

HEATING INPUT: 40,000–120,000 BTU/H

SINGLE-STAGE, MULTI-SPEED  
 ECM GAS FURNACE  
 UP TO 92% AFUE



### Contents

Nomenclature.....	2
Product Specifications.....	3
Dimensions .....	4
Airflow Specifications.....	5
Wiring Diagram.....	13
Accessories .....	14

**R32**

### Standard Features

- Heavy-duty stainless-steel tubular heat exchanger
- Stainless-steel secondary heat exchanger
- Single-stage gas valve
- Durable Silicon Nitride igniter
- Multi-speed ECM blower motor
- Quiet single-speed induced draft blower
- Self-diagnostic control board
- 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 — AR9S92: upflow, 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 — AR9S92/upflow models only
- Convenient left or right connection for gas and electrical service
- Cabinet air leakage ( $Q_{Leak} \leq 2\%$ )
- Heavy-gauge steel cabinet with durable finish
- Foil-faced insulated heat exchanger cabinet
- Airtight solid bottom or side return with easy-cut tabs for effortless removal in bottom air-inlet applications



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

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

\* Complete warranty details available from your local dealer or at [www.amana-hac.com](http://www.amana-hac.com). To receive the Lifetime Heat Exchanger Limited Warranty (good for as long as you own your home), 10-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Online registration is not required in California or Québec. The duration of warranty coverage in Texas and Florida differs in some cases.

NOMENCLATURE

	A	R	9	S	92	040	4	C	*	**	
	1	2	3	4	5,6	7,8,9	10	11	12	13,14	
<b>BRAND</b>											<b>ENGINEERING</b>
A - Amana® Brand											Major/Minor Revisions
											A - Initial Release
											B - 1st Revision
<b>CONFIGURATION</b>											<b>NOx</b>
R - Upflow/Horizontal											N = < 40 NG/J NOx
D - Downflow/Horizontal											
<b>MOTOR</b>											<b>CABINET WIDTH</b>
9 - Nine Speed ECM											A - 14"      C - 21"
											B - 17½"      D - 24½"
<b>GAS VALVE</b>	<b>MAXIMUM CFM</b>										
T - 2 Stage	3 - 1200 CFM      4 - 1600 CFM										
S - 1 STAGE	5 - 2000 CFM										
<b>AFUE</b>	<b>MBTU/h</b>										
80 - 80% AFUE    92 - 92% AFUE	030 - 30,000 BTU/h      080 - 80,000 BTU/h										
96 - 96% AFUE    97 - 97% AFUE	040 - 40,000 BTU/h      100 - 100,000 BTU/h										
	060 - 60,000 BTU/h      120 - 120,000 BTU/h										

	AR9S92 0403AN	AR9S92 0603BN	AR9S92 0803BN	AR9S92 0804CN	AR9S92 0805CN	AR9S92 1004CN	AR9S92 1005CN	AR9S92 1205DN
<b>HEATING DATA</b>								
High Fire Input <sup>1</sup>	40,000	60,000	80,000	80,000	80,000	100,000	100,000	120,000
High Fire Output <sup>1</sup>	36,840	55,260	73,680	73,680	73,680	92,100	92,100	110,520
AFUE <sup>2</sup>	92	92	92	92	92	92	92	92
Temperature Rise Range (°F)	30-60	35-65	35-65	35-65	25-55	35-65	35-65	35-65
Vent Diameter <sup>3</sup>	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"	3"
NO. OF BURNERS	2	3	4	4	4	5	5	6
<b>CIRCULATOR BLOWER</b>								
Available AC @ 0.5" ESP	1.5 - 3	1.5 - 3	1.5 - 3	2.5 - 4	3 - 5	3 - 5	3 - 5	3 - 5
Size (D x W)	10" x 6"	10" x 8"	10" x 8"	10" x 10"	11" x 10"	10" x 10"	11" x 10"	11" x 11"
Horsepower @ 1075 RPM	1/2	1/2	1/2	3/4	1	3/4	1	1
Speed	9	9	9	9	9	9	9	9
<b>FILTER SIZE (IN<sup>2</sup>) (QTY)</b>	(1) 16 x 25 (side) or (1) 14 X 25 (bottom)	(1) 16 x 25 (side or bottom)	(1) 16 x 25 (side or bottom)	(1) 16 x 25 (side or bottom)	(1) 20 x 25 (bottom) or (2) 16 x 25 (side)	(1) 16 x 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)
<b>ELECTRICAL DATA</b>								
Min. Circuit Ampacity <sup>4</sup>	9.7	10.1	10.1	13.7	16.7	13.7	16.7	16.7
Max. Overcurrent Device (amps) <sup>5</sup>	15	15	15	20	25	20	25	25
<b>SHIPPING WEIGHT (LBS)</b>	106	114	117	139	140	141	141	154

