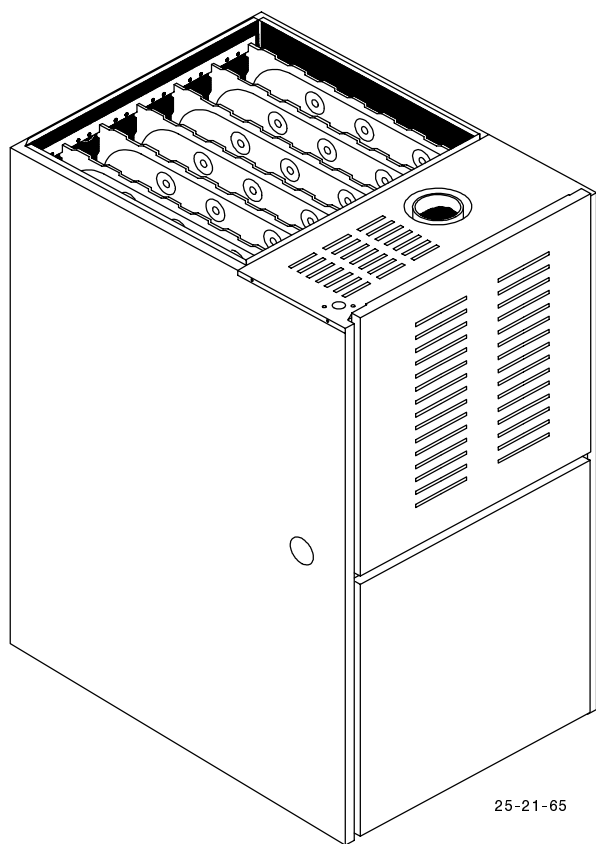


Technical Support Manual

FAN ASSISTED COMBUSTION GAS FURNACES



25-21-65

Models

NTG3050FBU1
NTG3075FBU1
NTG3075HFU1
NTG3100GFU1
NTG3100KFU1
NTG3125KJU1

FBF050B12U1
FBF075B12U1
FBF075F16U1
FBF100F14U1
FBF100F20U1
FBF125J20U1

Manufactured by:

International Comfort Products Corporation (USA)
Lewisburg, TN USA 37091



Save This Manual For Future Reference



Manufacturers Number (Mfr No -See Rating Plate) ALL Models		
Specifications		
General		
Gas Type	Nat	LP
Transformer Size (VA)	40	40
T'stat Heat Anticipator	.30	.30
Gas & Ignition		
Gas Valve	WR 36E22	WR 36E22
Regulation Type	SNAP	SNAP
Manifold Press. (Inch's WC)	3.5	10.0
Ignition Type	HSI	HSI
Lock-Out Time	NA	NA
Combustion		
Flue Outlet Size (Inches)	3	3
Std. Outlet Temp (°F)	<480	<480
Limits & Controls		
Furnace Control (Type)	UTC 1012-960	UTC 1012-960
Fan Control On	30	30
(Timed-secs) Off	60,90,120,180	60,90,120,180

