


Detroit Radiant Products Co.

CVK-3", 4" or 6" Concentric Vent Kit Installation Instructions

This instruction sheet is intended to describe the installation of the Concentric Vent Kit. This kit is designed for use with the FA and UH Series when both venting and combustion air is desired through a roof or wall penetration. Refer to the FA Series (F/N: LIOFA) or UH Series (F/N: LIOUH) manual for overall venting requirements. For additional information, please contact the factory.

Verify that all parts listed under kit contents are present prior to beginning service on the unit.

Concentric Vent Kit Types	
CVK-3	30 to 45 MBH
CVK-4	60 to 125 MBH
CVK-6	150 to 250 MBH

WARNING	
	The following installation MUST be performed by a qualified service person. Improper installation, adjustment, service, or maintenance can cause property damage, injury, or death.

Tools Required:

- Drill with 1/4 Inch Driver
- Tin Snips
- Level
- Saw
- Gloves
- Safety Glasses

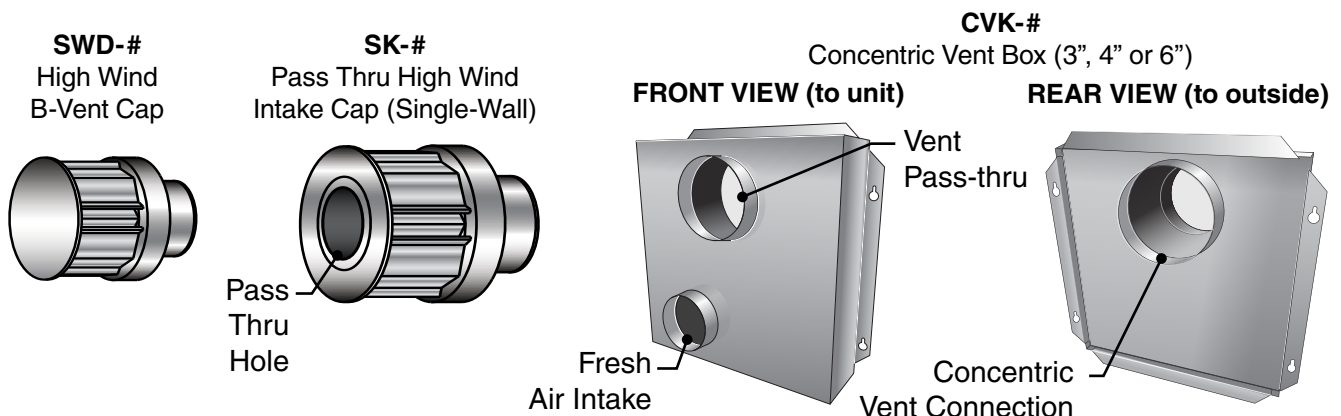
Additional Items Needed:

- **BVP-#** - 60" long doublewall B-vent (Duravent)
- **DHC-#** - B to C adapter (drafthood connector)
- #8 sheet metal screws
- Single-wall vent pipe
- Metallic tape or silicone sealant (**RTV-106**) approved for use at 400°F
- **SC-#** - Storm collar (vertical venting only)
- Insulation (optional)

Kit Contents:

- Concentric Vent Box
- Air Outlet Cap
- Combustion Air Inlet Cap

Figure 1 • Kit Contents



Specifications

This concentric vent kit is specifically designed for use with FA and UH Series unit heaters only. It is the responsibility of the installer to ensure the concentric vent kit is the proper size for the unit in which it is to be installed. For more information, contact the local representative or the factory for assistance.




