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Most manuals contain parts lists and diagrams. The older the unit, the more you'll find obsolete parts. In same cases the parts may still be available, but under a new part number. In other cases a generic part may be suitable for use.

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TECHNICAL GUIDE

SEALED COMBUSTION DOWNFLOW GAS FURNACES

MODELS: DGAA SERIES DGAH SERIES DGPH SERIES DGPA SERIES





DESCRIPTION

The DG Series gas furnace is actually two systems in one. As a powerful air handler, it can handle up to 4 tons of cooling. Additional blower accessories will provide 5 tons of cooling. As a gas furnace, its range of heating capacities makes it a perfect match for the heating requirements of almost any manufactured home.

FEATURES

- ZERO CLEARANCE FEATURE allows these furnaces to be installed where space is a premium.
- MOLDED CONTOURED WHITE UPPER PANEL provides an attractive modern appearance and offers a scratchresistant, durable appliance finish.
- PRE-PAINTED CONTOURED WHITE LOWER PANELS provide an attractive scratch-resistant appliance finish.
- BUILT-IN COIL CABINET is design-matched to work in conjunction with Coleman heat pumps and air conditioners, providing ease of installation and highly efficient operating performance. (DGAA, DGPH, DGPA models.)
- AIR CONDITIONER READY DGAA models have blowers capable of handling up to 4 tons of air conditioning. DGPA models have blowers capable of handling up to 3 tons of air conditioning.
- ALUMINIZED STEEL HEAT EXCHANGER provides efficient operation and unmatched corrosion resistance.
- UNIVERSAL DISPOSAL FILTERS clean the air and are easy to replace.
- SEALED COMBUSTION design draws in combustion air directly from outside, providing quiet operation while increasing operating efficiency and reducing cold drafts.
- Conversion to propane gas is fast and easy. All models are provided with a convertible gas valve and gas orifices for both natural and propane gas.



TECHNICAL SPECIFICATIONS

MODEL NUN	IBER	R DGAA056BDTA DGAA070BDTA DGAA077BDTA DGAA090BDTA DGAH056BBSA DGAH05					DGAH077BBSA	
Factory Equipp	ped Fuel Natural Gas							
Ignition Ty	ре	Automatic Hot Surface Ignition						
A/C Contro	ols			A	VC Ready			
Input Rate, E	STUH	56,000	70,000	77,000	90	,000	56,000	77,000
Output, BT	UH	45,000	56,000	62,000	72	2,000	45,000	62,000
AFUE, % (Na	it./LP)	80.0	80.0	80.0	8	0.0	80.0	80.0
High Altitu	de	For ele	evations above 2,00	0 feet, reduce inpu	ut 4% for each	1,000 feet of	elevation above se	a level
Air Temperatur Range, °	re Rise F				45-75			
Designed Max Outlet Air Tempe	kimum rature, °F				165			
Maximum Exterr Pressure, In.	nal Static W.C.				0.3			
Furnace Flue	Pipe			Must use 40	000 Series Roo	of Jacks		
Gas Connec	ction			1	1/2" NFPT			
Electric Ser	vice			115 VAC	C, 60 Hz, 1 Ph	ase		
Fuse or Circuit	Breaker			15 A	mp Maximum			
Thermostat C	Circuit			24	VAC 60 Hz			
Filters				Two	16" x 20" x 1"			
MODEL NUMBER	DGPH056ABTA							
Eactory Equipped Fuel				Natural G	39			
Ignition Type				Standing P	Pilot			
A/C Controls		Heating	Only	etananig i	liet	A	/C Ready	
Input Rate, BTUH	56.000	70.000	77.000	90.000	56.000	70.000	77.000	90.000
Output, BTUH	45,000	56,000	62,000	72,000	45,000	56,000	62,000	72,000
AFUE, % (Nat./LP)	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
High Altitude		For elevations	above 2,000 feet, re	educe input 4% for	r each 1,000 fe	eet of elevation	n above sea level	
Air Temperature Rise				45-75				
Range, *F								
				165				
Temperature, °F				100				
Maximum External								
Static Pressure,				0.3				
In. W.C.								
Furnace Flue Pipe		Must use 4000 Series Roof Jacks						
Gas Connection		1/2" NFPT						
Electric Service		115 VAC, 60 Hz, 1 Phase						
Fuse or Circuit Breaker				15 Amp Max	imum			
Thermostat Circuit				24 VAC 60) Hz			
Filters				Two 16" x 20)" x 1"			

MINIMUM DISTANCE TO COMBUSTIBLE MATERIALS							
	BACK	SIDES	FRONT	TOP	ROOF JACK	DUCT	
Closet	0"	0"	* 6"	2"	0"	0"	
Alcove	0"	0"	24"	2"	0"	0"	

* - Special 0" clearance is allowed. See Installation Instructions.

BLOWER PERFORMANCE

FACTORY EQUIPPED STANDARD BLOWERS						
CFM at External Static Pressure, In, W.C.						
Models DGPH056,DGPH070, DGPH077, DGPA056, DGPA070, DGPA077						
BLOWER SPEED	0.1	0.2	0.3	0.4	.5	
Single Speed - No Coil	1175	1110	1050	1000	950	
Single Speed - With Coil	1125	1070	1020	960	910	

Models DGPH090, DGPA090						
BLOWER SPEED	0.1	0.2	0.3	0.4	.5	
Single Speed - No Coil	1370	1305	1245	1175	1100	
Single Speed - With Coil	1265	1195	1120	1045	1015	

Models DGAA056, DGAA070, DGAA077, DGAA090								
BLOWER SPEED	0.1	0.2	0.3	0.4	.5			
Low Speed - No Coil	1250	1205	1145	1085	1030			
Low Speed - With Coil	1235	1190	1135	1080	1015			
High Speed - No Coil	1425	1380	1305	1245	1180			
High Speed - With Coil	1385	1315	1260	1200	1135			
Models DGAH056, DGAH077								
BLOWER SPEED	0.1	0.2	0.3	0.4	.5			
Single Speed - No Coil	1155	1111	1055	995	920			

A/C ACCESSORY BLOWERS							
	CFM at External Static Pressure, In, W.C.						
DGPH, DGPA Models with 7900-7741 Accessory Blower							
BLOWER SPEED	0.1	0.2	0.3	0.4	.5		
Low Speed - No Coil	1250	1205	1145	1085	1030		
Low Speed - With Coil	1235	1190	1135	1080	1015		
High Speed - No Coil	1425	1380	1305	1245	1180		
High Speed - With Coil	1385	1315	1260	1200	1135		

DGPH, DGPA, DGAA Models with 7900-7751 Accessory Blower						
BLOWER SPEED	0.1	0.2	0.3	0.4	.5	
Low Speed - No Coil	1100	1075	1050	1020	995	
Low Speed - With Coil	1085	1055	1025	1005	980	
Medium Low Speed - No Coil	1325	1300	1275	1250	1215	
Medium Low Speed - With Coil	1270	1240	1215	1185	1100	
Medium High Speed - No Coil	1625	1595	1565	1515	1490	
Medium High Speed - With Coil	1535	1505	1480	1445	1410	
High Speed - No Coil	1905	1870	1845	1810	1760	
High Speed - With Coil	1800	1760	1725	1680	1650	

ACCESSORIES

7900-7761	A/C Control Kit	A/C relay for DGPH Models
7900-7741	4 Ton Blower	4 Ton, 2 speed blower for DGPH, DGPA
7900-7751	5 Ton Blower	5 Ton, 4 speed blower for all Models

NOTES

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SEALED COMBUSTION DOWNFLOW GAS FURNACE

Supersedes:035-16340-003 Rev. G (0604) 035-16340-003 Rev. H (1006)

1 of 8



2	of	8	

	DGAA							
ITEM	DESCRIPTION	DGAA056BDTA	DGAA070BDTA	DGAA077BDTA	DGAA090BDTA			
1	Switch, Pressure	024-27666-001	024-27666-001	024-27666-001	024-27666-001			
2	Tubing Silicone (2' Req'd)	028-12499-000	028-12499-000	028-12499-000	028-12499-000			
3	Limit Switch, Manual (Upper)	025-35358-000	025-35358-000	025-35358-000	025-35358-000			
4	Assembly, Booster (w/Motor)	373-19801-820	373-19801-820	373-19801-820	373-19801-820			
5	Control Board, Integrated	031-01932-002	031-01932-002	031-01932-002	031-01932-002			
6	Valve, Gas	7990-328P	7990-328P	7990-328P	7990-328P			
7	Bracket, Valve	073-19801-064	073-19801-064	073-19801-064	073-19801-064			
8	Thermostat (Heat /Cool)		Accessory (See Page 6)				
9	Exchanger, Heat (w/Gaskets)	373-19804-651	373-19805-651	373-19806-651	373-19806-650			
10	Sensor, Flame	025-35354-000	025-35354-000	025-35354-000	025-35354-000			
11	Switch, System	7681-3301	7681-3301	7681-3301	7681-3301			
12	Transformer (115-24V, 40 VA)	2940A3541	2940A3541	2940A3541	2940A3541			
13	Switch, Limit	025-35380-000	025-35380-000	025-35381-000	025-35381-000			
14	Burner Assembly, Auto Ignition (Includes items 10 & 15)	373-19801-403	373-19801-403	373-19801-403	373-19801-403			
15	Ignitor, Hot Surface	1474-052P	1474-052P	1474-052P	1474-052P			
16	Filter (2 Req'd) (16x20x1)	1214-2511	1214-2511	1214-2511	1214-2511			
17	Panel, Door (Upper)	Accessory (See Page 6)						
18	Panel, Door (Lower, Tall)	7900-7611	7900-7611	7900-7611	7900-7611			
19	Motor (See note 2)	1468-220P	1468-220P	1468-220P	1468-220P			
20	Assembly, Motor Mount (See Note 3)	373-19806-100	373-19806-100	373-19806-100	373-19806-100			
21	Plug, Connector	025-21192-000	025-21192-000	025-21192-000	025-21192-000			
22	Capacitor, Run (See Note 3)	024-20063-000	024-20063-000	024-20063-000	024-20063-000			
23	Wheel, Blower	026-19654-003	026-19654-003	026-19654-003	026-19654-003			
24	Relay, Fan							
25	Relay, Booster							
26	Switch, Fan							
27	Thermocouple							
28	Burner, Pilot							
29	Tube, Pilot							
30*	Diagram, Wiring	035-15289-001	035-15289-001	035-15289-001	035-15289-001			
31*	Gasket, Combustion Air Box	010-06900-005	010-06900-005	010-06900-005	010-06900-005			
32*	Gasket, Burner	010-06742-000	010-06742-000	010-06742-000	010-06742-000			
33*	Gasket, Booster Assembly	010-06900-015	010-06900-015	010-06900-015	010-06900-015			
34*	Gasket, Heat Exchanger	010-06900-001	010-06900-001	010-06900-001	010-06900-001			

New replacement parts shown in **bold** face type at the first printing of parts list dated 10/06. Major components and suggested stocking items are shown with shaded item number. "<" Across from row indicates a change in that row.

