

Technical Specifications



C96 - B SERIES (CPV)

Continental® Two Stage, Variable Speed, Condensing Multi Position Gas Furnace

Up to 96.0% AFUE Certified through AHRI
Input 40,000 - 120,000 Btuh



The C96 - B Series High Efficiency Gas Furnace may be installed in four positions, alcove or closet installations that require zero clearance.

Certified by CSA for application in Canada and the United States.

FEATURES AND BENEFITS

- Furnace is less than 33" (838 mm) tall!
- Variable Speed ECM EON Blower Motor
- T140 Aluminized Wrinkle Bent Primary Heat Exchanger Tubes
- 29-4C Stainless Steel Heat Recovery Coil
- Aluminized Multi-Port In-Shot Burners
- Self Diagnostic Integrated Furnace Control
- Zero clearance in all positions
- Direct and Single Vent installation approved
- Concentric Venting Approved
- One LP Conversion Kit
- Certified to 4500 ft (1372 m) in Canada
- 100% Units factory fired
- Internal Condensate Trap
- Clear Front Manifold Cover
- Easy Blower removal
- Sealed Vestibule and Blower Compartments for quiet operation
- Low fire is 60% of high fire rate

WARRANTY

PRESIDENT'S LIMITED WARRANTY (Registered)

To the original registered owner and his or her spouse ("owner"), the **HEAT EXCHANGER*** is warranted for the owner's **LIFETIME** or so long as the owner owns the home in which the unit was originally installed, and **all remaining parts** as warranted for a period of **10 YEARS**, except as provided below. These warranties apply only if:

- The unit is installed in an owner-occupied, primary single family residence, and
- The unit is properly registered with Continental® online within 60 days after the original installation. To register, go to www.continentalheatingandcooling.com. Some states and provinces do not allow limitations on how long an implied limited warranty lasts or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This limited warranty gives you specific legal rights, and you may also have other rights which vary by jurisdiction.

With respect to the Heat Exchanger, if the heat exchanger fails within:

- the first 10 years for C95 / C96 / C96E Series
- the first 15 years for C97 Series

Continental® will, at its discretion, provide a new equivalent gas furnace. After the 10 years (15 years - C97 Series), Continental® may choose to credit its prorated wholesale value towards the purchase of a new Continental® furnace.

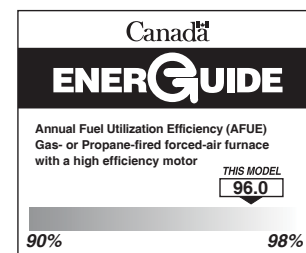
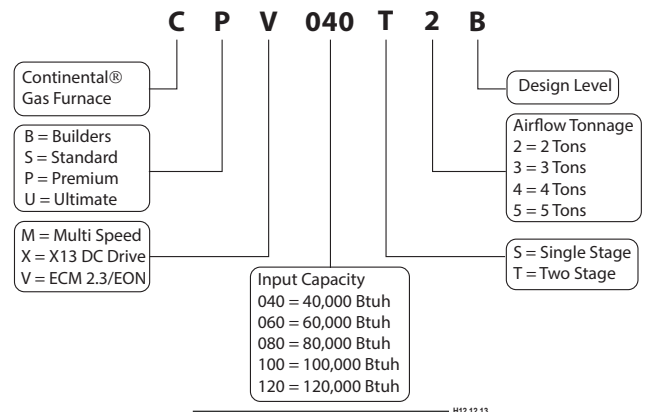
OR

LIMITED WARRANTY (Not Registered)

If not registered within 60 days, the **HEAT EXCHANGER** is warranted for a period of **20 YEARS** (pro rated), and all remaining parts are warranted for a period of **5 YEARS**, all other limitations apply.

With respect to the heat exchanger, Continental® at its discretion, after 5 years may choose to provide a credit towards a replacement Continental® gas furnace.

