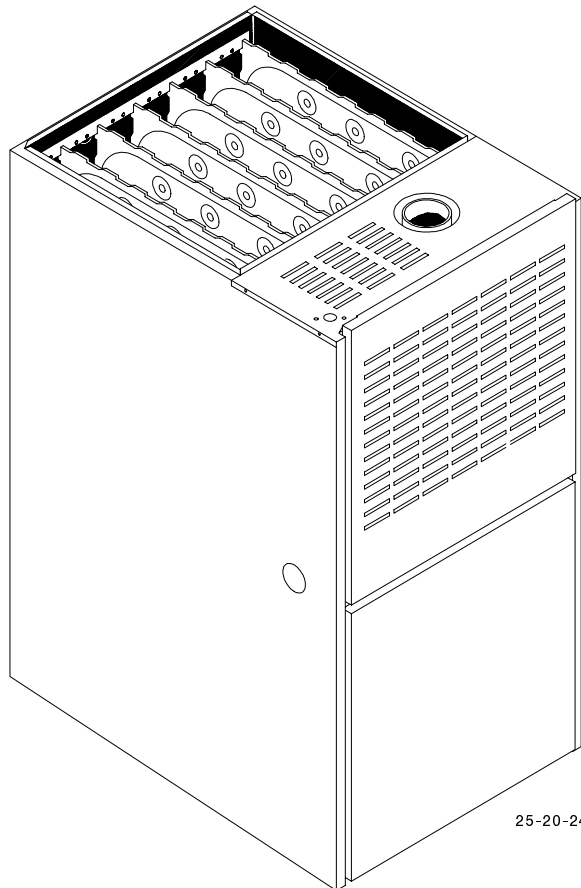


Technical Support Manual



25-20-24

Upflow Models

NTV6050FBA1
NTV6075GFA1
NTV6100KJA1
NTV6125KJA1

VNE050B12A1
VNE075F14A1
VNE100J20A1
VNE125J20A1

FAN ASSISTED COMBUSTION GAS FURNACES



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	HW SV 9540	HW SV 9540
Regulation Type	SNAP	SNAP
Manifold Press. Hi Fire (" WC)	3.5	10.0
Lo Fire (" WC)	1.7	4.9
Pilot Orifice Size	.018	.011
Ignition Type/Series	HW HSP	HW HSP
Combustion		
Flue Outlet Size (Inches)	3	3
Std. Outlet Temp (°F)	<480	<480
Limits & Controls		
Fan Control (Type)	HW ST9162A	HW ST9162A
Fan Control On	30/60	30/60
(Timed-secs) Off	60,100,140,180	60,100,140,180
Gas Conversion Kits		
Nat to LP	*1011789	
LP to Nat	*1011787	
*Must be ordered from Service Parts		

Specifications								
	NTV6050FB/ VNE050B12		NTV6075GF/ VNE075F14		NTV6100KJ/ VNE100J20		NTV6125KJ/ VNE125J20	
General								
Input (Btuh) Std/Alt. Hi Fire	50,000		75,000		100,000		125,000	
Lo Fire	35,000		52,500		70,000		87,000	
Output (Btuh) Std/Alt. Hi Fire	40,000		60,000		79,000		89,000	
Lo Fire	28,000		42,000		56,000		72,000	
Temp. Rise (°F) Hi Fire	35-65		35-65		45-75		40-70	
Lo Fire	35-65		35-65		45-75		40-70	
Electrical (Volts/Hz/FLA)	115/60/5.3		115/60/9.2		115/60/12		115/60/12	
Gas & Ignition								
Gas Type	Nat	LP	Nat	LP	Nat	LP	Nat	LP
Std. Main Orifices (No/Size)	2/#42	2/#54	3/#42	3/#54	4/#42	4/#54	5/#42	5/#54
Limits & Controls								
Thermal Sensor (°F)	300		300		300		300	
Limit Control Setting (°F)	See Limit in Parts List		See Limit in Parts List		See Limit in Parts List		See Limit in Parts List	
Auxiliary Limit (°F)	130		130		130		130	
Std. Pressure Sw. Hi Fire (Part No)	1010945		1010945		1010945		1010945	
Press (Close)	-0.95		-0.95		-0.95		-0.95	
Press (Open)	-0.80		-0.80		-0.80		-0.80	
Std. Pressure Sw. Lo Fire (Part No)	1011739		1011739		1011739		1011739	
Press (Close)	-0.53		-0.53		-0.53		-0.53	
Press (Open)	-0.35		-0.35		-0.35		-0.35	
Blower Data								
Type & Size	10-8		10-10		11-10		11-10	
Motor Amps/Rpm	4.6/1050		6.8/1050		9.8/900		9.8/900	
Motor Type/H.p.	DC/1/2		DC/1/2		DC/1		DC/1	
Filter Type	Washable		Washable		Washable		Washable	
Filter Size (")	14x25x1/2		16x25x1/2		16x25x1/2 (2)		16x25x1/2 (2)	
Min. Cool Cap. (Tons)	1.5		1.5		3		3	
Max. Cool Cap. (Tons)	3		3.5		5		5	

