AMANA®
HEATING & AIR CONDITIONING

AR9S96 / AD9S96

HEATING INPUT: 40,000–120,000 BTU/H

SINGLE-STAGE, MULTI-SPEED ECM GAS FURNACE UP TO 97% AFUE

R32

Contents

Standard Features

- Heavy-duty stainless-steel tubular heat exchanger
- Stainless-steel secondary heat exchanger
- Single-stage gas valve
- Durable Silicon Nitride igniter
- Quiet single-speed induced draft blower
- Self-diagnostic control board with constant memory fault code history output to a LED
- 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 — AR9S96: upflow, horizontal left or right AD9S96: 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
- 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 PARTS LIMITED WARRANTY* | 10 YEAR UNIT REPLACEMENT LIMITED WARRANTY* | 20 YEAR HEAT EXCHANGER LIMITED WARRANTY* + ONE-TIME HEAT EXCHANGER REPLACEMENT LIMITED WARRANTY* (YEARS 21-99)+

Intertek

AHRI CERTIFIED® www.ahridirectory.org

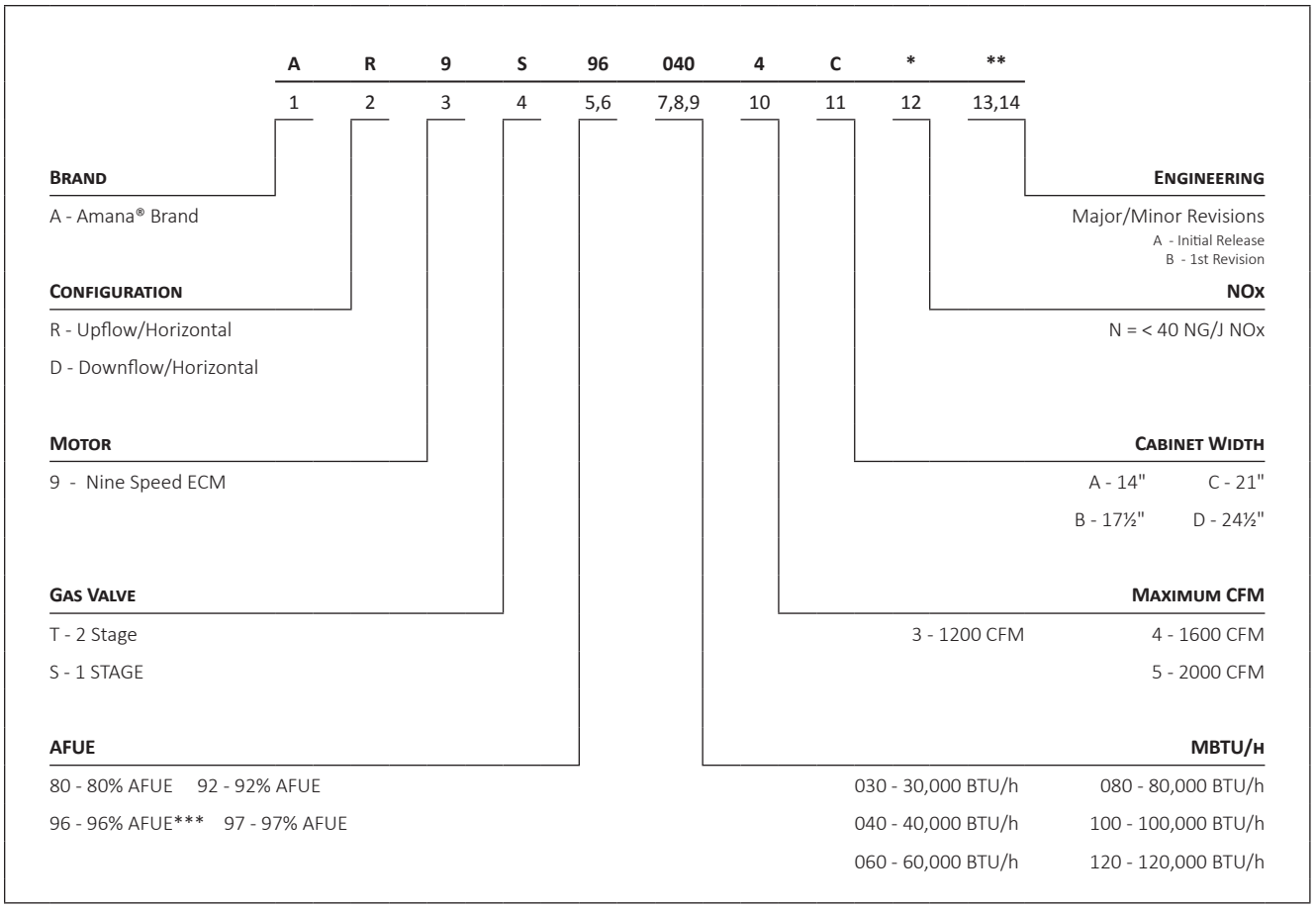
COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001 =

COMPANY WITH ENVIRONMENTAL SYSTEM CERTIFIED BY DNV GL = ISO 14001 =

* Complete warranty available from your local dealer or at www.amana-hac.com. To receive 10-Year Unit Replacement Limited Warranty, 10-Year Parts Limited Warranty, and 99-Year Heat Exchanger Limited Warranty, online registration must be completed within 60 days of installation. The duration of warranty coverage may depend on the state in which you reside. Some states and provinces do not allow warranty coverage to be conditioned on registration. For a list of states and provinces that do not allow warranty coverage to be conditioned on registration, please visit www.amana-hac.com/warranty-information or, to request a paper copy of this information, please call us at 1-855-502-3903. 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.

