

GAS FURNACES

SLP99DFV(K)

DAVE LENNOX SIGNATURE® COLLECTION

Downflow | Variable Capacity | Variable Speed Blower | Refrigerant Detection | 60Hz

RESIDENTIAL

PRODUCT SPECIFICATIONS (EHB)



AFUE - 97.5%

Input - 66,000 to 110,000 Btuh

Nominal Add-on Cooling - 2 to 5 Tons

DAVE LENNOX
signature
COLLECTION

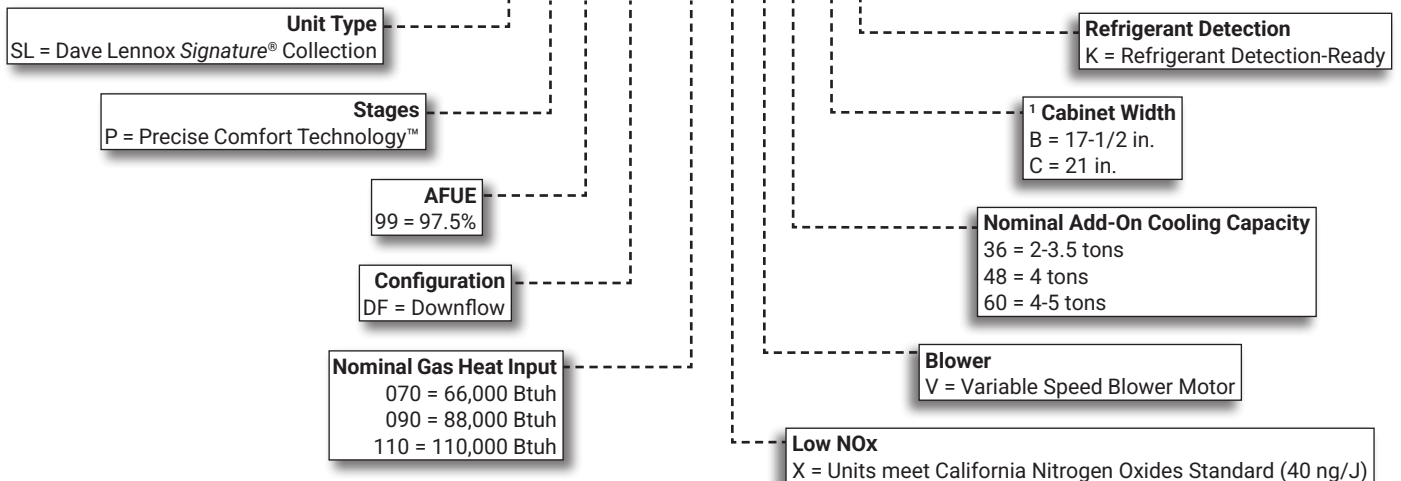


S40 Smart Wi-Fi
Communicating Thermostat
(Not Furnished)



MODEL NUMBER IDENTIFICATION

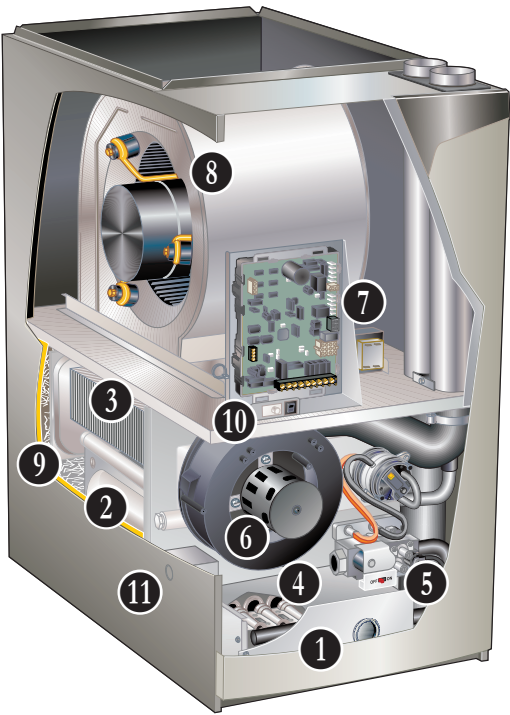
SL P 99 DF 070 X V 36 B K



¹ 1 Downflow indoor coils with the same letter designation physically matches the furnace **supply air opening**.

FEATURE HIGHLIGHTS

- 1. SilentComfort™ Technology
- 2. Lennox Duralok Plus™ Heat Exchanger
- 3. Secondary Heat Exchanger
- 4. Inshot Burners
- 5. Variable Capacity Gas Control Valve
- 6. Variable-Speed Combustion Air Inducer
- 7. SureLight® Integrated Furnace Control
- 8. Variable Speed Direct Drive Blower
- 9. Insulated Cabinet
- 10. Safety Interlock Switch
- 11. Gas Piping And Electrical Inlets



NOTE - SLP99DFV(K) FURNACES CANNOT BE TWINNED!

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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
- All models meet UL 60335-2-40 Refrigerant Detector Requirements

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 ten 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 66,000, 88,000 and 110,000 Btuh
- Variable heat capacity in increments as small as 1% or as large as needed within minimum/maximum input range
- Energy efficiency (AFUE) - 97.5%
- Compact cabinet for downflow applications without any internal modifications to the unit
- Intake and exhaust venting from the top or sides of the unit

NOTE - Optional kit is required for left side venting.

- Variable speed blower ideal for zoning applications
- Lennox add-on indoor coils, high-efficiency air cleaners and humidifiers can easily be added to furnace
- Shipped factory assembled with controls installed and wired
- Each unit factory test operated to ensure proper operation

ZONING APPLICATIONS

- The SLP99V furnace is designed to work with the Lennox® Smart Zoning System with the Lennox® Communicating Thermostat
- The Lennox® Smart Zoning System provides direct feedback to the SLP99V, controlling both airflow and heat output to precisely match the comfort requirements for up to four zones

HEATING SYSTEM

- 1 SilentComfort™ Technology**
 - Patented burner sound enclosure and extra cabinet insulation reduces operating sound levels
- 2 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
- 3 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

- Condensate trap assembly is mounted outside the conditioned air stream
- Assembly can be mounted on either side of cabinet
- Can also be mounted remotely (up to 5 ft. away) from unit
- See Dimension drawing and Installation Instructions
- 90° street elbow furnished for ease of drain trap installation
- Drain connection can be made with field provided PVC pipe or PVC coupling
- Drain cap on trap allows easy cleaning and winterizing

4 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

5 Variable Capacity Gas Control Valve

- Variable capacity gas control valve adjusts capacity output in increments as small as 1% or as large as needed
- 24 volt redundant combination valve combines manual shut off switch (On-Off), automatic electric valve (dual) and gas pressure regulation into a compact combination control

Flame Rollout Switch

- Factory installed on burner box
- Switch provides protection from abnormal operating conditions
- Manual reset

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

6 Variable Speed Combustion Air Inducer

- Three-phase variable speed inducer motor is controlled by the SureLight Control
- Overload protected (auto-reset)

- Heavy-duty blower prepurges heat exchanger and safely vents flue products
- Operates only during heating cycle

7 Pressure Switch (Two-Stage)

- Proves Combustion Air Inducer operation before allowing gas valve to open

Limit Control

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

Optional Accessories

High Altitude Pressure Switch Kit

- Required for proper unit operation on installations above 7500 ft.

Natural Gas to LPG/Propane Conversion Kit

- Required for field changeover from natural gas to LPG/Propane
- Includes gas valve and orifices

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 070 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

Right-Side Gas Entry Kit

- Converts furnace to right-side gas supply entry when left-side gas entry is restricted or not convenient

DIRECT VENT SEALED COMBUSTION SYSTEM

- Furnace features a "sealed combustion" system and can only be installed in Direct Vent applications
- In Direct Vent applications, combustion air is supplied from outdoors and flue gases are discharged outdoors

NOTE - Lennox has approved the use of DuraVent® PolyPro®, Centrotherm InnoFlue® and ECCO Polypropylene Vent™ 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.

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

FEATURES

DIRECT VENT SEALED COMBUSTION SYSTEM

(continued)

Flue Coupling (Furnished)

- 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

Optional Accessories

Vent 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
- See Optional Accessories table and dimension drawings

Concentric Termination Kit

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

Flush-Mount Termination Kit

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

Wall Assembly Termination Kits

Close Couple (US Only)

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

Close Couple WTK (Canada Only)

- 2 or 3 inch kit contains one insulated faceplate, one insulated exhaust pipe, elbow and fittings

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

Left Side Vent Kit

- Allows venting out the left side of the cabinet
- Kit contains left vent tube and seal plate

BLOWER

8 Variable Speed Direct Drive Blower

- Each blower assembly statically and dynamically balanced
- Blower assembly easily removed for servicing

Variable Speed Blower Motor

- Variable speed motor maintains specified air volume from 0 though 0.8 in. w.g. (heating) and 0 through 1.0 in. w.g. (Cooling) static range
- Variable speed operation is achieved by the use of an ECM (Electronically Commutated Motor) motor
- Motor is controlled by furnace control
- Change in blower speed is easily accomplished by simple DIP switch change on furnace control
- See Blower Data tables
- Motor is resiliently mounted

NOTE - When furnaces are used with the Lennox® Smart Zoning System and the Lennox® Communicating Thermostat, the blower motor operates from predetermined minimum - maximum air volumes to satisfy zone requirements.

CONTROLS

9 SureLight® Integrated Furnace Control (Lennox® Communicating)

- Advanced control communicates information about various operating parameters in the furnace to the optional Lennox® Communicating Thermostat to constantly maintain the highest level of comfort, performance and efficiency available
- **Auto Configuration** - On start-up the control automatically sends a description of the unit to the optional Lennox® Communicating Thermostat to automatically configure the number of stages and features available
- Terminals for connecting a conventional heating/cooling thermostat are also provided on the control
- Control also features:
 - Innovative AirFlex™ technology allows custom blower settings based on the application.
 - Precise Comfort Technology™ automatically adjusts blower speed and heat input in increments as small as 1% or as large as needed for greater temperature control
 - Variable-speed combustion air inducer is controlled by the SureLight 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 20 seconds is run



FEATURES

CONTROLS (continued)

- **Thermostat Control** - Designed to operate in a variable capacity mode automatically adjusting firing rate based on demand and changing conditions

NOTE - 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
Lennox® Communicating Thermostat	Variable Capacity (increments as small as 1%)
	Four Stage (35, 60, 80, 100%)
Two-Stage (Conventional)	Variable Capacity (increments as small as 1%)
	Two-stage (70% and 100%)
Single-Stage (Conventional)	Three-Stage (35%, 70% and 100%)

- **SureLight® Ignition Control** - Ignition control continuously monitors line voltage and maintains the igniter power at a constant level to provide consistent lighting and maximum igniter life
- **Safety Controls** - Flame sensor utilizes flame rectification for safe and reliable operation
- Should flame fail to ignite, 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
- **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

NOTE - DIP switches settings are not used with Lennox® Communicating Thermostat.