Specifications												
	NTG3050FB/ FBF050B12		NTG3075FB/ FBF075B12		NTG3075HF/ FBF075F16		NTG3100GF/ FBF100F14		NTG3100KF/ FBF100F20		NTG3125KJ/ FBF125J20	
General												
Input (Btuh)	50,000		75,000		75,000		100,000		100,000		125,000	
Output (Btuh)	40,000		59,000		59,000		79,000		79,000		99,000	
Temp. Rise (°F)	35-65		35-65		25-55		45-75		35-65		40-70	
Electrical (Volts/Hz/FLA)	115/60/5.3		115/60/5.3		115/60/12.0		115/60/7.5		115/60/12.0		115/60/12.0	
Gas & Ignition												
Gas Type	Nat.	LP	Nat.	LP	Nat.	LP	Nat.	LP	Nat.	LP	Nat.	LP
Std. Main Orifices (No/Size)	2/#42	2/#54	3/#42	3/#54	3/#42	3/#54	4/#42	4/#54	4/#42	4/#54	5/#42	5/#54
Limits & Controls												
Thermal Sensor (°F)	350		350		300		350		350		350	
Limit Control Setting (°F)	270		250		250		270		195		190	
Std. Pressure Sw. (Part No)	1010898		1010898		1010898		1010898		1010898		1010898	
Press (Close)	-0.81		-0.81		-0.81		-0.81		-0.81		-0.81	
Press (Open)	-0.65		-0.65		-0.65		-0.65		-0.65		-0.65	
Blower Data												
Type & Size	10-8		10-8		10-10		10-10		11-10		11-10	
Motor Amps/Rpm	6.5/1050		6.5/1050		10.3/1100		8/1050		11.9/900		11.9/900	
Motor Type/H.p.	PSC ¹ / ₃		PSC ¹ / ₃		PSC ¹ / ₂		PSC ¹ / ₂		PSC ³ / ₄		PSC ³ / ₄	
Cap. Mfd/Volts	5/370		5/370		10/370		7.5/370		10/370		10/370	
Filter Type	Washable		Washable		Washable		Washable		Washable		Washable	
Filter Size (")	14x25x1		14x25x1		16x25x1		16x25x1 (2)		16x25x1 (2)		16x25x1 (2)	
Min. Cool Cap. (Tons)	1.5		1.5		3		2		3		3	
Max. Cool Cap. (Tons)	3		3		4		3.5		5		5	

CIRCULATION AIR BLOWER DATA

NTG3050FB/FBF050B12 & NTG3075FB/FBF075B12

External Static Pressure Inches of W.C.	Air Delivery in Cubic Feet per Minute (C.F.M.) (Furnace Rated @0.5" WC ESP)					
	TAP	LOW	MED L	MED	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

External Static Pressure Inches of W.C.	Air Delivery in Liters Per Second (L/S) (Furnace Rated @0.5" WC ESP)					
	TAP	LOW	MED L	MED	MED H	HIGH
	.10	318	405	--	479	658
	.20	312	399	--	472	6333
	.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

NTG3075HF/BBF075F16

External Static Pressure Inches of W.C.	Air Delivery in Cubic Feet per Minute (C.F.M.) (Furnace Rated @0.5" WC ESP)					
	TAP	LOW	MED L	MED	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

External Static Pressure Inches of W.C.	Air Delivery in Liters Per Second (L/S) (Furnace Rated @0.5" WC ESP)					
	TAP	LOW	MED L	MED	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

NTG3100KF/BBF100F20

External Static Pressure Inches of W.C.	Air Delivery in Cubic Feet per Minute (C.F.M.) (Furnace Rated @0.5" WC ESP)					
	TAP	LOW	MED L	MED	MED H	HIGH
	.10	1210	1441	--	1773	2104
	.20	1201	1430	--	1740	2078
	.30	1197	1453	--	1740	2061
	.40	1191	1441	--	1718	2020
	.50	1167	1425	--	1707	2005
	.60	1160	1390	--	1676	1953
	.70	1130	1365	--	1654	1917

External Static Pressure Inches of W.C.	Air Delivery in Liters Per Second (L/S) (Furnace Rated @0.5" WC ESP)					
	TAP	LOW	MED L	MED	MED H	HIGH
	.10	571	680	--	837	993
	.20	576	675	--	821	981
	.30	565	686	--	821	973
	.40	562	680	--	811	953
	.50	552	673	--	806	946
	.60	548	656	--	791	922
	.70	533	644	--	781	905

NTG3100GF/BBF100F14

External Static Pressure Inches of W.C.	Air Delivery in Cubic Feet per Minute (C.F.M.) (Furnace Rated @0.5" WC ESP)					
	TAP	LOW	MED L	MED	MED H	HIGH
	.10	778	984	--	1263	1576
	.20	786	1003	--	1249	1532
	.30	790	1003	--	1244	1489
	.40	788	1001	--	1215	1432
	.50	781	982	--	1186	1371
	.60	765	962	--	1146	1308
	.70	743	923	--	1094	1229

