

# GAS UNITS KITS & ACCESSORIES

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Supersedes 02/2011

## FLUSH-MOUNT VENT TERMINATION KIT

### INSTALLATION INSTRUCTIONS FOR FLUSH-MOUNT VENT TERMINATION KIT (51W11 USED WITH GAS FURNACES

#### **⚠ WARNING**

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a licensed professional installer (or equivalent), service agency or the gas supplier.

#### Shipping and Packing List

##### Package 1 of 1 contains:

- 1 - Flush mount termination
- 1 - 1-1/2" accelerator
- 1 - Template
- 4 - #10 x 2-1/2" Screws
- 4 - Anchors

#### Application

Termination kit 51W11 is used to isolate intake and exhaust lines as they exit the wall of the structure. The kit may be used with either 2", 2-1/2" or 3" vent pipe.

#### Pipe & Fittings Specifications

All pipe, fittings, primer and solvent cement must conform with American National Standard Institute and the American Society for Testing and Materials (ANSI/ASTM) standards. The solvent shall be free flowing and contain no lumps, undissolved particles or any foreign matter that adversely affects the joint strength or chemical resistance of the cement. The cement shall show no gelation, stratification, or separation that cannot be removed by stirring. Refer to table 1 for approved piping and fitting materials.

#### **⚠ CAUTION**

Solvent cements for plastic pipe are flammable liquids and should be kept away from all sources of ignition. Do not use excessive amounts of solvent cement when making joints. Good ventilation should be maintained to reduce fire hazard and to minimize breathing of solvent vapors. Avoid contact of cement with skin and eyes.

TABLE 1

PIPING AND FITTINGS SPECIFICATIONS	
Schedule 40 PVC (Pipe)	D1785
Schedule 40 PVC (Cellular Core Pipe)	F891
Schedule 40 PVC (Fittings)	D2466
Schedule 40 CPVC (Pipe)	F441
Schedule 40 CPVC (Fittings)	F438
SDR-21 PVC or SDR-26 PVC (Pipe)	D2241
SDR-21 CPVC or SDR-26 CPVC (Pipe)	F442
Schedule 40 ABS Cellular Core DWV (Pipe)	F628
Schedule 40 ABS (Pipe)	D1527
Schedule 40 ABS (Fittings)	D2468
ABS-DWV (Drain Waste & Vent) (Pipe & Fittings)	D2661
PVC-DWV (Drain Waste & Vent) Pipe & Fittings)	D2665
<b>PRIMER &amp; SOLVENT CEMENT</b>	<b>ASTM SPECIFICATION</b>
PVC & CPVC Primer	F656
PVC Solvent Cement	D2564
CPVC Solvent Cement	F493
ABS Solvent Cement	D2235
PVC/CPVC/ABS All Purpose Cement For Fittings & Pipe of the same material	D2564, D2235, F493
ABS to PVC or CPVC Transition Solvent Cement	D3188
<b>CANADA PIPE &amp; FITTING &amp; SOLVENT CEMENT</b>	<b>MARKING</b>
PVC & CPVC Pipe and Fittings	ULCS636
PVC & CPVC Solvent Cement	
ABS to PVC or CPVC Transition Cement	

Use PVC primer and solvent cement or ABS solvent cement meeting ASTM specifications, refer to Table 1. As an alternate, use all purpose cement to bond ABS, PVC, or CPVC pipe when using fittings and pipe made of the same materials. Use transition solvent cement when bonding ABS to either PVC or CPVC.

## ⚠ IMPORTANT

Exhaust and intake connections are made of PVC. Use PVC primer and solvent cement when using PVC vent pipe. When using ABS vent pipe, use transitional solvent cement to make connections to the PVC fittings in the unit.

Low temperature solvent cement is recommended. Metal or plastic strapping may be used for vent pipe hangers. Uniformly apply a liberal coat of PVC primer for PVC or use a clean dry cloth for ABS to clean inside socket surface of fitting and male end of pipe to depth of fitting socket.

**Canadian Applications Only** - Pipe, fittings, primer and solvent cement used to vent (exhaust) this appliance must be certified to ULC S636 and supplied by a single manufacturer as part of an approved vent (exhaust) system.

## Installation

## ⚠ IMPORTANT

Take care when installing vent termination. Flue products may damage building materials, plants, shrubs or air conditioning equipment when vented too close to these items.

