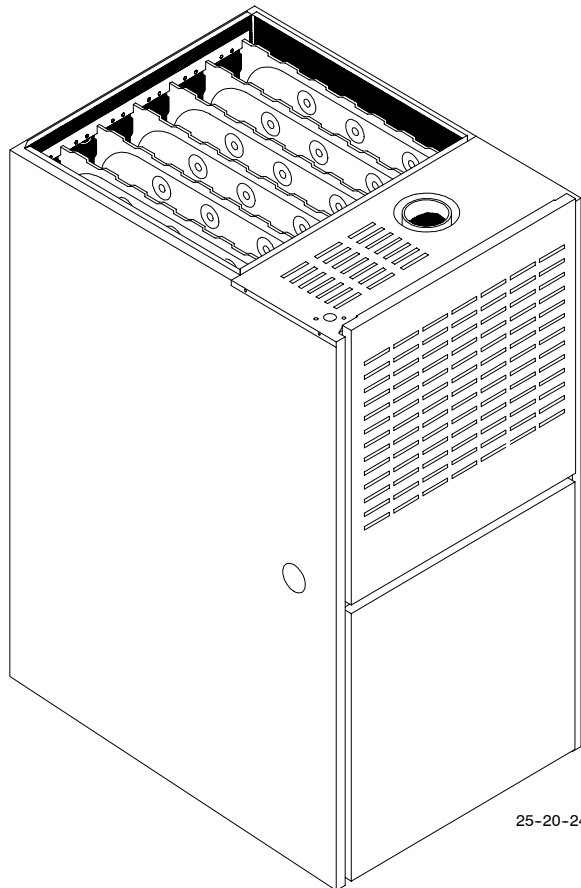


Technical Support Manual



25-20-24

Upflow Models

NTV6050FBG1
NTV6075GFG1
NTV6100KJG1
NTV6125KJG1

VNE050B12G1
VNE075F14G1
VNE100J20G1
VNE125J20G1

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

