GAS FURNACES

EL297UHE

ELITE® SERIES

Upflow / Horizontal - Two-Stage Heat - Constant Torque Blower - 60 Hz

RESIDENTIAL PRODUCT SPECIFICATIONS

Bulletin No. 211032
July 2024
Supersedes all previous versions



ELITE® SERIES

ENERGY STAR

AFUE - 97%
Input - 44,000 to 132,000 Btuh
Nominal Add-on Cooling - 1.5 to 5 Tons

MODEL NUMBER IDENTIFICATION

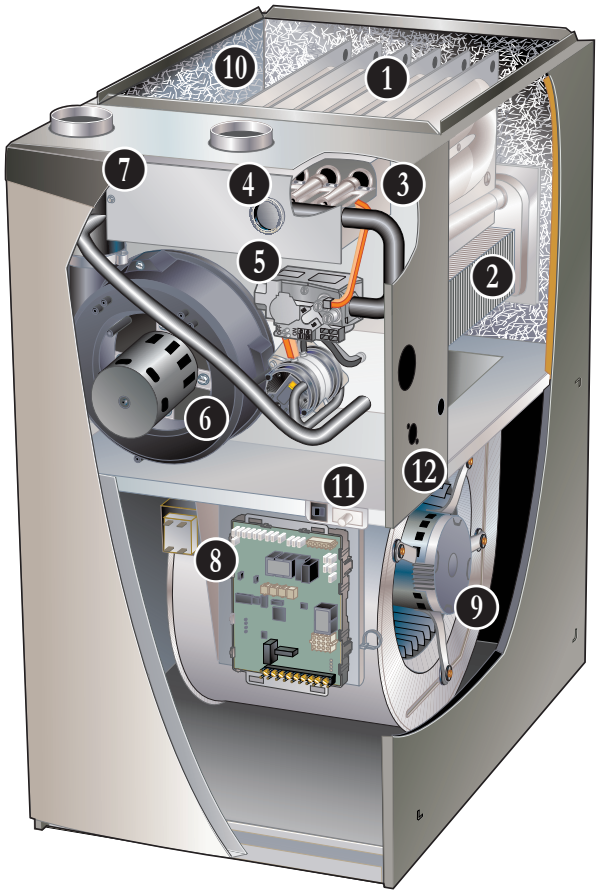
EL 2 97 UH 070 X E 36 B - 01

- **Unit Type**: EL = Elite® Series
- **Stages**: 2 = Two-Stage
- **AFUE**: 97 = 97%
- **Configuration**: UH = Upflow/Horizontal
- **Nominal Gas Heat Input**: 045 = 44,000 Btuh; 070 = 66,000 Btuh; 090 = 88,000 Btuh; 110 = 110,000 Btuh; 135 = 132,000 Btuh
- **Low NOx**: X = Units meet California Nitrogen Oxides Standard (40 ng/J)
- **Blower**: E = High Efficiency Constant Torque Blower Motor
- **Nominal Add-On Cooling Capacity**: 36 = 1.5-3 tons; 48 = 2.5-4 tons; 60 = 3-5 tons
- [1] **Cabinet Width**: B = 17-1/2 in.; C = 21 in.; D = 24-1/2 in.
- **Minor Revision Number**

[1] Indoor coils with the same letter designation will physically match the furnace.

FEATURE HIGHLIGHTS

1. Lennox Duralok Plus™ Heat Exchanger
2. Secondary Heat Exchanger
3. Inshot Burners
4. SureLight® Hot Surface Ignitor
5. Two-Stage Gas Control Valve
6. Two-Speed Combustion Air Inducer
7. Flame Rollout Switches
8. SureLight® Integrated Furnace Control
9. Variable Speed Direct Drive Blower
10. Insulated Cabinet
11. Safety Interlock Switch
12. Gas Piping And Electrical Inlets



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APPROVALS AND WARRANTY

APPROVALS

- AHRI Certified
- CSA International Certified
- Tested and rated according to US DOE test procedures and FTC labeling regulations
- Units are approved for installations from 0 - 4500 ft.
- ENERGY STAR® certified units are designed to use less energy, help save money on utility bills, and help protect the environment
- ISO 9001 Registered Manufacturing Quality System
- Blower data from unit tests conducted in Lennox Laboratory air test chamber

NOTE - This furnace has not been CSA International design certified for installation in mobile homes, recreational vehicles, or outdoors.

California Only

- These furnaces **do not meet** the South Coast Air Quality Management District (SCAQMD) Rule 1111 and San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 4905 NOx emission limit (14 ng/J) and cannot be installed within the SCAQMD and SJVAPCD areas
- These furnaces are approved by the California Energy Commission and meets California Nitrogen Oxides Standard (NOx) limits of 40 ng/J

WARRANTY

- Duralok Plus™ Aluminized Steel Heat Exchanger:
  - Limited lifetime (twenty year transferable) in residential applications
  - Limited ten years in non-residential applications
- All other covered components:
  - Limited five years in residential installations
  - Limited one year in non-residential installations

NOTE - Refer to Lennox® Basic Limited Warranty at www.Lennox.com for additional details.

FEATURES

APPLICATIONS

- Input capacities of 44,000, 66,000, 88,000, 110,000 and 132,000 Btuh
- Energy efficiency (AFUE) - 97%
- Compact cabinet for upflow, horizontal-left or horizontal-right applications without any modifications
- Removable bottom seal panel shipped in place for side return air is easily removed for bottom/end return air applications
- Lennox add-on indoor coils, high-efficiency air cleaners and humidifiers can easily be added to furnace
- Shipped factory assembled with all controls installed and wired
- Each unit factory test operated to ensure proper operation

HEATING SYSTEM

1. Lennox Duralok Plus™ Heat Exchanger Assembly
   - Lennox developed heat exchanger assembly consists of primary heat exchanger and secondary condenser coil assembly
   - Main multi-pass crimped seam design clamshell type
   - Constructed of heavy-gauge, aluminized steel
   - Designed for normal expansion and contraction with maximum efficiency and minimum resistance to air flow
2. Secondary heat exchanger condenser coil constructed of aluminum fins fitted to stainless steel tubes
   - Coil is factory tested for leaks
   - Condensate drain header box assembly located on front of coil
   - Compact size permits low overall design of furnace cabinet
   - Laboratory life cycle tested in excess of industry standards

FEATURES

HEATING SYSTEM (continued)

Lennox Designed Header Box
- Header box on end of condenser coil collects flue condensate for disposal through condensate drains
- Drains are located on each side of the cabinet for easy field installation of condensate drain trap
- Only one drain is used, the other drain is sealed
- Condensate drain trap is included with the unit for field installation

Lennox Designed Flue Condensate Trap Assembly
- Field installed outside the conditioned air stream
- Assembly can be mounted on either side of cabinet in upflow applications
- Assembly is mounted below the cabinet in horizontal applications
- Can also be mounted remotely (up to 5 ft. away) from unit
- See installation instructions
- 90° street elbow furnished for ease of drain trap installation
- Drain connection can be made with field provided PVC pipe, PVC coupling, or vinyl tubing with hose clamp
- Drain cap on trap allows easy cleaning and winterizing

3 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 can be removed from the unit as a single component for ease of service

4 SureLight® Hot Surface Ignitor
- Tough, reliable, long-life, trouble-free performance
- Silicon nitride ignitor
- Cemented to steatite block for protection against current leakage
- Ignition leads are constructed of nickel plated copper and are enclosed in high temperature Teflon® insulation for dependable operation

5 Two-Stage Gas Control Valve
- 24 volt redundant combination two-stage gas control valve combines manual shut off switch (On-Off), automatic electric valve (dual) and gas pressure regulation into a compact combination control

6 Two-Speed Combustion Air Inducer
- Permanent split capacitor (PSC), heavy duty blower prepurges heat exchanger and safely vents flue products
- Operates only during heating cycle
- Dual pressure switches (low fire/high fire) prove blower operation before allowing gas valve to open
- Direct access allows inducer assembly to be rotated 90° clockwise or counterclockwise to facilitate easy vent attachment in horizontal applications

7 Flame Rollout Switches (2)
- Factory installed on burner box
- Switch provides protection from abnormal operating conditions
- Manual reset

Limit Control
- Primary limit is accurately located on vestibule panel
- Automatic reset

Optional Accessories

High Altitude Orifice Kits
- Required on all units for proper unit operation at altitudes from 7501 to 10,000 ft.
- Available for natural gas and LPG/propane

High Altitude Pressure Switch Kit
- Required for proper unit operation on installations above 4500 ft.

Natural Gas to LPG/Propane Conversion Kit
- Required for field changeover from natural gas to LPG/Propane

LPG/Propane to Natural Gas Conversion Kit
- Required for field changeover from LPG/Propane to natural gas

Muffler (US Only)
- Significantly reduces outdoor operating sound levels
- Two-inch diameter muffler is optional for 045 through 110 input models

NOTE - Two-inch muffler is optional for the 110 input model with a maximum vent pipe length of up to 29 ft. Three-inch diameter muffler is optional for 110 and 135 input models.

NOTE - Three-inch muffler is optional for the 110 input model with a minimum vent pipe length of 30 ft.

- Installed vertically in the exhaust piping
- See Optional Accessory Dimension Drawing

DIRECT VENT / NON-DIRECT VENT SEALED COMBUSTION SYSTEM

- Furnace features a “sealed combustion” system and can be installed in either Direct Vent or Non-Direct applications
- In Direct Vent applications, combustion air is supplied from outdoors and flue gases are discharged outdoors
- In Non-Direct Vent applications, combustion air is supplied from indoors and flue gases are discharged outdoors

NOTE - Lennox has approved the use of DuraVent® PolyPro® and Centrotherm InnoFlue® manufactured vent pipe and terminations as an alternative to PVC vent pipe. Must be ordered separately.

- Tested and listed to the ULC S636 standard in Canada

DIRECT VENT / NON-DIRECT VENT SEALED COMBUSTION SYSTEM (continued)

- The polypropylene venting system must follow the uninsulated and unconditioned space vent lengths listed in the table on 13
- Refer to the Installation Instructions for additional details

Flue Coupling

- Assists with exhaust flue piping connection and servicing
- Includes flexible one 2 inch rubber coupling and two adjustable bands
- Approved for all Lennox 90% furnaces

Termination Kits

- Facilitates installation of combustion air intake pipe and flue exhaust pipe
- Refer to venting table in this bulletin to determine pipe size needed and proper termination kit required
- Certain Termination Kits are certified to ULC S636 standard for use in Canada only
- See Optional Accessories table and dimension drawings

Concentric - Direct Vent Applications

- 2 or 3 inch kit contains concentric termination assembly, reducer bushing and 45 degree elbow
- 2 inch kit for -045-070 models contains an outdoor exhaust accelerator
- Kit requires single hole penetration of roof or wall for installation
- Roof Termination Flashing Kit is available for use with 2 inch Kits
- CSA certified

Flush-Mount

- Kit contains flush-mount termination, accelerator, mounting template and hardware
- Kit may be used with 2, 2-1/2 or 3 in. pipe

Wall Assembly
Close Couple (US Only) - Direct Vent Applications

- 2 or 3 inch kit consists of close-couple, side-by-side PVC piping with galvanized steel wall cover plate for sealing and isolating piping penetration of the wall
- Piping spacing and length is sized for proper wall installations
- CSA certified

Close Couple WTK (Canada Only) - Direct Vent Applications

- 2 or 3 inch kit contains one insulated faceplate, one insulated exhaust pipe, elbow and fittings. Certified to ULC S636 standard

NOTE - Maintain a maximum of 6 inches between the inlet and outlet openings in the installation of the pipes.