Position vent termination where prevailing winter winds will not cause recirculation of flue products. Position vent termination where it will not be damaged by foreign objects (rocks, balls etc.)

Refer to the units installation instructions for proper venting. See figure 6 for vent termination clearances. This instruction is for installing the flush mount termination kit only.

- 1 - Determine the best location for the intake and exhaust piping to exit the wall. Exhaust and intake pipe must be free of any obstruction or blockage.
- 2 - Exhaust vent pipe can be located horizontally left, right, or vertically up from the air intake pipe. See figure 1.
- 3 - Use the provided template to locate the intake and exhaust piping holes and four screw holes.
- 4 - Using the template as a guide, drill two 3-5/8" holes for 3" PVC pipe or two 2-1/2" holes for 2" PVC and 2-1/2" PVC pipe. For 2-1/2" PVC installations transition to 2" PVC and install into flush-mount as shown in figure 5. Do not vary from the template. All dimensions are critical. There must be 4" center line to center line for either 3" pipe or 2" pipe. See figure 2.

- If installing on a masonry or brick wall, drill four 9/32" diameter holes for the provided anchors. If a portion of a brick or masonry wall must be removed, repair as needed.
  - If installing on a wood wall and NOT using the provided anchors, drill four 1/8" pilot holes.
- 5 - When determining pipe length, include the length of exhaust and intake pipes that extend beyond the wall and are flush into the flush mount termination. For 3" pipe add an extra inch to the overall length. For 2" pipe add an extra 2" to the overall length. See figure 3.
  - 6 - The 1-1/2" accelerator must be used for all -045, -070 and -090 unit installations. Fully insert and glue the accelerator (flat side first) into the 2" exhaust opening. See figure 3.
  - 7 - Install the intake pipe and exhaust pipe through the holes drilled in step 4 and into the flush mount-termination. Exhaust pipe may be glued but it is not necessary. See figure 3. Seal all openings as indicated in figure 5.
  - 8 - Secure the flush-mount termination to the wall using the provided screws and anchors or field-provided screws if applicable. See figure 4. Termination should be flush against the wall as shown in figure 5.

