GR9T96 / GD9T96

Heating Input: 30,000–120,000 BTU/h

Two-Stage, Multi-Speed ECM Gas Furnace Up to 97% AFUE

R32

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Standard Features

- Energy-efficient, multi-speed ECM blower motor
- Heavy-duty, aluminized-steel tubular heat exchanger
- Stainless-steel secondary heat exchanger
- Two-stage gas valve provides quiet, economical heating
- Durable Silicon Nitride igniter
- Quiet two-speed induced draft blower
- Self-diagnostic control board with constant memory fault code history output to a LED
- Color-coded low-voltage terminals with provisions for electronic air cleaner and humidifier
- Low continuous fan speed options offer quiet air circulation
- All models comply with California 40 ng/J Low NOx emissions standard
- Can not be installed in California's South Coast AirQuality Management District (SCAQMD) and San Joaquin Valley Air Pollution Control District (SJVAPCD).
- AHRI Certified; ETL Listed

Cabinet Features

- Designed for multi-position installation — GR9T96: upflow, horizontal left or right GD9T96: downflow, horizontal left or right
- Certified for direct vent (2-pipe) or non-direct vent (1-pipe)
- Easy-to-install top venting with optional side venting — GR9T96/upflow models only
- Convenient left or right connection for gas and electrical service
- Cabinet air leakage (Q_{Leak}) ≤ 2%
- Heavy-gauge steel cabinet with durable finish
- Fully insulated heat exchanger and blower section
- Airtight solid bottom or side return with easy-cut tabs for effortless removal in bottom air-inlet applications

10 YEAR UNIT REPLACEMENT LIMITED WARRANTY* | 10 YEAR PARTS LIMITED WARRANTY* | 20 YEAR HEAT EXCHANGER LIMITED WARRANTY* + ONE-TIME HEAT EXCHANGER REPLACEMENT LIMITED WARRANTY*

Intertek | AHRI CERTIFIED® | COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001 = | COMPANY WITH ENVIRONMENTAL SYSTEM CERTIFIED BY DNV GL = ISO 14001 = | BBB ACCREDITED BUSINESS

* Complete warranty available from your local dealer or at www.franklinhvacsystems. To receive the 10-Year Unit Replacement Limited Warranty (good for as long as you own your home), 99-Year Heat Exchanger Limited Warranty (good for as long as you own your home), and 10-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Online registration is not required in California, Florida, or Québec. The duration of warranty coverages in Texas and Florida differs in some cases. Changes in law, regulations, or technology may result in an equivalent unit not being available. Other limitations and exclusions apply, refer to complete warranty details for full list of limitations and exclusions, as well as rights and obligations should an equivalent unit not be available.

G	R	9	T	96	040	4	C	*	**
1	2	3	4	5,6	7,8,9	10	11	12	13,14

BRAND

G - Goodman® Brand

CONFIGURATION

R - Upflow/Horizontal

D - Downflow/Horizontal

MOTOR

9 - Nine Speed ECM

GAS VALVE

T - 2 Stage

AFUE

80 - 80% AFUE 92 - 92% AFUE

96 - 96 AFUE***

MBTU/H

030 - 30,000 BTU/h 080 - 80,000 BTU/h

040 - 40,000 BTU/h 100 - 100,000 BTU/h

060 - 60,000 BTU/h 120 - 120,000 BTU/h

MAXIMUM CFM

3 - 1200 CFM 4 - 1600 CFM

5 - 2000 CFM

CABINET WIDTH

A - 14" C - 21"

B - 17½" D - 24½"

NOX

N = > 40 NG/J NOx

X = < 40 NG/J NOx

ENGINEERING

Major/Minor Revisions

A - Initial Release

B - 1st Revision

*** Some models maybe rated Up to 97.50%

	GR9T96 0303AN	GR9T96 0403AN	GR9T96 0603AN	GR9T96 0603BN	GR9T96 0803BN	GR9T96 0804CN	GR9T96 1004CN	GR9T96 1005CN	GR9T96 1205DN
Heating Data									
High Fire Input[1]	30,000	40,000	60,000	60,000	80,000	80,000	100,000	100,000	120,000
High Fire Output[1]	29,100	38,800	57,600	58,200	76,800	77,600	97,000	97,000	115,200
Low-Fire Input[1]	21,000	28,000	42,000	42,000	56,000	56,000	70,000	70,000	84,000
Low-Fire Output[1]	20,370	27,160	40,320	40,740	53,760	54,320	67,900	67,900	80,640
AFUE[2]	97	97	96	97	96	97	97	97	96
Temperature Rise Range (°F) High	15 - 45	20 - 50	30 - 60	30 - 60	35 - 65	25 - 55	35 - 65	35 - 65	35 - 65
Temperature Rise Range (°F) Low Fire	15 - 45	20 - 50	30 - 60	25 - 55	35 - 65	25 - 55	30 - 60	30 - 60	35 - 65
Vent Diameter[3]	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"
No. of Burners	2	2	3	3	4	4	5	5	6
Circulator Blower									
Available AC @ 0.5" ESP	1.5 - 2	1.5 - 3	1.5 - 3	1.5 - 3	1.5 - 3	2.5 - 4	1.5 - 4	3 - 5	3 - 5
Size (D x W)	11" x 6"	11” x 6”	11” x 6”	11" x 8"	11" x 8"	11" x 10"	11" x 10"	11" x 10"	11" x 11"
Horsepower @ 1075 RPM	1/2	1/2	1/2	1/2	1/2	3/4	1	1	1
Speed	9	9	9	9	9	9	9	9	9
Filter Size (in²) (Qty)	(1) 16 x 25 (side) or (1) 14 x 25 (bottom)	(1) 16 x 25 (side) or (1) 14 x 25 (bottom)	(1) 16 x 25 (side) or (1) 14 x 25 (bottom)	(1) 16 x 25 (side or bottom)	(1) 20 x 25 (bottom) or (2) 16 x 25 (side)6	1) 20 x 25 (bottom) or (2) 16 x 25 (side)	(1) 20 x 25 (bottom) or (2) 16 x 25 (side	(1) 20 x 25 (bottom) or (2) 16 x 25 (side)	(1) 20 x 25 (bottom) or (2) 16 x 25 (side)
Electrical Data									
Min. Circuit Ampacity[4]	7.8	7.8	7.8	7.8	7.8	11.4	14.4	14.4	14.4
Max. Overcurrent (amps)[5]	15	15	15	15	15	20	25	25	25
Shipping Weight (lbs)	106	106	110	115	118	123	140	140	154
Potential Eligibility for IRA Tax Credit	✓	✓	NO	✓	NO	✓	✓	✓	NO
ENERGY STAR® Certified	ENERGY STAR	ENERGY STAR	ENERGY STAR	ENERGY STAR	ENERGY STAR	ENERGY STAR	ENERGY STAR	ENERGY STAR	ENERGY STAR

[1] Natural Gas BTU/h

[2] DOE AFUE based upon Isolated Combustion System (ICS)

[3] Installer must supply one or two PVC pipes: one for combustion air (optional) and one for the flue outlet (required). Vent pipe must be either 2" or 3" in diameter, depending upon furnace input, number of elbows, length of run and installation (1 or 2 pipes). The optional Combustion Air Pipe is dependent on installation/code requirements and must be 2" or 3" diameter PVC.