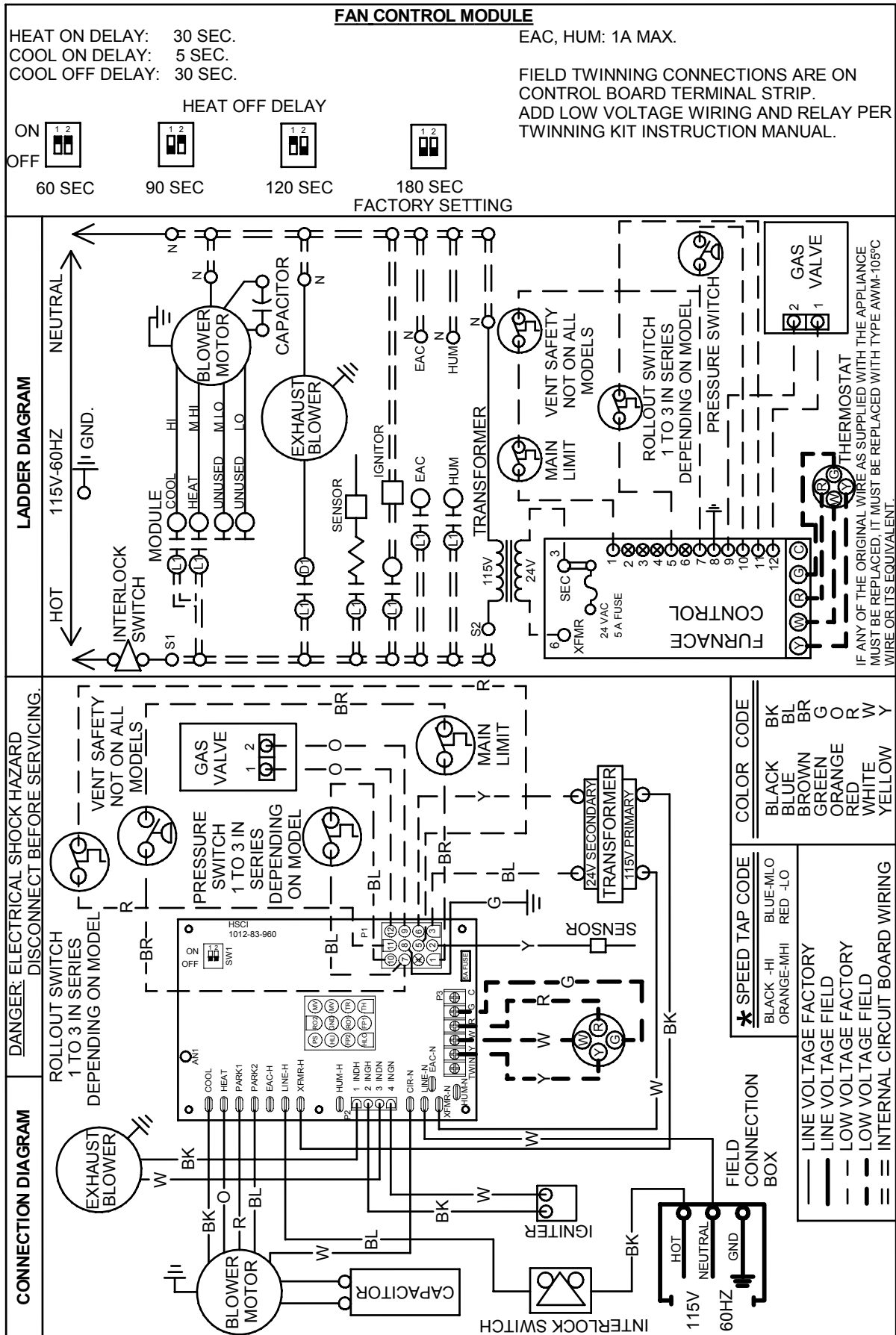
External Static Pressure Inches of W.C.	Air Delivery in Liters Per Second (L/S) (Furnace Rated @0.5" WC ESP)					
	TAP	LOW	MED L	MED	MED H	HIGH
	.10	367	464	--	596	744
	.20	371	473	--	589	723
	.30	373	473	--	587	703
	.40	372	472	--	573	676
	.50	369	463	--	560	647
	.60	361	454	--	541	617
	.70	351	436	--	516	580

