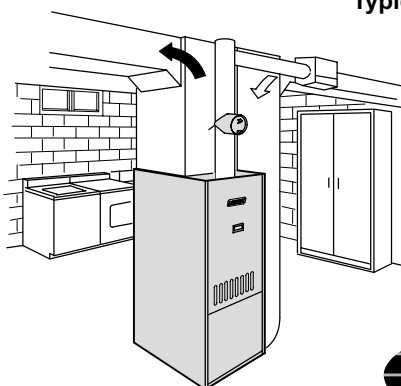
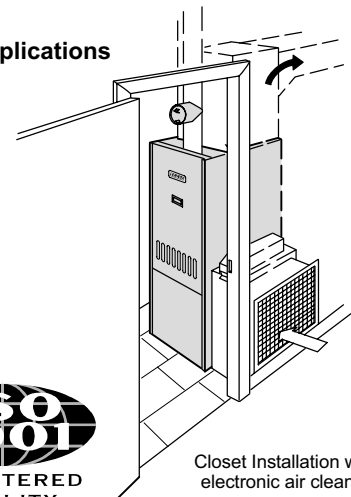




Typical Applications



Basement Installation with
and automatic humidifier



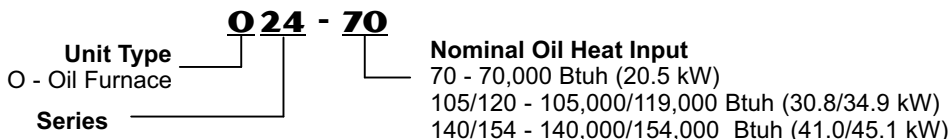
Closet Installation with
electronic air cleaner



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MODEL NUMBER IDENTIFICATION



FEATURES

Applications

- Suitable for installation in a residence, small business or commercial establishment.
- Compact, rugged cabinet with side or bottom return air entry, will allow installation in a basement, closet, recreation or utility room.
- Approved for reduced clearances to combustibles.
- Lennox electronic air cleaners and humidifiers can be added to the furnace.
- All units are shipped factory assembled including the oil burner, with all controls installed and wired.
- Each unit is factory test operated insuring proper operation after shipment.

Tested and Certified

- Units have been rated and tested according to U.S. Department of Energy (DOE) test procedures and Federal Trade Commission (FTC) labeling regulations.
- Ratings are certified by GAMA and units are ETL listed.
- Developed in accordance with ISO 9001 quality standards.

Equipment Warranty

- Heat exchangers have a limited lifetime warranty in residential applications.
- Oil burners and all other covered components have a limited warranty for five years in residential applications.
- Refer to the Lennox Equipment Limited Warranty certificate included with the equipment for details.

NOTE - Due to Lennox' ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability. Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury. Installation and service must be performed by a qualified installer and servicing agency.

FEATURES

EZ Clean Heat Exchanger

- Streamlined drum type heat exchanger exposes maximum surface area to the air stream with minimum air resistance.
- Constructed of heavy gauge steel for maximum service life.
- Strategically placed ports allow easy cleaning.
- Heavy gauge mounting channels are provided in cabinet base for support of heat exchanger.

Combustion Chamber

- All models have a factory installed, specially designed alumina silica ceramic fiber combustion chamber.
- Combustion chamber can withstand temperatures of up to 2550°F (1440°C) resulting in more complete combustion and higher efficiencies.

Beckett Flame-Retention Oil Burner

- Smooth operating, high-pressure atomizing type burner blends oil and air to attain maximum efficiency.
- Heavy duty motor drives quiet operating blower wheel and fuel pump.
- Air turbo injector directs combustion air for smooth ignition.
- Flame retention head is designed to agitate and mix oil and air for complete combustion and highest efficiency.
- Burner design features 4 in. (102 mm) connection to air inlet for optional outdoor combustion air.
- Oil pump located on opposite side of air inlet to prevent any dirt accumulation from inlet air.
- Burner has 14,000 volt ignition transformer and ceramic glazed electrodes which provide a safe continuous flame.
- Equipped with a factory installed cadmium sulfide cell flame detector and primary safety control that provides complete shutdown in case of flame failure.
- All burner parts are easily removable for servicing.
- Burner is U.L. approved, C.S.A. certified and certified according to ANSI Standard 296.6.
- Burner is factory installed in the unit, wired and fire tested.
- Dual input/output O23Q3-105/120 and O23Q5-140/154 models are shipped for lower heating capacity operation. Nozzle must be field provided for field conversion to higher heating capacity.