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

<sup>2</sup> DOE AFUE based upon Isolated Combustion System (ICS)

<sup>3</sup> 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.

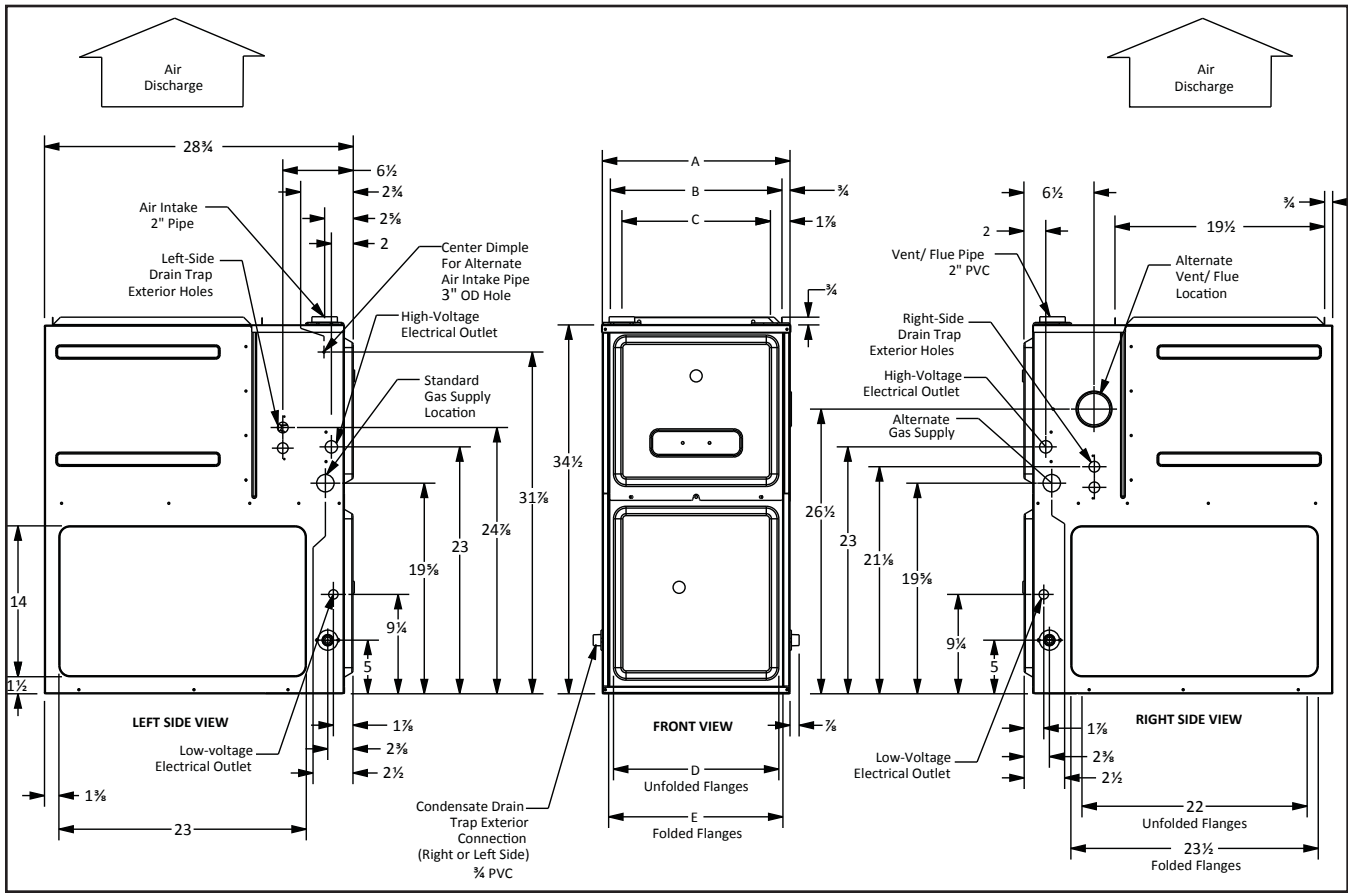
<sup>4</sup> Minimum Circuit Ampacity = (1.25 x Circulator Blower Amps) + ID Blower amps. Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

