

Technical Support Manual

Four Position Furnace

Models

Dual Certified

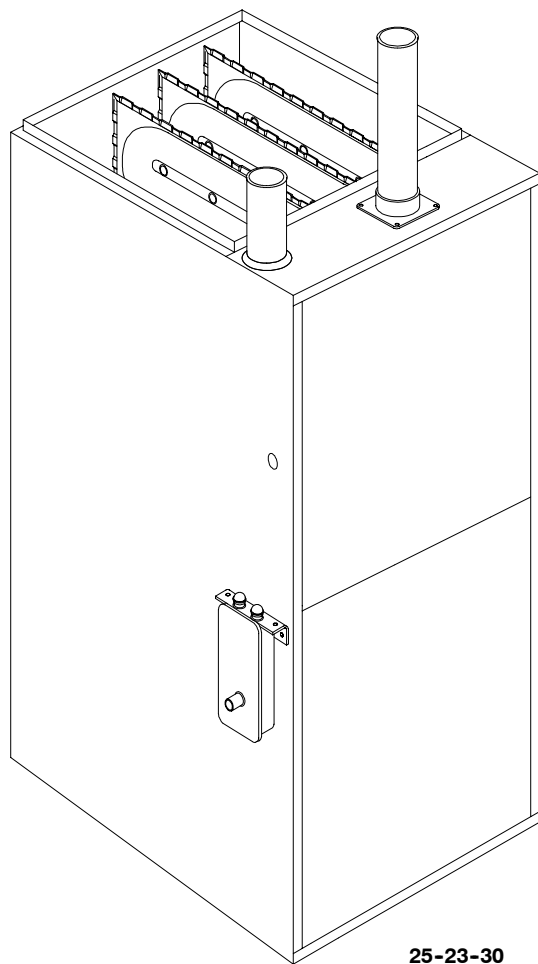
*9MPT050F12A

*9MPT075F14A

*9MPT100J16A

*9MPT125L20A

* Denotes Brand



25-23-30

Manufactured by:

International Comfort Products Corporation (USA)

Lewisburg, TN USA 37091

Save This Manual For Future Reference

MODEL NUMBER IDENTIFICATION GUIDE

Brand Identifier T = Tempstar C = Comfortmaker/Keeprite H = Heil/Arcoaire N = Non-Brand Specific (Generic)	Efficiency Identifier 8 = Non-Condensing, 80+% Gas Furnace 9 = Condensing, 90+% Gas Furnace	Installation Configuration UP = Upflow DN = Downflow UH = Upflow/Horizontal HZ = Horizontal DH = Downflow/Horizontal MP = Multiposition, Up/Down/Horizontal	Major Design Feature 1 = One (Single) Pipe N = Single Stage 2 = Two Pipe P = PVC Vent D = 1 or 2 Pipe T = Two Stage L = Low NOx V = Variable Speed	0 7 5	F	1 4	A	# Engineering Rev. Denotes minor changes
								Marketing Digit Denotes minor change
								Cooling Airflow 08 = 800 CFM 12 = 1200 CFM 14 = 1400 CFM 16 = 1600 CFM 20 = 2000 CFM
								Cabinet Width B = 15.5" Wide F = 19.1" Wide J = 22.8" Wide L = 24.5" Wide
								Input (Nominal MBTUH)

* Denotes brand (T, H or C)

Manufacturers Number (Mfr No -See Rating Plate) ALL Models

Specifications		
General		
Gas Type	Nat	LP
Transformer Size (VA)	40	
T'stat Heat Anticipator	.10	
Gas & Ignition		
Gas Valve	HW SV 9541	HW SV 9541
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	
Fan Controls		
Fan Control (Type)	HW ST9162A	
Fan Control		