Cabinet

- Constructed of heavy gauge steel with a pre-painted, textured finish.
- Entire heating section is lined with foil faced fiberglass insulation keeping cabinet surface temperatures low.
- Removal of louvered heating section door allows access to oil burner, inspection door and control compartment.
- Door is equipped with handhold for ease of removal.
- Control compartment is totally enclosed to provide a safe, compact and clean area.
- Large blower access door gives complete service access to blower.
- Blower compartment is completely insulated.
- Blower assembly easily slides completely out of unit for service.
- Oil line and electrical inlet openings are provided in sides of cabinet, see dimension drawing.
- Return air entry is possible on either side or bottom of cabinet.

Flame Inspection Tube

- Conveniently located at the front of the unit.
- Opening is large enough for normal inspection mirror.

Barometric Draft Control

- Furnished as standard equipment and field installed in flue pipe.

Blower

- Units are equipped with split phase permanently lubricated motor, adjustable pulley and sheave.

Fan and Limit Control

- Factory installed.
- Fan control is temperature actuated to control blower operation, 125°F (52 °C) on/100°F (38 °C) off temperature settings.
- Limit protects unit from abnormal operating conditions and has a fixed temperature setting.

Side Filter Adaptor Kit

- Furnished with the unit and field installed.
- Adaptor is completely assembled and can be installed on either side of the cabinet.
- A large cleanable frame type filter is also furnished and slides in the rack.
- Adaptor has flanges for ease of duct connection. See dimension drawing.

OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA

Two Stage Oil Pump

- Two stage oil pump is available. See Specifications table for order number.

Oil Filter

- Recommended for proper oil filtration. See Specifications table for order number.

Thermostat

- See Thermostats bulletin in Thermostats and Controls section and Lennox Price Book.

SPECIFICATIONS

Oil Heating Performance	Model Number	O24-70	O24-105/120	O24-140/154	
Oil Heating Performance	Input - Btuh (kW) - Low	70,000 (20.5)	105,000 (30.8)	140,000 (41.0)	
	⁴ High	---	119,000 (34.8)	154,000 (45.1)	
	Output - Btuh (kW) - Low	57,000 (16.7)	85,000 (24.9)	113,000 (33.1)	
	⁴ High	---	97,000 (24.9)	125,000 (36.6)	
	¹ A.F.U.E.	82%	81%	81%	
	Flue Connection Round - in. (mm)	6 (152)	6 (152)	6 (152)	
	Temperature Rise Range °F (°C) - Low	55 - 85 (31 - 47)	55 - 85 (31 - 47)	50 - 80 (28 - 44)	
	⁴ High	---	60 - 90 (33 - 50)	60 - 90 (33 - 50)	
	Oil Burner	Nozzle rating - gph (L/hr) - Low	.50 (1.9)	.65 (2.5)	.85 (3.2)
		⁴ High	---	⁴ .75 (2.8)	⁴ 1.00 (3.8)
Nozzle spray angle		80° ^h hollow	80° ^s solid	80° solid	
Oil Burner Pump		1 Stage	1 Stage	1 Stage	
Oil Burner Pump Pressure - psig (Pa)		100 (690)	140 (965)	140 (965)	
Blower Data	Motor hp (W)	1/6 (124)	1/4 (187)	3/4 (560)	
	Motor pulley - in. (mm)	3-1/4 (83)	4 (102)	4 (102)	
	Blower wheel nominal diameter x width	10 x 8 in. (254 x 203 mm)	10 x 8 in. (254 x 203 mm)	12 x 9 in. (305 x 229 mm)	
	Blower pulley - in. (mm)	7 (178)	7 (178)	7 (178)	
	Belt size - in. (mm)	40 (1016)	41 (1041)	41 (1041)	
	Air Flow @.20 in. wg. (50 Pa) external static pressure	820 cfm (390 L/s)	1170 cfm (550 L/s)	1550 cfm (730 L/s)	
	² Filter	Number of filters	1	1	³ 2
Size of filters - in.		16 x 25 x 1	16 x 25 x 1	16 x 25 x 1	
	mm	406 x 635 x 25	406 x 635 x 25	406 x 635 x 25	
Shipping weight — lbs. (kg) 1 package		230 (104)	230 (104)	280 (127)	
Electrical	Characteristics	115V-60hz-1ph	115V-60hz-1ph	115V-60hz-1ph	
	Maximum time delay breaker or fuse size	15 Amp	15 Amp	20 Amp	

OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA

Oil Filters	10 micron without mounting bracket	81P89
	10 micron with mounting bracket	53P92
	Replacement cartridge - 10 micron, 45 gph	53P93
	Filter restriction indicator gauge	53P90
Two Stage Oil Pump		65A44

¹Annual Fuel Utilization Efficiency based on U.S. DOE test procedures and FTC labeling regulations. Isolated combustion system rating for non-weatherized furnaces.

