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## TECHNICAL SPECIFICATIONS

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# L1RC Series

## High Efficiency / Direct Vent or Non Direct Vent

## Condensing Upflow/Horizontal Gas Furnace

**Induced Draft - 92+ AFUE**

**Input 38,000 - 120,000 Btuh**

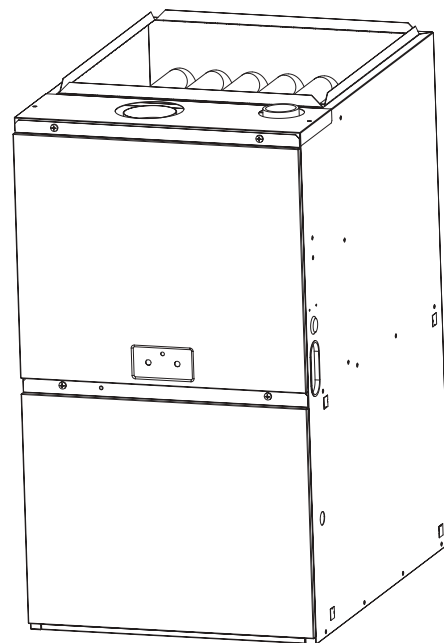
The compact high efficiency upflow gas furnace may be installed free standing in a utility room, basement, or enclosed in an alcove or closet. An optional kit easily converts it to horizontal application. The extended flush jacket provides a pleasing appearance. The Design is certified by CSA International (Canadian Standards Association). The product is truly designed with the contractor and the consumer in mind.

### Features and Benefits

#### **Best warranty in the business —**

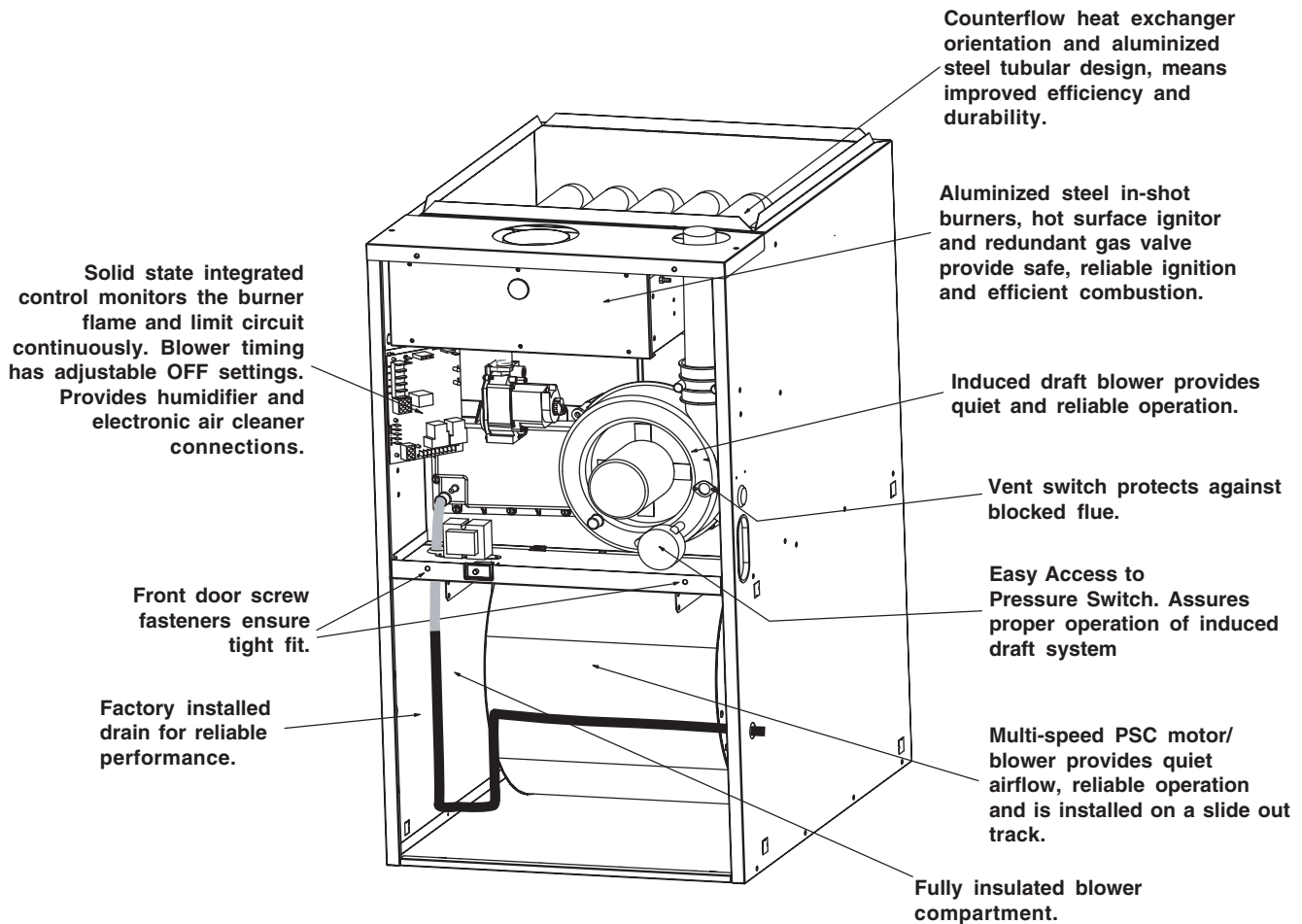
- A lifetime warranty on the heat exchanger
- 6 Year Limited Parts Warranty

