Gas Furnace Variable Speed Blower Kit

Variable speed air delivery significantly improves overall system efficiency, indoor air quality, and sound levels. When matched with our condensing units a SEER rating of up to 16 is realized. An HSPF rating of up to 8.5 is realized on heat pumps. In addition to optimum efficiency, overall air quality is enhanced by minimizing air stratification. Reducing stratification in the space "mixes" the air from floor to ceiling creating a more uniform temperature. Filtration and humidity removal capabilities are improved as airborne particles and moisture are captured at a higher rate due to lower air velocity. Whisper quiet blower on/off sound quality completes the variable speed story. In summary, the variable speed blower kit will maximize system efficiencies, improve air quality, and reduce sound levels.

Features and Benefits

- Air conditioning and heat pump efficiencies up to 16 SEER and 8.5 HSPF.
- Easy to install, pre-wired and assembled. Slide into place and connect wires.
- Full perimeter lock seam housing construction for strength and durability.
- ECM variable speed motor technology allows for 12 selected cooling airflows and 8 heating airflows to match any application.
- Constant airflow regardless of static pressure.
- Pre-programmed delay profiles for increased efficiency and comfort.
- Extra low speed for "fan only" operation.



- Reduces air stratification (stagnant air). This results in improved air quality by optimizing humidity removal and filtration capabilities.
- Extra quiet and smooth blower on and off cycles.
- Covered by the best warranty in the business. Carries the balance of the original equipment warranty. Extended protection plans are available.
- Two kits available (one for "A" cabinet equipment and one "B/C" cabinet equipment.*
- 2-stage cooling enabled for use with two-stage A/C and heat pump models.
- * Not suitable for "B" cabinet 1200 CFM applications.

Certified combinations and ratings are listed in the current ARI directory.

SPECIFICATIONS FOR KIT NO. 904075

Nominal Blower Size	11 x 10
Maximum Motor HP	3/4
Motor Type	Programable Variable Speed
Cooling CFM Range*	720-1870
Heating Airflow Range*	720-1800
Approximate Shipping Weight	45 lbs

* Airflow is held constant regardless of external static pressure within the HP and RPM limits of the motor

SPECIFICATIONS FOR KIT NO. 904231

Nominal Blower Size	10 x 6
Maximum Motor HP	1/2
Motor Type	Programable Variable Speed
Cooling CFM Range*	720-1240
Heating Airflow Range*	550-1215
Approximate Shipping Weight	38 lbs

 Airflow is held constant regardless of external static pressure within the HP and RPM limits of the motor

IMPORTANT NOTE: When installing a 2-stage heat pump and a fossil fuel kit, the transformer MUST be upgraded to one with a 60VA rating (P/N 904077).

CF	-M			SWIT	Nominal A/C and HP				
LOW	HIGH	1	2	3	4	5	6	7	Capacity
500	720	0	0	0	1				
550	800	0	0	0	0				
610	880	0	0	1	0				
650	945	1	0	0	1				<u>2</u> 2 ∾
720	1050	1	0	0	0				리하나
800	1155	1	0	1	0				
900	1305	0	1	0	1				
1000	1450	0	1	0	0				3.5
1060	1530	1	1	0	1				
1100	1595	0	1	1	0				4 TO
1170	1700	1	1	0	0				
1290	1870	1	1	1	0				

NOTE: 0 = OFF 1 = ON

Table 1. Cooling/Heat Pump Airflow Settings -"B" and "C" Cabinet Furnace (Kit No. 904075)

		Nominal Air-Flow									
		720	900	1056	1200	1350	1500	1656	1800		
sei	7	-	0	-	0	-	0	-	0		
Switches	9	0	0	0	0	-	1	-	-		
Š	5	0	0	-	-	0	0	-	-		
	72,000		59	51	44						
%	90,000			63	55	49	44				
80+%	96,000			67	59	53	47				
~	108,000				67	59	53	48			
	120,000					66	59	54	49		
	126,000					69	62	56	51		
	144,000						71	64	59		
%	80,000			67	59	52	47				
92+%	100,000				73	65	59	53	49		
0	120,000						71	64	59		
Temperature Rise °F (Recommended settings are Bold)											

NOTE: 0 = OFF 1 = ON

Table 2. Heating Airflow Settings for "B" and "C" Cabinet Furnaces (Kit No. 904075)

NORDYNE



The heart of the variable speed blower kit for NOR-DYNE gas furnaces is the ECM motor. "ECM" stands for electronically commutated motor. The ECM consists of a brushless DC type motor with a microcomputerbased variable speed drive located in the end bell. This drive continuously monitors RPM and torque output of the motor. This information, along with a set of blower constants developed in NORDYNE's laboratory, is fed into pre-programmed algorithms in the microprocessor to determine the correct motor output required to maintain constant airflow regardless of external static pressure.

The microprocessor also stores delay profiles developed by NORDYNE to optimize the efficiency and performance of NORDYNE split system air conditioners and heat pumps. More than just on and off delays, the variable speed blower "steps" through intermediate airflow levels during the pre-programmed on and off profiles. The result is smoother, more efficient operation. The microprocessor also controls the rate of change of the motor's output to create quiet, gradual starts and stops. This kind of control is not possible with conventional motor technology.

CI	FM			SWIT	Nominal A/C and HP				
LOW	HIGH	1	2	3	4	5	6	7	Capacity
350	510	0	0	0	1				
390	565	0	0	0	0				ZO
430	625	0	0	1	0				
465	675	1	0	0	1				
520	750	1	0	0	0				
570	825	1	0	1	0				
600	865	0	1	0	1				221
660	960	0	1	0	0				5.5
700	1015	1	1	0	1				
730	1055	0	1	1	0				
775	1125	1	1	0	0				E E
855	1240	1	1	1	0				
OTE	0 0FF		0.11						

NOTE: 0 = OFF 1 = ON

Table 3. Cooling/Heat Pump Airflow Settings -"A" Cabinet Furnaces (Kit No. 904231)

		Nominal Air-Flow									
		550	675	790	860	930	1040	1125	1215		
se	7	-	0	-	0	-	0	-	0		
Switches	9	0	0	0	0	-	-	-	-		
Š	5	0	0	-	+	0	0	-	-		
	45,000	61	50	42	40	36	32				
80+%	54,000		60	51	47	43	38	35			
8	60,000		66	56	52	48	43	40	36		
	72,000		79	68	62	64	51	48	44		
92+%	40,000	62	51	43	41	37					
92.	60,000			65	59	55	49	45	42		
Temperature Rise °F (Recommended settings are Bold)								d)			

NOTE: 0 = OFF 1 = ON

Table 4. Heating Airflow Settings for "A" Cabinet Furnaces (Kit No. 904231)

450A-0606 (Replaces 450A-0105)

Before purchasing this appliance, read important energy cost and efficiency information available from your retailer. Specifications and illustrations subject to change without notice and without incurring obligations. Printed in U.S.A. (06/06)

O'Fallon, MO