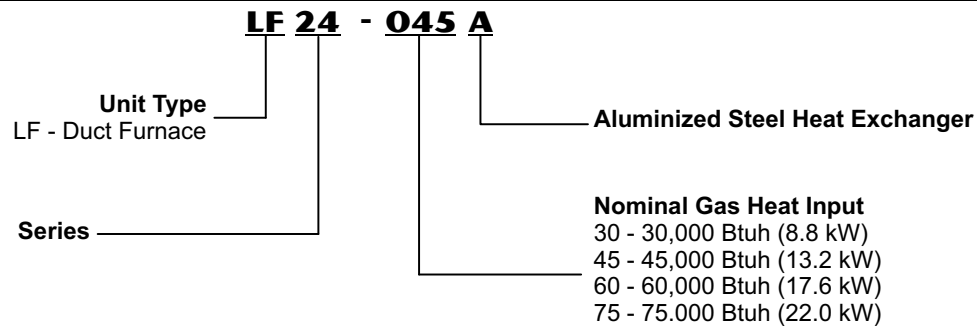




MODEL NUMBER IDENTIFICATION



FEATURES

Applications

- Horizontal unit heaters are low profile, compact in design and easy to install.
- Steady State Efficiencies of up to 81.0%.
- Ideal for economical heating systems in garages and non-confined living spaces.
- Shipped completely assembled with controls factory installed and wired.
- Hanging brackets are shipped loose for field installation.
- Each unit is test operated at the factory to ensure proper operation and dependability.
- Installer has only to locate unit, make unit gas supply, electrical connections and mount thermostat to complete the installation.

Approvals

- Units certified by CSA International (formerly AGA/CGA) for use with natural or LPG/propane gases (optional kit required for LPG/Propane conversion). Units are approved for vertical or horizontal venting.

Equipment Warranty

- Aluminized steel heat exchanger has a limited warranty for a full ten years.
- Solid-state ignition modules have a limited warranty for a full three years (residential applications) and one year (non-residential applications).
- All other covered components have a limited warranty for one year.
- Refer to the Lennox Equipment Limited Warranty certificate included with the equipment for details.

Cabinet

- Constructed of pre-painted heavy gauge cold rolled steel.
- Inside cabinet insulation keeps outer cabinet surface temperatures low.
- Adjustable louvers are furnished on cabinet for control of air flow direction.
- Wiring junction box is conveniently located inside unit cabinet. Contains all electrical and safety controls.
- Hanging brackets for suspending unit are furnished for field installation.
- Unit may be turned over to change gas, electrical and flue positions. See dimension drawing.

FEATURES

Tubular Aluminized Steel Heat Exchanger

- Tubular heat exchanger is constructed of aluminized steel for superior resistance to corrosion and oxidation.
- Curving design allows complete exposure of heating surfaces to supply air stream.
- Round surfaces create minimum air resistance and allow air to surround all surfaces for excellent heat transfer.
- Compact design reduces space requirements in unit cabinet. Heat exchanger has been laboratory life cycle tested.

Inshot Burners

- Aluminized steel inshot burners provide efficient trouble free operation.
- Burner venturi mixes air and gas in correct proportion for proper combustion.
- Burner assembly is removeable from the unit as a single component for ease of service and each burner may be removed individually.

Heating System

- 24 volt redundant combination gas control valve combines a manual main shutoff valve, pressure regulation and automatic electric valve (dual) into one compact combination control.
- Solid-state electronic direct spark ignition control provides positive and safe main burner ignition. Spark is intermittent and occurs only when required.
- Separate electronic flame sensor control assures safe and reliable operation.
- Should loss of flame occur, flame sensor controls will initiate 3 attempts at re-ignition before locking out unit operation.
- Combustion air inducer prepurges heat exchanger and safely vents flue products.
- Pressure switch proves blower operation before allowing gas valve to open.
- Combustion air inducer operates only during heating cycle.

Controls

- The following controls are furnished as standard equipment: 24 volt main gas valve with 100% safety shutoff, direct spark ignition, main shutoff valve, gas pressure regulation (natural gas models), 115/24v transformer, low voltage terminal strip, solid-state control board with LED diagnostics, fan timer control - fan on (45 seconds - fixed) fan off (150 seconds fixed).

Limit Control

- Limit control has fixed temperature setting and protects heating system from abnormal operating conditions.

Direct Drive Fan

- All models are equipped with efficient and quiet operating direct drive propeller type fan with permanently lubricated fan motor.

Combustion Air Inducer

- Prepurges heat exchanger and safely vents combustion products.
- Blower motor has sleeve bearings and is thermally protected.
- Pressure switch prevents unit operation in case of blockage of combustion air inlet or flue outlet.

OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA

LPG/Propane Conversion Kit

- Conversion kit is required for field changeover from natural gas. See Specifications tables.

Thermostat

- Heating thermostat is not furnished.
- See Thermostats bulletin indexed in Thermostats and Controls section (US only) and Lennox Price Book.

