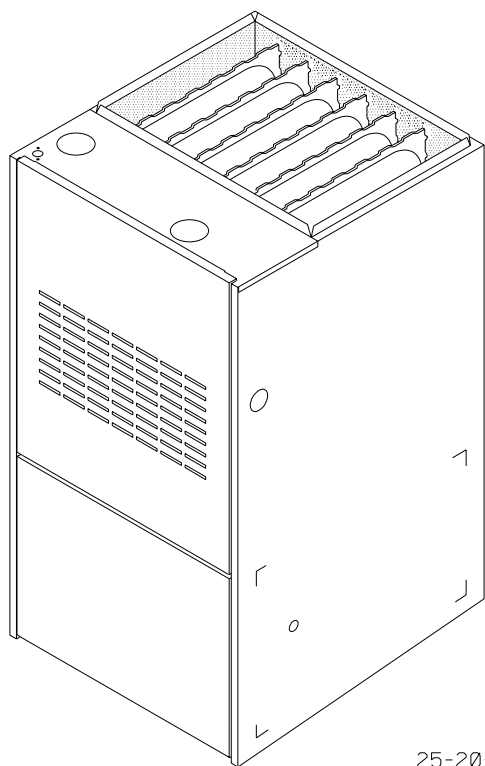


Technical Support Manual



25-20-66

Models

NTG9050FFA3/GNM050N12A3

NTG9075FGA3/GNM075N14A3

NTG9100FHA3/GNM100N16A3

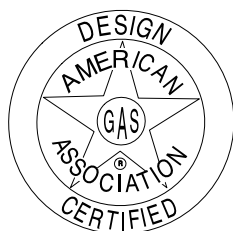
NTG9125FKA3/GNM125N20A3

Manufactured by:

International Comfort Products Corporation (USA)

Lewisburg, TN USA 37091

Condensing Gas Furnaces



Design Certified
by A.G.A.



Save This Manual For Future Reference

Manufacturers Number (Mfr No -See Rating Plate)				NTG9050FF/GNM050N12A							
Specifications				Circulation Air Blower Data							
GENERAL	Gas Type	Nat	LP	Type & Size Motor Amps/RPM Motor Type/ H.P Cap. MFD/Volts	10-8 4.6/1050 PSC/1/3 5/370	Filt Type	Washable				
	Input (Btuh) Std/Alt.	50,000	50,000			Filt Size (")	16x25x1				
	Output (Btuh) Std/Alt.	45,500	45,500			Min. Cool					
	Temp. Rise (°F)	40-70	40-70			Cap. (Tons)	1.5				
GAS & IGNITION	Electrical (Volts/Hz/FLA)	115/60/5.3	115/60/5.3	Air Delivery in Cubic Feet per Minute (C.F.M.) (Furnace Rated @0.5" WC ESP)	External Static Pressure Inches of W.C.	TAP	LOW	MED L	MED H	HIGH	
	Transformer Size (VA)	40	40			.10	718	840	1109	1473	
	T stat Heat Anticipator	.30	.30			.20	719	838	1094	1431	
	Std. Main Orifices (No/Size)	2/#42	2/#54			.30	714	837	1086	1396	
COMBUSTION	Pilot Orifice Size	.018	.011	Air Delivery in Liters Per Second (L/S) (Furnace Rated @0.5" WC ESP)	External Static Pressure Inches of W.C.	.40	692	819	1063	1349	
	Ignition Type/Series	HW HSP	HW HSP			.50	660	791	1027	1291	
	Lock-Out Time	---	---			.60	615	752	986	1222	
	Flue Outlet Size (Inches)	2	2			.70	563	683	934	1141	
LIMITS & CONTROLS	Std. Outlet Temp (°F)	<140	<140	Air Delivery in Liters Per Second (L/S) (Furnace Rated @0.5" WC ESP)	External Static Pressure Inches of W.C.	.10	339	396	523	695	
	Comb. Blower (MFD/Volts)	4/250	4/250			.20	339	395	516	675	
	Std. Pressures (Inch's of WC)	@Blower	@Burner Box			.30	337	395	513	659	
	5' No Elbows	-2.30	-.10			-2.4	.40	327	387	502	637
LIMITS & CONTROLS	40' +5-90° DWV Elbows	-2.20	-.20	-2.0	Air Delivery in Liters Per Second (L/S) (Furnace Rated @0.5" WC ESP)	External Static Pressure Inches of W.C.	.50	311	373	485	609
	Rollout Switch	250	250	.60			290	355	465	577	
	Limit Control Setting (°F)	220	220	.70			266	322	441	538	
	Auxiliary Limit (°F)	130	130								
LIMITS & CONTROLS	Fan Control (Type)	HW ST9120	HW ST9120	Air Delivery in Liters Per Second (L/S) (Furnace Rated @0.5" WC ESP)	External Static Pressure Inches of W.C.	External Static Pressure Inches of W.C.	External Static Pressure Inches of W.C.	External Static Pressure Inches of W.C.	External Static Pressure Inches of W.C.	External Static Pressure Inches of W.C.	
	Fan Control On	30/60	30/60								
	Fan Control Off	60, 100, 140, 180	60, 100, 140, 180								
	(Timed -Secs)										
LIMITS & CONTROLS	Std. Pressure Sw. (Part No)	1008819	1008819	Air Delivery in Liters Per Second (L/S) (Furnace Rated @0.5" WC ESP)	External Static Pressure Inches of W.C.	External Static Pressure Inches of W.C.	External Static Pressure Inches of W.C.	External Static Pressure Inches of W.C.	External Static Pressure Inches of W.C.	External Static Pressure Inches of W.C.	
	Press Differential (Close)	1.62	1.62								
	Press Differential (Open)	1.38	1.38								
	High Alt. Press. Sw (Part No)	1008817	1008817								
LIMITS & CONTROLS	Press Differential (Close)	1.40	1.40	Air Delivery in Liters Per Second (L/S) (Furnace Rated @0.5" WC ESP)	External Static Pressure Inches of W.C.	External Static Pressure Inches of W.C.	External Static Pressure Inches of W.C.	External Static Pressure Inches of W.C.	External Static Pressure Inches of W.C.	External Static Pressure Inches of W.C.	
	Press Differential (Open)	1.18	1.18								