Specifications									
		*9MPT050F12A		*9MPT075F14A		*9MPT100J16A		*9MPT125L20A	
General									
Input (Btuh) Std/Alt.	Hi Fire	50,000		75,000		100,000		125,000	
	Lo Fire	35,000		53,000		70,000		87,500	
Output (Btuh) Std/Alt.	Hi Fire	46,000		69,000		92,000		115,000	
	Lo Fire	32,200		48,800		64,400		80,500	
Temp. Rise (° F)	Hi Fire	35-65		40-70		40-70		40-70	
	Lo Fire	25-55		30-60		30-60		30-60	
Electrical (Volts/Hz/FLA)		115/60/9.8		115/60/9.0		115/60/9.0		115/60/11.2	
Gas & Ignition									
Gas Type		Nat.	L.P.	Nat.	L.P.	Nat.	L.P.	Nat.	L.P.
Std. Main Orifices (No/Size)		2/42	2/54	3/42	3/54	4/42	4/54	5/42	5/54
Combustion									
Flue Outlet Size (Inches)		2		2		3		3	
Std. Outlet Temp (° F)		<140		<140		<140		<140	
@ Blower / @ Transition Box (Hi Fire)									
Std. Pressures (" of WC)									
5' No Elbows		-1.80 / -2.60		-1.80 / -2.60		-1.80 / -2.60		-1.80 / -2.60	
40' +5-90° DWV Elbows		-1.30 / -2.30		-1.30 / -2.30		-1.70 / -2.50		-1.70 / -2.50	
@ Blower / @ Transition Box (Lo Fire)									
Std. Pressures (" of WC)									
5' No Elbows		-1.20 / -1.90		-1.20 / -1.90		-1.20 / -1.90		-1.30 / -2.30	
40' +5-90° DWV Elbows		-1.00 / -1.80		-1.00 / -1.80		-1.00 / -1.80		-1.20 / -2.20	
Limits & Controls									
Rollout Switch (°F)		300		300		300		300	
Limit Control Setting (°F)		260		210		240		180	
Std. Pressure Sw. (Part No)		1013515		1013515		1013515		1013166	
Blower Switch Pressure (Close)		0.95		0.95		0.95		1.30	
Blower Switch Pressure (Open)		0.80		0.80		0.80		1.10	
Transition Switch Pressure (Close)		1.70		1.70		1.70		1.80	
Transition Switch Pressure (Open)		1.50		1.50		1.50		1.60	
High Altitude Pressure Sw. (Part No)		1013165		1013165		1013165		1013157	
Blower Switch Pressure (Close)		0.70		0.70		0.70		0.85	
Blower Switch Pressure (Open)		0.55		0.55		0.55		0.70	
Transition Switch Pressure (Close)		1.40		1.40		1.40		1.70	
Transition Switch Pressure (Open)		1.20		1.20		1.20		1.50	
Blower Data									
Type & Size		11-8		11-10		11-10		11-10	
Motor Amps/Rpm		10/1050		10/1050		10/1050		13/900	
Motor Type/H.p.		PSC ¹ / ₂		PSC ¹ / ₂		PSC ¹ / ₂		PSC ³ / ₄	
Cap. Mfd/Volts		10/370		10/370		10/370		40/370	
Filter Type		16x25x1		16x25x1		16x25x1		16x25x1 (2)	
Cool Cap. (Tons) @ .5" W.C. L, ML, MHi & Hi		1 ¹ / ₂ , 2, 2 ¹ / ₂ , 3		1 ¹ / ₂ , 2, 2 ¹ / ₂ , 3.5		2 ¹ / ₂ , 3, 3 ¹ / ₂ , 4		3 ¹ / ₂ , 4, 4 ¹ / ₂ , 5	

CIRCULATION AIR BLOWER DATA

For 050 Models 3 Ton Units

External Static Pressure Inches of W.C.	Speed Tap	Low	Med L	Med H	Hi
	0.1	826	1083	1301	1408
	0.2	804	1050	1242	1347
	0.3	770	1028	1195	1295
	0.4	735	985	1153	1237
	0.5	698	952	1093	1183
	0.6	657	909	1040	1118
	0.7	---	863	935	1053
	0.8	----	812	865	976
	0.9	---	---	802	887
	1.0	---	---	720	787

For 075 Models 3.5 Ton Units

External Static Pressure Inches of W.C.	Speed Tap	Low	Med L	Med H	Hi
	0.1	695	1025	1455	1724
	0.2	674	1001	1410	1662
	0.3	653	951	1366	1601
	0.4	631	921	1309	1530
	0.5	609	891	1252	1460
	0.6	569	845	1187	1380
	0.7	529	799	1122	1300
	0.8	490	730	1030	1190
	0.9	---	680	950	1080
	1.0	---	---	831	969