<sup>5</sup> 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.

# AR9S92 DIMENSIONS



MODEL	A	B	C	D	E
AR9S920403A*	14"	12 1/2"	10 1/2"	8 5/8"	10 1/8"
AR9S920603B*	17 1/2"	16"	13 3/8"	12 1/8"	13 3/8"
AR9S920803B*	17 1/2"	16"	13 3/8"	12 1/8"	13 3/8"
AR9S920804C*	21"	19 1/2"	17 3/8"	16"	17 1/2"
AR9S920805C*	21"	19 1/2"	17 3/8"	16"	17 1/2"
AR9S921004C*	21"	19 1/2"	17 3/8"	16"	17 1/2"
AR9S921005C*	21"	19 1/2"	17 3/8"	16"	17 1/2"
AR9S921205D*	24 1/2"	23"	20 3/8"	19 3/8"	20 3/8"

## 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.

## CFM &amp; TEMPERATURE RISE VS. EXTERNAL STATIC PRESSURE

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
*R9S92 0403A*	W/W1	F01^^	610	56	559	N/A	513	N/A	467	N/A	419	N/A	368	316	285
		F02^	925	37	887	38	852	40	818	42	787	43	754	720	685
		F03	846	40	808	42	772	44	737	46	703	49	667	630	594
		F04	781	44	739	46	701	49	663	51	625	55	586	547	508
*R9S92 0603B*	W/W1	F01^^	723	N/A	663	N/A	604	N/A	539	N/A	476	N/A	404	347	291
		F02^	1052	49	1010	51	962	53	920	56	875	58	829	785	740
		F03	1125	45	1084	47	1042	49	1003	51	964	53	918	875	834
		F04	1206	42	1166	44	1129	45	1091	47	1054	48	1012	977	947
*R9S92 0803B*	W/W1	F01^^	718	N/A	662	N/A	611	N/A	551	N/A	486	N/A	419	358	300
		F02^	1373	50	1341	51	1307	52	1279	53	1253	54	1226	1197	1172
		F03	1309	52	1265	54	1232	55	1192	57	1162	59	1129	1093	1057
		F04	1233	55	1194	57	1165	59	1131	60	1097	62	1070	1039	1008
*R9S92 0804C*	W/W1	F01^^	804	N/A	740	N/A	670	N/A	586	N/A	501	N/A	407	347	N/A
		F02^	1422	48	1375	50	1332	51	1288	53	1245	55	1200	1154	1108
		F03	1502	45	1455	47	1410	48	1365	50	1322	52	1278	1237	1195
		F04	1567	44	1519	45	1476	46	1441	47	1402	49	1360	1319	1278
*R9S92 0805C*	W/W1	F01^^	869	N/A	782	N/A	684	N/A	575	N/A	482	N/A	395	331	122
		F02^	1823	37	1776	38	1720	40	1679	41	1642	41	1597	1553	1504
		F03	1778	38	1729	39	1690	40	1648	41	1605	42	1558	1497	1449
		F04	1722	40	1660	41	1609	42	1553	44	1507	45	1455	1402	1350
*R9S92 1004C*	W/W1	F01^^	809	N/A	740	N/A	669	N/A	603	N/A	536	N/A	449	377	319
		F02^	1754	49	1707	50	1673	51	1640	52	1604	53	1568	1538	1509
		F03	1648	52	1620	53	1586	54	1552	55	1515	56	1480	1449	1412
		F04	1558	55	1517	56	1479	58	1441	59	1403	61	1366	1330	1295
*R9S92 1005C*	W/W1	F01^^	906	N/A	813	N/A	717	N/A	613	N/A	519	N/A	439	368	N/A
		F02^	1871	46	1818	47	1769	48	1720	50	1667	51	1614	1565	1511
		F03	1831	47	1782	48	1729	49	1679	51	1624	52	1571	1520	1465
		F04^^	1653	52	1596	53	1538	55	1480	58	1422	60	1362	1306	1247
*R9S92 1205D*	W/W1	F01^^	1056	N/A	962	N/A	866	N/A	772	N/A	666	N/A	574	501	429
		F02^	2096	49	2050	50	2005	51	1948	52	1899	54	1848	1800	1755
		F03	2023	51	1973	52	1927	53	1877	54	1829	56	1781	1731	1680
		F04^^	1946	53	1900	54	1848	55	1795	57	1741	59	1689	1637	1584