- **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 unique design of in-shot burners, location of inducer and use of insulation.
- **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 ignitor** — Innovative application of an appliance type ignitor with a 20-year history of reliability, assures no call-backs because of handling.
- **Color coded wire harness** — Designed to fit the components, all with quick-connect fittings for ease of service and replacement.
- **Tubular primary heat exchanger** — Heavy gauge aluminized steel heat exchanger assures a long life.
- **Stainless steel secondary heat exchanger** assures a long life.
- **40-second fixed cooling cycle blower-off delay (TDR)** increases cooling performance when matched with a NORDYNE coil.
- **Approved for direct vent furnace, category IV venting system** — May be vertically or horizontally vented using either a one-pipe or two-pipe system for maximum flexibility in installation.
- **Fully insulated blower cabinet for quiet operation.**
- **Variable speed blower kit** is available to maximize air conditioner and heat pump efficiencies. On selected units, SEER ratings up to 16 and HSPF ratings up to 8.5 are ARI listed.
- **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.
- **Factory installed drain system** for reliable performance.
- **Diagnostic light** flashes identify limit failure, pressure switch failure and improper ground and polarization — for easy troubleshooting.
- **SmartLite™ Control Board** provides extended life to ignitors programmed to learn the heat-up characteristics of the ignitor so the ignition timing is energized appropriately.
- **Incorporates integrated control board** with connections for electronic air cleaner, humidifier and twinning.
- **Two piece door design** enhances furnace appearance and uses screw fasteners for great fit and accessibility.
- **3 amp fuse protection** against low voltage shorts; protects transformer and control board.
- **Low voltage terminal board** for easy field wiring.
- **Components and Controls** — Designing quality into our products means selecting manufacturers that have a reputation for delivering high quality, dependable products.



# FEATURES

## High Efficiency Upflow/Horizontal 92+ Gas Furnace



# STANDARD EQUIPMENT

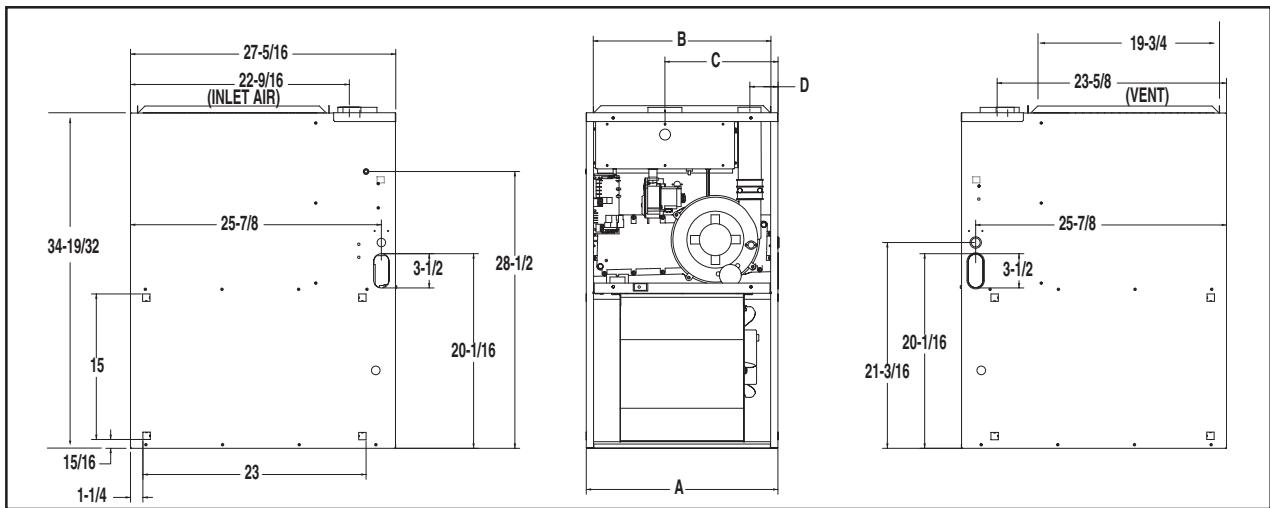
Direct vent; draft inducer; pressure switch; redundant main gas control; hot-surface ignition; timed ON/OFF blower controls (TDR); 40VA transformer for air conditioner application; limit controls; direct drive motor; all models can be converted to use L.P. (propane) gas. Factory approved kits *only*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

