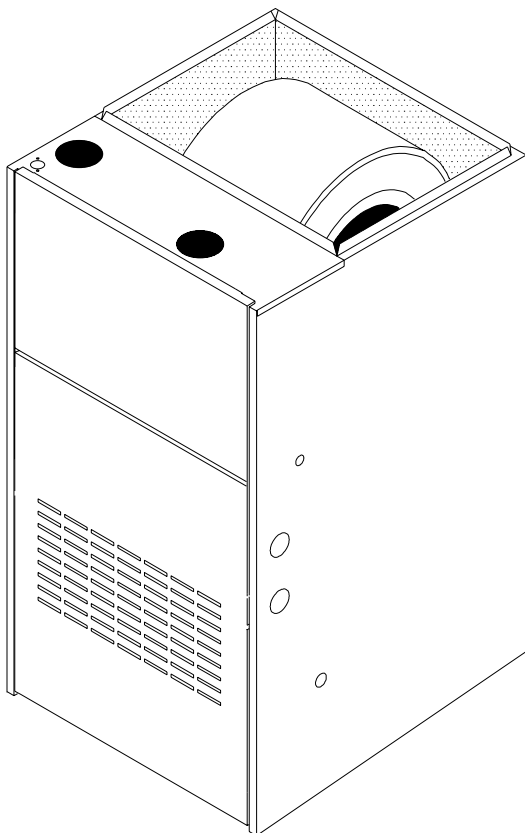


Technical Support Manual



Models

GCK050N12D3
GCK075N12D3
GCK100N16D3
GCK125N20D3

Manufactured by:
Multi-Ind., Inc.
Lewisburg, TN USA 37091

GCK - Dual Certified Condensing Gas Furnace



Save This Manual For Future Reference

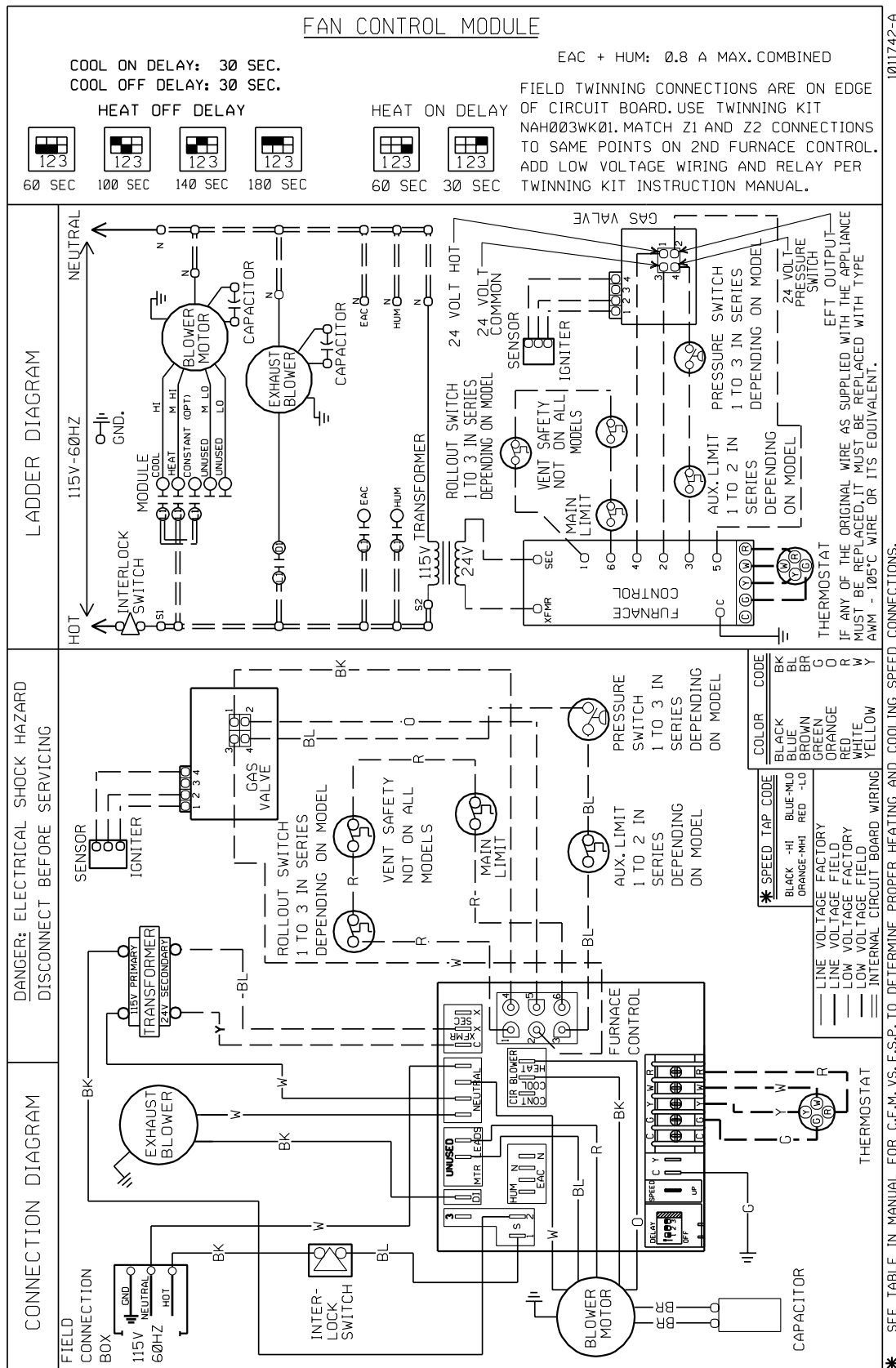
Manufacturers Number (Mfr No -See Rating Plate)				GCK050N12D3							
Specifications				Circulation Air Blower Data							
GENERAL	Gas Type	Nat	LP	Type & Size Motor Amps/RPM Motor Type/ H.P. Cap. MFD/Volts	10-8 4.6/1050 PSC/1/3 5/370	Filt Type	Washable				
	Input (Btuh) Std/Alt.	50,000	50,000			Filt Size (")	(2)16x18"				
	Output (Btuh) Std/Alt.	45,500	45,500			Min. Cool	1.5				
	Temp. Rise (°F)	40-70	40-70			Cap. (Tons)	3				
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)							
	Transformer Size (VA)	40	40								
	T'stat Heat Anticipator	.30	.30								
	Gas Valve	HW SV9500	HW SV9500								
COMBUSTION	Regulation Type	SNAP	SNAP	External Static Pressure Inches of W.C.	Inches of W.C.	TAP	LOW	MED L	MED H	HIGH	
	Manifold Press. (Inch's WC)	3.5	10.0								
	Std. Main Orifices (No/Size)	2/#42	2/#54								
	Pilot Orifice Size	.018	.011								
LIMITS & CONTROLS	Ignition Type/Series	HW HSP	HW HSP	External Static Pressure Inches of W.C.	Inches of W.C.	TAP	LOW	MED L	MED H	HIGH	
