



GAS FURNACES

ML195UH

MERIT® SERIES

Upflow / Horizontal

PRODUCT SPECIFICATIONS

Bulletin No. 210591

March 2019

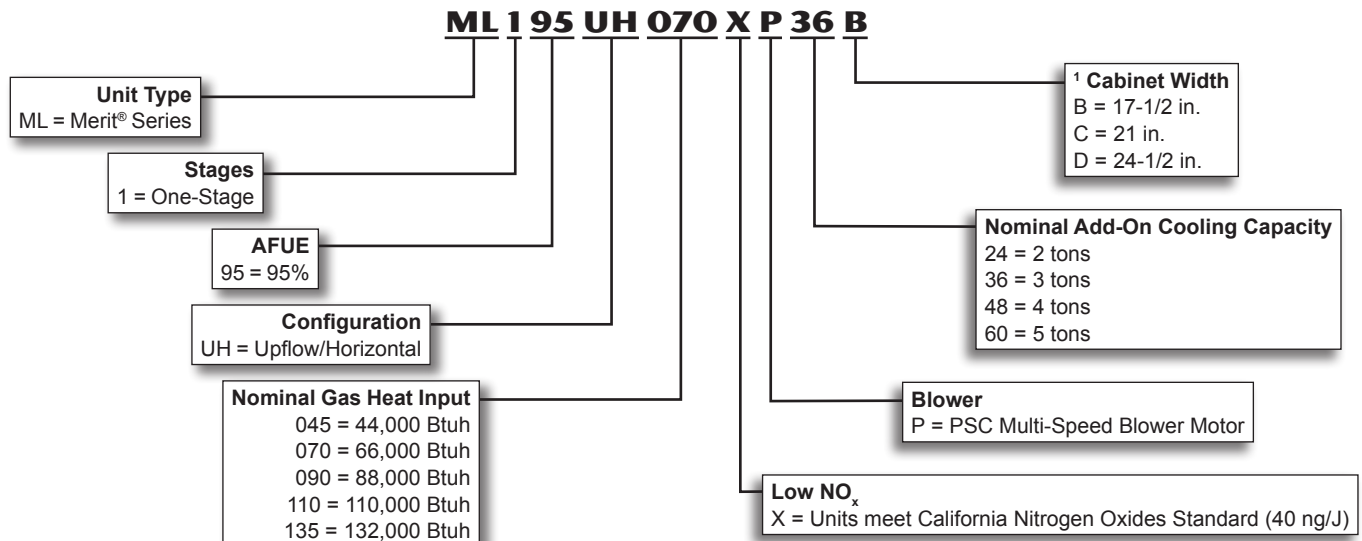
Supersedes September 2018

**MERIT®
SERIES**



AFUE - 95%
Input - 44,000 to 132,000 Btuh
Nominal Add-on Cooling - 2 to 5 Tons

MODEL NUMBER IDENTIFICATION



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

FEATURES

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WARRANTY

Duralok Plus™ Aluminized Steel Heat Exchanger - Limited twenty-year warranty in residential applications, ten years in non-residential applications.

All other covered components - Limited five-year warranty in residential applications, one year in non-residential applications.

Refer to Lennox Equipment Limited Warranty certificate included with equipment for details.

APPROVALS

Units are AHRI Certified.

Units tested and rated according to US DOE test procedures and FTC labeling regulations.

Approved by the California Energy Commission and meets California Nitrogen Oxides Standard (NO_x) limits of 40 ng/J.

ISO 9001 Registered Manufacturing Quality System.

Blower data from unit tests conducted in Lennox Laboratory air test chamber.

California Only

If installed in South Coast Air Quality Management District (SCAQMD) only:

This furnace does not meet the SCAQMD Rule 1111 NO_x emission limit (14 ng/J), and thus is subject to a mitigation fee of up to \$450. This furnace is not eligible for the Clean Air Furnace Rebate Program:

www.CleanAirFurnaceRebate.com.

If installed in San Joaquin Valley Air Pollution Control District (SJVAPCD) only:

This furnace does not meet the SJVAPCD Rule 4905 NO_x emission limit (14 ng/J), and thus is subject to a mitigation fee of up to \$450.

APPLICATIONS

Input capacities of 44,000, 66,000, 88,000, 110,000 and 132,000 Btuh.

Energy efficiency (AFUE) of 95%.



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.

Utility room, alcove, closet, crawl space, basement or attic installation.

Lennox add-on indoor coils, high-efficiency air cleaners and humidifiers can easily be added to furnace.

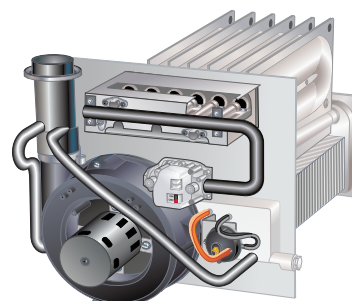
Shipped factory assembled with all controls installed and wired.

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 heat exchanger.

Constructed of heavy-gauge, aluminized-steel.

Designed for normal expansion and

contraction with maximum efficiency and minimum resistance to air flow.

FEATURES

HEATING SYSTEM (continued)

- 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 of complete heat exchanger assembly permits low overall design of furnace cabinet. All components mounted in a heavy-gauge steel frame. Heat exchanger assembly has been laboratory life cycle tested in excess of industry standards.

Lennox Designed Header Box

Header box on end of condenser coil collects flue condensate for disposal through condensate drains. The 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 in upflow applications. Assembly is mounted on the bottom of the cabinet in horizontal applications. See Dimension Drawing and Installation Instructions. Can also be mounted remotely (up to 5 ft. away) from unit. 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.

- 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 is removable from the unit as a single component for ease of service.
- 4 **SureLight® Integrated Furnaces Control**
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 **Gas Control Valve**
24 volt redundant combination gas control valve combines manual shut off switch (On-Off), automatic electric valve (dual) and gas pressure regulation into a compact combination control.

- 6 **Combustion Air Inducer**
Shaded pole heavy duty blower prepurges heat exchanger and safely vents flue products. Operates only during heating cycle.

Pressure Switch

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

- 7 **Flame Rollout Switches (2)**

Manual reset switches are factory installed on the front of the burner box. Switch provides protection from abnormal operating conditions.

Limit Control

Automatic reset, primary limit is accurately located on the header box on all units.

Optional Accessories

36K Derate Kit (045 models only)

Allows 045 (44K input) models input to be reduced to 36K. For use with natural gas only.

High Altitude Orifice Kits

Required on all units for proper operation at altitudes from 7501 to 10,000 ft.

Kits are 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.

FEATURES

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.

The polypropylene venting system must follow the uninsulated and unconditioned space vent lengths listed in the table on Page 12.

Refer to the Installation Instructions for additional details.

Optional Accessories

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.

See Optional Accessories table and dimension drawings.

Termination Kit - Concentric - Direct Vent Applications

2 or 3 inch kit contains concentric termination assembly, reducer bushing and 45° 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.

Termination Kit - 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.

Termination Kits - 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.

Wall Ring - Direct Vent or Non-Direct Vent Applications

2 inch kit contains 2 stainless steel outside seal caps, 2 galvanized steel inside seal caps, 4 seal rings for the caps and 18 inch insulation sleeve for sealing and isolating intake and exhaust piping penetration of wall.

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

Roof Termination Flashing Kit

2 or 3 inch kit contains two neoprene rubber roof flashings for vertical venting through a roof.

Vent pipe and insulation not furnished.

Also available for use with 2 inch (use 3 inch flashing) Concentric Vent Termination Kits used in vertical venting rooftop applications.

8 CONTROLS

Integrated Furnace Control

Contains all necessary controls and relays to operate furnace.

Combustion air inducer is controlled 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.

Integrated furnace control continuously monitors line voltage and maintains the igniter power at a constant level to provide consistent lighting and maximum igniter life.

Flame sensor assures 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 integrated control after one hour of continuous thermostat demand after unit lockout, eliminating nuisance calls for service.

Fan control consists of adjustable blower timed-off delay (60, 90, 120, 180 seconds - factory setting 120 seconds) and fixed blower timed-on delay (30 seconds heating, 2 seconds cooling).

For air-conditioning applications, blower is automatically energized on thermostat demand for cooling.

FEATURES

CONTROLS (continued)

Integrated furnace control has one red LED to indicate status and indicate diagnostic codes. Push button recall of the last 5 diagnostic codes aids in troubleshooting.

Integrated furnace control has built-in twinning capability ("TWIN" terminal on control) to operate two furnaces simultaneously without any additional controls. A field supplied isolation relay is required to operate the twinned (no thermostat connection) furnace.

Two accessory terminals furnished for additional power supply requirements for 120 volt (less than 1 amp) power humidifiers and powered air cleaners.

24 Volt Transformer

Furnished and factory installed in control box. 40VA transformer has fuse 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 or externally on either side of furnace.

Optional Accessories

iComfort® M30 Smart Wi-Fi Thermostat

Wi-Fi-enabled, electronic 7-day, universal, multi-stage, programmable, touchscreen thermostat.

4 Heat/2 Cool.

Auto-changeover.

Dual-fuel control with optional outdoor sensor.