MODEL BREAKDOWN



MODEL BREAKDOWN continued

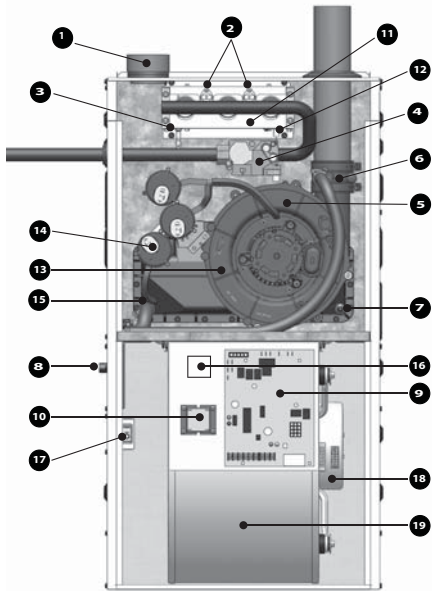
HEATING CAPACITIES

C96 - B SERIES	CPV040T2B	CPV060T3B	CPV080T3B	CPV080T4B	CPV100T5B	CPV120T5B
MOTOR	ECM EON	ECM EON	ECM EON	ECM EON	ECM EON	ECM EON
EFFICIENCY (AFUE)	96%	96%	96%	96%	96%	96%
INPUT BTU/HR 0-4500'	40,000	60,000	80,000	80,000	100,000	120,000
OUTPUT BTU/HR 0-4500'	38,000	57,000	76,000	76,000	95,000	114,000

AIRFLOW COOLING

C96 - B SERIES	CPV040T2B	CPV060T3B	CPV080T3B	CPV080T4B	CPV100T5B	CPV120T5B
MOTOR	ECM EON	ECM EON	ECM EON	ECM EON	ECM EON	ECM EON
BLOWER SIZE	10-6TDD	12-7TDD	12-7TDD	12-10TDD	12-10TDD	12-10TDD
MOTOR TYPE AND SIZE	1/3HP	1/2HP	1/2HP	3/4HP	3/4HP	1HP
MAXIMUM CFM AC	940	1125	1125	1750	1750	1750
MINIMUM CFM AC	560	560	560	700	700	700
AC TONNAGES	1½, 2, 2½	1½, 2, 2½, 3	1½, 2, 2½, 3	2, 3, 4	2, 3, 4, 5	2, 3, 4, 5

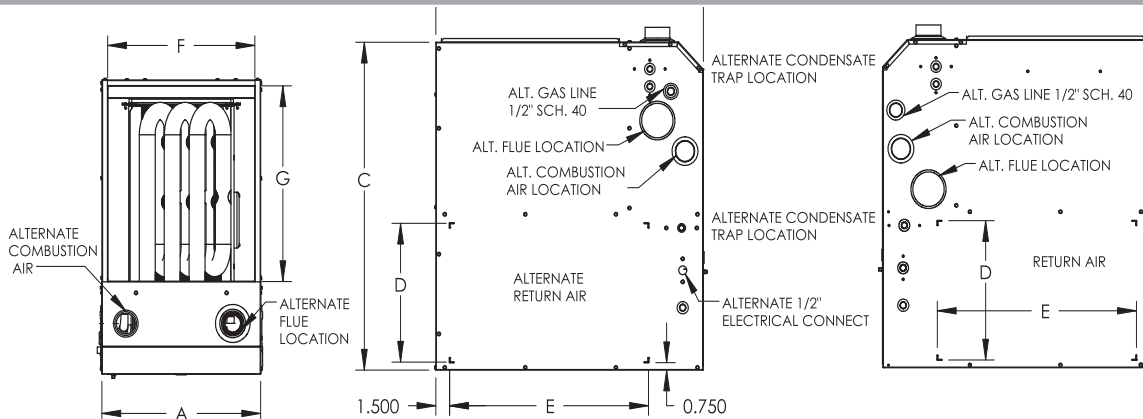
GAS FURNACE COMPONENTS



LEGEND

1. Combustion Air Intake Fitting
2. Flame Roll-Out Switch (2)
3. Flame Sensor
4. Two Stage Gas Valve
5. Air High Temperature Limit
6. Vent and Drain Assembly
7. Drain for Recovery Coil (3)
8. Condensate Trap
9. Two Stage Integrated Furnace Control (IFC)
10. Transformer for 24 VAC / 40VA
11. Burner Assembly
12. Hot Surface Igniter (HSI)
13. Two Speed Exhauster
14. Pressure Switch Assembly
15. Front Manifold Cover Pressure Tap (3)
16. PFC "Choke Coil" (required on ¾ and 1 Hp X13 equipped units)
17. Door Switch and Junction Box
18. Blower Motor
19. Circulating Air Blower