	Lock-Out Time	---	---								
	Flue Outlet Size (Inches)	2	2								
	Std. Outlet Temp (°F)	<140	<140								
COMBUSTION	Comb. Blower (MFD/Volts)	4/250	4/250	External Static Pressure Inches of W.C.	Inches of W.C.	TAP	LOW	MED L	MED H	HIGH	
	Std. Pressures (Inch's of WC)	@Blower	@Burner Box								Differential
	5' No Elbows	-2.30	-.10								-2.4
	40' +5-90° DWV Elbows	-2.20	-.20								-2.0
LIMITS & CONTROLS	Rollout Switch ⁰ F	250	250	External Static Pressure Inches of W.C.	Inches of W.C.	TAP	LOW	MED L	MED H	HIGH	
	Limit Control Setting (°F)	240	240								
	Auxiliary Limit (°F)	120	120								
	Fan Control (Type)	HW ST9120	HW ST9120								
LIMITS & CONTROLS	Fan Control On	30/60	30/60	External Static Pressure Inches of W.C.	Inches of W.C.	TAP	LOW	MED L	MED H	HIGH	
	(Timed-Secs) Off	60,100,140,180	60,100,140,180								
	Std. Pressure Sw. (Part No)	1008944	1008944								
	Press Differential (Close)	1.62	1.62								
LIMITS & CONTROLS	Press Differential (Open)	1.38	1.38	External Static Pressure Inches of W.C.	Inches of W.C.	TAP	LOW	MED L	MED H	HIGH	
	High Alt. Press. Sw (Part No)	1008945	1008945								
	Press Differential (Close)	1.40	1.40								
	Press Differential (Open)	1.18	1.18								