- **Select Thermostat Used** - Single-Stage or Two-Stage
- **Select Operation Mode** - Two-Stage, Three-Stage or Variable Capacity
- 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
- When used with a two-stage thermostat, furnace will only initiate second stage operation with a second stage thermostat demand

- **Heating Speeds** - A combination of DIP switch settings allow Normal, 7.5% increase, 15% increase, 7.5% decrease or 15% decrease motor speed selection within heating speed selected for fine tuning air volume
- **Cooling Speeds** - A combination of DIP switch settings allow Normal, 10% increase or 10% decrease motor speed selection within cooling speed selected for fine tuning air volume
- See Blower Performance tables
- **Blower Speed Ramping (Cooling Mode)** - DIP switch settings allow one of four blower speed profiles during cooling operation
 - **Profile A (factory setting)** - Motor runs at 50% for 30 seconds, then at 82% for 7-1/2 minutes, then at 100% (if needed) until demand is satisfied. Once demand is met, motor runs at 50% for 30 seconds, then ramps down to stop.
 - **Profile B** - Motor runs at 82% for 7-1/2 minutes and then at 100% (if needed) until demand is satisfied. Once demand is met, motor ramps down to stop.
 - **Profile C** - Motor runs at 100% until demand is satisfied. Once demand is met, motor runs at 100% for 60 seconds, then ramps down to stop.
 - **Profile D** - Motor runs at 100% until demand is satisfied. Once demand is met, motor ramps down to stop.
- **Dehumidification (Active or Humiditrol® Option)** - A jumper on the control must be clipped to enable active dehumidification and/or operation with a Humiditrol® Whole-Home Dehumidification System
 - 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
 - After the humidity has reached the desired set-point the cooling air volume returns to its designed rate
 - A dehumidification signal from the thermostat reduces the cooling cfm to 70% of the requested cooling cfm
- **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
- The cooling blower speeds for first and second stage cooling will be dictated by the applicable DIP switch settings
- **Lennox System Operations Monitor Connection** - Monitors outdoor unit operation (communicating mode)
- **Blower On Time (Heating)** - Blower on time is fixed at 30 seconds, blower off time is adjustable from 60, 90, 120 and 180 seconds (factory setting - 120 seconds)

FEATURES

CONTROLS (continued)

- **Blower Off Time (Cooling)** - For air-conditioning applications, blower on time is 2 seconds following thermostat demand for cooling
- Blower off delay is 30 seconds at 50% of high cool cfm (factory default)
- Controls evaporator humidity by controlling blower and compressor speed on two-stage outdoor units when used with Lennox® Communicating Thermostat
- **Continuous Blower Speed** - Adjustable continuous blower speed is a percentage of the high cooling speed selection
- There are four selectable options (via DIP switch settings) of 28%, 38% (default setting), 70% and 100%
- **Accessory Terminals** - Two accessory terminals furnished for additional power supply requirements for 120 volt (less than 1 amp) power humidifiers and powered air cleaners
- One 24 volt humidifier output furnished for non-powered humidifiers
- Control is factory installed in the unit control box

Discharge Air Averaging Sensor

- Shipped with furnace for field installation in the supply air plenum for "enhanced" commissioning at startup (S40 thermostat only) if required
- Measures temperature rise (heating low/high fire mode) and temperature drop (cooling low/high mode)

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

Refrigeration Detection System (RDS)

(Part of the SureLight® Integrated Furnace Control)

- Complies with UL 60335-2-40 approved standard
- Required for all systems using R-454B refrigerant
- Plug-in connection to the RDS Coil Sensor
- Supports up to two RDS Coil 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 operation and operate the blower to reduce concentrations in the conditioned space
- Once safe levels are reached the HVAC system will resume normal operation
- Low GWP test button for troubleshooting
- Alarm/Zone relay interface can trigger an external alarm if R-454B refrigerant is detected and open 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

Optional Accessories

Thermostat

- Thermostat is not furnished with unit
- See Page 9

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

FEATURES

CABINET

- Low-profile, narrow width allows easy installation
- Heavy-gauge, cold rolled steel construction
- Pre-painted finish
- Flanges provided on supply air opening for ease of plenum connection
- 10 • Insulated with foil faced insulation on sides and back of heating compartment and sealed mat faced insulation in blower compartment
- Sealed blower compartment
- Inner blower compartment access panel seals blower compartment from air leakage
- Complete service access
- Safety interlock switch automatically shuts off power to unit when inner blower compartment access panel is removed
- 11 • Gas piping and electrical inlets are provided in both sides of cabinet

Coil Match-Up

- All Lennox downflow indoor coils will physically match the furnace supply air opening with the same letter designation (A, B, C, D) as in the furnace model number

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

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

Downflow Combustible Flooring Base

- Required for heating only units installed on combustible floors
- Not required in add-on cooling applications
- 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

NOTE - Economizer is not Lennox® communicating compatible.

FILTER (not furnished)

- Filter and provisions for external mounting must be field provided

Optional Accessories

Downflow Filter and Rack Kit

- Filter cabinet mounts directly on top of furnace
- "B" and "C" width cabinets include two filters
- Filter rails are furnished
- Front access for servicing
- Cleanable filter(s) are furnished

INDOOR AIR QUALITY PRODUCT OPTIONS

Dave Lennox *Signature*® Collection PureAir® S Air Purification System

- Photo-catalytic Oxidation - The UVA lamp activates the photo-catalyst on the PureAir Cartridge that captures and destroys odors and chemical vapors as they flow through the PCO3S
- Carbon Clean 16® (MERV 16) media filter captures more than 95% of particles 0.3 microns and larger and more than 90% of particles 0.01 microns and larger
- Multiple sensors in the cabinet automatically detect and report to the S40 Smart Wi-Fi Thermostat (Required)
 - Dirty air filter status
 - Air filter life notification (%)
 - UVA lamp operational status (On or Off)
 - UVA lamp life notification (%)
- Highest airflow performance and lowest pressure drop compared to a leading brand.
- Long life filters and UVA lamp life up to one year



Healthy Climate® Media Air Cleaner

- High performance in a narrow 7 in. cabinet
- Available with MERV 11, 13, or 16 rated filters
- Multi-position heavy gauge steel cabinet will support furnace/coil or air handler and associated duct work
- Tool-less entry
- Tool-less assembly for quick installation



Healthy Climate® Whole Home In Duct Air Purifiers

- Compact Duct Mounted Design
- Effective against odors and VOC's
- Certified Ozone free
- UVC lamp and carbon cells



Healthy Climate® Ultraviolet Germicidal Lights

- Compact duct mounted design
- Single or dual applications
- Certified ozone free
- Effective against odors to help keep the system clean
- Safety Interlocks (Additional UVC Compliance Kit for UL 60335-2-40 is available for A2L applications)
- Low power consumption
- Available for 24V or 110/230V
- Up to 1340 microwatts /cm² output (dual lamp model)



Lennox™ Smart Air Quality Monitor

- Designed to work with the S40 Smart Wi-Fi Thermostat
- Continually monitors CO₂, particulates and VOC's providing real-time overall air quality score
- Works in conjunction with PureAir® S Air Purification System and Heat Recovery Ventilators (HRV) and Energy Recovery Ventilators (ERV) to automatically operate the blower to provide clean air



CONTROL OPTIONS

S40 Smart Wi-Fi Thermostat

- Recognizes and connects to all Lennox® Communicating products to automatically configure and control the heating/cooling system
- Advanced communicating controls in specific heating and cooling units, PureAir™ S Air Purification System and Healthy Climate® HRV/ERV (Heat/Energy) Recovery Ventilators transmit information about various operating parameters to the thermostat to constantly maintain the most comfortable and efficient operating conditions possible
- Lennox Smart Room Sensors, Lennox Wireless Extenders and Lennox Smart Air Quality Monitor can be added to the system



- Smart home automation compatible with Amazon Alexa®, Google Assistant, Control4®, Building36® and Matter
- Lennox® Home App controls temperature, fan operation, set programs/schedules and set Away mode on a smartphone
- Lennox Smart Tech App allows the installer to commission the system and remotely turn the system on and off during setup or service call on a smartphone

NOTE - Please refer to the individual Product Specifications for these products for full information.

INDOOR AIR QUALITY PRODUCT OPTIONS - ORDERING

NOTE - Refer to the individual Product Specifications documents for additional accessories and maintenance items.

Description	Dimensions	Furnace Width	Order Number
PureAir® S Air Purification System			
PCO3S-16-16	17-1/2 x 8-3/4 x 26-1/2	A/B/C	Y8904
PCO3S-20-16	21-1/8 x 8-3/4 x 26-1/2	C/D	Y8903
Healthy Climate® Media Air Cleaner			
HCC16-28 (Cabinet)	17-1/2 x 28-1/2 x 7	A/B/C	Y2920
HCC16-28 (Cabinet) 4-pack	17-1/2 x 28-1/2 x 7	---	Y2921
HCF16-16 (Filter) MERV 16	16 x 25 x 5	---	X6672
HCXF16-16 (Expandable Filter) MERV 16	16 x 25 x 5	---	X8306
HCF16-13 MERV 13	16 x 25 x 5	---	19L16
HCF16-11 (Filter) MERV 11	16 x 25 x 5	---	X6670
HCXF16-11 (Expandable Filter) MERV 11	16 x 25 x 5	---	X8303
HCC20-28 (Cabinet)	21 x 28-1/2 x 7	C/D	X6661
HCC20-28 (Cabinet) 4-pack	21 x 28-1/2 x 7	---	X7751
HCF20-16 (Filter) MERV 16	20 x 25 x 5	---	X6675
HCXF20-16 (Expandable Filter) MERV 16	20 x 25 x 5	---	X8307
HCF20-13 MERV 13	20 x 25 x 5	---	19L17
HCF20-11 (Filter) MERV 11	20 x 25 x 5	---	X6673
HCXF20-11 (Expandable Filter) MERV 11	20 x 25 x 5	---	X8304
Healthy Climate® Whole Home In Duct Air Purifiers			
HCWHAP1	8 x 7 x 16.5	---	23V99
Healthy Climate® Ultraviolet Germicidal Lights			
UVC-24V (24V) 17-1/2 in.	Ballast 4-3/4 x 2-1/4 x 2	---	X9423
UVC-41W-S (110/230V) 17-1/2 in.	Ballast 11-3/4 x 2-3/4 x 1-5/8	---	X9424
UVC-41W-D (110/230V) 17-1/2 in.	Ballast 11-3/4 x 2-3/4 x 1-5/8	---	X9425
CONTROLS - ORDERING			
S40 Smart Wi-Fi Thermostat	5 x 7-1/4 x 1	---	22V24
Lennox® Smart Room Sensor	4 x 5-1/2 x 3	---	22V25
Lennox® Smart Air Quality Monitor	3-5/8 x 4-3/8 x 1-3/8	---	21P02
Lennox® Wireless Extender	4 x 5-1/2 x 2-1/2	---	22V26
¹ Discharge Air Temperature Sensor			88K38
² Remote Outdoor Air Temperature Sensor (for dual-fuel and Humiditrol®)			X2658

¹ Optional for service diagnostics.