--- Not applicable to specified model.

2. For Serial Numbers lower then 001207164- Replacement DGAA motors also require Motor Mount Assembly 373-19806-100 if replaced motor has integral, flex-arm motor mount.

3. DGAA with 5-Ton Blowers are provided as an accessory item and are not standard equipment from the factory. See Page 6

DGAH						
ITEM	DESCRIPTION	DGAH056BBSA	DGAH077BBSA			
1	Switch, Pressure	024-27666-001	024-27666-001			
2	Tubing Silicone (2' Req'd)	028-12499-000	028-12499-000			
3	Limit Switch, Manual (Upper)	025-35358-000	025-35358-000			
4	Assembly, Booster (w/Motor)	373-19801-820	373-19801-820			
5	Control Board, Integrated	031-01932-002	031-01932-002			
6	Valve, Gas	7990-328P	7990-328P			
7	Bracket, Valve	073-19801-064	073-19801-064			
8	Thermostat (Heat /Cool)	Accessory (See Page 6)			
9	Exchanger, Heat (w/Gaskets)	373-19804-651	373-19806-651			
10	Sensor, Flame	025-35354-000	025-35354-000			
11	Switch, System	7681-3301	7681-3301			
12	Transformer (115-24V, 40 VA)	2940A3541	2940A3541			
13	Switch, Limit	025-35380-000	025-35381-000			
14	Burner Assembly, Auto Ignition (Includes itemss 10 & 15)	373-19801-403	373-19801-403			
15	Ignitor, Hot Surface	1474-052P	1474-052P			
16	Filter (2 Req'd) (16x20x1)	1214-2511	1214-2511			
17	Panel, Door (Upper)	Accessory (See Page 6)			
18	Panel, Door (Lower, Short)	7900-7671	7900-7671			
19	Motor (See Note 3)	024-31948-000	024-31948-000			
20	Assembly, Motor Mount					
21	Plug, Connector	025-21192-000	025-21192-000			
22	Capacitor, Run					
23	Wheel, Blower	026-19654-003	026-19654-003			
24	Relay, Fan					
25	Relay, Booster					
26	Switch, Fan					
27	Thermocouple					
28	Burner, Pilot					
29	Tube, Pilot					
30*	Diagram, Wiring	035-15289-001	035-15289-001			
31*	Gasket, Combustion Air Box	010-06900-005	010-06900-005			
32*	Gasket, Burner	010-06742-000	010-06742-000			
33*	Gasket, Booster Assembly	010-06900-015	010-06900-015			
34*	Gasket, Heat Exchanger	010-06900-001	010-06900-001			

New replacement parts shown in **bold** face type at the first printing of parts list dated 10/06. Major components and suggested stocking items are shown with shaded item number. "<" Across from row indicates a change in that row. --- Not applicable to specified model.



3. DGAH with 5-Ton Blowers are provided as an accessory item and are not standard equipment from the factory. See page 6.

DGPA090ABTA

024-27666-001

028-12499-000

025-35358-000

373-19801-820

7956-336P

DGPA077ABTA

025-35358-000

7956-336P

DESCRIPTION	DGPA056ABTA	DGPA070ABTA
Switch, Pressure		
Tubing Silicone (2' Req'd)		
Limit Switch, Manual (Upper)	025-35358-000	025-35358-000
Assembly, Booster (w/Motor)		
Control Board, Integrated		
Valve, Gas	7956-336P	7956-336P
Bracket, Valve	073-19801-064	073-19801-064
Thermostat (Heat /Cool)		Accessory (
Exchanger, Heat (w/Gaskets)	373-19804-651	373-19805-651

DGPA

7	Bracket, Valve	073-19801-064	073-19801-064	073-19801-064	073-19801-064		
8	Thermostat (Heat /Cool)	Accessory (See Page 6)					
9	Exchanger, Heat (w/Gaskets)	373-19804-651	373-19805-651	373-19806-651	373-19806-650		
10	Sensor, Flame						
11	Switch, System	7681-3301	7681-3301	7681-3301	7681-3301		
12	Transformer (115-24V, 40 VA)	2940A3541	2940A3541	2940A3541	2940A3541		
13	Switch, Limit	025-35380-000	025-35380-000	025-35381-000	025-35381-000		
14	Standing Pilot, Burner Assembly (Includes items 10 & 15)	373-19801-401	373-19801-401	373-19801-401	373-19801-402		
15	Ignitor, Hot Surface						
16	Filter (2 Req'd) (16x20x1)	1214-2511	1214-2511	1214-2511	1214-2511		
17	Panel, Door (Upper)	Accessory (See Page 6)					
18	Panel, Door (Lower, Tall)	7900-7611	7900-7611	7900-7611	7900-7611		
19	Motor (See Note 3)	024-31948-000	024-31948-000	024-31948-000	024-31949-000		
20	Assembly, Motor Mount						
21	Plug, Connector	025-21192-000	025-21192-000	025-21192-000	025-21192-000		
22	Capacitor, Run				024-20045-000		
23	Wheel, Blower	026-19654-003	026-19654-003	026-19654-003	026-19654-003		
24	Relay, Fan	3110-3301	3110-3301	3110-3301	3110-3301		
25	Relay, Booster				3110-3301		
26	Switch, Fan	7975-3281	7975-3281	7975-3281	7975-3281		
27	Thermocouple	7945-3481	7945-3481	7945-3481	7945-3481		
28	Burner, Pilot	9880-0141	9880-0141	9880-0141	9880-0141		
29	Tube, Pilot	029-22188-000	029-22188-000	029-22188-000	029-22188-000		
30*	Diagram, Wiring	035-15287-001	035-15287-001	035-15287-001	035-15288-001		

NOTE: *Not Shown

New replacement parts shown in **bold** face type at the first printing of parts list dated 10/06. Major components and suggested stocking items are shown with shaded item number. "<" Across from row indicates a change in that row. --- Not applicable to specified model.

3. DGPA with 4 or 5-Ton Blowers are provided as an accessory item and are not standard equipment from the factory. See Page 6

ITEM

1

2

3

4

5

6





DGPH										
ITEM	DESCRIPTION	DGPH056ABTA	DGPH070ABTA	DGPH077ABTA	DGPH090ABTA					
1	Switch, Pressure				024-27666-001					
2	Tubing Silicone (2' Req'd)				028-12499-000					
3	Limit Switch, Manual (Upper)	025-35358-000	025-35358-000	025-35358-000	025-35358-000					
4	Assembly, Booster (w/Motor)				373-19801-820					
5	Control Board, Integrated									
6	Valve, Gas	7956-336P	7956-336P	7956-336P	7956-336P					
7	Bracket, Valve	073-19801-064	073-19801-064	073-19801-064	073-19801-064					
8	Thermostat (Heat Only)		Accessory (See Page 6)						
9	Exchanger, Heat (w/Gaskets)	373-19804-651	373-19805-651	373-19806-651	373-19806-650					
10	Sensor, Flame									
11	Switch, System	7970-3331	7970-3331	7970-3331	7970-3331					
12	Transformer (115-24V, 40 VA)	2940A3541	2940A3541	2940A3541	2940A3541					
13	Switch, Limit	025-35380-000	025-35380-000	025-35381-000	025-35381-000					
14	Standing Pilot, Burner Assembly (Includes items 10 & 15)	373-19801-401	373-19801-401	373-19801-401	373-19801-402					
15	Ignitor, Hot Surface									
16	Filter (2 Req'd) (16x20x1)	1214-2511	1214-2511	1214-2511	1214-2511					
17	Panel, Door (Upper)		Accessory (See Page 6)						
18	Panel, Door (Lower, Tall)	7900-7611	7900-7611	7900-7611	7900-7611					
19	Motor (See Note 3)	024-31948-000	024-31948-000	024-31948-000	024-31949-000					
20	Assembly, Motor Mount									
21	Plug, Connector	025-21192-000	025-21192-000	025-21192-000	025-21192-000					
22	Capacitor, Run				024-20045-000					
23	Wheel, Blower	026-19654-003	026-19654-003	026-19654-003	026-19654-003					
24	Relay, Fan									
25	Relay, Booster				3110-3301					
26	Switch, Fan	7975-3281	7975-3281	7975-3281	7975-3281					
27	Thermocouple	7945-3481	7945-3481	7945-3481	7945-3481					
28	Burner, Pilot	9880-0141	9880-0141	9880-0141	9880-0141					
29	Tube, Pilot	029-22188-000	029-22188-000	029-22188-000	029-22188-000					
30	Diagram, Wiring	035-15285-001	035-15285-001	035-15285-001	035-15286-001					

Г

NOTE: *Not Shown

New replacement parts shown in **bold** face type at the first printing of parts list dated 10/06. Major components and suggested stocking items are shown with shaded item number. "<" Across from row indicates a change in that row.

--- Not applicable to specified model.

3. DGPH with 4 or 5-Ton Blowers are provided as an accessory item and are not standard equipment from the factory. See page 6.

BURNER ORIFICE CHART (Normal Altitude Only 4)									
MODEL 056 070 077 090									
NATURAL GAS	9951-1361	9951-1541	9951-1611	9951-1801					
LP GAS	9951-0821	9951-0931	9951-0981	9951-1061					

ACCESSORY PARTS LIST									
	DESCRIPTION	DGAA	DGAH	DGPA	DGPH				
	Thermostat (Heat/Cool)	025-38746-000	025-38746-000	025-38746-000					
	Thermostat (Heat Only)				025-38252-000				
	Door Panel (Upper)	7900-7631	7900-7631	7900-7631	7900-7631				
4-Ton Blower Ass'y	Motor			1468-220	1468-220				
7900-7741/A	Run Capacitor (7.5 MFD)			024-32020-000	024-32020-000				
	Motor Mount			373-19806-100	373-19806-100				
	Blower Wheel			1472-2761	1472-2761				
5-Ton Blower Ass'y	Motor	024-31975-000	024-31975-000	024-31975-000	024-31975-000				
7900-7751	Run Capacitor (20 MFD)	024-20051-000	024-20051-000	024-20051-000	024-20051-000				
	Motor Mount	373-19802-930	373-19802-930	373-19802-930	373-19802-930				
	Blower Wheel	1472-2761	1472-2761	1472-2761	1472-2761				

NOTES

4 Contact Customer Service for installations at altitudes over 2000 feet above sea level.
 "<" Across from row indicates a change in that row.