Circulation Air Blower Data - NTV6/VNE

Heating, Cooling & Continuous Airflow Settings

Continuous Blower (CFM) @ 0.10" Static

Switch Settings		Furnace Model		
#1	#2	50K	75K	100/125K
0*	0*	600	540	1000
0	1	730	660	1260
1	0	870	780	1500
1	1	1000	900	1725

*Factory Setting

Heating Air Temperature Adjustment (° F)*

Switch Settings			Furnace Model		
#3	#4	#5	50K	75K	100/125K
0**	0**	0**	0	0	0
0	0	1	2	3	3
0	1	0	4	7	7
0	1	1	6	12	11
1	0	0	9	14	14
1	0	1	-4	-4	-5
1	1	0	-7	-9	-8
1	1	1	-6	-13	-13

*Approximate air temperature change from factory setting @ 0.20" static on high heat (low heat speed changes with change of high heat speed on most settings)

**Factory setting

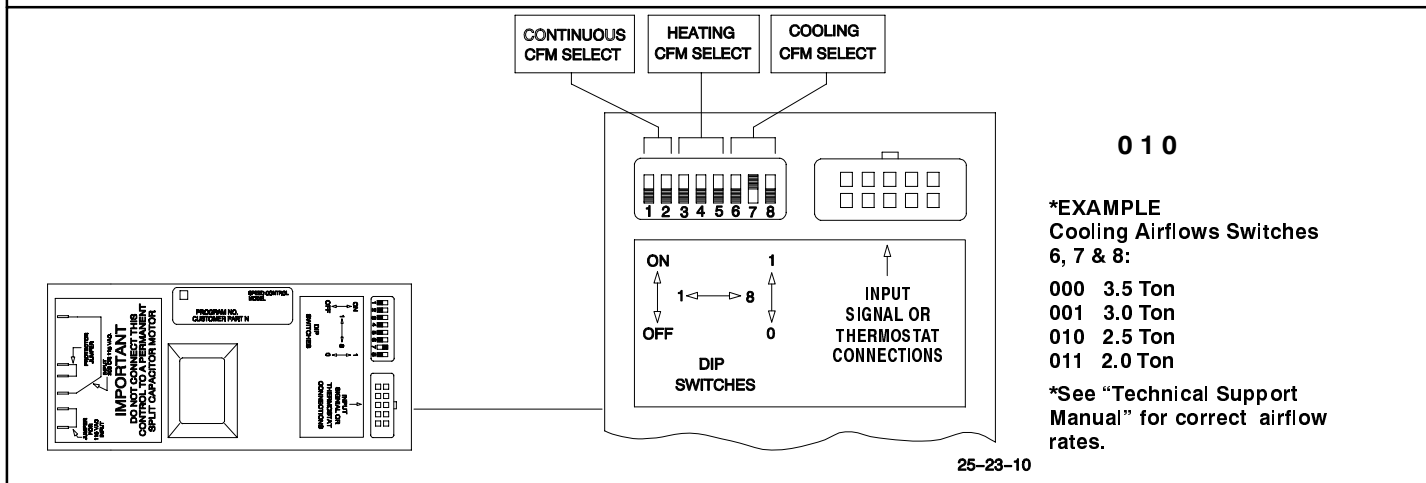
Cooling (CFM) @ 0.50" Static

(See Figure 1 - 3 for complete Airflow Range)

Switch Settings			Furnace Model		
#6	#7	#8	50K	75K	100/125K
0*	0*	0*	1200	1350	2100
0	0	1	1100	1200	2000
0	1	0	1000	1100	1800
0	1	1	900	1000	1600
1	0	0	800	900	1400
1	0	1	700	800	1200
1	1	0	650	600	1000
1	1	1	550	550	800