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 4.3 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).

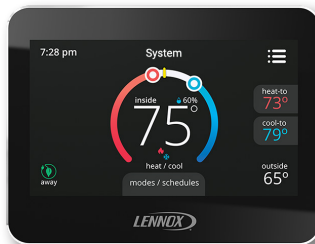
Smooth Setback Recovery starts system early to achieve setpoint at start of program period.

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.



Amazon® Alexa-enabled, smart-home-compatible. It works with Amazon Echo, Echo Dot and Tap devices.

Wi-Fi remote monitoring and adjustment through a home wireless network for desktop PCs, laptops and apps for smartphones or tablets.

See the iComfort® M30 Smart Wi-Fi Thermostat Product Specifications bulletin in the Controls section for more information.

Remote Outdoor Temperature Sensor

Used with the iComfort® M30 Smart Thermostat.

When installed outdoors, sensor allows thermostat to display outdoor temperature. Sensor is auto-detected when connected to thermostat.

NOTE - Sensor is required for the Enhanced Dehumidification Accessory (EDA).



Thermostat

Thermostat (programmable/non-programmable) is not furnished with unit.

See Thermostat bulletins in Controls Section and Lennox Price Book for selection.

Night Service Kit

Contains most commonly used service parts:

- Furnace control
- Igniter
- Flame sensor
- Gas valve
- Transformer
- Service Manual

FEATURES

BLOWER

- 9 Multi-speed direct drive blower.
 - Statically and dynamically balanced.
 - Resiliently mounted.
 - Blower assembly easily removed for servicing.
 - Blower speeds are easily changed on the integrated furnace control. See Blower Data tables.

CABINET

- Low-profile, narrow width cabinet allows easy installation in upflow or horizontal applications.
- 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 cabinet with foil-faced insulation on sides and back of heating compartment.
 - Sealed blower compartment.
 - Complete service access.
 - Safety interlock switch automatically shuts off power to unit when blower compartment access door is removed.
- 11 Gas piping and electrical inlets are provided in both sides of cabinet.

Return Air Entry:

For bottom/end return-air entry for upflow/horizontal applications, remove furnished bottom seal panel from cabinet.

For side return-air entry (upflow applications only), corners are marked on either side of cabinet for return air cut-outs.

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 and meet 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.

Includes 2 or 3 in. sanitary tee, 2 in. PVC assembly, PVC boot and clamp.

Kit for Canada is certified to ULC S636.

Return Air Base

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 in. installed next to the unit and serviced from the front. IAQ products higher than 20 in. require a field fabricated transition.

Must be used for 60C and 60D 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 and is 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.

FEATURES

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 available for field installation.

Rack has filter door for easy filter servicing.

Flanges on rack allow easy duct connection.

See Dimension Drawing.

Air Filter and Rack Kit for Upflow Side Return Air Applications - 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 easy filter servicing.

Flanges on rack allow easy duct connection.

Field installs on either side of unit cabinet. See Dimension Drawing.

SPECIFICATIONS

Gas Heating Performance	Model No.	ML195UH 045XP24B	ML195UH 045XP36B	ML195UH 070XP36B	ML195UH 090XP36C
	AHRI Ref. No.		4805337	4805338	4805339
¹ AFUE		95%	95%	95%	95%
Input - Btuh		44,000	44,000	66,000	88,000
Output - Btuh		41,000	42,000	64,000	85,000
Temperature rise range - °F		35 - 65	25 - 55	40 - 70	40 - 70
Gas Manifold Pressure (in. w.g.) Nat. Gas / LPG/Propane		3.5 / 10.0	3.5 / 10.0	3.5 / 10.0	3.5 / 10.0
High static - in. w.g.		0.5	0.5	0.5	0.5
Connections in.	Intake / Exhaust Pipe (PVC)	2 / 2	2 / 2	2 / 2	2 / 2
	Gas pipe size IPS	1/2	1/2	1/2	1/2
	Condensate Drain Trap (PVC pipe) - i.d.	3/4	3/4	3/4	3/4
	with furnished 90° street elbow with field supplied (PVC coupling) - o.d.	3/4 slip x 3/4 Mipt 3/4 slip x 3/4 MPT	3/4 slip x 3/4 Mipt 3/4 slip x 3/4 MPT	3/4 slip x 3/4 Mipt 3/4 slip x 3/4 MPT	3/4 slip x 3/4 Mipt 3/4 slip x 3/4 MPT
Indoor Blower	Wheel nom. dia. x width - in.	10 x 8	10 x 8	10 x 8	10 x 8
	Motor output - hp	1/5	1/3	1/3	1/3
	Tons of add-on cooling	1.5 - 2	2 - 3	2.5 - 3	2 - 3
	Air Volume Range - cfm	390 - 1140	700 - 1605	650 - 1585	655 - 1630
Electrical Data	Voltage	120 volts - 60 hertz - 1 phase			
	Blower motor full load amps	3.1	6.1	6.1	6.1
	Maximum overcurrent protection	15	15	15	15
Shipping Data	lbs. - 1 package	119	121	127	142

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

Gas Heating Performance	Model No.	ML195UH 090XP48C	ML195UH 090XP60C	ML195UH 110XP48C	ML195UH 110XP60C	ML195UH 135XP60D
	AHRI Ref. No.		4805516	5371997	4805517	4805518
¹ AFUE		95%	95%	95%	95%	95%
Input - Btuh		88,000	88,000	110,000	110,000	132,000
Output - Btuh		85,000	85,000	105,000	106,000	126,000
Temperature rise range - °F		40 - 70	30 - 60	40 - 70	40 - 70	45 - 75
Gas Manifold Pressure (in. w.g.) Nat. Gas / LPG/Propane		3.5 / 10.0	3.5 / 10.0	3.5 / 10.0	3.5 / 10.0	3.5 / 10.0
High static - in. w.g.		0.5	0.5	0.5	0.5	0.5
Connections in.	Intake / Exhaust Pipe (PVC)	2 / 2	2 / 2	2 / 2	2 / 2	2 / 2
	Gas pipe size IPS	1/2	1/2	1/2	1/2	1/2
	Condensate Drain Trap (PVC pipe) - i.d.	3/4	3/4	3/4	1/2	1/2
	with furnished 90° street elbow with field supplied (PVC coupling) - o.d.	3/4 slip x 3/4 Mipt 3/4 slip x 3/4 MPT	3/4 slip x 3/4 Mipt 3/4 slip x 3/4 MPT	3/4 slip x 3/4 Mipt 3/4 slip x 3/4 MPT	3/4 slip x 3/4 Mipt 3/4 slip x 3/4 MPT	3/4 slip x 3/4 Mipt 3/4 slip x 3/4 MPT
Indoor Blower	Wheel nom. dia. x width - in.	10 x 10	11-1/2 x 10	10 x 10	11-1/2 x 10	11-1/2 x 10
	Motor output - hp	1/2	1	1/2	1	1
	Tons of add-on cooling	3 - 4	4 - 5	3 - 4	4 - 5	4 - 5
	Air Volume Range - cfm	900 - 2140	1290 - 2445	715 - 2000	1235 - 2485	1135 - 2595
Electrical Data	Voltage	120 volts - 60 hertz - 1 phase				
	Blower motor full load amps	8.2	11.5	8.2	11.5	11.5
	Maximum overcurrent protection	15	15	15	15	15
Shipping Data	lbs. - 1 package	147	152	159	164	177

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						
iComfort® M30 Smart Wi-Fi Thermostat			15Z69	15Z69	15Z69	
Remote Outdoor Air Temperature Sensor			X2658	X2658	X2658	
Night Service Kit			68W80	68W80	68W80	
FILTER KITS						
1 Air Filter and Rack Kit	Horizontal (end)	Size of filter - in.	87L96 - 18 x 25 x 1	87L97 - 20 x 25 x 1	87L98 - 25 x 25 x 1	
		Side Return	Single	44J22	44J22	44J22
	Side Return		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.						
Termination Kits - Direct Vent Applications Only	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		
Termination Kits - Direct or Non-Direct vent	Roof	2 in.	15F75	15F75	---	
	Wall Ring Kit	2 in.	15F74	³ 15F74	---	
2 Roof Termination Flashing Kit - Direct or Non-Direct Vent (2 flashings)		2 in.	44J41	44J41	44J41	
VENTING						
Flue Coupling		2 in.	17H92	17H92	17H92	

¹ Cleanable polyurethane frame type filter.

² Kits contain enough parts for two, non-direct vent installations.

³ Non-direct vent only.

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	¹ 36K Derate Kit (Natural Gas)	Muffler (US Only)
	4501 - 7500 ft.	7501 - 10,000 ft.	0 - 7500 ft.	0 - 7500 ft.	7501 - 10,000 ft.	7501 - 10,000 ft.	0 - 10,000 ft.	
045	No Change	11U65	11K49	73W81	73W37	11K44	10K55	15Y66 (2-inch)
070	11U71	11U64	11K49	73W81	73W37	11K44	---	15Y66 (2-inch)
090	11U70	11U64	11K49	73W81	73W37	11K44	---	15Y66 (2-inch)
110	11U71	11U64	11K49	73W81	73W37	11K44	---	² 15Y66 (2-inch) 16A56 (3-inch)
135	11U70	11U64	11K49	73W81	73W37	11K44	---	16A56 (3-inch)

¹ NOTE - 36K Derate Kit information - Reduced Input is 36,000 Btuh, output is 34,200 Btuh.