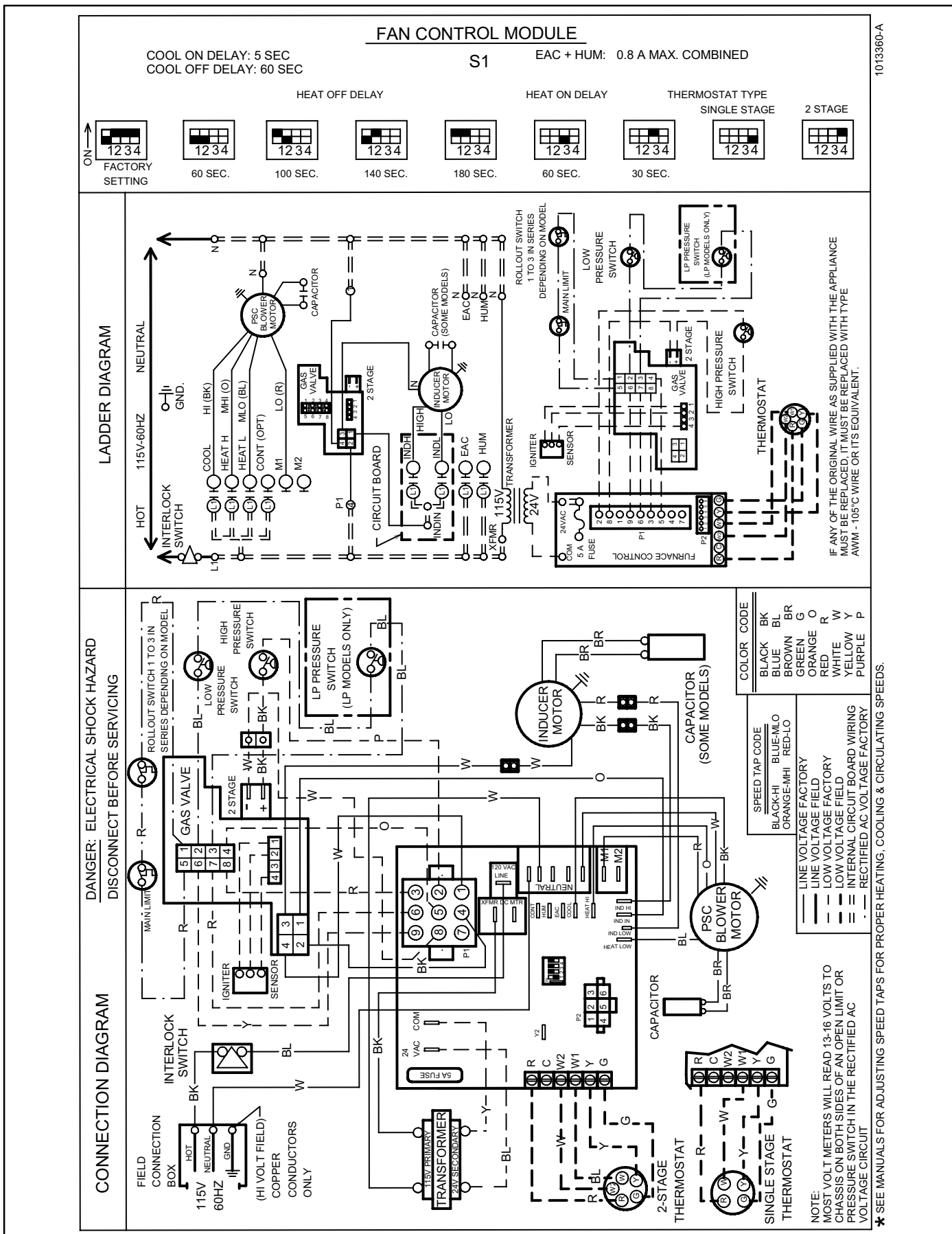
For 100 Models 4 Ton Units

External Static Pressure Inches of W.C.	Speed Tap	Low	Med L	Med H	Hi
	0.1	823	1109	1527	1850
	0.2	795	1087	1482	1791
	0.3	747	1056	1426	1720
	0.4	677	1016	1382	1648
	0.5	617	970	1317	1575
	0.6	544	854	1245	1485
	0.7	---	763	1154	1401
	0.8	---	652	1043	1284
	0.9	---	---	905	1161
	1.0	---	---	737	1028