TO ORDER AUTHORIZED FACTORY REPLACEMENT PARTS - Contact your Source1 HVAC Parts Distributor or visit our website at **www.Source1Parts.com** for a Distributor and Dealer listing.

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5005 York Drive

OWNER'S MANUAL

SEALED COMBUSTION DOWNFLOW GAS FURNACE





FOR YOUR SAFETY - Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a qualified installer, service agency or the gas supplier. Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

Never attempt to modify this furnace. Fire, explosion, or asphyxiation may result. If malfunction occurs, obtain the assistance of a qualified service agent.

If not installed, operated, and maintained in accordance with the manufacturer's instructions, this product could expose you to substances in fuel or from fuel combustion which are known to the State of California to cause cancer, birth defects or other reproductive harm. Also, operation, installation and servicing of this product could expose you to airborne particles of glasswool fibers known to the State of California to cause cancer through inhalation.

Use of furnace or air conditioning components that are not included in the Intertek Testing Services (ETL) certification of this appliance may create a hazard, will invalidate the certification, and will in many states make installation illegal. UL listed air conditioning components are specified on the furnace label.



Before placing furnace in service, it must be checked to make sure it is equipped for the type of gas being used. Failure to observe this caution may result in unsafe operation, explosion, and/or fire or asphyxiation. Use of other components not tested in combination with this furnace may make the equipment in violation of State Codes, may create a hazard, and may ruin the equipment.

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Congratulations . . .

On your purchase of one of the most versatile furnaces available in the industry today. This compact, energy-efficient furnace has been precision designed, manufactured of high-quality materials and has passed many rigorous inspections and tests to ensure many years of satisfactory service. This booklet is meant to increase your understanding of your unit, tell you how to operate it efficiently and how to obtain the greatest measure of comfort at the lowest operating expense. Please read this booklet thoroughly. We appreciate your interest in our product and your decision to purchase our furnace. Enjoy your comfort.

INTRODUCTION

WARRANTY AND RESPONSIBILITIES

It is the sole responsibility of the home owner to make certain that the gas furnace has been correctly set up and converted to the proper fuel (Propane or Natural gas) and adjusted to operate properly.

The manufacturer warrants the furnace to be free from defects in material or workmanship for the stated time in the warranty agreement (see warranty certificate packed with the furnace).

However, the manufacturer will not be responsible for any repair costs to correct problems due to improper set-up, improper installation, furnace adjustments, improper operating procedure by the user, etc.

Some specific examples of service calls which cannot be included in warranty payments are:

- 1. Converting the furnace to use another type of gas.
- 2. Correcting faulty duct work in the home.
- 3. Correcting wiring problems in the electrical circuit to the furnace.
- 4. Resetting circuit breakers or other switches.
- 5. Adjusting the burner air shutter or service calls made to correct problems caused by improper air adjustment.
- 6. Correcting problems caused by improper gas supply pressure to the furnace.
- 7. Instructional training on how to light and operate furnace.

- 8. Furnace problems caused by installation of air conditioner, heat pump, or other air quality device which is not approved.
- 9. Problems caused by improper installation of the furnace flue assembly (roof jack).
- 10. Adding a roof jack extension because of unusual wind conditions or snow conditions.
- 11. Adjusting or calibrating the thermostat.
- 12. Problems caused by construction debris which has fallen into the flue or combustion air openings.
- 13. Replacement of fuses.
- 14. Problems caused by orifice plugged or restricted by spider webs.

You should establish a firm understanding of these responsibilities with your manufactured housing dealer, service company or gas supplier so there will be no misunderstanding at a later time.

GAS SUPPLY

The gas supply to your home will either be Natural Gas or Propane gas. Your furnace will be factory equipped to operate on only one of these two different gases.

A small metal tag secured to the furnace next to the gas valve will specify the type of gas your furnace is equipped to use.

If the gas is different from that specified on the metal tag, the furnace can be converted by following the instructions on the furnace safety label inside lower front panel. Parts for conversion are contained in the small bag attached to the gas valve. Be sure the proper size orifice is used, as specified on the furnace name plate.



The furnace must be converted by a qualified technician. Improper conversion can cause unsafe operation, explosion, and/or fire or asphyxiation.

Natural Gas Operation

The furnace is designed for 7" W.C. inlet pressure. Pressure is reduced to 3 1/2" W.C. by the pressure regulator in the gas valve.

Propane Gas Operation

Inlet pressure to the gas valve must be 11" W.C. When properly converted to Propane gas, the pressure is regulated at 10" W.C.

SAFETY INFORMATION

For your safety read before lighting.

- 1. The first lighting of the furnace after any home setup must be performed by a qualified service technician.
- 2. If this appliance has a pilot that must be lit by hand, follow these instructions exactly.
- 3. BEFORE LIGHTING smell all around the furnace for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS:

- Do not try to light any appliance.
- Do not touch any electric switch and do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone.
 Follow the gas supplier's instructions. If you cannot reach your gas supplier, call the fire department.
- Use only your hand to move the gas control lever or switch. Never use tools. If the lever or switch will not move by hand, don't try to repair it. Call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- Do not use this furnace if any part has been under water. Immediately call a qualified service technician to inspect the furnace and to replace any part of the control system and any gas control which has been under water.

INSTRUCTIONS FOR STANDING PILOT MODELS

LIGHTING INSTRUCTIONS

- 1. STOP! Read the Safety Information.
- 2. Set the thermostat to the lowest setting.
- 3. Turn off all electrical power to the appliance.
- 4. Remove the furnace doors.
- 5. Push in the gas control lever slightly and move right to "OFF". **DO NOT FORCE**.

- Wait ten (10) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow Step 3 in the Safety Information above. If you don't smell gas, go to the next step.
- 7. Open hinged observation door, the pilot is found at the end of the pilot shield on the left side of the burner.
- Slightly depress the gas control lever and move it to the left to the "ON" position and release; then move it to the "PILOT" position.
- 9. Move the control lever to "SET" and hold. Immediately light the pilot with a match (use match holder provided). Continue to hold the control lever for about one (1) minute after the pilot is lit. Release the lever and it will spring back to the "PILOT" position. Pilot should remain lit. If it goes out, repeat steps 5 through 9 above.
- If the lever does not spring back when released, stop and immediately call your service technician or gas supplier.
- If the pilot will not stay lit after several tries, move the gas control lever to "OFF" and call your service technician or gas supplier.
- 10. Move the gas control lever to "ON".
- 11. Replace the furnace doors.
- 12. Turn on all electric power to the furnace. Set the thermostat to "HEAT" and/or the desired temperature setting. Set the ON-OFF-FAN switch to "ON".

In the event of any flashback or explosion, immediately shut off the furnace and call your service technician.

To Turn off Gas to Appliance

- 1. Set the thermostat to the lowest setting.
- 2. Turn off all electric power to the appliance if service is to be performed.
- 3. Remove the furnace doors.
- Move gas control switch to "OFF" position. DO NOT FORCE.
- 5. Replace the furnace doors.



FIGURE 1:STANDING PILOT GAS VALVE

SEQUENCE OF OPERATION

- On a call for heat, the thermostat contacts close, supplying 24 VAC to the gas valve.
- 2. When the gas valve is energized it initially opens at a reduced flow and opens fully after approximately 30 seconds.
- 3. About 1-2 minutes after the burner lights, the furnace air circulation blower will come on.
- When the call for heat is satisfied the thermostat contacts open, the gas valve shuts off gas flow.
- 5. After the burner shuts off, the air circulation blower will continue to run for 2-4 minutes, until the furnace has cooled.

THE FURNACE CONTROLS AND THEIR FUNCTION

- "ON-OFF-FAN" switch turns electrical power to the furnace on and off. The switch must be set in the "ON" position for the furnace to operate. To run the blower continuously without heating, set the switch to "FAN".
- Limit Control This furnace is protected by two (2) high temperature limit switches. The lower limit switch is an automatic reset type.

IMPORTANT - The upper limit switch near left side of blower is a manual reset type limit switch. If burner does not function, turn system switch to "OFF" and push reset button in center of limit switch.

- 3. **Gas Valve -** The gas valve is 100% shut-off type and will fail safe if for some reason the gas is turned off or the pilot goes out. It is also of the step-open type which means they open to a low fire position and after a few seconds step-open to high fire.
- 4. Fan Switch This fan switch is a temperature sensing device that turns on the blower when sufficient heat has built up within the furnace. It also turns the blower off when the furnace has cooled down sufficiently after burner shut-off. In warm weather, there is a possibility of the blower coming on periodically or operating continuously due to a heat buildup within the furnace by a combination of

warm weather and heat from the pilot. This is normal operation as long as there is power to the furnace and the ON-OFF-FAN switch is at the "ON" position. IF blower operation is not desired, the ON-OFF-FAN switch may be set in the "OFF" position to cut the electrical power to the furnace.

INSTRUCTIONS FOR AUTOMATIC IGNITION MODELS

LIGHTING INSTRUCTIONS

- 1. **STOP!** Read the safety information
- 2. Set the thermostat to the lowest setting, or "OFF".
- 3. Turn off all electric power to the furnace.
- 4. This appliance does not have a pilot. It is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand.
- 5. Remove upper door panel.
- 6. Move gas valve control switch to "OFF". See Figure 2.
- Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow Step 3, in the Safety Information above. If you don't smell gas, go to the next step.
- 8. Move gas control switch to "ON".
- 9. Replace upper door panel.
- 10. Turn on all electric power to the furnace.

11. Set thermostat to desired setting.



FIGURE 2:AUTO IGNITION GAS VALVE

SEQUENCE OF OPERATION

This furnace is equipped with an electronic control system which automatically supervises burner and fan operation. A green indicator light displays during normal operation. This indicator light also informs the home owner when certain basic services are needed. In response to a call for heat by the room thermostat, the burner is lighted by a hot glowing ignitor at the beginning of each operation cycle. The burner will continue to operate until the thermostat is satisfied at which time all burner flame is extinguished. During the off cycle no gas is consumed. With the room thermostat set below room temperature, and with the electrical power and gas supply to the furnace on, the normal sequence of operation is as follows:

1. When the room temperature falls below the setting of the room thermostat, the thermostat energizes the furnace control board.

