37	73W37	
LP High Altitude Orifice Kit	7501-10,000 ft.	11K46	11K46	
<b>NIGHT SERVICE KIT</b>				
Night Service Kit		84W50	84W50	
<b>VENTING</b>				
Concentric Vent Kit	1-1/2 in. (US)	71M80	71M80	
	2 in. (US)	69M29	69M29	
	3 in. (US)	---	60L46	
	2 in. (Canada)	44W92	44W92	
	3 in. (Canada)	---	44W93	
Flush Mount	2, 2-1/2 or 3 in. (US)	51W11	51W11	
	2, 2-1/2 or 3 in. (Canada)	51W12	51W12	
Wall - Close Couple	2 in. (US)	22G44	---	
	3 in. (US)	44J40	44J40	
Wall - Close Couple WTK	2 in. (Canada)	30G28	---	
	3 in. (Canada)	81J20	81J20	
Roof	2 in.	15F75	15F75	
Wall Ring Kit	2 in.	15F74	<sup>3</sup> 15F74	
<sup>2</sup> Flashing Kit	2 in.	44J41	44J41	

<sup>1</sup> Cleanable polyurethane frame type filter.

<sup>2</sup> Kits contain enough parts for two, non-direct vent installations.

<sup>3</sup> Non-direct vent only.

NOTE - Termination Kits (44W92, 44W93, 30G28, 51W12, 81J20) and Crawl Space Vent Drain Kit (15Z70) are certified to ULC S636 standard for use in Canada only.

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## High Altitude Derate

NOTE - Units may be installed at altitudes up to 10,000 ft.

At altitudes above 4501 ft. the unit must be derated to match the manifold pressure information shown below.

Units installed at altitudes of 4501 to 10,000 ft. require a pressure switch change.

Units installed at altitudes of 7501 to 10,000 ft. require an orifice change.

See the Gas Heat Accessories table for ordering information.

NOTE - This is the only permissible derate for these units.

NOTE - In Canada, certification for installations at elevations over 4500 feet is the jurisdiction of local authorities.

Input	Gas	Manifold Pressure in. w.g.										Supply Line Pressure in. w.g. 0 - 10,000 ft.	
		0 - 4500 ft.		4501 - 5500 ft.		5501 - 6500 ft.		6501 - 7500 ft.		7501 - 10,000 ft.		Min.	Max.
		Low Fire	High Fire	Low Fire	High Fire	Low Fire	High Fire	Low Fire	High Fire	Low Fire	High Fire		
All Sizes	Natural	1.7	3.5	1.6	3.3	1.5	3.2	1.5	3.1	1.7	3.5	4.5	13.0
	LPG/Propane	4.9	10.0	4.6	9.4	4.4	9.1	4.3	8.9	4.9	10.0	11.0	13.0

## Clearance to Combustibles (in.)

Sides	<sup>1</sup> 0
Rear	0
Top/Plenum	<sup>1</sup> 1
Front	0
Front (service/alcove)	24
Floor	<sup>2</sup> Combustible

NOTE – Air for combustion must conform to the methods outlined in the National Fuel Gas Code (NFPA 54/ANSI-Z223.1) or the National Standard of Canada CAN/CSA-B149.1 Natural Gas and Propane Installation Code”.

NOTE – In the U.S. flue sizing must conform to the methods outlined in the current National Fuel Gas Code (NFPA 54/ANSI-Z223.1) or applicable provisions of local building codes. In Canada flue sizing must conform to the methods outlined in National Standard of Canada CAN/CSA-B149.1.

<sup>1</sup> Allow proper clearances to accommodate condensate trap and vent pipe installation.

<sup>2</sup> Do not install the upflow furnace directly on carpeting, tile, or other combustible materials other than wood flooring.