Roof Termination Flashing Kit

- For vertical venting through a roof
- 2 or 3 inch kit contains two neoprene rubber roof flashings
- Vent pipe and insulation not furnished
- Flashing Kit can also be used with Concentric Vent Termination Kits used in vertical venting rooftop applications

CONTROLS

8 SureLight® Integrated Furnace Control

- Contains all necessary controls and relays to operate furnace
- Combustion air inducer is operated by the integrated furnace control
- Prior to ignition, a pre-purge cycle for 15 seconds is initiated
- After the main burners are turned off, a post-purge cycle for 5 seconds is run
- Safety Controls - Flame sensor utilizes flame rectification for safe and reliable operation
- Should loss of flame occur, the integrated furnace control will initiate 4 re-attempts at ignition before locking out unit operation for 60 minutes
- Watchguard type circuit automatically resets ignition controls after one hour of continuous thermostat demand after unit lockout, eliminating nuisance calls for service
- Thermostat Control - For optimal performance, the use of a high-quality, digital two-stage thermostat with adjustable settings for first stage/second stage, on/off differentials and adjustable stage timers is recommended

Furnace Input Staging Options

Thermostat Type	Input Staging Available
Two-Stage (Conventional)	Determined by thermostat demand
Single-Stage (Conventional)	2nd-stage heat ON delay (DIP switch setting) OFF - 7 minutes (factory) ON - 12 minutes

- Display LED - Seven segment LED displays alpha-numeric information related to diagnostics as well as system operation and status
- Diagnostic codes are held in non-volatile memory, immune from power interruptions
- Holds up to ten diagnostic codes in order of occurrence for recall on demand
- Port on blower door allows for easy viewing

DIP Switch Settings

- Select Thermostat Used - Single-Stage or Two-Stage
- Two selectable second stage recognition times (7 and 12 minutes) are available on the control when the furnace is used with a single-stage thermostat

FEATURES

CONTROLS (continued)

- When used with a two-stage thermostat, furnace will only initiate second stage operation with a second stage thermostat demand
- **Second Stage Delay** - Used with single-stage thermostat only. See Furnace Input Staging Options table for details
- **Blower On/Off Time (Heating)** - Blower on time is fixed at 30 seconds, blower off time is adjustable from 60, 90, 120 and 180 seconds (factory setting - 90 seconds)
- **Blower On/Off Time (Cooling)** - For air-conditioning applications, blower "on" time is 2 seconds following thermostat demand for cooling
- Blower "off" time in cooling mode is adjustable from 2 or 45 seconds (factory setting - 45 seconds)
- For air-conditioning applications, blower is automatically energized on thermostat demand for cooling
- **Heating Speeds** - Low Heat or High Heat
- **Cooling Speeds** - Low Cool or High Cool
- **Continuous Speed** - Low Heat (factory setting) - adjustable
- **Dehumidification** - A jumper on the control must be clipped to enable dehumidification
- A humidity controlling thermostat or device is also required
- During a call for cooling, air volume is automatically reduced, forcing humidity removal by the air conditioner or heat pump system (single stage units or two-stage units running at 2nd stage)
- After the humidity has reached the desired set-point the cooling air volume returns to its designed rate
- **Dual-Fuel Operation** - A jumper on the control must be clipped to enable operation with a single or two-stage heat pump
- The indoor blower is started without delay when a call for heat is received
- **Two-Stage Compressor Operation** - A jumper on the control must be clipped to enable operation with a two-stage compressor
- **Accessory Terminal** - One accessory terminal furnished for additional power supply requirements for 120 volt (less than 1 amp) powered air cleaners
- One un-powered pair of contacts are provided for humidifier connections and may be connected to 24V or 120V
- Control is factory installed in the unit control box

24 Volt Transformer (40VA)

- Furnished and factory installed on outside of control box
- Circuit breaker (furnished) is wired in series

Field Wiring Make-up Box

- Furnished for line voltage wiring
- Factory installed internally on left side of furnace
- Box may be installed internally on right side of furnace

Optional Accessories

E30 Smart Wi-Fi Thermostat



- Wi-Fi enabled, electronic 7-day, universal, multi-stage, programmable, touchscreen thermostat
- 3 Heat/2 Cool
- Auto-changeover
- Controls dehumidification during cooling mode and humidification during heating mode
- Offers enhanced capabilities including humidification / dehumidification / dewpoint measurement and control, Humiditrol® control, and equipment maintenance reminders
- Easy to read 7 in. color touchscreen (measured diagonally)
- LCD display with backlight shows the current and set temperature, time, inside relative humidity, system status (operating mode and schedules) and outside temperature (optional outdoor sensor required)
- Smooth Setback Recovery starts system early to achieve setpoint at start of program period
- Compressor short-cycle protection (5 minutes)
- Up to four separate schedules are available plus Schedule IQ™
- One-Touch Away Mode - A quick and easy way to set the cooling and heating setpoints while away
- Smart Away™ - Uses geo-fencing technology to determine when the homeowner is within a predetermined distance from the home to operate the system when leaving, away and arriving
- Wi-Fi remote monitoring and adjustment through a home wireless network for desktop PCs, laptops and apps for smartphones or tablets
- Smart home automation compatible with Apple HomeKit™, Amazon Alexa®, Google Assistant and IFTTT
- Service Dashboard features online real-time monitoring of installed Lennox® thermostats
- High Definition Color Display with Subbase, Smart Hub Controller, wallplate (for retrofit installations) furnished for easy installation
- See the Lennox® E30 Smart Wi-Fi Thermostat Product Specifications bulletin for more information

Remote Outdoor Temperature Sensor



- Used with the Lennox® E30 Smart Wi-Fi Thermostat
- When installed outdoors, sensor allows thermostat to display outdoor temperature

NOTE - Sensor is required for Enhanced Dehumidification Control (EDA) applications.

FEATURES

CONTROLS (continued)

Optional Accessories (continued)

Thermostat
- Thermostat is not furnished with unit
- See Lennox Price Book for selection

Furnace Twinning Panel
- Required to operate two identical furnaces simultaneously from a single thermostat
- For single stage conventional (1 heat/1 cool), multi-stage conventional (2 heat/2 cool) and heat pump (3 heat/2 cool) equipment
- Can be used with common or separate ducted systems
- Contains PC Control Board with terminal strip connections for thermostat and HVAC equipment
- LEDs indicate system operating status
- Uses standard 18-gauge thermostat wire
- Power Supply: 24 VAC, 40VA (transformer not furnished)
- Mounting base with hardware furnished
- Dimensions (H x W x D): 10 x 5 x 2 in.

NOTE - Only identical furnaces should be twinned in order to ensure that both furnace blowers start at the same time. If furnaces are not identical, back draft dampers can be installed in either the supply or return duct.

Up to four identical furnaces can be twinned. Requires two panels that are wired together.

Furnace Twinning Kit
- Required to operate two furnaces simultaneously.
- Kit consists of twinning relays, quick connect terminals and mounting hardware
- Used for two-stage heating/single-stage cooling with either a single-stage or two-stage thermostat

Transformer (75VA)
- Recommended when furnace is used with zoning or defrost thermostats and other 24V accessories requiring a higher VA rating
- Circuit breaker (furnished) is wired in series
- Replaces the standard 40VA transformer

Blower Relay Kit
- For use with two-stage outdoor units
- Allows furnace blower speed changes when matched with two-stage air conditioners or heat pumps

BLOWER
- Direct drive blower
- Statically and dynamically balanced
- Resiliently mounted
- Blower assembly easily removed for servicing

9 Power Saver™ Constant Torque Blower Motor
- DC Brushless Motor
- High Efficiency Constant Torque
- ECM (Electronically Commutated Motor)
- Motor is programmed to provide constant torque at each of the selectable speeds
- Motor is controlled by the SureLight® Integrated Furnace Control
- Blower speeds are easily changed on the integrated furnace control
- See Blower Data tables

CABINET
- Low-profile, narrow width allows easy installation
- Heavy-gauge, cold rolled steel construction
- Pre-painted cabinet finish
- Flanges provided on supply air opening for ease of plenum connection or alignment with indoor coil
- 10 Insulated with foil faced insulation on sides and back of heating compartment and mat faced insulation in blower compartment
- Sealed blower compartment
- Inner blower compartment access panel seals blower compartment from air leakage
- Cabinet door can be removed without any tools
- Complete service access
- 11 Safety interlock switch automatically shuts off power to unit when blower compartment access door is removed
- 12 Gas piping and electrical inlets are provided in both sides of cabinet

FEATURES

CABINET (continued)

Bottom/Side Return Air Entry:
- Upflow/horizontal with bottom return air entry:
  - Remove furnished bottom seal panel from cabinet
- Upflow only with side return-air entry:
  - Corners are marked on either side of cabinet for return air cut-out
- See dimension drawings

NOTE - 60C and 60D size units that require air volumes over 1800 cfm must have one of the following:

1. Single side return air and Optional Return Air Base with transition that must accommodate required 20 x 25 x 1 inch air filter to maintain proper velocity
2. Bottom return air
3. Return air from both sides
4. Bottom and one side return air

- See Blower Performance Tables for additional information

Coil Match-Up
- All furnaces exactly match Lennox cased upflow indoor coils and horizontal indoor coils with same letter designation (A, B, C, D) in model number
- No adaptor required
- Engaging holes furnished on cabinet for alignment
- Lennox uncased coils match furnaces without any overhang but require an optional adaptor base or field fabricated transition to match furnace opening
- See coil bulletin for additional information

Low Leakage Cabinet
- All models have less than 2% air leakage
- Meets ANSI/ASHRAE Standard 193-2010 "Method of Test for Determining the Air Tightness of HVAC Equipment"

Optional Accessories

Condensate Drain Heat Cable Kits
- Self-limiting wattage heat cable prevents condensate drain from freezing in unconditioned areas
- Available in 6 or 24 ft. lengths

Horizontal Suspension Kit
- Provides suspension of unit and indoor coil in horizontal applications
- Allows complete service access
- Consists of corner mounted hanging brackets with vibration isolators, return air end support rail and hardware for assembly
- Metal hanging straps must be field provided

Crawl Space Vent Drain Kit
- Allows venting through a crawl space for upflow and horizontal applications
- Kit for Canada is certified to ULC S636
- Includes 2 or 3 inch sanitary tee, 2 inch PVC assembly, PVC boot and clamp

Return Air Base

NOTE - On furnaces with side return air and condensate trap on the same side of the cabinet, a field fabricated transition or Return Air Base is required when using an IAQ product higher than 14-3/16 inches installed next to the unit and serviced from the front. IAQ products higher than 20 inches require a field fabricated transition.

NOTE - Must be used for 60C and 60D size models with air volumes over 1800 cfm in upflow applications when only one side return is required.

- Cabinet is shipped flat for easy field assembly
- Pre-painted steel to match the furnace
- See Dimension Drawing

High Performance Economizer (Commercial Applications Only)
- Designed for applications requiring outdoor air to be utilized in a commercial HVAC system
- Allows the entry of fresh outdoor air for free cooling, reducing the requirement for mechanical cooling
- Heavy gauge galvanized steel cabinet lined with thick fiberglass insulation
- Mixed air sensor, outdoor air sensor and 24VAC transformer furnished
- Approved for California Title 24 building standards. ASHRAE 90.1-2010 compliant
- See separate Product Specifications bulletin for additional information and available control and sensor options

FILTER (not furnished)
- Filter and provisions for external mounting must be field provided

Optional Accessories

Air Filter and Rack Kit for Horizontal Return Air (End) Applications
- Washable or vacuum cleanable polyurethane frame type filter and external end return air rack
- Rack has filter door for servicing
- Flanges on rack for duct connection
- Field installed
- See dimension drawing

Air Filter and Rack Kit for Upflow Side Return Air

NOTE - Not for use with Return Air Base
- Washable or vacuum cleanable polyurethane frame type filter and external side return air rack available for field installation
- Available in single and ten pack kits
- Rack has filter door for servicing
- Flanges on rack for duct connection
- Field installs on either side of unit cabinet
- See dimension drawing

FEATURES

REFRIGERATION DETECTION SYSTEM (RDS)

Optional Accessories

Refrigerant Detection System (RDS) Coil Sensor Kit

- Complies with UL 60335-2-40 approved standard
- Required for field installation for all systems using R-454B refrigerant if sensor is not furnished with coil
- Consists of Refrigerant Detection System (RDS) sensor, lineset sleeves, mounting brackets and A2L labeling
- Sensor ensures safe operation for systems equipped with R-454B refrigerant
- Sensor will detect anu R-454B refrigerant

Refrigerant Detection System (RDS) Blower Control Board

Communicating Blower Control Board (Universal)

- Communicating Blower Control Board and Sensor can be used universally with any Lennox® communicating furnace or any non-communicating 24 volt furnace

Non-Communicating Blower Control Board

- Non-Communicating Blower Control Board and Sensor can be used with any non-communicating 24 volt furnace

Standard Features

- Complies with UL 60335-2-40 approved standard
- Required for all systems using R-454B refrigerant
- Connects to the RDS sensor furnished with the RDS Coil Sensor Kit
- Supports up to two RDS Sensors (factory setting)
- Used as an interface between indoor unit and thermostat to control system
- Ensures safe operation for systems equipped with R-454B refrigerant
- If R-454B refrigerant is detected, the refrigerant detection system will stop compressor and/or heating operating and operate the blower to reduce concentrations in the conditioned space
- Once safe levels are reached the HVAC system will resume normal operation
- Multi-color LED for system status and as an aid in troubleshooting
  - Flashing LED codes for system status (Green/Blue) and diagnosing Sensor errors (Red)
- Alarm relay can trigger an external alarm if R-454B refrigerant is detected
- Zone relay opens all zone dampers (if part of a zoning system) if R-454B refrigerant is detected
- Power is disabled to non-communicating thermostats to prevent demand if R-454B refrigerant is detected
- On system start-up blower will run for five minutes and any thermostat demands are disabled
- Dimensions (H x W x D): 7-7/16 x 7-7/16 x 2-1/2 (189 x 189 x 127 mm)

NOTE - See Refrigerant Detection System (RDS) Components Table on page 12.