## NOTES

- ^ DEFAULT SPEED
- ^^NOT RECOMMENDED FOR HEATING

AR9S92 COOLING & CIRCULATION AIRFLOW

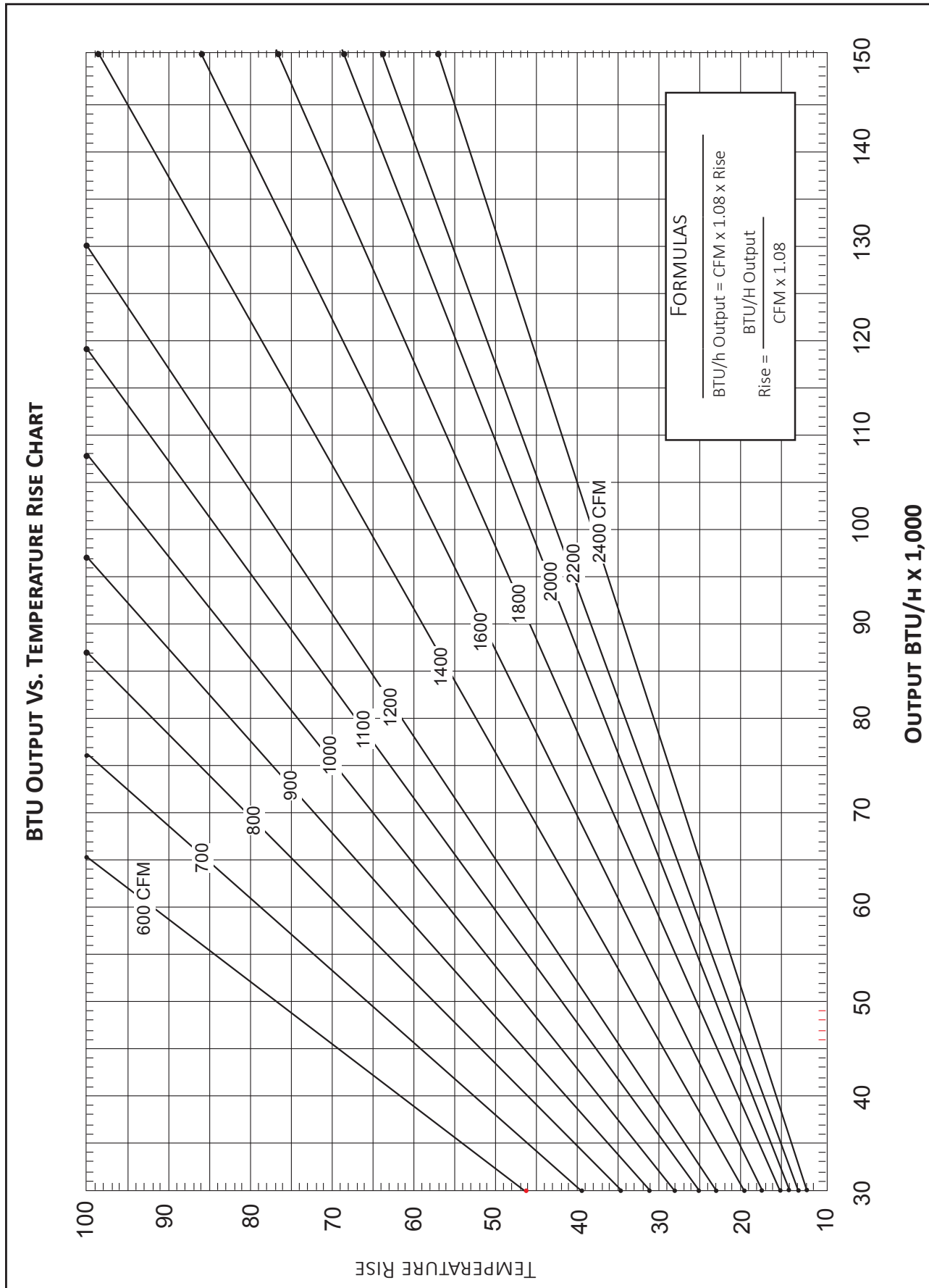
MODEL	THERMOSTAT CALL	TAP #	EXTERNAL STATIC PRESSURE (INCHES WATER COLUMN)															
			0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8	
			CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS
AR9S92 0403A*	Y/Y1, Y2, G	F01	610	559	513	467	419	84	368	89	316	95	285	98				
		F02	925	887	852	818	787	181	754	187	720	192	685	200				
		F03	846	808	772	737	703	149	667	155	630	161	594	167				
		F04^	781	739	701	663	625	129	586	133	547	139	508	144				
		F05	1038	1003	970	940	909	232	879	239	849	245	820	251				
		F06	1106	1072	1041	1011	981	271	953	278	926	285	898	291				
		F07	1215	1180	1151	1121	1095	336	1066	343	1043	352	1017	361				
		F08	1238	1210	1180	1153	1126	360	1099	368	1073	376	1047	383				
		F09	1319	1299	1273	1246	1220	429	1194	436	1169	444	1146	455				
AR9S92 0603B*	Y/Y1, Y2, G	F01	723	663	604	539	476	93	404	99	347	104	291	110				
		F02	1052	1010	962	920	875	181	829	189	785	198	740	206				
		F03	1125	1084	1042	1003	964	211	918	218	875	227	834	237				
		F04^	1206	1166	1129	1091	1054	249	1012	258	977	267	947	277				
		F05	901	854	809	758	703	136	653	145	604	151	552	159				
		F06	948	900	855	810	762	149	708	156	662	164	608	172				
		F07	1273	1237	1206	1169	1128	286	1094	294	1057	302	1020	311				
		F08	1365	1321	1292	1251	1219	331	1184	341	1152	349	1120	358				
		F09	1426	1387	1360	1326	1292	374	1257	383	1226	392	1193	400				
AR9S92 0803B*	Y/Y1, Y2, G	F01	718	662	611	551	486	99	419	104	358	111	300	115				
		F02	1373	1341	1307	1279	1253	410	1226	414	1197	420	1172	428				