² Remote Outdoor Air Temperature Sensor (X2658) is used if outdoor unit is not communicating and when not connected to the internet to display outdoor temperature. Weather information is provided by a weather service when connected to the internet. Sensor is required in dual-fuel applications when the S40 is not connected to the internet to control changeover.

SPECIFICATIONS

Gas Heating Performance		Model	SLP99DF070XV36BK	SLP99DF090XV36CK	SLP99DF090XV48CK
		¹ AFUE	97.5%	97.5%	97.5%
Maximum	Input - Btuh		66,000	88,000	88,000
		Output - Btuh	64,000	84,000	85,000
	Temperature rise range - °F		50 - 80	60 - 90	50 - 80
	Gas Manifold Pressure (in. w.g.)		3.5 / 10.0	3.5 / 10.0	3.5 / 10.0
	Nat. Gas / LPG/Propane				
	Minimum	Input - Btuh	23,000	31,000	31,000
		Output - Btuh	22,000	30,000	30,000
	Temperature rise range - °F		35 - 65	35 - 65	35 - 65
	Gas Manifold Pressure (in. w.g.)		0.5 / 1.5	0.5 / 1.5	0.5 / 1.5
	Nat. Gas / LPG/Propane				
	High static - in. w.g.		0.8	0.8	0.8
Connections	Intake / ² 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 diameter x width - in.		10 x 9	10 x 9	11 x 11
	Motor output - hp		1/2	1/2	3/4
	Tons of add-on cooling		2 - 3	2 - 3	3 - 4
	Air Volume Range - cfm		410 - 1365	465 - 1385	545 - 1745
Electrical Data	Voltage (Maximum Amps)		120 volts - 60 Hertz - 1 phase		
	Blower motor full load amps		7.7	7.7	10.1
	Maximum overcurrent protection		15	15	15
Shipping Data		lbs. - 1 package	141	156	166

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.

² 2 in. Rubber Flue Coupling is furnished for exhaust pipe connection to unit.

SPECIFICATIONS

Gas Heating Performance		Model	SLP99DF090XV60CK	SLP99DF110XV60CK
		¹ AFUE	97.5%	97.5%
Maximum	Input - Btuh		88,000	110,000
		Output - Btuh	85,000	107,000
	Temperature rise range - °F		50 - 80	50 - 80
	Gas Manifold Pressure (in. w.g.)		3.5 / 10.0	3.5 / 10.0
	Nat. Gas / LPG/Propane			
	Minimum	Input - Btuh	31,000	39,000
		Output - Btuh	30,000	38,000
	Temperature rise range - °F		35 - 65	35 - 65
	Gas Manifold Pressure (in. w.g.)		0.5 / 1.5	0.5 / 1.5
	Nat. Gas / LPG/Propane			
	High static - in. w.g.		0.8	0.8
Connections	Intake / ² 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 diameter x width - in.		11 x 11	11 x 11
	Motor output - hp		1	1
	Tons of add-on cooling		3.5 - 5	3.5 - 5
	Air Volume Range - cfm		467 - 2130	575 - 2180
Electrical Data	Voltage (Maximum Amps)		120 volts - 60 Hertz - 1 phase	
	Blower motor full load amps		12.8	12.8
	Maximum overcurrent protection		20	20
Shipping Data		lbs. - 1 package	166	175

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.

² 2 in. Rubber Flue Coupling is furnished for exhaust pipe connection to unit.

OPTIONAL ACCESSORIES - ORDER SEPARATELY

NOTE - FURNACES CANNOT BE TWINNED!

		“B” Width Models	“C” Width Models	
CABINET ACCESSORIES				
Downflow Combustible Flooring Base		11M60	11M61	
High Performance Economizer (Commercial Only)		10U53	10U53	
CONDENSATE DRAIN KITS				
Condensate Drain Heat Cable	6 ft.	26K68	26K68	
	24 ft.	26K69	26K69	
Crawl Space Vent Drain Kit	US	51W18	51W18	
	Canada	15Z70	15Z70	
CONTROLS				
Transformer (75VA)		27J32	27J32	
DOWNFLOW FILTER KITS				
Downflow Air Filter and Rack Kit		51W07	51W08	
No. and Size of filter - in.		(2) 16 x 20 x 1	(2) 16 x 20 x 1	
TERMINATION KITS				
Direct Vent Applications Only. See Installation Instructions for specific venting information.				
Direct Vent	Concentric	US - 2 in.	71M80	69M29
		3 in.	- - -	60L46
		Canada - 2 in.	44W92	44W92
		3 in.	- - -	44W93
	Flush-Mount	US - 2, 2-1/2 or 3 in.	51W11	51W11
		Canada - 2, 2-1/2 or 3 in.	51W12	51W12
	Wall - Close Couple	US - 2 in.	22G44	- - -
		3 in.	44J40	44J40
	Wall - Close Couple WTK	Canada - 2 in.	30G28	- - -
		3 in.	81J20	81J20
	Roof Termination Flashing Kit (no vent pipe - 2 flashings)	2 in.	15F75	15F75
		3 in.	44J41	44J41
VENTING				
² Left Side Vent Kit		2 or 3 in.	87W73	87W73

¹ Remote Outdoor Temperature Sensor is used with conventional (non-Lennox® Communicating) outdoor units (sensor is furnished with Lennox® Communicating outdoor units). Allows the thermostat to display outdoor temperature. Required in dual-fuel and EDA applications.

² NOTE - The curved exhaust pipe furnished with the Left Side Vent Kit counts as one additional 2 in. diameter 90° elbow. When using 3 in. diameter pipe, the furnished curved exhaust pipe and field provided fittings to transition from 2 in. to 3 in. count as 20 feet of equivalent pipe on all units.

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 - ORDER SEPARATELY

Description	Altitude	Input		
		070	090	110
High Altitude Pressure Switch Kit	7501 - 10,000 ft.	14T67	14T67	14T67
Natural Gas to LPG/Propane Kit	0 - 7500 ft.	65W77	65W77	65W77
LPG/Propane to Natural Gas Kit	0 - 7500 ft.	70W87	70W87	70W87
Muffler (US Only)	- - -	15Y66 (2-inch)	15Y66 (2-inch)	¹ 15Y66 (2-inch) 16A56 (3-inch)
Right-Side Gas Entry Kit	- - -	27U29	27U29	27U29

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.

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)
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

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.

NOTE - When using 1-1/2 inch piping with Concentric Kit or Flush Mount Kit pipe must be transitioned to 2 inch pipe.

¹ Requires 2 inch to 1-1/2 inch reducer, 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 070 input models. Accelerator is not used with 090 and 110 input models.

⁴ Flush Mount Kit **51W11** and **51W12** includes 1-1/2 in. outdoor exhaust accelerator, required when used with 070 and 090 input models. Accelerator is not used with 110 input models.

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					
		070		090		110	
		² Maximum Uninsulated Exhaust Vent Length (ft.)					
		PVC	³ PolyPro/ InnoFlue/ ECCO	PVC	³ PolyPro/ InnoFlue/ ECCO	PVC	³ PolyPro/ InnoFlue/ ECCO
32 to 21°F	1-1/2 in.	N/A	N/A	N/A	N/A	N/A	N/A
	2 in.	11	9	14	12	18	15
	2-1/2 in.	7	N/A	10	N/A	12	N/A
	3 in.	N/A	N/A	6	6	8	8
20 to 1°F	1-1/2 in.	N/A	N/A	N/A	N/A	N/A	N/A
	2 in.	N/A	N/A	6	4	8	6
	2-1/2 in.	N/A	N/A	N/A	N/A	N/A	N/A
	3 in.	N/A	N/A	N/A	N/A	N/A	N/A
0 to –20°F	1-1/2 in.	N/A	N/A	N/A	N/A	N/A	N/A
	2 in.	N/A	N/A	N/A	N/A	N/A	N/A
	2-1/2 in.	N/A	N/A	N/A	N/A	N/A	N/A
	3 in.	N/A	N/A	N/A	N/A	N/A	N/A

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.

³ PolyPro® poly-propylene vent pipe is a registered trademark of DuraVent®.

InnoFlue® is a registered trademark of Centrotherm Eco Systems.

ECCO Polypropylene Vent™ is a registered trademark of ECCO Manufacturing™.

VENT LENGTHS

STANDARD TERMINATION AT ELEVATION 0 - 4500 ft.

Pipe Size		1-1/2 in.			2 in.			2-1/2 in.			3 in.		
Input		070	090	110	070	090	110	070	090	110	070	090	110
No. of 90 ELL	1	15	N/A	N/A	91	69	N/A	140	93	43	162	143	118
	2	10	N/A	N/A	86	64	N/A	135	88	38	157	138	113
	3	N/A	N/A	N/A	81	59	N/A	130	83	33	152	133	108
	4	N/A	N/A	N/A	76	54	N/A	125	78	28	147	128	103
	5	N/A	N/A	N/A	71	49	N/A	120	73	23	142	123	98
	6	N/A	N/A	N/A	66	44	N/A	115	68	18	137	118	93
	7	N/A	N/A	N/A	61	39	N/A	110	63	13	132	113	88
	8	N/A	N/A	N/A	56	34	N/A	105	58	N/A	127	108	83
	9	N/A	N/A	N/A	51	29	N/A	100	53	N/A	122	103	78
	10	N/A	N/A	N/A	46	24	N/A	95	48	N/A	117	98	73

STANDARD TERMINATION AT ELEVATION 4501 - 7500 ft.