See the CK40 Indoor Coil Product Specifications bulletins for more information.

Refer to the Installation Instructions for additional information.

SPECIFICATIONS

			Model No.	EL297UH045XE36B	EL297UH070XE36B	EL297UH090XE48C
Gas Heating Performance			[1] AFUE	97%	97%	97%
	High Fire		Input - Btuh	44,000	66,000	88,000
			Output - Btuh	43,000	65,000	86,000
			Temperature rise range - °F	30-60	35-65	40-70
			Gas Manifold Pressure (in. w.g.) Nat. Gas / LPG/Propane	3.5 / 10.0	3.5 / 10.0	3.5 / 10.0
	Low Fire		Input - Btuh	29,000	43,000	57,000
			Output - Btuh	28,000	42,000	56,000
			Temperature rise range - °F	20 - 50	25 - 55	30 - 60
			Gas Manifold Pressure (in. w.g.) Nat. Gas / LPG/Propane	1.7 / 4.5	1.7 / 4.5	1.7 / 4.5
High static - in. w.g.				0.5	0.5	0.5
Connections in.			Intake / Exhaust Pipe (PVC)	2 / 2	2 / 2	2 / 2
			Gas pipe size IPS	1/2	1/2	1/2
			Condensate Drain Trap (PVC pipe) - i.d.	3/4	3/4	3/4
			with furnished 90° street elbow	3/4 slip x 3/4 Mipt	3/4 slip x 3/4 Mipt	3/4 slip x 3/4 Mipt
			with field supplied (PVC coupling) - o.d.	3/4 slip x 3/4 MPT	3/4 slip x 3/4 MPT	3/4 slip x 3/4 MPT
Indoor Blower			Wheel nominal diameter x width - in.	10 x 8	10 x 8	10 x 10
			Motor Type	DC Brushless	DC Brushless	DC Brushless
			Motor output - hp	1/2	1/2	3/4
			Tons of add-on cooling	1.5 - 3	1.5 - 3	2.5 - 4
			Air Volume Range - cfm	520 - 1345	550 - 1380	760 - 1740
Electrical Data			Voltage	120 volts - 60 hertz - 1 phase		
			Blower motor full load amps	6.8	6.8	8.4
			Maximum overcurrent protection	15	15	15
Shipping Data			lbs. - 1 package	124	132	155

NOTE - Filters and provisions for mounting are not furnished and must be field provided.

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

SPECIFICATIONS

			Model No.	EL297UH110XE60C	EL297UH135XE60D
Gas Heating Performance			[1] AFUE	97%	97%
	High Fire		Input - Btuh	110,000	132,000
			Output - Btuh	108,000	128,000
			Temperature rise range - °F	40-70	45-75
			Gas Manifold Pressure (in. w.g.) Nat. Gas / LPG/Propane	3.5 / 10.0	3.5 / 10.0
	Low Fire		Input - Btuh	72,000	86,000
			Output - Btuh	71,000	84,000
			Temperature rise range - °F	30-60	35-65
			Gas Manifold Pressure (in. w.g.) Nat. Gas / LPG/Propane	1.7 / 4.9	1.7 / 4.9
High static - in. w.g.				0.5	0.5
Connections in.			Intake / Exhaust Pipe (PVC)	2 / 2	2 / 2
			Gas pipe size IPS	1/2	1/2
			Condensate Drain Trap (PVC pipe) - i.d.	3/4	3/4
			with furnished 90° street elbow	3/4 slip x 3/4 Mipt	3/4 slip x 3/4 Mipt
			with field supplied (PVC coupling) - o.d.	3/4 slip x 3/4 MPT	3/4 slip x 3/4 MPT
Indoor Blower			Wheel nominal diameter x width - in.	11-1/2 x 10	11-1/2 x 10
			Motor Type	DC Brushless	DC Brushless
			Motor output - hp	1	1
			Tons of add-on cooling	3 - 5	3.5 - 5
			Air Volume Range - cfm	1055 - 2220	1260 - 2405
Electrical Data			Voltage	120 volts - 60 hertz - 1 phase	
			Blower motor full load amps	10.9	10.9
			Maximum overcurrent protection	15	15
Shipping Data			lbs. - 1 package	163	179

NOTE - Filters and provisions for mounting are not furnished and must be field provided.

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

OPTIONAL ACCESSORIES - ORDER SEPARATELY

			"B" Width Models	"C" Width Models	"D" Width Models
CABINET ACCESSORIES					
Horizontal Suspension Kit - Horizontal only			**51W10**	**51W10**	**51W10**
Return Air Base - Upflow only			**50W98**	**50W99**	**51W00**
High Performance Economizer (Commercial Only)			**10U53**	**10U53**	**10U53**
CONDENSATE DRAIN KITS					
Condensate Drain Heat Cable		6 ft.	**26K68**	**26K68**	**26K68**
		24 ft.	**26K69**	**26K69**	**26K69**
Crawl Space Vent Drain Kit		US	**51W18**	**51W18**	**51W18**
		Canada	**15Z70**	**15Z70**	**15Z70**
CONTROLS					
Blower Relay Kit (for two-stage outdoor units)			**85W66**	**85W66**	**85W66**
Furnace Twinning Panel			**Y3653**	**Y3653**	**Y3653**
Furnace Twinning Kit			**16W72**	**16W72**	**16W72**
Transformer (75VA)			**27J32**	**27J32**	**27J32**
E30 Smart Wi-Fi Thermostat			**20A65**	**20A65**	**20A65**
Remote Outdoor Air Temperature Sensor			**X2658**	**X2658**	**X2658**
FILTER KITS					
[1] **Air Filter and Rack Kit**	Horizontal (end)		**87L96**	**87L97**	**87L98**
		Size of filter - in.	18 x 25 x 1	20 x 25 x 1	25 x 25 x 1
	Side Return	Single	**44J22**	**44J22**	**44J22**
		Ten Pack	**66K63**	**66K63**	**66K63**
		Size of filter - in.	16 x 25 x 1	16 x 25 x 1	16 x 25 x 1
TERMINATION KITS					
See Installation Instructions for specific venting information.					
Direct Vent	Concentric	US - 2 in.	**71M80**	**69M29**	**- - -**
		3 in.	**- - -**	**60L46**	**60L46**
		Canada - 2 in.	**44W92**	**44W92**	**- - -**
		3 in.	**- - -**	**44W93**	**44W93**
	Flush-Mount	US - 2, 2-1/2 or 3 in.	**51W11**	**51W11**	**51W11**
		Canada - 2, 2-1/2 or 3 in.	**51W12**	**51W12**	**51W12**
	Wall - Close Couple	US - 2 in.	**22G44**	**- - -**	**- - -**
		3 in.	**44J40**	**44J40**	**44J40**
	Wall - Close Couple WTK	Canada - 2 in.	**30G28**	**- - -**	**- - -**
		3 in.	**81J20**	**81J20**	**81J20**
	Roof Termination Flashing Kit (no vent pipe - 2 flashings)	2 in.	**15F75**	**15F75**	**- - -**
		3 in.	**44J41**	**44J41**	**44J41**
VENTING					
Flue Coupling		2 in.	**17H92**	**17H92**	**17H92**

[1] Cleanable polyurethane, frame-type filter.

NOTE - Termination Kits (**44W92**, **44W93**, **30G28**, **51W12**, **81J20**) and Crawl Space Vent Drain Kit (**15Z70**) are certified to ULC S636 standard for use in Canada only.

GAS HEAT ACCESSORIES

Input	High Altitude Pressure Switch Kit		Natural Gas to LPG/Propane Kit	LPG/Propane to Natural Gas Kit	Natural Gas High Altitude Orifice Kit	LPG/Propane High Altitude Orifice Kit	Muffler (US Only)
	4501 - 7500 ft.	7501 - 10,000 ft.	0 - 7500 ft.	0 - 7500 ft.	7501 - 10,000 ft.	7501 - 10,000 ft.	
045	14A51	14A53	11K51	77W09	73W37	11K46	15Y66 (2-inch)
070	14A48	14A54	11K51	77W09	73W37	11K46	15Y66 (2-inch)
090	14A54	14A53	11K51	77W09	73W37	11K46	15Y66 (2-inch)
110	25B93	14A45	11K51	77W09	73W37	11K46	[1] 15Y66 (2-inch) 16A56 (3-inch)
135	25B94	25B95	11K51	77W09	73W37	11K46	16A56 (3-inch)

[1] Two-inch diameter muffler (**15Y66**) is optional for 110 input model with a maximum vent pipe length of up to 29 ft.
Three-inch diameter muffler (**16A56**) is optional for 110 input model with a minimum vent pipe length of 30 ft.

REFRIGERANT DETECTION SYSTEM (RDS) COMPONENTS

Description		Order No.
Refrigerant Detection System (RDS) Coil Sensor Kit		26Z69
Refrigerant Detection System (RDS) Blower Control Board	Any Lennox® Communicating Furnace or any Non-Communicating 24V Furnace (Universal)	27A03
	Any Non-Communicating 24V Furnace	27A02

NOTE - Communicating Blower Control Board and Sensor can be used universally with Lennox® communicating furnace or any non-communicating 24 volt furnace.
Non-Communicating Blower Control Board and Sensor can be used with any non-communicating 24 volt furnace.

HIGH ALTITUDE DERATE

NOTE - Units may be installed at altitudes up to 10,000 ft.
At altitudes above 4501 ft. the unit must be derated to match the manifold pressure information shown below.
Units installed at altitudes of 4501 to 10,000 ft. require a pressure switch change.
Units installed at altitudes of 7501 to 10,000 ft. require an orifice change.
See the Gas Heat Accessories table for ordering information.

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

NOTE - In Canada, certification for installations at elevations over 4500 feet is the jurisdiction of local authorities.