# Gas Furnaces

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### Blower Performance Data

Model No.	Stage	Speed Adjustment Jumper Setting	Heating CFM @ .10" – .80" w.c.				Cooling CFM @ .10" – .80" w.c.			
			Jumper Setting				Jumper Setting			
			"D"	"C"	"B"	"A"	"D"	"C"	"B"	"A"
95AF2UH045V12B	2nd Stage	+	745	875	990	1005	905	1075	1210	1370
		Norm	685	765	895	910	815	980	1120	1255
		–	610	695	785	810	720	885	1020	1135
	1st Stage	+	685	765	895	910	595	760	865	980
		Norm	620	705	800	820	540	660	785	890
		–	545	625	715	725	485	600	695	790
95AF2UH070V12B	2nd Stage	+	965	1130	1255	1400	860	1060	1215	1365
		Norm	880	990	1140	1295	810	960	1130	1265
		–	810	890	1030	1170	705	840	1005	1140
	1st Stage	+	940	1070	1195	1345	600	740	840	970
		Norm	830	965	1100	1235	555	665	770	855
		–	755	840	975	1130	500	600	680	790
95AF2UH090V12C	2nd Stage	+	1060	1135	1240	1430	875	1040	1210	1360
		Norm	960	1040	1120	1310	800	945	1100	1245
		–	830	935	980	1175	720	840	970	1115
	1st Stage	+	960	1040	1120	1310	625	710	830	950
		Norm	875	945	995	1195	565	670	760	860
		–	790	840	920	1080	520	610	685	785

# Gas Furnaces

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### Vent Lengths - Feet

NOTE - Size intake and exhaust pipe length separately. Values in table are for Intake OR Exhaust, not combined total. Both Intake and Exhaust must be same pipe size.

STANDARD TERMINATION AT ELEVATION 0 - 4500 ft.										
Pipe Size		2 in.			2-1/2 in.			3 in.		
Input		045	070	090	045	070	090	045	070	090
No. of 90° elbows used	1	76	61	39	110	110	88	133	132	113
	2	71	56	34	105	105	83	128	127	108
	3	66	51	29	100	100	78	123	122	103
	4	61	46	24	95	95	73	118	117	98
	5	56	41	19	90	90	68	113	112	93
	6	51	36	14	85	85	63	108	107	88
	7	46	31	9	80	80	58	103	102	83
	8	41	26	N/A	75	75	53	98	97	78
	9	36	21	N/A	70	70	48	93	92	73
	10	31	16	N/A	65	65	43	88	87	68
STANDARD TERMINATION AT ELEVATION 4501 - 10,000 ft.										
Pipe Size		2 in.			2-1/2 in.			3 in.		
Input		045	070	090	045	070	090	045	070	090
No. of 90° elbows used	1	76	61	39	110	110	88	133	132	113
	2	71	56	34	105	105	83	128	127	108
	3	66	51	29	100	100	78	123	122	103
	4	61	46	24	95	95	73	118	117	98
	5	56	41	19	90	90	68	113	112	93
	6	51	36	14	85	85	63	108	107	88
	7	46	31	9	80	80	58	103	102	83
	8	41	26	N/A	75	75	53	98	97	78
	9	36	21	N/A	70	70	48	93	92	73
	10	31	16	N/A	65	65	43	88	87	68
CONCENTRIC TERMINATION ELEVATION 0 - 4500 ft.										
Pipe Size		2 in.			2-1/2 in.			3 in.		
Input		045	070	090	045	070	090	045	070	090
No. of 90° elbows used	1	68	53	37	100	100	84	116	116	109
	2	63	48	32	95	95	79	111	111	104
	3	58	43	27	90	90	74	106	106	99
	4	53	38	22	85	85	69	101	101	94
	5	48	33	17	80	80	64	96	96	89
	6	43	28	12	75	75	59	91	91	84
	7	38	23	12	70	70	54	86	86	79
	8	33	18	N/A	65	65	49	81	81	74
	9	28	13	N/A	60	60	44	76	76	69
	10	23	8	N/A	55	55	39	71	71	64
CONCENTRIC TERMINATION ELEVATION 4500 - 10,000 ft.										
Pipe Size		2 in.			2-1/2 in.			3 in.		
Input		045	070	090	045	070	090	045	070	090
No. of 90° elbows used	1	68	53	37	100	100	84	116	116	109
	2	63	48	32	95	95	79	111	111	104
	3	58	43	27	90	90	74	106	106	99
	4	53	38	22	85	85	69	101	101	94
	5	48	33	17	80	80	64	96	96	89
	6	43	28	12	75	75	59	91	91	84
	7	38	23	7	70	70	54	86	86	79
	8	33	18	N/A	65	65	49	81	81	74
	9	28	13	N/A	60	60	44	76	76	69
	10	23	8	N/A	55	55	39	71	71	64