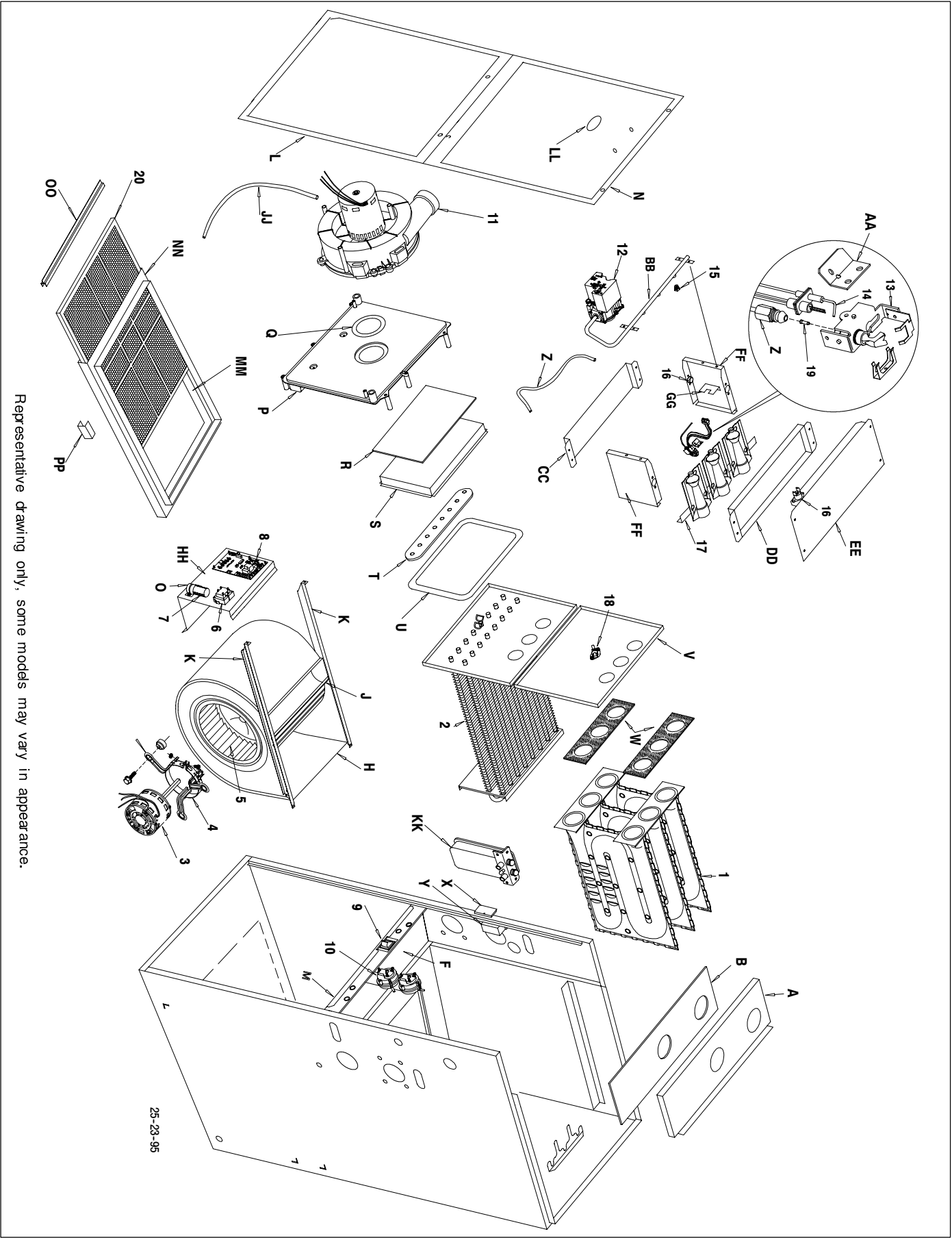
For 125 Models 5 Ton Units

External Static Pressure Inches of W.C.	Speed Tap	Low	Med L	Med H	Hi
	0.1	1720	1910	2127	2315
	0.2	1686	1881	2087	2268
	0.3	1644	1833	2024	2201
	0.4	1600	1777	1961	2131
	0.5	1533	1720	1891	2029
	0.6	1494	1647	1804	1948
	0.7	1413	1571	1708	1820
	0.8	1306	1470	1604	1730
	0.9	----	1349	1484	1614
	1.0	----	----	1328	1430

1. Wiring Diagram



2. (*9MPT)



Replacement Parts - *9MPT

Models - *9MPT050F12A2, *9MPT075F14A2, *9MPT100J16A2 & *9MPT125L20A2 (Natural Gas)