Pipe Size		1-1/2 in.			2 in.			2-1/2 in.			3 in.		
Input		070	090	110	070	090	110	070	090	110	070	090	110
No. of 90 ELL	1	13	N/A	N/A	66	69	N/A	115	93	43	137	143	118
	2	8	N/A	N/A	61	64	N/A	110	88	38	132	138	113
	3	N/A	N/A	N/A	56	59	N/A	105	83	33	127	133	108
	4	N/A	N/A	N/A	51	54	N/A	100	78	28	122	128	103
	5	N/A	N/A	N/A	46	49	N/A	95	73	23	117	123	98
	6	N/A	N/A	N/A	41	44	N/A	90	68	18	112	118	93
	7	N/A	N/A	N/A	36	39	N/A	85	63	13	107	113	88
	8	N/A	N/A	N/A	31	34	N/A	80	58	N/A	102	108	83
	9	N/A	N/A	N/A	26	29	N/A	75	53	N/A	97	103	78
	10	N/A	N/A	N/A	21	24	N/A	70	48	N/A	92	98	73

STANDARD TERMINATION AT ELEVATION 7501 - 10,000 ft.

Pipe Size		1-1/2 in.			2 in.			2-1/2 in.			3 in.		
Input		070	090	110	070	090	110	070	090	110	070	090	110
No. of 90 ELL	1	N/A	N/A	N/A	41	44	N/A	90	68	N/A	112	118	93
	2	N/A	N/A	N/A	36	39	N/A	85	63	N/A	107	113	88
	3	N/A	N/A	N/A	31	34	N/A	80	58	N/A	102	108	83
	4	N/A	N/A	N/A	26	29	N/A	75	53	N/A	97	103	78
	5	N/A	N/A	N/A	21	24	N/A	70	48	N/A	92	98	73
	6	N/A	N/A	N/A	16	19	N/A	65	43	N/A	87	93	68
	7	N/A	N/A	N/A	11	14	N/A	60	38	N/A	82	88	63
	8	N/A	N/A	N/A	N/A	N/A	N/A	55	33	N/A	77	83	58
	9	N/A	N/A	N/A	N/A	N/A	N/A	50	28	N/A	72	78	53
	10	N/A	N/A	N/A	N/A	N/A	N/A	45	23	N/A	67	73	48

VENT LENGTHS

CONCENTRIC TERMINATION ELEVATION 0 - 4500 ft.

Pipe Size		1-1/2 in.			2 in.			2-1/2 in.			3 in.		
Input		070	090	110	070	090	110	070	090	110	070	090	110
No. of 90 ELL	1	10	N/A	N/A	83	67	N/A	130	89	39	146	139	114
	2	N/A	N/A	N/A	78	62	N/A	125	84	34	141	134	109
	3	N/A	N/A	N/A	73	57	N/A	120	79	29	136	129	104
	4	N/A	N/A	N/A	68	52	N/A	115	74	24	131	124	99
	5	N/A	N/A	N/A	63	47	N/A	110	69	19	126	119	94
	6	N/A	N/A	N/A	58	42	N/A	105	64	14	121	114	89
	7	N/A	N/A	N/A	53	37	N/A	100	59	N/A	116	109	84
	8	N/A	N/A	N/A	48	32	N/A	95	54	N/A	111	104	79
	9	N/A	N/A	N/A	43	27	N/A	90	49	N/A	106	99	74
	10	N/A	N/A	N/A	38	22	N/A	85	44	N/A	101	94	69

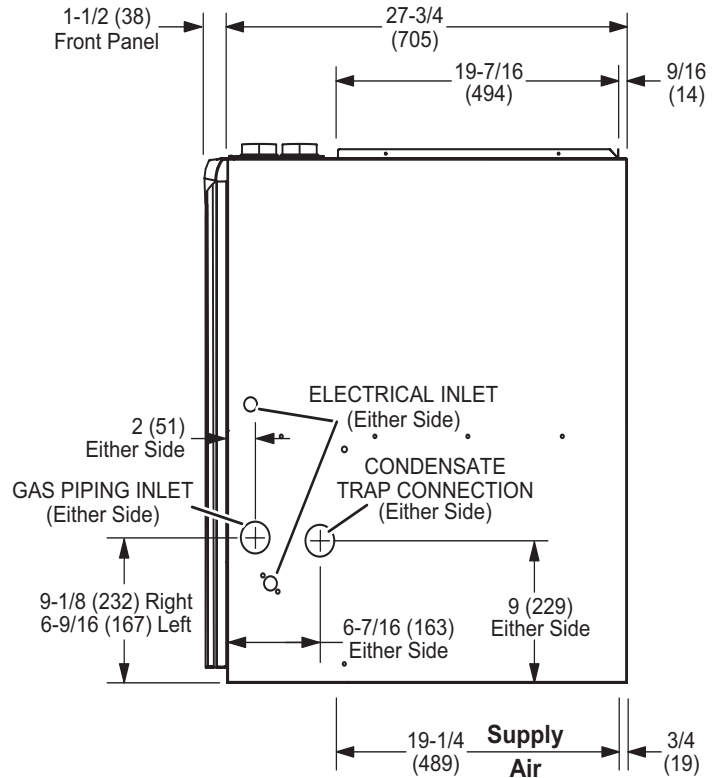
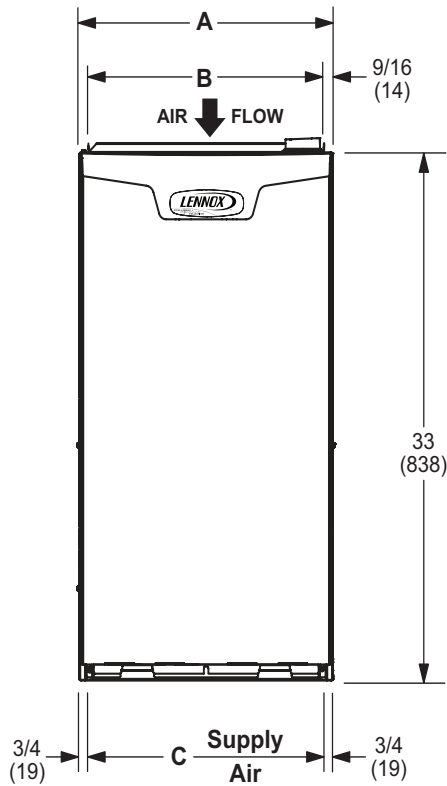
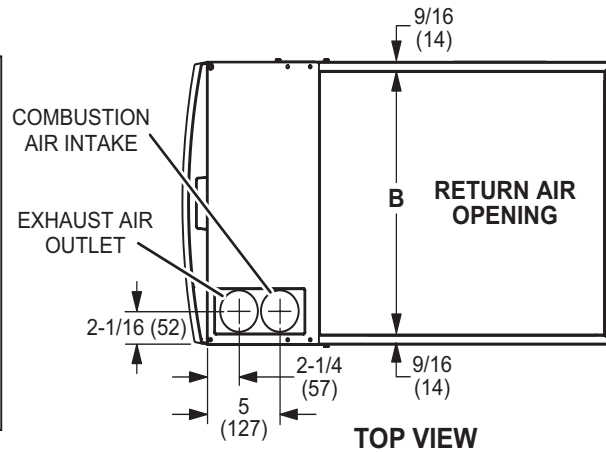
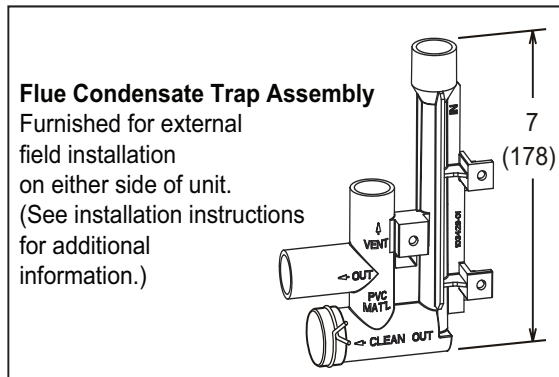
CONCENTRIC TERMINATION ELEVATION 4501 - 7500 ft.

Pipe Size		1-1/2 in.			2 in.			2-1/2 in.			3 in.		
Input		070	090	110	070	090	110	070	090	110	070	090	110
No. of 90 ELL	1	N/A	N/A	N/A	58	67	N/A	105	89	39	121	114	114
	2	N/A	N/A	N/A	53	62	N/A	100	84	34	116	109	109
	3	N/A	N/A	N/A	48	57	N/A	95	79	29	111	104	104
	4	N/A	N/A	N/A	43	52	N/A	90	74	24	106	99	99
	5	N/A	N/A	N/A	38	47	N/A	85	69	19	101	94	94
	6	N/A	N/A	N/A	33	42	N/A	80	64	14	96	89	89
	7	N/A	N/A	N/A	28	37	N/A	75	59	N/A	91	84	84
	8	N/A	N/A	N/A	23	32	N/A	70	54	N/A	86	79	79
	9	N/A	N/A	N/A	18	27	N/A	65	49	N/A	81	74	74
	10	N/A	N/A	N/A	13	22	N/A	60	44	N/A	76	69	69

CONCENTRIC TERMINATION ELEVATION 7501 - 10,000 ft.

