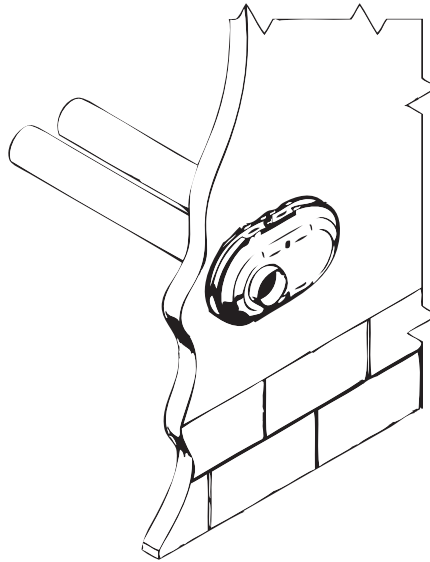


Installing, Operating & Maintaining EVO SIDEWALL VENTING TERMINATION KITS



WARNING

If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or death.

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

WHAT TO DO IF YOU SMELL GAS:

- Do not try to light any appliance
- Do not touch any electrical switch
- Do not use any phone in your building

Products that these vent termination kits are intended for carry one or more of the following listings/markings



All models comply with
A S M E boiler code



ANSI STD Z21-13/Z21.13A
Certified to CSA 4.9-2004
ANSI STD Z21.10.3/Z21.10.3.b
Certified to CSA 4.1-2004, add.A,B

New York
MEA 425-05-E

Massachusetts
Boilers: G1-06-06-24A
Heaters: G1-06-06-24B

SCAQMD
Compliant Rule1146.2

CEC Listed
California Energy Commission



WARNING

These appliances MUST be installed by a properly licensed individual in the City and State which the unit is being installed. All start up adjustments and subsequent service work must be done by a similarly licensed contractor or a factory trained service individual. Failure to comply could result in loss of warranty and or severe personal injury, death and or substantial property damage. ***These instructions are required to be kept with the appliance on the left side, in the pocket provided.***

USING THIS MANUAL

SPECIAL ATTENTION BOXES

Throughout this manual you will see these special attention boxes similar to this one, which are intended to supplement the instructions and make special notice of potential hazards. These categories are in the judgement of Hamilton Engineering, Inc.



DANGER

Indicates a condition or hazard which **WILL** cause severe personal injury, death, or major property damage.



WARNING

Indicates a condition or hazard which **WILL** cause severe personal injury, death, or major property damage.



CAUTION

Indicates a condition or hazard which **WILL** cause severe personal injury, death, or major property damage.