Manufacturers Number (Mfr No -See Rating Plate)					NTG9075FG/GNM075N12A							
Specifications					Circulation Air Blower Data							
GENERAL	Gas Type	Nat	LP	Type & Size Motor Amps/RPM Motor Type/ H.P. Cap. MFD/Volts	10-8 6.8/1050 PSC/1/2 7.5/370	Filt Type	Washable					
	Input (Btuh) Std/Alt.	75,000	75,000			Filt Size (")	16x25x1					
	Output (Btuh) Std/Alt.	67,500	67,500			Min. Cool						
	Temp. Rise (°F)	40-70	40-70			Cap. (Tons)	2					
GAS & IGNITION	Electrical (Volts/Hz/FLA)	115/60/7.5	115/60/7.5	Air Delivery in Cubic Feet per Minute (C.F.M.) (Furnace Rated @0.5" WC ESP)	External Static Pressure Inches of W.C.	TAP	LOW	MED L	MED H	HIGH		
	Transformer Size (VA)	40	40			.10	778	984	1263	1576		
	T'stat Heat Anticipator	.30	.30			.20	786	1003	1249	1532		
	Gas Valve	HW SV9500	HW SV9500			.30	790	1003	1244	1489		
COMBUSTION	Regulation Type	SNAP	SNAP	Air Delivery in Liters Per Second (L/S) (Furnace Rated @0.5" WC ESP)	External Static Pressure Inches of W.C.	.40	788	1001	1215	1432		
	Manifold Press. (" WC)	10.0				.50	781	982	1186	1371		
	Std. Main Orifices (No/Size)	3/#42	3/#54			.60	765	962	1146	1308		
	Pilot Orifice Size	.018	.011			.70	743	923	1094	1229		
LIMITS & CONTROLS	Ignition Type/Series	HW HSP	HW HSP									
	Lock-Out Time	---	---									
	Flue Outlet Size (Inches)	2,2 1/2,3	2,2 1/2,3									
	Std. Outlet Temp (°F)	<140	<140									
Comb. Blower (MFD/Volts)	4/250	4/250										
Std. Pressures (Inch's of WC)	@Blower	@Burner Box		Differential								
5' No Elbows	-2.3	-.10			-2.2							
40' +5-90° DWV Elbows	-2.05	-.15				-1.9						
LIMITS & CONTROLS	Rollout Switch(°F)	200	200									
	Limit Control Setting (°F)	190	190									
	Auxiliary Limit (°F)	130	130									
	Fan Control (Type)	HW ST9120	HW ST9120									
Fan Control	60	60										
(Timed -Secs)	60,100,140,180	60,100,140,180										
Std. Pressure Sw. (Part No)	1008819	1008819										
Press Differential (Close)	1.62	1.62										
Press Differential (Open)	1.38	1.38										
High Alt. Press. Sw (Part No)	1008817	1008817										
Press Differential (Close)	1.40	1.40										
Press Differential (Open)	1.18	1.18										