		F03	1309	1265	1232	1192	1162	324	1129	332	1093	337	1057	347				
		F04^	1233	1194	1165	1131	1097	309	1070	317	1039	324	1008	330				
		F05	874	828	791	750	703	147	655	153	602	157	547	164				
		F06	950	908	865	826	786	168	739	175	689	181	638	188				
		F07	1097	1056	1019	988	952	236	921	243	880	248	842	255				
		F08	1166	1127	1092	1060	1027	268	994	276	960	281	926	286				
		F09	1407	1373	1338	1308	1282	424	1253	431	1229	438	1203	446				
AR9S92 0804C*	Y/Y1, Y2, G	F01	804	740	670	586	501	93	407	98	347	103	0	0				
		F02	1422	1375	1332	1288	1245	271	1200	281	1154	290	1108	299				
		F03	1502	1455	1410	1365	1322	304	1278	314	1237	325	1195	335				
		F04^	1567	1519	1476	1441	1402	339	1360	349	1319	361	1278	371				
		F05	1347	1299	1253	1205	1157	238	1111	245	1063	255	1013	263				
		F06	1692	1648	1609	1567	1529	406	1490	416	1451	428	1413	440				
		F07	1772	1728	1689	1652	1614	456	1574	462	1534	474	1498	486				
		F08	1793	1753	1720	1679	1643	470	1604	479	1562	489	1524	500				
		F09	1875	1833	1797	1759	1727	529	1686	539	1652	552	1616	563				
AR9S92 0805C*	Y/Y1, Y2, G	F01	869	782	684	575	482	100	395	104	331	110	122	58				
		F02	1823	1776	1720	1679	1642	409	1597	424	1553	442	1504	456				
		F03	1778	1729	1690	1648	1605	398	1558	412	1497	425	1449	439				
		F04^	1722	1660	1609	1553	1507	350	1455	369	1402	383	1350	395				
		F05	1498	1442	1388	1332	1278	264	1215	277	1154	290	1090	301				
		F06	1634	1583	1536	1489	1440	325	1387	339	1330	351	1275	365				
		F07	1925	1879	1836	1795	1752	471	1711	489	1664	503	1621	521				
		F08	1993	1941	1899	1852	1813	508	1778	525	1741	545	1693	560				
		F09	2216	2172	2131	2087	2046	663	2011	681	1973	697	1935	717				