*Factory setting

Blower Motor Settings



Circulation Air Blower Data - NTV6/VNE

Heating, Cooling & Continuous Airflow Settings

Figure 1

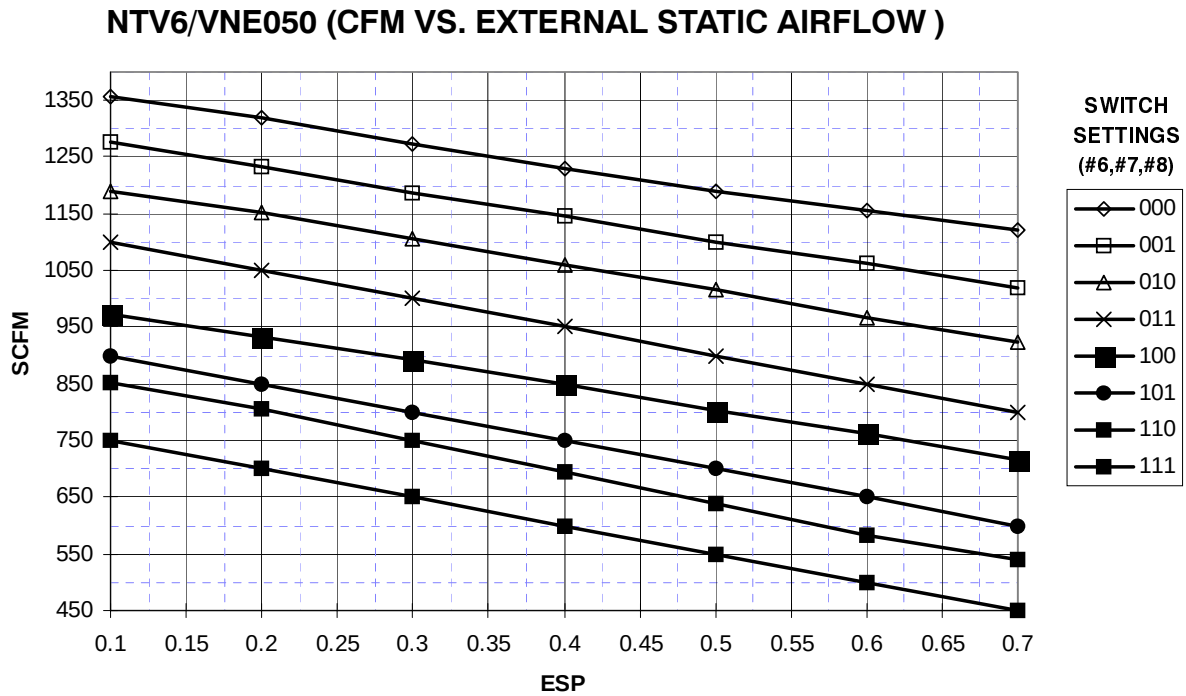
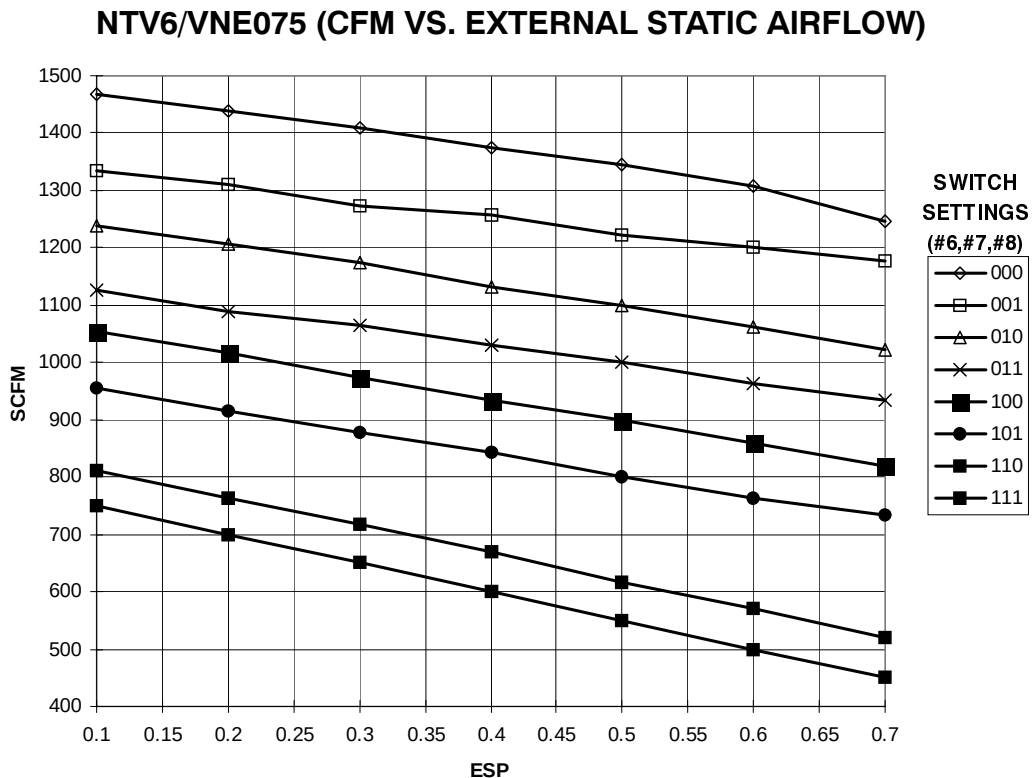