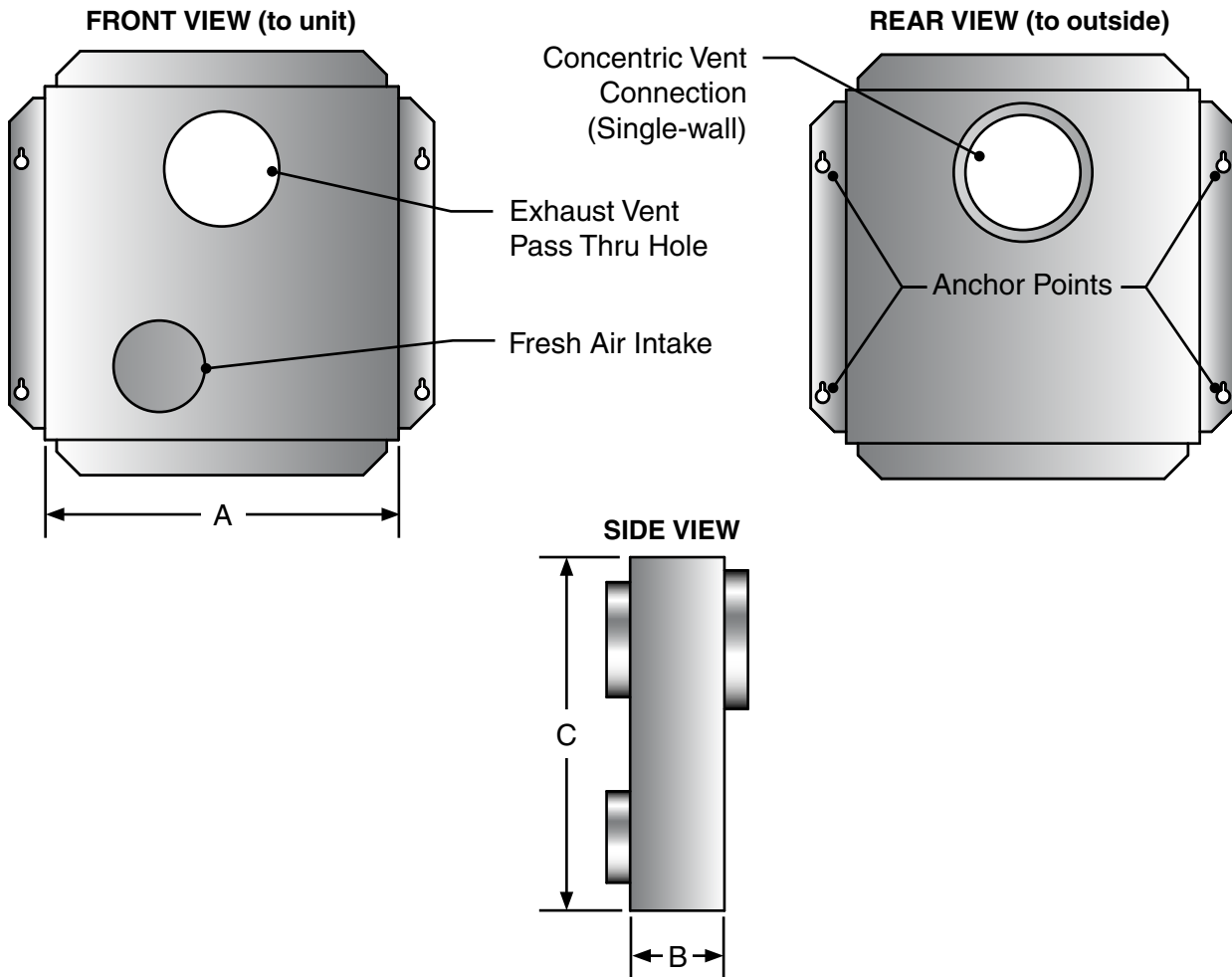
WARNING			
			<p>Gas-fired heaters must be properly vented at all times. Insufficient ventilation and/or improperly sealed vents may release gas into the building which could result in health problems, carbon monoxide poisoning, fire, or death.</p>

Chart 1 • Concentric Vent Kit Data

Kit Part No.	Heater Input Range (MBH)	Vent Pipe Sizes			Penetration Hole Size	Box Dimensions		
		Intake (Single wall)	Exhaust (B-Vent)	Concentric (Single-wall)		A	B	C
CVK-3	30-45	4"	3"	5"	5-1/4"	15"	4"	12"
CVK-4	60-125	4"	4"	6"	6-1/4"	15"	4"	15"
CVK-6	150-250	6"	6"	8"	8-1/4"	15"	6"	23"

Figure 2 • Concentric Vent Kit Dimensions



Horizontal Installation (Sidewall)