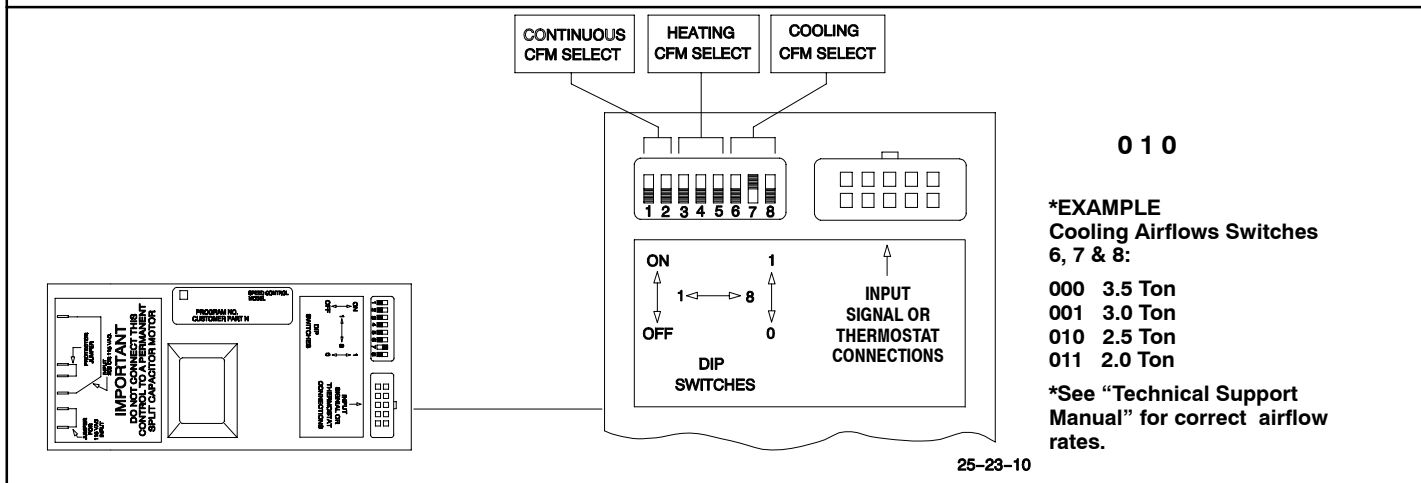
Cooling (CFM) @ 0.50" Static

(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

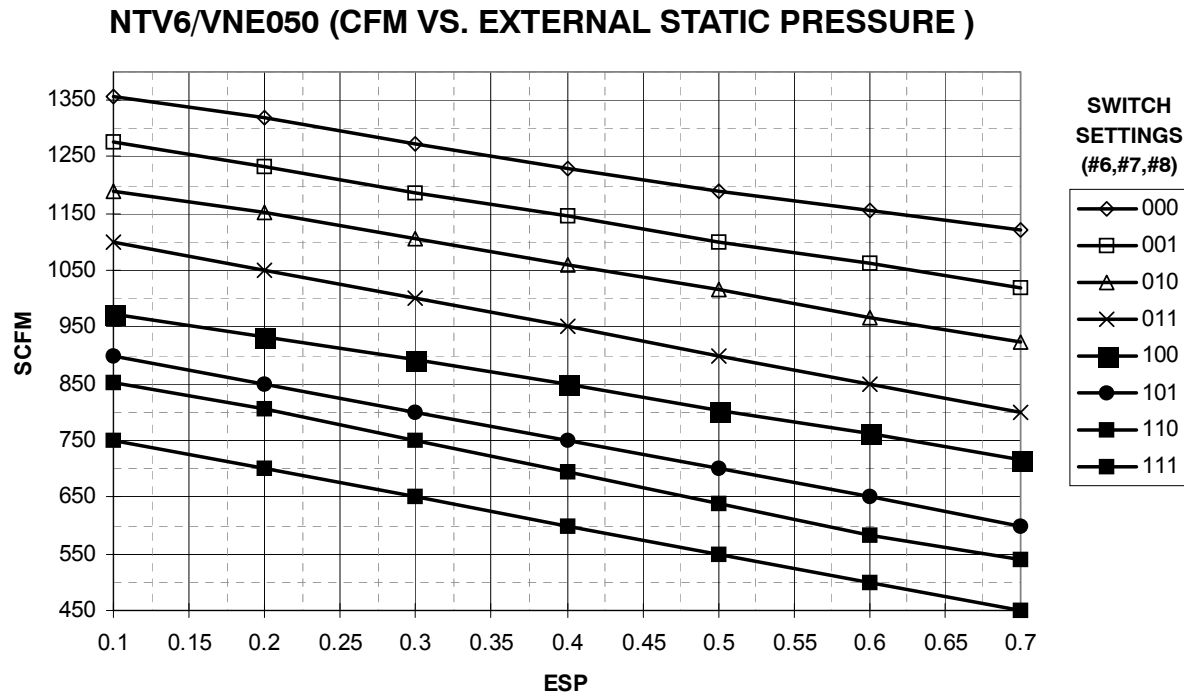
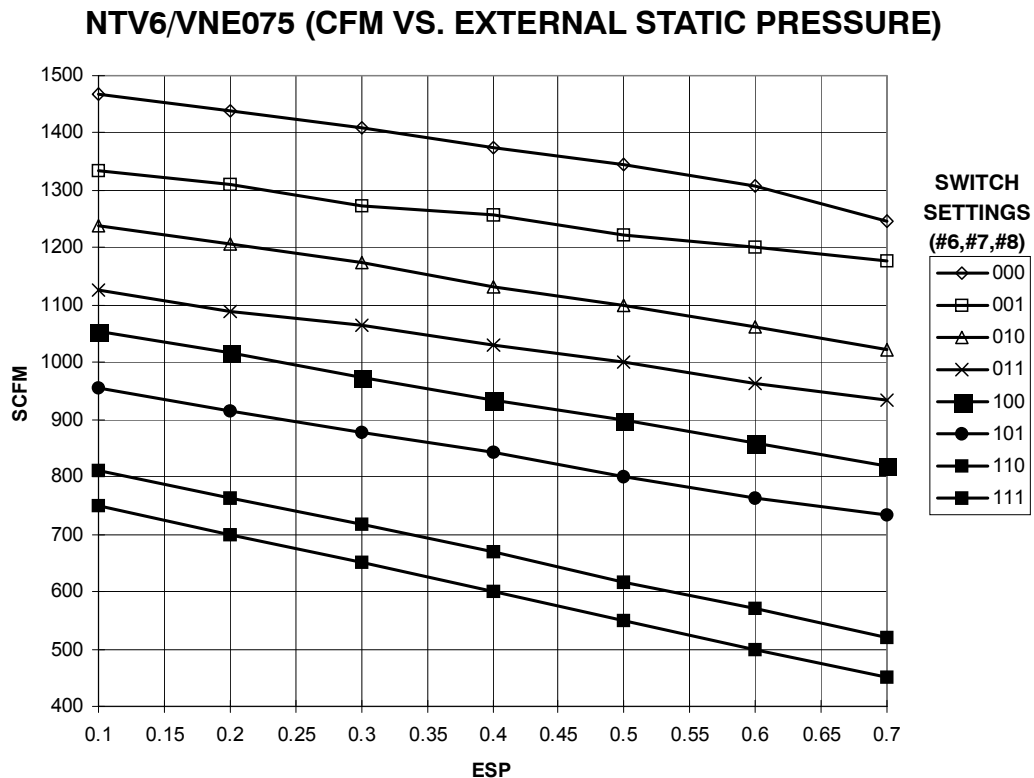