Figure 2

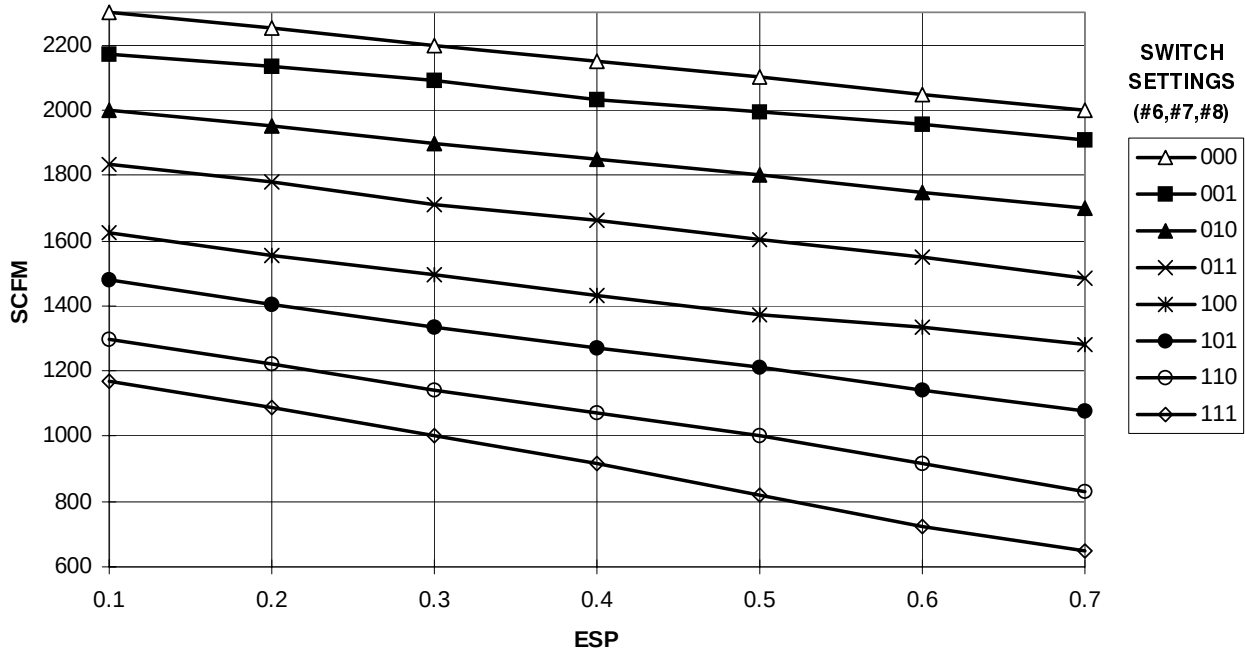


Circulation Air Blower Data - NTV6/VNE

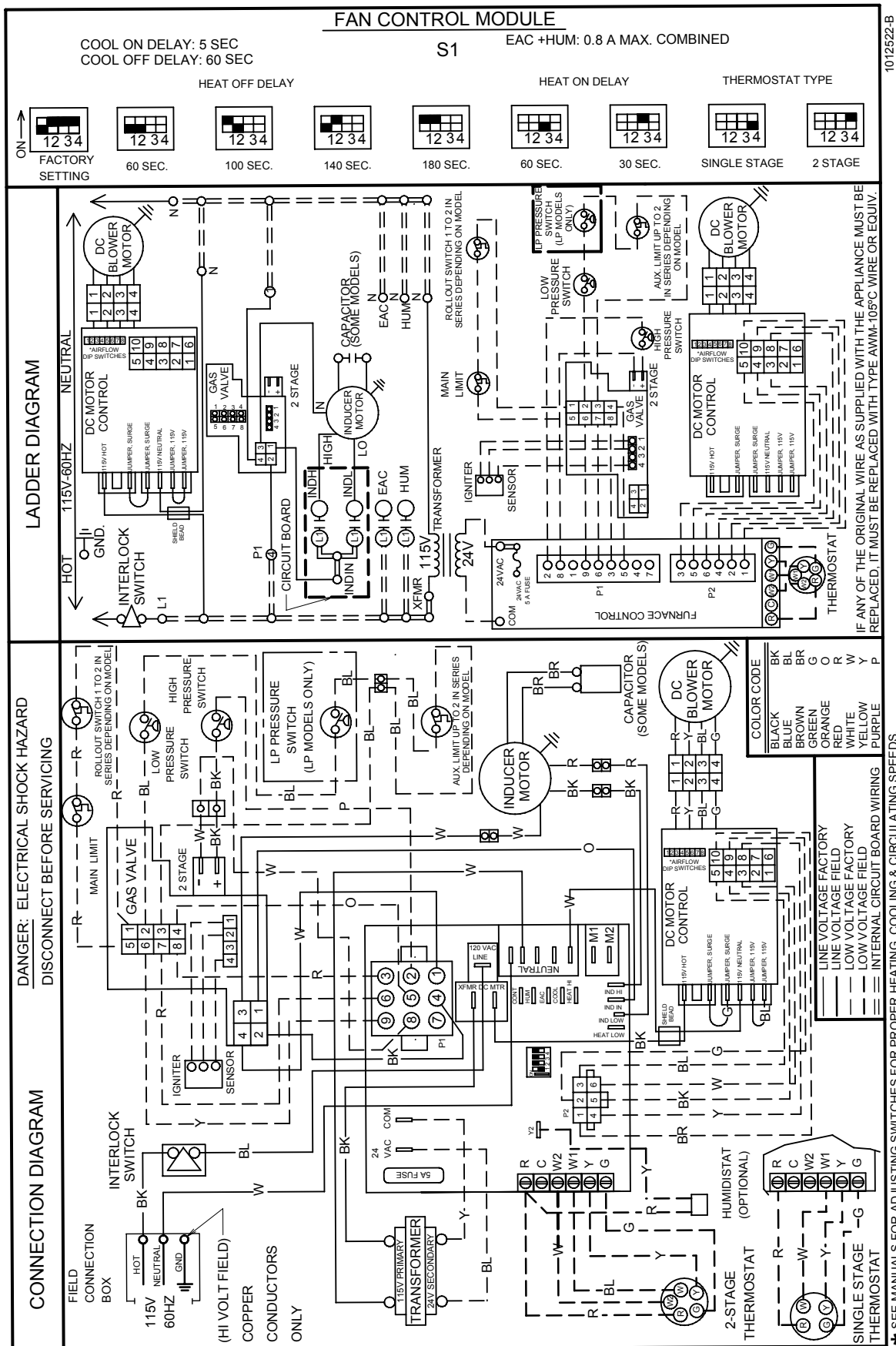
Heating, Cooling & Continuous Airflow Settings