[4] Minimum Circuit Ampacity = (1.25 x Circulator Blower Amps) + ID Blower amps. Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

[5] Maximum Overcurrent Protection Device refers to maximum recommended fuse or circuit breaker size. May use fuses or HACR-type circuit breakers of the same size as noted.

[6] Recommended to use 2 side ducts with 2 separate 16 x 25 filters or ONE 20 x 25 bottom filter for better mid rise & blower performance.

Notes

- All furnaces are manufactured for use on 115 VAC, 60 Hz, single-phase electrical supply.
- Gas Service Connection ½" FPT
- Important: Size fuses and wires properly and make electrical connections in accordance with the National Electrical Code and/or all existing local codes.
- For bottom return: Failure to unfold flanges may reduce airflow by up to 18%. This could result in performance and noise issues.
- For servicing or cleaning, a 24" front clearance is required. Unit connections (electrical, flue and drain) may necessitate greater clearances than the minimum clearances listed above. In all cases, accessibility clearance must take precedence over clearances from the enclosure where accessibility clearances are greater.

Energy Star Notes

Proper sizing and installation of equipment is critical to achieving optimal performance. Split system air conditioners and heat pumps must be matched with appropriate coil components to meet **ENERGY STAR®** criteria. Ask your contractor for details or visit www.energystar.gov. The www.energystar.gov website provides up-to-date system combinations certified to meet **ENERGY STAR®** requirements.

	GD9T96 0403BN"	GD9T96 0603BN	GD9T96 0803BN	GD9T96 1005CN
Heating Data				
High Fire Input[1]	40,000	60,000	80,000	100,000
High Fire Output[1]	38,800	58,200	76,800	96,000
Low-Fire Input[1]	28,000	42,000	56,000	70,000
Low-Fire Output[1]	27,160	40,740	53,760	67,200
AFUE[2]	97	97	96	96
Temperature Rise Range (°F) High	25 - 55	25 - 55	40 - 70	35 - 65
Temperature Rise Range (°F) Low Fire	20 - 50	20 - 50	40 - 70	35 - 65
Vent Diameter[3]	2" - 3"	2" - 3"	2" - 3"	2" - 3"
No. of Burners	2	3	4	5
Circulator Blower				
Available AC @ 0.5" ESP	1.5 - 3	1.5 - 3	1.5 - 3	3 - 5
Size (D x W)	10" x 8"	11" x 8"	11" x 8"	11" x 10"
Horsepower @ 1075 RPM	1/2	1/2	1/2	1
Speed	9	9	9	9
Electrical Data				
Min. Circuit Ampacity[4]	7.8	7.8	7.8	14.4
Max. Overcurrent (amps)[5]	15	15	15	25
Shipping Weight (lbs)	112	115	118	140
Potential Eligibility for IRA Tax Credit	✓	✓	NO	NO
ENERGY STAR® Certified				

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2 DOE AFUE based upon Isolated Combustion System (ICS)

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Notes

- All furnaces are manufactured for use on 115 VAC, 60 Hz, single-phase electrical supply.
- Gas Service Connection ½” FPT
- Important: Size fuses and wires properly and make electrical connections in accordance with the National Electrical Code and/or all existing local codes.
- For bottom return: Failure to unfold flanges may reduce airflow by up to 18%. This could result in performance and noise issues.
- For servicing or cleaning, a 24” front clearance is required. Unit connections (electrical, flue and drain) may necessitate greater clearances than the minimum clearances listed above. In all cases, accessibility clearance must take precedence over clearances from the enclosure where accessibility clearances are greater.