Figure 2

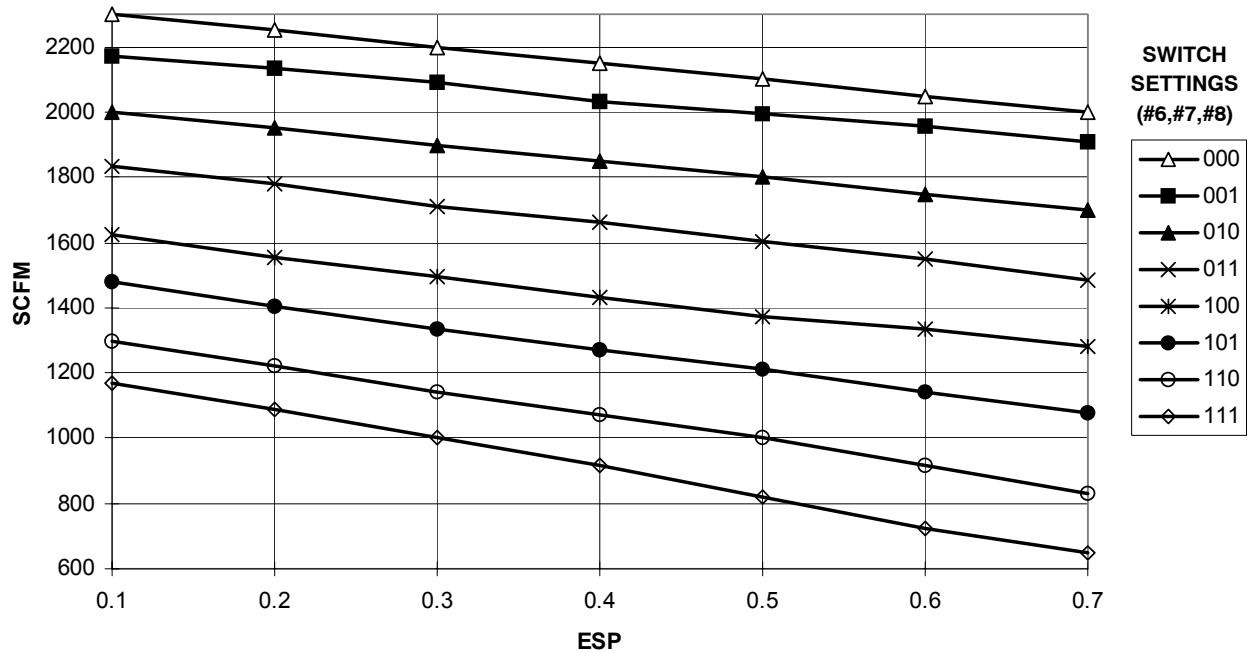


Circulation Air Blower Data - NTV6/VNE