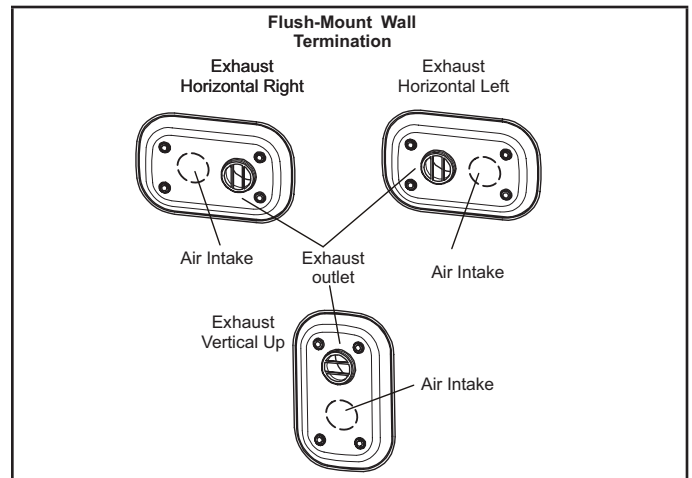


FIGURE 1

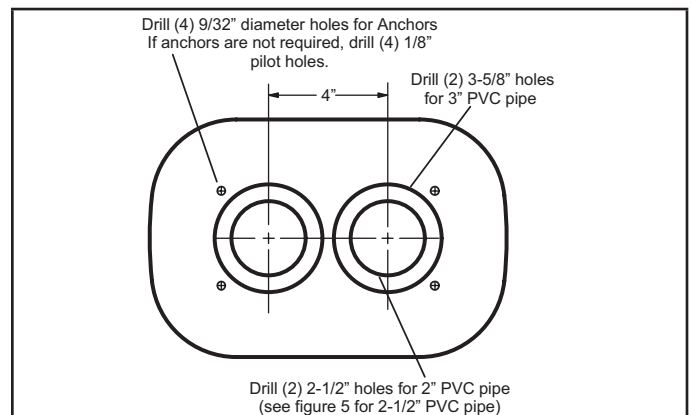


FIGURE 2

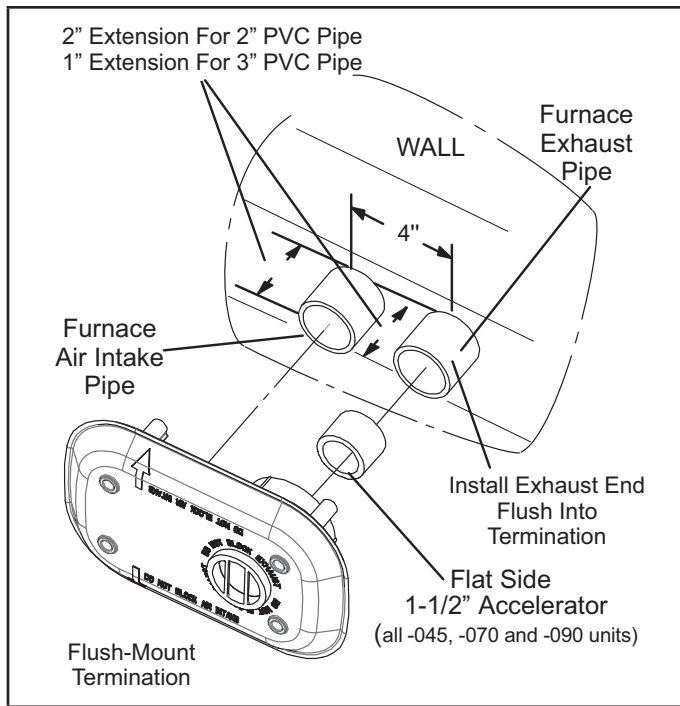