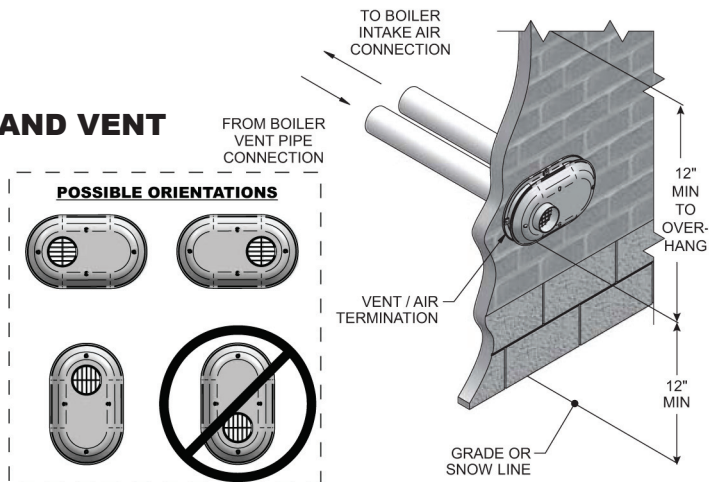


WARNING

- THE VENT SYSTEM MUST BE 2 PIPE SEALED COMBUSTION **CATEGORY IV** ONLY, PVC SCH 40 OR CPVC SCH 40 OR 80 OR AL 29-4C STAINLESS VENTING FOR ALL MODELS.
- THIS HEATER INSTALLATION MUST CONFORM TO THE LATEST EDITION OF THE "NATIONAL FUEL GAS CODE" ANSI Z223.1 NEPA 54 AND/OR CAN/CGAB149 INSTALLATION CODES. STATE AND LOCAL CODES MIGHT ALSO APPLY TO INSTALLATION.
- WHERE REQUIRED BY THE AUTHORITY HAVING JURISDICTION, THE INSTALLATION MUST CONFORM TO THE STANDARDS FOR CONTROLS AND SAFETY DEVICES FOR AUTOMATICALLY FIRED HEATERS, ANSI/ASME HEATER AND PRESSURE VESSEL CODE, SECTION IV, ALONG WITH CSD-1.
- THE HEATER, GAS PIPING, WATER PIPING, VENTING AND ELECTRICAL MUST BE INSTALLED BY TRAINED & QUALIFIED PERSONNEL FAMILIAR WITH INSTALLATION PRACTICES, LOCAL CODE, AND LICENSING REQUIREMENTS.
- IF THE INFORMATION IN THESE INSTRUCTIONS ARE NOT FOLLOWED EXACTLY, A FIRE OR EXPLOSION MAY RESULT, CAUSING PROPERTY DAMAGE, PERSONAL INJURY, OR DEATH.
- DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

Hamilton Engineering offers sidewall combustion vent and air pipe termination kits (Factory Kits # KIT30045, KIT30046, and KIT30047) see Kit Components in our price lists. Both combustion air and vent pipes must attach to the termination kit. The termination kits must terminate outside the structure and must be installed as shown in FIG. 1.

**(FIGURE 1)
SIDEWALL TERMINATION OF AIR AND VENT**



(TABLE 1-1) KIT COMPONENTS

KIT NUMBER	MODEL	PART NUMBER	DESCRIPTION
KIT 30045	HW 79 HW 129 HW 179 HW 199 HW 199.1 HW 299 (3" vent runs only)	SVK 2082	3" Base
		SVK 2083	3" Cap
		BLT 2146	Cap Screw (4)
		BLT 20002	Wall Screw (4)
		BLT 20003	Wall Anchor (4)
		JKB 60101	3" Termination Plate
		KIT 30046	HW 299 (4" vent runs only) HW 399 Common vented manifold in 4"
SVK 2085	4" Cap		
BLT 2146	Cap Screw (4)		
BLT 20002	Wall Screw (4)		
BLT 20003	Wall Anchor (4)		
KIT 30047	HW 599 with PVC adapters Common vented manifolds in 6"	SVK 2086	6" x 6" Base
		SVK 2087	6" Cap
		BLT 2146	Cap Screw (6)
		BLT 20002	Wall Screw (4)
		BLT 20003	Wall Anchor (4)
		JKB 60099	6" x 6" Wall Plate

REQUIREMENTS FOR INSTALLATION IN CANADA

1. Installations must be made with a vent pipe system certified to ULC-S636. IPEX is an approved vent manufacturer in Canada supplying vent material listed to ULC-S636.
2. The first three (3) feet of plastic vent pipe from the appliance flue outlet must be readily accessible for visual inspection.
3. The components of the certified vent system must not be interchanged with other vent systems or unlisted pipe/fittings. The inner vent tube must be replaced with field supplied certified vent material to comply with this requirement.

AIR INLET PIPE MATERIALS

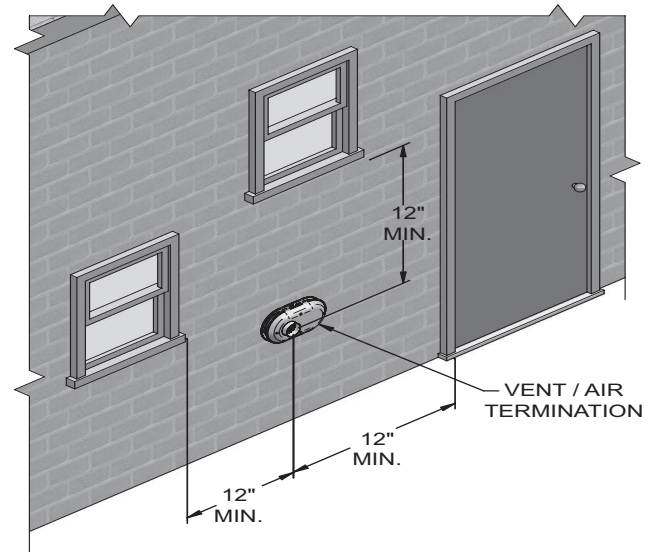
The air inlet pipe(s) must be sealed. Choose acceptable combustion air inlet pipe materials from the following list:

