TECHNICAL SPECIFICATIONS

L1RA Series

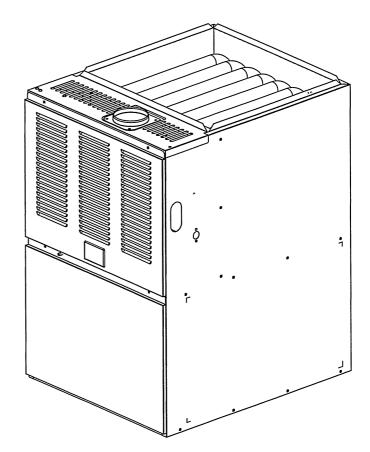
Upflow/Horizontal Gas Furnace

Induced Draft - 78+ 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

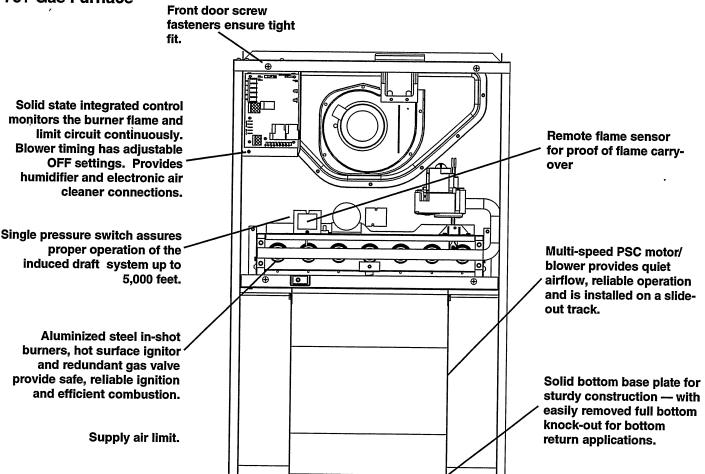
- Best warranty in the business
 - A full 20 years on the heat exchanger
 - 6 years on all parts
- 100% fired and tested All units and each component (both mechanical and electrical) are tested on the manufacturing line.
- Best packaging in the industry Unique design assures product will arrive to the homeowner dent free
- Clean and quiet operation Due to the design of in-shot burners, location of inducer, return air vents, 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.
- 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.
- 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 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 78+ 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

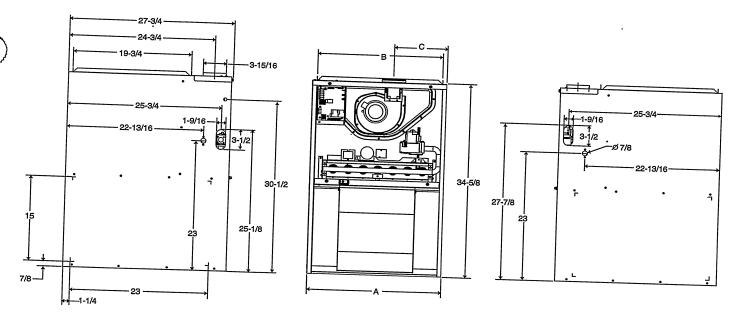
| | T | I | ı- ' | T | ı | | | | , | | |
|-----------------------------------|-----------|-----------|-----------------|-------------|-----------|-----------|---------------|-----------|-----------|-----------|--|
| L1RA MODEL NUMBERS | 045(*)08A | 054(*)12A | 072(*)12A | 072(*)12B | 072(*)16B | 090(*)12B | 090(*)16B | 108(*)16B | 108(*)20C | 126(*)20C | |
| Input-Btuh (a) | 45,000 | 54,000 | 72,000 | 72,000 | 72,000 | 90,000 | 90,000 | 108,000 | 108,000 | 126,000 | |
| Heating Capacity - Btuh | 36,000 | 43,000 | 58,000 | 58,000 | 58,000 | 72,000 | 72,000 86,000 | | 86,000 | 101,000 | |
| AFUE | 78÷ | 78+ | 78+ | 78 + | 78÷ | 78÷ | 78+ | 78+ | 78+ | 78+ | |
| Max. Htg. Ext. St. Press. In W.C. | .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 | |
| Motor H.PSpeed -Type | 1/5-2-PSC | 1/3-3-PSC | 1/4-3-PSC | 1/4-3-PSC | 1/2-2-PSC | 1/4-3-PSC | 1/2-2-PSC | 1/2-2-PSC | 1/2-2-PSC | 1/2-2-PSC | |
| Motor FLA | 4.0 | 6.0 | 6.0 | 6.0 | 8.8 | 6.0 | 8.8 | 8.8 | 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 | |