Input	Gas	Manifold Pressure in. w.g.										Supply Line Pressure in. w.g. 0 - 10,000 ft.	
		0 - 4500 ft.		4501 - 5500 ft.		5501 - 6500 ft.		6501 - 7500 ft.		7501 - 10,000 ft.			
		Low Fire	High Fire	Low Fire	High Fire	Low Fire	High Fire	Low Fire	High Fire	Low Fire	High Fire	Min.	Max.
All Sizes	Natural	1.7	3.5	1.6	3.3	1.5	3.2	1.5	3.1	1.7	3.5	4.5	13.0
	LPG/Propane	4.5	10.0	4.2	9.4	4.0	9.1	3.9	8.9	4.5	10.0	11.0	13.0

OUTDOOR TERMINATION KIT USAGE

Input Size	Vent Pipe Diameter (in.)	Standard Terminations				Concentric Terminations		
		Flush Mount Kit	Wall Kit		Field Fabricated Exhaust Accelerator Size Required	Concentric Kit		
			2 inch	3 inch		1-1/2 inch	2 inch	3 inch
		51W11 (US) [5] 51W12 (CA)	22G44 (US) [5] 30G28 (CA)	44J40 (US) [5] 81J20 (CA)		71M80 (US) [5] 44W92 (CA)	69M29 (US) [5] 44W92 (CA)	60L46 (US) [5] 44W93 (CA)
045	[1] 1-1/2	[4] YES	YES	[2] YES	1-1/2 in.	[3] YES	- - -	- - -
	2	[4] YES	YES	[2] YES	1-1/2 in.	[3] YES	- - -	- - -
	2-1/2	[4] YES	YES	[2] YES	1-1/2 in.	[3] YES	- - -	- - -
	3	[4] YES	YES	[2] YES	1-1/2 in.	[3] YES	- - -	- - -
070	[1] 1-1/2	[4] YES	YES	[2] YES	1-1/2 in.	[3] YES	- - -	- - -
	2	[4] YES	YES	[2] YES	1-1/2 in.	[3] YES	- - -	- - -
	2-1/2	[4] YES	YES	[2] YES	1-1/2 in.	[3] YES	- - -	- - -
	3	[4] YES	YES	[2] YES	1-1/2 in.	[3] YES	- - -	- - -
090	2	[4] YES	- - -	YES	2 in.	- - -	YES	YES
	2-1/2	[4] YES	- - -	YES	2 in.	- - -	YES	YES
	3	[4] YES	- - -	YES	2 in.	- - -	YES	YES
110	2	YES	- - -	YES	2 in.	- - -	YES	YES
	2-1/2	YES	- - -	YES	2 in.	- - -	YES	YES
	3	YES	- - -	YES	2 in.	- - -	YES	YES
135	3	YES	- - -	YES	2 in.	- - -	- - -	YES

NOTE - Standard Terminations do not include any vent pipe or elbows external to the structure.
Any vent pipe or elbows external to the structure must be included in total vent length calculations. See Vent Length Tables.

[1] 2 inch to 1-1/2 inch reducer required, must be field provided.

[2] Requires field provided 1-1/2 in. outdoor exhaust accelerator.

[3] Concentric Kits **71M80** and **44W92** include 1-1/2 in. outdoor exhaust accelerator, required when used with 045 and 070 input models. Accelerator is not used with 090, 110, 135 input models. When using 1-1/2 in. piping, the pipe must be transitioned to 2 in. pipe when used with the Concentric Kit.

[4] Flush Mount Kit **51W11** and **51W12** includes 1-1/2 in. outdoor exhaust accelerator, required when used with 045, 070 and 090 input models. Accelerator is not used with 110 or 135 input models.When using 1-1/2 in. piping, the pipe must be transitioned to 2 in. pipe when used with the Flush Mount Kit.

[5] Termination Kits **30G28**, **44W92**, **44W93**, **51W12** and **81J20** are certified to ULC S636 standard for use in Canada only.

VENT LENGTHS - UNINSULATED EXHAUST PIPE IN UNCONDITIONED SPACE

[1] Winter Design Temperatures	Vent Pipe Diameter	Unit Input Size									
		045		070		090		110		135	
		[2] Maximum Uninsulated Exhaust Vent Length (ft.)									
		PVC	PolyPro InnoFlue	PVC	PolyPro InnoFlue	PVC	PolyPro InnoFlue	PVC	PolyPro InnoFlue	PVC	PolyPro InnoFlue
32 to 21°F	1-1/2 in	22	N/A	25	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2 in.	21	18	33	30	46	42	30	30	N/A	N/A
	2-1/2 in.	16	N/A	26	N/A	37	N/A	36	N/A	N/A	N/A
	3 in.	12	12	21	21	30	30	29	29	42	42
20 to 1°F	1-1/2 in	12	N/A	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2 in.	11	9	19	17	28	25	27	24	N/A	N/A
	2-1/2 in.	7	N/A	14	N/A	21	N/A	20	N/A	N/A	N/A
	3 in.	N/A	N/A	9	9	16	16	14	14	23	23
0 to –20°F	1-1/2 in	8	N/A	13	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2 in.	6	4	12	10	19	16	18	15	N/A	N/A
	2-1/2 in.	N/A	N/A	7	N/A	13	N/A	12	N/A	N/A	N/A
	3 in.	N/A	N/A	N/A	N/A	8	8	7	7	13	13

[1] Refer to 99% Minimum Design Temperature table provided in the current edition of the ASHRAE Handbook-Fundamentals.

[2] Maximum Equivalent Vent Length permitted is defined as Total Length (linear feet) of vent pipe, plus equivalent length (ft.) of fittings, plus equivalent length (ft.) of termination.

VENTING NOTES - Concentric Terminations are equivalent to 5 ft. of straight pipe and should be included when measuring total pipe length.
One 90° elbow is equivalent to 5 feet of straight vent pipe.
Two 45° elbows are equal to one 90° elbow.
One 45° elbow is equivalent to 2.5 feet of straight vent pipe.

PolyPro® poly-propylene vent pipe is a registered trademark of DuraVent®.

Innoflue® is a registered trademark of Centrotherm Eco Systems.

VENT LENGTHS

STANDARD TERMINATION AT ELEVATION 0 - 4500 ft.

Pipe Size		1-1/2 in.					2 in.					2-1/2 in.					3 in.				
	Input	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135
No. of 90 ELL	1	25	20	N/A	N/A	N/A	81	66	44	24	N/A	115	115	93	58	N/A	138	137	118	118	114
	2	20	15	N/A	N/A	N/A	76	61	39	19	N/A	110	110	88	53	N/A	133	132	113	113	109
	3	15	10	N/A	N/A	N/A	71	56	34	14	N/A	105	105	83	48	N/A	128	127	108	108	104
	4	10	N/A	N/A	N/A	N/A	66	51	29	N/A	N/A	100	100	78	43	N/A	123	122	103	103	99
	5	N/A	N/A	N/A	N/A	N/A	61	46	24	N/A	N/A	95	95	73	38	N/A	118	117	98	98	94
	6	N/A	N/A	N/A	N/A	N/A	56	41	19	N/A	N/A	90	90	68	33	N/A	113	112	93	93	89
	7	N/A	N/A	N/A	N/A	N/A	51	36	14	N/A	N/A	85	85	63	28	N/A	108	107	88	88	84
	8	N/A	N/A	N/A	N/A	N/A	46	31	N/A	N/A	N/A	80	80	58	23	N/A	103	102	83	83	79
	9	N/A	N/A	N/A	N/A	N/A	41	26	N/A	N/A	N/A	75	75	53	18	N/A	98	97	78	78	74
	10	N/A	N/A	N/A	N/A	N/A	36	21	N/A	N/A	N/A	70	70	48	13	N/A	93	92	73	73	69

STANDARD TERMINATION AT ELEVATION 4501 - 10,000 ft.

Pipe Size		1-1/2 in.					2 in.					2-1/2 in.					3 in.				
	Input	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135
No. of 90 ELL	1	25	20	N/A	N/A	N/A	81	66	44	N/A	N/A	115	115	93	58	N/A	138	137	118	118	114
	2	20	15	N/A	N/A	N/A	76	61	39	N/A	N/A	110	110	88	53	N/A	133	132	113	113	109
	3	15	10	N/A	N/A	N/A	71	56	34	N/A	N/A	105	105	83	48	N/A	128	127	108	108	104
	4	10	N/A	N/A	N/A	N/A	66	51	29	N/A	N/A	100	100	78	43	N/A	123	122	103	103	99
	5	N/A	N/A	N/A	N/A	N/A	61	46	24	N/A	N/A	95	95	73	38	N/A	118	117	98	98	94
	6	N/A	N/A	N/A	N/A	N/A	56	41	19	N/A	N/A	90	90	68	33	N/A	113	112	93	93	89
	7	N/A	N/A	N/A	N/A	N/A	51	36	14	N/A	N/A	85	85	63	28	N/A	108	107	88	88	84
	8	N/A	N/A	N/A	N/A	N/A	46	31	N/A	N/A	N/A	80	80	58	23	N/A	103	102	83	83	79
	9	N/A	N/A	N/A	N/A	N/A	41	26	N/A	N/A	N/A	75	75	53	18	N/A	98	97	78	78	74
	10	N/A	N/A	N/A	N/A	N/A	36	21	N/A	N/A	N/A	70	70	48	13	N/A	93	92	73	73	69

CONCENTRIC TERMINATION AT ELEVATION 0 - 4500 ft.

Pipe Size		1-1/2 in.					2 in.					2-1/2 in.					3 in.				
	Input	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135
No. of 90 ELL	1	20	15	N/A	N/A	N/A	73	58	42	22	N/A	105	105	89	54	N/A	121	121	114	114	105
	2	15	10	N/A	N/A	N/A	68	53	37	17	N/A	100	100	84	49	N/A	116	116	109	109	100
	3	10	N/A	N/A	N/A	N/A	63	48	32	12	N/A	95	95	79	44	N/A	111	111	104	104	95
	4	N/A	N/A	N/A	N/A	N/A	58	43	27	N/A	N/A	90	90	74	39	N/A	106	106	99	99	90
	5	N/A	N/A	N/A	N/A	N/A	53	38	22	N/A	N/A	85	85	69	34	N/A	101	101	94	94	85
	6	N/A	N/A	N/A	N/A	N/A	48	33	17	N/A	N/A	80	80	64	29	N/A	96	96	89	89	80
	7	N/A	N/A	N/A	N/A	N/A	43	28	12	N/A	N/A	75	75	59	24	N/A	91	91	84	84	75
	8	N/A	N/A	N/A	N/A	N/A	38	23	N/A	N/A	N/A	70	70	54	19	N/A	86	86	79	79	70
	9	N/A	N/A	N/A	N/A	N/A	33	18	N/A	N/A	N/A	65	65	49	14	N/A	81	81	74	74	65
	10	N/A	N/A	N/A	N/A	N/A	28	13	N/A	N/A	N/A	60	60	44	N/A	N/A	76	76	69	69	60

CONCENTRIC TERMINATION AT ELEVATION 4501 - 10,000 ft.

Pipe Size		1-1/2 in.					2 in.					2-1/2 in.					3 in.				
	Input	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135
No. of 90 ELL	1	20	15	N/A	N/A	N/A	73	58	42	N/A	N/A	105	105	89	54	N/A	121	121	114	114	105
	2	15	10	N/A	N/A	N/A	68	53	37	N/A	N/A	100	100	84	49	N/A	116	116	109	109	100
	3	10	N/A	N/A	N/A	N/A	63	48	32	N/A	N/A	95	95	79	44	N/A	111	111	104	104	95
	4	N/A	N/A	N/A	N/A	N/A	58	43	27	N/A	N/A	90	90	74	39	N/A	106	106	99	99	90
	5	N/A	N/A	N/A	N/A	N/A	53	38	22	N/A	N/A	85	85	69	34	N/A	101	101	94	94	85
	6	N/A	N/A	N/A	N/A	N/A	48	33	17	N/A	N/A	80	80	64	29	N/A	96	96	89	89	80
	7	N/A	N/A	N/A	N/A	N/A	43	28	12	N/A	N/A	75	75	59	24	N/A	91	91	84	84	75
	8	N/A	N/A	N/A	N/A	N/A	38	23	N/A	N/A	N/A	70	70	54	19	N/A	86	86	79	79	70
	9	N/A	N/A	N/A	N/A	N/A	33	18	N/A	N/A	N/A	65	65	49	14	N/A	81	81	74	74	65
	10	N/A	N/A	N/A	N/A	N/A	28	13	N/A	N/A	N/A	60	60	44	N/A	N/A	76	76	69	69	60

VENT LENGTHS (EXHAUST) - VENTILATED ATTIC OR CRAWLSPACE INTAKE AIR

STANDARD TERMINATION AT ELEVATION 0 - 4500 ft.