Figure 3

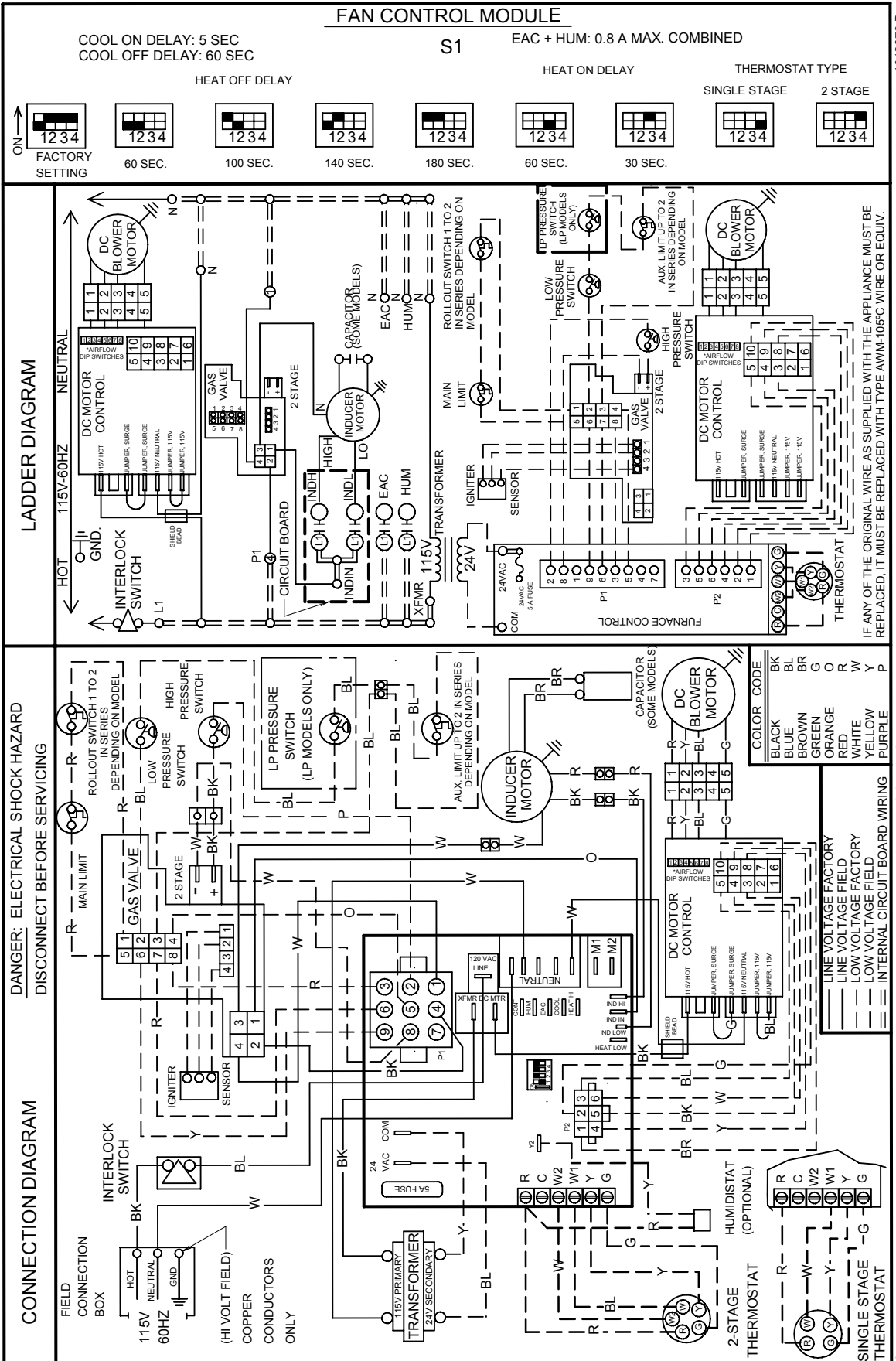
NTV6/VNE100/125 AIRFLOW (CFM VS. EXTERNAL STATIC)