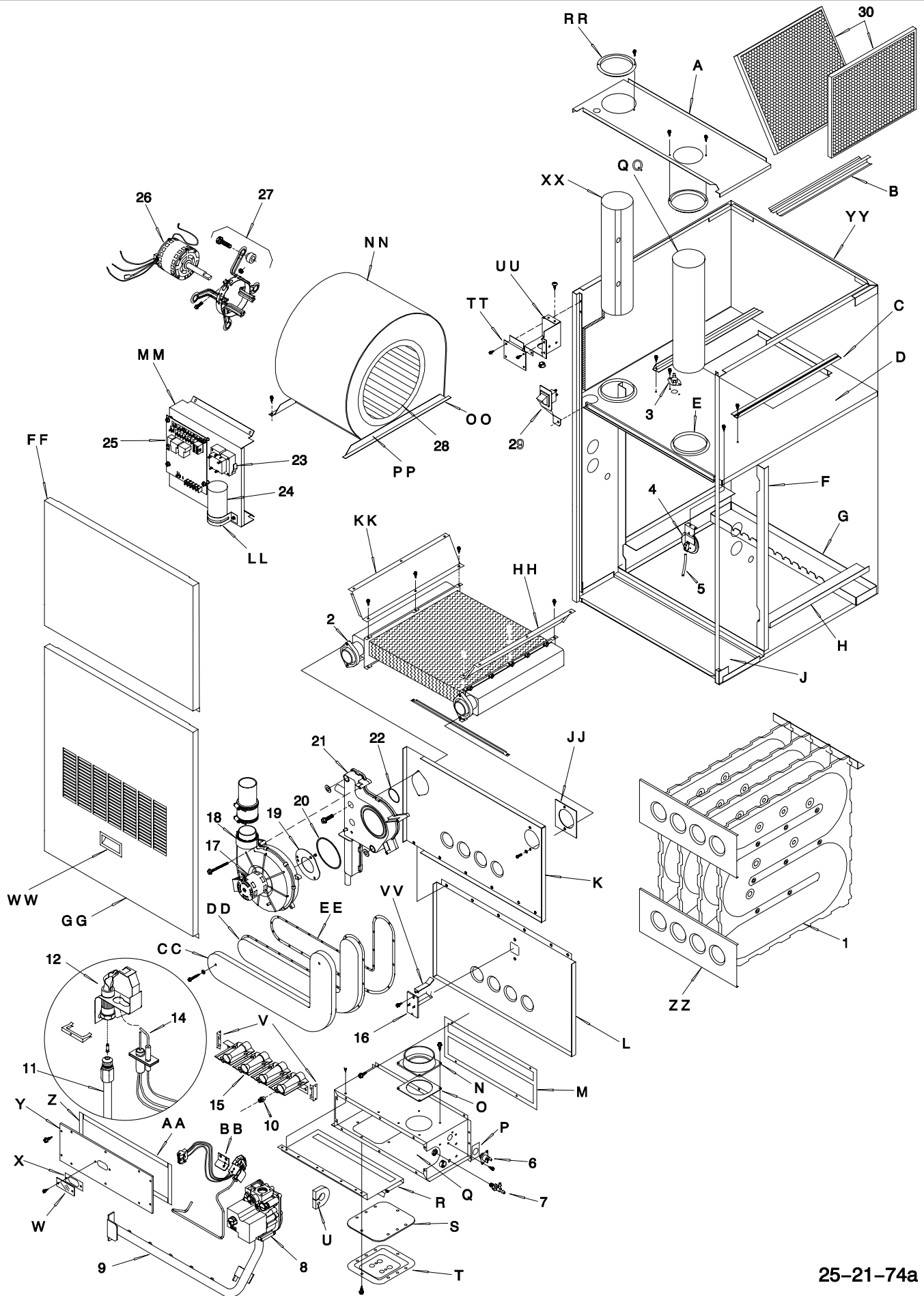
Manufacturers Number (Mfr No -See Rating Plate)				GCK075N12D3											
Specifications				Circulation Air Blower Data											
GENERAL	Gas Type	Nat	LP	Type & Size	10-8	Filt Type	Washable								
	Input (Btuh) Std/Alt.	75,000	75,000		Motor Amps/RPM	6.8/1050	Filt Size (")	(2)16x18"							
	Output (Btuh) Std/Alt.	67,500	67,500	Motor Type/ H.P.	PSC/1/2	Min. Cool									
	Temp. Rise (°F)	40-70	40-70	Cap. MFD/Volts	7.5/370	Cap. (Tons)	2								
	Electrical (Volts/Hz/FLA)	115/60/7.5	115/60/7.5			Max. Cool									
	Transformer Size (VA)	40	40			Cap. (Tons)	3								
	T'stat Heat Anticipator	.30	.30												
GAS & IGNITION	Gas Valve	HW SV9500	HW SV9500	Air Delivery in Cubic Feet per Minute (C.F.M.) (Furnace Rated @0.5" WC ESP)											
	Regulation Type	SNAP	SNAP												
	Manifold Press. (Inch's WC)	3.5	10.0												
	Std. Main Orifices (No/Size)	3/#42	3/#54												
	Pilot Orifice Size	.018	.011												
	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	External Static Pressure Inches of W.C.	TAP	LOW	MED L	MED H	HIGH						
	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	200	200							External Static Pressure Inches of W.C.	TAP	LOW	MED L	MED H	HIGH
	Limit Control Setting (°F)	180	180												
	Auxiliary Limit (°F)	130	130												
	Fan Control (Type)	HW ST9120	HW ST9120												
	Fan Control On	30/60	30/60												
	(Timed-Secs) Off	60,100,140,180	60,100,140,180												
	Std. Pressure Sw. (Part No)	1008944	1008819												
	Press Differential (Close)	1.62	1.62												
	Press Differential (Open)	1.38	1.38												
	High Alt. Press. Sw (Part No)	1008945	1008945												
Press Differential (Close)	1.40	1.40													
Press Differential (Open)	1.18	1.18													

