

Advantage 80% Gas Furnace

G1D80

Features

HEAT EXCHANGER DESIGN

- Efficient aluminized steel tapered S-curve design
- Crimped no weld construction for longer life

BURNERS

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

CABINET CONSTRUCTION

- Compact 40" height
- Insulated to increase efficiency and reduce sound levels
- Unitized construction for cabinet integrity
- Baked on prepainted steel cabinet finish

AIR DELIVERY SYSTEM

- Multi-speed for wide airflow range
- PSC permanently lubricated motor for low maintenance and optimum efficiency
- Easily removable slide-out blower design
- Dynamically balanced blower wheel with resilient motor mounts for smooth and quiet operation

CONTROLS

- Integrated ignition and fan control board
- Board features self diagnostics as well as saving last five (5) fault codes in nonvolatile memory for ease of service
- Hot surface ignition using steel shrouded, high density mini-ignitor
- Control circuit is fuse protected
- Control board features adjustable fan off time in the heating mode and a 60 second fan off time delay in the cooling mode
- Control board provides terminals for electronic air cleaner, humidifier, furnace twinning, and continuous low speed fan operations

VENTING

- Permanently lubricated draft motor with stainless steel shaft and air cooled for long life
- Certified for direct and non-direct vent applications
Direct vent refers to a combustion air supply intake pipe installed in conjunction with flue gas vent pipe.

G1D80BT = Upflow / Horizontal
(shown)

G1D80BR = Counterflow / Horizontal



INSTALLATION FEATURES

- Left or right gas and electric entry
- "L" models comply with California's South Coast Air Quality Management District Low NOx requirements
- Filter rack and permanent cleanable filter provided on upflow/horizontal models

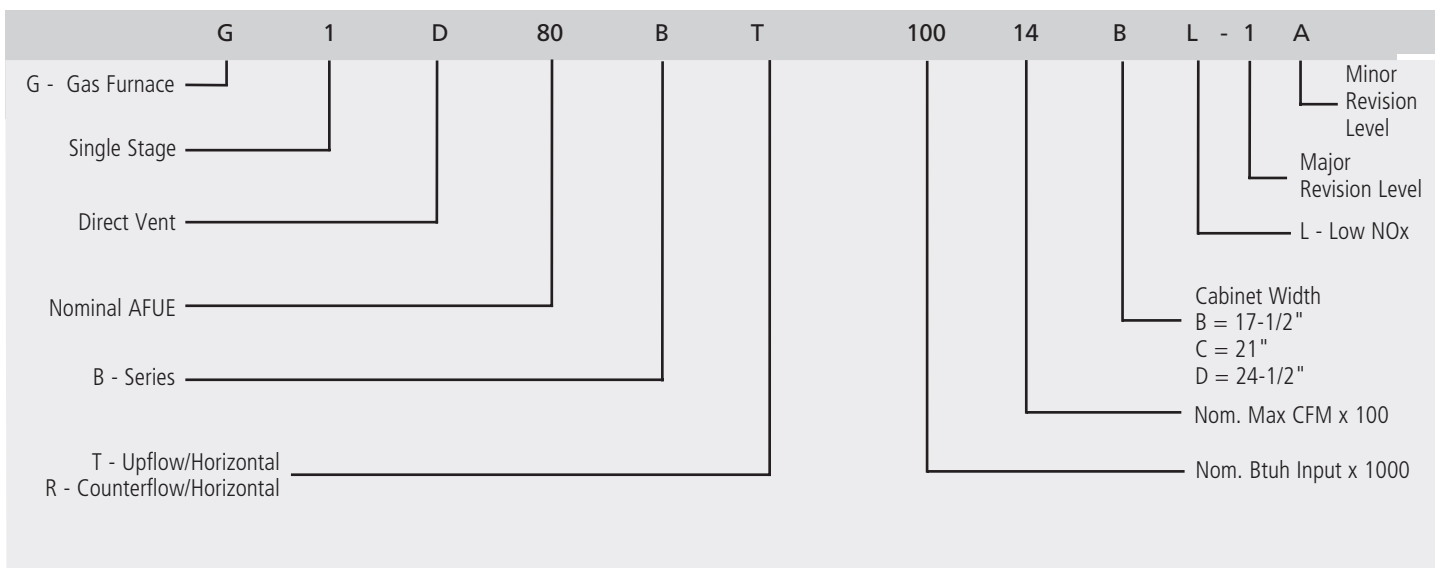
WARRANTY

- 10 year limited parts warranty / lifetime heat exchanger warranty available. See limited warranty document for details.