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## Vent Lengths (Exhaust)

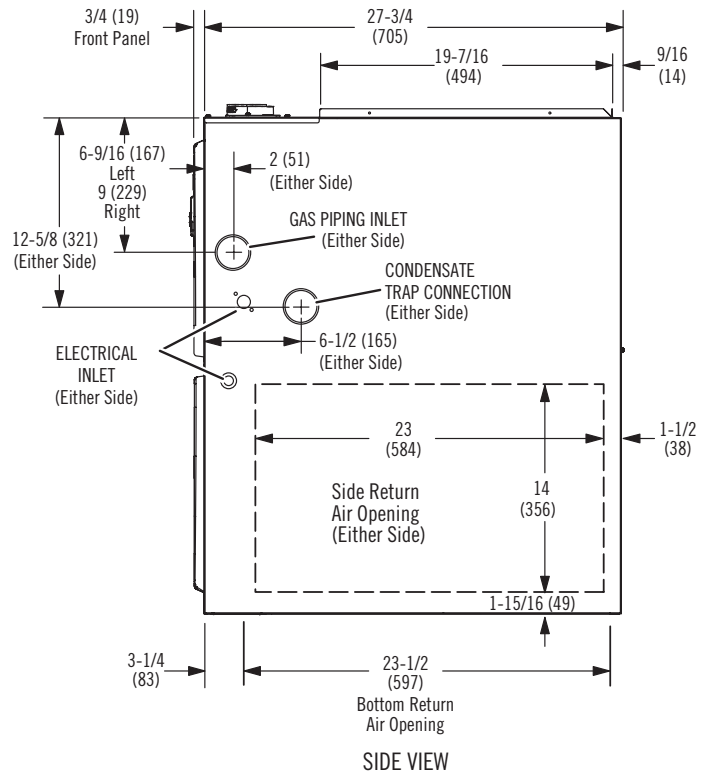
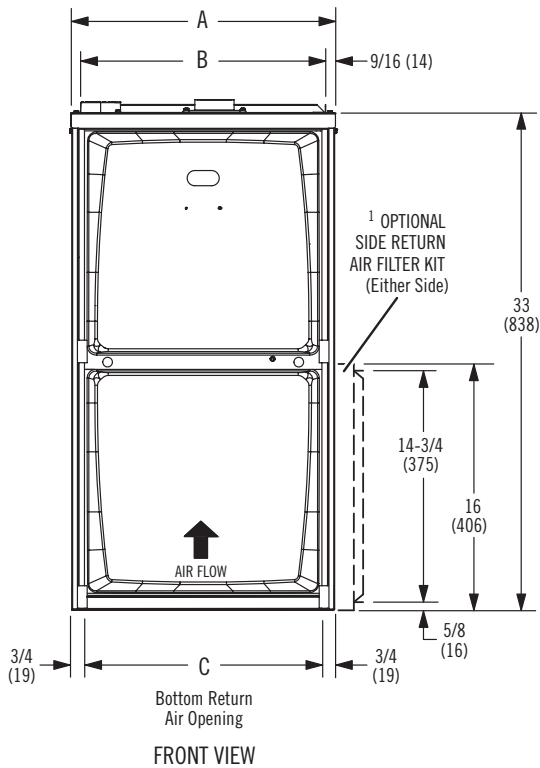
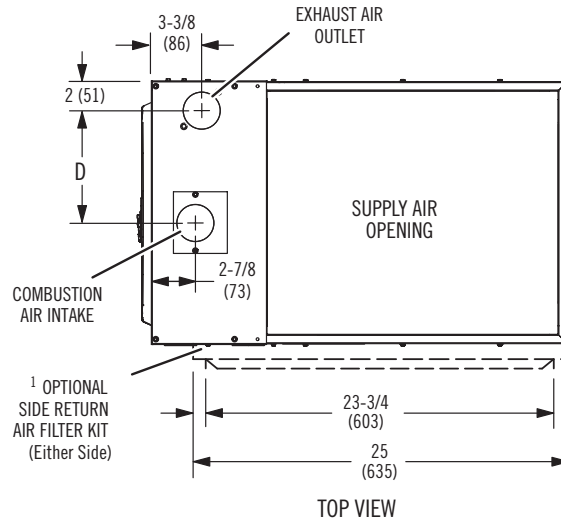
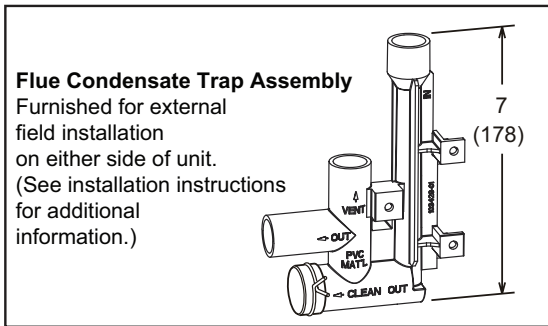
Ventilated Attic Or Crawlspace Intake Air - Feet