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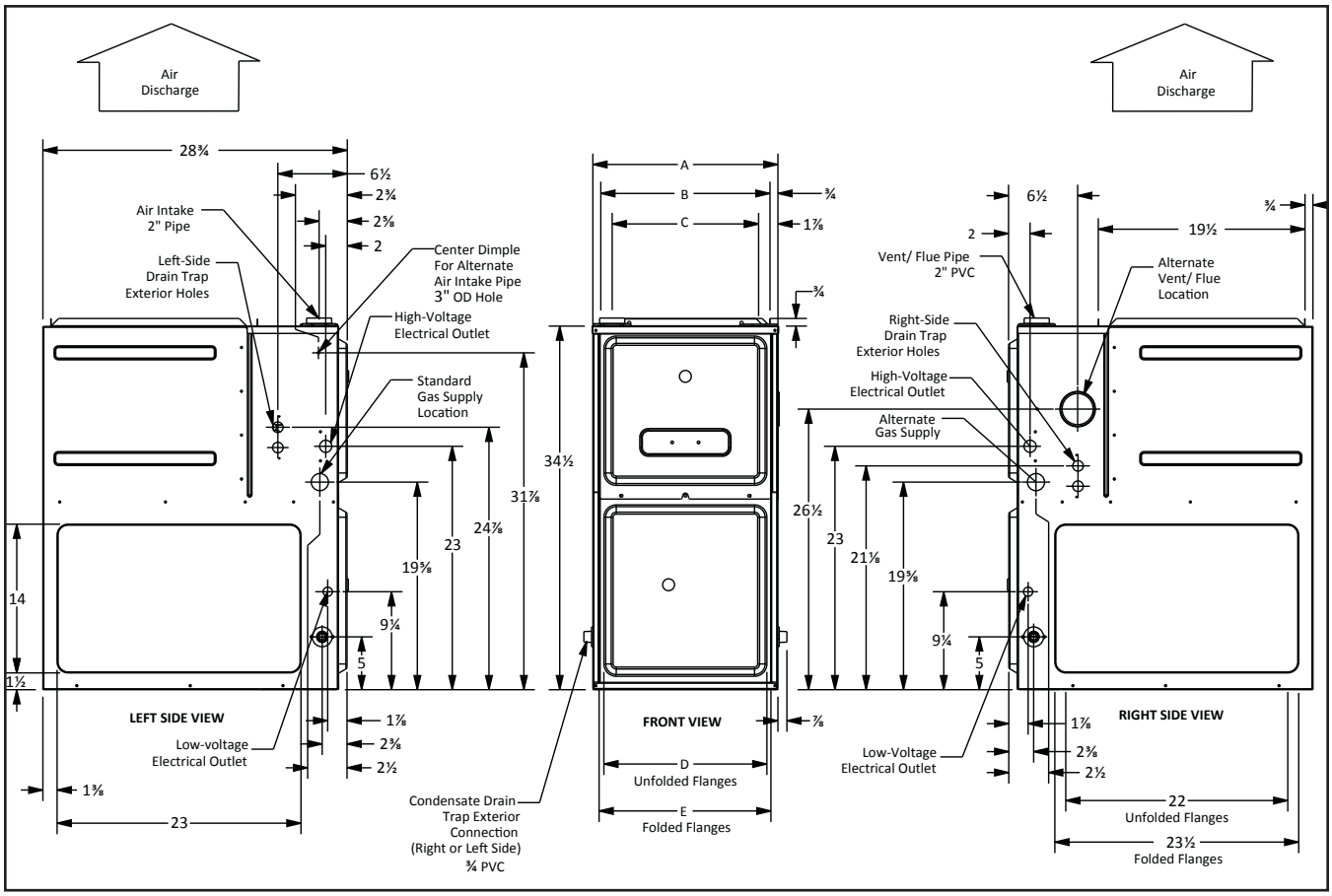
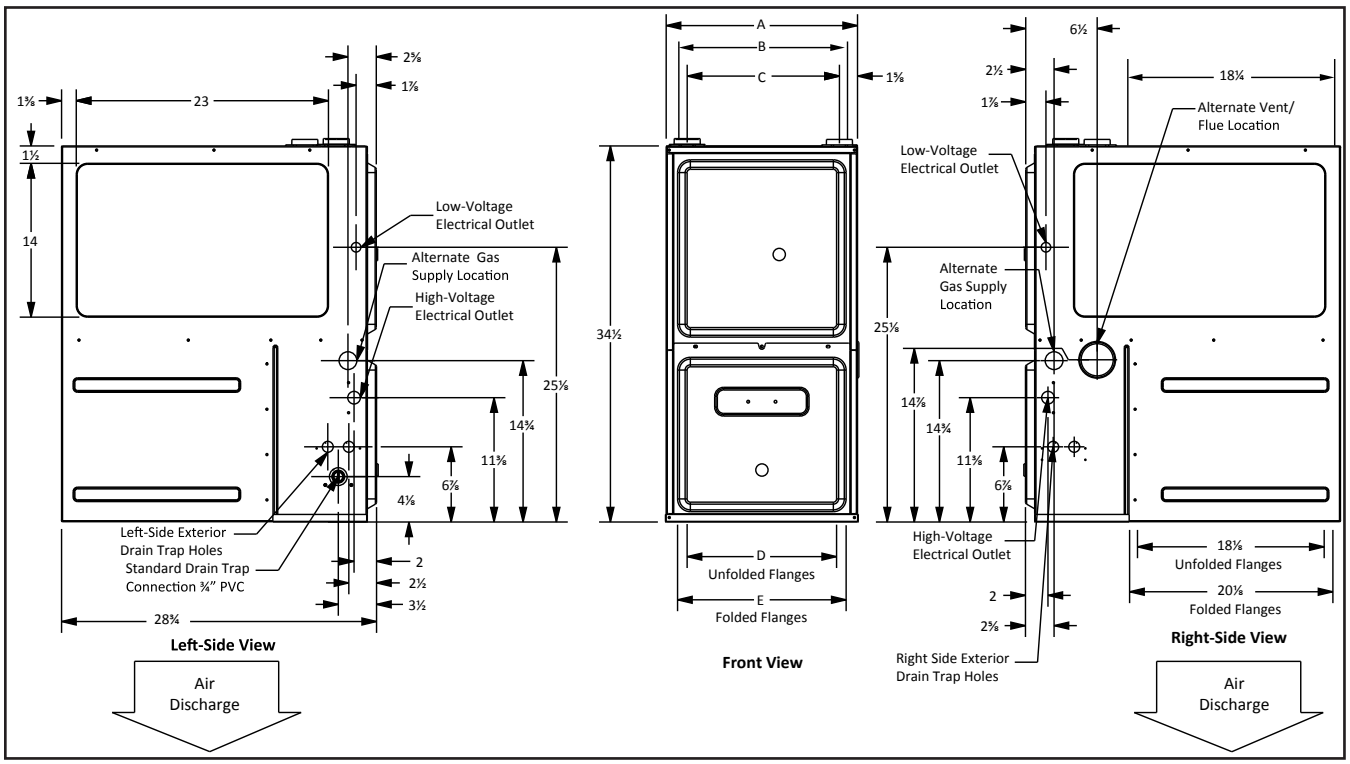


		Air Discharge			Air Return
Model	**A**	**B**	**C**	**D**	**E**
GR9T960303AN	14"	12½"	10½"	8⅝"	10⅛"
GR9T960403AN	14"	12½"	10½"	8⅝"	10⅛"
GR9T960603AN	14"	12½"	10½"	8⅝"	10⅛"
GR9T960603BN	17½"	16"	13⅞"	12⅛"	13⅝"
GR9T960803BN	17½"	16"	13⅞"	12⅛"	13⅝"
GR9T960804CN	21"	19½"	17⅜"	16"	17½"
GR9T961004CN	21"	19½"	17⅜"	16"	17½"
GR9T961005CN	21"	19½"	17⅜"	16"	17½"
GR9T961205DN	24½	23"	20⅞"	19⅜"	20⅞"

Minimum Clearances to Combustible Materials

Position	Sides	Rear	Front	Bottom	Flue	Top
Upflow	0"	0"	1"	C	0"	1"
Horizontal	6"	0"	ALCOVE	C	0"	4"

C = If placed on combustible floor, the floor MUST be wood ONLY.



		Air Discharge			Air Return
Model	**A**	**B**	**C**	**D**	**E**
GD9T960403BN	17½"	16"	13⅞"	12⅛"	13⅝"
GD9T960603BN	17½"	16"	13⅞"	12⅛"	13⅝"
GD9T960803BN	17½"	16"	13⅞"	12⅛"	13⅝"
GD9T961005CN	21"	19½"	17⅜"	16"	17½"

Minimum Clearances to Combustible Materials

Position	Sides	Rear	Front	Bottom	Flue	Top
Upflow	0"	0"	1"	NC	0"	1"
Horizontal	6"	0"	ALCOVE	C	0"	4"

C = If placed on combustible floor, the floor MUST be wood ONLY.