^{*}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 | rurnace | | Shipping | | | | | |
| Number L1RA- | Input (Btuh) | A | В | С | Flue Outlet | Weight | | |
| | | (in.) | (in.) | (in.) | (in.) | (lbs) | | |
| 045(*)-08A | 45,000 | 14 1/4 | 12 3/4 | 4 | 4 | 88 | | |
| 054(*)-12A | 54,000 | 14 1/4 | 12 3/4 | 4 | 4 | | | |
| 072(*)-12A | 72,000 | 14 1/4 | 12 3/4 | 4 | | 94 | | |
| 072(*)-12B | 72,000 | 19 3/4 | | | 4 | 96 | | |
| | | | 18 1/4 | 7 5/8 | 4 | 108 | | |
| 072(*)-16B | 72,000 | 19 3/4 | 18 1/4 | 7 5/8 | 4 | 115 | | |
| 090(*)-12B | 90,000 | 19 3/4 | 18 1/4 | 7 5/8 | 4 | 115 | | |
| 090(*)-16B | 90,000 | 19 3/4 | 18 1/4 | 7 5/8 | | | | |
| 108(*)-16B | 108,000 | 19 3/4 | 18 1/4 | | 4 | 120 | | |
| | | | | 7 5/8 | 4 | 125 | | |
| 108(*)-20C | 108,000 | 22 1/2 | 21 | 9 | 4 | 135 | | |
| 126(*)-20C | 126,000 | 22 1/2 | 21 | 9 | 4 | 137 | | |