Pipe Size		1-1/2 in.			2 in.			2-1/2 in.			3 in.		
Input		070	090	110	070	090	110	070	090	110	070	090	110
No. of 90 ELL	1	N/A	N/A	N/A	33	42	N/A	80	64	N/A	96	114	89
	2	N/A	N/A	N/A	28	37	N/A	75	59	N/A	91	109	84
	3	N/A	N/A	N/A	23	32	N/A	70	54	N/A	86	104	79
	4	N/A	N/A	N/A	18	27	N/A	65	49	N/A	81	99	74
	5	N/A	N/A	N/A	13	22	N/A	60	44	N/A	76	94	69
	6	N/A	N/A	N/A	N/A	17	N/A	55	39	N/A	71	89	64
	7	N/A	N/A	N/A	N/A	12	N/A	50	34	N/A	66	84	59
	8	N/A	N/A	N/A	N/A	N/A	N/A	45	29	N/A	61	79	54
	9	N/A	N/A	N/A	N/A	N/A	N/A	40	24	N/A	56	74	49
	10	N/A	N/A	N/A	N/A	N/A	N/A	35	19	N/A	51	69	44

DIMENSIONS - UNIT



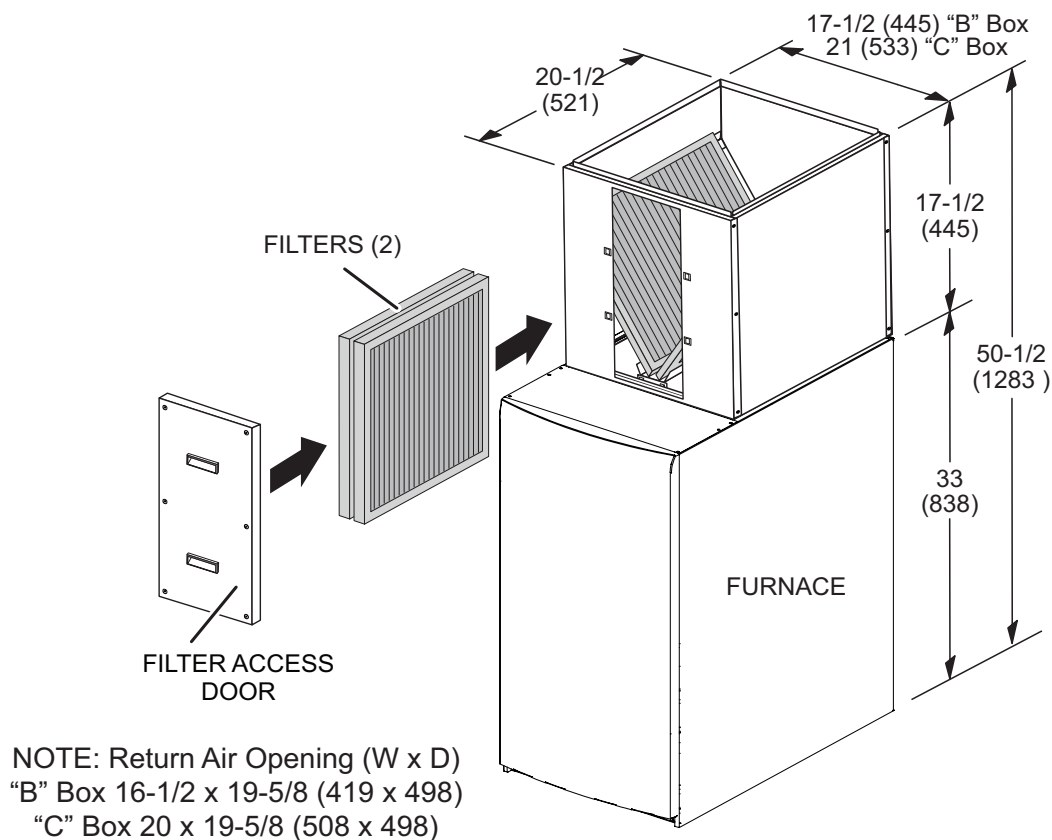
FRONT VIEW

SIDE VIEW

Model No.	A		B		C	
	in.	mm	in.	mm	in.	mm
SLP99DF070XV36BK	17-1/2	446	16-3/8	416	16	406
SLP99DF090XV36CK	21	533	19-7/8	505	19-1/2	495
SLP99DF090XV48CK						
SLP99DF090XV60CK						
SLP99DF110XV60CK						

DOWNFLOW FILTER CABINET

"B AND "C" WIDTH FURNACES (Two Filters)



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".

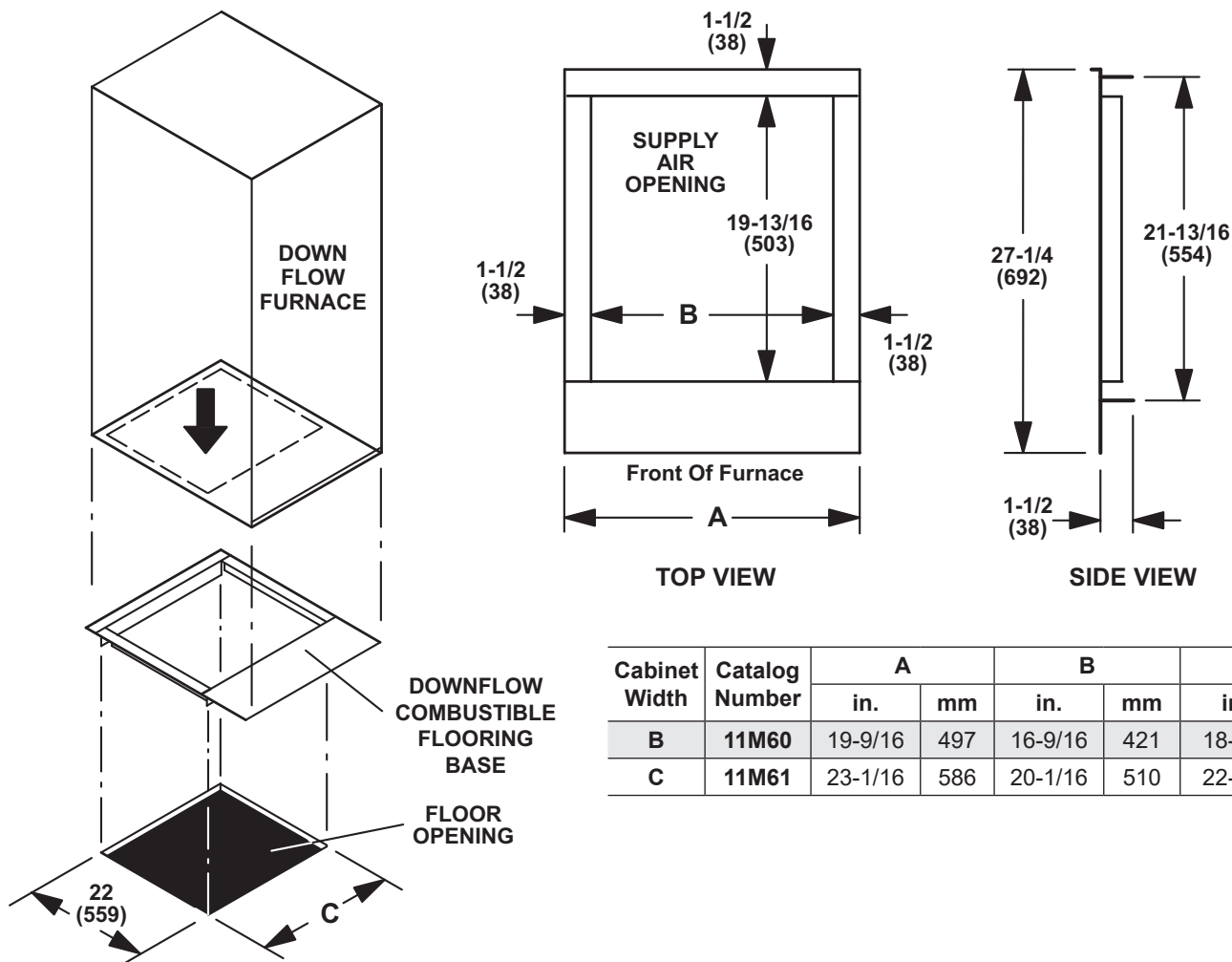
NOTE - In the U.S. flue sizing must conform to the methods outlined in the current National Fuel Gas Code (NFPA 54/ANSI-Z223.1) or applicable provisions of local building codes. In Canada flue sizing must conform to the methods outlined in National Standard of Canada CAN/CSA-B149.1.

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

² Clearance for installation on combustible floor if Optional Downflow Combustible Flooring Base is installed between furnace and combustible floor. Not required in add-on cooling applications if installed in accordance with local codes or National Fuel Gas Code ANSI-Z223.1 or CAN/CGA-149.1,.2. Do not install the furnace directly on carpeting, tile, or other combustible materials other than wood flooring.