FAN & COOLING AIFLOW														
MODEL	THERMO-STAT CALL	TAP #	EXTERNAL STATIC PRESSURE (INCHES WATER COLUMN)											
			0.1	0.2	0.3	0.4	0.5		0.6		0.7		0.8	
			CFM	CFM	CFM	CFM	CFM	Watts	CFM	Watts	CFM	Watts	CFM	Watts
GR9T96 0303AN	Y/Y1, Y2, G	F01	753	708	663	616	568	118	513	125	470	131	423	136
		F02	915	883	845	809	773	177	730	182	690	189	650	196
		F03	529	518	461	394	343	75	288	81	223	86	N/A	N/A
		F04	880	843	807	768	723	161	683	168	643	175	590	181
		F05	1055	1022	990	959	930	241	891	249	858	256	825	263
		F06	1101	1072	1040	1010	980	269	949	275	918	283	881	290
		F07	1190	1162	1134	1104	1077	322	1042	328	1013	336	982	345
		F08	1183	1157	1130	1103	1077	322	1047	331	1018	338	988	347
		F09	1229	1206	1178	1153	1128	359	1100	365	1070	372	1042	328
GR9T96 0403AN	Y/Y1, Y2, G	F01	733	691	650	602	553	111	498	117	448	124	402	130
		F02	1051	1024	996	966	935	240	907	248	868	254	836	262
		F03	665	620	570	517	462	93	407	100	359	104	309	109
		F04	915	881	846	814	780	174	737	180	695	186	652	193
		F05	1138	1114	1092	1064	1035	288	1006	298	977	307	947	313
		F06	887	855	823	790	751	164	705	170	666	176	608	183
		F07	1189	1163	1138	1111	1085	321	1059	331	1032	341	1001	349
		F08	1266	1243	1218	1197	1172	372	1148	383	1123	394	1099	400
		F09	1342	1324	1305	1280	1263	440	1239	452	1216	463	1193	473
GR9T96 0603AN	Y/Y1, Y2, G	F01	900	867	830	798	758	175	718	182	682	189	645	196
		F02	1292	1272	1248	1227	1206	429	1184	438	1162	447	1137	456
		F03	688	649	603	551	499	104	447	110	405	115	359	120
		F04	866	830	797	759	717	161	675	168	634	175	591	181
		F05	1223	1195	1176	1149	1124	370	1101	381	1074	388	1047	398
		F06	1037	1004	975	950	921	243	886	251	853	258	823	266
		F07	1079	1053	1025	1000	970	271	941	278	911	285	873	292
		F08	1128	1099	1075	1050	1022	300	993	310	965	319	937	326
		F09	1171	1148	1124	1096	1070	330	1045	339	1017	348	988	355
GR9T96 0603BN	Y/Y1, Y2, G	F01	914	864	815	762	704	150	654	155	604	162	560	168
		F02	1121	1083	1041	996	953	230	906	236	861	245	818	252
		F03	758	696	636	572	512	104	460	110	412	115	N/A	N/A
		F04	960	917	864	812	764	164	708	171	661	179	614	184
		F05	1164	1123	1084	1042	1003	249	960	258	920	268	871	276
		F06	1219	1180	1141	1102	1062	277	1020	286	978	294	940	303
		F07	1273	1240	1207	1171	1128	309	1089	318	1051	327	1012	336
		F08	1307	1270	1235	1198	1160	329	1122	336	1083	346	1043	354
		F09	1427	1390	1362	1327	1297	408	1260	414	1224	423	1193	434
GR9T96 0803BN	Y/Y1, Y2, G	F01	1205	1169	1131	1091	1053	261	1014	270	974	279	934	289
		F02	1415	1385	1355	1322	1291	394	1255	403	1219	407	1186	417
		F03	696	635	568	500	442	91	390	96	336	101	255	104
		F04	1152	1112	1076	1035	996	239	954	248	916	258	868	267
		F05	1321	1287	1251	1217	1181	328	1146	336	1112	345	1072	355
		F06	901	851	801	746	690	142	638	149	587	154	543	160
		F07	1112	1076	1032	992	949	219	905	228	858	236	819	246
		F08	1290	1252	1215	1182	1143	311	1107	319	1071	329	1032	337
		F09	1471	1440	1409	1377	1347	427	1314	436	1283	446	1247	456

FAN & COOLING AIFLOW														
MODEL	THERMO-STAT CALL	TAP #	EXTERNAL STATIC PRESSURE (INCHES WATER COLUMN)											
			0.1	0.2	0.3	0.4	0.5		0.6		0.7		0.8	
			CFM	CFM	CFM	CFM	CFM	Watts	CFM	Watts	CFM	Watts	CFM	Watts
GR9T96 0804CN	Y/Y1, Y2, G	F01	1289	1234	1180	1122	1058	217	991	226	917	234	840	242
		F02	1836	1784	1741	1703	1664	496	1628	515	1585	528	1537	540
		F03	1297	1246	1199	1142	1083	224	1020	233	949	242	872	250
		F04	1194	1137	1079	1014	948	188	873	197	792	205	712	212
		F05	1748	1696	1650	1612	1574	438	1526	450	1478	462	1428	474
		F06	1451	1399	1354	1309	1256	288	1200	298	1142	306	1077	316
		F07	1587	1534	1489	1445	1406	352	1354	362	1298	372	1244	383
		F08	1683	1633	1589	1546	1502	405	1460	416	1406	428	1355	440
		F09	1919	1890	1846	1807	1771	566	1735	585	1694	600	1650	613
GR9T96 1004CN	Y/Y1, Y2, G	F01	1475	1421	1369	1314	1260	307	1207	317	1152	326	1097	337
		F02	1791	1741	1699	1652	1609	482	1561	493	1513	504	1465	516
		F03	924	846	767	684	606	124	529	130	463	136	398	142
		F04	1259	1197	1138	1074	1015	218	947	226	885	236	821	244
		F05	1710	1660	1613	1583	1517	427	1470	440	1421	451	1374	462
		F06	1592	1536	1486	1436	1383	363	1331	373	1281	383	1233	393
		F07	1627	1574	1524	1474	1423	382	1370	392	1320	403	1271	414
		F08	1921	1879	1840	1791	1751	577	1705	588	1656	604	1610	617
		F09	2026	1981	1929	1901	1858	659	1819	677	1773	685	1733	701
GR9T96 1005CN	Y/Y1, Y2, G	F01	1259	1197	1138	1074	1015	218	947	226	885	236	821	244
		F02	1791	1741	1699	1652	1609	482	1561	493	1513	504	1465	516
		F03	1176	1108	1044	980	913	188	845	197	779	206	718	213
		F04	1347	1286	1231	1172	1115	247	1055	256	995	265	933	275
		F05	1921	1879	1840	1791	1751	577	1705	588	1656	604	1610	617
		F06	1446	1404	1335	1280	1226	291	1171	300	1117	309	1062	319
		F07	1618	1567	1510	1460	1413	379	1364	390	1312	401	1262	411
		F08	2009	1964	1918	1886	1852	656	1811	671	1759	676	1722	693
		F09	2161	2122	2084	2048	2010	739	1973	755	1940	776	1914	796
GR9T96 1205DN	Y/Y1, Y2, G	F01	1766	1712	1666	1612	1558	387	1506	401	1450	412	1395	425
		F02	2205	2157	2110	2064	2021	679	1974	694	1925	709	1879	726
		F03	1118	1035	952	860	750	149	663	156	590	165	519	171
		F04	1684	1620	1561	1499	1438	345	1378	358	1318	371	1259	383
		F05	2031	1981	1933	1901	1850	541	1799	556	1750	570	1702	585
		F06	1220	1145	1070	995	907	177	811	187	725	194	651	201
		F07	1357	1311	1243	1175	1107	223	1021	233	932	243	861	254
		F08	1906	1877	1828	1778	1726	474	1674	487	1622	501	1568	515
		F09	2454	2396	2347	2296	2250	889	2202	905	2157	922	2113	941

Note:

1. DEFAULT SPEED FOR FAN IS F03
2. DEFAULT SPEED FOR LOW COOLING (Y1) / 1 STAGE (Y) IS F04
3. DEFAULT SPEED FOR 2nd STAGE (Y2) COOLING IS F05
4. AIRFLOW & WATTAGE DATA IS OF FURNACE ONLY. WATTS MAY INCREASE IF UNDERSIZED DUCTING IS USED.
5. AIRFLOWS OVER 1600 CFM REQUIRE 2 SIDE RETURN OR SIDE & BOTTOM RETURN. A MINIMUM 20 X 25 SIZE FILTER IS REQUIRED.