\+ One-time Unit Replacement coverage is available to the original homeowner for years 11-99 after the installation date through an *ASURE* Extended Service Plan. Complete details about the Extended Service Plan options available from your *ASURE* dealer.

Supersedes 05/25



*** Some models are rated up to 97% AFUE

	AR9S96 0403AN	AR9S96 0603BN	AR9S96 0803BN	AR9S96 0804CN	AR9S96 0805CN	AR9S96 1005CN	AR9S96 1205DN
Heating Data							
High Fire Input[1]	40,000	60,000	80,000	80,000	80,000	100,000	120,000
High Fire Output[1]	38,800	58,200	76,880	77,600	77,600	96,100	115,320
AFUE[2]	97	97	96.1	97	97	96.1	96.1
Temperature Rise Range (°F)	25-55	30-60	35-65	25-55	25-55	30-60	35-65
Vent Diameter[3]	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"	3"
No. of Burners	2	3	4	4	4	5	6
Circulator Blower							
Available AC @ 0.5" ESP	1.5 - 3	1.5 - 3	1.5 - 3	1.5 - 4	3 - 5	3 - 5	3 - 5
Size (D x W)	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	3/4	1	1	1
Speed	9	9	9	9	9	9	9
Filter Size (in²) (Qty)	(1) 16xX 25 (side) or (1) 14 X 25 (bottom)	(1) 16xX 25 (side or bottom)	(1) 16xX 25 (side or bottom)	(1) 16xX 25 (side or bottom)	(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]	9.7	10.1	10.1	13.7	16.7	16.7	16.7
Max. Overcurrent Device (amps)[5]	15	15	15	20	25	25	25
Shipping Weight (lbs)	108	118	118	141	142	144	156
ENERGY STAR® Certified	ENERGY STAR	ENERGY STAR	NO	ENERGY STAR	ENERGY STAR	NO	NO

[1] Natural Gas BTU/h; for altitudes 0-4500' above sea level, reduce input rating by 4% for each 1000' above 4500' altitude.

[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.

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.

	AD9S96 0403BN	AD9S96 0603BN	AD9S96 0804CN	AD9S96 1005CN	AD9S96 1205DN
HEATING DATA					
High Fire Input[1]	40,000	60,000	80,000	100,000	120,000
High Fire Output[1]	38,800	57,660	76,880	95,000	115,320
AFUE[2]	97	96.1	96.1	95.0	96.1
Temperature Rise Range (°F)	25-55	35-65	40-70	40-70	45-75
Vent Diameter[3]	2" - 3"	2" - 3"	2" - 3"	2" - 3"	3"
No. of Burners	2	3	4	5	6
CIRCULATOR BLOWER					
Available AC @ 0.5" ESP	1.5 - 3	1.5 - 3	2.5 - 4	3 - 5	3 - 5
Size (D x W)	11" x 8"	11" x 8"	11" x 10"	11" x 10"	11" x 11"
Horsepower @ 1075 RPM	1/2	1/2	3/4	1	1
Speed	9	9	9	9	9
FILTER SIZE (IN²) (QTY)	(2) 10 x 20 or (1) 16 x 25 (top return)	(2) 10 x 20 or (1) 16 x 25 (top return)	(2) 10 x 20 or (1) 16 x 25 (top return)	(1) 14 x 20 (bottom) or (1) 20 x 25 (top return)	(1) 14 x 20 (bottom) or (1) 20 x 25 (top return)
ELECTRICAL DATA					
Min. Circuit Ampacity[4]	10.1	10.1	13.7	16.7	16.7
Max. Overcurrent Device (amps)[5]	15	15	20	25	25
SHIPPING WEIGHT (LBS)	113	116	141	144	156
ENERGY STAR® CERTIFIED		NO	NO	NO	NO

[1] Natural Gas BTU/h; for altitudes 0-4500' above sea level, reduce input rating by 4% for each 1000' above 4500' altitude.

[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.