STANDARD TERMINATION AT ELEVATION 0 - 4500 ft.										
Pipe Size		2 in.			2-1/2 in.			3 in.		
Input		045	070	090	045	070	090	045	070	090
No. of 90° elbows used	1	66	51	29	95	95	73	113	113	93
	2	61	46	24	90	90	68	108	108	88
	3	56	41	19	85	85	63	103	103	83
	4	51	36	14	80	80	58	98	98	78
	5	46	31	9	75	75	53	93	93	73
	6	41	26	4	80	70	58	88	88	68
	7	36	21	N/A	65	65	43	83	83	63
	8	31	16	N/A	60	60	38	78	78	58
	9	26	11	N/A	55	55	33	73	73	53
	10	21	6	N/A	50	50	28	68	68	48
STANDARD TERMINATION ELEVATION 4501 - 10,000 ft.										
Pipe Size		2 in.			2-1/2 in.			3 in.		
Input		045	070	090	045	070	090	045	070	090
No. of 90° elbows used	1	66	51	29	95	95	73	113	112	93
	2	61	46	24	90	90	68	108	107	88
	3	56	41	19	85	85	63	103	102	83
	4	51	36	14	80	80	58	98	97	78
	5	46	31	9	75	75	53	93	92	73
	6	41	26	4	80	80	48	88	87	68
	7	36	21	N/A	65	65	43	83	82	63
	8	31	16	N/A	60	60	38	78	77	58
	9	26	11	N/A	55	55	33	73	72	53
	10	21	6	N/A	50	50	28	68	67	48

# Gas Furnaces 95AF2V

## Dimensions - inches (mm) Upflow

<sup>1</sup> NOTE - Optional Side Return Air Filter Kit is not for use with the Optional Return Air Base.