HEATING AIFLOW																	
MODEL	THERMO STAT CALL	RECOMMENDED LO & HI FIRE SPEEDS	TAP #	EXTERNAL STATIC PRESSURE, (INCHES WATER COLUMN)													
				0.10		0.20		0.30		0.40		0.50		0.60	0.70	0.80	
				CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	CFM	CFM	
GR9T96 0303AN	W/W1 (LO FIRE)	F01	F01	753	25	708	26	663	28	616	30	568	33	513	470	423	
			F03	NOT RECOMMENDED HEATING SPEED													
			F04	880	21	843	22	807	23	768	24	723	26	683	643	590	
	W2 (HI FIRE)	F04	F02	915	29	883	30	845	32	809	33	773	34	730	690	650	
			F04	880	30	843	32	807	33	768	35	723	37	683	643	590	
			F05	1055	25	1022	26	990	27	959	28	930	29	891	858	825	
GR9T96 0403AN	W/W1 (LO FIRE)	F01	F01	733	34	691	36	650	38	602	41	553	45	498	448	402	
			F03	NOT RECOMMENDED HEATING SPEED													
			F04	915	27	881	28	846	29	814	31	780	32	737	695	652	
	W2 (HI FIRE)	F02	F02	1051	34	1024	35	996	36	966	37	935	38	907	868	836	
			F04	915	39	881	40	846	42	814	44	780	46	737	695	652	
			F05	1138	31	1114	32	1092	33	1064	33	1035	34	1006	977	947	
GR9T96 0603AN	W/W1 (LO FIRE)	F01	F01	900	40	867	42	830	44	798	46	758	48	718	682	645	
			F03	NOT RECOMMENDED HEATING SPEED													
			F04	866	42	830	44	797	46	759	48	717	50	675	634	591	
	W2 (HI FIRE)	F02	F02	1292	41	1272	42	1248	43	1227	43	1206	44	1184	1162	1137	
			F04	NOT RECOMMENDED HEATING SPEED													
			F05	1223	44	1195	45	1176	45	1149	46	1124	47	1101	1074	1047	
GR9T96 0603BN	W/W1 (LO FIRE)	F01	F01	914	41	864	43	815	46	762	49	704	53	654	604	560	
			F03	NOT RECOMMENDED HEATING SPEED													
			F04	960	39	917	41	864	43	812	46	764	49	708	661	614	
	W2 (HI FIRE)	F02	F02	1121	48	1083	49	1041	51	996	54	953	56	906	861	818	
			F04	NOT RECOMMENDED HEATING SPEED													
			F05	1164	46	1123	47	1084	49	1042	51	1003	53	960	920	871	
GR9T96 0803BN	W/W1 (LO FIRE)	F01	F01	1205	41	1169	43	1131	44	1091	46	1053	47	1014	974	934	
			F03	NOT RECOMMENDED HEATING SPEED													
			F04	1152	43	1112	45	1076	46	1035	48	996	50	954	916	868	
	W2 (HI FIRE)	F02	F02	1415	50	1385	51	1355	52	1322	54	1291	55	1255	1219	1186	
			F04	NOT RECOMMENDED HEATING SPEED													
			F05	1321	54	1287	55	1251	57	1217	58	1181	60	1146	1112	1072	
GR9T96 0804CN	W/W1 (LO FIRE)	F01	F01	1289	39	1234	40	1180	42	1122	44	1058	47	991	917	840	
			F03	1297	38	1246	40	1199	42	1142	44	1083	46	1020	949	872	
			F04	1194	42	1137	44	1079	46	1014	49	948	52	873	792	712	
	W2 (HI FIRE)	F02	F02	1836	39	1784	40	1741	41	1703	42	1664	43	1628	1585	1537	
			F04	NOT RECOMMENDED HEATING SPEED													
			F05	1748	41	1696	42	1650	43	1612	44	1574	45	1526	1478	1428	
GR9T96 1004CN	W/W1 (LO FIRE)	F01	F01	1475	42	1421	44	1369	45	1314	47	1260	49	1207	1152	1097	
			F03	NOT RECOMMENDED HEATING SPEED													
			F04	1259	49	1197	52	1138	55	1074	58	1015	60	947	885	821	
	"W2 (HI FIRE)"	F02	F02	1791	50	1741	51	1699	52	1652	54	1609	55	1561	1513	1465	
			F04	NOT RECOMMENDED HEATING SPEED													
			F05	1710	52	1660	54	1613	55	1583	56	1517	59	1470	1421	1374	

HEATING AIFLOW																
MODEL	THERMO STAT CALL	RECOMMENDED LO & HI FIRE SPEEDS	TAP #	EXTERNAL STATIC PRESSURE, (INCHES WATER COLUMN)												
				0.10		0.20		0.30		0.40		0.50		0.60	0.70	0.80
				CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	CFM	CFM
GR9T96 1005CN	W/W1 (LO FIRE)	F04	F01	1259	49	1197	52	1138	55	1074	58	1015	60	947	885	821
			F03	NOT RECOMMENDED HEATING SPEED												
			F04	1347	46	1286	48	1231	51	1172	53	1115	56	1055	995	933
	W2 (HI FIRE)	F02	F02	1791	50	1741	51	1699	52	1652	54	1609	55	1561	1513	1465
			F04	NOT RECOMMENDED HEATING SPEED												
			F05	1921	46	1879	47	1840	48	1791	50	1751	51	1705	1656	1610
GR9T96 1205DN	W/W1 (LO FIRE)	F02	F01	1766	42	1712	44	1666	45	1612	46	1558	48	1506	1450	1395
			F03	NOT RECOMMENDED HEATING SPEED												
			F04	1684	44	1620	46	1561	48	1499	50	1438	52	1378	1318	1259
	W2 (HI FIRE)	F02	F02	2205	48	2157	49	2110	51	2064	52	2021	53	1974	1925	1879
			F04	NOT RECOMMENDED HEATING SPEED												
			F05	2031	53	1981	54	1933	55	1901	56	1850	58	1799	1750	1702

NOTE:

1. DEFAULT LOW FIRE HEATING SPEED IS F01
2. DEFAULT HIGH FIRE HEATING SPEED IS F02
3. DUCT WORK MUST BE SIZED FOR HIGHEST AIRFLOW. IF FURNACE IS PAIRED TO LOW TON OUTDOOR UNIT, THE DUCTWORK SHOULD BE SIZED FOR HIGHER HEATING AIRFLOW.