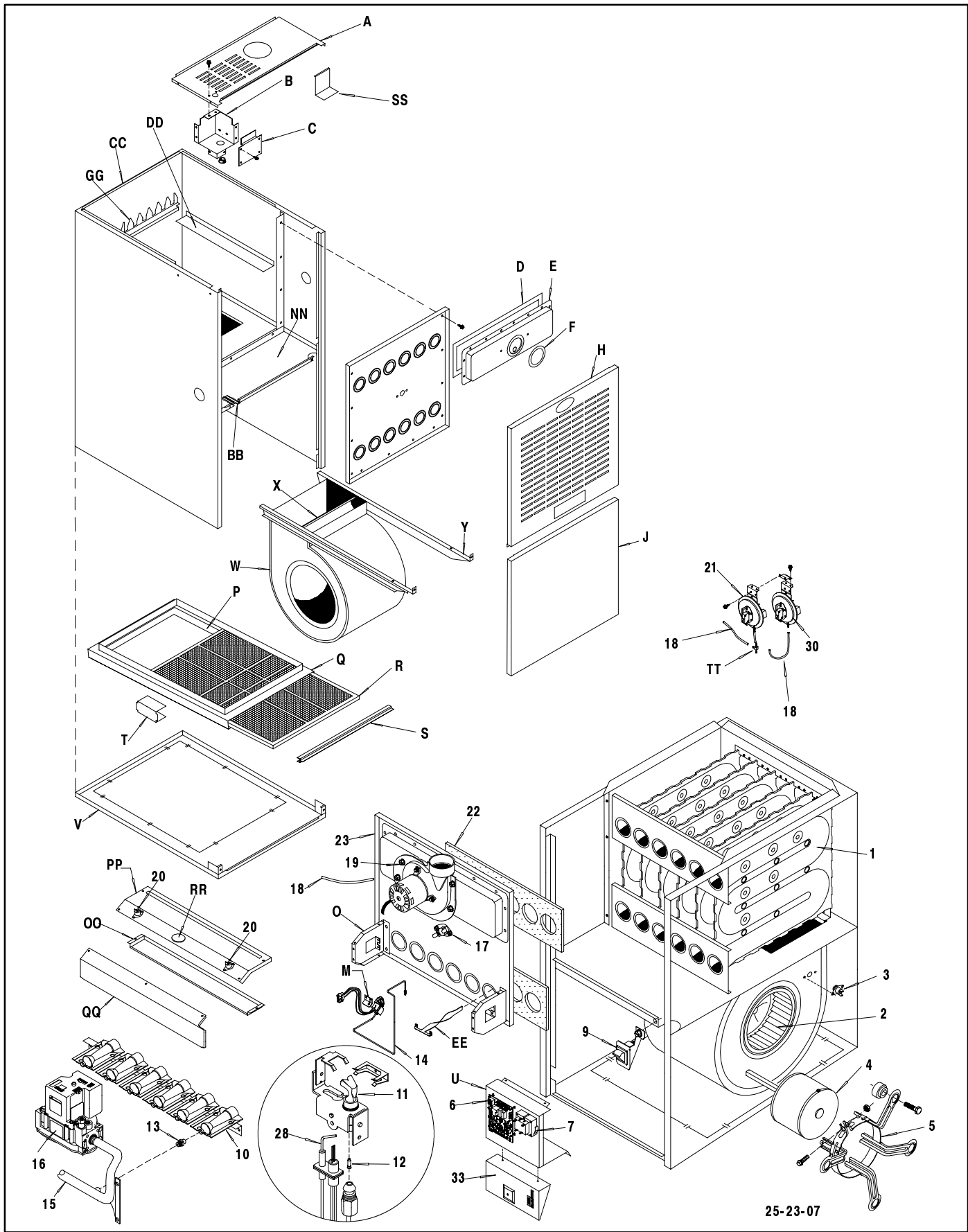
1. Wiring Diagram (1½ HP DC Blower Motor)