- 2. When the furnace control board is activated, the combustion air blower is turned on.
- 3. As the combustion air blower increases in speed, the contacts of the pressure switch will close and complete the electrical circuit to the ignition circuit.
- 4. During the next 40 to 50 seconds, the combustion air blower will bring fresh air into the heat exchanger and the ignitor will begin to glow. At the end of this period, the gas valve will open and the burner will light.
- 5. After the burner lights, a separate sensor acts as a flame probe to check for the presence of flame. As long as flame is present, the system will monitor it and hold the gas valve open.
- 6. If the burner fails to light within 6-8 seconds after the gas valve opens, the gas valve will close and the ignitor will be turned off. After a short pause, the system will recycle and try again for ignition. If the burner fails to light after three tries, the ignition system will lock out. The system will remain in lockout mode for a period of one hour, then the furnace will try for ignition again.

- 7. The lapsed time from the moment the room thermostat closes to when the burner lights may be 45-60 seconds. This delay is caused by:
 - a. The time required for the ignitor to heat up and
 - b. The time required for fresh air to be brought into the heat exchanger.
- 8. Approximately 60-90 seconds after the burner lights, furnace air circulation blower will run.
- 9. When room thermostat is satisfied, the circuit to the furnace control board is opened. The circuit to the combustion air blower and the gas valve is opened and the burner is extinguished. Then the furnace control board will keep the circulating blower running for a fixed period of time to allow additional heat to be drawn from the heat exchanger.

DIAGNOSTIC LIGHT

If furnace does not maintain home temperature as set, check the light indicator, visible through a small window in the right side of the furnace control box.

The electronic furnace control is equipped with a diagnostic light which flashes when there is a service problem. The diagnostic codes are: Steady on: Normal operation.

ONE flash: Ignition failure.

TWO flashes: Pressure switch failed closed.

THREE flashes: Pressure switch failed open.

FOUR flashes: Limit switch open.

FIVE flashes: Gas valve energized with no call for heat

SIX flashes or rapid flash: Reversed polarity

If a problem is indicated, contact your authorized service person.

THE FURNACE CONTROLS AND THEIR FUNCTION

- System Switch This system switch turns "ON" or "OFF" the 120 volt electrical circuit that powers the furnace controls and the blower motor. The system switch must be turned "ON" for the furnace to operate. Turn the switch to "OFF" when cleaning the blower, etc.
- 2. **Limit Control -** This furnace is protected by two (2) high temperature limit switches. The lower limit switch is an automatic reset type.
- 3. **Gas Valve -** The gas valve for the gas furnaces are a 100% shut-off type and will fail safe if for some reason the gas is turned off.

GENERAL INFORMATION FOR ALL MODELS

GAS SHUTOFF

Should overheating occur, or the gas supply fail to shut off, shut off the manual gas valve to the furnace and allow blower to run until furnace cools down and blower shuts off before shutting off the electrical supply.

The furnace gas valve is equipped with a manual gas shutoff. To turn off gas to the furnace, move the lever on the gas valve to the "OFF" position.

The furnace installation should also have a manual shutoff valve in the gas piping to the furnace, similar to what is shown in Figure 3. To turn off the gas to the furnace, use a wrench and turn the knob or lever so that it is pointing 90 degrees from the gas pipe, as shown in Figure 3.



FIGURE 3:MANUAL GAS SHUTOFF VALVE

Set the room thermostat at the desired room temperature. Greatest comfort will be achieved when the setting is not changed frequently. For energy conservation and economy it is recommended that the thermostat be set at 68° for heating and 80° for cooling.

For Heating with Air Conditioning Applications - Set heat/cool switch to "HEAT" position and set fan switch to "AUTO" position.

OBSERVING BURNER OPERATION

- Observe burner to make sure it ignites. Observe color of flame. On natural gas the flame will burn blue with appreciably yellow tips. On Propane gas a yellow flame may be expected. If flame is not the proper color call a qualified serviceman for service.
- 2. Let furnace heat until blower cycles on.
- 3. Turn thermostat down.
- 4. Observe burner to make sure it shuts off.
- 5. Let the furnace cool and blower cycle off.

If any abnormalities are observed when checking for correct operation, such as burner failing to ignite or to turn off, sooty flame, etc., call your nearest authorized service technician as shown in the Service Center List included in the home owner envelope.

IF FURNACE FAILS TO OPERATE PROPERLY

- Check setting of thermostat and position of heat/cool switch if air conditioning is installed. If a set-back type thermostat is employed be sure that the thermostat is in the correct operating mode.
- 2. Check to see that electrical power is "ON".

- 3. Check to see that the lever or switch on the gas control valve is in the full "ON" position.
- 4. Make sure filters are clean, return grilles are not obstructed, and supply registers are open.
- 5. Be sure that furnace flue piping is open and unobstructed.

If the cause for the failure to operate is not obvious, do not attempt to service the furnace yourself. Call a qualified service agency or your gas supplier.

PERIODIC INSPECTION AND MAINTENANCE BY HOMEOWNER

It is recommended that the homeowner or user make an inspection of the furnace at least every 90 days, or more often if desired. It is also recommended that a qualified service agency inspect the furnace before each operating season the furnace is used, both heating and air conditioning, and at any time that there is an indication of malfunction. The owner/user should not attempt to disassemble the furnace unless experienced and qualified to do so.

A CAUTION

FOR SAFETY - Turn off electrical power to furnace before performing service such as cleaning filters.

Filters

It is very important that filters in your furnace or air conditioning system be replaced frequently. Clean filters not only provide added comfort and a more healthful environment, but also allow the system to operate more efficiently. Check filters every two or three weeks.

Motor Lubrication

The circulating air blower motor and combustion air blower are permanently lubricated and do not require periodic lubrication.

Heat Exchanger Cleaning

Under normal conditions, the heat exchanger should not require periodic cleaning. However, should cleaning of the interior of the heat exchanger become necessary, access to the interior of the heat exchanger may be gained by removing the burner. **Do not** attempt to disassemble any part of the heat exchanger for cleaning. **Do not** use any chemical for cleaning the heat exchanger. **Such use may cause a fire or explosion or may result in corrosion of the heat exchanger**.

IMPORTANT - This furnace must be serviced only by qualified individuals specially trained in servicing of this type of equipment. Installation and service personnel are required to be licensed in some areas. Persons not qualified should not attempt to service this furnace.

Return Air

On some closet installations, the return air opening to the furnace may be on the floor, and/or on the door and/or on the side wall of the closet. The upper grille on the front of the furnace admits return air to the blower. Return air must be provided back to the circulating blower in order to provide air distribution.

IMPORTANT - Do not obstruct these openings including the grille on the furnace. To do so will cause the furnace to activate the high limit and shut down or it may cause asphyxiation.

While you are away

Your furnace is equipped with a safety device which will shut off the supply of gas to the burner in case of malfunction. For this reason it is never practical to assume that the furnace will operate unattended for a long period of time, especially if there is a possibility of damage to your property because of freezing. So, if you plan to be away from home, arrange for someone to check your house every day.

SEASONAL SERVICE INFORMATION

During extreme cold weather, ice may form on the furnace roof jack crown. Small amounts of ice forming on the roof jack will present no problem to proper furnace operation. However, excessive ice formation could restrict the combustion air supply to the burner causing inefficient burner operation.

When the temperature is very cold, near zero or below, it is recommended that the roof jack be inspected every day or more frequently if required. If ice has started to collect on the roof jack crown, it should be carefully broken off.

Your Service Technician

Your furnace's best friend is your qualified service technician. If the unit gives any indication of improper operation, call your service technician. If the service technician is allowed to perform the normal routine care of your furnace, he can many times detect potential difficulties and make corrections before trouble develops. Preventative maintenance of this type will allow you to operate the unit with a minimum of concern, and at the same time will pay for itself in added years of comfort.

When You Call For Service Assistance

Very often time can be saved if you will give the service agency the MODEL and SERIAL NUMBER of your furnace. This will enable him to determine the specific components used, and perhaps to better identify the possible problem and be better prepared if a service call is required.

To Contact Your Serviceman (fill in)

COMPANY:	
ADDRESS:	
TEL PHONE	

All appliances need maintenance by serviceman at the beginning of each heating season. Call your nearest authorized service technician to:

- 1. Replace filters. Clean all lint and dust from around furnace.
- 2. Remove fan and clean all dust and lint from unit with stiff bristle brush.
- 3. Inspect combustion chamber, the transition into the blower compartment, flue collar, and roof jack.
- 4. Check the gas valve and line connections for leaks.
- 5. Make any adjustments necessary for good operation.
- **NOTE:** The coil panel provides a good removable access for inspecting inside the furnace casing. Smoke or reflected light inside the casing indicates the presence of leaks in the heat exchanger.

IMPORTANT

As an owner of a new furnace you need to know the following information:

If your home is located at an elevation above 2,000 feet, the burner orifice in your furnace will need to be derated. Please contact the nearest authorized Service Center to have this procedure performed properly.

Your dealer or gas company may have already applied the proper deration for your unit. If so, they should be able to advise you as such. If not, you need to have the deration made to insure continued use of your furnace. Not having the unit derated properly will eventually render the furnace inoperable.

Deration of the orifice for furnaces installed in homes at elevations above 2,000 feet is not covered by the warranty. This procedure is considered a part of the installation process and is required to make the furnace operate properly.

These furnaces are shipped from the factory with a natural gas orifice. If you will be operating this furnace on LP (liquid propane gas), it will also be necessary to have the furnace converted. The correct LP orifice is supplied with the furnace to allow operation at elevations below 2,000 feet. If the furnace will be operating on LP gas at elevations above 2,000 feet, the orifice supplied will be too large to allow proper operation. You should contact your LP supplier for assistance in getting the derated orifice installed.

We hope you follow these instructions and enjoy many years of trouble free service. If you have any questions, please feel free to contact the technical assistance hot line at 1-800-231-4822.

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INSTALLATION INSTRUCTION

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CAUTION: READ ALL SAFETY GUIDES BEFORE YOU START TO INSTALL YOUR UNIT. SAVE THIS MANUAL

SEALED COMBUSTION DOWNFLOW GAS FURNACE MODELS: DGAA, DGAH, DGPA, AND DGPH





For Installation In:

- 1. Manufactured (Mobile) Homes
- 2. Recreational Vehicles & Park Models
- 3. Modular Homes & Buildings

IMPORTANT - Only individuals having proven experience with this type of equipment should attempt to perform set-up.

Proper furnace set-up and adjustment is the responsibility of the retailer/homeowner and is not covered under warranty.