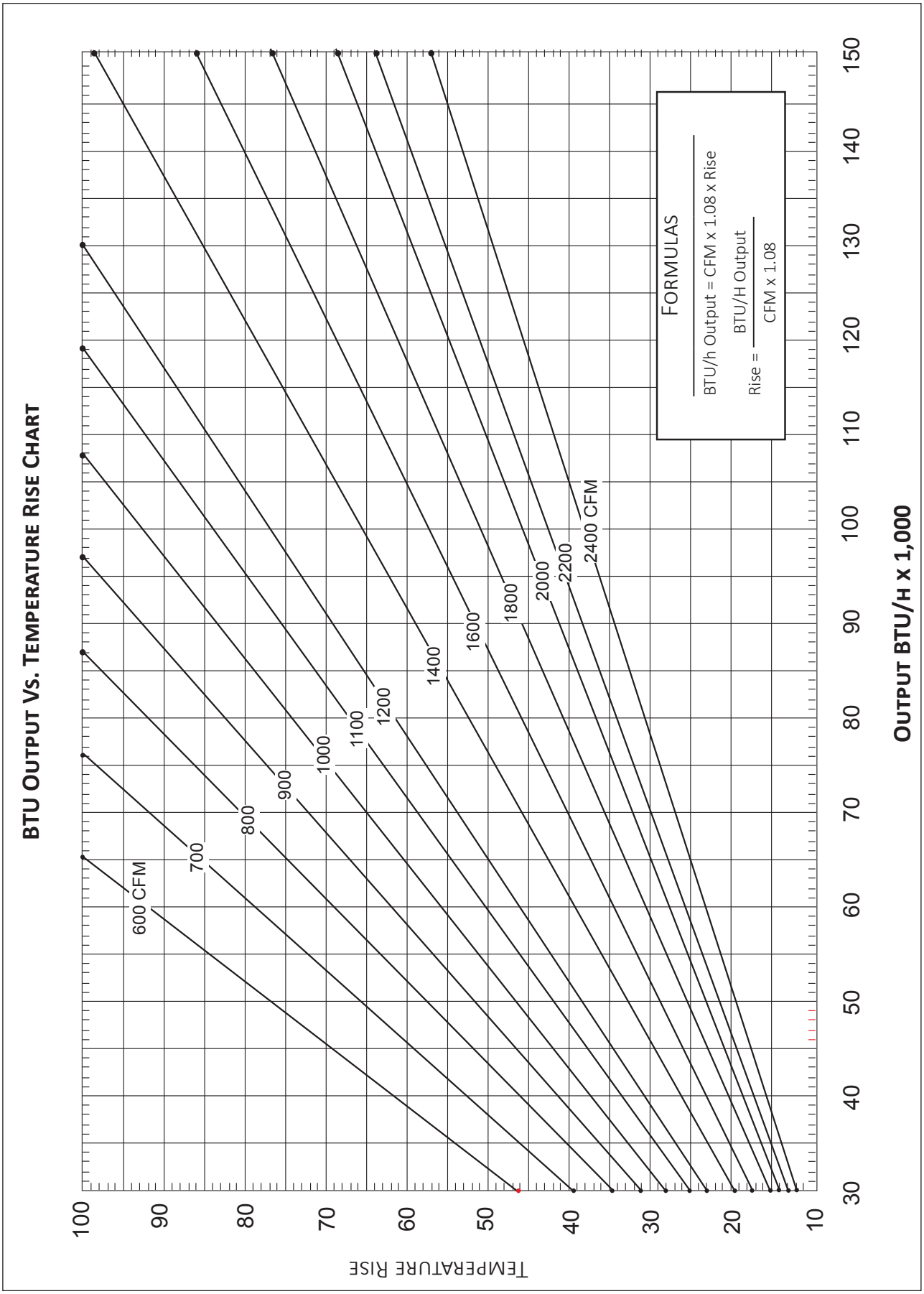
FAN & COOLING AIFLOW														
MODEL	THERMO-STAT CALL	TAP #	EXTERNAL STATIC PRESSURE (INCHES WATER COLUMN)											
			0.1	0.2	0.3	0.4	0.5		0.6		0.7		0.8	
			CFM	CFM	CFM	CFM	CFM	Watts	CFM	Watts	CFM	Watts	CFM	Watts
GD9T96 0403BN	Y/Y1, Y2, G	F01	727	677	623	565	510	101	455	106	403	111	351	116
		F02	923	882	841	798	752	159	704	165	660	172	614	177
		F03	632	574	510	448	388	80	332	85	277	89	234	93
		F04	878	839	797	751	701	146	653	151	607	157	561	162
		F05	1106	1076	1044	1010	974	243	939	250	899	256	860	263
		F06	1188	1156	1123	1091	1062	290	1029	296	998	302	964	309
		F07	1237	1205	1174	1145	1115	317	1081	324	1050	332	1016	341
		F08	1281	1252	1222	1195	1163	347	1134	357	1104	362	1071	369
		F09	1382	1354	1327	1302	1276	418	1246	424	1219	432	1190	439
GD9T96 0603BN	Y/Y1, Y2, G	F01	1167	1118	1069	1022	974	237	928	246	877	252	833	259
		F02	1332	1289	1245	1200	1160	327	1120	335	1081	343	1036	353
		F03	680	609	532	460	397	85	337	90	252	94	201	97
		F04	903	839	783	719	661	139	601	144	546	150	497	155
		F05	1248	1204	1159	1113	1071	280	1028	290	983	299	943	306
		F06	963	907	852	803	745	160	689	166	639	173	587	179
		F07	1393	1348	1309	1267	1230	368	1189	375	1152	383	1116	391
		F08	1450	1407	1366	1330	1290	409	1251	412	1221	421	1186	430
		F09	1468	1436	1393	1359	1323	418	1285	427	1248	436	1210	445
GD9T96 0803BN	Y/Y1, Y2, G	F01	1167	1124	1087	1040	995	250	954	258	916	264	869	272
		F02	1317	1277	1240	1201	1161	336	1122	344	1081	350	1045	360
		F03	733	669	606	543	482	99	424	104	372	109	300	115
		F04	1217	1174	1130	1086	1045	274	1003	282	962	289	925	297
		F05	1300	1263	1225	1186	1142	322	1099	331	1062	339	1023	348
		F06	919	872	820	764	711	149	658	156	605	162	553	168
		F07	1126	1085	1042	998	953	234	910	241	866	249	824	255
		F08	1375	1341	1301	1264	1226	375	1189	382	1154	391	1118	402
		F09	1440	1402	1366	1330	1295	414	1260	423	1224	430	1187	439
GD9T96 1005CN	Y/Y1, Y2, G	F01	1366	1307	1248	1188	1130	255	1069	264	1007	273	938	282
		F02	1833	1785	1736	1688	1640	509	1593	519	1543	529	1497	540
		F03	1295	1230	1168	1105	1044	227	981	236	911	244	843	252
		F04	1634	1578	1525	1471	1416	382	1363	391	1311	400	1265	411
		F05	2028	1994	1937	1899	1863	683	1814	690	1769	702	1724	713
		F06	1773	1721	1671	1621	1571	465	1521	474	1470	485	1421	495
		F07	1908	1860	1813	1766	1720	569	1672	581	1624	591	1578	602
		F08	1965	1919	1873	1829	1783	617	1736	627	1688	637	1643	648
		F09	2096	2053	2014	1973	1931	726	1890	736	1849	752	1803	758