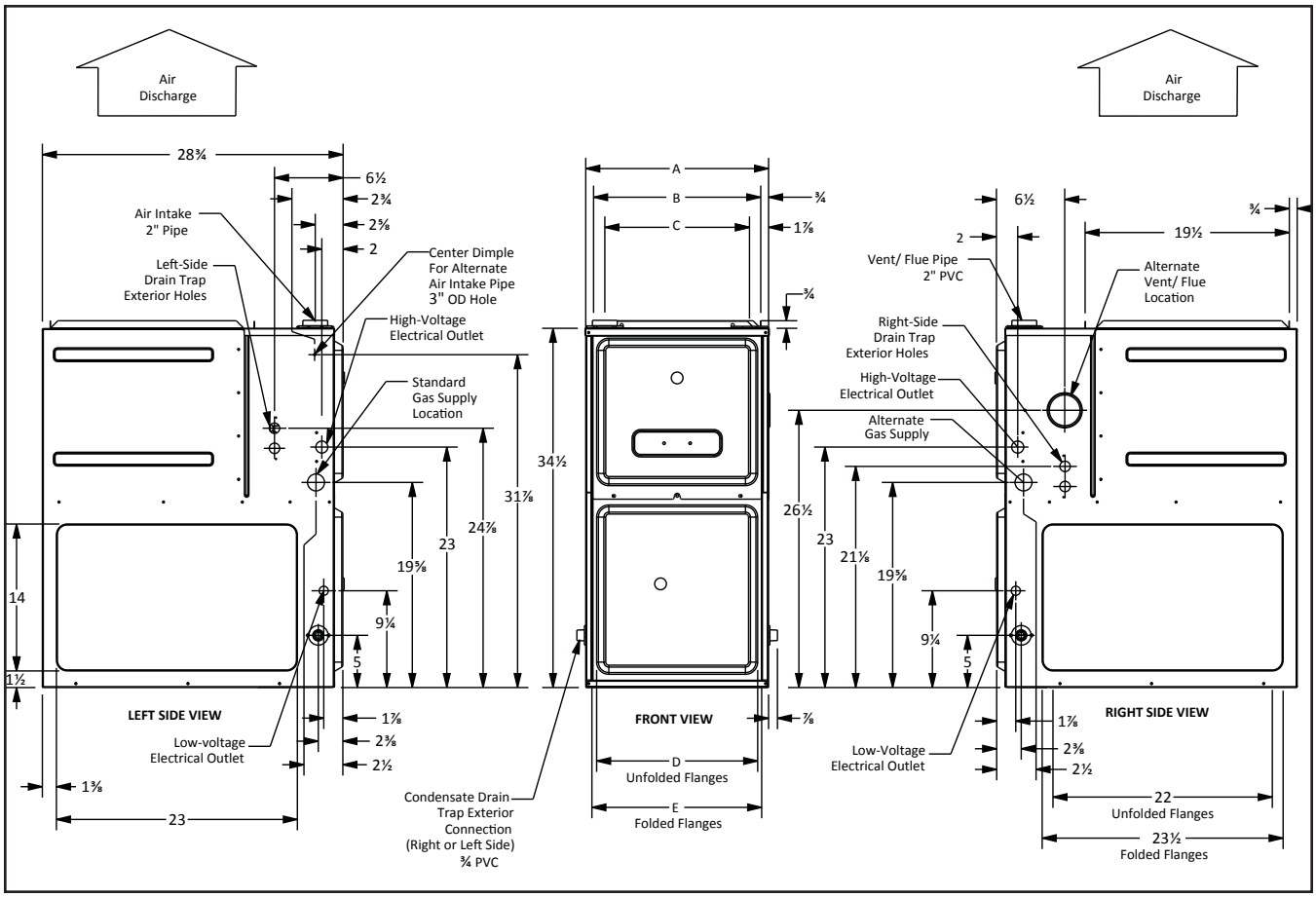
[5] Maximum Overcurrent Protection Device refers to maximum recommended fuse or circuit breaker size. May use fuses or HACR-type circuit breakers of the same size as noted.

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.

