

L1RA Series Upflow/Horizontal Gas Furnace

Induced Draft - 80+ AFUE

Input 45,000 - 126,000 Btuh

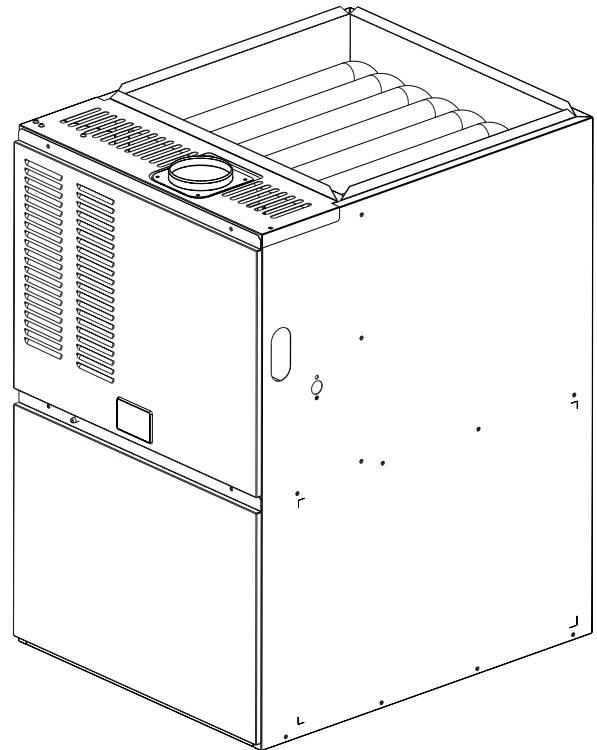
The upflow/horizontal gas furnace may be installed free standing in a utility room, basement, or enclosed in an alcove or closet. The extended flush jacket provides a pleasing "appliance appearance". The product is truly designed with the contractor and the consumer in mind.

FEATURES and BENEFITS

- **Warranty**

- This product offers a 10-year All-Parts Warranty.
- This product offers a 10 year Quality Pledge to replace the entire unit, if the unit's major component (heat exchanger or compressor) fails within the first 10 years of operation, to the original owner. All split system products must be installed with a matched indoor air handler or indoor coil to qualify.
- Consumer product registration required for both 10 year All Parts Warranty and Quality Pledge within a limited period of time after the installation. See current warranty document or visit our consumer web site listed on the back of this document for warranty details.
- Also when registered, this product is upgraded to a limited lifetime heat exchanger warranty.