²Cleanable frame type filters. Furnished with unit in Side Filter Adaptor Kit for field installation external to the cabinet.

³Requires return air from both sides of cabinet.

⁴Nozzle must be field provided for field conversion to higher heating input.

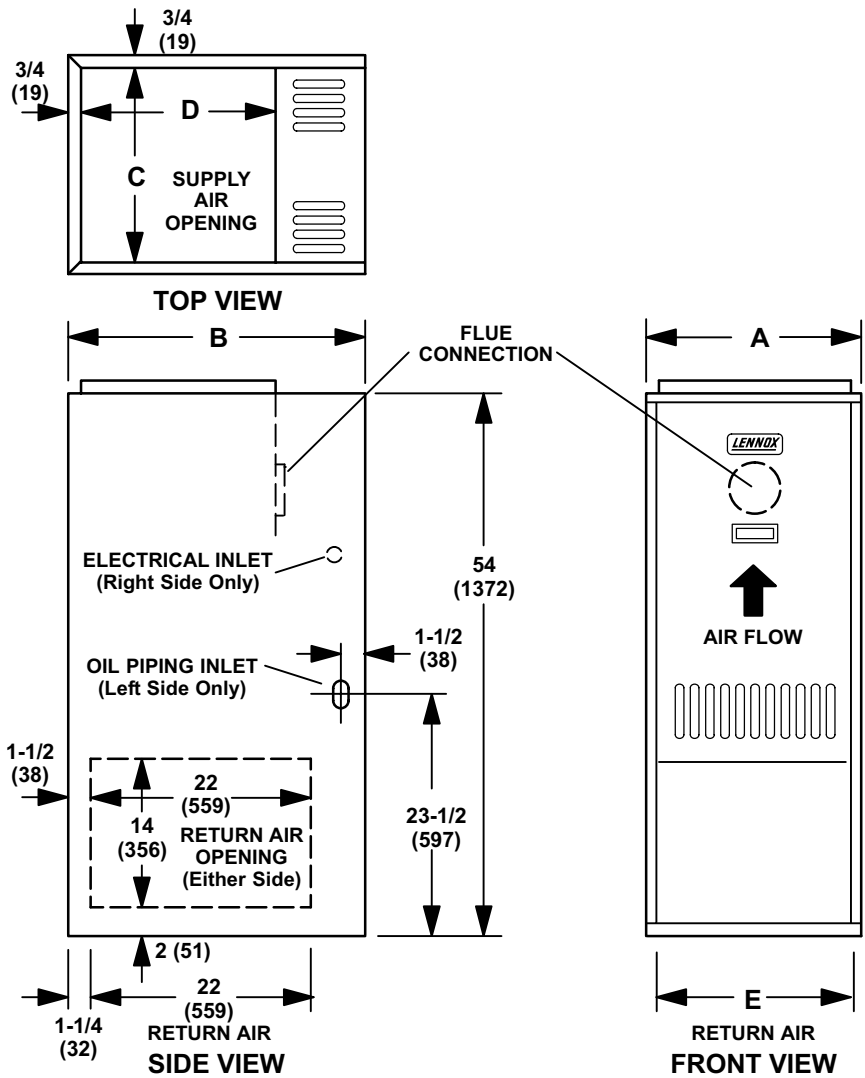
INSTALLATION CLEARANCES

Approved for closet or alcove installation.

When installing in a confined space, two ventilation openings must be provided into the the space; one 6 in. (152 mm) from the top and one 6 in. (152 mm) from the bottom. Each opening should be 8 x 16 in. (203 x 406 mm).

Top of Cabinet	2 in.	51 mm
Sides & Rear of Cabinet	0 in.	0 mm
Front of Cabinet	4 in.	102 mm
Service Clearance (Front)	24 in.	610 mm
Top of Plenum	2 in.	51 mm
Sides of Plenum	3 in.	76 mm
Horizontal Warm Air Duct within 3 feet (1 m) of furnace	2 in.	51 mm
Flue Pipe Vertical or Horizontal	7 in.	178 mm
Floor	Combustible	Combustible

DIMENSIONS - INCHES (MM)



Model No.	A		B		C		D		E	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
O24-70	19-1/2	495	30-5/8	778	18	457	19-5/8	498	16	406
O24-105/120	22-1/2	572	33-1/8	841	21	533	22-1/8	562	18	457

SIDE FILTER ADAPTOR KIT - Furnished With Unit