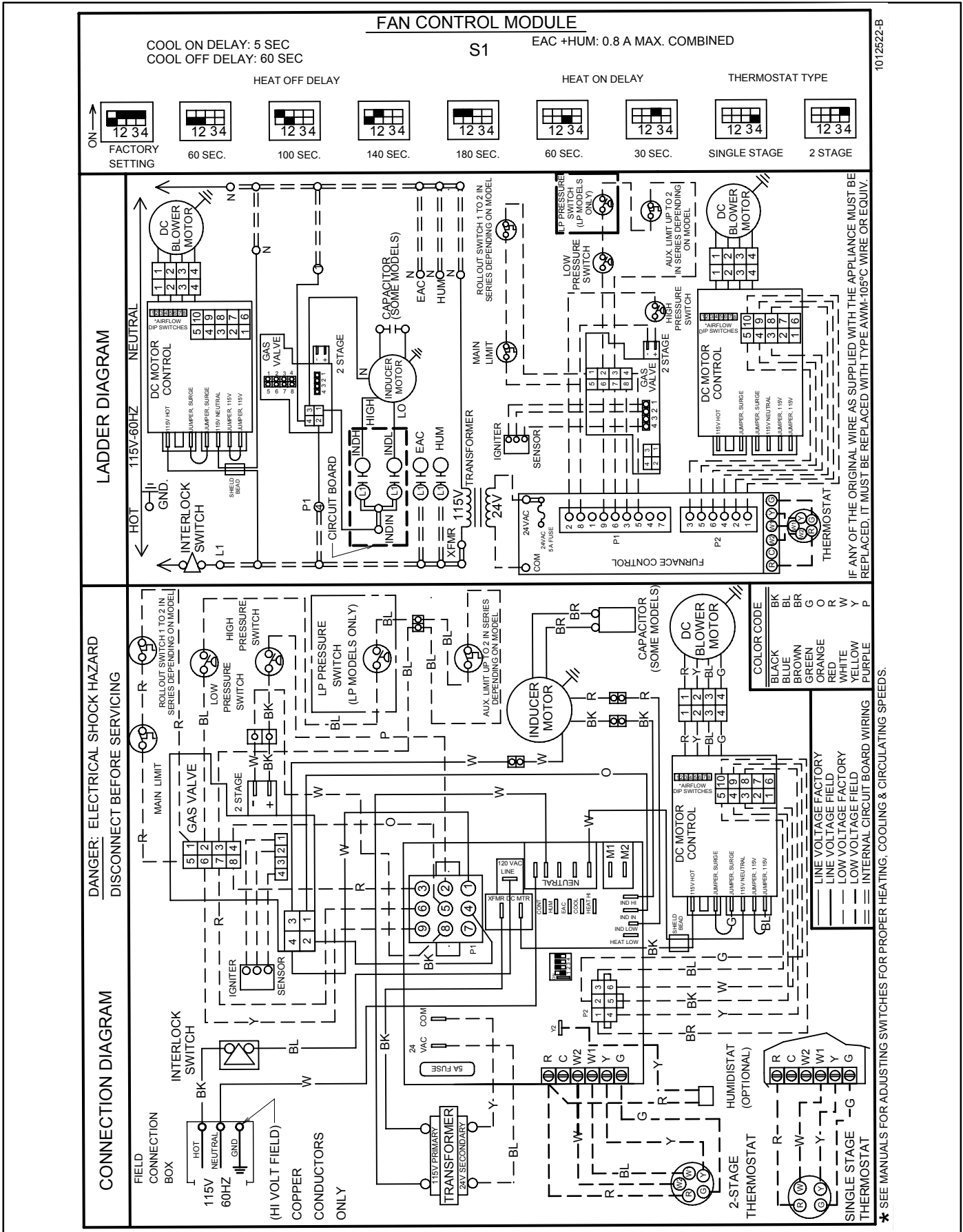
Heating, Cooling & Continuous Airflow Settings