² 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.

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.		
All Sizes	Natural	3.5	3.3	3.2	3.1	3.5	4.5	13.0
	LPG/Propane	10.0	9.4	9.1	8.9	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		Wall Ring Kit	Field Fabricated Exhaust Accelerator Size Required	Concentric Kit		
			2 inch	3 inch	2 inch		1-1/2 inch	2 inch	3 inch
		51W11 (US) 4 51W12 (CA)	22G44 (US) 4 30G28 (CA)	44J40 (US) 4 81J20 (CA)	15F74		71M80 (US) 4 44W92 (CA)	69M29 (US) 4 44W92 (CA)	60L46 (US) 4 44W93 (CA)
045	2	³ YES	YES	¹ YES	YES	1-1/2 in.	² YES	---	---
	2-1/2	³ YES	YES	¹ YES	YES	1-1/2 in.	² YES	---	---
	3	³ YES	YES	¹ YES	YES	1-1/2 in.	² YES	---	---
070	2	³ YES	YES	¹ YES	YES	1-1/2 in.	² YES	---	---
	2-1/2	³ YES	YES	¹ YES	YES	1-1/2 in.	² YES	---	---
	3	³ YES	YES	¹ YES	YES	1-1/2 in.	² YES	---	---
090	2	³ YES	---	YES	¹ YES	2 in.	---	YES	YES
	2-1/2	³ YES	---	YES	¹ YES	2 in.	---	YES	YES
	3	³ YES	---	YES	¹ YES	2 in.	---	YES	YES
110	2	YES	---	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 Requires field provided 1-1/2 in. outdoor exhaust accelerator.

² 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.

³ 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.

⁴ Termination Kits **30G28**, **44W92**, **44W93**, **51W12** and **81J20** are certified to ULC S636 standard for use in Canada only.

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.

VENT LENGTHS

STANDARD TERMINATION AT ELEVATION 0 - 4500 ft.

Pipe Size	2 in.					2-1/2 in.					3 in.					
	Input	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135
No. of 90 ELL	1	81	66	44	24	N/A	115	115	93	58	N/A	138	137	118	118	89
	2	76	61	39	19	N/A	110	110	88	53	N/A	133	132	113	113	84
	3	71	56	34	14	N/A	105	105	83	48	N/A	128	127	108	108	79
	4	66	51	29	N/A	N/A	100	100	78	43	N/A	123	122	103	103	74
	5	61	46	24	N/A	N/A	95	95	73	38	N/A	118	117	98	98	69
	6	56	41	19	N/A	N/A	90	90	68	33	N/A	113	112	93	93	64
	7	51	36	14	N/A	N/A	85	85	63	28	N/A	108	107	88	88	59
	8	46	31	N/A	N/A	N/A	80	80	58	23	N/A	103	102	83	83	54
	9	41	26	N/A	N/A	N/A	75	75	53	18	N/A	98	97	78	78	49
	10	36	21	N/A	N/A	N/A	70	70	48	13	N/A	93	92	73	73	44

STANDARD TERMINATION ELEVATION 4501 - 10,000 ft.

Pipe Size	2 in.					2-1/2 in.					3 in.					
	Input	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135
No. of 90 ELL	1	81	66	44	N/A	N/A	115	115	93	58	N/A	138	137	118	118	89
	2	76	61	39	N/A	N/A	110	110	88	53	N/A	133	132	113	113	84
	3	71	56	34	N/A	N/A	105	105	83	48	N/A	128	127	108	108	79
	4	66	51	29	N/A	N/A	100	100	78	43	N/A	123	122	103	103	74
	5	61	46	24	N/A	N/A	95	95	73	38	N/A	118	117	98	98	69
	6	56	41	19	N/A	N/A	90	90	68	33	N/A	113	112	93	93	64
	7	51	36	14	N/A	N/A	85	85	63	28	N/A	108	107	88	88	59
	8	46	31	N/A	N/A	N/A	80	80	58	23	N/A	103	102	83	83	54
	9	41	26	N/A	N/A	N/A	75	75	53	18	N/A	98	97	78	78	49
	10	36	21	N/A	N/A	N/A	70	70	48	13	N/A	93	92	73	73	44

CONCENTRIC TERMINATION AT ELEVATION 0 - 4500 ft.

Pipe Size	2 in.					2-1/2 in.					3 in.					
	Input	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135
No. of 90 ELL	1	73	58	42	22	N/A	105	105	89	54	N/A	121	121	114	114	80
	2	68	53	37	17	N/A	100	100	84	49	N/A	116	116	109	109	75
	3	63	48	32	12	N/A	95	95	79	44	N/A	111	111	104	104	70
	4	58	43	27	N/A	N/A	90	90	74	39	N/A	106	106	99	99	65
	5	53	38	22	N/A	N/A	85	85	69	34	N/A	101	101	94	94	60
	6	48	33	17	N/A	N/A	80	80	64	29	N/A	96	96	89	89	55
	7	43	28	12	N/A	N/A	75	75	59	24	N/A	91	91	84	84	50
	8	38	23	N/A	N/A	N/A	70	70	54	19	N/A	86	86	79	79	45
	9	33	18	N/A	N/A	N/A	65	65	49	14	N/A	81	81	74	74	40
	10	28	13	N/A	N/A	N/A	60	60	44	N/A	N/A	76	76	69	69	35

CONCENTRIC TERMINATION ELEVATION 4501 - 10,000 ft.

Pipe Size	2 in.					2-1/2 in.					3 in.					
	Input	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135
No. of 90 ELL	1	73	58	42	N/A	N/A	105	105	89	54	N/A	121	121	114	114	80
	2	68	53	37	N/A	N/A	100	100	84	49	N/A	116	116	109	109	75
	3	63	48	32	N/A	N/A	95	95	79	44	N/A	111	111	104	104	70
	4	58	43	27	N/A	N/A	90	90	74	39	N/A	106	106	99	99	65
	5	53	38	22	N/A	N/A	85	85	69	34	N/A	101	101	94	94	60
	6	48	33	17	N/A	N/A	80	80	64	29	N/A	96	96	89	89	55
	7	43	28	12	N/A	N/A	75	75	59	24	N/A	91	91	84	84	50
	8	38	23	N/A	N/A	N/A	70	70	54	19	N/A	86	86	79	79	45
	9	33	18	N/A	N/A	N/A	65	65	49	14	N/A	81	81	74	74	40
	10	28	13	N/A	N/A	N/A	60	60	44	N/A	N/A	76	76	69	69	35

VENT LENGTHS - UNINSULATED EXHAUST PIPE IN UNCONDITIONED SPACE

1 Winter Design Temperatures	Vent Pipe Diameter	Unit Input Size									
		045		070		090		110		135	
		Maximum Un-Insulated Exhaust Vent Length (ft.)									
		PVC	PolyPro InnoFlue	PVC	PolyPro InnoFlue	PVC	PolyPro InnoFlue	PVC	PolyPro InnoFlue	PVC	PolyPro InnoFlue
32 to 21°F	2 in.	18	16	31	28	50	48	30	30	N/A	N/A
	2-1/2 in.	13	N/A	24	N/A	42	N/A	56	N/A	N/A	N/A
	3 in.	9	9	18	18	35	35	47	47	52	52
20 to 1°F	2 in.	9	8	18	16	32	29	30	30	N/A	N/A
	2-1/2 in.	5	N/A	13	N/A	24	N/A	34	N/A	N/A	N/A
	3 in.	N/A	N/A	8	8	19	19	26	26	30	30
0 to -20°F	2 in.	5	N/A	12	10	22	19	30	27	N/A	N/A
	2-1/2 in.	N/A	N/A	7	N/A	15	N/A	22	N/A	N/A	N/A
	3 in.	N/A	N/A	N/A	N/A	10	10	16	16	18	18

NOTE - Concentric terminations are equivalent to 5 ft. of straight pipe and should be included when measuring total pipe length.