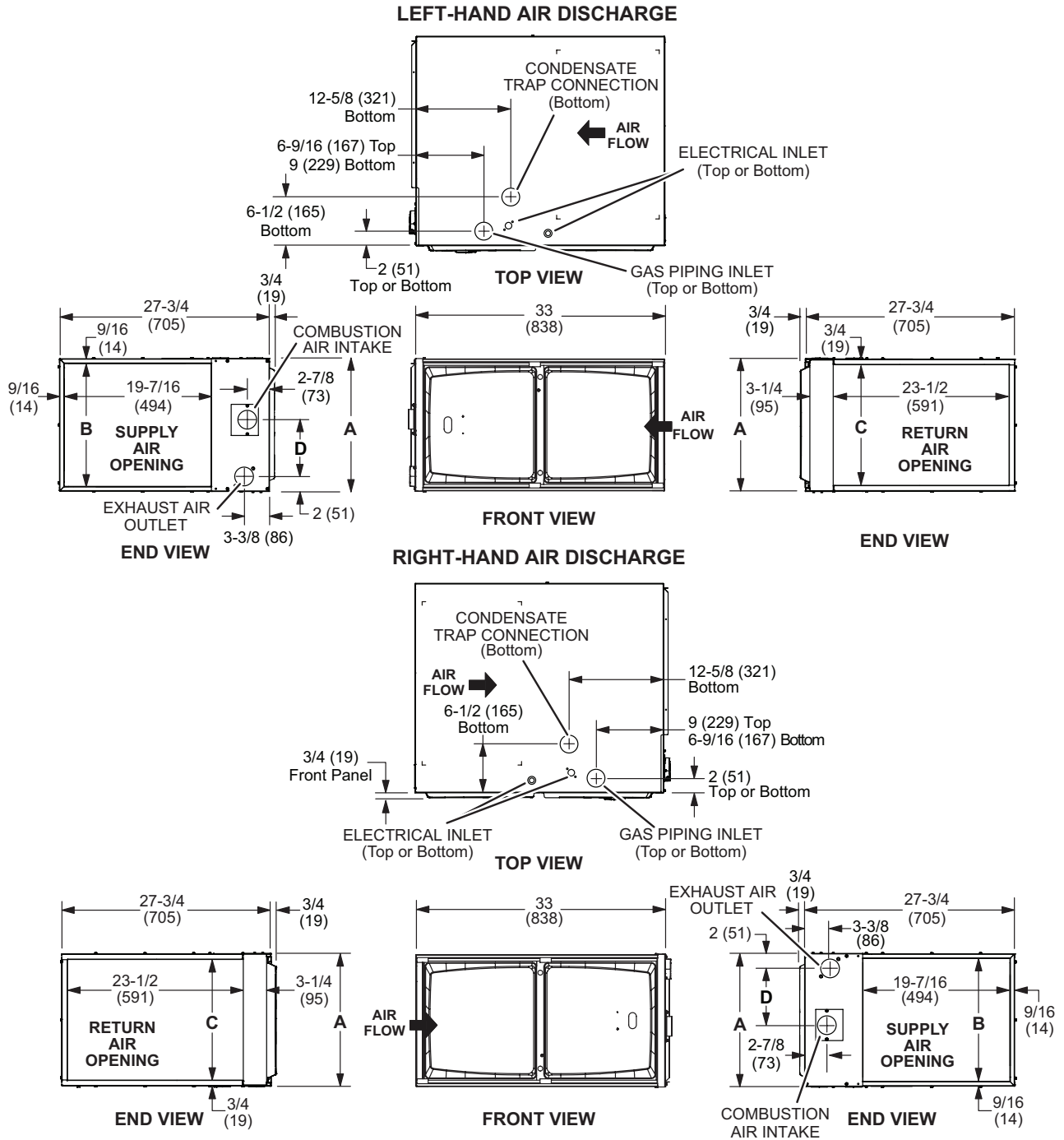


Model No.	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
95AF2UH045V12B 95AF2UH070V12B	17-1/2	446	16-3/8	416	16	406	7-5/8	194
95AF2UH090V12C	21	533	19-7/8	505	19-1/2	495	9-3/8	238



# Gas Furnaces 95AF2V

## Dimensions - inches (mm) Horizontal



Model No.	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
95AF2UH045V12B	17-1/2	446	16-3/8	416	16	406	7-5/8	194
95AF2UH070V12B								
95AF2UH090V12C	21	533	19-7/8	505	19-1/2	495	9-3/8	238





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### Revisions

Sections	Description of Change
Accessories	Updated Natural to LP Conversion Kit and LP High Altitude Orifice Kit catalog numbers for all units.



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