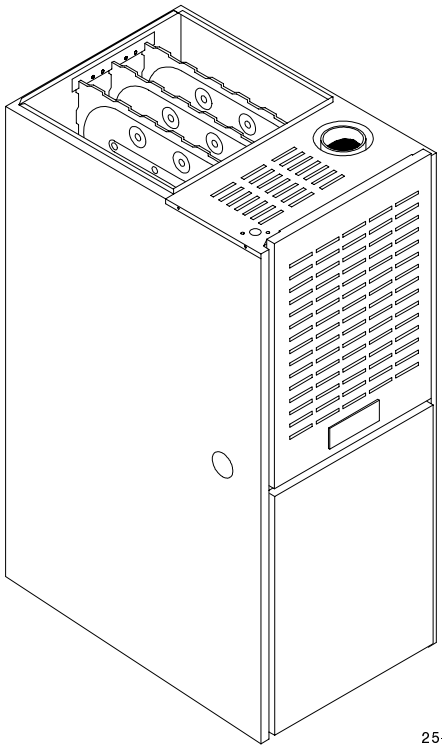
Technical Support Manual



25-21-60

Models

NUG3050AFC2/GUJ050N12C2
NUG3075AFC2/GUJ075N12C2
NUG3100AHC2/GUJ100N16C2
NUG3125AKC2/GUJ125N20C2

Manufactured by:
International Comfort Products Corporation (USA)
Lewisburg, TN USA 37091

Fan Assisted Combustion

Gas Furnaces

Design Certified by A.G.A.

Save This Manual For Future Reference

APPROVED

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Manufacturers Number (Mfr No -See Rating Plate) NUG3050AFC/GUJ050N12C

Specifications

GENERAL	Gas Type	Nat	LP	
	Input (Btuh) Std/Alt.	50,000	50,000	
	Output (Btuh) Std/Alt.	40,000	40,000	
	Temp. Rise (°F)	25-55	25-55	
	Electrical (Volts/Hz/FLA)	115/60/8.1	115/60/8.1	
	Transformer Size (VA)	40	40	
	T'stat Heat Anticipator	0.56	0.56	
GAS & IGNITION	Gas Valve	HW VR8200A	HW VR8200A	
	Regulation Type	SNAP	SNAP	
	Manifold Press. (Inch's WC)	3.5	3.5	
	Std. Main Orifices (No/Size)	2/#42	2/#54	
	Pilot Orifice Size	.012	.010	
	Ignition Type/Series	HW STDG PLT	HW STDG PLT	
	Lock-Out Time	---	---	
COMBUSTION	Flue Outlet Size (Inches)	4	4	
	Std. Outlet Temp (°F)	<480	<480	
	Comb.Blower (MFD/Volts)	--	--	
	Std. Pressures (Inch's of WC)	@Blower		
	5' No Elbows	-2.30		
LIMITS & CONTROLS	Thermal Sensor (°F)	300	300	
	Limit Control Setting (°F)	230	230	
	Vent Safety	250	250	
	Fan Control (Type)	HW ST9120	HW ST9120	
	Heat Delay On	30	30	
	Off	140	140	
	Cool Delay On	30	30	
	Off	30	30	
	Std. Pressure Sw. (Part No)	1010899	1010899	
	Press Differential (Close)	.33	.33	
	Press Differential (Open)	.18	.18	

Circulation Air Blower Data

Type & Size	10-8	Filt Type	Washable
Motor Amps/RPM	4.6/1050	Filt Size (")	$15^1/_2$x$28^1/_2$
Motor Type/ H.P.	PSC/$^1/_3$	Min. Cool	
Cap. MFD/Volts	5/370	Cap. (Tons)	1.5
		Max. Cool	
		Cap. (Tons)	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
.10	675	859	1015	1394
.20	662	846	999	1342
.30	651	819	977	1289
.40	636	795	952	1227
.50	608	765	914	1163
.60	564	735	870	1086
.70	514	685	818	1002

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	318	405	479	658
.20	312	399	472	633
.30	307	387	461	608
.40	300	375	449	579
.50	287	361	431	549
.60	266	347	411	513
.70	243	323	386	473