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

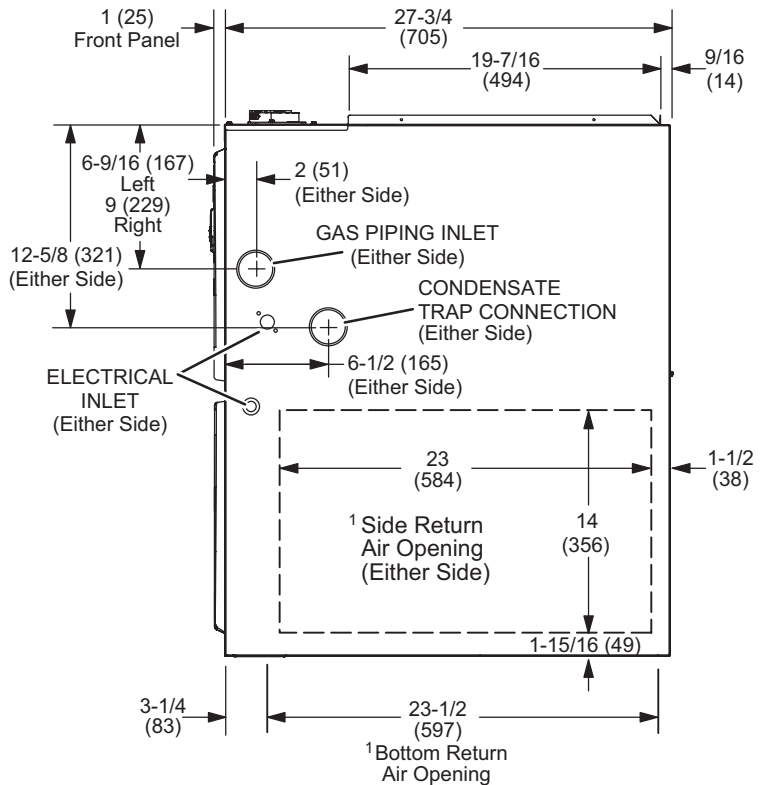
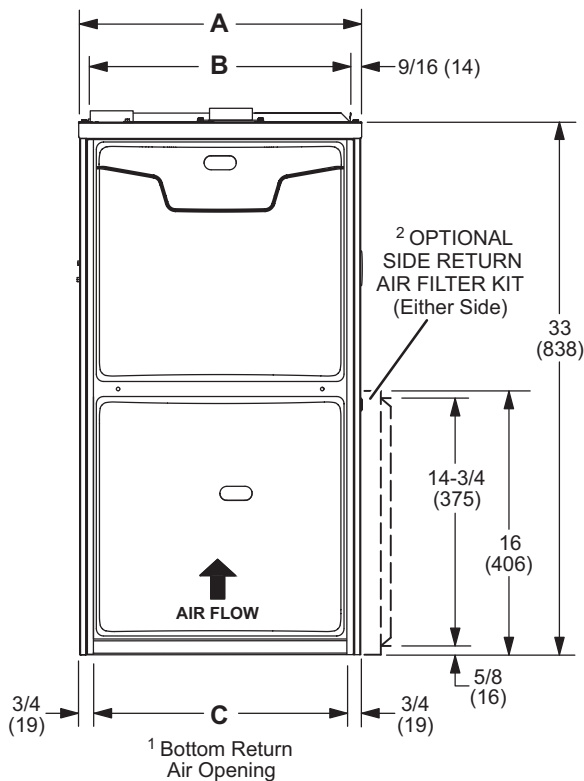
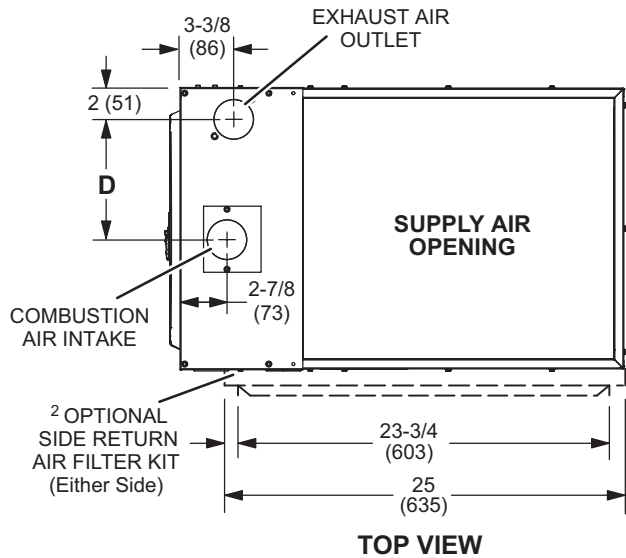
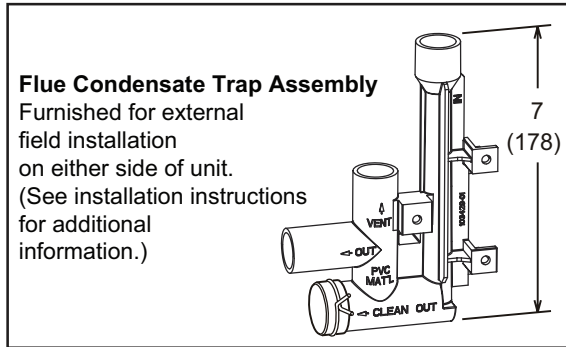
PolyPro® poly-propylene vent pipe is a registered trademark of DuraVent®.

InnoFlue® is a registered trademark of Centrotherm Eco Systems.

DIMENSIONS - UPFLOW POSITION

- 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.

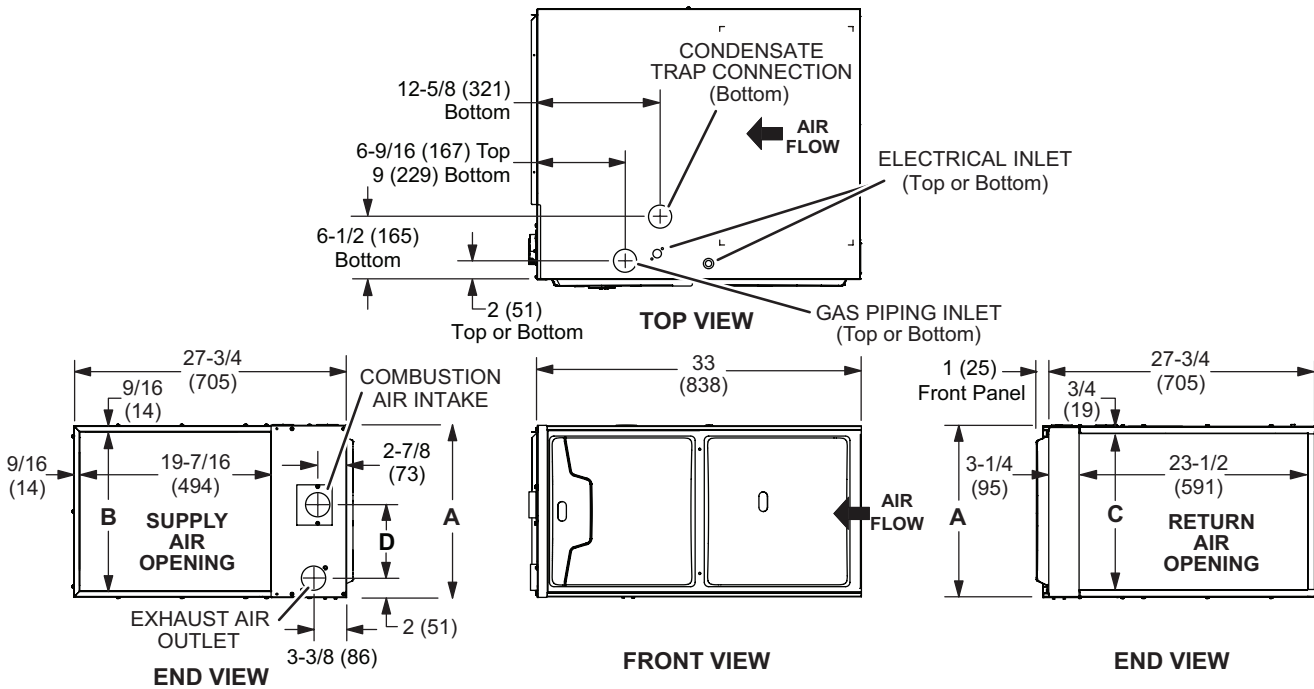
- ² Optional Side Return Air Filter Kit is not for use with the Optional Return Air Base.