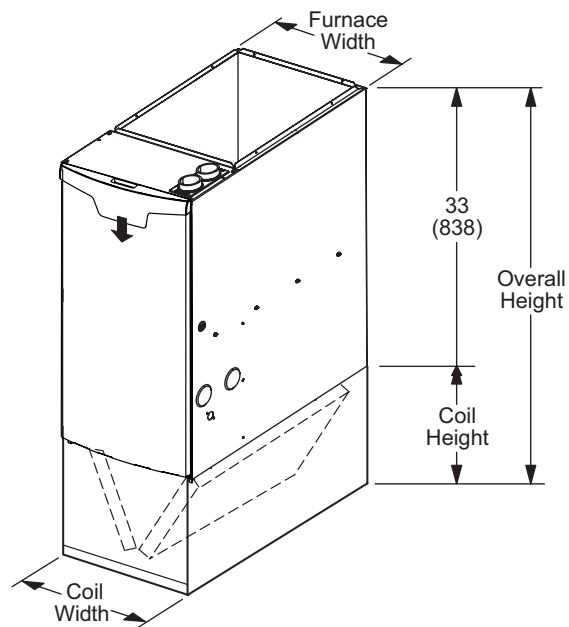
DIMENSIONS - OPTIONAL ACCESSORIES

DOWNFLOW COMBUSTIBLE FLOORING BASE

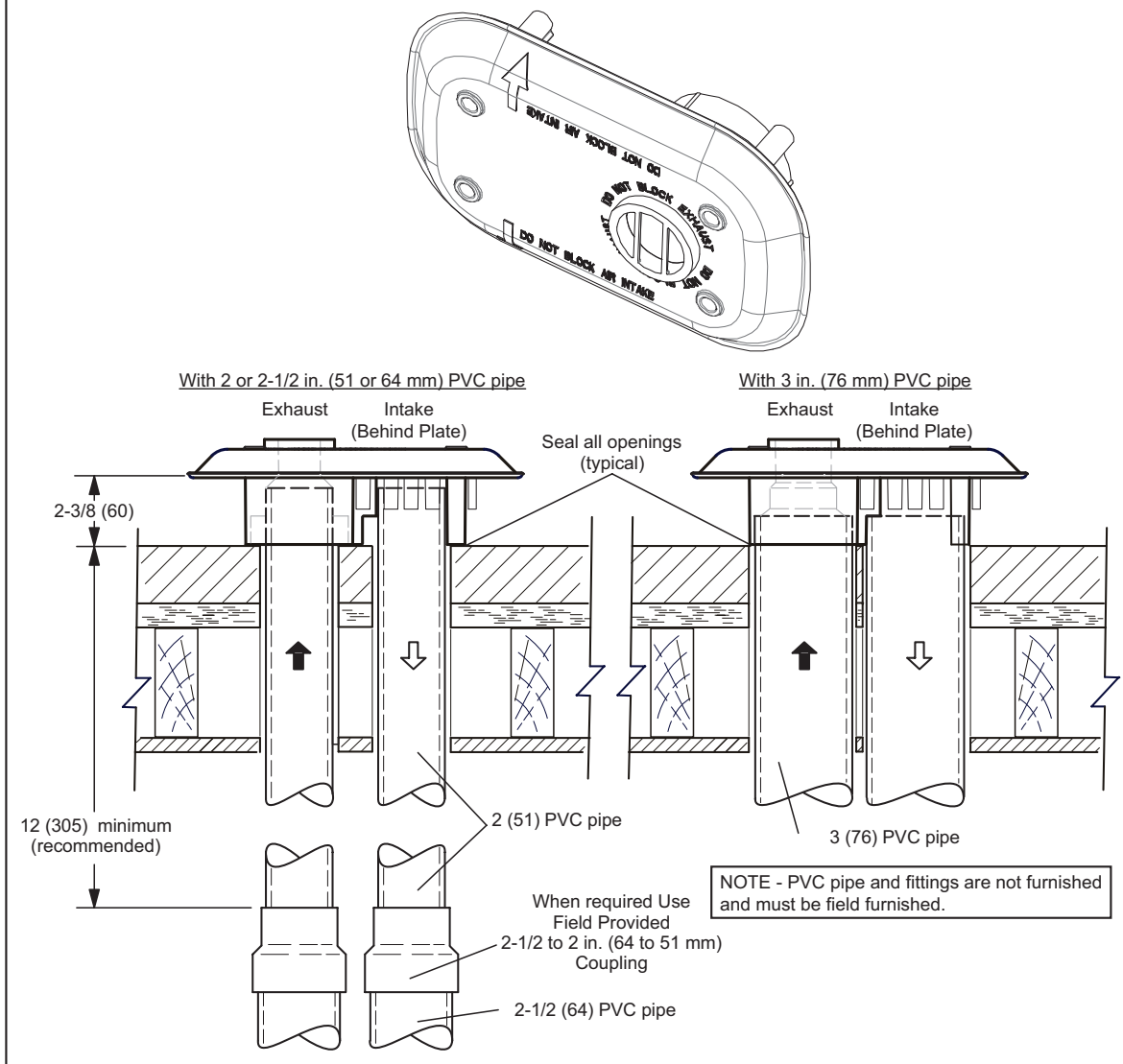


DIMENSIONS - FURNACE/COIL COMBINED DIMENSIONS

Model	Coil/Furnace Width		Coil Height		Overall Height	
	in.	mm	in.	mm	in.	mm
CK40DT						
CK40DT-24A	14-1/2	368	18	457	51	1295
CK40DT-24B	17-1/2	445	18	457	51	1295
CK40DT-30/36B	17-1/2	445	23-1/2	597	56-1/2	1435
CK40DT-30/36C	21	533	23-1/2	597	56-1/2	1435
CK40DT-42B	17-1/2	445	23-1/2	597	56-1/2	1435
CK40DT-48C	21	533	27-1/2	699	60-1/2	1537
CK40CT-50/60C	21	533	27-1/2	699	60-1/2	1537

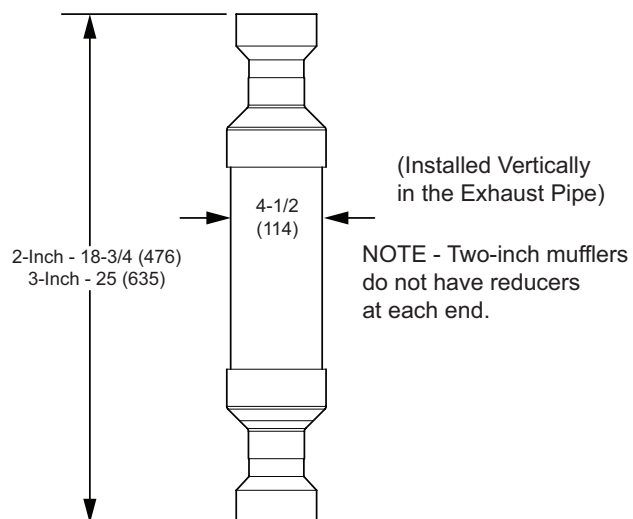


FLUSH-MOUNT VENT TERMINATION KIT 51W11 (US) or 51W12 (CANADA)



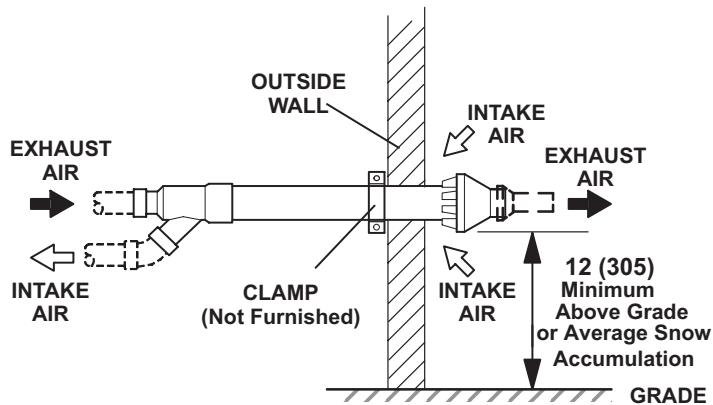
MUFFLERS

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

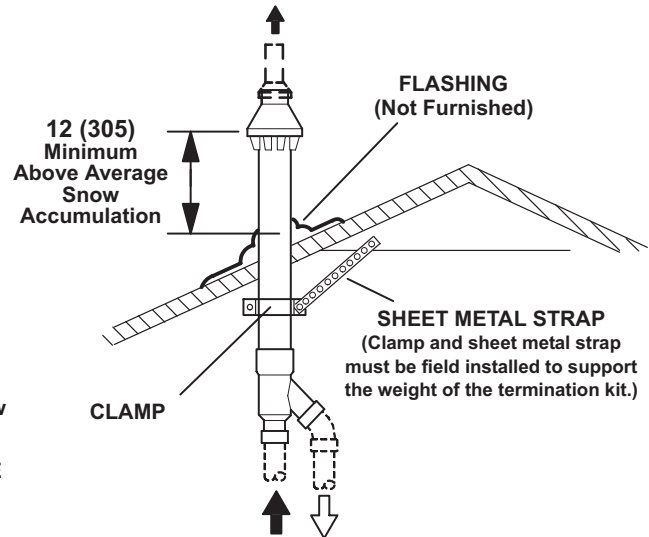


DIMENSIONS - OPTIONAL ACCESSORIES - VENTING

CONCENTRIC WALL TERMINATION APPLICATIONS



CONCENTRIC ROOF TERMINATION APPLICATIONS

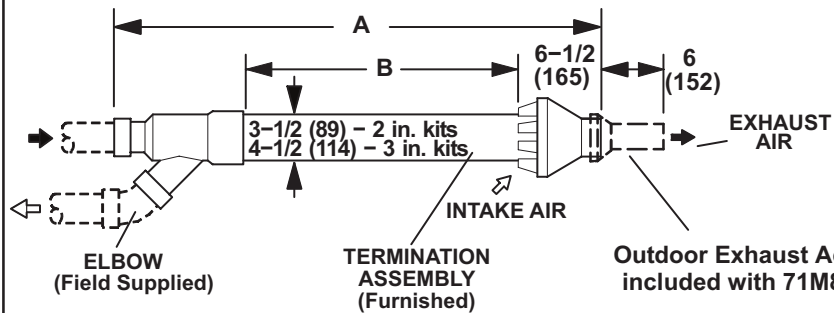


71M80 / 69M29 / 44W92 – 2 inch kits

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

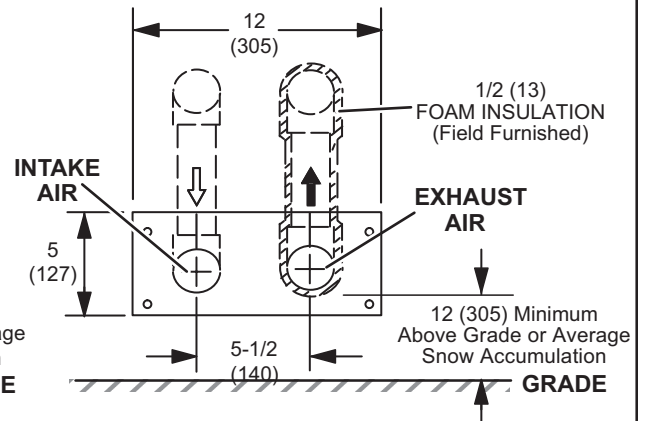
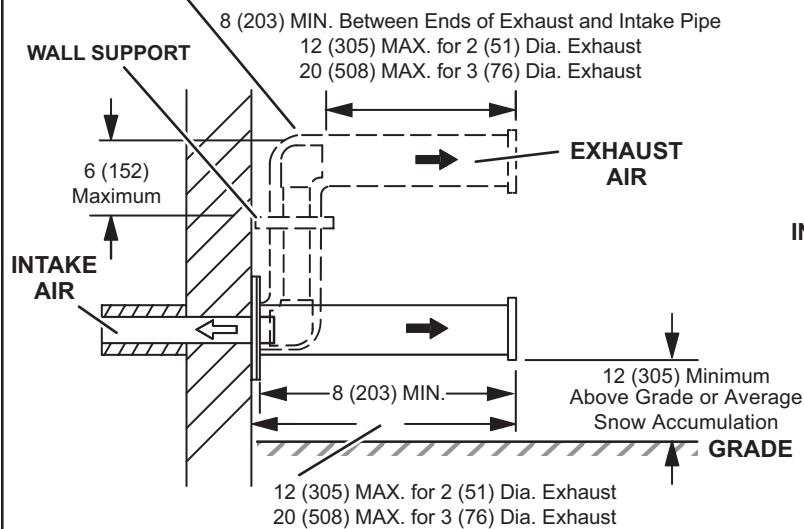
2 inch (51 mm) 22G44 (US)

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.

If Intake and Exhaust Pipe is less than 12 in. (305 mm) above snow accumulation or other obstructions, field fabricated piping must be installed.