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

Key No.	Description Functional	Part Number	*9MPT			
			050 F12	075 F14	100 J16	125 L20
1	Heat Exchanger, Primary	1012850	1	-	-	-
		1012854	-	1	-	-
		1012858	-	-	1	-
		1012862	-	-	-	1
2	Heat Exchanger, Secondary	1013762	1	-	-	-
		1013763	-	1	-	-
		1013765	-	-	1	-
		1013767	-	-	-	1
3	Motor, Blower	1009052	1	1	1	-
		1011906	-	-	-	1
4	Mount, Motor kit	1013379	1	-	-	-
		522020024	-	1	1	1
5	Wheel, Blower	1013011	1	-	-	-
		1011420	-	1	1	1
6	Transformer	1012722	1	1	1	1
7	Capacitor, 10Mfd., 370V 40Mfd., 370V	1094956	1	1	1	-
		1012176	-	-	-	1
8	Control, Fan Timer	1012084	1	1	1	1
9	Switch, Interlock	1012351	1	1	1	1
10	Switch, Pressure	1013166	-	-	-	1
		1013515	1	1	1	-
11	Blower, Exhaust	1013357	1	1	1	-
		1013376	-	-	-	1
12	Valve, Gas HSP Nat. 2 Stage	1013351	1	1	1	1
13	Burner, Pilot HSP	1008731	1	1	1	1
14	Igniter/Sensor HSP	1009524	1	1	1	1
15	Orifice, Burner #42 Nat.	1011351	2	3	4	5
16	Switch, Limit (Rollout)	1013102	2	2	2	2
17	Burner Assembly	1008723	1	-	-	-
		1008724	-	1	-	-
		1008725	-	--	1	-
		1008726	-	--	-	1
18	Switch, Limit (Main)	1320366	1	-	-	-
		34335002	-	-	1	-
		1008445	-	-	-	1
		34335001	-	1	-	-
19	Orifice, Pilot .018	503211	1	1	1	1
20	Filter, HH 16X25X $\frac{1}{2}$ "	1010365	1	1	2	2

Key No.	Description Non-Functional	Part Number	*9MPT			
			050 F12	075 F14	100 J16	125 L20
A	Panel, Top	1012342	1	1	-	-
		1012343	-	-	1	-
		1012344	-	-	-	1
B	Gasket, Top Panel	1012603	1	1	-	-
		1012604	-	-	1	-
		1012605	-	-	-	1
F	Partition, Blower	1013164	1	-	-	-
		1012877	-	1	-	-
		1013162	-	-	1	-
		1013163	-	-	-	1
H	Housing, Blower	1012972	1	-	-	-
		1012888	-	1	1	1
J	Panel, Blower Cutoff	721020013	1	-	-	-
		721020008	-	1	1	1
K	Hanger, Blower	1012328	2	2	2	2
L	Door, Blower (Comfortmaker only) (Comfortmaker only) (Comfortmaker only) (Heil only) (Heil only) (Heil only) (Tempstar only) (Tempstar only) (Tempstar only)	1013141	1	1	-	-
		1013142	-	-	1	-
		1013143	-	-	-	1
		1013138	1	1	-	-
		1013139	-	-	1	-
		1013140	-	-	-	1
		1013394	1	1	-	-
		1013395	-	-	1	-
M	Bracket Asy., Door Filler	1013396	-	-	-	1
		1013730	1	-	-	-
		1013727	-	1	-	-
		1013728	-	-	1	-
N	Door, Front (Comfortmaker only) (Comfortmaker only) (Comfortmaker only) (Heil only) (Heil only) (Heil only) (Tempstar only) (Tempstar only) (Tempstar only)	1013729	-	-	-	1
		1013148	1	1	-	-
		1013149	-	-	1	-
		1013150	-	-	-	1
		1013145	1	1	-	-
		1013146	-	-	1	-
		1013147	-	-	-	1
		1013397	1	1	-	-
O	Clamp, Capacitor	1013398	-	-	1	-
		1013399	-	-	-	1
		1095020	1	1	1	-
P	Transition Assembly	1095022	-	-	-	1
		1012281	1	1	-	-
		1012282	-	-	1	-
Q	Gasket, Blower	1012283	-	-	-	1
		1012588	1	1	1	-
		1013415	-	-	-	1
R	Board, Insulating	1012418	1	1	-	-
		1012419	-	-	1	-
		1012420	-	-	-	1
S	Box, Collector	1012244	1	1	-	-
		1012245	-	-	1	-
		1012246	-	-	-	1
T	Gasket, Transition	1013263	1	-	-	-
		1013080	-	1	-	-
		1013083	-	-	1	-
		1013084	-	-	-	1
U	Gasket, Collector Box	1012594	1	1	-	-
		1012595	-	-	1	-
		1012596	-	-	-	1
V	Partition, Front Heat Exchanger	1012650	1	-	-	-
		1012648	-	1	-	-
		1012651	-	-	1	-
		1012653	-	-	-	1