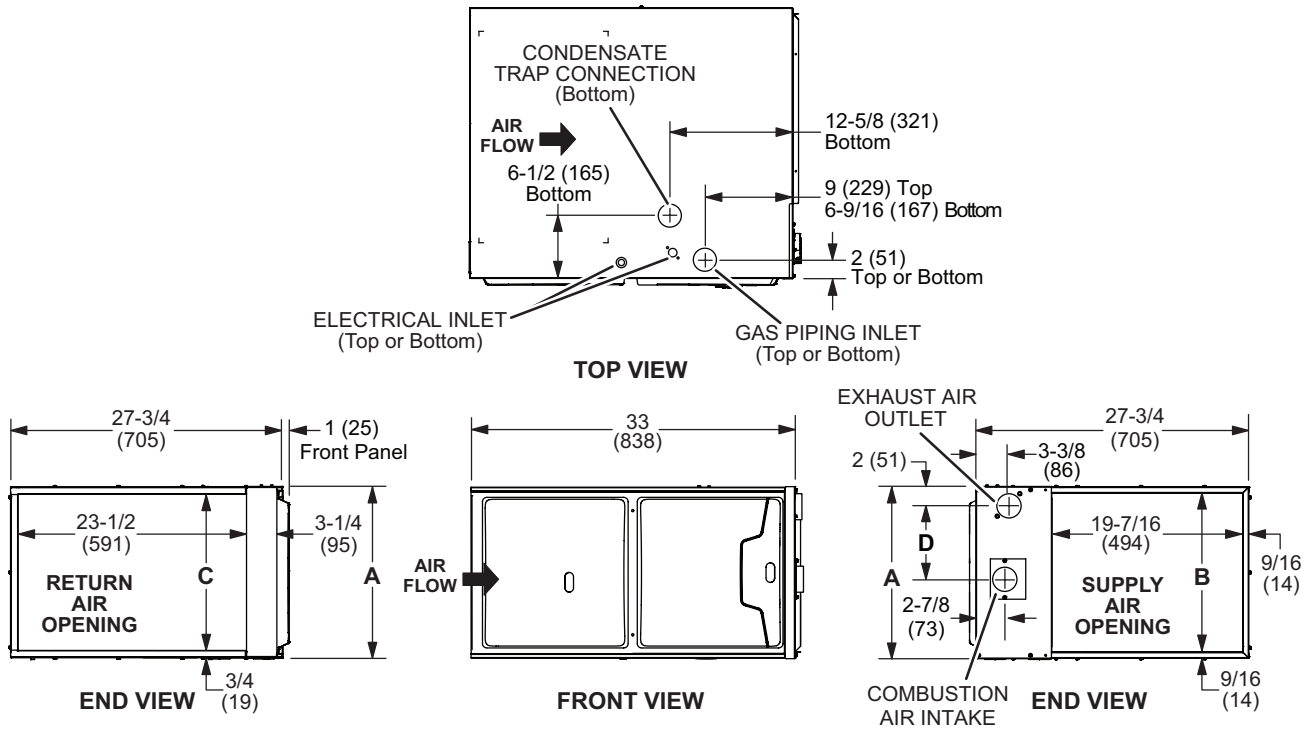
Model No.	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
ML195UH045XP24B ML195UH045XP36B ML195UH070XP36B	17-1/2	446	16-3/8	416	16	406	7-5/8	194
ML195UH090XP36C ML195UH090XP48C ML195UH090XP60C ML195UH110XP48C ML195UH110XP60C	21	533	19-7/8	505	19-1/2	495	9-3/8	238
ML195UH135XP60D	24-1/2	622	23-3/8	594	23	584	9-3/4	248

DIMENSIONS - HORIZONTAL POSITION

LEFT-HAND AIR DISCHARGE



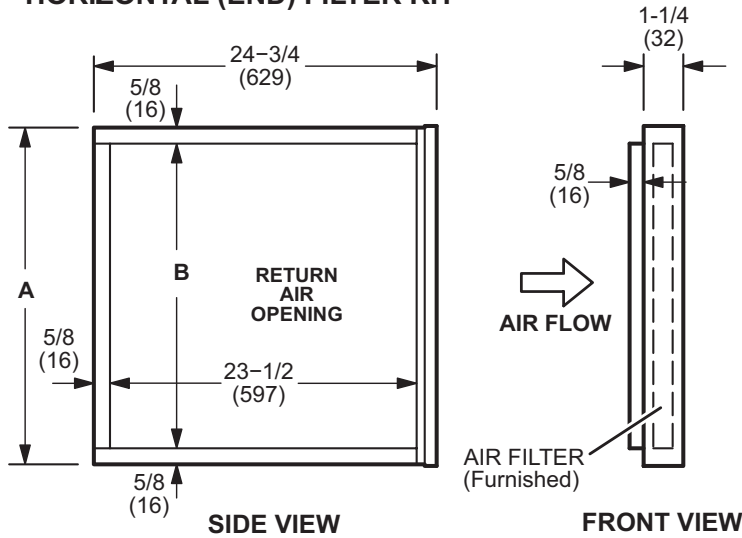
RIGHT-HAND AIR DISCHARGE



Model No.	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
ML195UH045XP24B								
ML195UH045XP36B	17-1/2	446	16-3/8	416	16	406	7-5/8	194
ML195UH070XP36B								
ML195UH090XP36C								
ML195UH090XP48C								
ML195UH090XP60C	21	533	19-7/8	505	19-1/2	495	9-3/8	238
ML195UH110XP48C								
ML195UH110XP60C								
ML195UH135XP60D	24-1/2	622	23-3/8	594	23	584	9-3/4	248

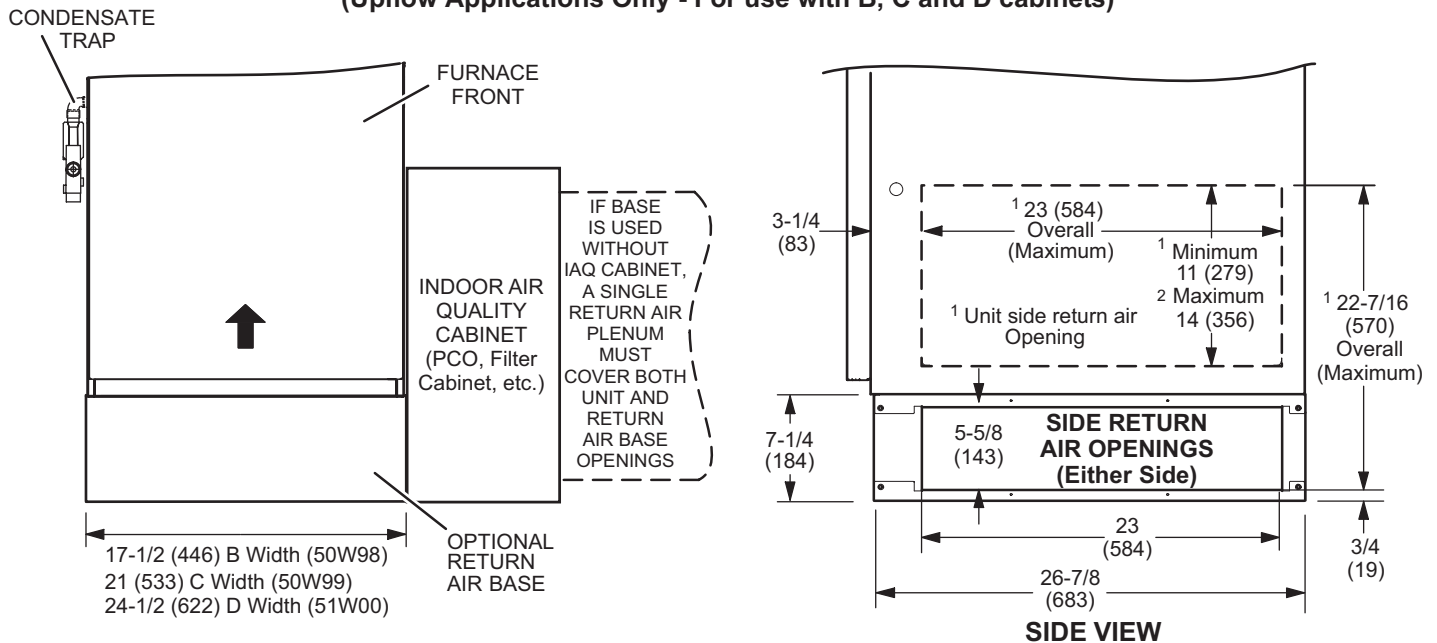
OPTIONAL ACCESSORY DIMENSIONS

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.

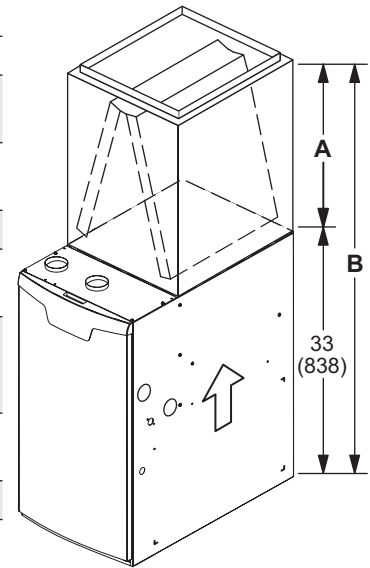
¹ Both the unit return air opening and the base return air opening must be covered by a single plenum or IAQ cabinet. Minimum unit side return air opening dimensions for units requiring 1800 cfm or more of air (W x H): 23 x 11 in. (584 x 279 mm). The opening can be cut as needed to accommodate plenum 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.