Manufacturers Number (Mfr No -See Rating Plate)					GCK100N16D3						
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 (")	(2)16x18"			
	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			
GAS & IGNITION	Electrical (Volts/Hz/FLA)	115/60/9.2	115/60/9.2	Air Delivery in Cubic Feet per Minute (C.F.M.) (Furnace Rated @0.5" WC ESP)	TAP	LOW	MED L	MED H	HIGH		
	Transformer Size (VA)	40	40		.10	954	1312	1698	1925		
	T'stat Heat Anticipator	.30	.30		.20	950	1292	1645	1853		
	Gas Valve	HW SV9500	HW SV9500		.30	946	1265	1596	1780		
COMBUSTION	Regulation Type	SNAP	SNAP	Air Delivery in Liters Per Second (L/S) (Furnace Rated @0.5" WC ESP)	.40	915	1231	1530	1708		
	Manifold Press. (Inch's WC)	3.5	10.0		.50	878	1175	1455	1638		
	Std. Main Orifices (No/Size)	4/#42	4/#54		.60	830	1118	1362	1546		
	Pilot Orifice Size	.018	.011		.70	778	1020	1241	1435		
LIMITS & CONTROLS	Ignition Type/Series	HW HSP	HW HSP	External Static Pressure Inches of W.C.	Inches of W.C.	TAP	LOW	MED L	MED H	HIGH	
	Lock-Out Time	---	---			.10	450	619	801	908	
	Flue Outlet Size (Inches)	2,2 ¹ / ₂ .3	2,2 ¹ / ₂ .3			.20	448	610	776	874	
	Std. Outlet Temp (°F)	<140	<140			.30	446	597	753	840	
LIMITS & CONTROLS	Comb. Blower (MFD/Volts)	4/250	4/250	External Static Pressure Inches of W.C.	Inches of W.C.	.40	432	581	722	806	
	Std. Pressures (Inch's of WC)	@Blower	@Burner Box			Differential	.50	414	555	687	773
	5' No Elbows	-2.40	-1.10			-2.30	.60	392	528	643	730
	40' +5-90° DWV Elbows	-1.98	-1.20			-1.78	.70	367	481	586	677