- PVC, CPVC or ABS
- Dryer Vent or Sealed Flexible Duct (not recommended for rooftop air inlet)
- Galvanized steel vent pipe with joints and seams sealed as specified in this section.
- Type “B” double-wall vent with joints and seams sealed as specified in this section.
- Plastic pipe may require an adapter (not provided) to transition between the air inlet connection on the appliance and the plastic air inlet pipe.

(TABLE 1-2) VENT PIPE AND FITTINGS

All vent pipe materials and fittings must comply with the following:			
Item	Material	Standards for installation in:	
		United States	Canada
Vent pipe and fittings	PVC schedule 40	ANSI/ASTM D1785	CPVC and PVC venting must be ULC-S636 Certified. IPEX is an approved vent manufacturer in Canada supplying vent material listed to ULC-S636.
	PVC - DVW	ANSI/ASTM D 2665	
	CPVC schedule 40	ANSI/ASTM F441	
Pipe cement & primer	PVC	ANSI/ASTM D2564	IPEX System 636 Cements & Primers
	CPVC	ANSI/ASTM F493	
NOTICE: DO NOT USE CELLULAR (FOAM) CORE PIPE			

(FIGURE 2)
CLEARANCE TO GRAVITY AIR INLETS



DETERMINE LOCATION

1. Maintain clearances as shown in FIG.'s 1 thru 3. Also maintain the following:

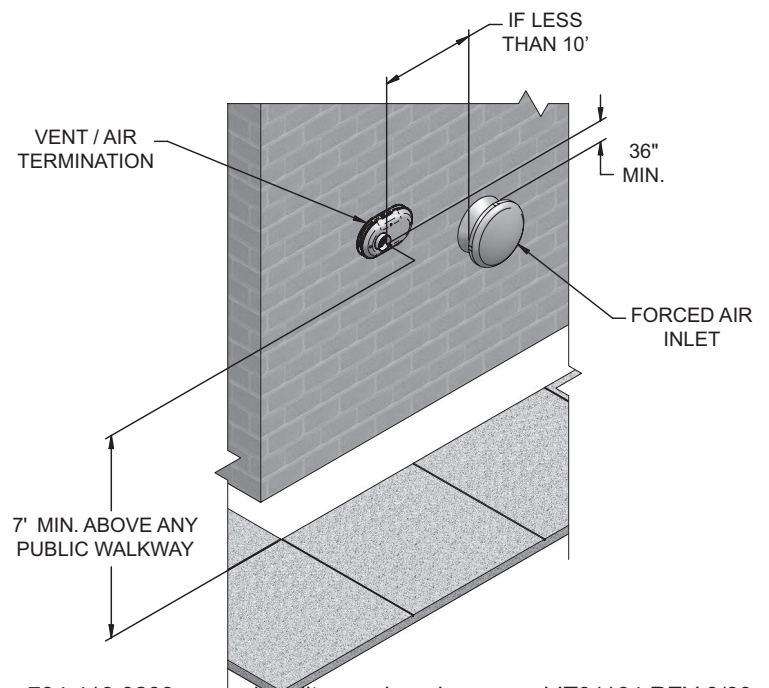
a. Vent must terminate:

- At least 6 feet from adjacent walls.
- No closer than 12 inches below roof overhang.
- At least 7 feet above any public walkway.
- At least 3 feet above any forced air intake within 10 feet.
- No closer than 12 inches below or horizontally from any door or window or any other gravity air inlet.

b. Do not terminate closer than 4 feet horizontally from any electric meter, gas meter, regulator, relief valve, or other equipment. Never terminate above or below any of these within 4 feet horizontally.

2. Locate terminations so they are not likely to be damaged by foreign objects, such as stones or balls, or subject to buildup of leaves or sediment.