Replacement Parts - *9MPT

Models - *9MPT050F12A2, *9MPT075F12A2, *9MPT100J16A2 & *9MPT125L20A2 (Natural Gas)

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

Key No.	Description Functional	Part Number	*9MPT			
			050 F12	075 F14	100 J16	125 L20
W	Gasket, Attachment Plate	1012542	2	-	-	-
		1012543	-	2	-	-
		1012544	-	-	2	-
		1012545	-	-	-	2
X	Cover, Junction Box	1012350	1	1	1	1
Y	Box, Junction	1012349	1	1	1	1
Z	Tube, Pilot	1012832	1	-	1	-
		1013189	-	1	-	-
		1013077	-	-	-	1
AA	Bracket, Pilot	1010901	1	1	1	1
BB	Manifold	1012970	1	-	-	-
		1012971	-	1	-	-
		1012278	-	-	1	-
		1012279	-	-	-	1
CC	Bottom, Burner Box	1012334	1	1	-	-
		1012335	-	-	1	-
		1012336	-	-	-	1
DD	Baffle, Burner Box	1012338	1	1	-	-
		1012339	-	-	1	-
		1012340	-	-	-	1
EE	Top, Burner Box	1013702	1	1	-	-
		1013703	-	-	1	-
		1013704	-	-	-	1
FF	Bracket, Manifold Support	1012377	2	2	2	2
GG	Bracket, Burner Box Side	1012532	2	2	2	2
HH	Bracket, Control Mounting	1012321	1	1	1	1
JJ	Tube, Sensor	1009238	1	1	1	1
KK	Trap, Drain Assembly	1012322	1	1	1	1
LL	Sightglass	1013235	1	1	1	1
	(Tempstar only)	1013236	1	1	1	1
MM	Wrapper, Filter Rack	741010039	1	1	2	2
NN	Front, Filter Rack	741020001	1	1	2	2
OO	Cover, Filter	2791043	1	1	2	2
PP	Clip, Filter	1008482	3	3	3	3
) (	PART NOT ILLUSTRATED					
) (	Door Screws	1013349	4	4	4	4
) (	Door Screw Retainers	1013725	4	4	4	4
) (	Coupling, Air Intake	1012284	1	1	1	1
) (	Gasket, Air Intake	1012583	1	1	1	1
) (	Gasket, Trap	1012610	1	1	1	1
) (	Elbow, Vent Asy 90+	1013495	1	1	1	1
	Includes- Drain, Vent	1013796	1	1	1	1
	Elbow, 90° Vent	1012617	1	1	1	1
	Coupling, Discharge	1002522	1	1	1	1
	Clamp, Hose	1013651	1	1	1	1
) (	Hose, Drain 1/2"	1012695	1	1	1	1
) (	Hose, Drain 5/8"	1012696	1	1	1	1
) (	Tube, Drain Rigid	1013356	1	1	-	-
		1013427	-	-	1	-
		1013428	-	-	-	1
) (	Clamp, Hose 5/8"	1012975	2	2	2	2
) (	Clamp, Hose 3/4"	1012976	4	4	4	4
) (	Grommet, Vent	1012697	1	1	1	1
) (	Clamp, Hose	1013651	1	1	1	1

Key No.	Description Functional	Part Number	*9MPT			
			050 F12	075 F14	100 J16	125 L20
) (	Bushing, Strain Relief	1945287	1	1	1	1
) (	Grommet, Vinyl	1009535	1	1	1	1
) (	Plug, Rubber	1057573	1	1	1	1
) (	Harness, Wire	1013689	1	1	-	-
		1013690	-	-	1	1
) (	Manual, Technical/Parts List	44003201201	1	1	1	1
) (	Manual, Users	44002201002	1	1	1	1
) (	Manual, Installation	44001201100	1	1	1	1

Gas Conversion Kits - All models

Nat to LP *1011789

LP to Nat *1011787

* Must be ordered from Service Parts