AIREASE™

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Model Number Guide



Physical and Electrical Data

Model	Input	Output	AFUE (ICS)	Nom. Cooling Capacity	Gas Inlet (in.)	Flue Size (in.)	Volts/ Hz/ Phase	Min. Time Delay Breaker or Fuse	Nominal F.L.A.	Trans. (V.A.)	Approx. Weight (lbs.)
G1D80BT/R050D12B	50,000	40,000	80.0%	1.5 - 3.0	1/2	4	120/60/1	15	5.9	40	125
G1D80BT/R075D14B	75,000	60,000	80.0%	2.0 - 3.5	1/2	4	120/60/1	15	7.7	40	140
G1D80BT/R100D14B	100,000	80,000	80.0%	2.0 - 3.5	1/2	5	120/60/1	15	7.3	40	155
G1D80BT/R100D20C	100,000	80,000	80.0%	3.0 - 5.0	1/2	5	120/60/1	15	11.7	40	180
G1D80BT/R125D20C	125,000	100,000	80.0%	3.0 - 5.0	1/2	5	120/60/1	15	11.0	40	190
G1D80BT/R150D20D	150,000	120,000	80.0%	3.0 - 5.0	1/2	5	120/60/1	15	11.5	40	200

Filter Requirement Data

Maximum Airflow (CFM) ¹	Disposable Filters			Permanent (Cleanable) Filters ²		
	Minimum Area (sq. in.) ³	Size (in.) ³	Quantity	Minimum Area (sq. in.) ³	Size (in.) ³	Quantity
1200	576	16 x 20	2	288	16 x 20	1
1400	672	20 x 20	2	336	20 x 20	1
1600	768	20 x 20	2	384	20 x 20	1
2000	960	20 x 25	2	480	20 x 25	1

- The Maximum Airflow is the two digits following the "D" in the model number x 100; e.g. "14 x 100 = 1400" is the maximum airflow for G1D80BR100D14B.
- Areas and dimensions shown for permanent (cleanable) filters are based on filters rated at 600 feet per minute face velocity.
- Typical filter sizes are shown, however, any combination of filters whose area equals or exceeds the minimum area shown is satisfactory.