Manufacturers Number (Mfr No -See Rating Plate)					NTG9100FH/GNM100N16A			
Specifications					Circulation Air Blower Data			
GENERAL	Gas Type	Nat	LP		Type & Size	10-10	Filt Type	Washable
	Input (Btuh) Std/Alt.	100,000	100,000		Motor Amps/RPM	8.5/1050	Filt Size (")	16x25x1
GAS & IGNITION	Output (Btuh) Std/Alt.	90,000	90,000		Motor Type/ H.P	PSC/1/2	Min. Cool	
	Temp. Rise (°F)	40-70	40-70		Cap. MFD/Volts	10/370	Cap. (Tons)	2
COMBUSTION	Electrical (Volts/Hz/FLA)	115/60/9.2	115/60/9.2				Max. Cool	4
	Transformer Size (VA)	40	40				Cap. (Tons)	
LIMITS & CONTROLS	T-stat Heat Anticipator	.30	.30					
	Gas Valve	HW SV9500	HW SV9500					
GAS & IGNITION	Regulation Type	SNAP	SNAP					
	Manifold Press. (" WC)	3.5	10.0					
COMBUSTION	Std. Main Orifices (No/Size)	4/#42	4/#54					
	Pilot Orifice Size	.018	.011					
LIMITS & CONTROLS	Ignition Type/Series	HW HSP	HW HSP					
	Lock-Out Time	---	---					
COMBUSTION	Flue Outlet Size (Inches)	2,2 ¹ / ₂ ,3	2,2 ¹ / ₂ ,3					
	Std. Outlet Temp (°F)	<140	<140					
LIMITS & CONTROLS	Comb. Blower (MFD/Volts)	4/250	4/250					
	Std. Pressures (Inch's of WC)	@Blower	@Burner Box	Differential				
GAS & IGNITION	5' No Elbows	-2.40	-1.10	-2.30				
	40' +5-90° DWV Elbows	-1.98	-1.20	-1.78				
LIMITS & CONTROLS	Rollout Switch	200	200					
	Limit Control Setting (°F)	180	180					
GAS & IGNITION	Auxiliary Limit (°F)	130	130					
	Fan Control (Type)	HW ST9120	HW ST9120					
LIMITS & CONTROLS	Fan Control On	30/60	30/60					
	(Timed-Secs) Off	60,100,140,180	60,100,140,180					
COMBUSTION	Std. Pressure Sw. (Part No)	1008819	1008819					
	Press Differential (Close)	1.62	1.62					
LIMITS & CONTROLS	Press Differential (Open)	1.38	1.38					
	High Alt. Press. Sw (Part No)	1008817	1008817					
GAS & IGNITION	Press Differential (Close)	1.40	1.40					
	Press Differential (Open)	1.18	1.18					

Air Delivery in Cubic Feet per Minute (C.F.M.)