# SPECIFICATIONS

L1RC MODEL NUMBERS	040D-08A	060D-12A	080D-12B	080D-16B	100D-16B	120D-16C	120D-20C
Input-Btuh (a)	38,000	60,000	80,000	80,000	100,000	120,000	120,000
Heating Capacity - Btuh	35,000	55,000	73,000	73,000	92,000	110,000	110,000
AFUE	92.1	92.1	92.1	92.1	92.1	92.1	92.1
Max. Htg. Ext. St. Press. In W.C.	.5	.5	.5	.5	.5	.5	.5
Blower Wheel D x W	10 x 6	10 x 6	10 x 8	10 x 10	10 x 10	10 x 10	11 x 10
Motor H.P. -Speed -Type	1/5-2-PSC	1/3-3-PSC	1/3-3-PSC	1/2-4-PSC	1/2-4-PSC	1/2-4-PSC	3/4-4-PSC
Motor FLA	4.0	6.0	6.0	7.9	7.9	7.9	11.1
Temperature Rise Range - °F	30 - 60	35 - 65	35 - 65	35 - 65	40 - 70	50 - 80	50 - 80

Note: All models are 115V, 60 Hz. Gas Connections are 1/2" N.P.T. AFUE = Annual Fuel Utilization Efficiency  
 (a) Ratings to 2,000 ft. Over 2,000 ft. reduce 4% for each 1,000 ft. above sea level.

# DIMENSIONS



MODEL NUMBER L1RC	Dimensions				Shipping Weights (lbs)
	A (in.)	B (in.)	C (in.)	D (in.)	
040D-08A	14 1/4	12 13/16	8 5/8	2 11/16	88
060D-12A	14 1/4	12 13/16	8 5/8	2 11/16	92
080D-12B	19 3/4	18 5/16	9 11/16	2 15/16	98
080D-16B	19 3/4	18 5/16	9 11/16	2 15/16	102
100D-16B	19 3/4	18 5/16	9 11/16	2 15/16	130
120D-16C	22 1/2	21 1/16	13 1/8	2 13/16	135
120D-20C	22 1/2	21 1/16	13 1/8	2 13/16	140

## VENTING

All models are approved for vertical non direct (1 pipe) and direct (2 pipe) venting applications. See Vent Table below for specified sizes and allowable lengths.

## VENT TABLE

MODELS	DIRECT VENT, SINGLE PIPE LENGTH (FT.) DUEL PIPE LENGTH (ft.) WITH with 1 long radius elbow** 1 long radius elbow on each pipe**			
	OUTLET		INLET/OUTLET	
	2"	3"	2"	3"
L1RC040	60	90	30	90
L1RC060	50	70	30	50
L1RC080	30	90	15	90
L1RC100	50	70	20	60
L1RC120	N/A	40	N/A	40

## \*\*NOTES

1. Subtract 2.5 ft. for each additional 2" **long** radius elbow, 5 ft. for each additional 2" **short** radius elbow, 3.5 feet for each additional 3" **long** radius elbow, and 7 feet for each additional 3" **short** radius elbow.
2. Two 45 degree elbows are equivalent to one 90 degree elbow.
3. Do not include termination elbows in calculation of vent length
4. This table is applicable for elevations from sea level to 2000 ft. For higher elevations decrease vent pipe lengths by 8% per 1000 ft. of altitude.
5. Only the above pipe materials are approved for use with these condensing furnaces.