CABINET DIMENSIONS



CABINET DIMENSIONS continued

TABLE A - FURNACE DIMENSIONS

INPUT K/Btu/hr	OUTPUT HIGH K/Btu/hr	INPUT LOW K/Btu/hr	OUTPUT LOW K/Btu/hr	Width A	Depth B	Height C	Supply Air (F x G)	Return Air (D x E)
40	38	24	23	17 1/2" (445mm)	29 1/2" (749mm)	32 7/8" (835mm)	16 1/2" x 19 5/8" (419mm x 499mm)	14" x 23" (356mm x 584mm)
60	57	36	34					
80-3*	77	48	46	22 1/2" (572mm)			21 1/2" x 19 5/8" (546mm x 499mm)	
80-4**								
100								
120	115	72	69					

NOTE: * 3 TON, ** 4 TON

H12.6.7

BLOWER PERFORMANCE

TABLE 12 - CONTINUOUS FAN CFM

Input K/Btu/hr	Motor HP	COOL Jumper	ADJUST Jumper	Continuous Fan (CFM)
040-2	1/3	A	NORM	600
060-3	1/2			
080-3*				3/4
080-4**	850			
100-5	865			
120-5	1	930		

Note: Moving the ADJUST jumper from the NORM position to the (+) or (-) position will increase or lower the continuous fan CFM by 15%

* - 3 TON, ** 4 TON

H12.3.6

HIGH ALTITUDE

In Canada, this furnace does not need to be converted for high altitude (2000-4500ft), when the fuel source is natural gas. It has been certified to operate at high altitude as manufactured. If the fuel source is liquid propane, refer to High Altitude Specifications table for appropriate derate above 2000ft based on a 4% reduction of input capacity for every 1000ft above sea level.

In the United States, this furnace does not need to be converted for high altitude from (2000-5400ft), when the fuel source is natural gas. It has been certified to operate at high altitude as manufactured up to 5400ft only. Beyond 5400ft the modifications are based on a 4% reduction of input capacity for every 1000ft above sea level. If the fuel source is liquid propane, refer to High Altitude Specifications table for appropriate derate above 2000ft based on a 4% reduction of input capacity for every 1000ft above sea level. Consult with local fuel suppliers or authorities to determine local regulations or customs.

H18.1B

TABLE 6 - HIGH ALTITUDE SPECIFICATIONS

Input K/Btu/hr	ALTITUDE	ORIFICE SIZE (DMS)	
		NATURAL	LP GAS
40/60/80 100/120	0-2000 (0-610 m)	45	55
	2000-3000 (610-914 m)		56
	3000-4000 (914-1219 m)		57
	4000-5000 (1219-1524 m)		58
	5000-5400 (1524-1646 m)		59
	5400-6000 (1646-1829 m)	51	60
	6000-7000 (1829-2134 m)	52	61
	7000-8000 (2134-2438 m)	53	62
	8000-9000 (2438-2743 m)	54	63
	9000-10000 (2743-3048 m)	55	65
30	0-2000 (0-610 m)	50	57
	2000-3000 (610-914 m)		58
	3000-4000 (914-1219 m)		59
	4000-5000 (1219-1524 m)		60
	5000-5400 (1524-1646 m)		61
	5400-6000 (1646-1829 m)	56	62
	6000-7000 (1829-2134 m)	57	63
	7000-8000 (2134-2438 m)	58	64
	8000-9000 (2438-2743 m)	59	65
	9000-10000 (2743-3048 m)	60	67

Gas input ratings are certified for elevations to 5400 ft. (1646 m) on natural gas. For elevations above 5400 ft. (1646 m) on natural gas, or LP fuel source above 2000 ft. (610 m), follow orifice derate chart above.

H12.8.1A

VENTING

In Canada:

Furnace must be vented with S636 PVC or PPE

In United States:

- Schedule 40 PVC, ASTM D1785 or CSA B137.3
- PVC-DWV, ASTM D2665 or CSA B181.2
- Schedule 40 CPVC, ASTM F441 or CSA 137.6
- PVC PRIMER AND SOLVENT CEMENT: ASTM D2564
- PPE ULC S636

TABLE 4 - DIRECT AND NON-DIRECT VENT LENGTHS
Maximum Allowable Length Of Exhaust Or Intake. Minimum Vent Length 15 ft. (4.6 m) or equivalent.