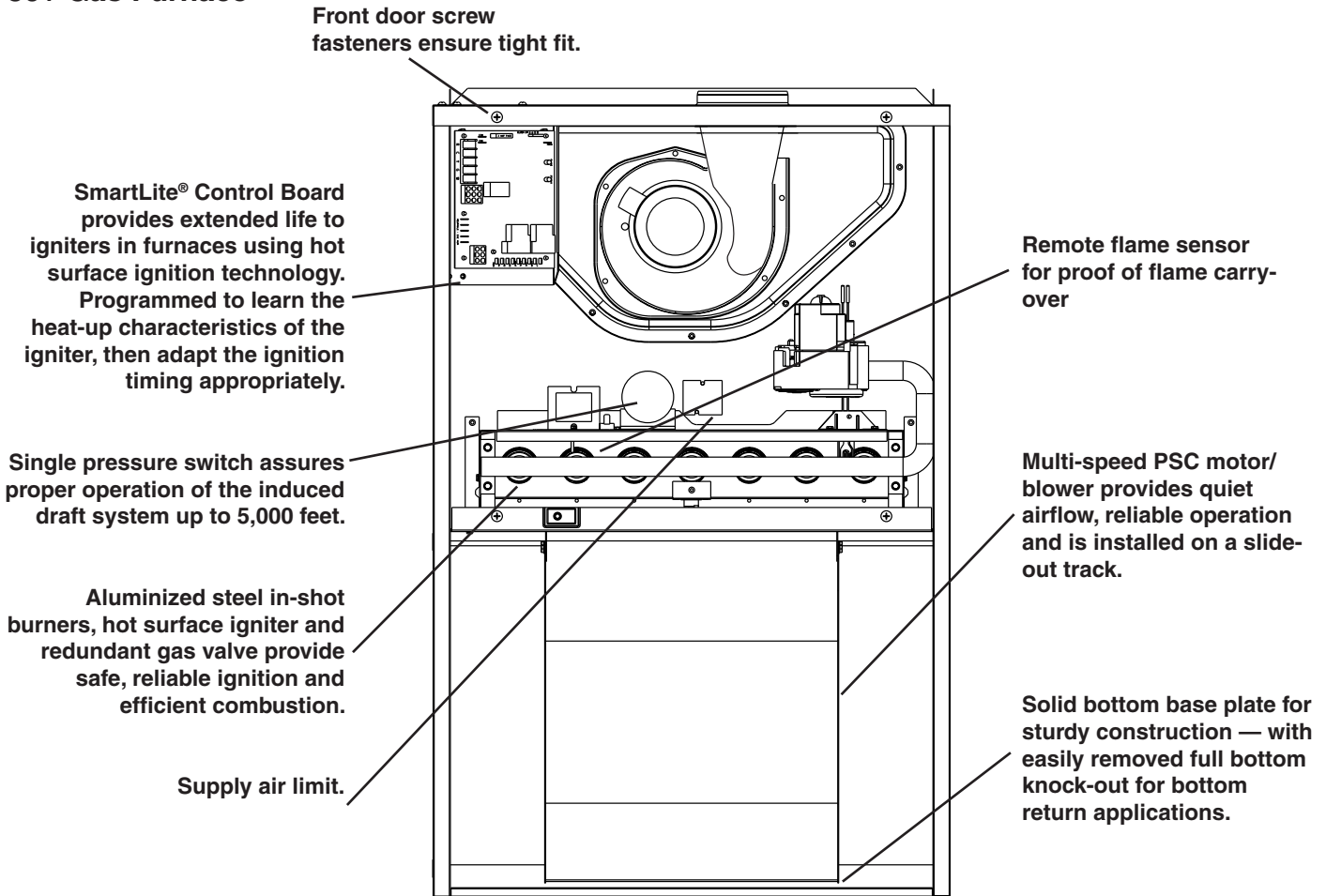
- **100% fired and tested** — All units and each component (both mechanical and electrical) are tested on the manufacturing line.
- **Best packaging in the industry** — Unique design assures product will arrive to the homeowner dent free.
- **Clean and quiet operation** — Due to the design of in-shot burners, location of inducer and return air vents.
- **Fixed 30 second blower delay** at burner start-up assures a warm duct temperature at furnace start-up. Adjustable blower off settings (60, 90, 120 and 180 seconds).
- **Fixed 30 second post purge** increases life of heat exchanger.
- **Dependable, hot surface igniter** — Innovative application of an appliance type igniter with a 20 year history of reliability.
- **Color coded wire harness** — Designed to fit the components, all with quick-connect fittings for ease of service and replacement.



- **Approved for category I venting system** — May be common or dedicated vented for flexibility in installation.
- **Tubular primary heat exchanger** — Aluminized steel heat exchanger assures a long life.
- **90 second fixed cooling cycle blower-off delay (TDR)** increases cooling performance when matched with a NORDYNE coil.
- **Furnace is easy to handle** — short and lightweight.
- **Multi-speed direct drive blower** — Designed to give a wide range of cooling capacities. 40VA transformer included.
- **LP convertible** — Simple burner orifice and regulator spring change for ease of convertibility.
- **Diagnostic lights flash to identify limit failure, pressure switch failure, improper ground and polarization, and low flame signal** — for easy troubleshooting.
- **SmartLite® Control Board provides extended life to igniters** programmed to learn the heat-up characteristics of the igniter so the ignition timing is energized appropriately.
- **Two piece door design** enhances furnace appearance and uses screw fasteners for easier accessibility.
- **3 amp fuse** protection against low voltage shorts; protects transformer and control board.
- **Low voltage terminal board** for easy field wiring.

FEATURES

Upflow/Horizontal 80+ Gas Furnace



STANDARD EQUIPMENT

Draft inducer; pressure switch; redundant main gas control; hot-surface ignition; timed ON/OFF blower controls (TDR); 40VA transformer for air conditioner application; limit controls; solid base plate with knock-out for easy removal; direct drive motor; all models can be converted to use L.P. (propane) gas. Factory approved kits *only* must be used and are available as an optional accessory from your distributor.