Manufacturers Number (Mfr No -See Rating Plate)				GCK125N20D3							
Specifications				Circulation Air Blower Data							
GENERAL	Gas Type	Nat	LP	Type & Size	11.8-10.6 9.8/900 PSC/3/4 10/370	Filt Type	Washable				
	Input (Btuh) Std/Alt.	125,000	125,000			Filt Size (")	(2)16x18"				
	Output (Btuh) Std/Alt.	112,500	112,500			Min. Cool					
	Temp. Rise (°F)	45-75	45-75			Cap. (Tons)	3.5				
GAS & IGNITION	Electrical (Volts/Hz/FLA)	115/60/10.5	115/60/12.0	Cap. MFD/Volts		Max. Cool					
	Transformer Size (VA)	40	40			Cap. (Tons)	5				
	T'stat Heat Anticipator	.30	.30								
	Gas Valve	HW SV9500	HW SV9500								
GAS & IGNITION	Regulation Type	SNAP	SNAP	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	
	Manifold Press. (Inch's WC)	3.5	10.0			.10	1463	1650	1879	2214	
	Std. Main Orifices (No/Size)	5/#42	5/#54			.20	1429	1635	1859	2154	
	Pilot Orifice Size	.018	.011			.30	1417	1614	1838	2152	
COMBUSTION	Ignition Type/Series	HSP	HSP			.40	1389	1579	1806	2106	
	Lock-Out Time	---	---			.50	1364	1556	1773	2049	
	Flue Outlet Size (Inches)	3	3			.60	1339	1513	1725	1981	
	Std. Outlet Temp (°F)	<140	<140			.70	1299	1470	1668	1903	
COMBUSTION	Comb. Blower (MFD/Volts)	4/250	4/250	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	
	Std. Pressures (Inch's of WC)	@Blower	@Burner Box			Differential	.10	690	779	887	1045
	5' No Elbows	-2.40	-.17			-2.23	.20	674	772	877	1017
	40' +5-90° DWV Elbows	-2.16	-.20			-1.86	.30	669	762	867	1016
LIMITS & CONTROLS	Rollout Switch(°F)	200	200			.40	656	745	852	994	
	Limit Control Setting (°F)	150	150			.50	644	734	837	967	
	Auxiliary Limit (°F)	130	130			.60	632	714	814	935	
	Fan Control (Type)	HW ST9120	HW ST9120			.70	613	694	787	898	
LIMITS & CONTROLS	Fan Control On	30/60	30/60								
	(Timed-Secs) Off	60,100,140,180	60,100,140,180								
	Std. Pressure Sw. (Part No)	1008944	1008944								
	Press Differential (Close)	1.62	1.62								
LIMITS & CONTROLS	Press Differential (Open)	1.38	1.38								
	High Alt. Press. Sw (Part No)	1008945	1008945								
	Press Differential (Close)	1.40	1.40								
	Press Differential (Open)	1.18	1.18								