Figure 3

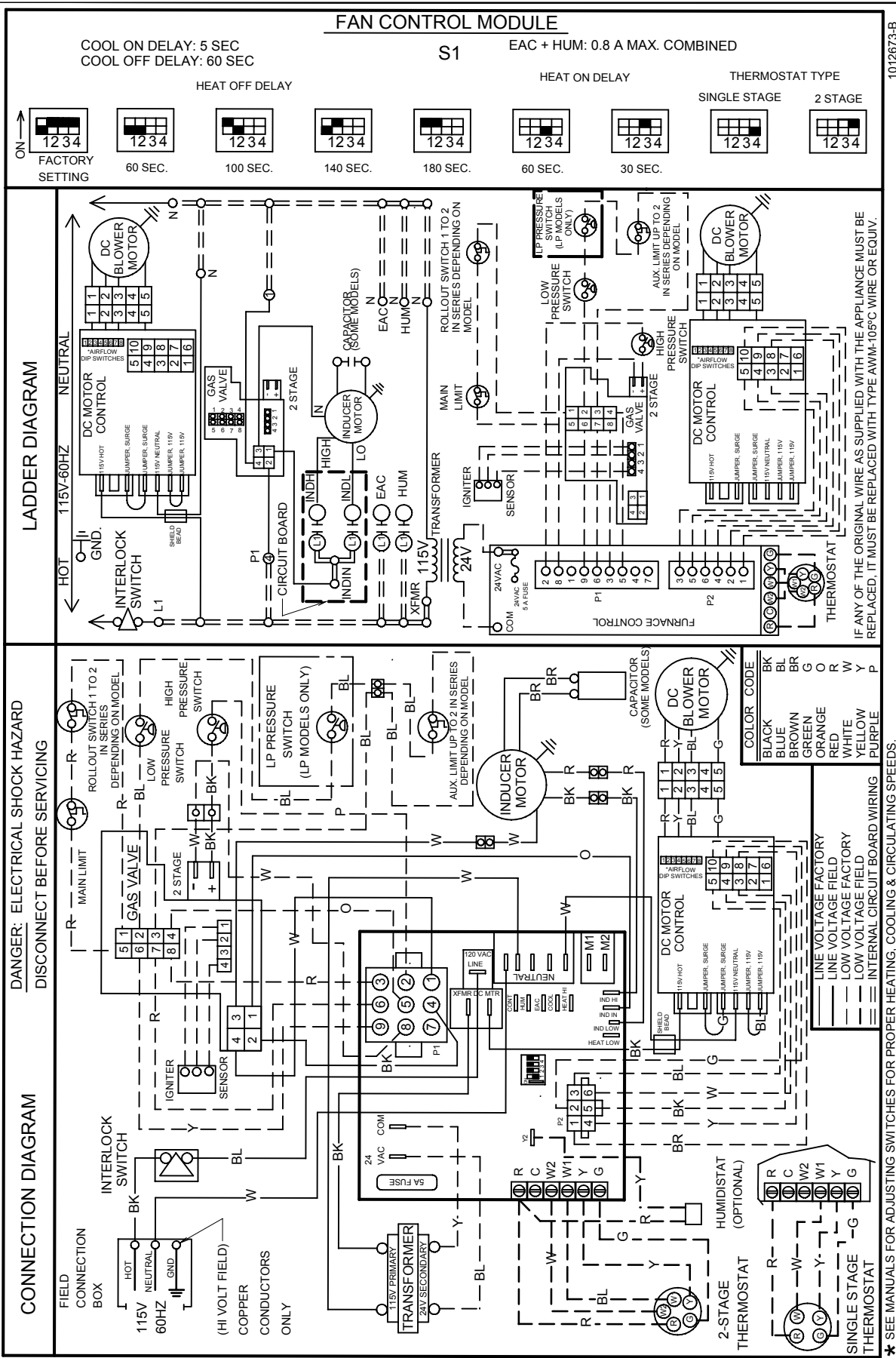
NTV6/VNE100/125 PRESSURE (CFM VS. EXTERNAL STATIC PRESSURE)