FURNACE START-UP CHECK LIST

- · Has roof jack crown been correctly installed?
- Has furnace gas valve and burner orifice been correctly converted for Propane. gas where applicable?
- Has furnace gas valve been de-rated for altitudes above 2000 feet where applicable?
- Is gas line outlet pressure properly set for fuel type? (natural gas is 3.5" W.C.; Propane is 10" W.C.)
- Is cross-over duct installed per home builder and UPG installation instructions?
- Has furnace been operated through a complete heating cycle?
- Has the pilot flame been adjusted properly? (DGPH and DGPA Models)

FURNACE SPECIFICATIONS

DGAA — AUTOMATIC IGNITION — WITH BUILT-IN COIL CABINET — 4 TON - A/C READY										
MODEL NO.	Factory Equipped for use with	Input/BTUH	Output/BTUH							
DGAA056BDTA	NATURAL GAS	56,000	45,000							
DGAA070BDTA	NATURAL GAS	70,000	56,000							
DGAA077BDTA	NATURAL GAS	77,000	62,000							
DGAA090BDTA	NATURAL GAS	90,000	72,000							
DGPA — STANDING PILOT — WITH BUILT-IN COIL CABINET — 3 TON - A/C READY										
DGPA056ABTA	NATURAL GAS	56,000	45,000							
DGPA070ABTA	NATURAL GAS	70,000	56,000							
DGPA077ABTA	NATURAL GAS	77,000	62,000							
DGPA090ABTA	NATURAL GAS	90,000	72,000							
DGPH — STA	DGPH — STANDING PILOT — WITH BUILT-IN COIL CABINET — 3 TON - NO A/C CONTROLS									
DGPH056ABTA	NATURAL GAS	56,000	45,000							
DGPH070ABTA	NATURAL GAS	70,000	56,000							
DGPH077ABTA	NATURAL GAS	77,000	62,000							
DGPH090ABTA	NATURAL GAS	90,000	72,000							
DG	DGAH — AUTOMATIC IGNITION — HEATING ONLY — NO COIL CABINET									
DGAH056BBSA	NATURAL GAS	56,000	45,000							
DGAH077BBSA	NATURAL GAS	77,000	62,000							
ELECTRICAL SPECIFICATIONS										
	ELECTRICAL S	PECIFICATIONS								
Electrical	ELECTRICAL S	PECIFICATIONS 115 Volts - 6	0 Hz - 1 Phase							

Breaker or Fuse	15 Amp
Thermostat Circuit	24 Volt - 60 Hz - 40 VA
Nominal Anticipator Setting	.50
Gas Valve Inlet	1/2" NFPT



FIGURE 1 : Furnace Dimensions

GENERAL INFORMATION

NOTE: The words "Shall" or "Must" indicate a requirement which is essential to satisfactory and safe product performance.

The words "Should" or "May" indicate a recommendation or advice which is not essential and not required but which may be useful or helpful.

IMPORTANT - These instructions are primarily intended to assist qualified individuals experienced in the proper installation of heating and/ or air conditioning appliances. Some local codes require licensed installation service personnel for this type of equipment. Read all instructions carefully before starting the installation.

Improper installation may damage equipment, can create a shock hazard, and will void the warranty.

The furnace shall be installed so the electrical components are protected from water.

The furnace is not to be used for temporary heating of buildings or structures under construction.

Do not test the fuel system at more than 14 inches water column after furnace has been connected to the fuel line. Such testing may void the warranty. Any test run above 14 inches water column may damage the furnace control valve which could cause an explosion, fire, or asphyxiation.

INSTALLATION STANDARDS

CODE COMPLIANCE

The installer must comply with all local codes and regulations which govern the installation of this appliance. Local codes and regulations shall take precedent over these regulations where applicable. In lieu of local codes, the appliance shall be installed in accordance with one or more of the following standards.

Manufactured homes in the U.S.A.:

- 1. Federal Manufactured Home Construction & Safety Standard (H.U.D. Title 24, Part 3280).
- 2. National Fuel Gas Code (ANSI-Z223.1, NFPA-54).
- 3. National Electrical Code (NFPA 70).

Manufactured homes in Canada:

- 1. Natural Gas and Propane Installation Code (CAN/CSA B149.1).
- 2. Canadian Electrical Code, Part 1 (CSA C22.1)

Recreational Vehicles in U.S.A.:

- 1. Standard on Recreational Vehicles (NFPA 1192, formerly NFPA 501C).
- 2. National Electrical Code (NFPA 70).

Recreational Vehicles in Canada:

- Unit installation shall comply with current CSA standard CAN/CGA-Z240.4.2 - Installation Requirements for Propane Appliances and Equipment in Recreational Vehicles.
- Unit electrical wiring and grounding shall comply with current CSA standard C22.2 No.148/CAN/CSA-Z240.6.2
 Electrical Requirements for recreational vehicles.

HIGH ALTITUDE INSTALLATION

For elevation above 2,000 feet, derate furnace input 4% for each 1,000 feet of elevation above sea level. Derating is accomplished by reducing the orifice size. See Derating Chart for orifice size.

In Canada, for elevations from 2000 to 4500 feet derate by reducing gas manifold pressure to 3.0" W.C. for natural gas and 9.0" W.C. for LP gas.



• Never attempt to alter or modify this furnace or any of its components.

• Never attempt to repair damaged or inoperable components. Such action could cause unsafe operation, explosion, fire and/or asphyxiation.

• If a malfunction has occurred, or if you feel that the furnace is not operating as it should, contact a quali-fied service agency or gas utility for assistance.

MINIMUM FURNACE CLEARANCES

Access for servicing is an important factor in the location of any furnace. A minimum of 24 inches should be provided in front of the furnace for access to the heating elements and controls. This access may be provided by a closet door or by locating the furnace 24 inches from a facing wall or partition.

These furnaces are design certified for the following minimum clearances from combustible material in alcove or closet installation

Table 1: MINIMUM CLEARANCES

	CLOSET	ALCOVE
BACK	0"	0"
SIDES	0"	0"
FRONT	6"	24"
TOP	2"	2"
ROOF JACK	0"	0"
DUCT	0"	0"

RETURN AIR REQUIREMENTS

CLOSET INSTALLATIONS

Additional Requirements

Additional requirements for floor and ceiling return system for closet installed sealed combustion heating appliance are given in the next paragraph.

Floor or Ceiling Return Air System

Listed in the next paragraph are the conditions to be met by Manufactured Home Manufacturers to have U.L. acceptance of in-floor or ceiling return air systems of closet installed direct vent forced air heating appliances for Manufactured Homes to be sold in the United States.

- The return-air opening into the closet, regardless of location, is to be sized not less than specified on the appliance's rating plate.
- 2. If the return-air opening is located in the floor of the closet (versus the vertical front or side wall), the opening is to be provided with means to prevent its inadvertent closure by a flat object placed over the opening.
- 3. The cross-sectional area of the return duct system (when located in the floor or ceiling of the manufactured home) leading into the closet is to be not less than that of the opening specified on the appliance's rating plate.
- 4. The total free area of openings in the floor or ceiling registers serving the return-air duct system is to be not less than 150% of the size of the opening specified on the appliance's rating plate. At least one such register is to be located where likelihood of its being covered by carpeting, boxes, and other objects is minimized.
- 5. Materials located in the return duct system have a flame spread classification of 200 or less.

- 6. Non-combustible pans having one-inch upturned flanges are located beneath openings in the floor return duct system.
- Wiring materials located in the return duct system conform to Article 300-22 (B&C) of the National Electrical Code (NFPA-70).
- 8. Gas piping is not run in or through the return duct system.
- 9. The negative pressure in the closet as determined by test with the air-circulating fan operating at high heating speed and the closet door closed is to be not more negative than minus 0.05-inch water column.
- 10. For floor return systems, the manufactured home manufacturer or installer shall affix a prominent marking on or near the appliance where it is easily read when the closet door is open. The marking shall read:

HAZARD OF ASPHYXIATION, DO NOT COVER OR RESTRICT FLOOR OPENING.

AIR DISTRIBUTION SYSTEMS

For proper air distribution, the supply duct system shall be designed so that the static pressure does not exceed the listed static pressure rating on the furnace rating plate.

Three typical distribution systems are illustrated in Figure 2.

Location, size and number of registers should be selected on the basis of best air distribution and floor plan of the home.

The Air Temperature Rise is to be adjusted to obtain a temperature rise within the range(s) specified on the furnace rating plate.



FIGURE 2 : Air Distribution Systems









FIGURE 5 : Furnace To Closet Door Clearance - Less Than 1"

ROOF JACK

Failure to follow all venting instructions can result in fire, asphyxiation, or explosion.

A CAUTION

Only use the appropriate roof jack. See Figures 6 & 7 for correct application.

Do not exceed the maximum height as determined from Figures 6 & 7. Installer should allow an additional 1-1/2" travel before the flue pipe assembly is fully extended against the built-in stop. This provides an additional safeguard against the flue assembly being pulled from the roof jack during transportation or other stress conditions.

EXISTING FURNACE REPLACEMENT

If this furnace replaces an existing furnace, do the following:

- If a 2nd roof, roof cap or addition has been made to the existing roof of the home, remove the old roof jack completely! To avoid the possibility of an improperly installed pipe or gaps in the old roof jack, INSTALL A NEW ROOF JACK. Your ceiling and roof height will determine the correct roof jack to use. Refer to the vent selection table, of the furnace installation instructions.
- After unpacking the roof jack, check the rain caps. Insure they are not damaged, tilted or crooked. Do not twist, crush or sit on the roof caps during installation. Damaged roof caps will cause improper furnace operation. The furnace will not heat properly and could result in explosion.
- Before inserting the roof jack into the furnace top, inspect the furnace flue and combustion air opening for debris or insulation which might have fallen in during preinstallation steps. Do not proceed unless all debris has been cleaned out or removed.
- 4. After installing roof jack on furnace top collar, check to make sure there is no gap in back or side between the pipe collar and the furnace casing top.
- Use only the pipes provided with the roof jack assembly. Do not add to or adapt other sheet metal pipes. Do not cut, insert or add other pipes to this assembly.
- In no case should there be a gap between sections of the flue pipe or the combustion air pipe. If necessary to prevent excessive air leakage, the installer should seal joints in the combustion air tube with aluminum type or other suitable sealant.