Gas Conversion Kits

Nat to LP	NAHF002LP
LP to Nat	1009510

THIS DATA IS SUBJECT TO CHANGE WITHOUT NOTICE

Manufacturers Number (Mfr No -See Rating Plate) NUG3075AFC/GUJ075N12C

Specifications

GENERAL	Gas Type	Nat	LP	
	Input (Btuh) Std/Alt.	75,000	75,000	
	Output (Btuh) Std/Alt.	60,000	60,000	
	Temp. Rise (°F)	25-55	25-55	
	Electrical (Volts/Hz/FLA)	115/60/8.1	115/60/8.1	
	Transformer Size (VA)	40	40	
	T'stat Heat Anticipator	0.56	0.56	
GAS & IGNITION	Gas Valve	HW VR8200A	HW VR8200A	
	Regulation Type	SNAP	SNAP	
	Manifold Press. (Inch's WC)	3.5	3.5	
	Std. Main Orifices (No/Size)	2/#42	2/#54	
	Pilot Orifice Size	.012	.010	
	Ignition Type/Series	HW STDG PLT	HW STDG PLT	
	Lock-Out Time	---	---	
COMBUSTION	Flue Outlet Size (Inches)	4	4	
	Std. Outlet Temp (°F)	<480	<480	
	Comb.Blower (MFD/Volts)	4/250	4/250	
	Std. Pressures (Inch's of WC)	@Blower		
	5' No Elbows	-2.30		
LIMITS & CONTROLS	Thermal Sensor (°F)	300	300	
	Limit Control Setting (°F)	230	230	
	Vent Safety	250	250	
	Fan Control (Type)	HW ST9120	HW ST9120	
	Heat Delay On	30	30	
	Off	140	140	
	Cool Delay On	30	30	
	Off	30	30	
	Std. Pressure Sw. (Part No)	1010899	1010899	
	Press Differential (Close)	.33	.33	
	Press Differential (Open)	.18	.18	

Circulation Air Blower Data

Type & Size	10-8	Filt Type	Washable
Motor Amps/RPM	4.6/1050	Filt Size (")	$15^1/_2$x$28^1/_2$
Motor Type/ H.P.	PSC/$^1/_3$	Min. Cool	
Cap. MFD/Volts	5/370	Cap. (Tons)	1.5
		Max. Cool	
		Cap. (Tons)	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
.10	675	859	1015	1394
.20	662	846	999	1342
.30	651	819	977	1289
.40	636	795	952	1227
.50	608	765	914	1163
.60	564	735	870	1086
.70	514	685	818	1002

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	318	405	479	658
.20	312	399	472	633
.30	307	387	461	608
.40	300	375	449	579
.50	287	361	431	549
.60	266	347	411	513
.70	243	323	386	473

Gas Conversion Kits

Nat to LP	NAHF002LP
LP to Nat	1009510

THIS DATA IS SUBJECT TO CHANGE WITHOUT NOTICE

Manufacturers Number (Mfr No -See Rating Plate**)** **NUG3100AHC/GUJ100N16C**

Specifications

GENERAL	Gas Type	Nat	LP
	Input (Btuh) Std/Alt.	100,000	100,000
	Output (Btuh) Std/Alt.	80,000	80,000
	Temp. Rise (°F)	35-65	35-65
	Electrical (Volts/Hz/FLA)	115/60/11.3	115/60/11.3
	Transformer Size (VA)	40	40
	T'stat Heat Anticipator	0.56	0.56
GAS & IGNITION	Gas Valve	HW VR8200A	HW VR8200A
	Regulation Type	SNAP	SNAP
	Manifold Press. (Inch's WC)	3.5	3.5
	Std. Main Orifices (No/Size)	2/#42	2/#54
	Pilot Orifice Size	.012	.010
	Ignition Type/Series	HW STDG PLT	HW STDG PLT
	Lock-Out Time	---	---
COMBUSTION	Flue Outlet Size (Inches)	5	5
	Std. Outlet Temp (°F)	<480	<480
	Comb.Blower (MFD/Volts)	4/250	4/250
	Std. Pressures (Inch's of WC)	**@Blower**	
	5' No Elbows	-2.30	
LIMITS & CONTROLS	Thermal Sensor (°F)	300	300
	Limit Control Setting (°F)	240	230
	Vent Safety	250	250
	Fan Control (Type)	HW ST9120	HW ST9120
	Heat Delay On	30	30
	Off	140	140
	Cool Delay On	30	30
	Off	30	30
	Std. Pressure Sw. (Part No)	1010899	1010899
	Press Differential (Close)	.33	.33
	Press Differential (Open)	.18	.18