1. Wiring Diagram (1½ HP DC Blower Motor)



Wiring Diagram (1 HP DC Blower Motor)



This exploded view diagram illustrates the assembly of a washing machine. The main components are labeled with letters and numbers:

- Top Panel:** A (Top panel), B (Top panel trim), C (Top panel bracket), SS (Top panel screw).
- Front Panel:** D (Front panel trim), E (Front panel trim), F (Front panel trim screw), H (Front panel trim), J (Front panel).
- Door and Drum:** W (Door), P (Door panel), Q (Door panel trim), R (Door panel trim), S (Door panel trim), T (Door panel trim), X (Door panel trim), Y (Door panel trim).
- Internal Components:** 1 (Drum), 2 (Drum support), 3 (Drum support), 4 (Drum support), 5 (Drum support), 6 (Drum support), 7 (Drum support), 8 (Drum support), 9 (Drum support), 10 (Drum support), 11 (Drum support), 12 (Drum support), 13 (Drum support), 14 (Drum support), 15 (Drum support), 16 (Drum support), 17 (Drum support), 18 (Drum support), 19 (Drum support), 20 (Drum support), 21 (Drum support), 22 (Drum support), 23 (Drum support), 24 (Drum support), 25 (Drum support), 26 (Drum support), 27 (Drum support), 28 (Drum support), 29 (Drum support), 30 (Drum support), 31 (Drum support), 32 (Drum support), 33 (Drum support).
- Control Panel:** NN (Control panel), BB (Control panel trim), X (Control panel trim), Y (Control panel trim).
- Other Components:** PP (Control panel trim), RR (Control panel trim), OO (Control panel trim), QQ (Control panel trim), TT (Control panel trim), UU (Control panel trim), VV (Control panel trim), WW (Control panel trim), XX (Control panel trim), YY (Control panel trim), ZZ (Control panel trim).

The diagram shows the relationship between these parts, including the door, drum, and control panel, and how they are assembled into the main unit.

Replacement Parts - NTV6/VNE (Natural Gas)