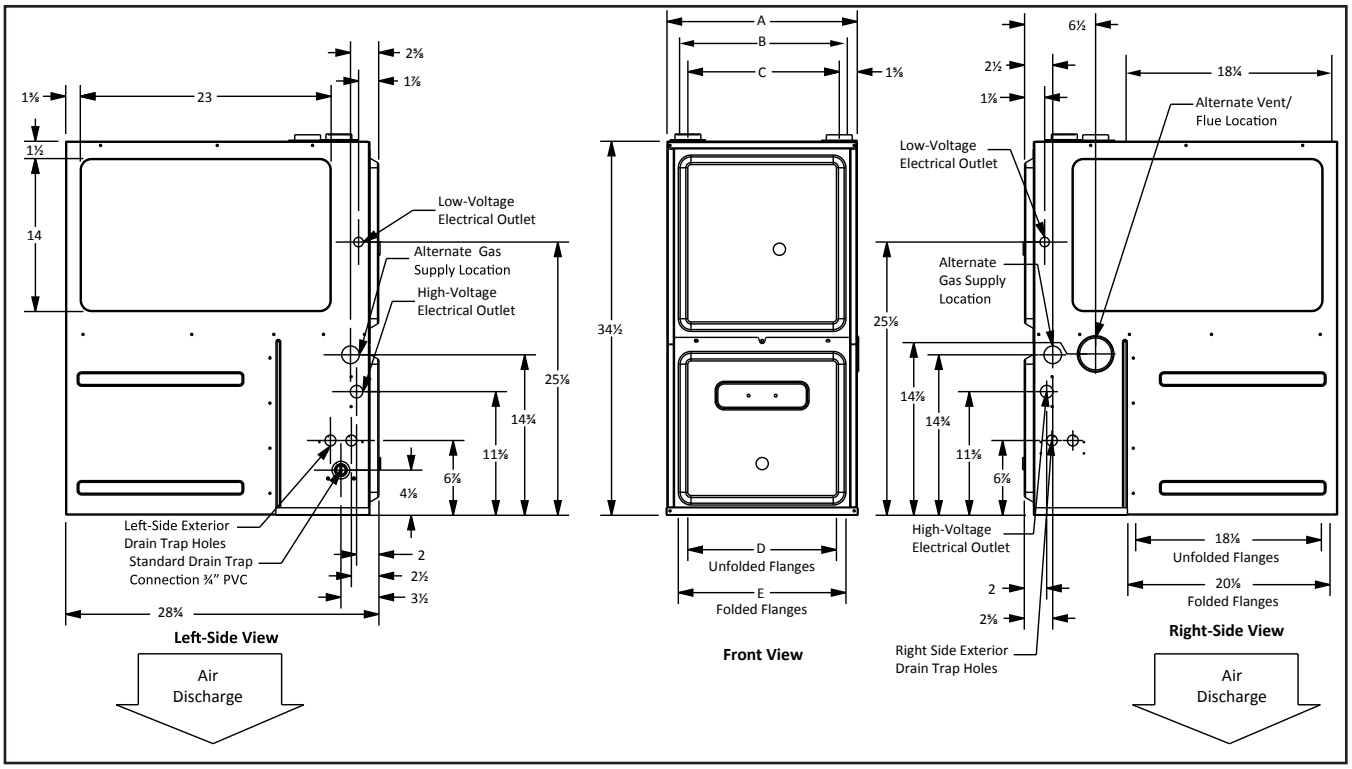


Model	A	B	C	D	E
AR9S960403AN	14"	12½"	10½"	8⅝"	10⅛"
AR9S960603BN	17½	16"	13⅞"	12⅛"	13⅝"
AR9S960803BN	17½	16"	13⅞"	12⅛"	13⅝"
AR9S960804CN	21"	19½"	17⅜	16"	17½"
AR9S960805CN	21"	19½"	17⅜	16"	17½"
AR9S961005CN	21"	19½"	17⅜	16"	17½"
AR9S961205DN	24½	23"	20⅞"	19⅜"	20⅞"

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.



Model	A	B	C	D	E
AD9S960403BN	17½	16"	13⅞"	12⅛"	13⅝"
AD9S960603BNA	17½	16"	13⅞"	12⅛"	13⅝"
AD9S960804CN	21"	19½"	17⅜	16"	17½"
AD9S961005CN	21"	19½"	17⅜	16"	17½"
AD9S961205DN	24½	23"	20⅞"	19⅜"	20⅞"

Minimum Clearances to Combustible Materials

Position	Sides	Rear	Front	Bottom	Flue	Top
Downflow	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.

NC = For installation on non-combustible floors only. A combustible floor sub-base must be used for installations on combustible flooring.

CFM & Temperature Rise vs. External Static Pressure

HEATING AIRFLOW															
Model	Thermostat 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	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	CFM	CFM
AR9S96 0403A*	W/W1	F01^^	705	50	661	54	617	N/A	564	N/A	509	N/A	455	405	362
		F02^	1079	33	1055	34	1027	35	994	36	965	37	935	906	863
		F03	915	39	881	40	846	42	814	44	780	46	737	695	652
		F04	887	40	855	42	823	43	790	45	751	47	705	666	608
AR9S966 0603B*	W/W1	F01^^	758	N/A	696	N/A	636	N/A	572	N/A	512	N/A	460	412	354
		F02^	1218	44	1178	45	1140	47	1100	48	1060	50	1016	977	937
		F03	1164	46	1123	47	1084	49	1042	51	1003	53	960	920	871
		F04	1121	48	1083	49	1041	51	996	54	953	56	906	861	818
AR9S96 0803B*	W/W1	F01^^	715	N/A	658	N/A	589	N/A	524	N/A	465	N/A	412	360	279
		F02^	1415	50	1385	51	1355	52	1322	54	1291	55	1255	1219	1186
		F03	1388	51	1360	52	1325	54	1291	55	1259	57	1223	1191	1157
		F04	1290	55	1252	57	1215	59	1182	60	1143	62	1107	1071	1032
AR9S96 0804C*	W/W1	F01^^	1019	N/A	952	N/A	878	N/A	796	N/A	706	N/A	619	542	485
		F02^	1791	40	1743	41	1700	42	1663	43	1626	44	1583	1538	1489
		F03	1625	44	1559	46	1512	47	1468	48	1425	50	1370	1325	1271
		F04	1537	46	1490	48	1447	49	1403	51	1354	53	1301	1247	1190
AR9S96 0805C*	W/W1	F01^^	1029	N/A	959	N/A	890	N/A	811	N/A	727	N/A	647	579	511
		F02^	1814	39	1766	40	1722	41	1679	42	1637	43	1595	1555	1511
		F03	1893	38	1844	39	1803	39	1763	40	1723	41	1685	1641	1604
		F04	1738	41	1680	42	1637	43	1596	45	1554	46	1510	1469	1420
AR9S96 1005C*	W/W1	F01^^	1008	N/A	934	N/A	855	N/A	779	N/A	702	N/A	628	557	493
		F02^	2026	44	1981	45	1929	46	1901	47	1858	48	1819	1773	1733
		F03	1921	46	1879	47	1840	48	1791	50	1751	51	1705	1656	1610
		F04	1804	49	1755	51	1710	52	1664	53	1619	55	1574	1526	1479
AR9S96 1205D*	W/W1	F01^^	1118	N/A	1035	N/A	952	N/A	860	N/A	750	N/A	663	590	519
		F02^	2143	50	2095	51	2047	52	2002	53	1954	55	1891	1850	1802
		F03	2025	53	1977	54	1930	55	1897	56	1848	58	1798	1750	1703
		F04^^	1906	56	1877	57	1828	58	1778	60	1726	62	1674	1622	1568