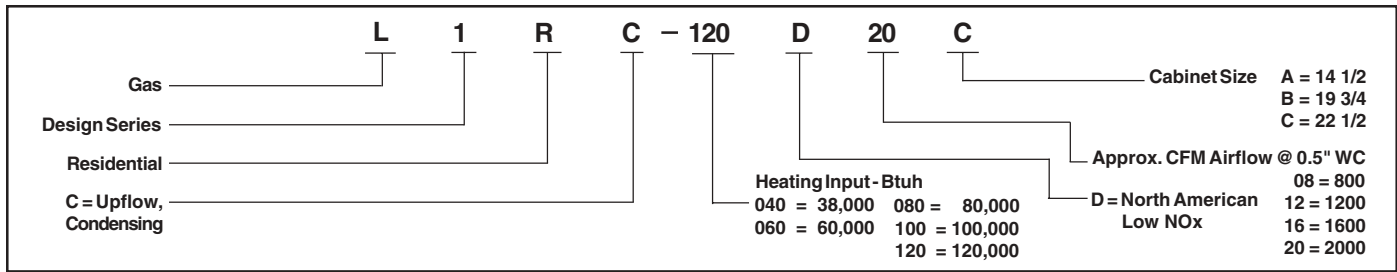
## ACCESSORIES

Kit	Order Number
U.S. LP Conversion Kit (0 to 10,000 ft.)	904090
Canadian LP Gas Conversion Kit (0 to 4,500 ft.)	904091
Fossil Fuel Kit	914762
Side Return Filter Kit	541036
Bottom Return Filter (20/Box)	A Cabinet 903088 B Cabinet 903089 C Cabinet 903090
Internal Side Return Filter Wire	903152
Horizontal Positioned Furnace Vent Drain Kit 2"	904079
Horizontal Positioned Furnace Vent Drain Kit 3"	904080
Variable Speed Blower Kit for "B" & "C" Cabinets	904075

## VENT KITS

Kit Description	2" PVC	3" PVC
Horizontal Venting Exterior Wall Vent Kit	902373	902375
Concentric Vent Kit	903578	
Neutralizer Kit (all models)	902377	

## IDENTIFICATION CODE



## BLOWER PERFORMANCE

MODEL NUMBER LIRC	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	
040D-08A	36,000	HIGH** LOW*	1/5	945	36	920	37	885	39	850	40	815	42	785	43	750	44	715	45	680
				720	47	700	49	665	51	630	54	600	57	560	60	510	-	460	-	
060D-12A	60,000	HIGH* MEDIUM** LOW	1/3	1300	40	1260	41	1210	42	1170	44	1115	45	1060	48	1000	51	930	55	
				1110	46	1075	47	1050	49	1020	50	985	52	940	54	885	58	820	62	
080D-12B	80,000	HIGH* MEDIUM** LOW	1/3	1495	45	1450	47	1390	49	1310	52	1245	55	1160	58	1030	66	930	71	
				1225	55	1200	57	1155	59	1100	62	1050	65	965	71	885	-	805	64	
080D-16B	80,000	HIGH* MED-HIGH** MED-LOW** LOW	1/2	1955	35	1890	36	1825	37	1755	39	1680	41	1605	42	1510	45	1400	49	
				1665	41	1630	42	1580	43	1535	44	1480	46	1420	48	1345	51	1250	55	
100D-16B	100,000	HIGH* MED-HIGH** MED-LOW** LOW	1/2	1415	48	1385	50	1360	50	1325	51	1285	53	1235	55	1170	58	1085	63	
				1200	57	1185	58	1165	59	1140	60	1095	62	1045	65	995	-	930	-	
120D-16C	120,000	HIGH* MED-HIGH** MED-LOW** LOW	1/2	1955	52	1900	53	1840	55	1770	57	1695	60	1620	63	1520	67	1420	-	
				1670	61	1635	62	1580	64	1545	66	1490	68	1425	70	1360	-	1265	-	
120D-20C	120,000	HIGH* MED-HIGH** MED-LOW** LOW	3/4	2230	45	2175	47	2120	48	2070	49	2010	51	1935	53	1865	55	1790	57	
				1840	55	1830	55	1810	56	1780	57	1755	58	1710	59	1665	61	1570	65	
				1595	64	1570	65	1550	66	1540	66	1505	68	1455	70	1410	-	1370	-	
				1365	-	1345	-	1335	-	1315	-	1300	-	1275	-	1210	-	1160	-	

- \* 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.