DIMENSIONS - FURNACE/COIL COMBINED DIMENSIONS

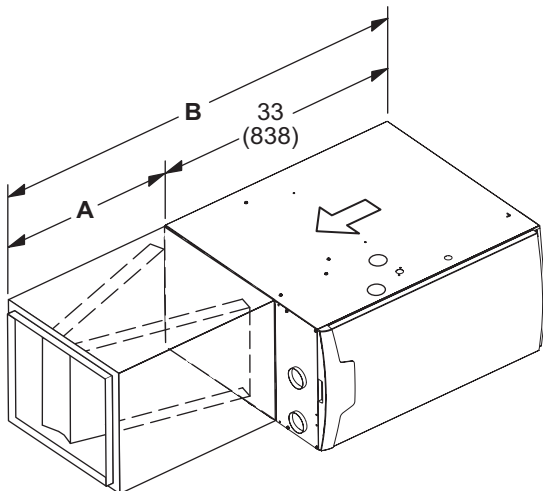
UPFLOW POSITION

Model No			C35/C37/CX35/CX38 Cased				C35 Uncased			
			A		B		A		B	
C35/CX35	C37	CX38	in.	mm	in.	mm	in.	mm	in.	mm
C35/CX35-18/24A C35/CX35-18/24B	---	---	16-1/2	419	49-1/2	1257	14-1/8	359	47-1/8	1197
C35/CX35-24A C35/CX35-24B	C37-25A C37-25B	CX38-25A CX38-25B	18-1/2	470	51-1/2	1308	16-3/8	416	49-3/8	1254
---	---	CX38-30A	20-1/2	521	53-1/2	1359	---	---	---	---
C35/CX35-30A C35/CX35-30B	C37-31A C37-31B	CX38-31A CX38-31B	22-1/2	572	55-1/2	1410	20-3/4	527	53-3/4	1365
C35/CX35-30/36A C35/CX35-30/36B C35/CX35-30/36C	C37-36A C37-36B C37-36C	CX38-36A CX38-36B CX38-36C	24-1/2	622	57-1/2	1461	22-1/4	565	55-1/4	1403
C35/CX35-36A C35/CX35-36B	C37-38A C37-38B	CX38-38A CX38-38B	24-1/2	622	57-1/2	1461	22-3/8	568	55-3/8	1407
---	C37-42B	CX38-42B	24-1/2	622	57-1/2	1461	---	---	---	---
C35/CX35-48B C35/CX35-48C	C37-43B C37-43C	CX38-43B CX38-43C	27-1/2	699	60-1/2	1537	26-1/4	667	59-1/4	1505
---	C37-48B C37-48C	CX38-44/48B CX38-44/48C	24-1/2	622	57-1/2	1461	---	---	---	---
C35/CX35-49C	C37-49C	CX38-49C	29-1/2	749	62-1/2	1588	28-1/2	724	61-1/2	1562
C35/CX35-50/60C	C37-50/60C	CX38-50/60C	27-1/2	699	60-1/2	1537	25-7/8	657	58-7/8	1495
---	C37-60D	CX38-60D	25-1/2	648	58-1/2	1486	---	---	---	---
CX35-60C	C37-62C	CX38-62C	31-1/2	800	64-1/2	1638	30-5/8	778	63-5/8	1616
CX35-60D	C37-62D	CX38-62D	29-1/2	749	62-1/2	1588	28	711	61	1549



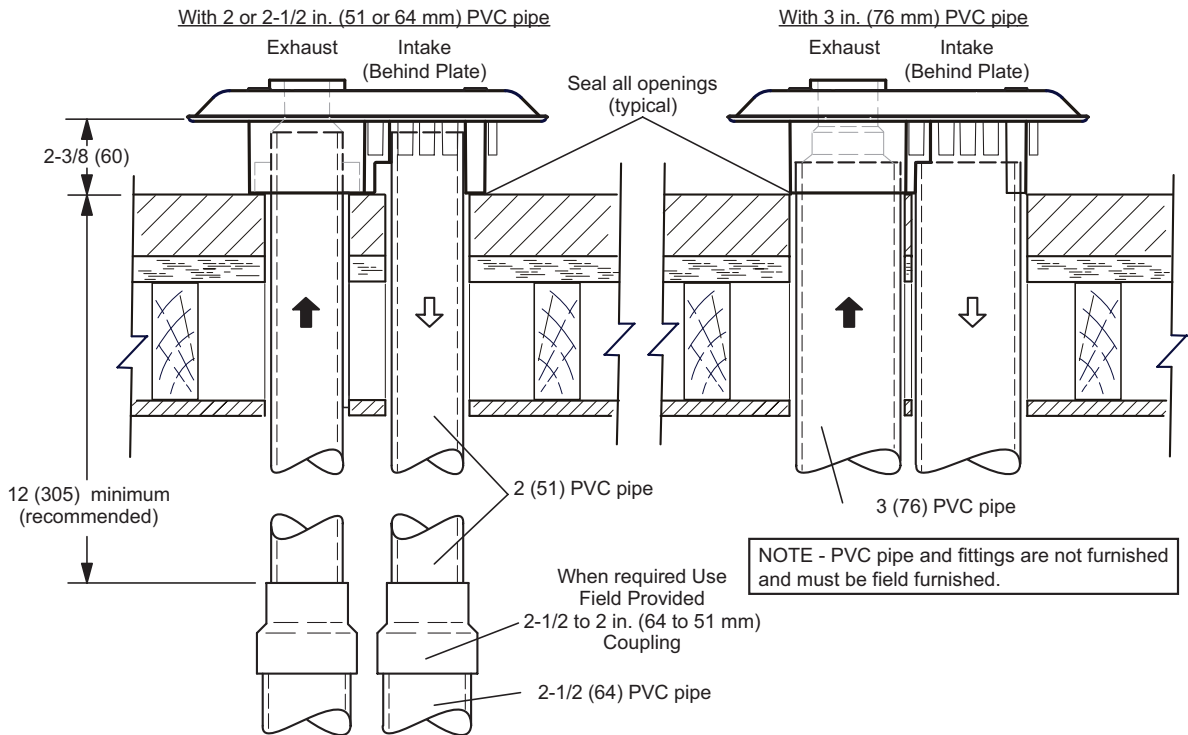
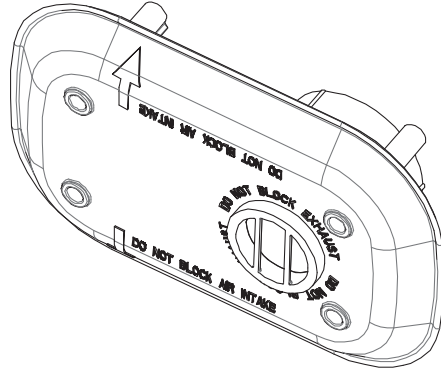
HORIZONTAL POSITION

Model Number	A		B	
	in.	mm	in.	mm
CH33				
CH33-18A-2F	21-1/2	546	54-1/2	1384
CH33-24/30A-2F, CH33-42B-2F, CH33-36A-2F, CH33-48C-2F, CH33-36B-2F, CH33-60D-2F CH33-36C-2F,	26-1/2	673	59-1/2	1511
CH33-44/48B-2F, CH33-62D-2F CH33-50/60C-2F,	31-1/2	800	64-1/2	1638
CH35				
CH35-18A-2F, CH35-36A-2F, CH35-24A-2F, CH35-36B-2F, CH35-24B-2F, CH35-36C-2F, CH35-30B-2F, CH35-42C-2F, CH35-48C-2F	26-1/2	673	59-1/2	1511
CH35-30A-2F, CH35-51C-2F, CH35-42B-2F, CH35-60D-2F CH35-48B-2F,	31-1/2	880	64-1/2	1638



OPTIONAL ACCESSORY DIMENSIONS

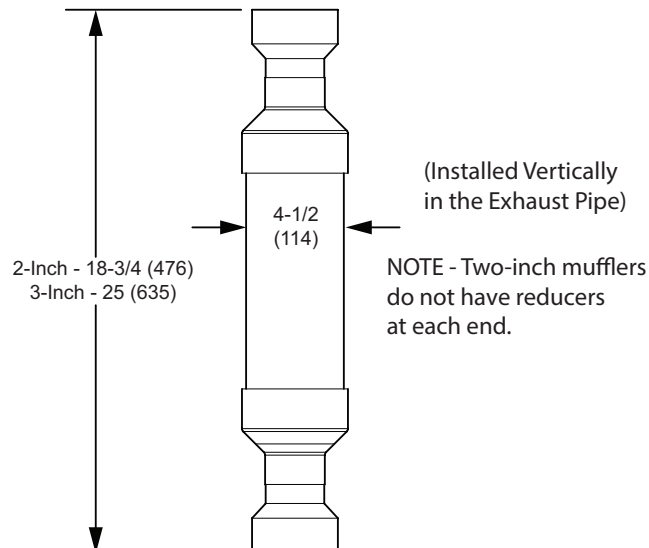
FLUSH-MOUNT VENT TERMINATION KIT 51W11 (US) or 51W12 (CANADA)