	Pipe Size	1-1/2 in.					2 in.					2-1/2 in.					3 in.				
	Input	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135
No. of 90 ELL	1	20	15	N/A	N/A	N/A	71	56	34	14	N/A	100	100	78	43	N/A	118	117	98	98	94
	2	15	10	N/A	N/A	N/A	66	51	29	9	N/A	95	95	73	38	N/A	113	112	93	93	89
	3	10	N/A	N/A	N/A	N/A	61	46	24	4	N/A	90	90	68	33	N/A	108	107	88	88	84
	4	N/A	N/A	N/A	N/A	N/A	56	41	19	N/A	N/A	85	85	63	28	N/A	103	102	83	83	79
	5	N/A	N/A	N/A	N/A	N/A	51	36	14	N/A	N/A	80	80	58	23	N/A	98	97	78	78	74
	6	N/A	N/A	N/A	N/A	N/A	46	31	9	N/A	N/A	85	75	63	18	N/A	93	92	73	73	69
	7	N/A	N/A	N/A	N/A	N/A	41	26	4	N/A	N/A	70	70	48	13	N/A	88	87	68	68	64
	8	N/A	N/A	N/A	N/A	N/A	36	21	N/A	N/A	N/A	65	65	43	8	N/A	83	82	63	63	59
	9	N/A	N/A	N/A	N/A	N/A	31	16	N/A	N/A	N/A	60	60	38	3	N/A	78	77	58	58	54
	10	N/A	N/A	N/A	N/A	N/A	26	11	N/A	N/A	N/A	55	55	33	N/A	N/A	73	72	53	53	49

STANDARD TERMINATION ELEVATION 4501 - 10,000 ft.

	Pipe Size	1-1/2 in.					2 in.					2-1/2 in.					3 in.				
	Input	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135
No. of 90 ELL	1	20	15	N/A	N/A	N/A	71	56	34	N/A	N/A	100	100	78	43	N/A	118	117	98	98	94
	2	15	10	N/A	N/A	N/A	66	51	29	N/A	N/A	95	95	73	38	N/A	113	112	93	93	89
	3	10	N/A	N/A	N/A	N/A	61	46	24	N/A	N/A	90	90	68	33	N/A	118	107	88	88	84
	4	N/A	N/A	N/A	N/A	N/A	56	41	19	N/A	N/A	85	85	63	28	N/A	113	102	83	83	79
	5	N/A	N/A	N/A	N/A	N/A	51	36	14	N/A	N/A	80	80	58	23	N/A	98	97	78	78	74
	6	N/A	N/A	N/A	N/A	N/A	46	31	9	N/A	N/A	85	85	53	18	N/A	93	92	73	73	69
	7	N/A	N/A	N/A	N/A	N/A	41	26	4	N/A	N/A	70	70	48	13	N/A	98	87	68	68	64
	8	N/A	N/A	N/A	N/A	N/A	36	21	N/A	N/A	N/A	65	65	43	8	N/A	93	82	63	63	59
	9	N/A	N/A	N/A	N/A	N/A	31	16	N/A	N/A	N/A	60	60	38	3	N/A	78	77	58	58	54
	10	N/A	N/A	N/A	N/A	N/A	26	11	N/A	N/A	N/A	55	55	33	N/A	N/A	73	72	53	53	49

INSTALLATION CLEARANCES

Sides	[1] 0 inches (0 mm)
Rear	0 inches (0 mm)
Top/Plenum	1 inch (25 mm)
Front	0 inches (0 mm)
Front (service/alcove)	24 inches (610 mm)
Floor	[2] Combustible

NOTE − Air for combustion must conform to the methods outlined in the National Fuel Gas Code (NFPA 54/ANSI−Z223.1) or the National Standard of Canada CAN/CSA−B149.1 Natural Gas and Propane Installation Code".

NOTE − In the U.S. flue sizing must conform to the methods outlined in the current National Fuel Gas Code (NFPA 54/ANSI−Z223.1) or applicable provisions of local building codes. In Canada flue sizing must conform to the methods outlined in National Standard of Canada CAN/CSA−B149.1.

[1] Allow proper clearances to accommodate condensate trap and vent pipe installation.

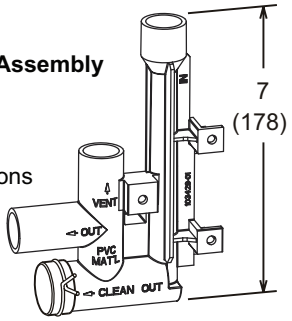
[2] Do not install the furnace directly on carpeting, tile, or other combustible materials other than wood flooring.

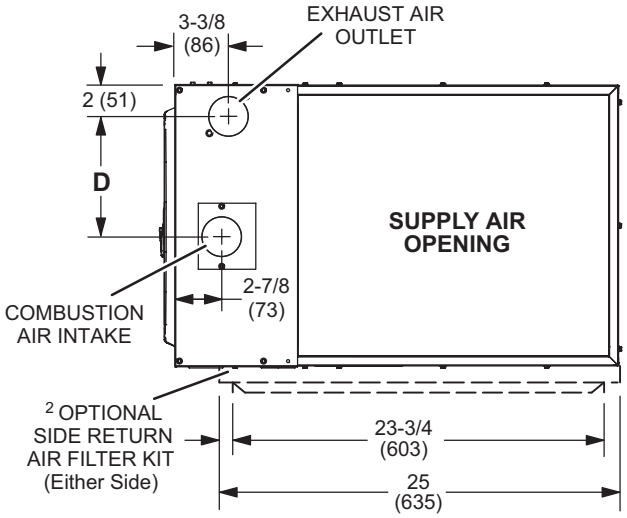
[1] NOTE - 60C and 60D size units that require air volumes over 1800 cfm must have one of the following:
1. Single side return air and Optional Return Air Base with transition that must accommodate required 20 x 25 x 1 inch (508 x 635 x 25 mm) air filter to maintain proper velocity.
2. Bottom return air.
3. Return air from both sides.
4. Bottom and one side return air.

See Blower Performance Tables for additional information.

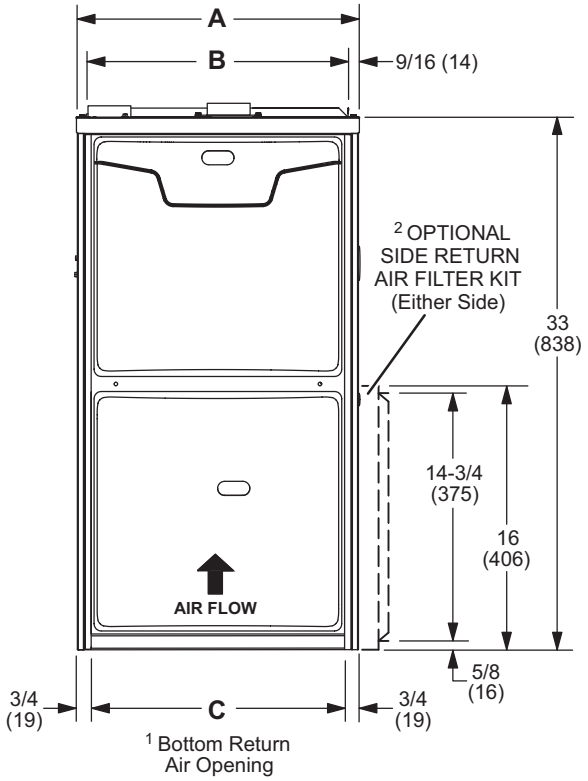
[2] Optional Side Return Air Filter Kit is not for use with the Optional Return Air Base.

Flue Condensate Trap Assembly
Furnished for external field installation on either side of unit. (See installation instructions for additional information.)