Notes

- ^ DEFAULT SPEED
- ^^NOT RECOMMENDED FOR HEATING

Cooling & Circulation Airflow														
MODEL	THERMOSTAT 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
AR9S96 0403A*	Y/Y1, Y2, G	F01	705	661	617	564	509	103	455	108	405	115	362	120
		F02	1079	1055	1027	994	965	256	935	264	906	271	863	277
		F03	915	881	846	814	780	174	737	180	695	186	652	193
		F04^	887	855	823	790	751	164	705	170	666	176	608	183
		F05	1135	1106	1078	1049	1021	281	994	290	965	299	933	306
		F06	1189	1163	1138	1111	1085	321	1059	331	1032	341	1001	349
		F07	1266	1243	1218	1197	1172	372	1148	383	1123	394	1099	400
		F08	1313	1288	1261	1239	1215	403	1189	412	1165	422	1143	432
		F09	1342	1324	1305	1280	1263	440	1239	452	1216	463	1193	473
AR9S96 0603B*	Y/Y1, Y2, G	F01	758	696	636	572	512	104	460	110	412	115	354	121
		F02	1218	1178	1140	1100	1060	275	1016	284	977	292	937	299
		F03	1164	1123	1084	1042	1003	249	960	258	920	268	871	276
		F04^	1121	1083	1041	996	953	230	906	236	861	245	818	252
		F05	902	851	801	746	689	145	637	153	585	158	542	164
		F06	960	917	864	812	764	164	708	171	661	179	614	184
		F07	1273	1240	1207	1171	1128	309	1089	318	1051	327	1012	336
		F08	1335	1301	1266	1228	1192	347	1154	356	1118	365	1078	373
		F09	1427	1390	1362	1327	1297	408	1260	414	1224	423	1193	434
AR9S96 0803B*	Y/Y1, Y2, G	F01	715	658	589	524	465	93	412	99	360	104	279	108
		F02	1415	1385	1355	1322	1291	394	1255	403	1219	407	1186	417
		F03	1388	1360	1325	1291	1259	375	1223	385	1191	393	1157	403
		F04^	1290	1252	1215	1182	1143	311	1107	319	1071	329	1032	337
		F05	916	867	817	767	710	147	657	154	608	159	563	166
		F06	985	940	892	842	797	169	746	176	693	184	649	190
		F07	1118	1078	1037	992	952	222	910	230	863	239	822	247
		F08	1191	1153	1114	1074	1034	255	993	264	951	272	911	281
		F09	1471	1440	1409	1377	1347	427	1314	436	1283	446	1247	456
AR9S96 0804C*	Y/Y1, Y2, G	F01	1019	952	878	796	706	138	619	144	542	150	485	157
		F02	1791	1743	1700	1663	1626	472	1583	487	1538	499	1489	510
		F03	1625	1559	1512	1468	1425	359	1370	369	1325	385	1271	395
		F04^	1537	1490	1447	1403	1354	326	1301	337	1247	347	1190	357
		F05	1289	1234	1180	1122	1058	217	991	226	917	234	840	242
		F06	1431	1375	1329	1283	1227	276	1169	285	1108	295	1043	304
		F07	1836	1784	1741	1703	1664	496	1628	515	1585	528	1537	540
		F08	1919	1890	1846	1807	1771	566	1735	585	1694	600	1650	613
		F09	1952	1921	1885	1843	1804	590	1769	611	1731	629	1691	643

See note on page 9

Cooling & Circulation Airflow													
MODEL	THERMOSTAT 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
AR9S96 0805C*	Y/Y1, Y2, G	F01	1029	959	890	811	727	149	647	157	579	163	511	170
		F02	1814	1766	1722	1679	1637	486	1595	502	1555	517	1511	531
		F03	1893	1844	1803	1763	1723	541	1685	556	1641	569	1604	588
		F04^	1738	1680	1637	1596	1554	437	1510	452	1469	465	1420	477
		F05	1193	1135	1087	1016	950	198	880	208	805	217	738	225
		F06	1421	1369	1323	1272	1222	283	1168	295	1108	306	1045	318
		F07	1582	1536	1491	1445	1404	358	1358	370	1309	382	1255	395
		F08	1962	1919	1889	1851	1816	601	1780	620	1743	638	1702	655
		F09	2068	2024	1986	1947	1912	692	1873	709	1837	726	1797	744
AR9S96 1005C*	Y/Y1, Y2, G	F01	1008	934	855	779	702	142	628	148	557	155	493	161
		F02	2026	1981	1929	1901	1858	659	1819	677	1773	685	1733	701
		F03	1921	1879	1840	1791	1751	577	1705	588	1656	604	1610	617
		F04^	1804	1755	1710	1664	1619	490	1574	502	1526	514	1479	524
		F05	1475	1421	1369	1314	1260	307	1207	317	1152	326	1097	337
		F06	1626	1578	1522	1475	1427	381	1353	390	1328	401	1283	412
		F07	1693	1639	1588	1542	1491	422	1437	432	1390	442	1340	453
		F08	1775	1723	1674	1629	1580	472	1529	485	1484	497	1435	508
		F09	2161	2122	2084	2048	2010	739	1973	755	1940	776	1914	796
AR9S96 1205D*	Y/Y1, Y2, G	F01	1118	1035	952	860	750	149	663	156	590	165	519	171
		F02	2143	2095	2047	2002	1954	619	1891	632	1850	647	1802	663
		F03	2025	1977	1930	1897	1848	539	1798	553	1750	567	1703	583
		F04^	1906	1877	1828	1778	1726	474	1674	487	1622	501	1568	515
		F05	1220	1145	1070	995	907	177	811	187	725	194	651	201
		F06	1684	1620	1561	1499	1438	345	1378	358	1318	371	1259	383
		F07	1766	1712	1666	1612	1558	387	1506	401	1450	412	1395	425
		F08	1863	1807	1754	1698	1642	432	1587	445	1532	459	1476	472
		F09	2454	2396	2347	2296	2250	889	2202	905	2157	922	2113	941