WALL TERMINATION KITS (CLOSE-COUPLE) EXTENDED VENT FOR GRADE CLEARANCE

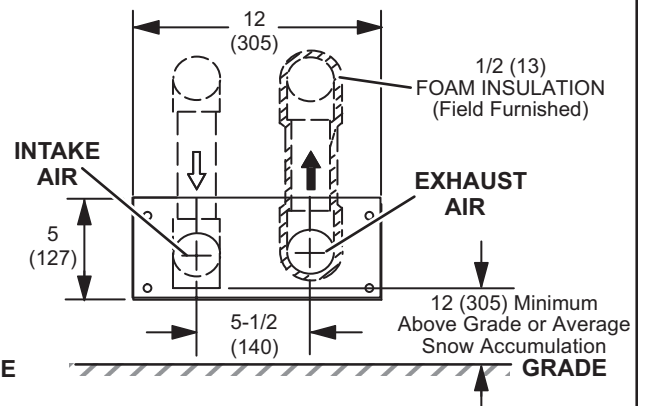
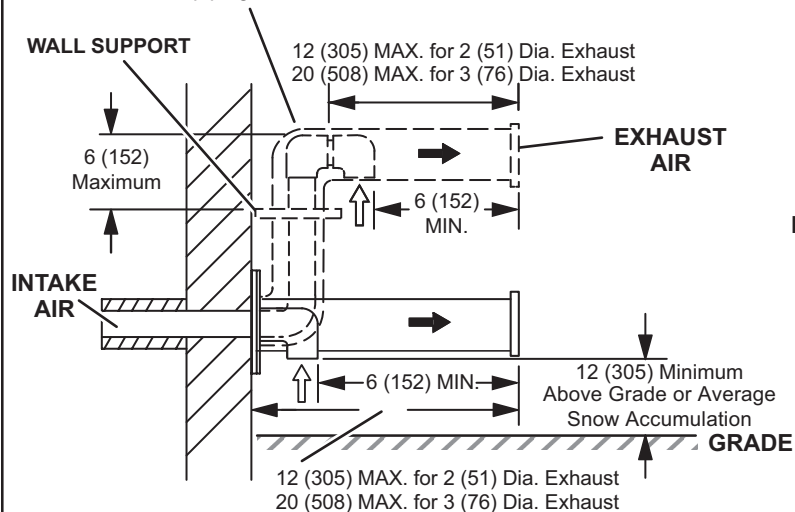
2 inch (51 mm) 30G28 (WTK Canada)

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.

If Intake and Exhaust Pipe is less than 12 in. (305 mm) above snow accumulation or other obstructions, field fabricated piping must be installed.



BLOWER DATA

SLP99DF070XV36BK BLOWER PERFORMANCE (less filter)

HEATING BLOWER PERFORMANCE - 0 through 0.8 in. w.g. External Static Pressure Range

Heating Adjust CFM Selections	Heating Input Range and Blower Volume - CFM							
	35%	40%	50%	60%	70%	80%	90%	100%
Increase (+15%) Heat CFM	495	543	639	735	830	926	1022	1118
Increase (+7.5%) Heat CFM	473	516	604	691	778	866	953	1041
Default Heat CFM	450	489	568	647	726	805	884	963
Decrease (-7.5%) Heat CFM	430	467	540	614	687	761	834	908
Decrease (-15%) Heat CFM	410	444	512	580	649	717	785	853

COOLING BLOWER PERFORMANCE - 0 through 1.0 in. w.g. External Static Pressure Range

Cooling Adjust CFM Selections	Blower Speed Selections							
	First Stage Cool Speed - cfm				Second Stage Cool Speed - cfm			
	Low	Medium-Low	Medium High	High (Default)	Low	Medium-Low	Medium High	High (Default)
Increase (+10%) Cool CFM	625	785	890	995	910	1075	1230	1365
Default Cool CFM	575	710	830	890	845	960	1125	1265
Decrease (-10%) Cool CFM	520	615	710	820	755	885	985	1150

The effect of static pressure is included in air volumes shown.

The following control configurations are available. See Installation Instructions for details and DIP switch settings.

Heat Modes Available (Heating Blower Performance Table):

Single-stage thermostat:

- 35%, 70%, 100% input (three-stage) with time delays in-between

Two-stage thermostat:

- Variable Rate Capacity Mode - furnace automatically adjusts firing rate based on first- and second-stage cycle times.

- W1 demand at 70% input, W2 demand at 100% input. No delay between stages.

Cool Mode Available (Cooling Blower Performance Table):

First stage COOL (two-stage air conditioning units only) is approximately 70% of the same second stage COOL speed position.

Continuous Fan speeds are approximately 28% and 38% (DIP switch selectable) of the same second-stage COOL speed position minimum 250 cfm.

Lennox® Smart Zoning System Applications - Minimum blower speed is 250 cfm.

SLP99DF070XV36BK BLOWER MOTOR WATTS - COOLING

Blower Speed Options	Motor Watts @ Various External Static Pressures - in. wg.																	
	First Stage								Second Stage									
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Increase (+10%) Cool CFM																		
Low	37	57	71	90	108	128	142	162	90	110	136	159	184	200	226	252	271	292
Medium-Low	59	77	96	125	145	166	187	203	136	164	188	223	256	276	309	332	354	367
Medium-High	82	104	132	151	178	199	222	244	199	239	270	297	331	356	393	411	430	441
High	107	135	158	185	213	247	258	286	292	323	359	387	417	445	475	500	515	509
Default Cool CFM																		
Low	29	51	66	83	98	111	127	143	66	84	118	141	164	185	203	226	243	260
Medium-Low	50	64	84	105	124	146	162	185	109	142	160	188	211	240	262	286	312	327
Medium-High	60	81	109	136	162	183	194	220	145	183	209	244	272	301	330	358	378	401
High	82	112	144	164	185	207	227	257	218	261	292	320	352	384	400	424	448	462
Decrease (-10%) Cool CFM																		
Low	28	39	57	74	89	102	116	137	55	74	91	120	137	160	183	198	213	233
Medium-Low	37	57	77	92	112	128	143	156	83	105	132	162	181	208	227	251	268	291
Medium-High	54	70	87	113	133	149	172	189	112	144	164	200	216	246	275	303	326	342
High	67	91	115	139	163	184	203	224	151	192	222	255	287	320	348	370	395	414

BLOWER DATA

SLP99DF090XV36CK BLOWER PERFORMANCE (less filter)

HEATING BLOWER PERFORMANCE - 0 through 0.8 in. w.g. External Static Pressure Range

Heating Adjust CFM Selections	Heating Input Range and Blower Volume - CFM							
	35%	40%	50%	60%	70%	80%	90%	100%
Increase (+15%) Heat CFM	710	756	848	940	1033	1125	1217	1309
Increase (+7.5%) Heat CFM	670	713	799	885	971	1057	1143	1230
Default Heat CFM	629	669	749	829	910	990	1070	1150
Decrease (-7.5%) Heat CFM	559	599	681	763	845	927	1009	1091
Decrease (-15%) Heat CFM	488	530	614	697	781	865	948	1032

COOLING BLOWER PERFORMANCE - 0 through 1.0 in. w.g. External Static Pressure Range

Cooling Adjust CFM Selections	Blower Speed Selections							
	First Stage Cool Speed - cfm				Second Stage Cool Speed - cfm			
	Low	Medium-Low	Medium High	High (Default)	Low	Medium-Low	Medium High	High (Default)
Increase (+10%) Cool CFM	610	770	900	1035	920	1080	1215	1385
Default Cool CFM	545	690	805	920	835	1000	1135	1255
Decrease (-10%) Cool CFM	465	620	720	810	750	890	1025	1145

The effect of static pressure is included in air volumes shown.

The following control configurations are available. See Installation Instructions for details and DIP switch settings.

Heat Modes Available (Heating Blower Performance Table):

Single-stage thermostat:

- 35%, 70%, 100% input (three-stage) with time delays in-between

Two-stage thermostat:

- Variable Rate Capacity Mode - furnace automatically adjusts firing rate based on first- and second-stage cycle times.

- W1 demand at 70% input, W2 demand at 100% input. No delay between stages.

Cool Mode Available (Cooling Blower Performance Table):

First stage COOL (two-stage air conditioning units only) is approximately 70% of the same second stage COOL speed position.

Continuous Fan speeds are approximately 28% and 38% (DIP switch selectable) of the same second-stage COOL speed position minimum 250 cfm.

Lennox® Smart Zoning System Applications - Minimum blower speed is 250 cfm.

SLP99DF090XV36CK BLOWER MOTOR WATTS - COOLING

Blower Speed Options	Motor Watts @ Various External Static Pressures - in. wg.																	
	First Stage								Second Stage									
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Increase (+10%) Cool CFM																		
Low	33	51	67	82	94	111	124	139	77	102	117	151	173	191	216	239	262	283
Medium-Low	60	80	92	114	130	150	170	190	130	152	183	209	231	256	278	296	324	338
Medium-High	80	103	126	152	173	194	220	234	180	216	240	261	293	318	339	374	392	419
High	102	121	160	178	208	229	251	283	247	268	319	350	384	411	456	460	497	511
Default Cool CFM																		
Low	29	41	59	72	84	98	112	123	69	84	106	132	142	170	194	211	232	248
Medium-Low	47	67	81	95	116	128	145	161	98	127	153	174	200	218	244	264	285	303
Medium-High	69	84	106	128	145	163	184	207	137	167	201	225	252	273	291	306	339	370
High	78	101	130	150	176	195	220	238	194	226	248	276	315	340	367	400	418	441
Decrease (-10%) Cool CFM																		
Low	24	34	47	59	73	86	96	109	57	74	88	102	121	140	161	172	193	212
Medium-Low	36	56	69	82	99	113	129	143	70	89	111	137	158	182	197	221	234	259
Medium-High	52	71	88	102	120	139	153	170	104	124	154	181	207	227	253	275	294	316
High	68	83	106	125	137	167	182	204	158	178	210	242	255	282	299	327	357	374

BLOWER DATA

SLP99DF090XV48CK BLOWER PERFORMANCE (less filter)

HEATING BLOWER PERFORMANCE - 0 through 0.8 in. w.g. External Static Pressure Range

Heating Adjust CFM Selections	Heating Input Range and Blower Volume - CFM							
	35%	40%	50%	60%	70%	80%	90%	100%
Increase (+15%) Heat CFM	723	790	925	1060	1195	1329	1464	1599
Increase (+7.5%) Heat CFM	690	752	878	1004	1129	1255	1381	1507
Default Heat CFM	656	714	831	948	1064	1181	1297	1414
Decrease (-7.5%) Heat CFM	601	654	761	867	974	1081	1188	1295
Decrease (-15%) Heat CFM	545	593	690	787	884	981	1078	1175

COOLING BLOWER PERFORMANCE - 0 through 1.0 in. w.g. External Static Pressure Range

Cooling Adjust CFM Selections	Blower Speed Selections							
	First Stage Cool Speed - cfm				Second Stage Cool Speed - cfm			
	Low	Medium-Low	Medium High	High (Default)	Low	Medium-Low	Medium High	High (Default)
Increase (+10%) Cool CFM	775	940	1100	1255	1120	1340	1535	1745
Default Cool CFM	690	875	975	1135	1000	1220	1425	1625
Decrease (-10%) Cool CFM	635	755	915	1025	920	1100	1270	1470

The effect of static pressure is included in air volumes shown.