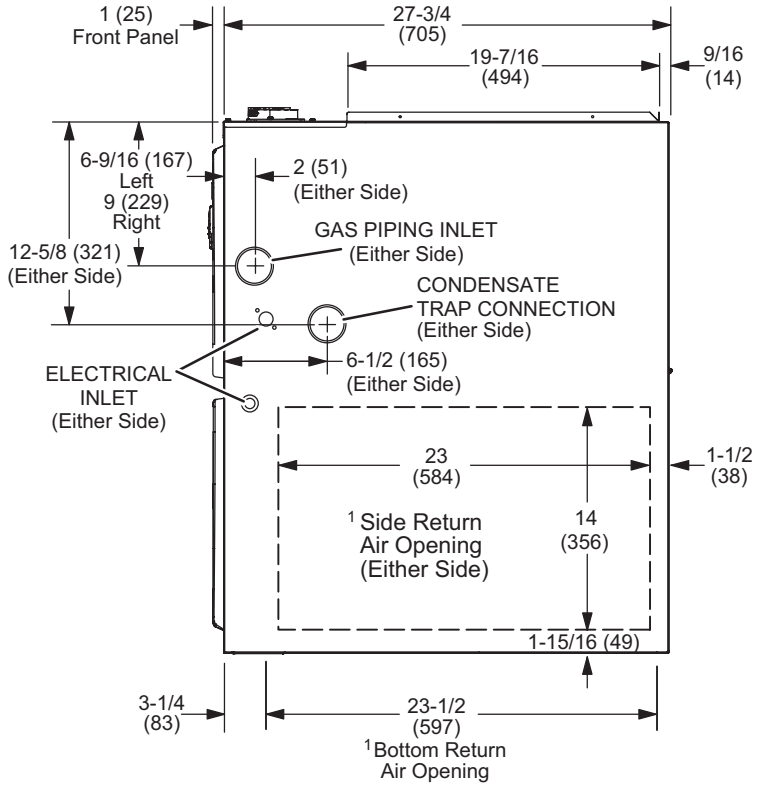




TOP VIEW



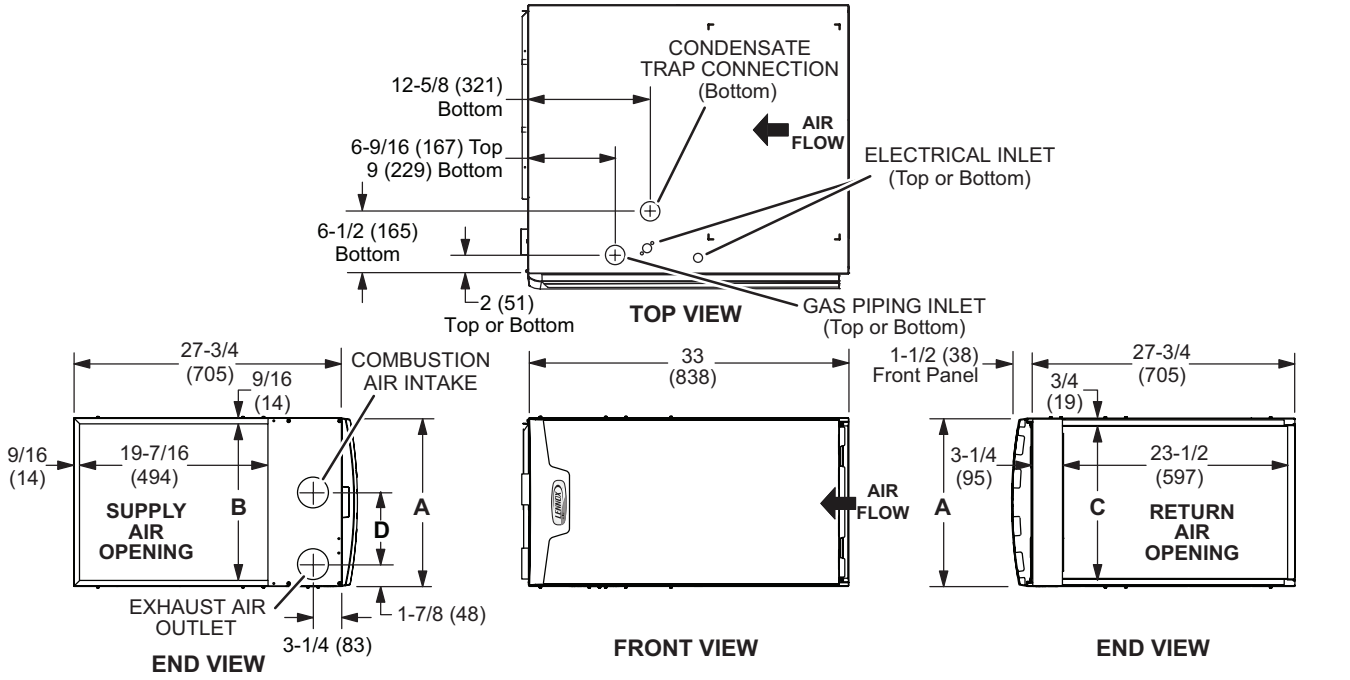
FRONT VIEW



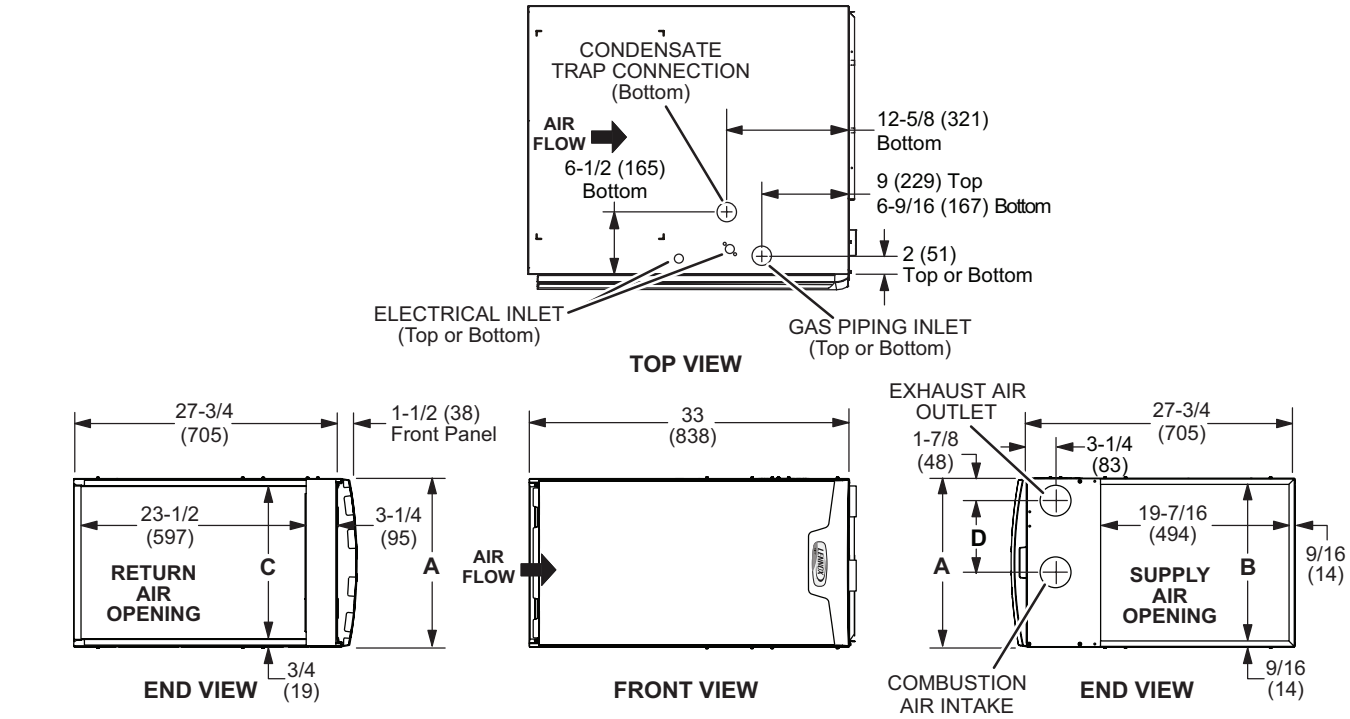
SIDE VIEW

Model No.	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
EL297UH045XE36B EL297UH070XE36B	17-1/2	446	16-3/8	416	16	406	7-5/8	194
EL297UH090XE48C EL297UH110XE60C	21	533	19-7/8	505	19-1/2	495	9-3/8	238
EL297UH135XE60D	24-1/2	622	23-3/8	594	23	584	11-1/8	283

LEFT-HAND AIR DISCHARGE

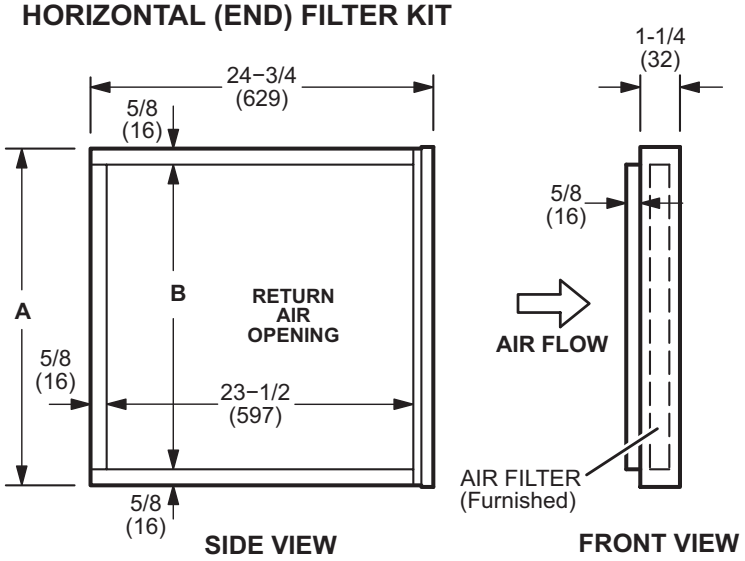


RIGHT-HAND AIR DISCHARGE



Model No.	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
EL297UH045XE36B EL297UH070XE36B	17-1/2	446	16-3/8	416	16	406	7-5/8	194
EL297UH090XE48C EL297UH110XE60C	21	533	19-7/8	505	19-1/2	495	9-3/8	238
EL297UH135XE60D	24-1/2	622	23-3/8	594	23	584	11-1/8	283

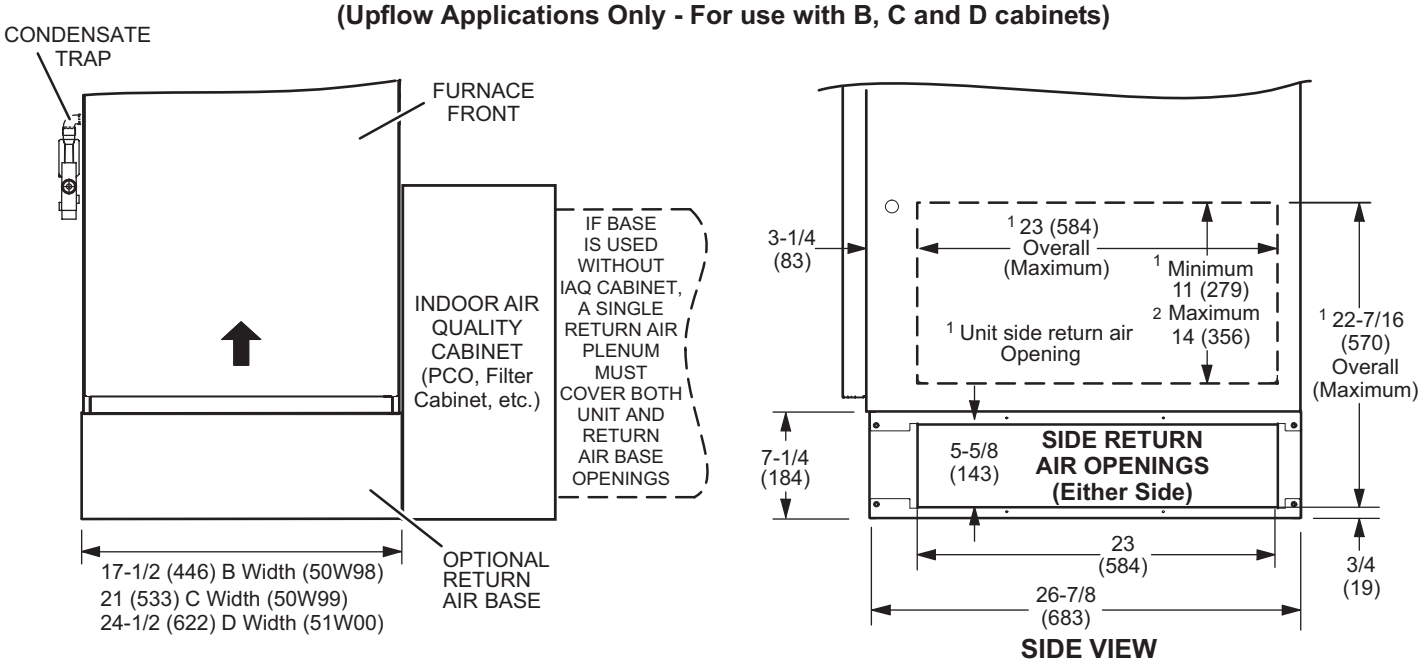
HORIZONTAL (END) FILTER KIT



Furnace Cabinet Width	Catalog Number	A		B	
		in.	mm	in.	mm
B	**87L96**	18	457	16-3/4	425
C	**87L97**	21	533	18-3/4	476
D	**87L98**	25	635	23-3/4	603

OPTIONAL RETURN AIR BASE

(Upflow Applications Only - For use with B, C and D cabinets)

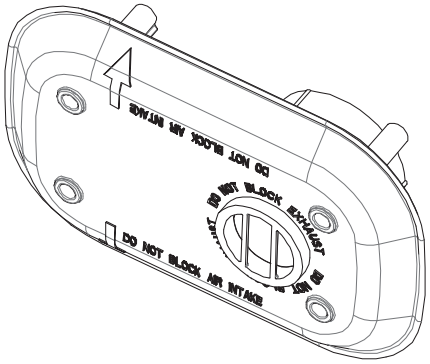


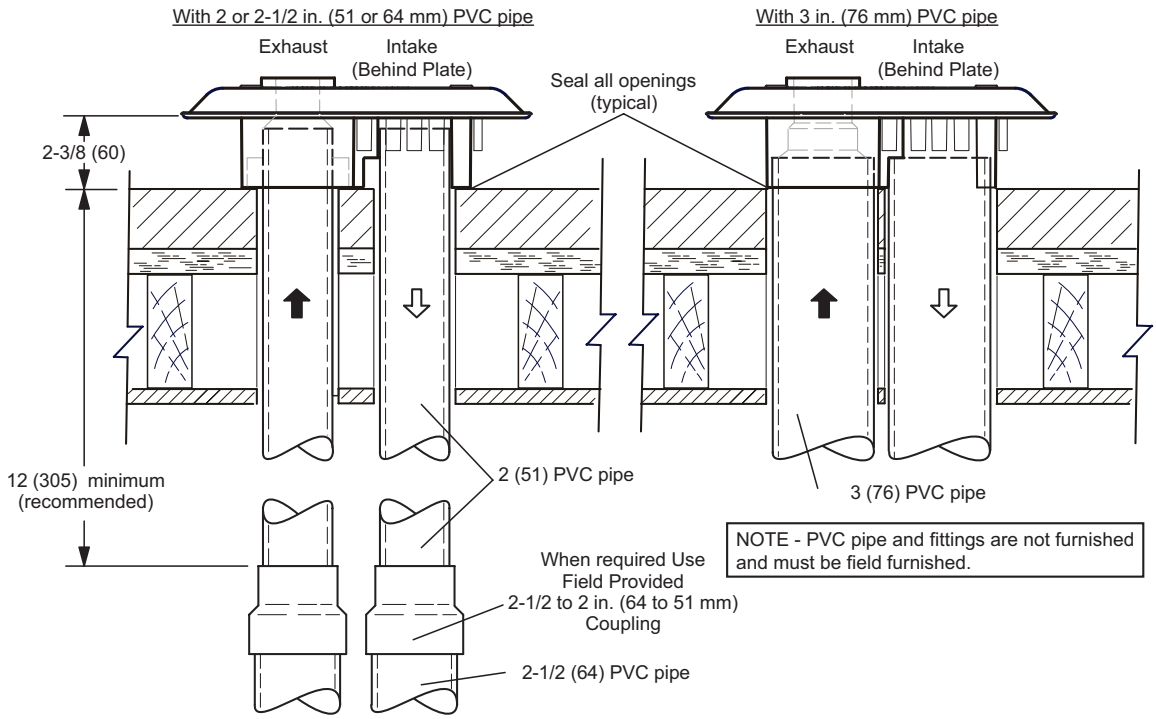
NOTE- Optional Side Return Air Filter Kits are not for use with Optional Return Air Base.