Circulation Air Blower Data

Type & Size	10-10	Filt Type	Washable
Motor Amps/RPM	4.6/1050	Filt Size (")	$19^{1}/_{8}$x$28^{1}/_{2}$
Motor Type/ H.P.	PSC/$^{1}/_{2}$	Min. Cool	
Cap. MFD/Volts	5/370	Cap. (Tons)	1.5
		Max. Cool	
		Cap. (Tons)	4

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	1503	1722	--	1887
.20	1460	1660	--	1810
.30	1420	1608	--	1752
.40	1370	1540	--	1670
.50	1318	1484	--	1599
.60	1250	1400	--	1520
.70	1182	1322	--	1425

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	709	812	-	891
.20	689	784	-	854
.30	670	759	-	827
.40	647	727	-	788
.50	622	700	-	755
.60	590	661	-	717
.70	558	624	-	673

Gas Conversion Kits

Nat to LP	NAHF002LP
LP to Nat	1009510

THIS DATA IS SUBJECT TO CHANGE WITHOUT NOTICE

Manufacturers Number (Mfr No -See Rating Plate**)** **NUG3125AKC/GUJ125N16C**

Specifications

GENERAL	Gas Type	Nat	LP
	Input (Btuh) Std/Alt.	125,000	125,000
	Output (Btuh) Std/Alt.	100,000	100,000
	Temp. Rise (°F)	35-65	35-65
	Electrical (Volts/Hz/FLA)	115/60/11.3	115/60/11.3
	Transformer Size (VA)	40	40
	T'stat Heat Anticipator	.56	.56
GAS & IGNITION	Gas Valve	HW VR8200A	HW VR8200A
	Regulation Type	SNAP	SNAP
	Manifold Press. (Inch's WC)	3.5	3.5
	Std. Main Orifices (No/Size)	4/#42	4/#54
	Pilot Orifice Size	.012	.010
	Ignition Type/Series	HW STDG PLT	HW STDG PLT
	Lock-Out Time	---	---
COMBUSTION	Flue Outlet Size (Inches)	5	5
	Std. Outlet Temp (°F)	<480	<480
	Comb.Blower (MFD/Volts)	4/250	4/250
	Std. Pressures (Inch's of WC)	**@Blower**	
	5' No Elbows	-2.30	
LIMITS & CONTROLS	Thermal Sensor (°F)	300	300
	Limit Control Setting (°F)	240	240
	Vent Safety	250	250
	Fan Control (Type)	HW ST9120	HW ST9120
	Heat Delay On	30	30
	Off	140	140
	Cool Delay On	30	30
	Off	30	30
	Std. Pressure Sw. (Part No)	1010899	1010899
	Press Differential (Close)	0.33	0.33
	Press Differential (Open)	0.18	0.18

Circulation Air Blower Data

Type & Size	11-10	Filt Type	Washable
Motor Amps/RPM	4.6/1050	Filt Size (")	$15^{1}/_{2}$x$28^{1}/_{2}$
Motor Type/ H.P.	PSC/$^{3}/_{4}$	Min. Cool	
Cap. MFD/Volts	5/370	Cap. (Tons)	1.5
		Max. Cool	
		Cap. (Tons)	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
.10	1264	1520	1841	2161
.20	1251	1506	1803	2132
.30	1249	1486	1772	2079
.40	1219	1456	1736	2042
.50	1168	1427	1702	1991
.60	1158	1415	1672	1914
.70	1143	1358	1614	1838

Air Delivery in Liters Per Second (L/S)

(Furnace Rated @0.5" WC ESP)