(Furnace Rated @0.5" WC ESP)

External Static Pressure Inches of W.C.	TAP	LOW	MED L	MED H	HIGH
.10	954	1312	1698	1925	
.20	950	1292	1645	1853	
.30	946	1265	1596	1780	
.40	915	1231	1530	1708	
.50	878	1175	1455	1638	
.60	830	1118	1362	1546	
.70	778	1020	1241	1435	

Air Delivery in Liters Per Second (L/S)

(Furnace Rated @0.5" WC ESP)

External Static Pressure Inches of W.C.	TAP	LOW	MED L	MED H	HIGH
.10	450	619	801	908	
.20	448	610	776	874	
.30	446	597	753	840	
.40	432	581	722	806	
.50	414	555	687	773	
.60	392	528	643	730	
.70	367	481	586	677	

Manufacturers Number (Mfr No -See Rating Plate)					NTG9125FK/GNM125N20A			
Specifications					Circulation Air Blower Data			
GENERAL	Gas Type	Nat	LP		Type & Size	11.8-10.6	Filt Type	Washable
	Input (Btuh) Std/Alt.	125,000	125,000		Motor Amps/RPM	9.8/900	Filt Size (")	(2)16x25
GAS & IGNITION	Output (Btuh) Std/Alt.	113,125	113,125		Motor Type/ H.P.	PSC/3/4	Min. Cool	
	Temp. Rise (°F)	45-75	45-75		Cap. MFD/Volts	10/370	Cap. (Tons)	3.5
COMBUSTION	Electrical (Volts/Hz/FLA)	115/60/10.5	115/60/12.0				Max. Cool	5
	Transformer Size (VA)	40	40				Cap. (Tons)	
LIMITS & CONTROLS	T-stat Heat Anticipator	.30	.30					
	Gas Valve	HW SV9500	HW SV9500					
GAS & IGNITION	Regulation Type	SNAP	SNAP					
	Manifold Press. (" WC)	3.5	10.0					
COMBUSTION	Std. Main Orifices (No/Size)	5/#42	5/#54					
	Pilot Orifice Size	.018	.011					
LIMITS & CONTROLS	Ignition Type/Series	HSP	HSP					
	Lock-Out Time	---	---					
COMBUSTION	Flue Outlet Size (Inches)	3	3					
	Std. Outlet Temp (°F)	<140	<140					
LIMITS & CONTROLS	Comb. Blower (MFD/Volts)	4/250	4/250					
	Std. Pressures (Inch's of WC)	@Blower	@Burner Box	Differential				
GAS & IGNITION	5' No Elbows	-2.40	-1.17	-2.23				
	40' +5-90° DWV Elbows	-2.16	-1.20	-1.86				
LIMITS & CONTROLS	Rollout Switch	200	200					
	Limit Control Setting (°F)	190	190					
GAS & IGNITION	Auxiliary Limit (°F)	130	130					
	Fan Control (Type)	HW ST9120	HW ST9120					
LIMITS & CONTROLS	Fan Control On	30/60	30/60					
	(Timed-Secs) Off	60,100,140,180	60,100,140,180					
COMBUSTION	Std. Pressure Sw. (Part No)	1008819	1008819					
	Press Differential (Close)	1.62	1.62					
LIMITS & CONTROLS	Press Differential (Open)	1.38	1.38					
	High Alt. Press. Sw (Part No)	1008817	1008817					
GAS & IGNITION	Press Differential (Close)	1.40	1.40					
	Press Differential (Open)	1.18	1.18					

Air Delivery in Cubic Feet per Minute (C.F.M.)