Blower Performance Data

Upflow / Horizontal

Direction	Model	Motor Size (hp)	Blower Size	Temp Rise (°F)	Blower Speed	*CFM @ ext. Static Pressure - in. w.c. with Filter(s)							
						.20	.30	.40	.50	.60	.70	.80	.90
Upflow / Horizontal	G1D80BT050D12B	1/3	10 x 6	30 - 60	Hi	1,345	1,315	1,270	1,215	1,155	1,080	995	910
					Med/Hi	1,120	1,095	1,065	1,035	980	920	850	795
					Med	920	905	885	845	805	765	720	645
					Low	785	765	745	715	665	640	580	525
	G1D80BT075D14B	1/3	10 x 8	40 - 70	Hi	1,655	1,600	1,540	1,475	1,395	1,310	1,230	1,105
					Med/Hi	1,355	1,335	1,305	1,270	1,205	1,155	1,060	990
					Med	1,080	1,060	1,050	1,030	1,000	965	900	680
					Low	915	910	895	885	835	795	670	580
	G1D80BT100D14B	1/3	10 x 8	50 - 80	Hi	1,660	1,610	1,540	1,475	1,415	1,335	1,245	1,105
					Med/Hi	1,395	1,365	1,325	1,280	1,225	1,165	1,035	960
					Med	1,105	1,100	1,075	1,045	1,010	970	905	665
					Low	930	925	905	880	845	795	645	570
	G1D80BT100D20C	3/4	12 x 10	45 - 75	Hi	2,160	2,135	2,100	2,040	2,005	1,945	1,860	1,785
					Med/Hi	1,790	1,765	1,745	1,720	1,685	1,645	1,590	1,525
					Med	1,560	1,525	1,515	1,495	1,455	1,410	1,375	1,320
					Med/Low	1,285	1,260	1,245	1,210	1,185	1,150	1,100	1,070
					Low	1,005	970	925	890	850	810	740	685
	G1D80BT125D20C	3/4	12 x 10	45 - 75	Hi	2,100	2,080	2,035	1,970	1,925	1,820	1,785	1,750
					Med/Hi	1,780	1,755	1,735	1,705	1,645	1,565	1,530	1,465
					Med	1,570	1,530	1,520	1,485	1,435	1,395	1,350	1,235
Med/Low					1,310	1,285	1,255	1,225	1,190	1,155	1,095	1,020	
Low					1,015	975	950	905	830	775	720	655	
G1D80BT150D20C	3/4	12 x 10	55 - 85	Hi	2,035	2,020	1,975	1,950	1,895	1,855	1,780	1,685	
				Med/Hi	1,695	1,685	1,665	1,635	1,590	1,540	1,480	1,415	
				Med	1,480	1,470	1,450	1,420	1,385	1,340	1,270	1,210	
				Med/Low	1,255	1,230	1,205	1,180	1,150	1,095	1,065	1,005	
				Low	985	950	920	890	830	785	735	680	

* .50 in W.C. max approved external static pressure

Blower Performance Data

Counterflow / Horizontal

Direction	Model	Motor Size (hp)	Blower Size	Temp Rise (°F)	Blower Speed	*CFM @ ext. Static Pressure - in. w.c. with Filter(s)							
						.20	.30	.40	.50	.60	.70	.80	.90
Counterflow / Horizontal	G1D80BR050D12B	1/3	10 x 6	30 - 60	Hi	1,380	1,350	1,300	1,240	1,185	1,110	1,045	970
					Med/Hi	1,120	1,105	1,080	1,060	1,025	970	920	840
					Med	905	895	880	860	840	795	765	705
					Low	760	755	735	720	700	670	625	555
	G1D80BR075D14B	1/3	10 x 8	40 - 70	Hi	1,690	1,620	1,540	1,455	1,380	1,285	1,155	1,070
					Med/Hi	1,455	1,420	1,365	1,295	1,230	1,155	1,080	950
					Med	1,165	1,145	1,130	1,085	1,045	975	905	790
					Low	985	970	960	925	880	845	790	680
	G1D80BR100D14B	1/3	10 x 8	50 - 80	Hi	1,725	1,660	1,605	1,500	1,430	1,345	1,210	1,115
					Med/Hi	1,440	1,440	1,405	1,345	1,260	1,190	1,095	995
					Med	1,160	1,145	1,145	1,100	1,065	1010	950	845
					Low	985	980	975	950	905	845	790	695
	G1D80BR100D20C	3/4	12 x 10	45 - 75	Hi	2,165	2,140	2,090	2,055	2,000	1,925	1,905	1,815
					Med/Hi	1,785	1,755	1,725	1,700	1,670	1,600	1,525	1,410
					Med	1,580	1,545	1,535	1,515	1,460	1,405	1,315	1,135
					Med/Low	1,325	1,305	1,275	1,230	1,195	1,135	1,025	970
					Low	1,015	995	955	905	845	785	690	650
	G1D80BR125D20C	3/4	12 x 10	45 - 75	Hi	2,175	2,150	2,095	2,020	1,955	1,875	1,770	1,640
					Med/Hi	1,830	1,815	1,775	1,740	1,685	1,630	1,545	1,390
					Med	1,620	1,600	1,565	1,525	1,520	1,400	1,320	1,115
Med/Low					1,340	1,315	1,290	1,225	1,210	1,140	1,020	965	
Low					1,030	995	960	910	870	800	745	650	
G1D80BR150D20C	3/4	12 x 10	55 - 85	Hi	2,090	2,080	2,055	2,020	1,975	1,915	1,835	1,760	
				Med/Hi	1,770	1,755	1,730	1,705	1,660	1,620	1,555	1,485	
				Med	1,550	1,540	1,520	1,495	1,460	1,415	1,365	1,290	
				Med/Low	1,325	1,305	1,285	1,245	1,215	1,160	1,040	980	
				Low	1,040	1,000	970	905	855	810	755	680	