MUFFLERS

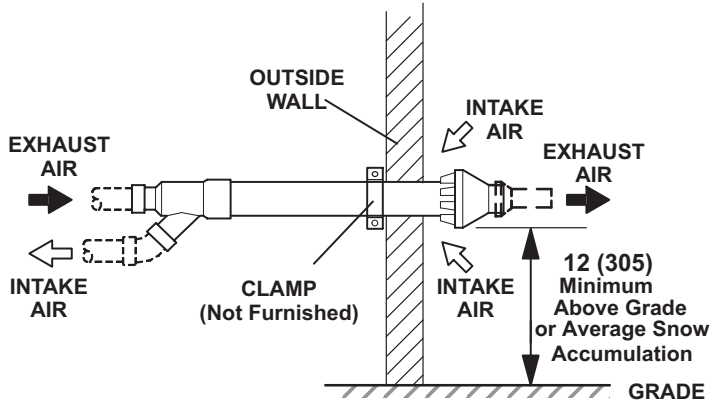
15Y66 - 2-inch

16A56 - 3-inch

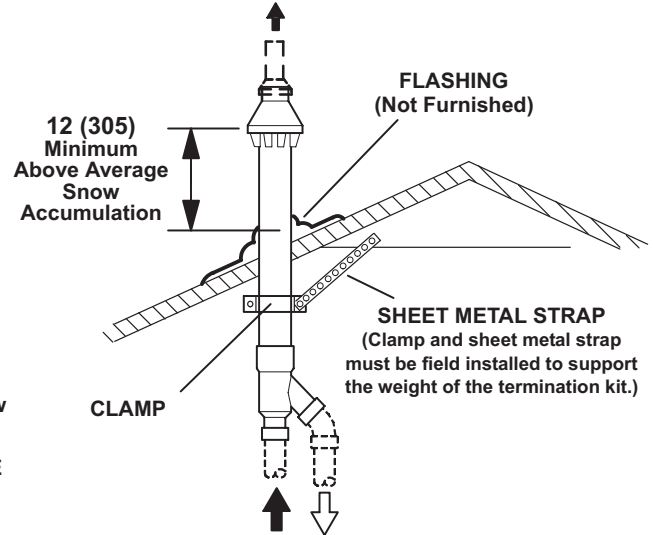


OPTIONAL ACCESSORY DIMENSIONS

CONCENTRIC WALL TERMINATION APPLICATIONS



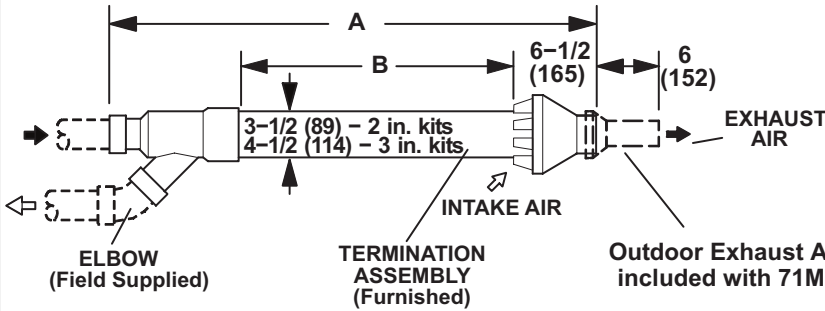
CONCENTRIC ROOF TERMINATION APPLICATIONS



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 larger vent pipe size 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

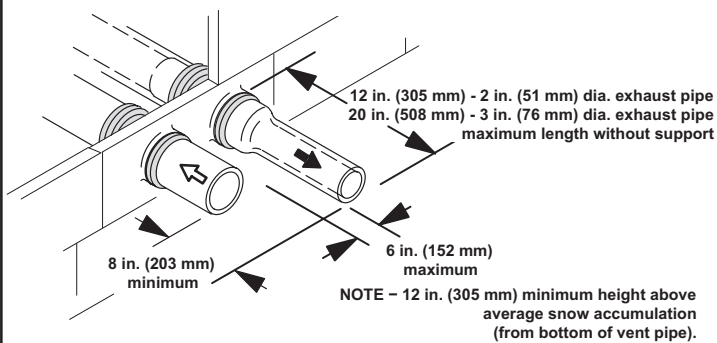
NOTE - Typical illustration for dimensions only. Design may vary depending on kit ordered.

WALL ASSEMBLY TERMINATION KIT – RING KIT 15F74 – 2 inch (51 mm)

See Installation Instructions for additional information.

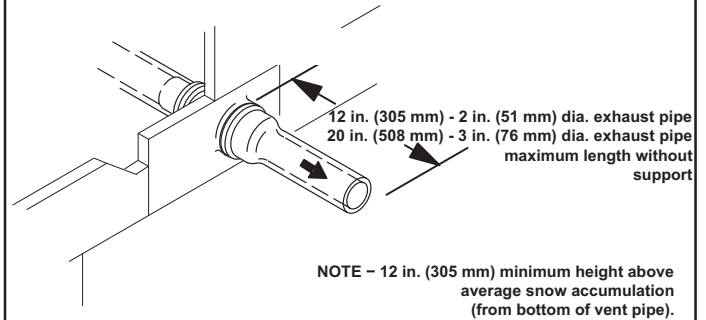
Note - Field provided reducer may be required to adapt larger vent pipe size to termination.

DIRECT VENT APPLICATION



NON-DIRECT VENT APPLICATION

NOTE - EXHAUST PIPE SHOWN
Kit Contains Enough Parts For Two Installations



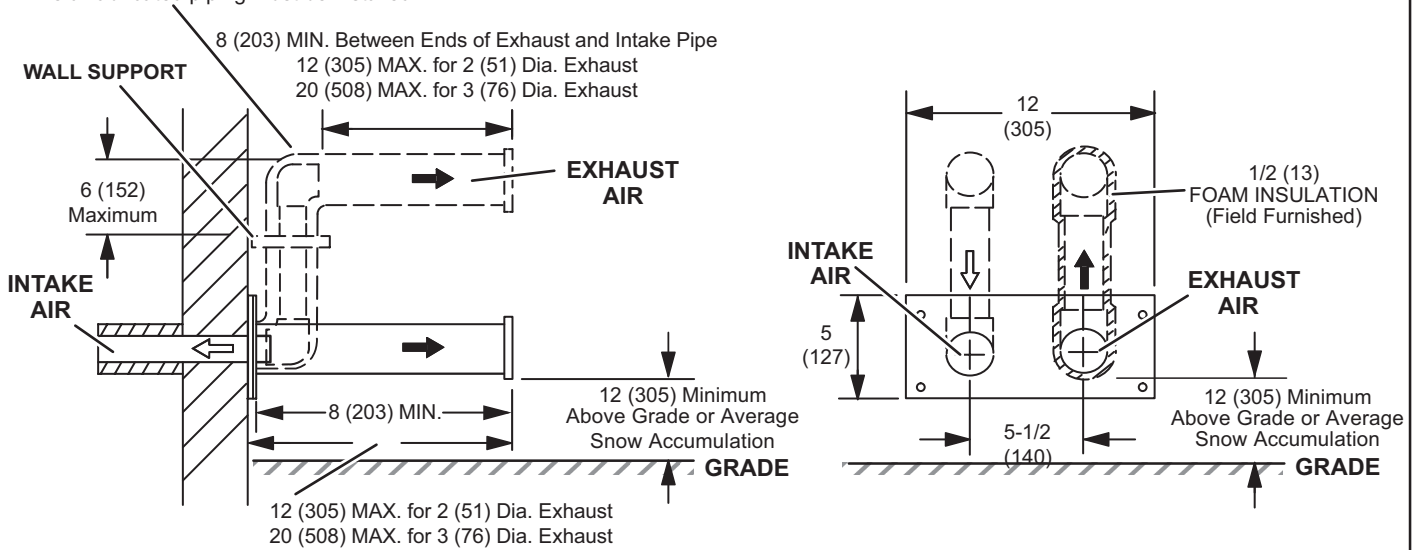
OPTIONAL ACCESSORY DIMENSIONS

**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 larger vent pipe size 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.

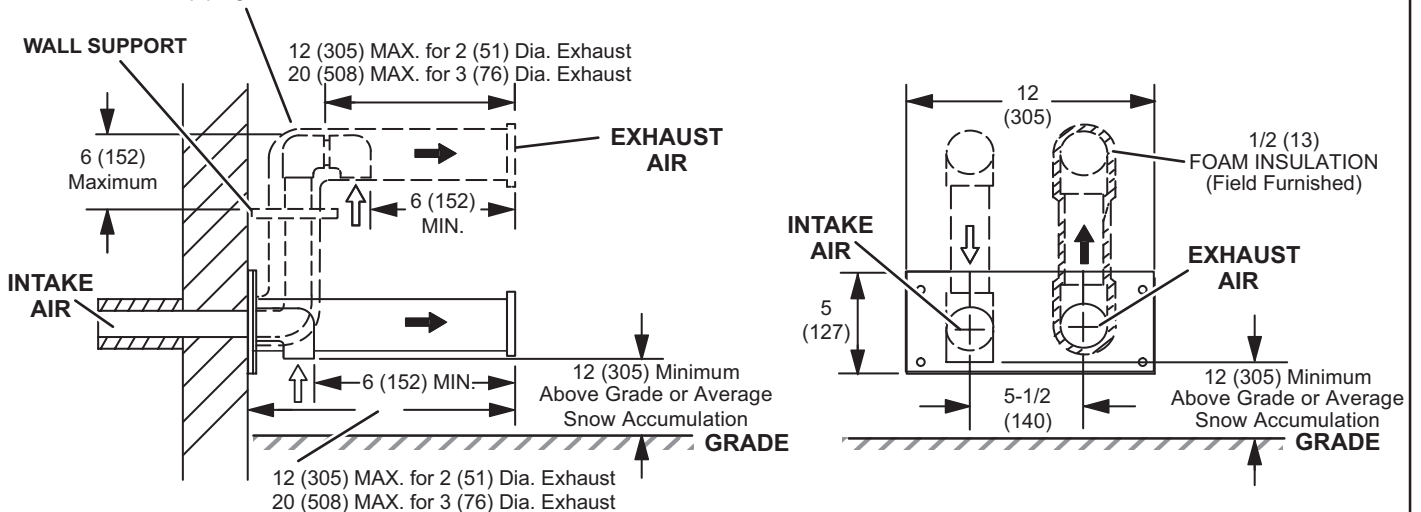


**WALL TERMINATION KITS (CLOSE-COUPLE)
EXTENDED VENT FOR GRADE CLEARANCE
2 inch (51 mm) 30G28 (WTK Canada)
3 inch (76 mm) 81J20 (WTK Canada)**

See Installation Instructions for additional information.