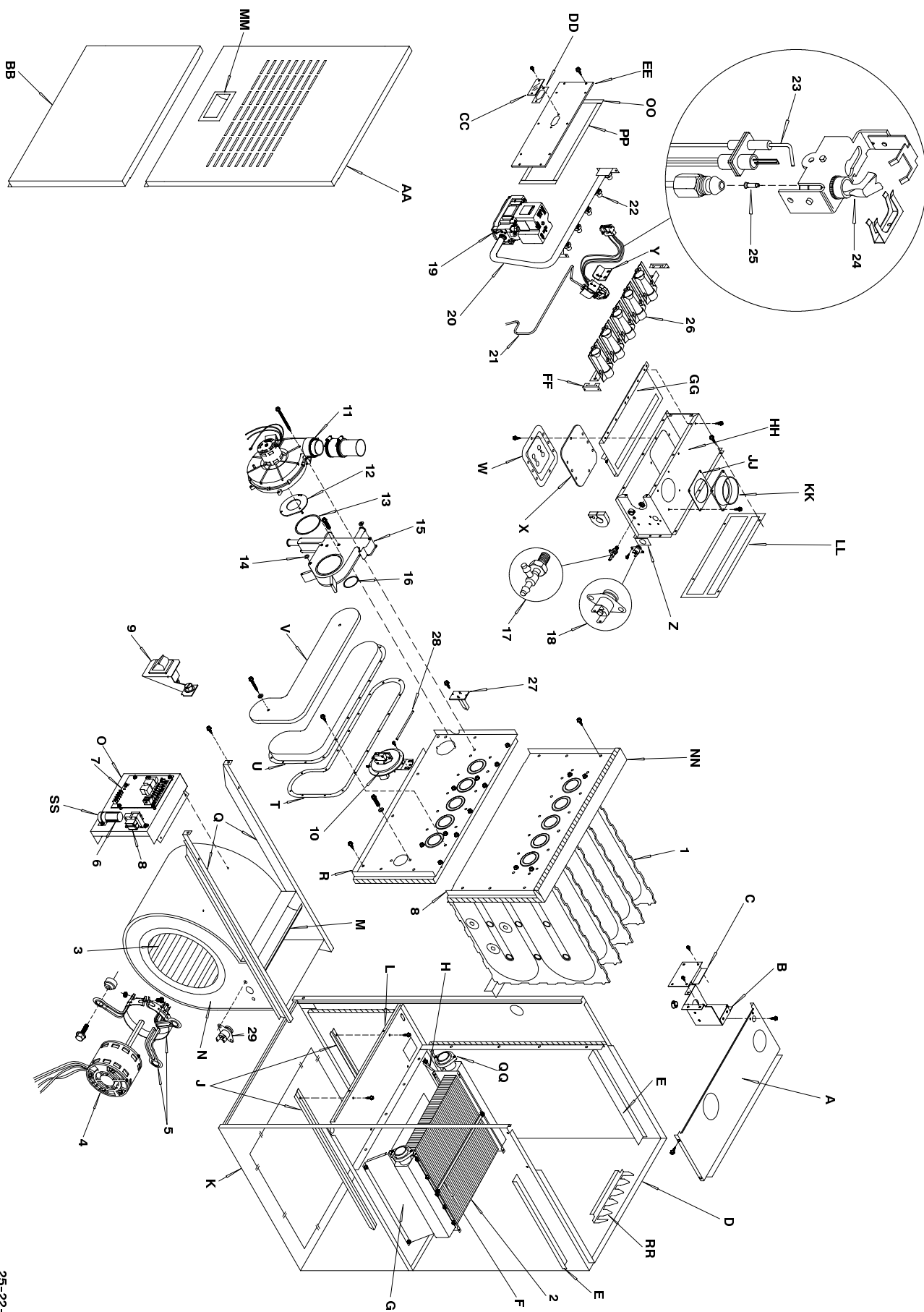
(Furnace Rated @0.5" WC ESP)

External Static Pressure Inches of W.C.	TAP	LOW	MED L	MED H	HIGH
.10	1463	1650	1879	2214	
.20	1429	1635	1859	2154	
.30	1417	1614	1838	2152	
.40	1389	1579	1806	2106	
.50	1364	1556	1773	2049	
.60	1339	1513	1725	1981	
.70	1299	1470	1668	1903	

Air Delivery in Liters Per Second (L/S)

(Furnace Rated @0.5" WC ESP)

External Static Pressure Inches of W.C.	TAP	LOW	MED L	MED H	HIGH
.10	690	779	887	1045	
.20	674	772	877	1017	
.30	669	762	867	1016	
.40	656	745	852	994	
.50	644	734	837	967	
.60	632	714	814	935	
.70	613	694	787	898	



25-22-57

Replacement Parts - NTG9/GNM

Models - NTG9050FFA3, NTG9075FGA3, NTG9100FHA3, NTG9125FKA3 (Natural Gas)
GNM050N12A3, GNM 075N12A3, GNM100N16A3, GNM125N20A3 (Natural Gas)

Replacement part supplied will be current active part. For parts not listed, consult place of purchase.