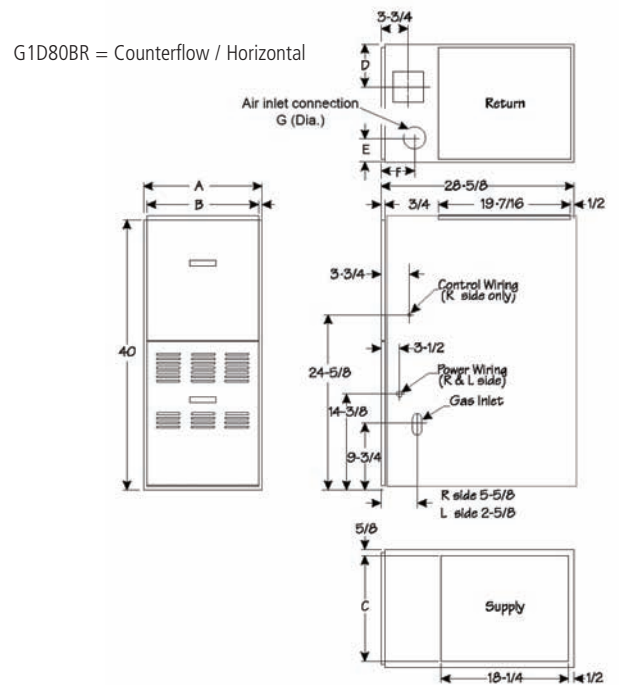
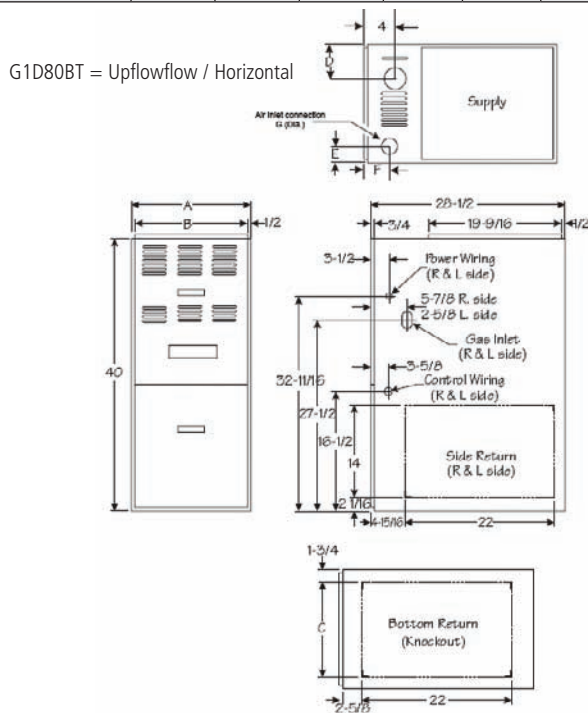
* .50 in W.C. max approved external static pressure