NOTE: ^ Default speed

CFM & Temperature Rise vs. External Static Pressure

HEATING AIRFLOW															
Model	THERMOSTAT 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	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	CFM	CFM
AD9S96 0403B*	W/W1	F01^^	632	N/A	574	N/A	510	N/A	448	N/A	388	N/A	332	277	234
		F02^	727	48	677	51	623	54	565	60	510	65	455	403	351
		F03	878	41	839	42	797	45	751	47	701	51	653	607	561
		F04	948	38	910	39	870	41	828	43	785	45	739	693	652
AD9S96 0603B*	W/W1	F01^^	771	N/A	698	N/A	632	N/A	560	N/A	491	N/A	428	372	307
		F02^	1197	45	1150	46	1102	48	1057	50	1014	53	968	926	877
		F03	1309	41	1264	42	1224	44	1180	45	1141	47	1098	1058	1018
		F04	1138	47	1091	49	1043	51	993	54	949	56	901	853	805
AD9S96 0804C*	W/W1	F01^^	873	N/A	778	N/A	682	N/A	630	N/A	578	N/A	490	419	347
		F02^	1442	49	1386	51	1335	53	1280	56	1221	58	1157	1110	1054
		F03	1643	43	1588	45	1534	46	1478	48	1415	50	1357	1299	1246
		F04	1600	44	1555	46	1505	47	1460	49	1412	50	1364	1309	1260
AD9S96 1005C*	W/W1	F01^^	1176	N/A	1107	N/A	1037	N/A	969	N/A	891	N/A	825	753	692
		F02^	1773	50	1721	52	1671	53	1621	55	1571	57	1521	1470	1421
		F03^^	1709	52	1658	54	1607	55	1556	57	1503	59	1451	1399	1349
		F04	1651	54	1597	56	1542	58	1491	60	1437	62	1384	1332	1278
AD9S96 1205D*	W/W1	F01^^	1187	N/A	1101	N/A	1013	N/A	931	N/A	847	N/A	764	677	604
		F02^	1973	54	1916	56	1864	57	1810	59	1756	61	1702	1650	1590
		F03	1918	56	1859	57	1807	59	1748	61	1696	63	1643	1591	1531
		F04	1835	58	1776	60	1720	62	1657	64	1602	67	1544	1483	1428