Key No.	Description Functional	Part Number	050	075	100	125	Key No.	Description Non- Functional	Part Number	050	075	100	125
1	Heat Exchanger	1008876	1	-	-	-	A	Panel Top	1010607	1	1	-	-
		1008877	-	1	-	-			1010608	-	-	1	-
		1008878	-	-	1	-			1010609	-	-	-	1
		1008879	-	-	-	1	B	Box Field Connect	1011941	1	1	1	1
2	Coil Condenser	1010495	1	1	-	-	C	Cover Field Connect	1010360	1	1	1	1
		1010496	-	-	1	-	D	Casing	1011649	1	1	-	-
		1010497	-	-	-	1			1011650	-	-	1	-
3	Wheel Blower 10-8 DD	600587	1	1	-	-			1011651	-	-	-	1
	10-10 DD	601210	-	-	1	-	E	Baffle Circ Air	707010031	2	2	2	2
	11-10 DD	1011420	-	-	-	1	F	Bracket Coil	1008743	1	1	-	-
4	Motor Blower 115V 1/3 HP	1009054	1	-	-	-			1008745	-	-	1	-
	115V 1/2 HP	1009053	-	1	-	-			1008747	-	-	-	1
	115V 1/2 HP	1009052	-	-	1	-	G	Bracket Mount Coil(RH)	1011446	1	1	1	1
	115V 3/4 HP	1011404	-	-	-	1	H	Bracket Mount Coil(LH)	1011445	1	1	1	1
5	Mount Motor Kit	609227	1	1	1	-	J	Rail Blower Slide	57059	2	2	2	2
		522020024	-	-	-	1	K	Casing Base	1010113	1	1	-	-
6	Capacitor 5/370V	1094954	1	-	-	-			1010114	-	-	1	-
	10/370V	1094956	-	-	1	1			1010115	-	-	-	1
	7.5/370V	1094239	-	1	-	-	L	Blower Partition	1010815	1	1	-	-
7	Control, Fan Timer	1011927	1	1	1	1			1010816	-	-	1	-
8	Transformer	1011626	1	1	1	1			1010817	-	-	-	1
9	Switch Door Interlock	1010886	1	1	1	1	M	Panel Cutoff Blwr	721020013	1	1	-	-
10	Switch Pressure	1010895	1	1	1	1			721020008	-	-	1	1
11	Blower Exhaust	1011409	1	1	1	-	N	Housing Blower	1011680	1	1	-	-
		1011410	-	-	-	1			1011681	-	-	1	-
12	Restrictor Exh Blwr	1008696	1	1	-	-			1010481	-	-	-	1
		1009386	-	-	1	-	O	Bracket Ctrl Board	1011819	1	1	1	1
13	O Ring (Exh Blwr)	1009035	1	1	1	1	Q	Hanger Blower	1010690	2	2	2	2
14	Washer Exh Blwr	1009037	2	2	2	2	R	Partition Frt Bot	1009489	1	-	-	-
15	Transition Asy	1011850	1	1	1	1			1009490	-	1	-	-
16	O Ring (Header Box)	1009036	1	1	1	1			1009491	-	-	1	-
17	Pressure Tap	1005606	1	1	1	1			1009492	-	-	-	1
18	Switch Limit Rollout	1005549	1	-	-	-	S	Partition Frt Top	1009485	1	-	-	-
		1010575	-	1	1	1			1009486	-	1	-	-
19	Valve Gas Nat & LP	1010988	1	1	1	1			1009487	-	-	1	-
20	Manifold Gas	1011645	1	-	-	-			1009488	-	-	-	1
		1011646	-	1	-	-	T	Gasket Collector Box	1008676	1	1	-	-
		1011647	-	-	1	-			1008677	-	-	1	-
		1011648	-	-	-	1			1008678	-	-	-	1
21	Tube Pilot	64930	1	1	1	1	U	Collector Box	1008670	1	1	-	-
22	Orifice Burner Nat #42	1011351	2	3	4	5			1008671	-	-	1	-
	LP #54	*1011356	2	3	4	5			1008672	-	-	-	1
	High Altitude Orifice Nat #44	1011352	2	3	4	5	V	Board Insul Coll Box	1008682	1	1	-	-
	Nat #45	1011353	2	3	4	5			1008683	-	-	1	-
	LP #55	*1011354	2	3	4	5			1008684	-	-	-	1
	LP #56	*1011355	2	3	4	5	W	Cover Diaphragm	1068036	1	1	1	1
23	Igniter/Sensor with Clip	1009524	1	1	1	1	X	Diaphragm Silicone	1008763	1	1	1	1
24	Pilot Burner Assembly Nat & LP	1008731	1	1	1	1	Y	Bracket Pilot	1010901	1	1	1	1
25	Orifice Pilot Nat .018	503211	1	1	1	1	Z	Gasket Limit Switch	1008778	1	1	1	1
	LP .011	1009136	-	-	-	-	AA	Door Louvered	1010168	1	1	-	-
26	Burner Asy	1008723	1	-	-	-			1010169	-	-	1	-
		1008724	-	1	-	-			1010170	-	-	-	1
		1008725	-	-	1	-	BB	Door Blower	1010190	1	1	-	-
		1008726	-	-	-	1			1010192	-	-	1	-
27	Switch Limit (Main)	1010647	1	-	-	1			1011848	-	-	-	1
		34332903	-	1	-	-	CC	Viewport Cover Lexan	2480678	1	1	1	1
		1320547	-	-	1	-	DD	Gasket Viewport	1093666	1	1	1	1
28	Tube Sensor	1006298	1	1	1	1	EE	Cover Burner Box	1008748	1	1	-	-
29	Switch, Limit Auxiliary	1000735	1	1	1	1			1008749	-	-	1	-
									1008750	-	-	-	1
							FF	Bracket Burner Box	1008722	2	2	2	2
							GG	Baffle Burner Box	1008709	1	1	-	-
									1008710	-	-	1	-
									1008711	-	-	-	1