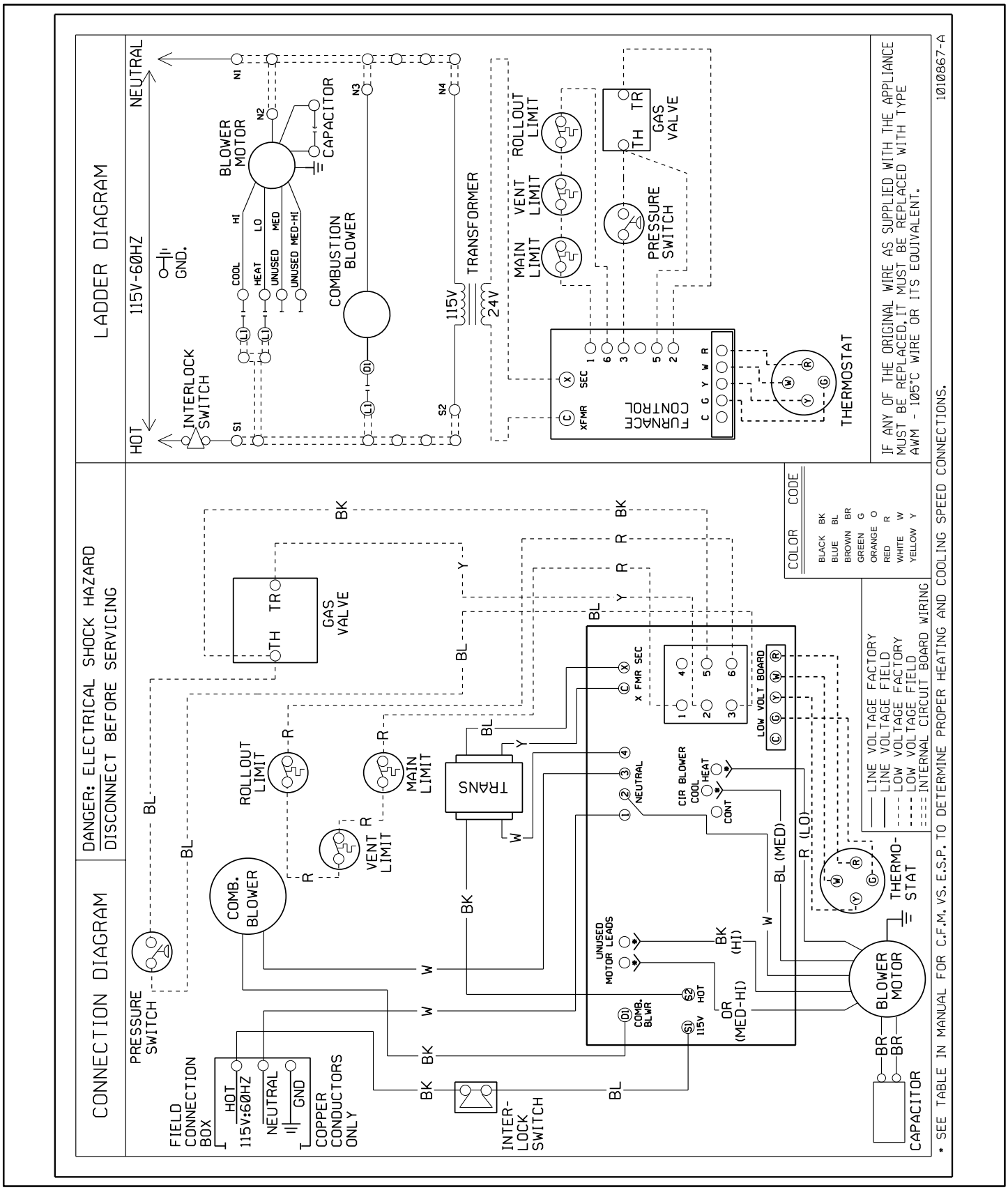
External Static Pressure Inches of W.C.

