

# L1RC Series

# **High Efficiency / Direct Vent or Non Direct Vent**

Condensing Upflow/Horizontal Gas Furnace

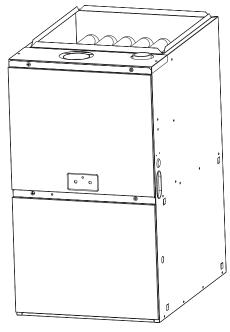
Induced Draft - 92+ AFUE Input 38,000 - 120,000 Btuh

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 —

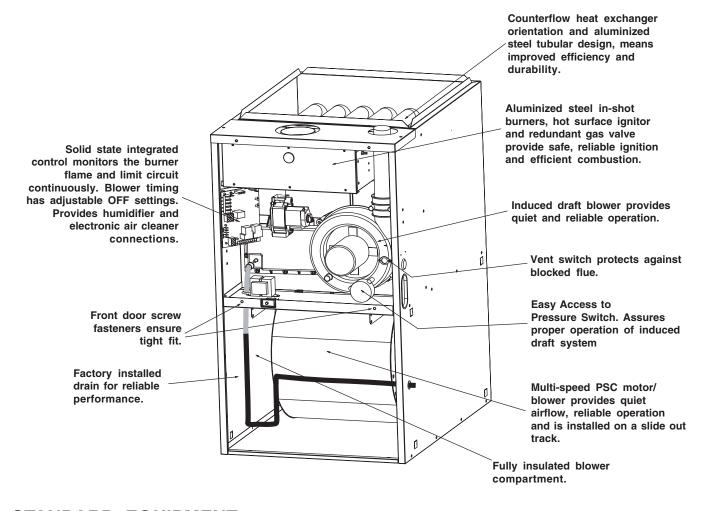
- A lifetime warranty on the heat exchanger
- 8 Year Limited Parts and 5 Year Quality Pledge
- 100% fired and tested All units and each component (both mechanical and electrical) are tested on the manufacturing line.
- **Best packaging in the industry**—Unique design assures product will arrive to the 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.

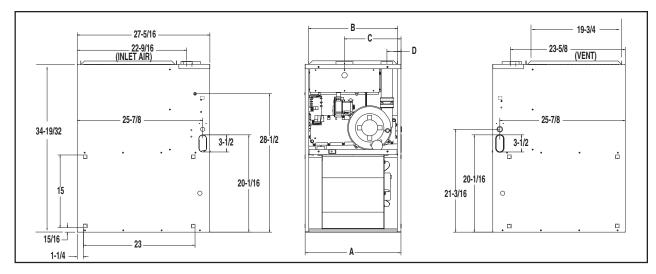
## **SPECIFICATIONS**

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.PSpeed -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	

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.

Note:

## **DIMENSIONS**



MODEL		Shipping					
NUMBER L1RC	A (in.)	B (in.)	C (in.)	D (in.)	Weights (Ibs)		
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.

## **VENTTABLE**

		LENGTH (FT.) adius elbow**	DIRECT VENT, DUEL PIPE LENGTH (ft.) WITH 1 long radius elbow on each pipe**					
	OUTLET	OUTLET	INLET/OUTLET	INLET/OUTLET				
<b>MODELS</b>	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				

### **ACCESSORIES**

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

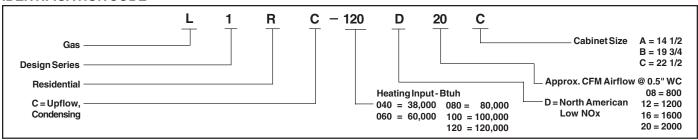
#### \*\*NOTES

- 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
- 3. Do not include termination elbows in calculation of vent
- 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.

#### **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					EXTERNAL STATIC PRESSURE (INCHES OF WATER COLUMN)														
NUMBER	HEATING	MOTOR	MOTOR	0	.1	0	.2	0.3		0.4		0.5		0.6		0.7		0.8	
L1RC	INPUT	SPEED	HP	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise
040D-08A		HIGH**		945	36	920	37	885	39	850	40	815	42	785	43	730	47	675	50
	36,000	LOW*	1/5	720	47	700	49	665	51	630	54	600	57	560	60	510	-	460	-
060D-12A		HIGH*		1300	40	1260	41	1210	42	1170	44	1115	45	1060	48	1000	51	930	55
	60,000	MEDIUM** LOW	1/3	1110 715	46 -	1075 705	47 -	1050 690	49 -	1020 660	50	985 635	52 -	940 605	54 -	885 565	58 -	820 520	62 -
080D-12B	80,000	HIGH* MEDIUM** LOW	1/3	1495 1225 760	45 55 -	1450 1200 735	47 57 -	1390 1155 710	49 59 -	1310 1100 675	52 62 -	1245 1050 630	55 65 -	1160 965 585	58 71 -	1030 885 525	66 - -	930 805 450	71 64 -
080D-16B	80,000	HIGH* MED-HIGH MED-LOW** LOW	1/2	1955 1665 1415 1200	35 41 48 57	1890 1630 1385 1185	36 42 50 58	1825 1580 1360 1165	37 43 50 59	1755 1535 1325 1140	39 44 51 60	1680 1480 1285 1095	41 46 53 62	1605 1420 1235 1045	42 48 55 65	1510 1345 1170 995	45 51 58 -	1400 1250 1085 930	49 55 63
100D-16B	100,000	HIGH* MED-HIGH** MED-LOW LOW	1/2	1955 1665 1415 1200	43 51 60	1890 1630 1385 1185	45 52 61 -	1825 1580 1360 1165	47 54 62 -	1755 1535 1325 1140	49 55 64 -	1680 1480 1285 1095	51 58 66 -	1605 1420 1235 1045	53 60 70 -	1510 1345 1170 995	56 63 -	1400 1250 1085 930	61 68 - -
120D-16C	120,000	HIGH* MED-HIGH** MED-LOW LOW	1/2	1955 1670 1400 1190	52 61 -	1900 1635 1380 1185	53 62 -	1840 1580 1375 1165	55 64 - -	1770 1545 1340 1150	57 66 - -	1695 1490 1305 1120	60 68 - -	1620 1425 1250 1060	63 70 - -	1520 1360 1190 1010	67 - -	1420 1265 1100 950	- - -
120D-20C	120,000	HIGH* MED-HIGH MED-LOW** LOW	3/4	2230 1840 1595 1365	45 55 64 -	2175 1830 1570 1345	47 55 65 -	2120 1810 1550 1335	48 56 66 -	2070 1780 1540 1315	49 57 66 -	2010 1755 1505 1300	51 58 68 -	1935 1710 1455 1275	53 59 70 -	1865 1665 1410 1210	55 61 - -	1790 1570 1370 1160	57 65 - -

- \* 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.