Models - NTV6050FBG1, NTV6075GFG1, NTV6100KJG1, NTV6125KJG1:
VNE050B12G1, VNE075F14G1, VNE100J20G1 & VNE125J20G1

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

Key No.	Functional Description	Part Number	NTV6/VNE				Key No.	Functional Non-Description	Part Number	NTV6/VNE			
			050	075	100	125				050	075	100	125
1	Heat Exchanger	1011544	1	-	-	-	A	Top	1013295	1	-	-	-
		1011363	-	-	1	-			1013296	-	1	-	-
		1012407	-	1	-	-			1013298	-	-	1	1
		1012408	-	-	-	1	B	Field Connect Box	1011941	1	1	1	1
2	Blower Wheel	601210	-	1	-	-	C	Cover, Field Connect	1010360	1	1	1	1
		600587	1	-	-	-	D	Gasket, Collector	1093661	1	1	-	-
		1011420	-	-	1	1			1093662	-	-	1	-
3	Switch, Auxiliary Limit	1013105	2	2	2	2			1093663	-	-	-	1
4	Blower Motor	1012478	1	1	-	-	E	Collector	1085400	1	-	-	-
		1012479	-	-	1	1			1011048	-	1	-	-
5	Motor Mount Kit	1066700	1	1	-	-			1011672	-	-	1	-
		522020024	-	-	1	1			1011738	-	-	-	1
6	Control, Fan Timer	1012084	1	1	1	1	F	Gasket, Comb. Blower	1011379	1	1	1	1
7	Transformer, 40VA	1012722	1	1	1	1	H	Door, Louvered	1013331	1	-	-	-
9	Switch Door	1010886	1	1	1	1			1013332	-	1	-	-
10	Burner Assembly	1008723	1	-	-	-			1013333	-	-	1	1
		1008724	-	1	-	-	J	Door, Blower	1013303	1	-	-	-
		1008725	-	-	1	-			1013304	-	1	-	-
		1008726	-	-	-	1			1013305	-	-	1	1
11	Pilot/Igniter	1008731	1	1	1	1	M	Bracket, Pilot	1010901	1	1	1	1
12	Pilot Orifice, NAT (.018)	503211	1	1	1	1	O	Manifold Supt Bracket	1011450	2	2	2	2
13	Orifice, #42 NAT	1011351	2	3	4	5	P	Filter Rack Wrapper	741010042	1	-	-	-
14	Tube, Pilot	1011943	1	-	-	-			741010039	-	1	2	2
		1011944	-	1	1	-	Q	Filter Rack Front	741020004	1	-	-	-
		1011946	-	-	-	1			741020001	-	1	2	2
15	Manifold	1011698	1	-	-	-	R	Filter 14" x 25" x 1/2"	1010364	1	-	-	-
		1011699	-	1	-	-			1010365	-	1	2	2
		1011700	-	-	1	-	S	Filter Cover Plastic	2791042	1	-	-	-
		1011701	-	-	-	1			2791043	-	1	2	2
16	Valve, Natural & LP	1012188	1	1	1	1	T	Clip, Filter	1008482	3	3	3	3
17	Switch, Limit 260°F	1320366	1	-	-	-	U	Fan Timer Bracket	1012462	1	1	1	1
	180°F	1008417	-	-	1	-	W	Blower Housing	1013131	1	-	-	-
	230°F	1320361	-	1	-	-			1013132	-	1	-	-
	190°F	1008445	-	-	-	1			1013128	-	-	1	1
18	Tubing, Silicone	2071255	1	1	1	1	X	Blower Cutoff	721020008	-	1	1	1
19	Combustion Blower Assembly	1011632	1	1	1	1			721020013	1	-	-	-
20	Rollout Switch, Limit	1005549	2	2	2	2	Y	Blower Hanger	1010690	2	2	2	2
21	Switch, Pressure (HI)(Upper)	1010945	1	1	1	1	BB	Rail, Blower Slide	57059	2	2	2	2
22	Heat Exchanger Gaskets	2480904	2	-	-	-	EE	Baffle, NOx	1009876	2	3	4	5
		2480905	-	2	-	-	NN	Partition, Blower	1013456	1	-	-	-
		2480906	-	-	2	-			1013457	-	1	-	-
		2480907	-	-	-	2			1013461	-	-	1	1
23	Heat Exchanger Frt Partition	1008068	1	-	-	-	OO	Baffle, Burner Box	1011454	1	1	-	-
		1008071	-	-	1	-			1011455	-	-	1	-
		1012410	-	1	-	-			1011456	-	-	-	1
		1012411	-	-	-	1	PP	Top, Burner Box	1011768	1	1	-	-
28	Ignitor/Sensor with clip	1009524	1	1	1	1			1011769	-	-	1	-
30	Switch, Pressure (LO)(Lower)	1011739	1	1	1	1			1011770	-	-	-	1
33	Motor Control	1012472	1	-	-	-	QQ	Cover, Burner Box	1011469	1	1	-	-
		1012473	-	1	-	-			1011470	-	-	1	-
		1012475	-	-	1	1			1011471	-	-	-	1
							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

Replacement Parts - NTV6/VNE (Natural Gas)

Models – NTV6050FBG1, NTV6075GFG1, NTV6100KJG1, NTV6125KJG1:
VNE050B12G1, VNE075F14G1, VNE100J20G1 & VNE125J20G1

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

Key No.	Functional Description	Part Number	NTV6/VNE			
			050	075	100	125
)(	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
)(	Fuse, 5 Amp	1083348	1	1	1	1
)(	Manual, Homeowners	44102200105	1	1	1	1
)(	Manual, Installation	44101201600	1	1	1	1
)(	Manual, Tech Support	44103201700	1	1	1	1
)(	Gas Conversion Kit (Nat. to LP.)	1011789	1	1	1	1
	(LP. to Nat.)	1011787	1	1	1	1