SPECIFICATIONS

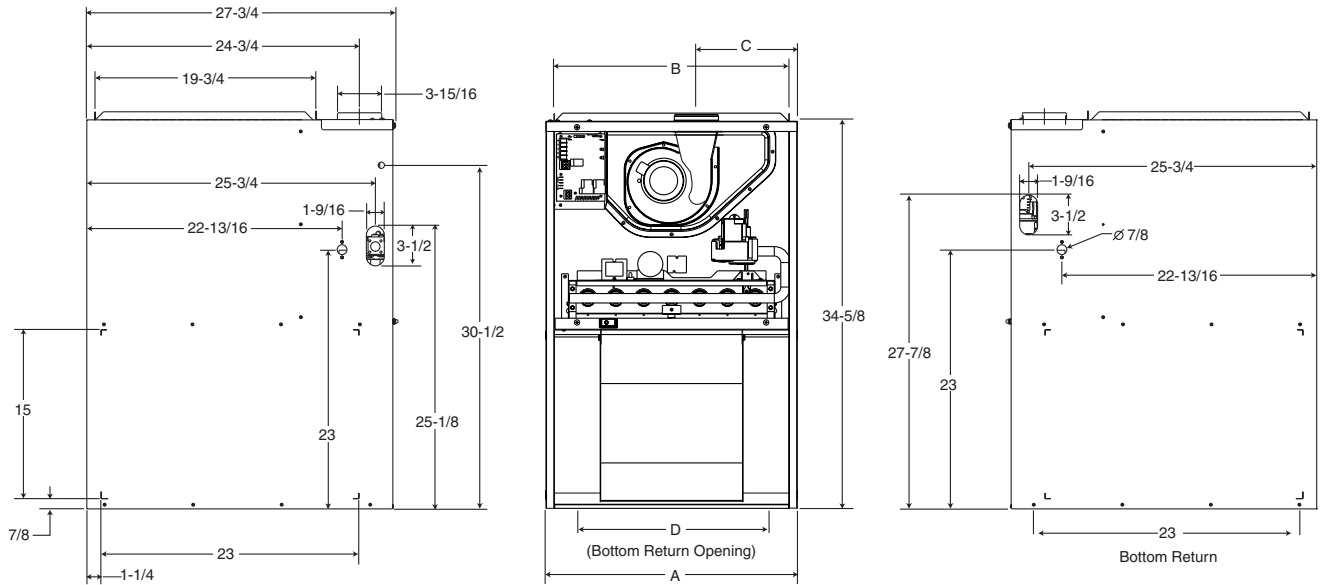
L1RA MODEL NUMBERS	045(*)08A	054(*)12A	072(*)12A	072(*)12B	072(*)16B	090(*)12B	090(*)16B	090N20B	108(*)16B	108N20B	108(*)20C	126(*)20C
Input-Btuh (a)	45,000	54,000	72,000	72,000	72,000	90,000	90,000	90,000	108,000	108,000	108,000	126,000
Heating Capacity - Btuh	36,000	43,000	58,000	58,000	58,000	72,000	72,000	72,000	86,000	86,000	86,000	101,000
AFUE	80+	80+	80+	80+	80+	80+	80+	80+	80+	80+	80+	80+
Max. Htg. Ext. St. Press. In W.C.	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5
Blower Wheel D x W	10 x 6	10 x 6	10 x 6	9 x 9	10 x 10	9 x 9	10 x 10	11 x 10	11 x 10	11 x 10	11 x 10	11 x 10
Motor H.P. -Speed -Type	1/5-2-PSC	1/3-3-PSC	1/3-3-PSC	1/4-3-PSC	1/2-4-PSC	1/4-3-PSC	1/2-4-PSC	3/4-4-PSC	1/2-4-PSC	3/4-4-PSC	3/4-4-PSC	3/4-4-PSC
Motor FLA	4.0	6.0	6.0	6.0	8.8	6.0	8.8	10.1	8.8	10.1	10.1	10.1
Temperature Rise Range - °F	40 - 70	40 - 70	40 - 70	40 - 70	40 - 70	40 - 70	40 - 70	40 - 70	40 - 70	40 - 70	40 - 70	40 - 70

*Can be C or N.

All models are 115 V, 60 Hz. Gas connections are 1/2" N.P.T.
AFUE = Annual Fuel Utilization Efficiency.

(a) Ratings to 2,000 feet. Over 2,000 feet, reduce 4% for each 1,000 ft. above sea level.