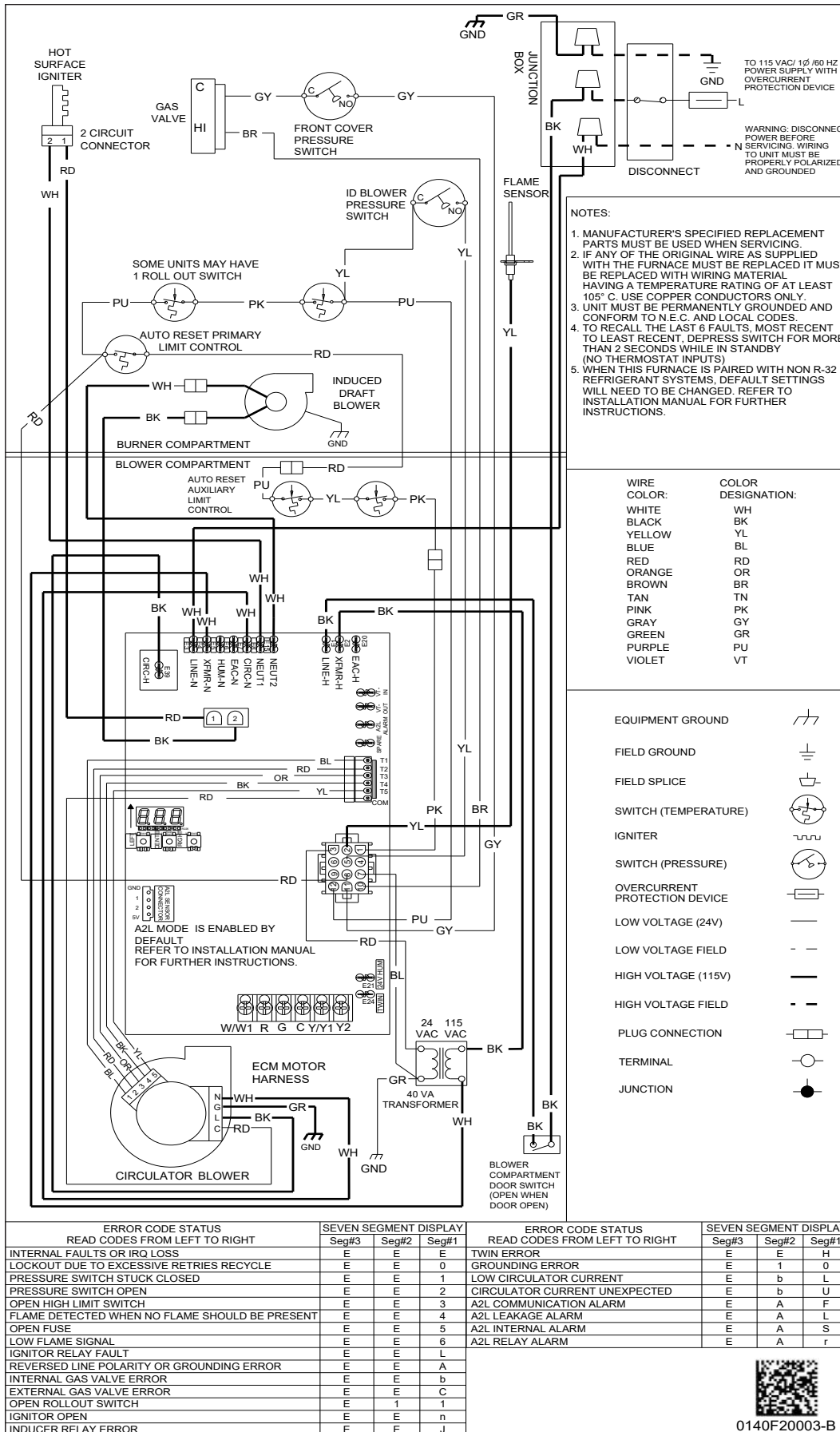
SEE NOTE ON PAGE 7

AR9S92 COOLING & CIRCULATION AIRFLOW (CONTD.)

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	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS
AR9S92 1004C*	Y/Y1, Y2, G	F01	809	740	669	603	536	98	449	105	377	110	319	115				
		F02	1754	1707	1673	1640	1604	487	1568	493	1538	505	1509	514				
		F03	1648	1620	1586	1552	1515	426	1480	435	1449	442	1412	454				
		F04^	1558	1517	1479	1441	1403	368	1366	378	1330	386	1295	396				
		F05	1303	1255	1210	1167	1125	241	1081	250	1041	260	999	271				
		F06	1406	1362	1321	1281	1240	283	1197	291	1157	301	1118	311				
		F07	1445	1403	1363	1324	1287	307	1247	315	1208	325	1167	336				
		F08	1778	1743	1700	1669	1634	508	1600	518	1568	530	1542	544				
		F09	1824	1785	1747	1714	1680	536	1647	548	1617	559	1585	568				
AR9S92 1005C*	Y/Y1, Y2, G	F01	906	813	717	613	519	103	439	109	368	114	0	0				
		F02	1871	1818	1769	1720	1667	435	1614	446	1565	459	1511	468				
		F03	1831	1782	1729	1679	1624	413	1571	424	1520	437	1465	449				
		F04^	1653	1596	1538	1480	1422	324	1362	335	1306	346	1247	357				
		F05	1496	1437	1376	1315	1250	259	1189	269	1126	279	1056	288				
		F06	1640	1587	1527	1471	1414	314	1357	324	1294	336	1235	347				
		F07	1955	1937	1909	1860	1813	513	1765	527	1712	541	1662	553				