NEW HOME INSTALLATION

If this furnace is installed on a new home do the following:

- 1. Inspect the furnace top collars for signs of insulation or ceiling debris which might have fallen in during cutting of the ceiling and roof holes. Remove all debris before continuing.
- 2. After unpacking the roof jack, check the rain caps. Insure they are not damaged, tilted or crooked. Do not twist, crush or sit on the roof caps during installation. Damaged roof caps will cause improper furnace operation. The furnace will not heat properly and could result in explosion.
- 3. Before inserting the vent pipe into the furnace top, inspect the furnace flue and combustion air opening for debris or insulation which have fallen in during pre-installation steps. Do not proceed unless all debris have been cleaned out or removed.
- 4. After installing roof jack on furnace top collar, check to make sure there is no gap in back or side between the pipe collar and the furnace casing top. If necessary to prevent excessive air leakage, the installer should seal joints in the combustion air tube with aluminum type or other suitable sealant.

INSTALLATION IN SNOW REGIONS

When the combustion air pipe inlet is covered or blocked with snow, the furnace will not operate properly due to the depleted combustion air supply.

Therefore, if the furnace will be located in regions where snow accumulation on the roof exceeds 7" or in H.U.D. Snow Load Zones, a roof jack extension (Part No. 7680B6541) is recommended.

LOCATING AND CUTTING ROOF JACK OPENING

To facilitate the proper installation of the roof jack, it is very important that the roof jack opening in the ceiling and roof be on the same vertical center line as the furnace flue collar. See Figure 9.

Mark this location on ceiling and scribe a circle with a 5" radius (10" diameter) around this mark. Cut opening for roof jack through ceiling and roof. (If furnace was installed during construction, cover furnace and flue opening to prevent debris from entering flue when hole is cut for roof jack.)

INSTALLING ROOF JACK IN ROOF

(See Figure 6 & 7 for Dimensional requirements.)

Insert roof jack into opening in the roof.

The roof jack should be secured to the furnace before roof flange (flashing) is secured to the roof. This will insure a better alignment of the flue pipe and furnace flue collar. Caulk around and under roof flange to provide a water tight seal, before securing roof jack flashing to roof.



FIGURE 6 : Standard Roof Jack



FIGURE 7 : Roof Jack With Removable Crowns

DUCT CONNECTORS





FIGURE 8 : Duct Connector Dimensions



FIGURE 9 : Recommended Floor Cut-out



FIGURE 10 : Duct Connector Depth



FIGURE 11 : Duct Connector Screw Attachment

INSTALLATION OF SCREW ATTACHMENT DUCT CONNECTOR

- 1. Make floor cut out as shown in Figure 9.
- 2. Determine the depth of the floor cavity from the surface of the floor to the top of the supply air duct and select the appropriate duct connector from the chart.
- 3. Place locating bracket (supplied with the duct connector) to the back edge of the floor opening. See Figure 11.
- 4. Apply a water based duct sealant to the 1/2" supply duct attachment flange of the duct connector.
- 5. Determine which of the four positions the duct connector best centers over the supply duct and insert it through the floor cutout.
- 6. When properly aligned with the supply duct, secure the duct connector to the floor with nails, flat head screws or staples.
- 7. Use screws as required to secure the duct connector to the supply duct.
- 8. Cut out the opening to the supply duct. If sealant was not used, the installer should tape the mating flanges to provide a good air seal.

NOTE: Duct sealant and tape must be classified as meeting HUD Standard 3280.715, U.L. Standard 181A.

If tape is used to provide a better air seal, it should be a type approved by the applicable national or local codes.



FIGURE 12 : Duct Connector Tab Attachment

INSTALLATION OF TAB ATTACHMENT DUCT CONNECTORS

- 1. Make floor cut out as shown in Figure 9.
- 2. Determine the depth of the floor cavity from the surface of the floor to the top of the supply air duct and select the appropriate duct connector from the chart.
- 3. Place locating bracket (supplied with the duct connector) to the rear of the floor area for the furnace. See Figure 12.
- 4. Determine which of the four positions the duct connector best centers over the supply duct and insert it through the floor cutout.
- 5. Mark cut-out location on the supply duct and remove the duct connector.
- 6. Cut out the opening to the supply duct.
- 7. Bend tabs down through and back up under the supply duct.
- 8. Secure the duct connector to the floor with nails, flat head screws or staples.

The duct connector is designed for use on ducts down to 12" in width. When using the connector on smaller width ducts, there will not be sufficient clearance to bend the tabs on two sides of the duct connector.

In such cases the tabs may be attached to the sides of the duct by using sheet metal screws or other suitable fasteners. Holes for sheet metal screws are provided in three (3) tabs on each side of the duct connector. If more than 3 tabs need to be used to provide a more secure and air tight connection, the remaining tabs can also be fastened to the duct with screws after drilling the required screw holes.



FIGURE 13 : Installation of Furnace

INSTALLATION OF THE FURNACE

- 1. Remove the front panels and set the furnace onto the duct connector. Slide it back until the rear of the unit engages the locator bracket.
- 2. Secure the front of the furnace with two screws at the mounting holes provided.
- 3. Secure the top of the furnace to a structural member using screw through the strap at the back of the furnace. Strap may be moved to any of the holes located along the top back of the furnace. Installer may provide an equivalent method, such as screws through the casing side.

A CAUTION

The inner flue pipe must be present.

It is mandatory that the combustion air pipe and flue pipe assembly be fully engaged. The combustion air pipe MUST be securely fastened to the furnace with a sheet metal screw in the hole provided.

Use a 1/2" blunt or sharp end sheet metal screw to fasten roof jack combustion air pipe to furnace combustion air collar. Screw hole is provided in the pipe and collar. Excessively long screws may extend to flue pipe and puncture it. Screws are not to exceed 1 1/2" in length.

NOTE: Combustion air tube and flue pipe are part of the same assembly. Only the combustion air tube need be fastened to the furnace.

- 1. Check to be certain that the flue pipe and combustion air tube are present.
- 2. Pull the telescoping flue tube and combustion air tube assembly down from the roof jack. Slide the flue tube/ combustion air tube assembly down firmly over the furnace flue outlet and combustion air collar. Insure that the back, side and front of combustion air tube collar is fully engaged and is in contact with gasket. Fasten the combustion air tube to the furnace combustion air collar using a 1/2 inch sheet metal screw. (Screw hole provided in combustion air tube and furnace combustion air collar. See Figure 14.



FIGURE 14 : Connecting Roof JAck to Furnace

CEILING RINGS

The ceiling ring is to meet fire stop requirements. Accessory Ceiling Ring (P/N 7660-2841) may be used, (See Figure 15) or the manufactured home manufacturer or the installer may use other approved methods to stop fire.

If required, three (3) sections of Accessory Ring may be used as shown in Figure 15 to provide closer clearance around roof jack.



FIGURE 15 : Ceiling Rings

ELECTRICAL WIRING

A CAUTION

TO INSTALLER: Incoming power must be polarized. Observe color coding.

SHOCK HAZARD - DISCONNECT ELECTRI-CAL POWER SUPPLY TO THE UNIT BEFORE SERVICING TO AVOID THE POSSIBILITY OF SHOCK INJURY OR DAMAGE TO THE EQUIP-MENT.

CONNECT POWER SUPPLY WIRES

- 1. Remove the field wiring cover.
- 2. Insert 115 volt wires through the large plastic bushing on the left side of the furnace (See Figure 16). If conduit is used it should be secured to the control box.
- Connect the "hot" wire to the BLACK pigtail lead, and the "neutral" wire to the WHITE pigtail lead. Secure all connections with suitable wire nuts and wrap with electrical tape.
- 4. Connect the "ground" wire to the grounding screw.
- 5. Reinstall the control panel cover and secure mounting screw.

CONNECT THERMOSTAT WIRES

- 1. Insert 24 volt wires through the small plastic bushing just above the control panel.
- 2. Connect the thermostat wires to the furnace low voltage pigtails. See Figure17 (heating only) and Figure 18 (heating and cooling).
- 3. Connect low-voltage circuit to the wall thermostat pigtails.

NOTE: Five-conductor thermostat cable is recommended for all installations to allow easy installation of an air conditioning system at a later time.

Eighteen gauge thermostat wire is highly recommended. Smaller gauge thermostat wire may be used only if the guideline below is followed.

THERMOSTAT WIRE LENGTH (FURNACE TO THERMOSTAT)	THERMOSTAT WIRE GAUGE
0 - 45 feet	22
0 - 70 feet	20

Do not use thermostat wire smaller than 22 gauge. If thermostat wire smaller than 18 gauge is used, pay particular attention that the connections between the different wire sizes are tight.

Operational problems may be caused by loose connections or by the use of thermostat wire that is too small to carry the required load. Any such problems are the responsibility of the installer.

A separate 115 V.A.C. supply circuit must be used for the furnace. The circuit should be protected by a 15 amp fuse or circuit breaker.



FIGURE 16 : Field Wiring

WALL THERMOSTAT

Avoid locations where the thermostat could be subject to drafts from outside, or exposed to direct light from lamps, sun, fireplaces, etc., or affected by air from a duct register blowing directly on the thermostat.

The wall thermostat should be located 52 to 66 inches above the floor. The preferred location is on an inside wall situated in an area with good air circulation, and where the temperature will be reasonably representative of other living areas the thermostat is controlling.

NOTE: In order to provide proper ventilation control when using DGPH model furnaces with Coleman Blend Air ventilation systems, it is required that a 4-wire wall thermostat and Blower Relay Kit 7900-7761 be installed.



FIGURE 17 : Wiring for Heat Only Thermostat



FIGURE 18 : Wiring for Heat-Cool Thermostat

WIRING DIAGRAMS



FIGURE 19: Wiring Diagram for DGPH056, DGPH070, DGPH077

NOTE: In order to provide proper ventilation control when using DGPH model furnaces with Coleman Blend Air ventilation systems, it is required that a 4-wire wall thermostat and Blower Relay Kit 7900-7761 be installed.



FIGURE 20 : Wiring Diagram for DGPH090

NOTE: In order to provide proper ventilation control when using DGPH model furnaces with Coleman Blend Air ventilation systems, it is required that a 4-wire wall thermostat and Blower Relay Kit 7900-7761 be installed.



FIGURE 21 : Wiring Diagram for DGPA056, DGPA070, DGPA077



FIGURE 22 : Wiring Diagram for DGPA090



FIGURE 23 : Wiring Diagram for DGAA and DGAH Models

GAS PIPING

INSTALLATION AND CHECKING OF GAS LINE

Gas Supply piping must be sized in accordance with the recommendations contained in National Fuel Gas Code (ANSI-Z223.1, NFPA-54) unless local codes or regulations state otherwise.

Materials used and pipe sizing for U.S. manufactured homes must comply with requirements contained in Manufactured Homes A119.1, Recreational Vehicles A119.2 and H.U.D. Title 24, Section 3280.705 and any local or state codes.

NOTE: The gas line inlet on the gas valve is 1/2-14 N.P.T. The gas line may be installed through the furnace floor or furnace side to the gas valve.