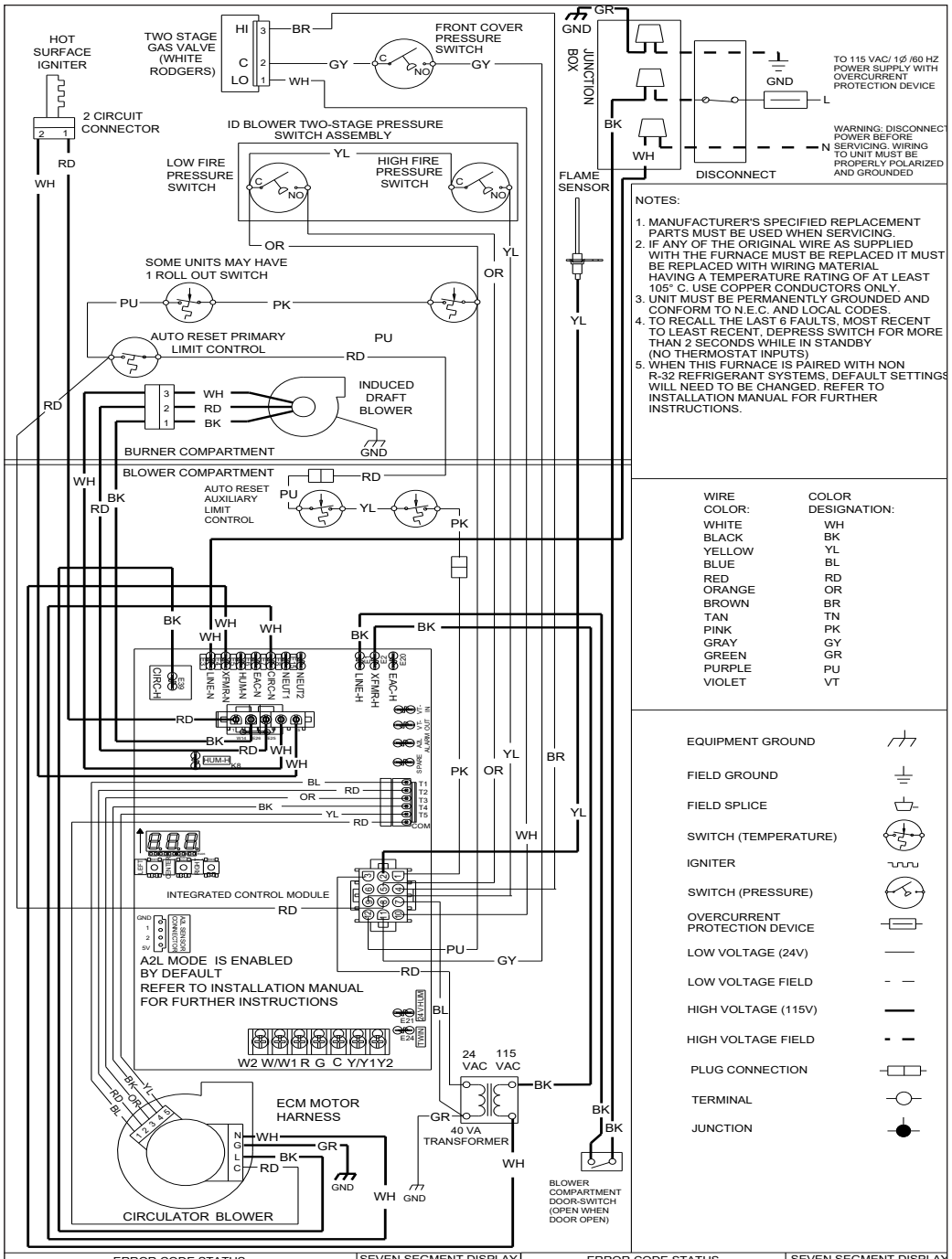
Note:
1. DEFAULT SPEED FOR FAN IS F03
2. DEFAULT SPEED FOR LOW COOLING (Y1) / 1 STAGE (Y) IS F04
3. DEFAULT SPEED FOR 2nd STAGE (Y2) COOLING IS F05
4. AIRFLOW & WATTAGE DATA IS OF FURNACE ONLY. WATTS MAY INCREASE IF UNDERSIZED DUCTING IS USED.
5. AIRFLOWS OVER 1600 CFM REQUIRE 2 SIDE RETURN OR SIDE & BOTTOM RETURN. A MINIMUM 20 X 25 SIZE FILTER IS REQUIRED.

HEATING AIFLOW																	
MODEL	THERMO STAT CALL	RECOMMENDED LO & HI FIRE SPEEDS	TAP #	EXTERNAL STATIC PRESSURE, (INCHES WATER COLUMN)													
				0.10		0.20		0.30		0.40		0.50		0.60	0.70	0.80	
				CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	CFM	CFM	
GD9T96 0403BN	W/W1 (LO FIRE)	F01	F01	727	34	677	37	623	40	565	44	510	49	455	403	351	
			F03	NOT RECOMMENDED HEATING SPEED													
			F04	878	28	839	30	797	31	751	33	701	36	653	607	561	
	W2 (HI FIRE)	F02	F02	923	39	882	40	841	42	798	45	752	47	704	660	614	
			F04	878	41	839	42	797	45	751	47	701	51	653	607	561	
			F05	1106	32	1076	33	1044	34	1010	35	974	37	939	899	860	
GD9T96 0603BN	W/W1 (LO FIRE)	F01	F01	1167	32	1118	33	1069	35	1022	37	974	38	928	877	833	
			F03	NOT RECOMMENDED HEATING SPEED													
			F04	NOT RECOMMENDED HEATING SPEED													
	W2 (HI FIRE)	F02	F02	1332	40	1289	41	1245	43	1200	44	1160	46	1120	1081	1036	
			F04	NOT RECOMMENDED HEATING SPEED													
			F05	1248	43	1204	44	1159	46	1113	48	1071	50	1028	983	943	
GD9T96 0803BN	W/W1 (LO FIRE)	F01	F01	1167	43	1124	44	1087	46	1040	48	995	50	954	916	869	
			F03	NOT RECOMMENDED HEATING SPEED													
			F04	1217	41	1174	42	1130	44	1086	46	1045	48	1003	962	925	
	W2 (HI FIRE)	F02	F02	1317	54	1277	56	1240	57	1201	59	1161	61	1122	1081	1045	
			F04	NOT RECOMMENDED HEATING SPEED													
			F05	1300	55	1263	56	1225	58	1186	60	1142	62	1099	1062	1023	
GD9T96 1005CN	W/W1 (LO FIRE)	F01	F01	1366	46	1307	48	1248	50	1188	52	1130	55	1069	1007	938	
			F03	1295	48	1230	51	1168	53	1105	56	1044	58	981	911	843	
			F04	NOT RECOMMENDED HEATING SPEED													
	W2 (HI FIRE)	F02	F02	1833	48	1785	50	1736	51	1688	53	1640	54	1593	1543	1497	
			F04	1634	54	1578	56	1525	58	1471	60	1416	62	1363	1311	1265	
			F05	2028	44	1994	45	1937	46	1899	47	1863	48	1814	1769	1724	

NOTE:

1. DEFAULT LOW FIRE HEATING SPEED IS F01
2. DEFAULT HIGH FIRE HEATING SPEED IS F02
3. DUCT WORK MUST BE SIZED FOR HIGHEST AIRFLOW. IF FURNACE IS PAIRED TO LOW TON OUTDOOR UNIT, THE DUCTWORK SHOULD BE SIZED FOR HIGHER HEATING AIRFLOW.