1. Wiring Diagram





25-21-74a

Replacement Parts - GCK

Models -CGK050N12D3, GCK075N12D3, CGK100N16D3, GCK125N20D3 (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 Assy	1008876	1	-	-	-	A	Panel Top	1010564	1	1	-	-
		1008877	-	1	-	-			1010565	-	-	1	-
		1008878	-	-	1	-			1010566	-	-	-	1
		1008879	-	-	-	1	B	Filter Holder	33411100	1	1	1	1
2	Heat Exchanger, Sec.	1010495	1	1	-	-	C	Rail Blower Slide	33406100	2	2	2	2
		1010496	-	-	1	-	D	Blower Partition	1011036	1	1	-	-
		1010497	-	-	-	1			1011037	-	-	1	-
3	Limit Switch, Auxillary	613839	-	1	1	-			1011038	-	-	-	1
		1065702	-	-	-	1	E	Plate, Fill-in	1011072	1	1	-	-
		1056172	1	-	-	-			1011073	-	-	1	-
4	Switch, Pressure	1010895	1	1	1	1			1011074	-	-	-	1
	Switch, Pressure (Hi Alt)	1008945	1	1	1	1	F	Angle, Vertical	1008807	2	2	2	2
5	Tube, Sensor (36" Length)	1006298	1	1	1	1	G	Base, Rear	1010234	1	-	-	-
6	Limit Switch, Rollout	1005548	1	-	-	-			1010235	-	1	-	-
		1010575	-	1	1	1			1010348	-	-	1	-
7	Tap, Pressure	1005606	1	1	1	1			1010350	-	-	-	1
8	Valve Gas Nat HW & LP	1011024	1	1	1	1	H	Baffle Air	1009880	2	-	-	-
9	Manifold Gas	1008737	1	-	-	-			707010031	-	2	2	2
		1008738	-	1	-	-	J	Base, Front	1010090	1	1	-	-
		1008739	-	-	1	-			1010236	-	-	1	-
		1008740	-	-	-	1			1010237	-	-	-	1
10	Orifice Burner Nat #42 Brass	1004143	2	3	4	5	K	Partition Top Front	1009493	1	-	-	-
	LP #54 Silver	*1004142	*2	*3	*4	*5			1009494	-	1	-	-
	Hi Alt Orifice Nat #44 Brass	1065253	2	3	4	5			1009495	-	-	1	-
	Nat #45 Brass	1065121	2	3	4	5			1009496	-	-	-	1
	LP #55 Silver	*1065255	*2	*3	*4	*5	L	Partition Bot Front	1009497	1	-	-	-
	LP #56 Silver	*1065167	*2	*3	*4	*5			1009498	-	1	-	-
11	Pilot Tubing, Aluminum	64930	1	1	1	1			1009499	-	-	1	-
12	Pilot Assembly Nat & LP	1149856	1	1	1	1			1009500	-	-	-	1
13	Orifice, Pilot .020 Nat	1160403	1	1	1	1	M	Gasket, Bunner Box	1008759	1	1	-	-
	Orifice, Pilot .011 LP	*1009136	*1	*1	*1	*1			1008760	-	-	1	-
14	Igniter/Sensor with Clip	1009524	1	1	1	1			1008761	-	-	-	1
15	Burner, Assy	1008723	1	-	-	-	N	Coupling, Air Intake	1008744	1	1	1	1
		1008724	-	1	-	-	O	Gasket, Air Intake	1008746	1	1	1	1
		1008725	-	-	1	-	P	Gasket, Rollout	1008778	1	1	1	1
		1008726	-	-	-	1	Q	Burner Box Assy	1010381	1	1	-	-
16	Limit Control	1320547	-	1	-	-			1010382	-	-	1	-
		1320549	1	-	1	-			1010383	-	-	-	1
		1009774	-	-	-	1	R	Baffle Burner Box	1008709	1	1	-	-
17	Capacitor, 4/250	1149252	1	1	1	1			1008710	-	-	1	-
18	Blower Exhaust	1010527	1	1	1	1			1008711	-	-	-	1
19	Restrictor Exh Blwr	1008696	1	1	-	-	S	Diaphragm, Silicone Rubber	1008763	1	1	1	1
		1009386	-	-	1	-	T	Cover Diaphragm	1068036	1	1	1	1
		1008699	-	-	-	1	U	Grommet, Manifold	1008741	1	1	1	1
20	O Ring, Exhaust Blower	1009035	1	1	1	1	V	Bracket, Burner Box	1008722	2	2	2	2
21	Drain Trap/Transition	1010537	1	1	1	1	W	Viewport Cover Lexan	2480678	1	1	1	1
22	O Ring, Header Box	1009036	1	1	1	1	X	Gasket, Sight Glass	1093666	1	1	1	1
23	Transformer, 40VA	1011103	1	1	1	1	Y	Cover Burner Box	1008748	1	1	-	-
24	Capacitor, 10/370	1094956	-	-	1	1			1008749	-	-	1	-
	5/370	1094954	1	-	-	-			1008750	-	-	-	1
	7.5/370	1094239	-	1	-	-	Z	Seal, Cover Sides	1008755	2	2	2	2
25	Control Module/Fan Timer	1009838	1	1	1	1	AA	Strip, Seal Burner Box	1008762	2	2	-	-
26	Motor, 4 Speed	1009054	1	-	-	-			1009243	-	-	2	-
		1009053	-	1	-	-			1009244	-	-	-	2
		1009052	-	-	1	-	BB	Bracket Pilot	1010901	1	1	1	1
		1008619	-	-	-	1	CC	Board, Insulating	1009552	1	1	-	-
27	Kit, Motor Mount	609227	1	1	1	-			1009553	-	-	1	-
		522020024	-	-	-	1			1009554	-	-	-	1
28	Wheel, Blower	600587	1	1	-	-	DD	Box, Collector	1008673	1	1	-	-
		601210	-	-	1	-			1008674	-	-	1	-
		1009147	-	-	-	1			1008675	-	-	-	1
29	Switch -Interlock	1010886	1	1	1	1	EE	Gasket, Collector Box	1009536	1	1	-	-
30	Filter W/Frame 16"x19"x1"	1009750	2	2	2	2			1009537	-	-	1	-
									1009538	-	-	-	1