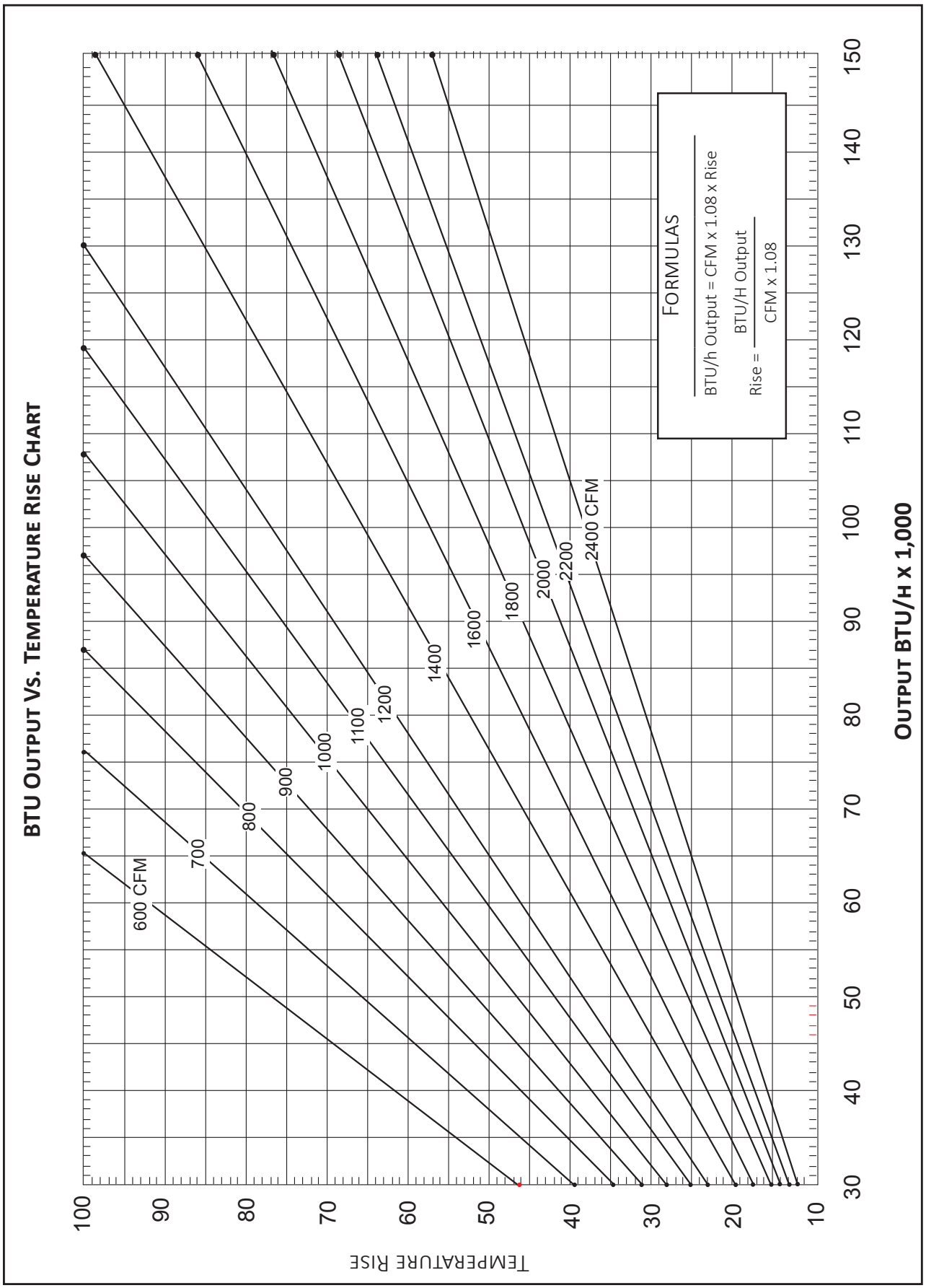
Notes

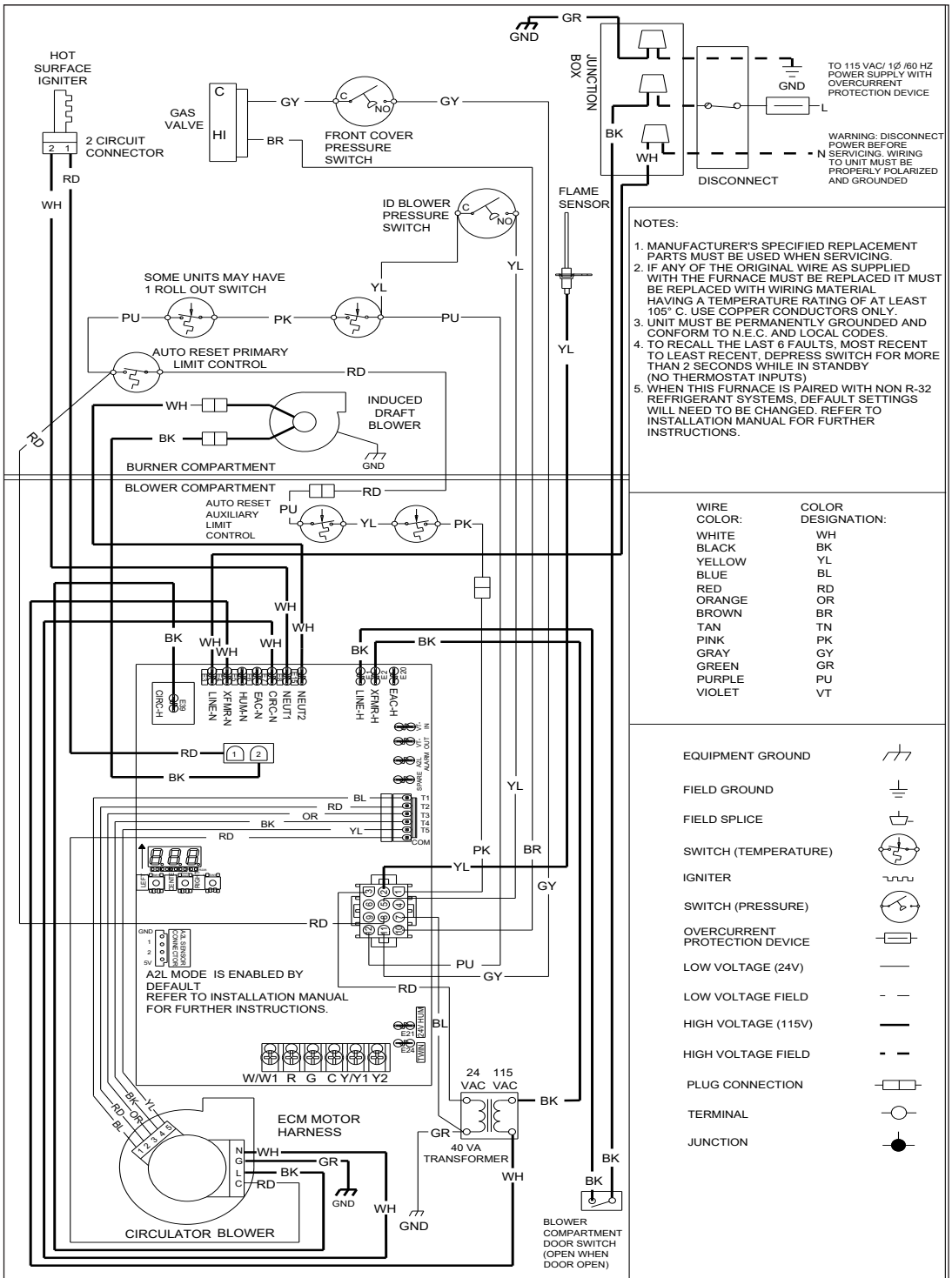
- ^ DEFAULT SPEED
- ^^NOT RECOMMENDED FOR HEATING