FIGURE 3

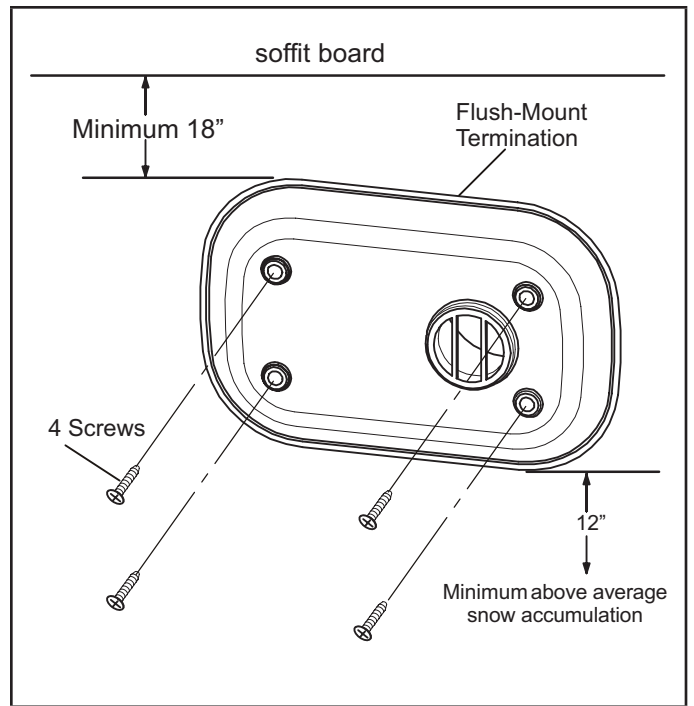


FIGURE 4

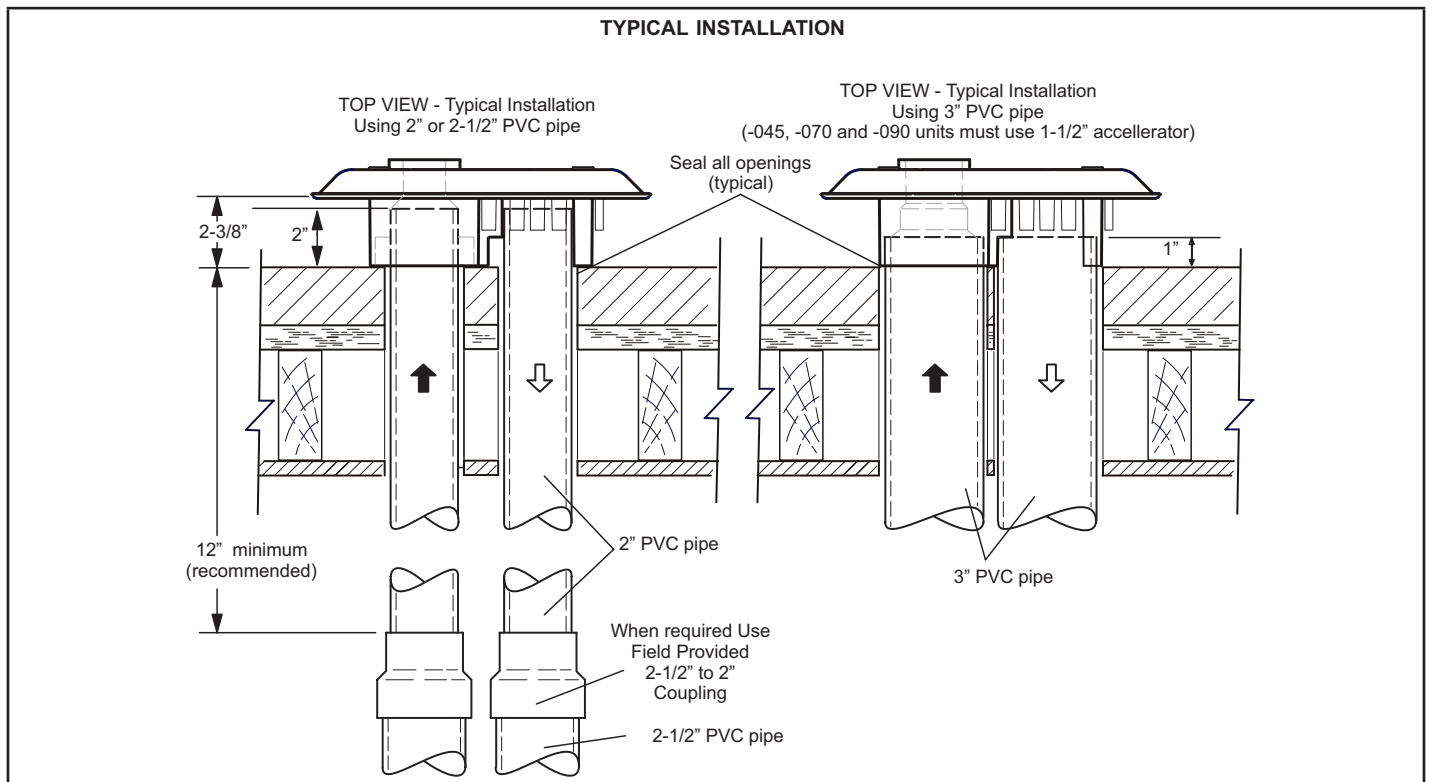
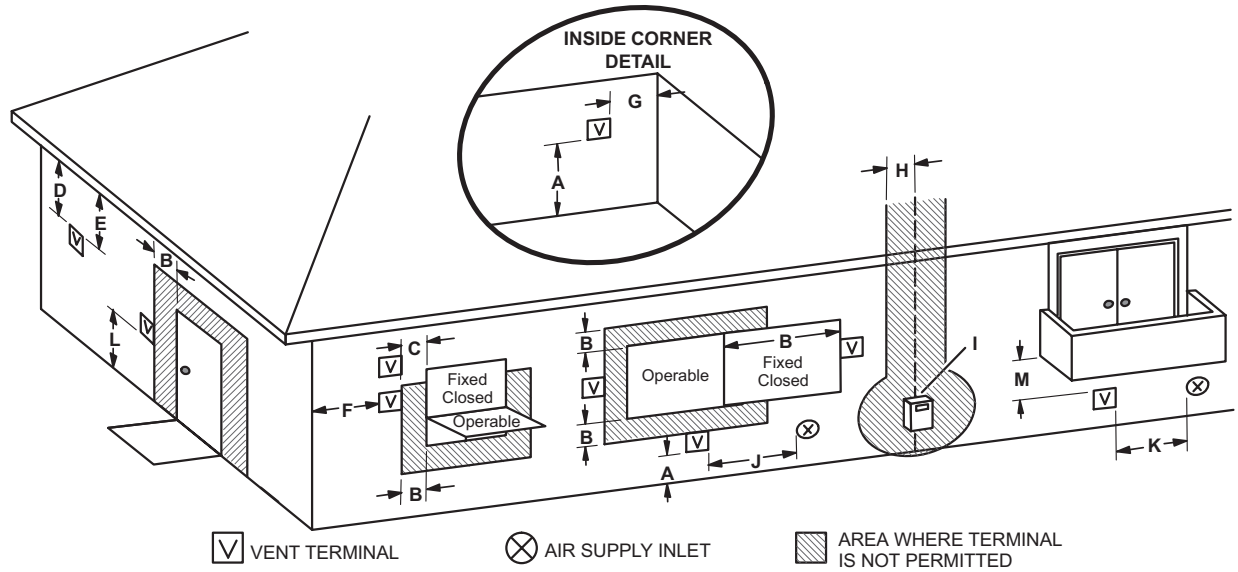