Wiring Diagram (1 HP DC Blower Motor)



2. NTV6/VNE



Replacement Parts - NTV6/VNE (Natural Gas)

Models - NTV6050FBA, NTV6075GFA, NTV6100KJA, NTV6125KJA:
VNE050B12A, VNE075F14A, VNE100J20A & VNE125J20A

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

Key No.	Functional Description	Part Number	NTV6/VNE			
			050FBA1/ 050B12A1	075GFA1/ 075F14A1	100KJA1/ 100J20A1	125KJA1/ 125J20A1
1	Heat Exchanger	1011544	1	-	-	-
		1011363	-	-	1	-
		1012407	-	1	-	-
		1012408	-	-	-	1
2	Blower Wheel	601210	-	1	-	-
		600587	1	-	-	-
		1011420	-	-	1	1
3	Switch, Auxiliary Limit	1000735	2	2	2	2
4	Blower Motor	1012478	1	1	-	-
		1012479	-	-	1	1
5	Motor Mount Kit	1066700	1	1	-	-
		522020024	-	-	1	1
6	Control, Fan Timer	1012084	1	1	1	1
7	Transformer, 40VA	1011626	1	1	1	1
9	Switch Door	1010886	1	1	1	1
10	Burner Assembly	1008723	1	-	-	-
		1008724	-	1	-	-
		1008725	-	-	1	-
		1008726	-	-	-	1
11	Pilot, Natural & LP	1008731	1	1	1	1
12	Pilot Orifice, NAT (.018)	503211	1	1	1	1
	Pilot Orifice, LP (.011)	1009136	1	1	1	1
13	Orifice, #42 NAT	1011351	2	3	4	5
	Orifice, #54 LP	1011376	2	3	4	5
14	Tube, Pilot	64930	1	1	1	1
15	Manifold	1011698	1	-	-	-
		1011699	-	1	-	-
		1011700	-	-	1	-
		1011701	-	-	-	1
16	Valve, Natural & LP	1012188	1	1	1	1
17	Switch, Limit 260°F	1320366	1	-	-	-
	180°F	1008417	-	-	1	-
	230°F	1320361	-	1	-	-
	190°F	1008445	-	-	-	1
18	Tubing, Silicone 24"	1149483	1	1	1	1
19	Combustion Blower Assembly	1011632	1	1	1	1
20	Rollout Switch, Limit	1005549	2	2	2	2
21	Switch, Pressure (High) (Upper)	1010945	1	1	1	1
22	Heat Exchanger Gaskets	2480904	2	-	-	-
		2480905	-	2	-	-
		2480906	-	-	2	-
		2480907	-	-	-	2
23	Heat Exchanger Front Partition	1008068	1	-	-	-
		1008071	-	-	1	-
		1012410	-	1	-	-
		1012411	-	-	-	1
28	Ignitor/Sensor with clip	1009524	1	1	1	1
30	Switch, Pressure (Low) (Lower)	1011739	1	1	1	1
33	Motor Control	1012472	1	-	-	-
		1012473	-	1	-	-
		1012475	-	-	1	1