		F08	2086	2039	1991	1944	1896	574	1855	588	1810	593	1763	607				
		F09	2222	2178	2133	2088	2043	683	1998	699	1954	711	1910	727				
AR9S92 1205D*	Y/Y1, Y2, G	F01	1056	962	866	772	666	130	574	136	501	143	429	150				
		F02	2096	2050	2005	1948	1899	532	1848	545	1800	559	1755	575				
		F03	2023	1973	1927	1877	1829	488	1781	501	1731	515	1680	532				
		F04^	1946	1900	1848	1795	1741	441	1689	455	1637	470	1584	485				
		F05	1231	1151	1078	992	913	171	812	181	725	189	651	196				
		F06	1503	1440	1382	1318	1251	256	1179	270	1108	281	1039	293				
		F07	1704	1646	1586	1532	1473	328	1412	340	1346	357	1284	372				
		F08	1831	1775	1720	1668	1610	388	1560	401	1511	413	1457	430				
		F09	2222	2173	2125	2078	2029	607	1980	622	1933	636	1884	652				

NOTE: ^ DEFAULT SPEED





**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.

ACCESSORIES

MODEL	DESCRIPTION	AR9S92 0403ANA	AR9S92 0603BNA	AR9S92 0803BNA	AR9S92 0804CNA	AR9S92 0805CNA	AR9S92 1004CNA	AR9S92 1005CNA	AR9S92 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" Per- manent 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-4
HASFK	High-Altitude LP Gas Kit	TBD	HASFK-4	HASFK-5	HASFK-4	HASFK-4	HASFK-4	HASFK-5	HASFK-4
O270F05404	Horizontal Drain Tubing Kit	√	√	√	√	√	√	√	√
LPM-33	LP Conversion Kits	√	√	√	√	√	√	√	√