Note - Field provided reducer may be required to adapt larger vent pipe size 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

ML195UH045XP24B PERFORMANCE (Less Filter)

External Static Pressure in. w.g.	Air Volume / Watts at Various Blower Speeds							
	High		Medium-High		Medium-Low		Low	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.00	1140	455	920	365	765	295	710	265
0.10	1135	445	900	360	765	290	690	255
0.20	1125	430	895	350	755	285	680	255
0.30	1090	415	870	340	725	280	660	250
0.40	1065	405	870	325	715	270	635	245
0.50	1020	390	825	315	675	260	605	235
0.60	945	365	780	300	640	250	555	225
0.70	910	350	740	295	585	240	505	220
0.80	790	325	670	275	510	225	455	205
0.90	735	310	575	255	460	220	390	195

ML195UH090XP36C PERFORMANCE (Less Filter)

External Static Pressure in. w.g.	Air Volume / Watts at Various Blower Speeds							
	High		Medium-High		Medium-Low		Low	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.00	1630	715	1345	590	1090	475	885	385
0.10	1615	700	1320	580	1070	465	890	380
0.20	1580	675	1305	570	1070	455	890	370
0.30	1525	620	1295	535	1060	435	890	360
0.40	1480	615	1275	515	1055	430	885	350
0.50	1415	565	1220	485	1030	410	860	330
0.60	1350	535	1175	450	1005	390	835	310
0.70	1260	505	1115	415	955	360	785	290
0.80	1190	480	1010	380	880	325	740	285
0.90	1060	435	930	360	795	295	655	250

ML195UH045XP36B PERFORMANCE (Less Filter)

External Static Pressure in. w.g.	Air Volume / Watts at Various Blower Speeds							
	High		Medium-High		Medium-Low		Low	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.00	1605	700	1370	590	1160	475	1010	400
0.10	1600	680	1355	565	1155	465	1015	390
0.20	1550	645	1330	540	1150	445	1000	380
0.30	1480	620	1295	520	1140	430	975	365
0.40	1425	590	1280	490	1105	415	975	345
0.50	1355	565	1190	460	1085	395	940	335
0.60	1320	545	1165	435	1030	380	900	315
0.70	1225	500	1110	425	980	355	855	310
0.80	1135	480	1050	395	920	330	780	280
0.90	1025	445	950	360	795	295	700	255

ML195UH090XP48C PERFORMANCE (Less Filter)

External Static Pressure in. w.g.	Air Volume / Watts at Various Blower Speeds							
	High		Medium-High		Medium-Low		Low	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.00	2140	880	1895	780	1590	645	1350	550
0.10	2110	850	1880	760	1585	635	1360	545
0.20	2060	810	1840	725	1580	620	1360	520
0.30	1990	765	1805	690	1550	585	1365	500
0.40	1925	750	1755	655	1510	545	1330	470
0.50	1830	700	1675	610	1460	525	1285	450
0.60	1720	645	1610	575	1390	480	1230	415
0.70	1600	615	1520	535	1300	465	1165	390
0.80	1455	560	1410	500	1200	430	1035	365
0.90	1300	515	1305	465	1100	390	901	320

ML195UH090XP60C 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 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		Medium-High		Medium-Low		Low		High		Medium-High		Medium-Low		Low	
cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	
0.00	2445	1290	2235	1000	1875	840	1495	660	2445	1355	2180	1020	1785	850	1400	665
0.10	2430	1270	2220	985	1860	830	1500	650	2425	1335	2160	1010	1775	840	1405	655
0.20	2370	1260	2170	960	1875	805	1515	645	2390	1310	2135	985	1790	825	1435	645
0.30	2290	1220	2110	935	1855	785	1545	640	2305	1270	2080	960	1805	805	1455	640
0.40	2200	1190	2055	900	1835	765	1560	625	2230	1240	2015	925	1775	780	1460	630
0.50	2095	1155	1970	865	1785	735	1520	610	2150	1215	1965	900	1745	755	1460	620
0.60	2010	1145	1920	850	1725	715	1495	600	2055	1170	1890	865	1695	730	1440	605
0.70	1960	1120	1835	815	1655	690	1455	575	1955	1145	1805	840	1640	705	1415	590
0.80	1845	1080	1720	785	1570	665	1390	550	1825	1095	1705	815	1565	675	1360	565
0.90	1725	1040	1620	755	1490	645	1305	530	1715	1065	1590	775	1470	645	1290	540

BLOWER DATA

ML195UH070XP36B PERFORMANCE (Less Filter)

External Static Pressure in. w.g.	Air Volume / Watts at Various Blower Speeds							
	High		Medium-High		Medium-Low		Low	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.00	1585	685	1340	585	1095	480	880	380
0.10	1560	665	1320	565	1085	470	885	375
0.20	1515	630	1300	540	1080	460	880	370
0.30	1465	590	1275	520	1065	440	890	360
0.40	1410	570	1235	490	1050	420	875	350
0.50	1345	540	1195	470	1020	400	840	335
0.60	1275	510	1140	440	975	365	830	315
0.70	1195	485	1090	410	930	355	780	290
0.80	1105	460	995	380	850	325	730	275
0.90	985	420	890	345	770	300	650	255

ML195UH110XP48C PERFORMANCE (Less Filter)

External Static Pressure in. w.g.	Air Volume / Watts at Various Blower Speeds							
	High		Medium-High		Medium-Low		Low	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.00	2000	910	1675	765	1360	635	1185	525
0.10	1980	895	1650	745	1370	610	1180	505
0.20	1935	855	1600	710	1400	590	1170	485
0.30	1875	830	1560	680	1370	570	1160	490
0.40	1800	785	1490	655	1325	545	1120	455
0.50	1725	720	1400	610	1295	515	1080	435
0.60	1630	685	1335	585	1185	480	1030	410
0.70	1530	665	1290	525	1100	435	940	385
0.80	1410	610	1190	485	985	400	790	365
0.90	1245	560	1000	430	925	380	715	315

ML195UH110XP60C 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 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		Medium-High		Medium-Low		Low		High		Medium-High		Medium-Low		Low	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.00	2485	1515	2090	1070	1835	865	1380	660	2400	1475	2100	1075	1755	870	1320	655
0.10	2460	1475	2075	1040	1810	835	1390	650	2370	1440	2090	1060	1735	850	1330	645
0.20	2405	1445	2040	995	1790	820	1405	650	2320	1405	2060	1050	1720	835	1340	650
0.30	2335	1375	1990	980	1760	790	1460	635	2235	1350	2040	1030	1725	825	1350	645
0.40	2215	1355	1935	940	1740	775	1410	630	2165	1330	1975	970	1700	815	1330	632
0.50	2185	1310	1865	895	1680	750	1410	625	2040	1290	1920	945	1700	790	1325	620
0.60	2060	1270	1805	870	1630	720	1405	610	1960	1260	1845	910	1635	770	1340	620
0.70	1945	1235	1700	840	1605	700	1380	590	1865	1215	1750	890	1575	730	1295	600
0.80	1845	1210	1605	810	1505	670	1305	570	1715	1175	1590	840	1505	710	1280	590
0.90	1730	1150	1570	790	1470	660	1250	540	1630	1135	1490	685	1460	685	1235	565

ML195UH135XP60D 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 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		Medium-High		Medium-Low		Low		High		Medium-High		Medium-Low		Low	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.00	2595	1515	2245	2015	1780	890	1365	700	2540	1500	2185	1095	1715	880	1350	700
0.10	2570	1490	2235	1095	1765	875	1370	665	2525	1480	2165	1085	1725	870	1335	675
0.20	2440	1465	2135	1075	1745	865	1395	660	2440	1445	2120	1090	1725	865	1345	675
0.30	2340	1405	2075	1060	1755	845	1365	660	2345	1400	2060	1060	1715	850	1345	670
0.40	2255	1370	1995	1005	1680	825	1370	660	2220	1345	1955	1015	1685	820	1370	660
0.50	2095	1320	1915	960	1650	805	1335	650	2100	1310	1895	985	1620	805	1320	650
0.60	1995	1270	1840	935	1595	775	1320	630	2005	1285	1780	945	1605	790	1285	635
0.70	1900	1225	1755	905	1540	755	1270	615	1845	1235	1700	910	1510	740	1225	610
0.80	1740	1180	1650	875	1430	725	1190	590	1745	1185	1645	880	1450	720	1175	595
0.90	1580	1140	1535	840	1350	695	1145	570	1655	1160	1545	840	1380	705	1135	575

REVISIONS

Sections	Description of Change
Controls	Added iComfort® M30 Smart Thermostat and Remote Outdoor Temperature Sensor.
Optional Accessories	Added Flue Coupling.



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