HIGH ALTITUDE INFORMATION

All units may be fired at full input up to 2000 ft. (610 m) above sea level. LF24-30 and LF24-60 units may be fired at full input up to 7500 ft. (2285 m). LF24-45 units may be fired at full input up to 6500 ft. (1980 m), at altitudes above 6501 ft. (1980 m) units are adjusted by derating manifold pressure, see below. LF24-75 units installed above 2500 ft. (760 m) are adjusted by derating manifold pressure. See table below for correct pressure. If any unit is installed at an altitude greater than 7500 ft. (2285 m) unit must be derated 4% for each additional 1000 ft. (305 m) above 7500 ft. (2285 m). Thus, at an altitude of 8500 feet (2895 m), an LF24-75 would require an additional derate of 4%.

NOTE - This is the only permissible derate for the units.

Model No.	Manifold Pressure - in. w.c. (Pa)									
	2500-3500 ft. (760-1065 m)		3501-4500 ft. (1065-1370)		4501-5500 ft. (1370-1675 m)		5501-6500 ft. (1675-1980 m)		6501-7500 ft. (1980-2285 m)	
	Natural Gas	LPG/Propane	Natural Gas	LPG/Propane	Natural Gas	LPG/Propane	Natural Gas	LPG/Propane	Natural Gas	LPG/Propane
LF24-30 LF24-60	No adjustment									
LF24-45	No adjustment								3.4 (845)	9.2 (2287)
LF24-75	3.5 (845)	9.5 (2362)	3.4 (845)	9.2 (2287)	3.3 (820)	8.9 (2212)	3.2 (795)	8.6 (2138)	3.1 (770)	8.3 (2063)

SPECIFICATIONS

Model No.		LF24-30A	LF24-45A	LF24-60A	LF24-75A
Heating Capacity Input - Btuh (kW)		30,000 (8.8)	45,000 (13.2)	60,000 (17.6)	75,000 (22.0)
Heating Capacity Output - Btuh (kW)		24,300 (7.1)	36,500 (10.7)	48,000 (14.1)	60,000 (17.6)
Steady State Efficiency		81.0%		80.0%	
Air Volume - cfm (L/s)		535 (250)	750 (355)	830 (390)	950 (450)
Temperature rise - °F (°C)		42 (23)	45 (25)	55 (31)	60 (33)
Air throw at 8 ft. (2.4 m) mounting height - ft. (m)		25 (7.6)		40 (12.2)	
Flue size (round) - in. (mm) vertical venting		①3 (76)		②4 (102)	
Flue size (round) - in. (mm) horizontal venting - residential		③4 (102)		④5 (127)	
Gas Piping Size - in. (mm) Natural or LPG/Propane		1/2 (13)			
Fan Data	Number of fans	1			
	Fan Diameter - in. (mm)	10 (254)		14 (356)	
	Number of blades	4		3	
	Motor Output - hp (W)	1/20 (37)		1/10 (75)	
	Amps	1.7		4.1	
	rpm	1650		1050	
Electrical Characteristics		115 volts - 60 hertz - 1 phase			
Shipping Weight - lbs. (kg) 1 package		60 (27)	63 (29)	87 (40)	91 (41)
OPTIONAL ACCESSORIES (MUST BE ORDERED EXTRA)					
LPG/Propane Kit		20L05			

①2-1/8" x 3" (54 mm x 76 mm) diameter adaptor is furnished with unit for flue connection

②2" x 4" (51 mm x 102 mm) diameter adaptor is furnished with unit for flue connection.

③3 x 4 in. (76 x 102 mm) vent adaptor required (not furnished) for horizontal venting in residential applications.

④4 x 5 in. (102 x 127 mm) vent adaptor required (not furnished) for horizontal venting in residential applications.

INSTALLATION CLEARANCES - IN. (MM)

Model No.	LF24-30, LF24-45, LF24-60, LF24-75
Top	1 (25)
Side opposite access panel	1 (25)
Access Panel Side	18 (457)
Back	18 (457)
Bottom	0 (0)
Flue	6 (152)

NOTE - Provide adequate clearance for servicing.

MAXIMUM VENT CONNECTOR LENGTHS

No. of Elbows	Maximum Length of Straight Vent Pipe	
	ft.	m
1	25	7.6
2	20	6.1
3	15	4.6
4	10	3.0
5	5	1.5

NOTES - For residential installations only, maximum permissible horizontal vent length is five feet (1.5 m) plus one elbow.

Maximum total length of vent pipe must not exceed 30 ft. (9 m).

One elbow is equivalent to 5 ft. (1.5 m) of vent pipe.

Minimum horizontal vent length is 3 ft. (1 m).