NTG3125KJ/BBF125J20

External Static Pressure Inches of W.C.	Air Delivery in Cubic Feet per Minute (C.F.M.) (Furnace Rated @0.5" WC ESP)					
	TAP	LOW	MED L	MED	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	1178	1415	--	1672	1914
	.70	1143	1358	--	1614	1838

External Static Pressure Inches of W.C.	Air Delivery in Liters Per Second (L/S) (Furnace Rated @0.5" WC ESP)					
	TAP	LOW	MED L	MED	MED H	HIGH
	.10	597	717	--	869	1020
	.20	590	711	--	851	1006
	.30	590	701	--	836	981
	.40	575	687	--	819	964
	.50	551	674	--	803	940
	.60	556	668	--	789	903
	.70	540	641	--	762	868

1. Wiring Diagram



1012458-B

[illegible]

Replacement Parts - NTG3/BBF (Natural Gas)

Models - NTG3050FBU1, NTG3075FBU1, NTG3075HFU1, NTG3100GFU1, NTG3100KFU1, NTG3125KJU1: & FBF050B12U1, FBF075B12U1, FBF075F16U1, FBF100F14U1, FBF100F20U1, FBF125J20U1

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

Key No.	Description	Part Number	NTG3/BBF					
			050FBU/ 050B12U	075FBU/ 075B12U	075HFU/ 075F16U	100KFU/ 100F20U	100GFU/ 100F14U	125KJU/ 125J20U
1	Heat Exchanger	1011544	1	-	-	-	-	-
		1012406	-	1	-	-	-	-
		1011364	-	-	-	1	1	-
		1012408	-	-	-	-	-	1
		1012407	-	-	1	-	-	-
2	Blower Wheel 10-10 DD	601210	-	-	1	-	1	-
		10-8 DD	1	1	-	-	-	-
		11-10 DD	-	-	-	1	-	1
		1011420	-	-	-	-	-	-
4	Blower Motor 115V- ¹ / ₃ HP	1012514	1	1	-	-	-	-
		115V- ¹ / ₂ HP	-	-	1	-	-	-
		115V- ¹ / ₂ HP	-	-	-	-	1	-
		115V- ³ / ₄ HP	-	-	-	-	-	1
		115V- ³ / ₄ HP	-	-	-	1	-	-
		115V- ³ / ₄ HP	-	-	-	-	-	-
5	Motor Mount Kit	609227	1	1	1	-	1	-
		522020024	-	-	-	1	-	1
6	Control, Fan Timer/Ignition	1012460	1	1	1	1	1	1
7	Transformer, 40VA	1011626	1	1	1	1	1	1
8	Capacitor 10mf 370V	1094956	-	-	1	1	-	1
		5mf 370V	1	1	-	-	-	-
		7.5mf 370V	-	-	-	-	1	-
		40mf 370V	-	-	-	-	-	-
9	Switch Door	1010886	1	1	1	1	1	1
10	Burner Assembly	1008723	1	-	-	-	-	-
		1008724	-	1	1	-	-	-
		1008725	-	-	-	1	1	-
		1008726	-	-	-	-	-	1
		1012461	1	1	1	1	1	1
12	Flame Sensor, HSI	1001358	1	1	1	1	1	1
13	Orifice, #42 NAT	1011351	2	3	3	4	4	5
		Orifice, #54 LP	2	3	3	4	4	5
15	Manifold	1011458	1	-	-	-	-	-
		1011459	-	1	1	-	-	-
		1011460	-	-	-	1	1	-
		1011461	-	-	-	-	-	1
		1012455	1	1	1	1	1	1
16	Valve, Gas	1012455	1	1	1	1	1	1
17	Switch, Limit	1320365	1	-	-	-	-	-
		34333002	-	1	-	-	-	-
		1008418	-	-	1	-	-	-
		1320363	-	-	-	1	-	-
		1320365	-	-	-	-	1	-
		1320362	-	-	-	-	-	1
18	Tubing, Silicone 24"	1149483	1	1	1	1	1	1
19	Combustion Blower Assembly	1010975	1	1	1	1	1	1
20	Rollout Switch, Limit	1094863	2	2	-	2	2	2
		1005549	-	-	2	-	-	-
21	Switch, Pressure	1010898	1	1	1	1	1	1
22	Heat Exchanger Gaskets	2480904	2	-	-	-	-	-
		2480905	-	2	2	-	-	-
		2480906	-	-	-	2	2	-
		2480907	-	-	-	-	-	2
		1008068	1	-	-	-	-	-
23	Heat Exchanger Front Partition	1012409	-	1	-	-	-	-
		1012410	-	-	1	-	-	-
		1008072	-	-	-	1	1	-
		1012411	-	-	-	-	-	1