[1] Both the unit return air opening and the base return air opening must be covered by a single plenum or IAQ cabinet. Minimum unit side return air opening dimensions for units requiring 1800 cfm or more of air (W x H): 23 x 11 in. (584 x 279 mm). The opening can be cut as needed to accommodate plenum or IAQ cabinet while maintaining dimensions shown. Side return air openings must be cut in the field. There are cutting guides stenciled on the cabinet for the side return air opening. The size of the opening must not extend beyond the markings on the furnace cabinet.

[2] To minimize pressure drop, the largest opening height possible, up to 14 in. (356 mm), is preferred.

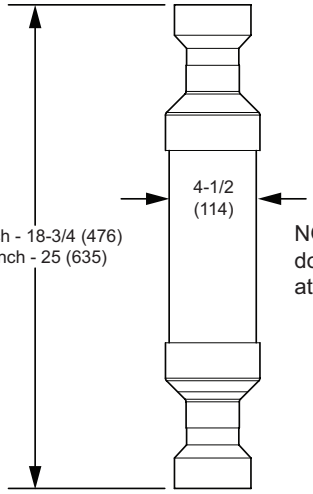
FLUSH-MOUNT VENT TERMINATION KIT 51W11 (US) or 51W12 (CANADA)





NOTE - PVC pipe and fittings are not furnished and must be field furnished.

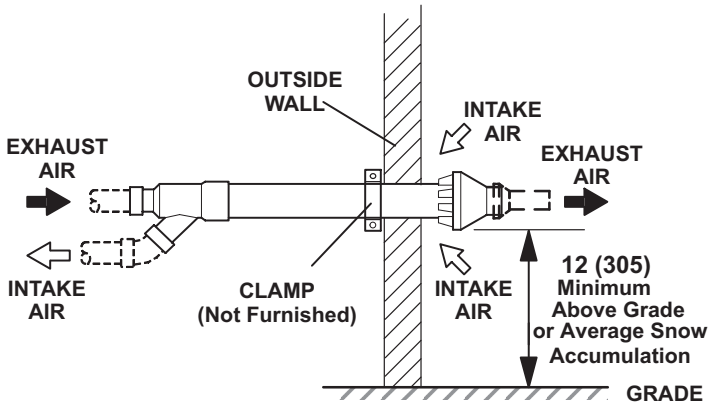
MUFFLERS
15Y66 - 2-inch
16A56 - 3-inch



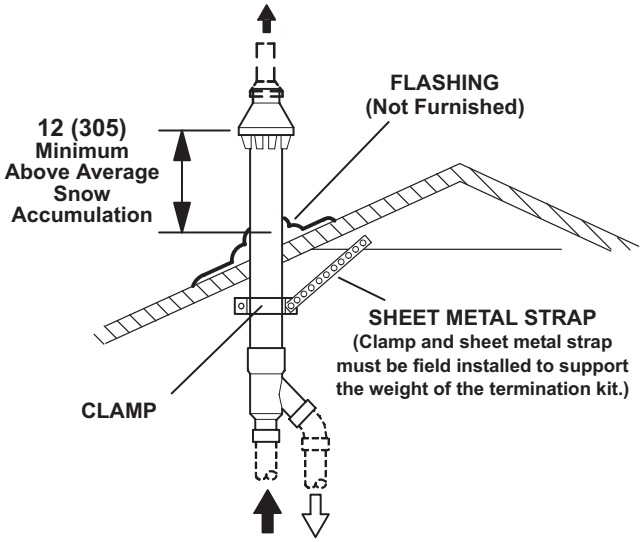
(Installed Vertically in the Exhaust Pipe)

NOTE - Two-inch mufflers do not have reducers at each end.

CONCENTRIC WALL TERMINATION APPLICATIONS

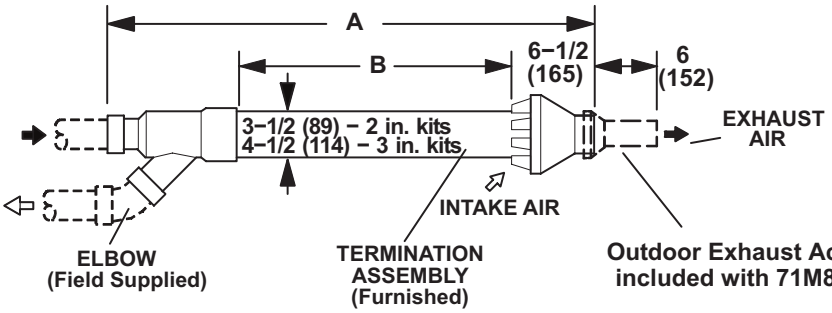


CONCENTRIC ROOF TERMINATION APPLICATIONS



71M80 / 69M29 / 44W92 − 2 inch kits
60L46 / 44W93 − 3 inch kits
See Installation Instructions for additional information.

Note - Field provided reducer may be required to adapt different vent pipe sizes to termination.

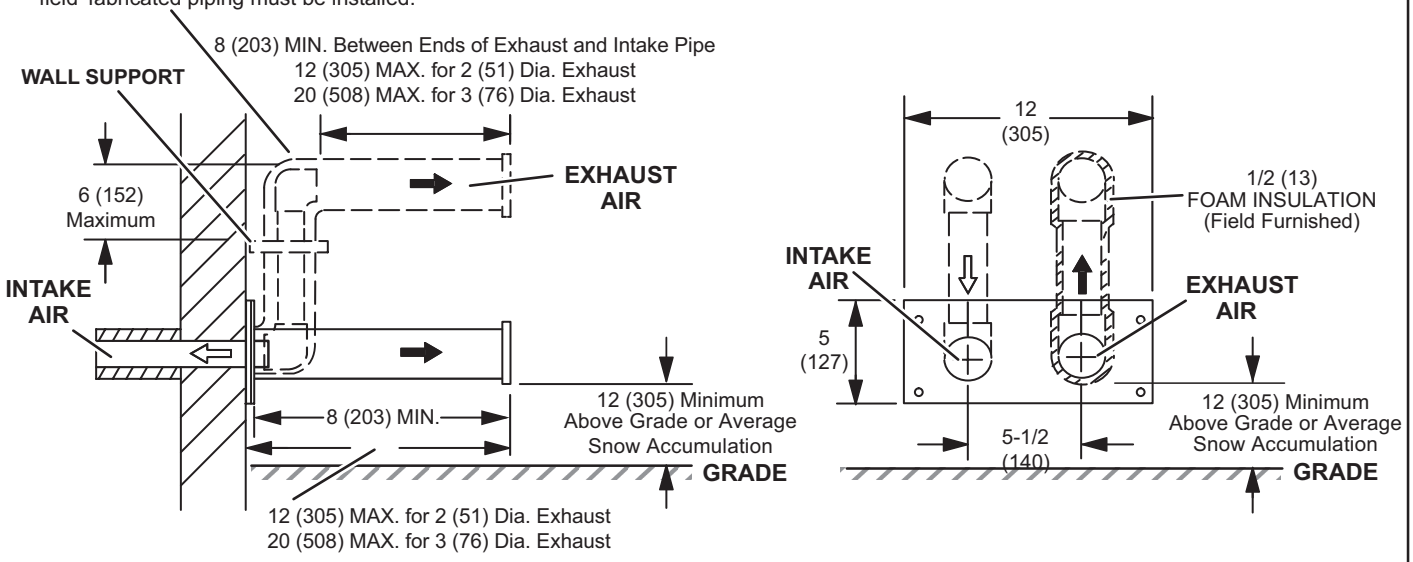


Cat. No.	A		B	
	in.	mm	in.	mm
71M80 69M29	33−3/8	848	16−3/4	425
44W92 (Canada)	29	737	15−1/2	394
60L46	38−7/8	987	21−3/16	538
44W93 (Canada)	36−1/8	918	19−1/2	495

NOTE − Typical illustration for dimensions only. Design may vary depending on kit ordered.

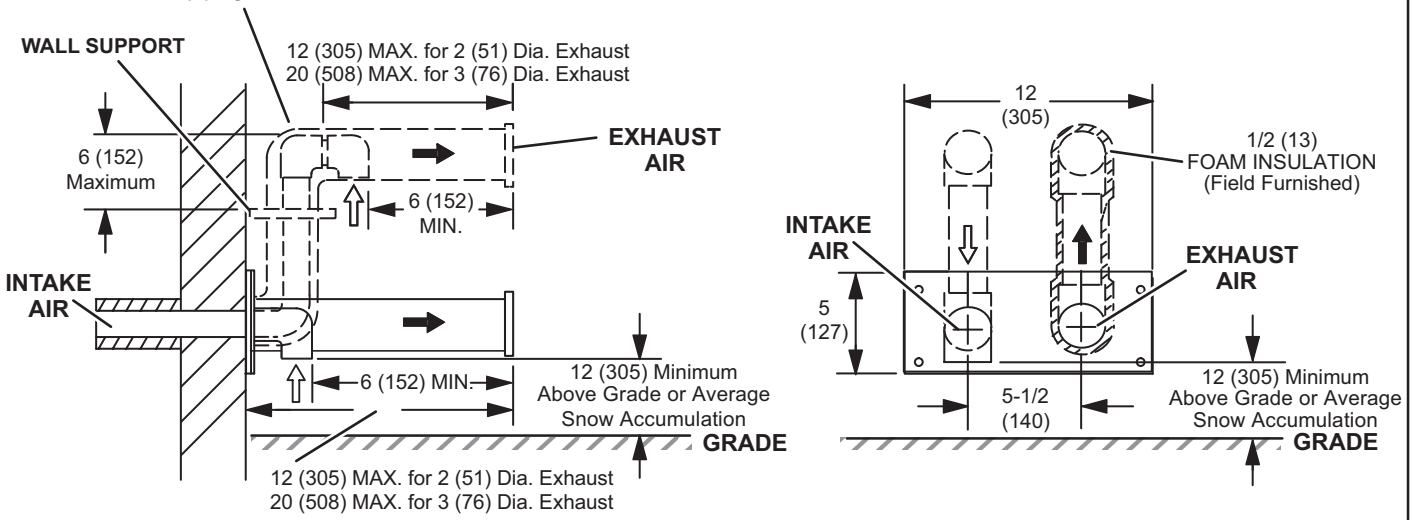
WALL TERMINATION KITS (CLOSE-COUPLE)
EXTENDED VENT FOR GRADE CLEARANCE
2 inch (51 mm) 22G44 (US)
3 inch (76 mm) 44J40 (US)
See Installation Instructions for additional information.

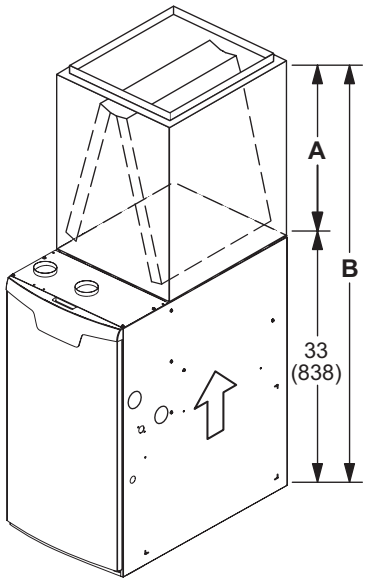
Note - Field provided reducer may be required to adapt different vent pipe sizes to termination.



WALL TERMINATION KITS (CLOSE-COUPLE)
EXTENDED VENT FOR GRADE CLEARANCE
2 inch (51 mm) 30G28 (WTK Canada)
3 inch (76 mm) 81J20 (WTK Canada)
See Installation Instructions for additional information.

Note - Field provided reducer may be required to adapt different vent pipe sizes to termination.