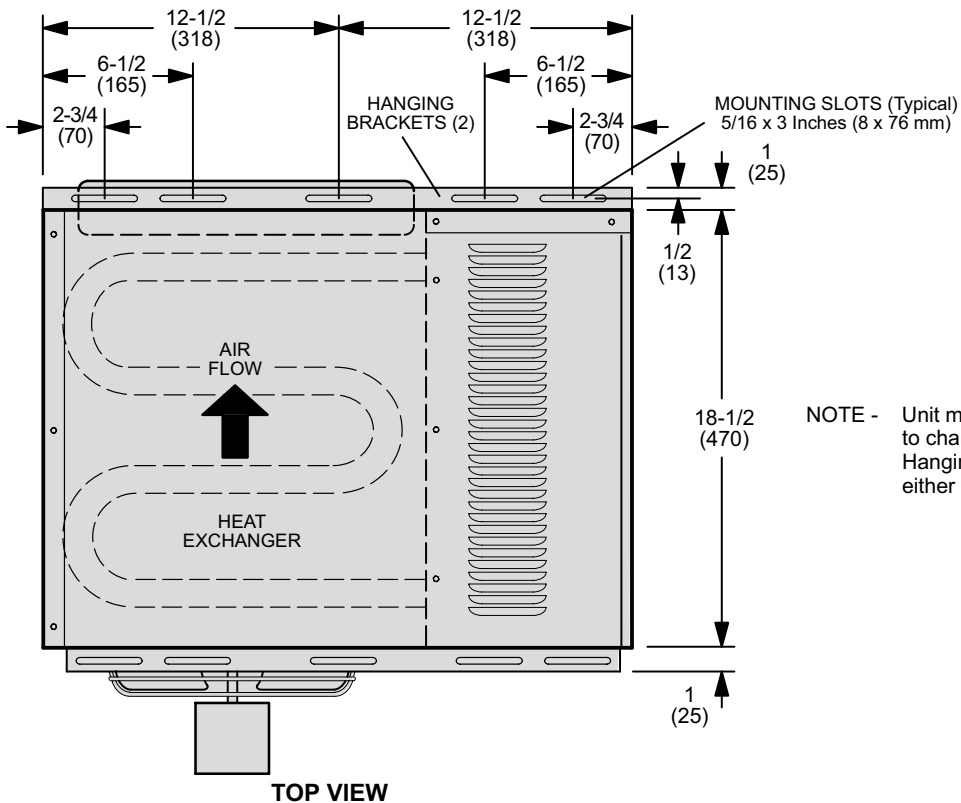
Horizontal venting must terminate in a tee or 90° elbow

Single or double wall (type B) vent pipe may be used for vertical venting.

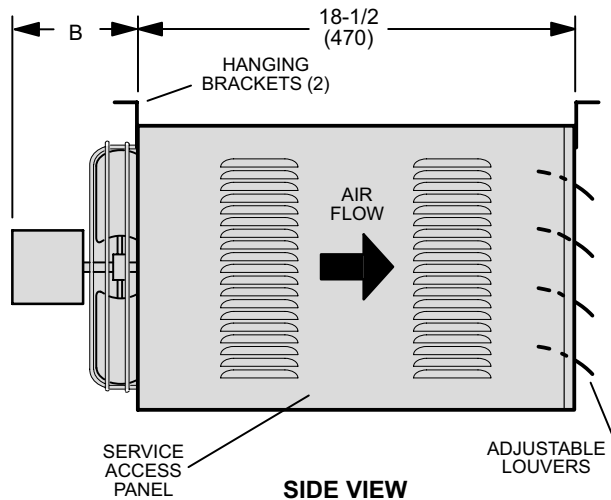
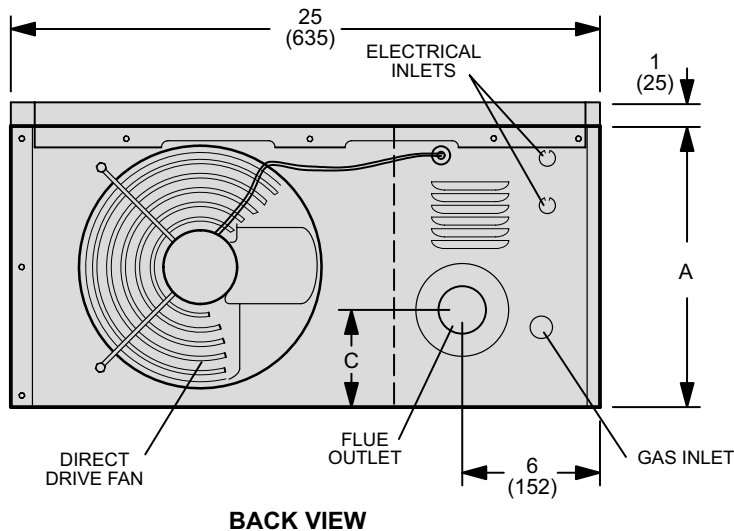
Single wall vent pipe must be used for horizontal venting.

Minimum clearance to combustible material is 6 in. (152 mm) with single wall vent pipe.

DIMENSIONS - INCHES (MM)



NOTE - Unit may be rotated 180° top for bottom to change gas, electrical and flue positions. Hanging brackets may be installed on either top or bottom of unit.



Model No.	LF24-30A LF24-45A	LF24-60A LF24-75A
A	12 (305)	17 (432)
B	5-1/2 (140)	6-1/2 (165)
C	4-1/4 (108)	6-3/4 (171)