Replacement Parts - NTV6/VNE (Natural Gas)

Models - NTV6050FBA, NTV6075GFA, NTV6100KJA, NTV6125KJA:
VNE050B12A, VNE075F14A, VNE100J20A & VNE125J20A

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

Key No.	Functional Description	Part Number	NTV6/VNE			
			050FBA1/ 050B12A1	075GFA1/ 075F14A1	100KJA1/ 100J20A1	125KJA1/ 125J20A1
A	Top	1011534	1	-	-	-
		1011535	-	1	-	-
		1011537	-	-	1	1
B	Field Connect Box	1011941	1	1	1	1
C	Cover, Field Connect	1010360	1	1	1	1
D	Gasket, Collector	1093661	1	1	-	-
		1093662	-	-	1	-
		1093663	-	-	-	1
E	Collector	1085400	1	-	-	-
		1011048	-	1	-	-
		1011672	-	-	1	-
		1011738	-	-	-	1
F	Gasket, Combustion Blower	1011379	1	1	1	1
H	Door, Louvered	1011519	1	-	-	-
		1011520	-	1	-	-
		1011521	-	-	1	1
J	Door, Blower	1010191	1	-	-	-
		1010190	-	1	-	-
		1010192	-	-	1	1
M	Bracket, Pilot	1010901	1	1	1	1
O	Manifold Support Bracket	1011450	2	2	2	2
P	Filter Rack Wrapper	741010042	1	-	-	-
		741010039	-	1	2	2
Q	Filter Rack Front	741020004	1	-	-	-
		741020001	-	1	2	2
R	Filter 14" x 25" x 1/2" 16" x 25" x 1/2"	1010364	1	-	-	-
		1010365	-	1	2	2
S	Filter Cover Plastic	2791042	1	-	-	-
		2791043	-	1	2	2
T	Clip, Filter	1008482	3	3	3	3
U	Fan Timer Bracket	1012462	1	1	1	1
V	Base	1010112	1	-	-	-
		1010113	-	1	-	-
		1010114	-	-	1	1
W	Blower Housing	1011680	1	-	-	-
		1011681	-	1	-	-
		1010481	-	-	1	1
X	Blower Cutoff	721020008	-	1	1	1
		721020013	1	-	-	-
Y	Blower Hanger	1010690	2	2	2	2
BB	Rail, Blower Slide	57059	2	2	2	2
CC	Casing, Wrapper	1010610	1	-	-	-
		1010611	-	1	-	-
		1010612	-	-	1	1
DD	Baffle, Circulating Air	707010031	2	-	2	2
		1009880	-	2	-	-
EE	Baffle, NOx	1009876	2	3	4	5
GG	Heat Exchanger Support	1011026	1	-	-	-
		750010046	-	1	-	1
		1010353	-	-	1	-
NN	Partition, Blower	1010810	1	-	-	-
		1010811	-	1	-	-
		1011075	-	-	1	1
OO	Baffle, Burner Box	1011454	1	1	-	-
		1011455	-	-	1	-
		1011456	-	-	-	1
PP	Top, Burner Box	1011768	1	1	-	-
		1011769	-	-	1	-
		1011770	-	-	-	1
QQ	Cover, Burner Box	1011469	1	1	-	-
		1011470	-	-	1	-
		1011471	-	-	-	1

Replacement Parts - NTV6/VNE (Natural Gas)

Models - NTV6050FBA, NTV6075GFA, NTV6100KJA, NTV6125KJA:
VNE050B12A, VNE075F14A, VNE100J20A & VNE125J20A

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

Key No.	Functional Description	Part Number	NTV6/VNE			
			050FBA1/ 050B12A1	075GFA1/ 075F14A1	100KJA1/ 100J20A1	125KJA1/ 125J20A1
RR	Sight Glass	1011781	1	1	1	1
SS	Bracket, Pressure Switch	1011611	1	1	1	1
TT	Pressure Tap Tee	1011750	1	1	1	1
) (	PART NOT ILLUSTRATED					
) (	Wire Harness	1011858	1	1	1	1
) (	Harness, Hi Volt Motor	1012521	1	1	1	1
	Lo Volt Motor	1012520	1	1	1	1
) (	Manual, Homeowners	441 02 2001 05	1	1	1	1
) (	Manual, Installation	441 01 2016 00	1	1	1	1
) (	Manual, Tech Support	441 03 2016 00	1	1	1	1
) (	Gas Conversion Kit (Nat. to LP.)	1011789	1	1	1	1
	(LP. to Nat.)	1011787	1	1	1	1