Replacement Parts - NTG3/FBF (Natural Gas)

Models – NTG3050FBU1, NTG3075FBU1, NTG3075HFU1, NTG3100GFU1, NTG3100KFU1, NTG3125KJU1: & FBF050B12U1, FBF075B12U1, FBF075F16U1, FBF100F14U1, FBF100F20U1, FBF125J20U1

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

Key No.	Description	Part Number	NTG3/FBF					
			050FBU/ 050B12U	075FBU/ 075B12U	075HFU/ 075F16U	100KFU/ 100F20U	100GFU/ 100F14U	125KJU/ 125J20U
A	Top	1011534	1	1	-	-	-	-
		1011535	-	-	1	-	-	-
		1011536	-	-	-	1	1	-
		1011537	-	-	-	-	-	1
B	Field Connect Box	1011941	1	1	1	1	1	1
C	Cover, Field Connect	1010360	1	1	1	1	1	1
D	Gasket, Collector	1093661	1	1	1	-	-	-
		1093662	-	-	-	1	1	-
		1093663	-	-	-	-	-	1
E	Collector	1011045	1	-	-	-	-	-
		1011048	-	1	1	-	-	-
		1011052	-	-	-	1	1	-
		1011055	-	-	-	-	-	1
F	Gasket, Combustion Blower	1011379	1	1	1	1	1	1
H	Door, Louvered	1010174	1	1	-	-	-	-
		1010166	-	-	1	1	1	-
		1010167	-	-	-	-	-	1
J	Door, Blower	1012484	1	1	-	-	-	-
		1012485	-	-	1	1	1	-
		1012486	-	-	-	-	-	1
K	Shield, Burner	1011335	1	1	1	-	-	-
		1011336	-	-	-	1	1	-
		1011337	-	-	-	-	-	1
M	Bracket, Igniter	1012471	1	1	1	1	1	1
O	Manifold Support Bracket	1011820	2	2	2	2	2	2
U	Control Board Bracket	1012462	1	1	1	1	1	1
V	Base	1010112	1	1	-	-	-	-
		1010113	-	-	1	1	1	-
		1010114	-	-	-	-	-	1
W	Blower Housing	1011680	1	1	-	-	-	-
		1011681	-	-	1	-	1	-
		1010481	-	-	-	1	-	1
X	Blower Cutoff	721020008	-	-	1	1	1	1
		721020013	1	1	-	-	-	-
Y	Blower Hanger	1010690	2	2	2	2	2	2
AA	Strap Capacitor	1095020	1	1	1	1	1	1
		1095022	-	-	-	-	-	-
BB	Rail, Blower Slide	57059	2	2	2	2	2	2
CC	Casing, Wrapper	1010610	1	1	-	-	-	-
		1010611	-	-	1	1	1	-
		1010612	-	-	-	-	-	1
DD	Baffle, Circulating Air	707010031	2	2	-	2	2	2
		1009880	-	-	2	-	-	-
GG	Heat Exchanger Support	1011026	1	-	-	-	-	-
		750010045	-	1	-	-	-	-
		750010046	-	-	1	-	-	1
		1010353	-	-	-	1	1	-
NN	Partition, Blower	1010810	1	1	-	-	-	-
		1010811	-	-	1	1	1	-
		1011075	-	-	-	-	-	1
RR	Sightglass, round	1011781	1	1	1	1	1	1
)	PART NOT ILLUSTRATED							
)	Fuse (5 Amp)	1083348	1	1	1	1	1	1
)	Wire Harness	1012464	1	1	1	1	1	1
)	Manual, Homeowners	441 02 2002 00	1	1	1	1	1	1
)	Manual, Installation	441 01 2606 00	1	1	1	1	1	1
)	Manual, Tech Support	441 03 2607 00	1	1	1	1	1	1