Note: *Can be C or N

BLOWER PERFORMANCE

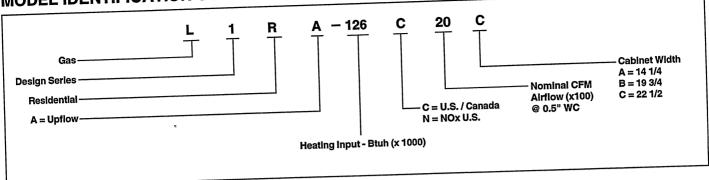
| Model | Heating | | | External Static Pressure (Inches Water Column) | | | | | | | | | | | | | | | |
|----------|---------|--------|-------|--|------|------|------|---------|------|------|------|------|------|------|------|------|--------|------|----------|
| Number | Input | Motor | Motor | 0.1 0.2 | | | | 0.3 0.4 | | | 0.5 | | 0.6 | | 0.7 | | 0.8 | | |
| L1RA | (Btu/h) | Speed | HP | CFM | Rise | CFM | Rise | CFM | Rise | CFM | Rise | CFM | Rise | CFM | Rise | CFM | Rise | CFM | Rise |
| 045C-08A | 40,000 | High* | 1/5 | 1000 | - | 970 | - | 950 | - | 920 | - | 870 | - | 820 | - | 770 | nise - | 700 | 42 |
| | | Low** | | 760 | 38 | 740 | 40 | 730 | 40 | 720 | 41 | 690 | 42 | 670 | 44 | 640 | 46 | 620 | 47 |
| | | High* | | 1300 | - | 1260 | - | 1210 | - | 1160 | - | 1110 | | 1050 | | 980 | 40 | 910 | 43 |
| 054C-12A | 54,000 | Medium | 1/3 | 1150 | - | 1120 | - | 1090 | - | 1050 | _ | 1000 | _ | 950 | 42 | 890 | 44 | 830 | 48 |
| | | Low** | | 790 | 50 | 780 | 50 | 770 | 51 | 750 | 53 | 720 | 55 | 690 | 57 | 650 | 61 | 600 | 66 |
| | | High* | | 1380 | - | 1350 | - | 1310 | 40 | 1260 | 42 | 1210 | 44 | 1150 | 46 | 1080 | 49 | 1000 | 53 |
| 072C-12A | 72,000 | Medium | 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 | - | 700 | - | 670 | - | 640 | - |
| | | High* | | 1550 | - | 1500 | - | 1440 | - | 1360 | - | 1280 | 42 | 1190 | 45 | 1080 | 49 | 970 | 55 |
| 072C-12B | 72,000 | Medium | 1/4 | 1310 | 41 | 1290 | 41 | 1250 | 43 | 1200 | 44 | 1140 | 47 | 1060 | 50 | 970 | 55 | 870 | 61 |
| 0.20 .22 | , | Low** | | 1030 | 52 | 1030 | 52 | 1010 | 53 | 980 | 54 | 930 | 57 | 860 | 62 | 780 | 69 | 670 | - |
| 072C-16B | 72,000 | High* | 1/2 | 1730 | - | 1710 | | 1680 | | 1650 | - | 1610 | - 1 | 1570 | - 02 | 1510 | - 09 | 1450 | <u> </u> |
| 0,20 .05 | 12,000 | Low** | | 1520 | 35 | 1500 | 36 | 1480 | 36 | 1450 | 37 | 1410 | 38 | 1370 | 39 | 1330 | 40 | 1280 | 42 |
| . — | | High* | | 1550 | 42 | 1500 | 44 | 1440 | 46 | 1360 | 48 | 1280 | 51 | 1190 | 55 | 1080 | 61 | 970 | 68 |
| 090C-12B | 90.000 | Medium | 1/4 | 1310 | 50 | 1290 | 51 | 1250 | 53 | 1200 | 55 | 1140 | 58 | 1060 | 62 | 970 | 68 | 870 | 00 |
| 0300-120 | 00,000 | Low** | | 1030 | 64 | 1030 | 64 | 1010 | 65 | 980 | 67 | 930 | - | 860 | - | 780 | - | 670 | _ |
| 090C-16B | 90,000 | High* | 1/2 | 1790 | | 1750 | - | 1710 | | 1660 | 40 | 1600 | 41 | 1540 | 43 | 1480 | 45 | 1400 | 47 |
| 0300-105 | 30,000 | Low** | | 1490 | 44 | 1460 | 45 | 1420 | 46 | 1380 | 48 | 1340 | 49 | 1290 | 51 | 1240 | 53 | 1190 | 55 |
| 108C-16B | 108,000 | High* | 1/2 | 1790 | 44 | 1750 | 45 | 1710 | 46 | 1660 | 48 | 1600 | 49 | 1540 | 51 | 1480 | 54 | 1400 | 56 |
| 1000-100 | 100,000 | Low** | ''- | 1490 | 53 | 1460 | 54 | 1420 | 56 | 1380 | 57 | 1340 | 59 | 1290 | 61 | 1240 | 64 | 1190 | 66 |
| 1000 000 | 108,000 | High* | 1/2 | 2130 | - | 2100 | - | 2050 | - | 1990 | 40 | 1930 | 42 | 1850 | 43 | 1770 | 45 | 1680 | 48 |
| 108C-20C | 100,000 | Low** | "" | 1730 | į | 1700 | 47 | 1670 | | | | | 1 | | | | | | |
| | | | 40 | $\overline{}$ | 46 | | | | 48 | 1620 | 49 | 1580 | 51 | 1530 | 52 | 1470 | 54 | 1410 | 57 |
| 126C-20C | 126,000 | High* | 1/2 | 2130 | 44 | 2100 | 45 | 2050 | 46 | 1990 | 47 | 1930 | 48 | 1850 | 50 | 1770 | 53 | 1680 | 56 |
| | | Low** | | 1730 | 54 | 1700 | 55 | 1670 | 56 | 1620 | 57 | 1580 | 59 | 1530 | 61 | 1470 | 64 | 1410 | 66 |

- * 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 Efficier | cv 78+ with H | oneywell VR Gas Valve | | | | | |
|--|----------------|-----------------------|--|--|--|--|--|
| Kit | | Order Number | | | | | |
| U.S. LP Conversion (0 to 10,000 ft.) | Kit | 903848 | | | | | |
| Canadian LP Gas Co (0 to 4,500 ft.) | onversion Kit | 903849 | | | | | |
| Fossil Fuel Kit | | 914762 | | | | | |
| External Side Return | Filter Frame | 541036 | | | | | |
| Bottom Return | A Cabinet | 903088 | | | | | |
| Filter 20/Box | B Cabinet | 903089 | | | | | |
| | C Cabinet | 903090 | | | | | |
| Internal Side Return Retainers 10/Box | Filter | 903152 | | | | | |
| High Altitude Pressi | ure Switch Kit | 903853 | | | | | |

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.

GENERAL TERMS OF LIMITED WARRANTY *

NORDYNE will furnish a replacement for any part of this product which fails in normal use and service within the applicable periods stated below, in accordance with the terms of the warranty.

L1RA Models Warranty

Gas Heat Exchanger 20-Year Limited Warranty Any Other Part......6-Year Limited Warranty

For complete details of the Limited Warranty, including applicable terms and conditions, see your local installer or contact the factory for a copy.











020B-0900 (Replaces 020B-0600)