The following control configurations are available. See Installation Instructions for details and DIP switch settings.

Heat Modes Available (Heating Blower Performance Table):

Single-stage thermostat:

- 35%, 70%, 100% input (three-stage) with time delays in-between

Two-stage thermostat:

- Variable Rate Capacity Mode - furnace automatically adjusts firing rate based on first- and second-stage cycle times.

- W1 demand at 70% input, W2 demand at 100% input. No delay between stages.

Cool Mode Available (Cooling Blower Performance Table):

First stage COOL (two-stage air conditioning units only) is approximately 70% of the same second stage COOL speed position.

Continuous Fan speeds are approximately 28% and 38% (DIP switch selectable) of the same second-stage COOL speed position minimum 250 cfm.

Lennox® Smart Zoning System Applications - Minimum blower speed is 380 cfm.

SLP99DF090XV48CK BLOWER MOTOR WATTS - COOLING

Blower Speed Options	Motor Watts @ Various External Static Pressures - in. wg.																	
	First Stage								Second Stage									
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Increase (+10%) Cool CFM																		
Low	62	76	98	125	146	175	197	213	118	153	178	210	243	273	320	347	380	408
Medium-Low	80	102	134	167	188	211	242	267	162	217	252	316	339	384	435	465	502	541
Medium-High	106	135	174	200	235	268	309	336	279	329	376	426	464	497	547	601	643	673
High	147	182	218	267	303	341	395	412	397	443	515	559	619	681	739	770	813	869
Default Cool CFM																		
Low	51	67	92	107	131	145	165	192	83	114	147	181	204	241	261	290	324	360
Medium-Low	67	89	115	139	170	194	224	242	142	166	212	243	289	333	367	399	432	473
Medium-High	91	116	142	176	198	219	261	283	193	264	304	350	387	434	478	517	549	575
High	112	154	179	221	247	292	326	354	312	357	411	439	516	540	596	649	685	730
Decrease (-10%) Cool CFM																		
Low	43	58	80	100	113	136	152	166	72	101	123	151	181	198	229	256	283	300
Medium-Low	59	82	102	123	142	173	196	210	106	144	172	204	234	268	311	345	370	405
Medium-High	68	90	117	149	178	199	225	247	146	172	217	262	308	353	388	417	459	487
High	93	118	150	181	205	239	266	302	228	276	331	391	422	458	492	530	566	609

BLOWER DATA

SLP99DF090XV60CK BLOWER PERFORMANCE (less filter)

HEATING BLOWER PERFORMANCE - 0 through 0.8 in. w.g. External Static Pressure Range

Heating Adjust CFM Selections	Heating Input Range and Blower Volume - CFM							
	35%	40%	50%	60%	70%	80%	90%	100%
Increase (+15%) Heat CFM	653	728	877	1027	1176	1326	1475	1625
Increase (+7.5%) Heat CFM	603	673	813	953	1092	1232	1372	1512
Default Heat CFM	553	618	748	878	1009	1139	1269	1399
Decrease (-7.5%) Heat CFM	510	570	690	811	931	1051	1171	1292
Decrease (-15%) Heat CFM	467	522	632	743	853	963	1074	1184

COOLING BLOWER PERFORMANCE - 0 through 1.0 in. w.g. External Static Pressure Range

Cooling Adjust CFM Selections	Blower Speed Selections							
	First Stage Cool Speed - cfm				Second Stage Cool Speed - cfm			
	Low	Medium-Low	Medium High	High (Default)	Low	Medium-Low	Medium High	High (Default)
Increase (+10%) Cool CFM	1110	1265	1395	1600	1600	1750	1965	2130
Default Cool CFM	1000	1145	1275	1445	1445	1625	1805	1975
Decrease (-10%) Cool CFM	885	1060	1145	1265	1265	1445	1645	1805

The effect of static pressure is included in air volumes shown.

The following control configurations are available. See Installation Instructions for details and DIP switch settings.

Heat Modes Available (Heating Blower Performance Table):

Single-stage thermostat:

- 35%, 70%, 100% input (three-stage) with time delays in-between

Two-stage thermostat:

- Variable Rate Capacity Mode - furnace automatically adjusts firing rate based on first- and second-stage cycle times.

- W1 demand at 70% input, W2 demand at 100% input. No delay between stages.

Cool Mode Available (Cooling Blower Performance Table):

First stage COOL (two-stage air conditioning units only) is approximately 70% of the same second stage COOL speed position.

Continuous Fan speeds are approximately 28% and 38% (DIP switch selectable) of the same second-stage COOL speed position minimum 250 cfm.

Lennox® Smart Zoning System Applications - Minimum blower speed is 450 cfm.

SLP99DF090XV60CK BLOWER MOTOR WATTS - COOLING

Blower Speed Options	Motor Watts @ Various External Static Pressures - in. wg.																	
	First Stage								Second Stage									
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Increase (+10%) Cool CFM																		
Low	108	144	162	207	242	262	293	323	299	366	399	449	483	532	584	605	644	680
Medium-Low	156	187	233	261	279	329	368	401	409	471	521	562	606	650	688	716	762	800
Medium-High	202	235	293	317	369	407	453	502	577	622	667	744	795	835	872	910	950	963
High	299	366	399	449	483	532	584	605	775	811	898	942	994	1048	1071	1082	1080	1073
Default Cool CFM																		
Low	86	111	140	170	200	232	259	282	219	270	308	361	390	431	489	517	555	590
Medium-Low	118	152	195	223	254	283	306	344	304	365	420	450	510	544	592	640	665	698
Medium-High	161	201	228	260	310	341	381	416	475	528	582	616	662	686	747	780	823	855
High	219	270	308	361	390	431	489	517	603	654	704	756	809	871	902	939	972	975
Decrease (-10%) Cool CFM																		
Low	69	101	120	152	175	201	218	249	155	181	232	259	299	340	376	402	438	476
Medium-Low	94	123	150	185	220	250	278	296	205	267	304	353	390	430	486	515	563	587
Medium-High	118	152	195	223	254	283	306	344	322	392	439	468	531	568	599	647	678	721
High	155	181	232	259	299	340	376	402	475	528	582	616	662	686	747	780	823	855

BLOWER DATA

SLP99DF110XV60CK BLOWER PERFORMANCE (less filter)

HEATING BLOWER PERFORMANCE - 0 through 0.8 in. w.g. External Static Pressure Range

Heating Adjust CFM Selections	Heating Input Range and Blower Volume - CFM							
	35%	40%	50%	60%	70%	80%	90%	100%
Increase (+15%) Heat CFM	811	906	1096	1286	1475	1665	1855	2045
Increase (+7.5%) Heat CFM	744	835	1017	1199	1380	1562	1744	1926
Default Heat CFM	677	764	938	1112	1285	1459	1633	1807
Decrease (-7.5%) Heat CFM	626	707	869	1031	1193	1355	1517	1679
Decrease (-15%) Heat CFM	575	650	800	950	1101	1251	1401	1551

COOLING BLOWER PERFORMANCE - 0 through 1.0 in. w.g. External Static Pressure Range

Cooling Adjust CFM Selections	Blower Speed Selections							
	First Stage Cool Speed - cfm				Second Stage Cool Speed - cfm			
	Low	Medium-Low	Medium High	High (Default)	Low	Medium-Low	Medium High	High (Default)
Increase (+10%) Cool CFM	1090	1260	1395	1580	1580	1790	1990	2180
Default Cool CFM	965	1125	1285	1440	1440	1625	1845	2000
Decrease (-10%) Cool CFM	860	1030	1125	1270	1270	1470	1655	1845

The effect of static pressure is included in air volumes shown.

The following control configurations are available. See Installation Instructions for details and DIP switch settings.

Heat Modes Available (Heating Blower Performance Table):

Single-stage thermostat:

- 35%, 70%, 100% input (three-stage) with time delays in-between

Two-stage thermostat:

- Variable Rate Capacity Mode - furnace automatically adjusts firing rate based on first- and second-stage cycle times.

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First stage COOL (two-stage air conditioning units only) is approximately 70% of the same second stage COOL speed position.

Continuous Fan speeds are approximately 28% and 38% (DIP switch selectable) of the same second-stage COOL speed position minimum 250 cfm.

Lennox® Smart Zoning System Applications - Minimum blower speed is 450 cfm.

SLP99DF110XV60CK BLOWER MOTOR WATTS - COOLING

Blower Speed Options	Motor Watts @ Various External Static Pressures - in. wg.																	
	First Stage								Second Stage									
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Increase (+10%) Cool CFM																		
Low	99	147	166	202	240	271	302	337	280	333	374	429	469	511	548	594	619	677
Medium-Low	159	198	225	256	301	325	365	390	427	496	531	587	632	665	721	742	781	805
Medium-High	204	242	287	316	371	408	446	487	589	651	703	755	808	860	888	932	970	1007
High	280	333	374	429	469	511	548	594	850	915	963	1020	1056	1091	1127	1141	1136	1131
Default Cool CFM																		
Low	88	117	140	165	196	232	259	283	214	244	291	331	380	405	467	497	539	583
Medium-Low	112	147	172	209	250	283	317	345	321	348	418	447	505	546	597	632	668	716
Medium-High	154	199	230	268	300	331	373	411	493	547	572	628	666	703	745	777	819	860
High	214	244	291	331	380	405	467	497	626	688	730	787	823	880	924	963	994	1011
Decrease (-10%) Cool CFM																		
Low	67	99	115	144	167	197	215	245	165	201	232	262	305	334	373	417	451	479
Medium-Low	97	123	153	186	216	247	275	303	219	272	308	360	391	432	479	514	559	588
Medium-High	112	147	172	209	250	283	317	345	341	390	430	490	528	569	617	640	691	724
High	165	201	232	262	305	334	373	417	493	547	572	628	666	703	745	777	819	860

REVISIONS

Sections	Description of Change
Optional Accessories	Added Right Side Gas Entry Kit



Visit us at www.Lennox.com

For the latest technical information, www.LennoxPros.com

Contact us at 1-800-4-LENNOX

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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