A CAUTION

To install gas line and to connect it to the gas valve, care must be taken to hold gas valve firmly to prevent misalignment of the burner orifice, or to damage gas valve which could result in improper heating, explosion, fire or asphyxiation.

DO NOT USE EXCESSIVE PIPE SEALANT ON PIPE JOINTS. Pipe sealant, metal chips or other foreign material that could be deposited in the inlet of the gas valve, when gas pipe is installed or carried through the gas piping into the gas valve inlet after installation, may cause the gas valve to malfunction and could result in possible improper heating, explosion, fire or asphyxiation. Also, pipe sealant must be resistant to Propane gas.

Where regulations require, a main shut-off valve shall be installed externally of furnace casing. After piping has been installed, turn gas on and check all connections with a leak detector or soap solution.

Never use open flame to test for gas leaks as fire or explosion could occur.

Do not test the fuel system at more than 14" W.C. after furnace has been connected to fuel line. Such testing could void the warranty. Any test run above 14" W.C. may damage furnace control valve which could cause an explosion, fire or asphyxiation.

A CAUTION

If the gas input to the furnace is too great because of excessive gas pressure, wrong size orifice, high altitude, etc., the burner flame will be sooty and may produce carbon monoxide, which could result in unsafe operation, explosion, and/ or fire or asphyxiation.

A dirt leg may be required by some local codes to trap moisture and contaminations. For natural gas operation, the furnace is designed for 7" W.C. inlet gas pressure. Pressure to main burner is then reduced to 3 1/2" W.C.

For Propane gas operation, the furnace is designed for 11" W.C. inlet gas pressure. Pressure to main burner is then reduced to 10" W.C.

IMPORTANT - When converting gas valve from or to Propane gas, it will be necessary to change main burner orifice to prevent an underfired or overfired condition. See label inside lower furnace door for complete instructions.

Pilot Adjustment

On models equipped with standing pilot ignition, the pilot should be adjusted so that the flame is approximately 1" in height (500 BTU / hr.). This will allow proper burner ignition without excessive fuel usage. The pilot adjustment screw is located on the top of the gas valve.

Observing Burner Operation

- Observe burner to make sure it ignites. Observe color of flame. On natural gas the flame will burn blue with appreciably yellow tips. On Propane gas a yellow flame may be expected. If flame is not the proper color call a qualified service technician for service.
- 2. Let furnace heat until blower cycles on.
- 3. Turn thermostat down.
- 4. Observe burner to make sure it shuts off.
- 5. Let the furnace cool and blower cycle off.

Should overheating occur, or the gas supply fail to shut off, shut off the manual gas valve to the furnace and allow burner to run until furnace cools down and blower shuts off before shutting off the electrical supply.

If any abnormalities are observed when checking for correct operation, such as burner failing to ignite or to turn off, sooty flame, etc., call your nearest authorized service technician as shown in the Service Center List included in the home owner envelope with the furnace.

If Furnace Fails to Operate Properly

- 1. Check setting of thermostat and position of HEAT/ COOL switch if air conditioning is installed. If a set-back type thermostat is employed be sure that the thermostat is in the correct operating mode.
- 2. Check to see that electrical power is ON.
- 3. Check to see that the knob or switch on the gas control valve is in the full ON position.
- 4. Make sure filters are clean, return grilles are not obstructed, and supply registers are open.
- 5. Be sure that furnace flue piping is open and unobstructed.

If the cause for the failure to operate is not obvious, do not attempt to service the furnace yourself. Call a qualified service agency or your gas supplier.

FINAL PROCEDURE

INSTALL FURNACE DOORS

Install the lower door first by sliding the bottom of the door down until the tabs on the casing base engage the slots in the bottom door end cap. Then push the top of the lower door in until the door clips snap into place. Install the upper door in a similar manner, first engaging the slots in the top of the upper door on the tabs on the casing top. Then snap the bottom of the upper door into place against the casing.

FINISH AND TRIM

Alcove and Closet Installations may now be finished and trimmed as necessary.



FIGURE 24 : Anti-Backflow Damper

FURNACE AND AIR CONDITIONER INSTALLATIONS

If an air conditioner is installed which does not use the blower for air distribution and operates completely independent of the furnace, the thermostat system must have an interlock to prevent the furnace and air conditioner from operating at the same time. This interlock system usually contains a heat-cool switch which must be turned to either HEAT or COOL to activate either heating or cooling operation, or a positive OFF switch on the cooling thermostat.

When used in connection with a cooling unit the furnace shall be installed parallel with or on the upstream side of the cooling unit to avoid condensation in the heat exchanger.

For installations with a parallel flow arrangement, the furnace must be equipped with a damper to prevent cold air from being discharged up around the heat exchanger. Cold air causes condensation inside the exchanger and can cause it to rust out which can allow products of combustion to be circulated into the living area by the furnace blower resulting in possible asphyxiation. An air flow activated automatic damper, P/N 7900-6771, is available from furnace manufacturer. See Figure 24.

NOTE: See label on coil panel for conversion and lighting instructions. Obtain a temperature rise within the ranges specified on the name plate.

HIGH ALTITUDE DERATION CHART

	NATURAL GAS											
	5	56,000 — Input 70,000 — Input 77,000 — I		- Input	9	0,000 —	- Input					
Elevation	Orifice Dia.	Drill Size	Part #	Orifice Dia.	Drill Size	Part #	Orifice Dia	Drill Size	Part #	Orifice Dia.	Drill Size	Part #
Sea Level	0.136	29	99511361	0.154	23	99511541	0.161	20	99511611	0.180	15	99511801
2,000	0.136	29	99511361	0.149	25	99511491	0.157	22	99511571	0.177	16	99511771
3,000	0.128	30	99511281	0.149	25	99511491	0.157	22	99511571	0.173	17	99511731
4,000	0.128	30	99511281	0.147	26	99511471	0.154	23	99511541	0.173	17	99511731
5,000	0.128	30	99511281	0.144	27	99511441	0.152	24	99511521	0.169	18	99511691
6,000	0.128	30	99511281	0.144	27	99511441	0.149	25	99511491	0.166	19	99511661
7,000	0.120	31	99511201	0.140	28	99511401	0.147	26	99511471	0.161	20	99511611
8,000	0.120	31	99511201	0.136	29	99511361	0.144	27	99511441	0.161	20	99511611
9,000	0.120	31	99511201	0.136	29	99511361	0.140	28	99511401	0.157	22	99511571
10,000	0.116	32	99511161	0.128	30	99511281	0.136	29	99511361	0.152	24	99511521
						PROPANE G	AS					
	5	6,000 —	– Input	7	0,000 —	– Input	7	7,000 —	- Input	9	0,000 —	- Input
Elevation	Orifice	Drill	Part #	Orifice	Drill	Part #	Orifice	Drill	Part #	Orifice	Drill	Part #
	Dia.	Size	i arc <i>ii</i>	Dia.	Size	i uit#	Dia.	Size	i uit#	Dia.	Size	i uit#
Sea Level	0.082	45	99510821	0.093	42	99510931	0.098	40	99510981	0.106	36	99511061
2,000	0.081	46	99510811	0.093	42	99510931	0.096	41	99510961	0.104	37	99511041
3,000	0.078	47	99510781	0.089	43	99510891	0.093	42	99510931	0.101	38	99511011
4,000	0.078	47	99510781	0.089	43	99510891	0.093	42	99510931	0.101	38	99511011
5,000	0.078	47	99510781	0.089	43	99510891	0.093	42	99510931	0.099	39	99510991
6,000	0.076	48	99510761	0.086	44	99510861	0.089	43	99510891	0.098	40	99510981
7,000	0.076	48	99510761	0.086	44	99510861	0.089	43	99510891	0.096	41	99510961
8,000	0.073	49	99510731	0.082	45	99510821	0.086	44	99510861	0.096	41	99510961
9,000	0.073	49	99510731	0.081	46	99510811	0.086	44	99510861	0.093	42	99510931
10,000	0.070	50	99510731	0.078	47	99510781	0.082	45	99510821	0.089	43	99510891

Table shows 4% Input Reduction per 1,000 feet Elevation. Reference Source: NFPA No. 54, ANSI Z 223.1, National Fuel Gas Code. For Canadian high altitude (2000 - 4500 feet), reduce gas manifold pressure to 3.0" W.C. for natural gas, 9.0" W.C. for Propane gas.

REPAIR PARTS LIST



DGAA						
ITEM	DESCRIPTION	DGAA056BDTA	DGAA070BDTA	DGAA077BDTA	DGAA090BDTA	
1	Switch, Pressure	024-27666-000	024-27666-000	024-27666-000	024-27666-000	
2	Tubing Silicone (2' Req'd)	028-11957-000	028-11957-000	028-11957-000	028-11957-000	
3	Limit Switch, Manual (Upper)	025-35358-000	025-35358-000	025-35358-000	025-35358-000	
4	Assembly, Booster (w/Motor)	373-19801-820	373-19801-820	373-19801-820	373-19801-820	
5	Control Board, Integrated	031-01932-000	031-01932-000	031-01932-000	031-01932-000	
6	Valve, Gas	7990-328P	7990-328P	7990-328P	7990-328P	
7	Bracket, Valve	073-19801-064	073-19801-064	073-19801-064	073-19801-064	
8	Thermostat (Heat /Cool)		Accessory (See Page 6)		
9	Exchanger, Heat (w/Gaskets)	373-19804-651	373-19805-651	373-19806-651	373-19806-650	
10	Sensor, Flame	025-35354-000	025-35354-000	025-35354-000	025-35354-000	
11	Switch, System	7681-3301	7681-3301	7681-3301	7681-3301	
12	Transformer (115-24V, 40 VA)	2940A3541	2940A3541	2940A3541	2940A3541	
13	Switch, Limit	025-35380-000	025-35380-000	025-35381-000	025-35381-000	
14	Burner Assembly, Auto Ignition (Includes items 10 & 15)	373-19801-403	373-19801-403	373-19801-403	373-19801-403	
15	Ignitor, Hot Surface	1474-052P	1474-052P	1474-052P	1474-052P	
16	Filter (2 Req'd) (16x20x1)	1214-2511	1214-2511	1214-2511	1214-2511	
17	Panel, Door (Upper)		Accessory (See Page 6)		
18	Panel, Door (Lower, Tall)	373-19801-740	373-19801-740	373-19801-740	373-19801-740	
19	Motor (See note 2)	1468-220P	1468-220P	1468-220P	1468-220P	
20	Assembly, Motor Mount (See Note 3)	373-19806-100	373-19806-100	373-19806-100	373-19806-100	
21	Plug, Connector	025-21192-000	025-21192-000	025-21192-000	025-21192-000	
22	Capacitor, Run (See Note 3)	024-20063-000	024-20063-000	024-20063-000	024-20063-000	
23	Wheel, Blower	1472-2761	1472-2761	1472-2761	1472-2761	
24	Relay, Fan					
25	Relay, Booster					
26	Switch, Fan					
27	Thermocouple					
28	Burner, Pilot					
29	Tube, Pilot					
30*	Diagram, Wiring	035-15289-001	035-15289-001	035-15289-001	035-15289-001	

New replacement parts shown in **bold** face type at the first printing of parts list dated 9/02. Major components and suggested stocking items are shown with shaded item number.