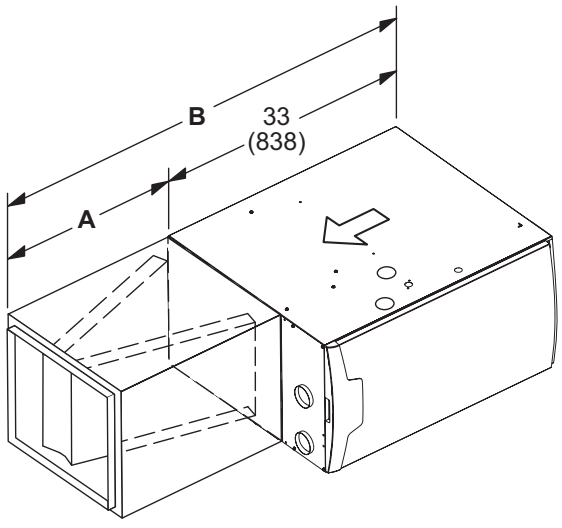


UPFLOW POSITION - CASED

Model		A		B	
CK40CT	**C35/CX35**	**in.**	**mm**	**in.**	**mm**
CK40CT-18/24A CK40CT-18/24B	C35/CX35-18/24A C35/CX35-18/24B	16-1/2	419	49-1/2	1257
CK40CT-24A CK40CT-24B	C35/CX35-24A C35/CX35-24B	18-1/2	470	51-1/2	1308
CK40CT-30A CK40CT-30B	C35/CX35-30A C35/CX35-30B	22-1/2	572	55-1/2	1410
CK40CT-30/36A CK40CT-30/36B CK40CT-30/36C	C35/CX35-30/36A C35/CX35-30/36B C35/CX35-30/36C	24-1/2	622	57-1/2	1461
CK40CT-36A CK40CT-36B	C35/CX35-36A C35/CX35-36B	24-1/2	622	57-1/2	1461
CK40CT-48B CK40CT-48C	C35/CX35-48B C35/CX35-48C	27-1/2	699	60-1/2	1537
CK40CT-49C	C35/CX35-49C	29-1/2	749	62-1/2	1588
CK40CT-50/60C	C35/CX35-50/60C	27-1/2	699	60-1/2	1537
CK40CT-60C	CX35-60C	31-1/2	800	64-1/2	1638
CK40CT-60D	CX35-60D	29-1/2	749	62-1/2	1588

UPFLOW POSITION - UNCASED

Model		A		B	
CK40UT	**C35**	**in.**	**mm**	**in.**	**mm**
CK40UT-18/24A CK40UT-18/24B	C35-18/24A C35-18/24B	14-1/8	359	47-1/8	1197
CK40UT-24A CK40UT-24B	C35-24A C35-24B	16-3/8	416	49-3/8	1254
CK40UT-30A CK40UT-30B	C35-30A C35-30B	20-3/4	527	53-3/4	1365
CK40UT-30/36A CK40UT-30/36B CK40UT-30/36C	C35-30/36A C35-30/36B C35-30/36C	22-1/4	565	55-1/4	1403
CK40UT-36A CK40UT-36B	C35-36A C35-36B	22-3/8	568	55-3/8	1407
CK40UT-48B CK40UT-48C	C35-48B C35-48C	26-1/4	667	59-1/4	1505
CK40UT-49C	C35-49C	28-1/2	724	61-1/2	1562
CK40UT-50/60C	C35-50/60C	25-7/8	657	58-7/8	1495
CK40UT-60C	C35-60C	30-5/8	778	63-5/8	1616
CK40UT-60D	C35-60D	28	711	61	1549



HORIZONTAL POSITION

Model		A		B	
CK40HT	**CHX35**	**in.**	**mm**	**in.**	**mm**
CK40HT-18A CK40HT-24A CK40HT-24B CK40HT-30B CK40HT-36A CK40HT-36B CK40HT-36C CK40HT-42C CK40HT-48C	CHX35-18A CHX35-24A CHX35-24B CHX35-30B CHX35-36A CHX35-36B CHX35-36C CHX35-42C CHX35-48C	26-1/2	673	59-1/2	1511
CK40CT-30A CK40CT-42B CK40CT-48B CK40CT-51/61C CK40CT-60D	CHX35-30A CHX35-42B CHX35-48B CHX35-51/61C CHX35-60D	31-1/2	880	64-1/2	1638

BLOWER DATA

EL297UH045XE36B PERFORMANCE (Less Filter)

External Static Pressure in. w.g.	Air Volume / Watts at Various Blower Speeds									
	High (Black)		Medium-High (Brown)		Medium (Blue)		Medium-Low (Yellow)		Low (Red)	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.00	1416	339	1286	239	1174	193	945	101	885	89
0.10	1395	348	1246	249	1139	198	911	111	847	96
0.20	1375	358	1206	258	1105	203	876	120	809	103
0.30	1348	367	1184	267	1079	215	839	122	768	109
0.40	1318	380	1160	278	1046	221	798	132	733	115
0.50	1294	386	1125	286	1014	230	755	139	694	124
0.60	1265	398	1097	296	987	239	710	145	652	132
0.70	1216	393	1066	304	957	247	665	156	606	136
0.80	1147	374	1043	314	923	256	624	160	569	145
0.90	1062	350	1010	320	889	267	589	166	532	151
1.00	941	314	917	301	846	271	556	177	486	156

EL297UH070XE36B PERFORMANCE (Less Filter)

External Static Pressure in. w.g.	Air Volume / Watts at Various Blower Speeds									
	High (Black)		Medium-High (Brown)		Medium (Blue)		Medium-Low (Yellow)		Low (Red)	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.00	1424	320	1270	228	1170	178	953	98	889	85
0.10	1395	333	1242	240	1137	190	912	107	851	94
0.20	1367	346	1214	252	1104	202	872	116	813	103
0.30	1332	362	1182	260	1071	213	832	123	762	110
0.40	1311	372	1153	274	1043	218	775	134	721	117
0.50	1287	382	1119	285	1001	231	735	141	675	125
0.60	1249	394	1087	294	968	241	681	148	625	134
0.70	1199	387	1055	306	934	249	641	156	581	142
0.80	1112	369	1013	316	891	259	596	166	540	149
0.90	1009	337	946	309	856	268	554	172	483	157
1.00	840	294	833	282	793	269	516	182	443	165

EL297UH090XE48C PERFORMANCE (Less Filter)

External Static Pressure in. w.g.	Air Volume / Watts at Various Blower Speeds									
	High (Black)		Medium-High (Brown)		Medium (Blue)		Medium-Low (Yellow)		Low (Red)	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.00	1749	383	1505	275	1414	200	1323	173	1198	131
0.10	1714	401	1490	284	1373	217	1286	186	1165	143
0.20	1679	419	1476	292	1332	233	1250	199	1131	155
0.30	1650	435	1440	312	1305	247	1219	214	1083	168
0.40	1630	456	1403	327	1271	258	1178	222	1050	176
0.50	1601	469	1377	334	1227	270	1142	232	1006	188
0.60	1567	478	1347	346	1196	283	1110	245	968	197
0.70	1489	461	1313	361	1165	291	1068	257	930	207
0.80	1390	433	1275	372	1126	306	1035	268	894	217
0.90	1237	387	1218	373	1091	315	990	277	843	228
1.00	1115	354	1075	337	1043	324	951	287	807	235

BLOWER DATA

EL297UH110XE60C PERFORMANCE (Less Filter)

External Static Pressure in. w.g.	Air Volume / Watts at Different Blower Speeds																			
	Bottom Return Air, Side Return Air with Return Air from Both Sides or Return Air from Bottom and One Side.										**Single Side Return Air** - Air volumes in **bold** (over 1800 cfm) require Optional Return Air Base and field fabricated transition to accommodate 20 x 25 x 1 in. air filter in order to maintain proper air velocity.									
	High (Black)		**Medium-High** (Brown)		**Medium** (Blue)		**Medium-Low** (Yellow)		**Low** (Red)		**High** (Black)		**Medium-High** (Brown)		**Medium** (Blue)		**Medium-Low** (Yellow)		**Low** (Red)	
	cfm	**Watts**	**cfm**	**Watts**	**cfm**	**Watts**	**cfm**	**Watts**	**cfm**	**Watts**	**cfm**	**Watts**	**cfm**	**Watts**	**cfm**	**Watts**	**cfm**	**Watts**	**cfm**	**Watts**
0.00	2178	636	1915	438	1742	336	1665	279	1449	207	**2133**	**636**	**1847**	**437**	1679	334	1613	275	1435	200
0.10	2140	653	1877	449	1706	349	1616	292	1419	215	**2101**	**650**	**1821**	**449**	1650	346	1558	288	1383	209
0.20	2102	669	1840	461	1670	362	1566	304	1388	223	**2069**	**664**	1795	462	1621	357	1503	301	1331	217
0.30	2061	687	1799	477	1639	375	1518	317	1326	234	**2036**	**681**	1746	479	1575	373	1466	312	1289	229
0.40	2031	702	1758	492	1590	387	1480	328	1275	244	**1998**	**698**	1708	492	1538	383	1417	326	1235	241
0.50	1999	719	1721	507	1546	399	1427	341	1229	255	**1970**	**717**	1676	509	1497	397	1377	340	1183	254
0.60	1960	735	1683	519	1505	413	1390	351	1179	266	**1940**	**731**	1641	517	1460	408	1339	349	1152	262
0.70	1908	741	1637	534	1467	424	1351	361	1128	277	**1890**	**740**	1609	533	1417	423	1293	362	1099	274
0.80	1840	721	1609	550	1423	438	1299	374	1088	284	**1834**	**730**	1560	549	1375	437	1254	374	1047	286
0.90	1744	692	1569	561	1387	447	1257	386	1036	296	1741	702	1532	561	1339	447	1219	384	1011	296
1.00	1651	655	1539	573	1347	461	1218	397	984	305	1645	665	1496	574	1298	460	1177	397	970	304

EL297UH135XE60D PERFORMANCE (Less Filter)

External Static Pressure in. w.g.	Air Volume / Watts at Different Blower Speeds																			
	Bottom Return Air, Side Return Air with Return Air from Both Sides or Return Air from Bottom and One Side.										**Single Side Return Air** − Air volumes in **bold** (over 1800 cfm) require Optional Return Air Base and field fabricated transition to accommodate 20 x 25 x 1 in. air filter in order to maintain proper air velocity.									
	High (Black)		**Medium-High** (Brown)		**Medium** (Blue)		**Medium-Low** (Yellow)		**Low** (Red)		**High** (Black)		**Medium-High** (Brown)		**Medium** (Blue)		**Medium-Low** (Yellow)		**Low** (Red)	
	cfm	**Watts**	**cfm**	**Watts**	**cfm**	**Watts**	**cfm**	**Watts**	**cfm**	**Watts**	**cfm**	**Watts**	**cfm**	**Watts**	**cfm**	**Watts**	**cfm**	**Watts**	**cfm**	**Watts**
0.00	2303	913	2138	674	1982	493	1794	351	1621	273	**2299**	**916**	**2086**	**665**	1908	494	1722	358	1560	257
0.10	2300	922	2125	689	1948	508	1750	368	1576	287	**2274**	**936**	**2058**	**680**	1880	509	1690	366	1524	269
0.20	2298	932	2111	703	1914	522	1706	385	1531	302	**2248**	**957**	**2030**	**695**	1852	523	1659	374	1488	282
0.30	2252	960	2074	720	1880	537	1681	398	1489	310	**2214**	**970**	1997	712	1829	537	1621	394	1446	297
0.40	2227	974	2050	737	1850	550	1629	412	1439	322	**2194**	**990**	1974	727	1799	554	1595	407	1407	308
0.50	2188	971	2015	757	1809	570	1597	421	1387	334	**2153**	**994**	1947	745	1771	567	1562	418	1356	321
0.60	2114	946	1984	770	1771	585	1553	439	1351	346	**2104**	**980**	1928	762	1742	583	1519	434	1322	333
0.70	2048	911	1944	785	1730	600	1516	451	1312	356	**2044**	**949**	1897	778	1705	596	1474	447	1277	345
0.80	1962	858	1893	797	1705	616	1485	462	1267	368	1962	907	1856	794	1671	616	1449	458	1230	356
0.90	1857	806	1838	774	1665	628	1427	477	1209	382	1873	853	1809	793	1637	629	1402	473	1189	368
1.00	1780	775	1754	739	1625	642	1387	488	1177	392	1756	801	1733	769	1594	643	1362	487	1148	381

REVISIONS

Sections	Description of Change
Dimensions	Updated Furnace/Coil Combined Dimension data for new CK40 coils.
Override Accessories	Added Refrigerant Detection System (RDS) Components.

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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.

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