Cooling & Circulation Airflow														
Model	Thermostat 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
AD9S96 0403B*	Y/Y1, Y2, G	F01	632	574	510	448	388	80	332	85	277	89	234	93
		F02	727	677	623	565	510	101	455	106	403	111	351	116
		F03	878	839	797	751	701	146	653	151	607	157	561	162
		F04^	948	910	870	828	785	169	739	175	693	181	652	187
		F05	1106	1076	1044	1010	974	243	939	250	899	256	860	263
		F06	1156	1125	1096	1063	1028	268	996	276	960	282	927	290
		F07	1237	1205	1174	1145	1115	317	1081	324	1050	332	1016	341
		F08	1334	1306	1275	1249	1220	385	1194	391	1163	398	1136	408
		F09	1382	1354	1327	1302	1276	418	1246	424	1219	432	1190	439
AD9S96 0603B*	Y/Y1, Y2, G	F01	771	698	632	560	491	104	428	110	372	115	307	119
		F02	1197	1150	1102	1057	1014	254	968	262	926	272	877	279
		F03	1309	1264	1224	1180	1141	318	1098	325	1058	334	1018	343
		F04^	1138	1091	1043	993	949	227	901	235	853	243	805	249
		F05	944	884	824	774	716	151	660	158	605	163	554	169
		F06	963	907	852	803	745	160	689	166	639	173	587	179
		F07	1332	1289	1245	1200	1160	327	1120	335	1081	343	1036	353
		F08	1366	1319	1277	1235	1192	347	1154	354	1117	363	1074	371
		F09	1468	1436	1393	1359	1323	418	1285	427	1248	436	1210	445
AD9S96 0804C*	Y/Y1, Y2, G	F01	873	778	682	630	578	90	490	94	419	100	347	105
		F02	1442	1386	1335	1280	1221	288	1157	297	1110	307	1054	316
		F03	1643	1588	1534	1478	1415	339	1357	350	1299	361	1246	375
		F04^	1600	1555	1505	1460	1412	375	1364	384	1309	395	1260	403
		F05	1338	1269	1206	1133	1063	211	999	220	934	229	861	239
		F06	1796	1744	1691	1638	1584	430	1532	441	1473	453	1422	462
		F07	1874	1823	1775	1729	1675	482	1621	492	1567	500	1512	517
		F08	1798	1754	1719	1672	1627	500	1585	510	1546	520	1497	530
		F09	1991	1947	1900	1854	1808	573	1759	585	1707	592	1655	606
AD9S96 1005C*	Y/Y1, Y2, G	F01	1176	1107	1037	969	891	184	825	194	753	201	692	207
		F02	1773	1721	1671	1621	1571	465	1521	474	1470	485	1421	495
		F03	1709	1658	1607	1556	1503	426	1451	436	1399	445	1349	455
		F04^	1651	1597	1542	1491	1437	392	1384	401	1332	410	1278	421
		F05	1467	1409	1352	1307	1240	297	1182	306	1124	315	1063	325
		F06	1834	1785	1738	1691	1643	513	1593	522	1545	532	1502	543
		F07	1924	1881	1836	1796	1750	583	1701	592	1652	602	1606	614
		F08	2028	1994	1937	1899	1863	683	1814	690	1769	702	1724	713
		F09	2193	2145	2106	2076	2032	844	1998	852	1945	862	1903	874
AD9S96 1205D*	Y/Y1, Y2, G	F01	1187	1101	1013	931	847	165	764	174	677	180	604	186
		F02	1973	1916	1864	1810	1756	502	1702	513	1650	525	1590	536
		F03	1918	1859	1807	1748	1696	463	1643	476	1591	486	1531	497
		F04^	1835	1776	1720	1657	1602	414	1544	425	1483	436	1428	447
		F05	1236	1152	1073	990	919	181	834	190	749	198	679	204
		F06	1521	1459	1391	1327	1253	271	1187	281	1116	291	1053	302
		F07	1673	1609	1549	1493	1430	345	1362	354	1305	365	1242	375
		F08	2033	1981	1929	1878	1822	541	1771	553	1716	565	1669	578
		F09	2257	2201	2151	2099	2057	704	2008	719	1959	732	1906	742

Notes

^ DEFAULT SPEED


BTU Output Vs. Temperature Rise Chart
Temperature Rise
100
90
80
70
60
50
40
30
20
10
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
30
40
50
60
70
80
90
100
110
120
130
140
150
Output BTU/H x 1,000



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
PRESSURE SWITCH STUCK CLOSED	E	E	1
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
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

0140F20003-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	AR9S96 0403ANA	AR9S96 0603BNA	AR9S96 0803BNA	AR9S96 0804CNA	AR9S96 0805CNA	AR9S96 1005CNA	AR9S96 1205DNA
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	TBD	HASFK-4	HASFK-4	HASFK-4	HASFK-4	HASFK-4	HASFK-4
HASFK	High-Altitude LP Gas Kit	TBD	HASFK-6	HASFK-6	HASFK-6	HASFK-5	HASFK-5	HASFK-5
0270F20728	Horizontal Drain Tubing Kit	√	√	√	√	√	√	√
LPM-33	LP Conversion Kits	√	√	√	√	√	√	√

Model	Description	AD9S96 0403BNA	AD9S96 0603BNA	AD9S96 0804CNA	AD9S96 1005CNA	AD9S96 1205DNA
72950	Concentric Vent Kit (2")	√	√	√	√	—
72951	Concentric Vent Kit (3")	√	√	√	√	√
CFSB17	Downflow Sub-Base 17.5"	√	√	—	—	—
CFSB21	Downflow Sub-Base 21"	—	—	√	√	—
CFSB24	Downflow Sub-Base 24"	—	—	—	—	√
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	HASFK-4	HASFK-4	HASFK-4	HASFK-4	HASFK-4
HASFK	High-Altitude LP Gas Kit	HASFK-5	HASFK-5	HASFK-5	HASFK-4	HASFK-4
0270F20729	Horizontal Drain Tubing Kit	√	√	√	√	√
LPM-33	LP Conversion Kits	√	√	√	√	√