DIMENSIONS



FURNACE DIMENSIONS AND SHIPPING WEIGHTS							
Model Number L1RA	Furnace Input (Btuh)	Dimensions					Shipping Weight (lbs)
		A (in.)	B (in.)	C (in.)	D (in.)	Flue Outlet (in.)	
045(*)-08A	45,000	14 1/4	12 3/4	4	11 4/5	4	88
054(*)-12A	54,000	14 1/4	12 3/4	4	11 4/5	4	94
072(*)-12A	72,000	14 1/4	12 3/4	4	11 4/5	4	96
072(*)-12B	72,000	19 3/4	18 1/4	7 5/8	17 1/3	4	108
072(*)-16B	72,000	19 3/4	18 1/4	7 5/8	17 1/3	4	115
090(*)-12B	90,000	19 3/4	18 1/4	7 5/8	17 1/3	4	115
090(*)-16B	90,000	19 3/4	18 1/4	7 5/8	17 1/3	4	120
090N-20B	90,000	19 3/4	18 1/4	7 5/8	17 1/3	4	123
108(*)-16B	108,000	19 3/4	18 1/4	7 5/8	17 1/3	4	125
108N-20B	108,000	19 3/4	18 1/4	7 5/8	17 1/3	4	128
108(*)-20C	108,000	22 1/2	21	9	20	4	135
126(*)-20C	126,000	22 1/2	21	9	20	4	137