BTU Output Vs. Temperature Rise Chart
Temperature Rise
Output BTU/H x 1,000
600 CFM
700
800
900
1000
1100
1200
1400
1600
1800
2000
2200
2400 CFM
Formulas
BTU/h Output = CFM x 1.08 x Rise
Rise = BTU/H Output / CFM x 1.08
100
90
80
70
60
50
40
30
20
10
30
40
50
60
70
80
90
100
110
120
130
140
150



NOTES:

1. MANUFACTURER'S SPECIFIED REPLACEMENT PARTS MUST BE USED WHEN SERVICING.
2. IF ANY OF THE ORIGINAL WIRE AS SUPPLIED WITH THE FURNACE MUST BE REPLACED IT MUST BE REPLACED WITH WIRING MATERIAL HAVING A TEMPERATURE RATING OF AT LEAST 105° C. USE COPPER CONDUCTORS ONLY.
3. UNIT MUST BE PERMANENTLY GROUNDED AND CONFORM TO N.E.C. AND LOCAL CODES.
4. TO RECALL THE LAST 6 FAULTS, MOST RECENT TO LEAST RECENT, DEPRESS SWITCH FOR MORE THAN 2 SECONDS WHILE IN STANDBY (NO THERMOSTAT INPUTS)
5. WHEN THIS FURNACE IS PAIRED WITH NON R-32 REFRIGERANT SYSTEMS, DEFAULT SETTINGS WILL NEED TO BE CHANGED. REFER TO INSTALLATION MANUAL FOR FURTHER INSTRUCTIONS.

WIRE COLOR:	COLOR DESIGNATION:
WHITE	WH
BLACK	BK
YELLOW	YL
BLUE	BL
RED	RD
ORANGE	OR
BROWN	BR
TAN	TN
PINK	PK
GRAY	GY
GREEN	GR
PURPLE	PU
VIOLET	VT

EQUIPMENT GROUND
FIELD GROUND
FIELD SPLICE
SWITCH (TEMPERATURE)
IGNITER
SWITCH (PRESSURE)
OVERCURRENT PROTECTION DEVICE
LOW VOLTAGE (24V)
LOW VOLTAGE FIELD
HIGH VOLTAGE (115V)
HIGH VOLTAGE FIELD
PLUG CONNECTION
TERMINAL
JUNCTION

ERROR CODE STATUS READ CODES FROM LEFT TO RIGHT	SEVEN SEGMENT DISPLAY Seg#3	Seg#2	Seg#1
INTERNAL FAULTS OR IRQ LOSS	E	E	E
LOCKOUT DUE TO EXCESSIVE RETRIES RECYCLE	E	E	0
LOW STAGE PRESSURE SWITCH STUCK CLOSED	E	E	1
LOW STAGE PRESSURE SWITCH OPEN	E	E	2
OPEN HIGH LIMIT SWITCH	E	E	3
FLAME DETECTED WHEN NO FLAME SHOULD BE PRESENT	E	E	4
OPEN FUSE	E	E	5
LOW FLAME SIGNAL	E	E	6
IGNITOR RELAY FAULT	E	E	L
HIGH STAGE PRESSURE SWITCH STUCK CLOSED	E	E	8
HIGH STAGE PRESSURE SWITCH OPEN	E	E	9
REVERSED LINE POLARITY OR GROUNDING ERROR	E	E	A
INTERNAL GAS VALVE ERROR	E	E	b
EXTERNAL GAS VALVE ERROR	E	E	C
OPEN ROLLOUT SWITCH	E	1	1
IGNITOR OPEN	E	E	n
INDUCER RELAY ERROR	E	E	J

ERROR CODE STATUS READ CODES FROM LEFT TO RIGHT	SEVEN SEGMENT DISPLAY Seg#3	Seg#2	Seg#1
TWIN ERROR	E	E	H
GROUNDING ERROR	E	1	0
LOW CIRCULATOR CURRENT	E	b	L
CIRCULATOR CURRENT UNEXPECTED	E	b	U
A2L COMMUNICATION ALARM	E	A	F
A2L LEAKAGE ALARM	E	A	L
A2L INTERNAL ALARM	E	A	S
A2L RELAY ALARM	E	A	r

0140F20004-B

High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.

WARNING

Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.

MODEL	DESCRIPTION	GR9T96 0303AN	GR9T96 0403AN	GR9T96 0603AN	GR9T96 0603BN	GR9T96 0803BN	GR9T96 0804CN	GR9T96 1004CN	GR9T96 1005CN	GR9T96 1205DN
72950	Concentric Vent Kit (2")	√	√	√	√	√	√	√	√	---
72951	Concentric Vent Kit (3")	√	√	√	√	√	√	√	√	√
RF000142	Drain Kit-Horizontal Left Vertical Flue	√	√	√	√	√	√	√	√	√
EFR02	External Filter Rack with 16"x25" Permanent Filter	√	√	√	√	√	√	√	√	---
0170K00000S	Flush Mount Vent Kit- 3" or 2"	√	√	√	√	√	√	√	√	√
0170K00001S	Flush Mount Vent Kit- 2"	√	√	√	√	√	√	√	√	---
AFE18-60A	Fossil Fuel (Dual Fuel) Kit	√	√	√	√	√	√	√	√	√
HASFK	High-Altitude Natural Gas Kit	N/A	TBD	TBD	HASFK-1	HASFK-2	HASFK-2	HASFK-2	HASFK-3	HASFK-3
HASFK	High-Altitude LP Gas Kit	N/A	TBD	TBD	HASFK-1	HASFK-2	HASFK-2	HASFK-2	HASFK-2	HASFK-2
0270F05404	Horizontal Drain Tubing Kit	√	√	√	√	√	√	√	√	√
LPLP03	Low LP Gas Pressure Switch	√	√	√	√	√	√	√	√	√
LPM-34	LP Conversion Kits	—	√	√	√	√	√	√	√	√
LPM-30	LP Conversion Kits	√	—	—	—	—	—	—	—	—

MODEL	DESCRIPTION	GD9T96 0403BNA	GD9T96 0603BNA	GD9T96 0803BNA	GD9T96 1005CNA
72950	Concentric Vent Kit (2")	√	√	√	√
72951	Concentric Vent Kit (3")	√	√	√	√
CFSB17	Downflow Sub-Base 17.5"	√	√	√	—
CFSB21	Downflow Sub-Base 21"	—	—	—	√
RF000142	Drain Kit-Horizontal Left Vertical Flue	√	√	√	√
0170K00000S	Flush Mount Vent Kit- 3" or 2"	√	√	√	√
0170K00001S	Flush Mount Vent Kit- 2"	√	√	√	√
AFE18-60A	Fossil Fuel (Dual Fuel) Kit	√	√	√	√
HASFK	High-Altitude Natural Gas Kit	HASFK-1	HASFK-1	HASFK-2	HASFK-2
HASFK	High-Altitude LP Gas Kit	TBD	TBD	TBD	TBD
0270F05405	Horizontal Drain Tubing Kit	√	√	√	√
LPM-34	LP Conversion Kits	√	√	√	√

The manufacturing entity reserves the right to discontinue, or change at any time, specifications or designs without notice or without incurring obligations.