* Only used when furnace has been converted to LP Gas

Replacement Parts - NTG9/GNM

Models - NTG9050FFA3, NTG9075FGA3, NTG9100FHA3, NTG9125FKA3 (Natural Gas)
GNM050N12A3, GNM 075N12A3, GNM100N16A3, GNM125N20A3 (Natural Gas)

Replacement part supplied will be current active part. For parts not listed, consult place of purchase.

Key No.	Description Non-Functional	Part Number	050	075	100	125
HH	Burner Box Assy	1010381	1	1	-	-
		1010382	-	-	1	-
		1010383	-	-	-	1
JJ	Gasket Air Intake	1008746	1	1	1	1
KK	Coupling Air Intake	1008744	1	1	1	1
LL	Gasket Burner Box	1008759	1	1	-	-
		1008760	-	-	1	-
		1008761	-	-	-	1
MM	Door Handle	1010073	1	1	1	1
NN	Gasket, Heat Exchanger	2480904	2	-	-	-
		2480905	-	2	-	-
		2480906	-	-	2	-
		2480907	-	-	-	2
OO	Seal, Burner Box Sides	1008755	2	2	2	2
PP	Seal, Burner Box	1008762	2	2	-	-
		1009243	-	-	2	-
		1009244	-	-	-	2
QQ	Gasket, Header Box	1010510	1	1	1	1
RR	Support, Heat Exchanger	1010092	1	-	-	-
		1010093	-	1	-	-
		1010098	-	-	1	-
		1010099	-	-	-	1
SS	Clamp, Capacitor	1095020	1	1	1	1
)(	PART NOT ILLUSTRATED					
)(	Wire Harness	1011864	1	1	1	1
)(	Flexible Neoprene Coupling	1002522	2	2	2	2
)(	Clamp Hose	1002793	4	4	4	4
)(	Screen 2"	1007339	2	2	2	2
)(	Screen 3"	1007340	2	2	2	2
)(	Elbow Union	2971503	1	1	1	1
)(	Fuse (5-Amp)	1083348	1	1	1	1
)(	Manual Tech	440 031105 00	1	1	1	1
)(	Manual Install	440 011103 00	1	1	1	1
)(	Manual Homeowners	441 021001 05	1	1	1	1
)(	Grommet, Vinyl	1009535	1	1	1	1
)(	Bushing, Strn Rlf	1945287	1	1	1	1
)(	Pin, Plastic Clip	2344276	1	1	1	1

Gas Conversion Kits - All models
 Nat to LP NAHF002LP *1009509
 LP to Nat *1009510
 *Must be ordered from Service Parts