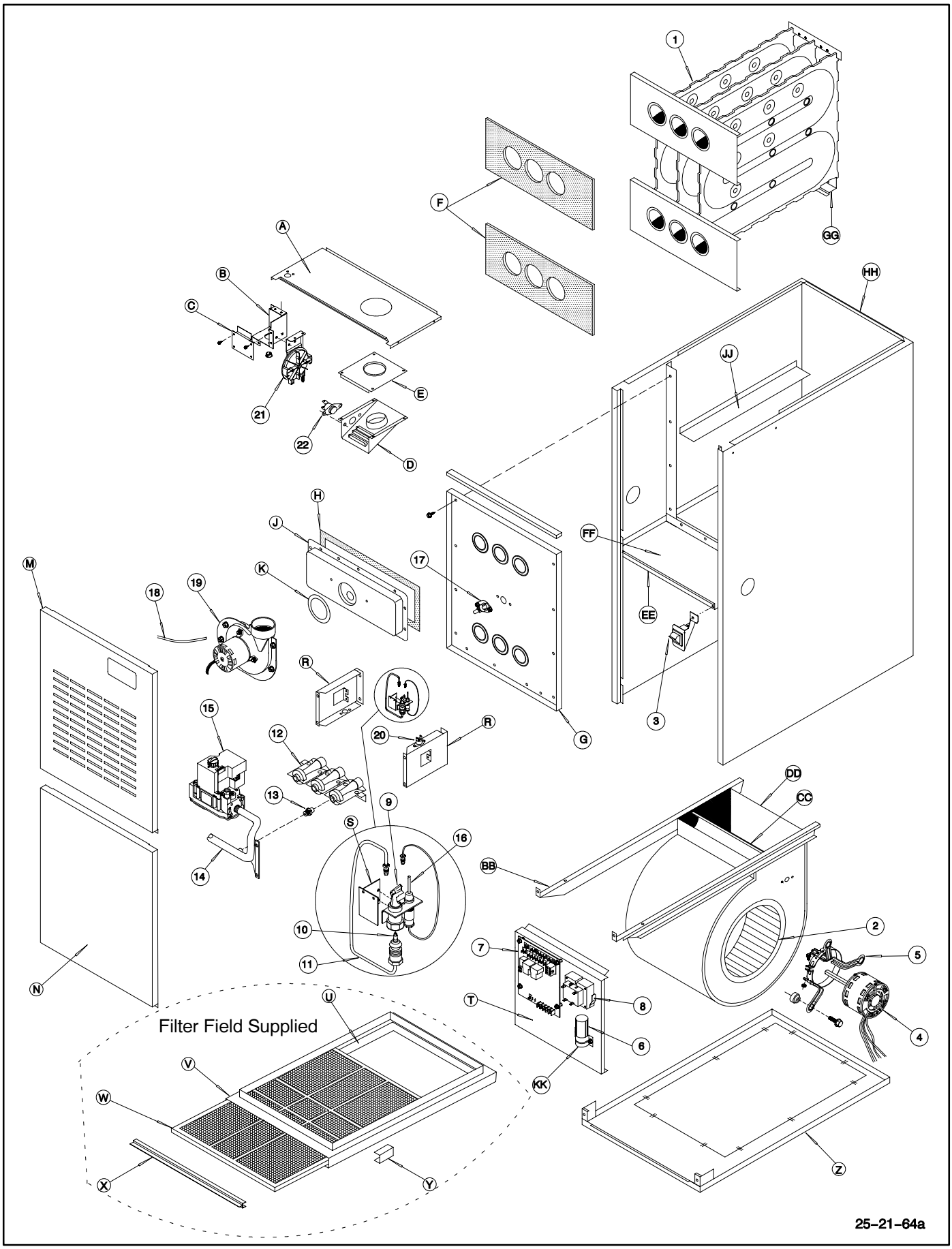
TAP	LOW	MED L	MED H	HIGH
.10	597	718	856	1020
.20	590	711	851	1006
.30	590	701	836	981
.40	575	687	819	964
.50	551	674	803	940
.60	546	668	789	903
.70	540	641	762	868

Gas Conversion Kits

Nat to LP	NAHF002LP
LP to Nat	1009510

1. Wiring Diagram




Filter Field Supplied
25–21–64a

Replacement Parts - NUG3/GUJ

Models – NUG3050AFC2, NUG3075AFC2, NUG3100AHC2, NUG3125AKC2 (Natural Gas)
GUJ050N12C2, GUJ075N12C2, GUJ100N16C2, GUJ125N20C2 (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
1	Heat Exch Asy	231010102	1	–	–	–
		231010103	–	1	–	–
		231010104	–	–	1	–
		231010105	–	–	–	1
2	Blwr Wheel DD10-10	601210	–	–	1	–
	DD10-8	600587	1	1	–	–
	DD11-10	1009147	–	–	–	1
3	Switch Door	1010886	1	1	1	1
4	Blower Motor	1009054	1	1	–	–
		1008414	–	–	1	–
		1008619	–	–	–	1
5	Motor Mount Kit	609227	1	1	1	–
		522020024	–	–	–	1
6	Capacitor, 5mf 370V	1094954	1	1	–	–
	10mf 370V	1094956	–	–	1	1
7	Control, Fan Timer	1009838	1	1	1	1
8	Transformer, 40VA	1011103	1	1	1	1
9	Pilot, Assy Nat. & LP	1160046	1	1	1	1
10	Orifice, Pilot Nat. (.012)	1010325	1	1	1	1
	LP (.010)	503212	1	1	1	1
11	Tube, Pilot	64930	1	1	1	1
12	Burner Asy	1009178	1	–	–	–
		1008724	–	1	–	–
		1008725	–	–	1	–
		1008726	–	–	–	1
13	Orifice, #42 Nat	1004143	2	3	4	5
	Orifice, #54 LP	1004142	2	3	4	5
14	Manifold	1010919	1	–	–	–
		1010920	–	1	–	–
		1010921	–	–	1	–
		1010922	–	–	–	1
15	Valve, Nat.	1004612	1	1	1	1
	Valve, LP	1004613	1	1	1	1
16	Thermocouple	1147788	1	–	–	–
		100242	–	1	1	–
		100243	–	–	–	1
17	Switch, Limit Main	34333002	1	1	–	–
		34335002	–	–	1	–
		1320362	–	–	–	1
18	Tubing, Silcone 24″	1149483	1	1	1	1
19	Combustion Blower Asy	1010973	1	1	1	1
20	Rollout Switch, Limit	1005549	1	1	1	1
21	Switch, Pressure	1010899	1	1	1	1
22	Switch, Limit (Draft Hood)	1005548	1	1	1	1
)(	**PART NOT ILLUSTRATED**					
)(	Wire Harness	1010970	1	1	1	1
)(	Manual, Installation	441 012502 01	1	1	1	1
)(	Manual, Tech Support	441 032503 02	1	1	1	1
)(	Manual, Users	441 022001 00	1	1	1	1
)(	Conversion Kit Nat to LP	1160991	1	1	1	1
)(	Conversion Kit LP to Nat	1009510	1	1	1	1