* Only used when furnace has been converted to LPgas

Replacement Parts - GCK

Models -CGK050N12D3, GCK075N12D3, CGK100N16D3, GCK125N20D3 (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
	)(PART NOT ILLUSTRATED					
)(	Wire Harness	1011086	1	1	1	1
)(	Clamp Hose	1002793	4	4	4	4
)(	Coupling, Discharge	1002522	2	2	2	2
)(	Reducer, 3" to 2"	1005779	1	1	1	1
)(	Elbow Union	2971503	1	1	1	1
)(	Manual Install	441 01 1303 01	1	1	1	1
)(	Manual Tech	441 03 1304 01	1	1	1	1
)(	Manual Homeowners	441 02 1301 00	1	1	1	1
)(	Flue Pipe, ABS 2" x 22"	1009566	1	1	1	1
)(	Screen 3"	1007340	1	1	1	1
)(	Screen 2"	1007339	1	1	1	1
)(	Washer Exhaust Blower	1009037	2	2	2	2
)(	Clip, Plastic Pin	2344276	3	3	3	3

Horizontal Condensate Switch Kit All Models

NAHL001HK

Gas Conversion Kits All Models

Nat to LP NAHF002LP *1009509

LP to Nat NAHF002NG *1009510

*Order from Service Parts

Key No.	Description Non-Functional	Part Number	050	075	100	125
FF	Door Louvered (NCGM ONLY)	1010187	1	1	-	-
	(NCGM ONLY)	1010188	-	-	1	-
	(NCGM ONLY)	1010189	-	-	-	1
	(GCK ONLY)	1010171	1	1	-	-
	(GCK ONLY)	1010172	-	-	1	-
	(GCK ONLY)	1010173	-	-	-	1
GG	Door, Fan (NCGM ONLY)	1010196	1	1	-	-
	(NCGM ONLY)	1010197	-	-	1	-
	(NCGM ONLY)	1010198	-	-	-	1
	(GCK ONLY)	1010255	1	1	-	-
	(GCK ONLY)	1010256	-	-	1	-
	(GCK ONLY)	1010257	-	-	-	1
HH	Bracket, Mount LH	1008693	1	1	1	1
JJ	Gasket, Header Box	1010510	1	1	1	1
KK	Bracket, Mount RH	1008694	1	1	1	1
LL	Clamp, Capacitor	1095020	1	1	1	1
MM	Bracket, Control Board	1011178	1	1	1	1
NN	Blower Housing	1007787	1	1	-	-
		1007753	-	-	1	-
		1007769	-	-	-	1
OO	Blower Cutoff	721020013	1	1	-	-
		721020008	-	-	1	1
PP	Hanger, Blower	33403100	2	2	2	2
QQ	Shield, Vent Pipe	2311159	1	1	1	1
RR	Endplate, Vent Pipe	57083	4	4	4	4
TT	Cover, Field Connect	1010360	1	1	1	1
UU	Box, Field Connect	1011941	1	1	1	1
VV	Shield, Limit	1008797	-	-	1	-
WW	Door Handle	1010073	1	1	1	1
XX	Vent, Chase	1010540	1	1	1	1
YY	Casing	1010570	1	1	-	-
		1010571	-	-	1	-
		1010572	-	-	-	1
ZZ	Gasket, Heat Exchanger	2480904	2	-	-	-
		2480905	-	2	-	-
		2480906	-	-	2	-
		2480907	-	-	-	2