Accessories

Description	Used with	Kit Number	Catalog Number
Propane conversion kit	All 80 single stage models	ALPKT572	1.831021
Upflow side return filter kit (16 x 25 filter)	All Upflow capable models	AFILT524	1.841018
Counterflow filter kit	All Counterflow furnaces	AFILT525	1.841019
Bottom return filter kit	All Upflow capable models	AFILT529	1.841020
Side return filter kit for single return with 5 tons airflow (double 16 x 20 filter)	All Upflow capable models	AFILTHA7	1.841005
Combustible floor base for 14.5" wide units	All Counterflows for A width cabinets	ABASE511	1.841014
Combustible floor base for 17.5" wide units	All Counterflows for B width cabinets	ABASE512	1.841015
Combustible floor base for 21" wide units	All Counterflows for C width cabinets	ABASE568	1.841035
Combustible floor base for 24.5" wide units	All Counterflows for D width cabinets	ABASE569	1.841036
Twining kit	All single stage furnaces	ATWIN579	1.841136

Dimensions (in.)

Model	A	B	C	D	E	F	G
G1D80BT050D12B	17-1/2	16-1/2	14	6-1/2	5	3	2
G1D80BT075D14B							
G1D80BT100D14B	17-1/2	16-1/2	14	6-1/2	4-1/2	3-1/8	3
G1D80BT100D20C	21	20	17-1/2	8-1/4	6-1/4	3-5/16	3
G1D80BT125D20C	21	20	17-1/2	8-1/4	4-5/8	3-1/4	3
G1D80BT150D20D	24-1/2	23-1/2	21	10	4-7/8	3-5/16	3
G1D80BR050D12B	17-1/2	16-1/2	16-1/4	6-1/2	5	3	2
G1D80BR075D14B							
G1D80BR100D14B	17-1/2	16-1/2	16-1/4	6-1/2	4-3/8	3-3/8	3
G1D80BR100D20C	21	20	19-3/4	8-1/4	6-1/8	3-3/8	3
G1D80BR125D20C	21	20	19-3/4	8-1/4	4-5/8	3-3/8	3
G1D80BR150D20D	24-1/2	23-1/2	23-1/4	10	4-7/8	3-1/2	3



G1D80

*** Clearances (in.) Upflow**

Model	Top	Right Side	Left Side	Front	Back	Vent
G1D80BT050D12B	1	0	2 ¹	4 ³	0	6 ²
G1D80BT075D14B						
G1D80BT100D14B						
G1D80BT100D20C	1	0	0	4 ³	0	6 ²
G1D80BT125D20C	1	0	0	4 ³	0	6 ²
G1D80BT150D20D						
Counterflow						
G1D80BR050D12B	1	0	2 ¹	4 ³	0	6 ²
G1D80BR075D14B						
G1D80BR100D14B						
G1D80BR100D20C	1	0	0	4 ³	0	6 ²
G1D80BR125D20C	1	0	0	4 ³	0	6 ²
G1D80BR150D20D						

¹0" IF B1 Vent is used
²1" IF B1 Vent is used
³2" IF B1 Vent is used

*Clearances to combustibles. Service access to the front of the furnace to remove the blower assembly is 18"

Counterflow models: Installation on combustible flooring only when installed on special combustible floor base.

*** Clearances (in.) Horizontal**

Model	Right Side	Left Side	Front	Back	Vent	Airflow			
						Left to Right		Right to Left	
						Top	Bottom	Top	Bottom
G1D80BT050D12B	1	1	18	0	6 ²	1	0	1	0
G1D80BT075D14B									
G1D80BT100D14B									
G1D80BT100D20C	1	1	18	0	6 ²	1	0	1	0
G1D80BT125D20C	1	1	18	0	6 ²	1	0	1	0
G1D80BT150D20D									
G1D80BR050D12B	1	1	18	0	6 ²	1	2 ¹	2 ¹	0
G1D80BR075D14B									
G1D80BR100D12B									
G1D80BR100D20C	1	1	18	0	6 ²	1	0	1	0
G1D80BR125D20C									
G1D80BR150D20D									

¹0" IF B1 Vent is used
²1" IF B1 Vent is used

*Clearances to combustibles. Service access to the front of the furnace to remove the blower assembly is 18"



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All specifications and illustrations subject to change without notice and without incurring obligations.