Key No.	Description Non-Functional	Part Number	050	075	100	125
A	Panel, Top	1010597	1	1	–	–
		1010598	–	–	1	–
		1010599	–	–	–	1
B	Box, Field Connect	1010359	1	1	1	1
C	Cover, Field Connect Box	1010360	1	1	1	1
D	Hood, Draft	1008025	1	1	1	1
E	Top, Draft Hood	1008191	1	1	–	–
		1008192	–	–	1	1
F	Gasket, Heat Exchanger	2480904	2	–	–	–
		2480905	–	2	–	–
		2480906	–	–	2	–
		2480907	–	–	–	2
G	Partition, Heat Exc Front	1008068	1	–	–	–
		1008069	–	1	–	–
		1010317	–	–	1	–
		1010262	–	–	–	1
H	Gasket, Collector	1093661	1	1	–	–
		1093662	–	–	1	–
		1093663	–	–	–	1
J	Collector	1011046	1	–	–	–
		1011049	–	1	–	–
		1011054	–	–	1	–
		1011058	–	–	–	1
K	Gasket, Combustion Blower	1011379	1	1	1	1
M	Door, Louvered	1010887	1	1	–	–
		1010888	–	–	1	–
		1010889	–	–	–	1
N	Door, Blower	1010191	1	1	–	–
		1010190	–	–	1	–
		1010192	–	–	–	1
R	Bracket, Manifold Support	1010900	2	2	2	2
S	Bracket, Pilot	1010925	1	1	1	1
T	Bracket, Fan Timer	1011178	1	1	1	1
U	Wrapper, Filter Rack	741010042	1	1	–	–
		741010039	–	–	1	2
V	Front, Filter Rack	741020004	1	1	–	–
		741020001	–	–	1	2
W	Filter 14″ x 25″	1010364	1	1	–	–
	16″ x 25	1010365	–	–	1	2
X	Cover, Filter	2791042	1	1	–	–
		2791043	–	–	1	2
Y	Clip, Filter	1008482	3	3	3	3
Z	Base	1010112	1	1	–	–
		1010113	–	–	1	–
		1010114	–	–	–	1
BB	Hanger, Blower	1010690	2	2	2	2
CC	Cutoff, Blower	721020013	1	1	–	–
		721020008	–	–	1	1
DD	Housing, Blower	1007787	1	1	–	–
		1007753	–	–	1	–
		1007807	–	–	–	1
EE	Rail, Blower Slide	57059	2	2	2	2
FF	Partition, Blower	1010810	1	1	–	–
		1010811	–	–	1	–
		1011075	–	–	–	1
GG	Support, Heat Exchanger	1011026	1	–	–	–
		750010045	–	1	–	–
		1010353	–	–	1	–
		750010046	–	–	–	1
HH	Casing	1010610	1	1	–	–
		1010611	–	–	1	–
		1010612	–	–	–	1
JJ	Baffle, Circulating Air	707010031	2	2	2	2
KK	Clamp, Capacitor	1095020	1	1	1	1