(FIGURE 3)
CLEARANCE TO FORCED AIR INLETS



PREPARE WALL PENETRATIONS

1. Use the factory supplied wall plate as a template to locate the vent and air intake holes and mounting holes.

Air pipe penetration:

- a. Cut a hole for the air pipe. Size the air pipe hole as close as desired to the air pipe outside diameter.

Vent pipe penetration:

- a. Cut a hole for the vent pipe. For either combustible or noncombustible construction, size the vent pipe hole with at least a 1/2 inch clearance around the vent pipe outer diameter:

- 4½ inch hole for 3 inch vent pipe
- 5½ inch hole for 4 inch vent pipe
- 7½ inch hole for 6 inch vent pipe

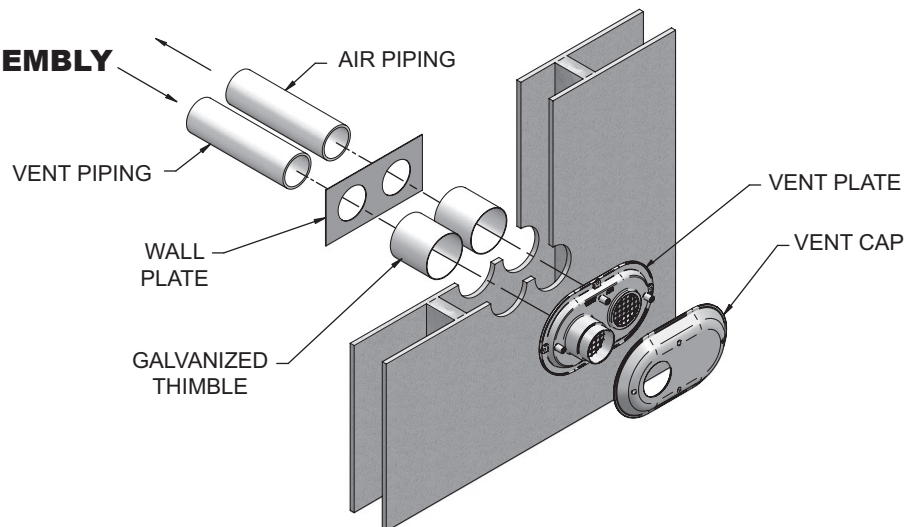
Drill 3/16" diameter holes for inserting the plastic anchors into the wall.

2. Install the vent and air intake piping through the wall into the vent plate openings. Seal all gaps between the pipes and wall. Use RTV silicone sealant to seal the air pipe. Use the cement/primer listed in Table 1 on page 2 to seal the vent pipe.
3. Mount and secure the vent plate to the wall using stainless steel screws. Seal around the plate to the wall assuring no air gaps.
4. Assemble the vent cap to the vent plate (see FIG. 4). Insert the stainless steel screws into the vent cap screw hole openings and securely attach the vent cap to the vent plate.
5. Seal all wall cavities.

TERMINATION AND FITTINGS

1. The air termination coupling must be oriented at least 12 inches above grade or snow line as shown in FIG. 1 on page 1 of this instruction sheet.
2. Maintain the required dimensions of the finished termination piping as shown in FIG. 1.

**(FIGURE 4)
SIDEWALL TERMINATION ASSEMBLY**





WARNING

All vent pipes and air inlets must terminate at the same height to avoid possibility of severe personal injury, death or substantial property damage.

MULTIPLE VENT/AIR TERMINATIONS

1. When terminating multiple boilers terminate each vent/air connection as described in this instruction sheet (FIG. 5).
2. Place wall penetrations to obtain minimum clearance of 12 inches between edge of air inlet and adjacent vent outlet, as shown in FIG. 5 for U.S. installations. For Canadian installations, provide clearances required by CSA B149.1 or B149.2 Installation Code.
3. The air inlet of a Knight/Armor/Wall Mount boiler is part of a direct vent connection. It is not classified as a forced air intake with regard to spacing from adjacent boiler vents.

**(FIGURE 5)
MULTIPLE VENT TERMINATIONS (MUST ALSO COMPLY WITH FIGURE 1)**