"<" Across from row indicates a change in that row.

--- Not applicable to specified model.

2. For Serial Numbers lower then 001207164- Replacement DGAA motors also require Motor Mount Assembly 373-19806-100 if replaced motor has integral, flex-arm motor mount.

3. DGAA with 5-Ton Blowers are provided as an accessory item and are not standard equipment from the factory. See Page 6

DGAH					
ITEM	DESCRIPTION	DGAH056BBSA	DGAH077BBSA		
1	Switch, Pressure	024-27666-000	024-27666-000		
2	Tubing Silicone (2' Req'd)	028-11957-000	028-11957-000		
3	Limit Switch, Manual (Upper)	025-35358-000	025-35358-000		
4	Assembly, Booster (w/Motor)	373-19801-820	373-19801-820		
5	Control Board, Integrated	031-01932-000	031-01932-000		
6	Valve, Gas	7990-328P	7990-328P		
7	Bracket, Valve	073-19801-064	073-19801-064		
8	Thermostat (Heat /Cool)	Accessory (See Page 6)		
9	Exchanger, Heat (w/Gaskets)	373-19804-651	373-19806-651		
10	Sensor, Flame	025-35354-000	025-35354-000		
11	Switch, System	7681-3301	7681-3301		
12	Transformer (115-24V, 40 VA)	2940A3541	2940A3541		
13	Switch, Limit	025-35380-000	025-35381-000		
14	Burner Assembly, Auto Ignition (Includes itemss 10 & 15)	373-19801-403	373-19801-403		
15	Ignitor, Hot Surface	1474-052P	1474-052P		
16	Filter (2 Req'd) (16x20x1)	1214-2511	1214-2511		
17	Panel, Door (Upper)	Accessory (See Page 6)		
18	Panel, Door (Lower, Short)	373-19801-790	373-19801-790		
19	Motor (See Note 3)	024-31948-000	024-31948-000		
20	Assembly, Motor Mount				
21	Plug, Connector	025-21192-000	025-21192-000		
22	Capacitor, Run				
23	Wheel, Blower	1472-2761	1472-2761		
24	Relay, Fan				
25	Relay, Booster				
26	Switch, Fan				
27	Thermocouple				
28	Burner, Pilot				
29	Tube, Pilot				
30*	Diagram, Wiring	035-15289-001	035-15289-001		

New replacement parts shown in **bold** face type at the first printing of parts list dated 9/02. Major components and suggested stocking items are shown with shaded item number. "<" Across from row indicates a change in that row. --- Not applicable to specified model.

3. DGAH with 5-Ton Blowers are provided as an accessory item and are not standard equipment from the factory. See page 6.

roup			

	DGPA				
ITEM	DESCRIPTION	DGPA056ABTA	DGPA070ABTA	DGPA077ABTA	DGPA090ABTA
1	Switch, Pressure				024-27666-000
2	Tubing Silicone (2' Req'd)				028-11957-000
3	Limit Switch, Manual (Upper)	025-35358-000	025-35358-000	025-35358-000	025-35358-000
4	Assembly, Booster (w/Motor)				373-19801-820
5	Control Board, Integrated				
6	Valve, Gas	7956-336P	7956-336P	7956-336P	7956-336P
7	Bracket, Valve	073-19801-064	073-19801-064	073-19801-064	073-19801-064
8	Thermostat (Heat /Cool)		Accessory (See Page 6)	
9	Exchanger, Heat (w/Gaskets)	373-19804-651	373-19805-651	373-19806-651	373-19806-650
10	Sensor, Flame				
11	Switch, System	7681-3301	7681-3301	7681-3301	7681-3301
12	Transformer (115-24V, 40 VA)	2940A3541	2940A3541	2940A3541	2940A3541
13	Switch, Limit	025-35380-000	025-35380-000	025-35381-000	025-35381-000
14	Standing Pilot, Burner Assembly (Includes items 10 & 15)	373-19801-401	373-19801-401	373-19801-401	373-19801-402
15	Ignitor, Hot Surface				
16	Filter (2 Req'd) (16x20x1)	1214-2511	1214-2511	1214-2511	1214-2511
17	Panel, Door (Upper)		Accessory (See Page 6)	
18	Panel, Door (Lower, Tall)	373-19801-740	373-19801-740	373-19801-740	373-19801-740
19	Motor (See Note 3)	024-31948-000	024-31948-000	024-31948-000	024-31949-000
20	Assembly, Motor Mount				
21	Plug, Connector	025-21192-000	025-21192-000	025-21192-000	025-21192-000
22	Capacitor, Run				024-20045-000
23	Wheel, Blower	1472-2761	1472-2761	1472-2761	1472-2761
24	Relay, Fan	3110-3301	3110-3301	3110-3301	3110-3301
25	Relay, Booster				3110-3301
26	Switch, Fan	7975-3281	7975-3281	7975-3281	7975-3281
27	Thermocouple	7945-3481	7945-3481	7945-3481	7945-3481
28	Burner, Pilot	9880-0141	9880-0141	9880-0141	9880-0141
29	Tube, Pilot	029-22188-000	029-22188-000	029-22188-000	029-22188-000
30*	Diagram, Wiring	035-15287-001	035-15287-001	035-15287-001	035-15288-001

New replacement parts shown in **bold** face type at the first printing of parts list dated 9/02. Major components and suggested stocking items are shown with shaded item number.

"<" Across from row indicates a change in that row.

--- Not applicable to specified model.

3. DGPA with 4 or 5-Ton Blowers are provided as an accessory item and are not standard equipment from the factory. See Page 6

DGPH						
ITEM	DESCRIPTION	DGPH056ABTA	DGPH070ABTA	DGPH077ABTA	DGPH090ABTA	
1	Switch, Pressure				024-27666-000	
2	Tubing Silicone (2' Req'd)				028-11957-000	
3	Limit Switch, Manual (Upper)	025-35358-000	025-35358-000	025-35358-000	025-35358-000	
4	Assembly, Booster (w/Motor)				373-19801-820	
5	Control Board, Integrated					
6	Valve, Gas	7956-336P	7956-336P	7956-336P	7956-336P	
7	Bracket, Valve	073-19801-064	073-19801-064	073-19801-064	073-19801-064	
8	Thermostat (Heat Only)		Accessory (See Page 6)		
9	Exchanger, Heat (w/Gaskets)	373-19804-651	373-19805-651	373-19806-651	373-19806-650	
10	Sensor, Flame					
11	Switch, System	7970-3331	7970-3331	7970-3331	7970-3331	
12	Transformer (115-24V, 40 VA)	2940A3541	2940A3541	2940A3541	2940A3541	
13	Switch, Limit	025-35380-000	025-35380-000	025-35381-000	025-35381-000	
14	Standing Pilot, Burner Assembly (Includes items 10 & 15)	373-19801-401	373-19801-401	373-19801-401	373-19801-402	
15	Ignitor, Hot Surface					
16	Filter (2 Req'd) (16x20x1)	1214-2511	1214-2511	1214-2511	1214-2511	
17	Panel, Door (Upper)		Accessory (See Page 6)		
18	Panel, Door (Lower, Tall)	373-19801-740	373-19801-740	373-19801-740	373-19801-740	
19	Motor (See Note 3)	024-31948-000	024-31948-000	024-31948-000	024-31949-000	
20	Assembly, Motor Mount					
21	Plug, Connector	025-21192-000	025-21192-000	025-21192-000	025-21192-000	
22	Capacitor, Run				024-20045-000	
23	Wheel, Blower	1472-2761	1472-2761	1472-2761	1472-2761	
24	Relay, Fan					
25	Relay, Booster				3110-3301	
26	Switch, Fan	7975-3281	7975-3281	7975-3281	7975-3281	
27	Thermocouple	7945-3481	7945-3481	7945-3481	7945-3481	
28	Burner, Pilot	9880-0141	9880-0141	9880-0141	9880-0141	
29	Tube, Pilot	029-22188-000	029-22188-000	029-22188-000	029-22188-000	
30	Diagram, Wiring	035-15285-001	035-15285-001	035-15285-001	035-15286-001	

New replacement parts shown in **bold** face type at the first printing of parts list dated 9/02. Major components and suggested stocking items are shown with shaded item number. "<" Across from row indicates a change in that row.

--- Not applicable to specified model.

3. DGPH with 4 or 5-Ton Blowers are provided as an accessory item and are not standard equipment from the factory. See page 6.

	BURNER ORIFICE CHART (Normal Altitude Only 4)					
MODEL	MODEL 056 070 077 090					
NATURAL GAS	9951-1361	9951-1541	9951-1611	9951-1801		
LP GAS	9951-0821	9951-0931	9951-0981	9951-1061		

NOTES

4. Contact Customer Service for installations at altitudes over 2000 feet above sea level.
 "<" Across from row indicates a change in that row.

	ACCESSORY PARTS LIST					
	DESCRIPTION DGAA DGAH DGPA DGPH					
	Thermostat (Heat/Cool)	025-38251-000	025-38251-000	025-38251-000		
	Thermostat (Heat Only)				025-38252-000	
	Door Panel (Upper)	373-19802-010	373-19802-010	373-19802-010	373-19802-010	
4-Ton Blower Ass'y	Motor			1468-220	1468-220	
7900-7741/A	Run Capacitor (7.5 MFD)			024-32020-000	024-32020-000	
	Motor Mount			373-19806-100	373-19806-100	
	Blower Wheel			1472-2761	1472-2761	
5-Ton Blower Ass'y	Motor	024-31975-000	024-31975-000	024-31975-000	024-31975-000	
7900-7751	Run Capacitor (20 MFD)	024-20051-000	024-20051-000	024-20051-000	024-20051-000	
	Motor Mount	373-19802-930	373-19802-930	373-19802-930	373-19802-930	
	Blower Wheel	1472-2761	1472-2761	1472-2761	1472-2761	

NOTES