Note: *Can be C or N

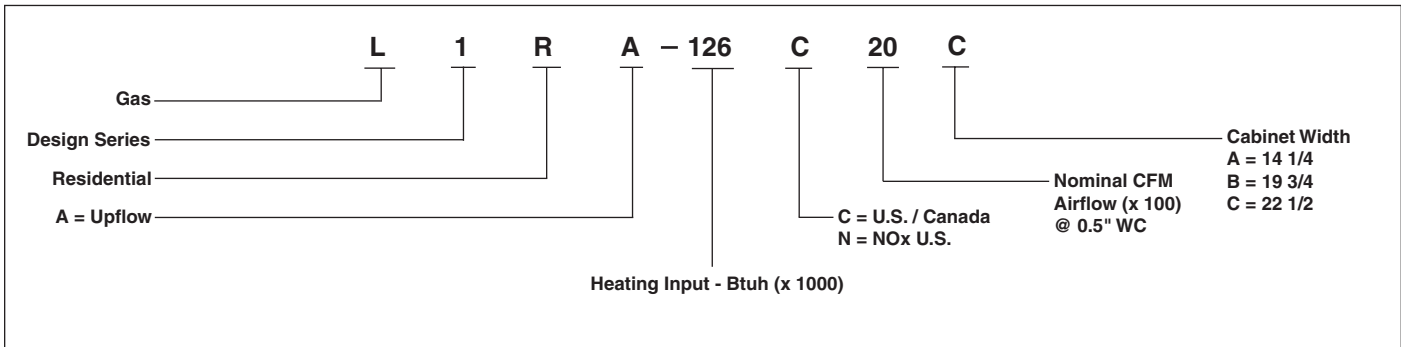
BLOWER PERFORMANCE

MODEL NUMBER *1RA	HEATING INPUT	MOTOR SPEED	MOTOR HP	EXTERNAL STATIC PRESSURE (INCHES OF 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	Rise	CFM	Rise	CFM	Rise
045-08A	40,000	HIGH*	1/5	1000	33	970	34	950	35	920	36	870	38	820	41	770	43	700	47
		LOW**		760	43	740	44	730	45	720	46	690	48	670	49	640	52	620	53
		MEDIUM		1300	31	1280	32	1210	33	1160	34	1110	35	1050	38	980	40	910	44
054-12A	54,000	HIGH*	1/3	1150	34	1120	35	1090	36	1050	38	1000	40	950	42	890	44	830	48
		LOW**		790	50	780	50	770	51	750	53	720	55	690	57	650	61	600	66
		MEDIUM		1380	38	1350	39	1310	40	1260	42	1210	44	1150	46	1080	49	1000	53
072-12A	72,000	HIGH*	1/3	1220	43	1190	44	1160	45	1120	47	1070	49	1020	52	950	55	880	60
		LOW**		820	64	800	66	780	68	760	69	730	73	700	76	670	79	640	83
		MEDIUM		1550	34	1500	35	1440	37	1360	40	1280	42	1190	45	1080	49	970	55
072-12B	72,000	HIGH*	1/4	1380	41	1310	41	1240	44	1200	44	1140	47	1090	49	970	55	870	61
		LOW**		1030	52	1030	52	1010	53	980	54	930	57	890	60	820	63	780	68
		MEDIUM		1955	26	1945	27	1920	27	1890	28	1845	29	1785	30	1700	31	1605	33
072-16B	72,000	HIGH*	1/2	1635	32	1615	33	1590	33	1570	34	1550	35	1500	36	1440	37	1370	40
		MED-HIGH*		1370	40	1365	40	1350	40	1340	41	1305	42	1270	43	1230	44	1150	46
		MED-LOW**		1165	46	1160	46	1150	46	1130	47	1110	48	1075	49	1030	51	975	55
090-12B	90,000	HIGH*	1/4	1550	42	1500	44	1440	46	1360	48	1280	51	1190	55	1080	61	970	68
		MEDIUM		1380	52	1310	55	1240	58	1200	55	1140	58	1090	64	970	68	870	76
		LOW**		1030	64	1030	64	1010	65	980	67	930	72	860	78	780	85	670	99
090-16B	90,000	HIGH*	1/2	1985	33	1955	34	1905	35	1855	36	1790	37	1705	40	1630	41	1530	44
		MED-HIGH**		1635	41	1640	41	1610	42	1575	42	1545	43	1490	45	1430	47	1350	49
		MED-LOW		1410	47	1400	47	1380	48	1355	49	1320	50	1290	52	1240	54	1175	57
090-20B	90,000	HIGH*	3/4	2270	28	2320	29	2280	30	2215	30	2150	31	2085	32	2015	33	1940	34
		MED-HIGH		1975	33	1955	34	1920	35	1895	35	1850	36	1800	37	1740	38	1685	39
		MED-LOW		1640	40	1615	41	1595	41	1575	42	1540	43	1500	44	1460	46	1400	48
108-16B	108,000	HIGH*	1/2	1365	49	1345	50	1330	50	1315	51	1280	52	1245	53	1225	54	1210	55
		MED-HIGH**		1985	40	1955	41	1905	42	1855	43	1790	45	1705	49	1630	49	1530	52
		MED-LOW		1410	57	1400	57	1380	58	1355	59	1320	60	1290	62	1240	65	1175	68
108-20B	108,000	HIGH*	3/4	2110	66	2195	67	2180	68	2160	69	2135	70	2100	73	2060	75	2010	79
		MED-HIGH		2410	32	2370	33	2330	34	2275	35	2230	36	2165	37	2075	38	1990	40
		MED-LOW		2035	39	1995	40	1965	41	1955	41	1915	42	1895	42	1815	44	1790	45
108-20C	108,000	HIGH*	3/4	1680	47	1660	48	1650	49	1645	49	1640	50	1565	51	1550	52	1485	54
		MED-HIGH**		1435	55	1430	55	1425	56	1415	56	1400	57	1350	59	1330	60	1275	62
		MED-LOW		2270	35	2210	36	2190	36	2165	37	2130	38	2100	39	2030	40	1975	41
126-20C	126,000	HIGH*	3/4	1880	42	1865	43	1835	43	1815	44	1790	45	1770	45	1755	46	1720	47
		MED-HIGH**		1565	50	1550	51	1535	52	1520	52	1510	53	1495	54	1455	55	1420	56
		MED-LOW		1325	60	1320	61	1315	61	1310	61	1285	62	1275	63	1250	64	1220	66
126-20C	126,000	HIGH*	3/4	2270	40	2210	41	2190	42	2165	43	2130	44	2100	45	2030	46	1975	47
		MED-HIGH**		1880	49	1865	50	1835	51	1815	51	1790	52	1770	52	1755	53	1720	54
		MED-LOW		1565	59	1550	60	1535	61	1520	61	1510	62	1495	63	1455	64	1420	66
126-20C	126,000	HIGH*	3/4	1325	70	1320	70	1315	71	1310	71	1285	72	1275	73	1250	75	1220	76

* Factory Set Cooling Speed
 ** Factory Set Heating Speed
 — Not Recommended

Notes: 1. Airflow rates of 1800 CFM or more require two return air connections. Data is for operation with filter(s).
 2. Temperature rises in the table are approximate. Actual temperature rises may vary.
 3. Temperature rises and airflows for external static pressures greater than 0.5 are for reference only. These conditions are not recommended.

MODEL IDENTIFICATION CODE



High Efficiency with Honeywell VR Gas Valve		
Kit		Order Number
U.S. LP Conversion Kit (0 to 10,000 ft.)		904090A
Canadian LP Gas Conversion Kit (0 to 4,500 ft.)		904091A
External Side Return Filter Frame		541036
Bottom Return Filter 20/Box	A Cabinet	903088
	B Cabinet	903089
	C Cabinet	903090
Internal Side Return Filter Retainers 10/Box		903152
High Altitude Pressure Switch Kit (5,001 to 10,000 ft.)		903853
"A" Cabinet Variable Speed Kit		904231
"B/C" Cabinet Variable Speed Kit		904075
Chimney Friendly Kit		904202

VENTING

All models may be common vented with a gas water heater. Type B gas vent materials may be used when connected to a vertical vent system. The installation must be in accordance with the venting instructions supplied with the furnace.