INPUT K/Btu/hr	PIPE SIZE	NUMBER OF 90° ELBOWS								NOTES
		0	1	2	3	4	5	6		
40**	1½	60*	55	50	45	40	35	30	1. Count concentric vent fitting as straight pipe. 2. Use medium or long sweep elbows where possible. 3. One 90° elbow is equivalent to two 45° elbows. 4. For direct vent, the listed lengths are allowed for each vent (intake and exhaust). 5. For non-direct vent, the listed lengths are allowed for exhaust. The intake should have a 1½" or 2" snorkel intake fitting. (Figure 7)	
	2	75*	70	65	60	55	50	45		
60	1½	60*	55	50	45	40	35	30		
	2	75*	70	65	60	55	50	45		
	3	100*	95	90	85	80	75	70		
80	2	50*	45	40	35	30	25	20		
	3	100*	95	90	85	80	75	70		
100	2	50*	45	40	35	30	25	20		
	3	100*	95	90	85	80	75	70		
120	3	100*	95	90	85	80	75	70		

NOTE When 1½" or 3" pipe is used, exit the cabinet with 2" pipe. Reduce or increase immediately after exiting the cabinet on both intake and exhaust.
 * Maximum allowable vent (intake and exhaust) length.
 ** 40 K units must be vented with 1½" venting if total run length is to be less than 25 ft. (7.6m).

H12.4.5

EQUIVALENTS:

- Short Radius Elbow = 7 ft (2.13m)
- Standard Radius Elbow = 5 ft (1.52m)
- Long Radius Elbow = 3 ft (0.91m)
- 45 Degree Elbow = 2.5 ft (0.76m)
- Tee

Vent lengths that require more than 6-90° elbows, add listed equivalents for every elbow up to the maximum allowable vent length.

ACCESSORIES

PART NUMBER	DESCRIPTION	WT/ lbs.
CNA-NC1625-A	MEDIA AIR CLEANER (MERV11) (16" X 25")	2
W250-0009	FILTER - 3 PACK (MERV11)	1
W370-0018	CONVERSION KIT - NATURAL TO LP	1
W370-0019	CONCENTRIC VENT KIT - 2"	5
W370-0020	CONCENTRIC VENT KIT - 3"	9
W370-0026	HIGH ALTITUDE CONVERSION KIT	1
CT144HCNPH	THERMOSTAT, 1H/1C NON PROGRAMMABLE HORIZONTAL	1
CT86HCEZ	THERMOSTAT, 1H/1C EZ SET NON PROGRAMMABLE	1
CT953H2CP	THERMOSTAT, 3H/2C 7 DAY PROGRAMMABLE 12" TOUCH SCREEN	1

REPLACEMENT PARTS

Part Number	Part Description
W010-3494	ASSY, SM FMC W/O CHOKES 40/60/80
W010-3495	KIT, LG FMC W/O CHOKES 100/120
W010-2538	ASSY, MOTOR KIT 1/3 HP ECM EON 40
W010-2539	ASSY, MOTOR KIT 1/2 HP ECM EON 60
W010-2540	ASSY, MOTOR KIT 1/2 HP ECM EON 80
W010-2541	ASSY, MOTOR KIT 3/4 HP ECM EON 100
W010-2542	ASSY, MOTOR KIT 1 HP ECM EON 120
W010-2558	EXHAUSTER, TWO SPEED GENTEK
W010-2559	BLOWER, 12-7T HOUSING 60/80
W010-2560	BLOWER, 12-10T HOUSING 100/120
W010-2561	CONTROL, INTERGRATED ECM EON
W010-2562	SENSOR, FLAME - REPLACEMENT
W010-2563	FUSE, 5 AMP
W010-2564	IGNITER, 601 TYPE TB 120V
W010-2565	SWITCH, BLOWER DOOR
W010-2567	SWITCH, HEAT LIMIT 140°F - 20°F
W010-2568	SWITCH, BURNER ROLLOUTS REPL 350°F
W010-2569	SWITCH, PRESSURE UNIT TRIPLE
W010-2570	SWITCH, HEAT LIMIT 150°F
W010-2571	TRANSFORMER, CHOKE COIL
W010-2572	TRANSFORMER, 120V / 24V 40VA
W010-2573	VALVE, TWO STAGE
W010-2610	BLOWER, 10-6T HOUSING 40
W010-2768	ASSY, CONDENSATE TRAP
W010-2993	SWITCH, HEAT LIMIT 170°F
W020-0647	BAGGIE, REPLACEMENT PARTS
W470-0024	PAINT, TOUCH UP BLUE (TF)



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