FIGURE 5

## VENT TERMINATION CLEARANCES FOR DIRECT VENT INSTALLATIONS IN THE USA AND CANADA



	US Installations <sup>1</sup>	Canadian Installations <sup>2</sup>	
A =	Clearance above grade, veranda, porch, deck or balcony	12 inches (305mm) or 12 in. (305mm) above average snow accumulation.	12 inches (305mm) or 12 in. (305mm) above average snow accumulation.
B =	Clearance to window or door that may be opened	6 inches (152mm) for appliances <10,000 Btuh (3kw), 9 inches (228mm) for appliances > 10,000 Btuh (3kw) and <50,000 Btuh (15 kw), 12 inches (305mm) for appliances > 50,000 Btuh (15kw)	6 inches (152mm) for appliances <10,000 Btuh (3kw), 12 inches (305mm) for appliances > 10,000 Btuh (3kw) and <100,000 Btuh (30kw), 36 inches (.9m) for appliances > 100,000 Btuh (30kw)
C =	Clearance to permanently closed window	* 12"	* 12"
D =	Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet (610mm) from the center line of the terminal	* Equal to or greater than soffit depth	* Equal to or greater than soffit depth
E =	Clearance to unventilated soffit	* Equal to or greater than soffit depth	* Equal to or greater than soffit depth
F =	Clearance to outside corner	* No minimum to outside corner	* No minimum to outside corner
G =	Clearance to inside corner	*	*
H =	Clearance to each side of center line extended above meter / regulator assembly	3 feet (.9m) within a height 15 feet (4.5m) above the meter / regulator assembly	3 feet (.9m) within a height 15 feet (4.5m) above the meter / regulator assembly
I =	Clearance to service regulator vent outlet	* 3 feet (.9m)	3 feet (.9m)
J =	Clearance to non-mechanical air supply inlet to building or the combustion air inlet to any other appliance	6 inches (152mm) for appliances <10,000 Btuh (3kw), 9 inches (228mm) for appliances > 10,000 Btuh (3kw) and <50,000 Btuh (15 kw), 12 inches (305mm) for appliances > 50,000 Btuh (15kw)	6 inches (152mm) for appliances <10,000 Btuh (3kw), 12 inches (305mm) for appliances > 10,000 Btuh (3kw) and <100,000 Btuh (30kw), 36 inches (.9m) for appliances > 100,000 Btuh (30kw)
K =	Clearance to mechanical air supply inlet	3 feet (.9m) above if within 10 feet (3m) horizontally	6 feet (1.8m)
L =	Clearance above paved sidewalk or paved driveway located on public property	* 7 feet (2.1m)	7 feet (2.1m)†
M =	Clearance under veranda, porch, deck or balcony	*12 inches (305mm)‡	12 inches (305mm)‡

<sup>1</sup> In accordance with the current ANSI Z223.1/NFPA 54 Natural Fuel Gas Code

<sup>2</sup> In accordance with the current CSA B149.1, Natural Gas and Propane Installation Code

† A vent shall not terminate directly above a sidewalk or paved driveway that is located between two single family dwellings and serves both dwellings.

‡ Permitted only if veranda, porch, deck or balcony is fully open on a minimum of two sides beneath the floor. Lennox recommends avoiding this location if possible.

\*For clearances not specified in ANSI Z223.1/NFPA 54 or CSA B149.1, clearance will be in accordance with local installation codes and the requirements of the gas supplier and these installation instructions."

**FIGURE 6**