WARNING

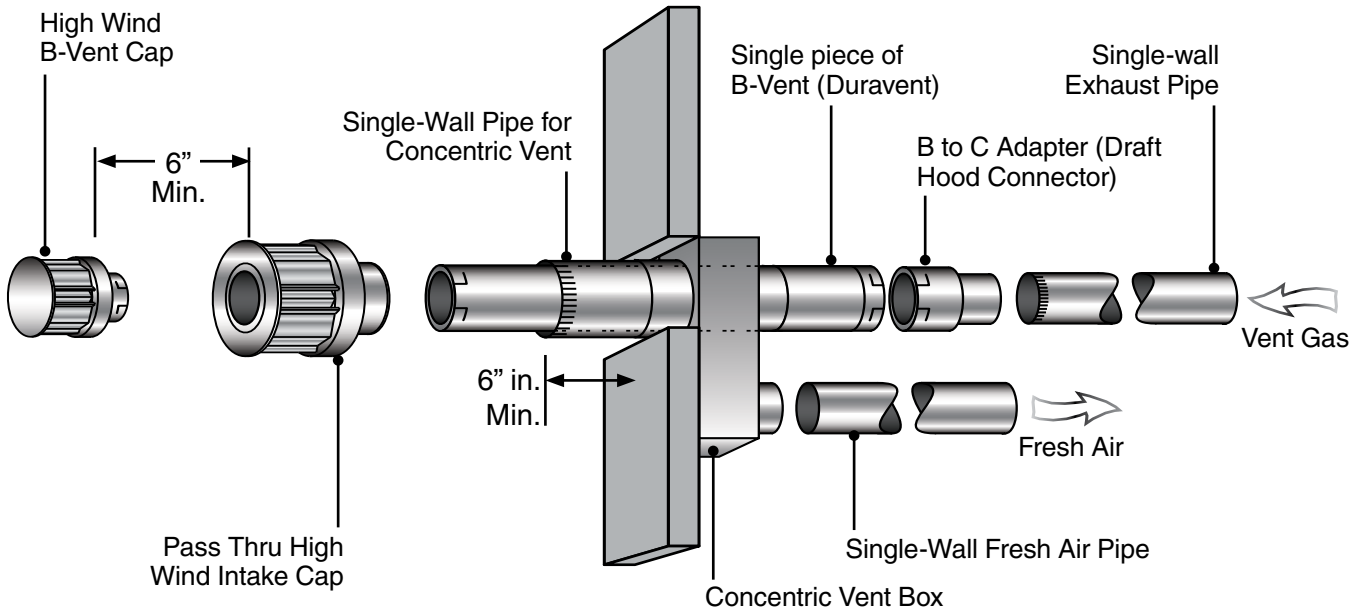
The following installation **MUST** be performed by a qualified service person. Improper installation, operation, or maintenance can cause property damage, injury, or death. Read and understand these supplemental instructions along with the heater's Installation, Operation, and Maintenance Manual before installing the concentric vent kit.

- ❶ Select the optimal location for the vent to terminate. Take into consideration external features of the building such as windows, overhangs, adjacent buildings, as well as internal features. Prepare mounting surface.
- ❷ Cut a penetration hole through the wall according to the kit size (see Chart 1) and prepare the mounting surface for the concentric vent box.

NOTE: The concentric vent box can be directly mounted to the wall, or spaced away from the wall using suitable brackets.
- ❸ Cut a piece of single wall pipe for the connection to the concentric vent connection. Ensure that at least 6" of pipe extends beyond the external side of the wall when the box is in its final mounting position. A crimp on one side will allow for easier installation of the Pass-Thru High Wind Intake Cap (SK-#).
- ❹ Fasten the piece of single wall pipe for connection to the concentric vent connector with at least three (3) sheet metal screws. Seal the vent with high temperature silicone sealant.
- ❺ Insert pipe through the wall penetration and anchor the adaptor box in place.
- ❻ Flash in, caulk, or seal the vent pipe to the external wall. Insulate concentric vent box if located in un-tempered climate or if condensation is likely to occur (insulation optional).
- ❼ Install the Pass-Thru High Wind Intake Cap (SK-#) to the vent pipe and secure with at least three (3) sheet metal screws. Seal the connection.
- ❽ From the inside of the building, slide the single piece of B-Vent through the concentric vent box and the hole in the high wind intake cap.
- ❾ Install the High Wind B-Vent Cap to the B-Vent and twist to lock in place.
- ❿ Install a B to C adapter (draft hood adapter) onto the single piece of B-Vent to allow for connection of the flue pipe to the vent termination.
- ⓫ Connect the flue pipe and combustion air pipe from concentric vent box to the unit heater. Follow venting instructions from the unit heater manual. All vent joints must be sealed with high temperature silicone sealant or foil tape.

Horizontal Installation (Sidewall)

Figure 3 • Outside Combustion Air Sidewall Intake - Side View



Vertical Installation (Roof)

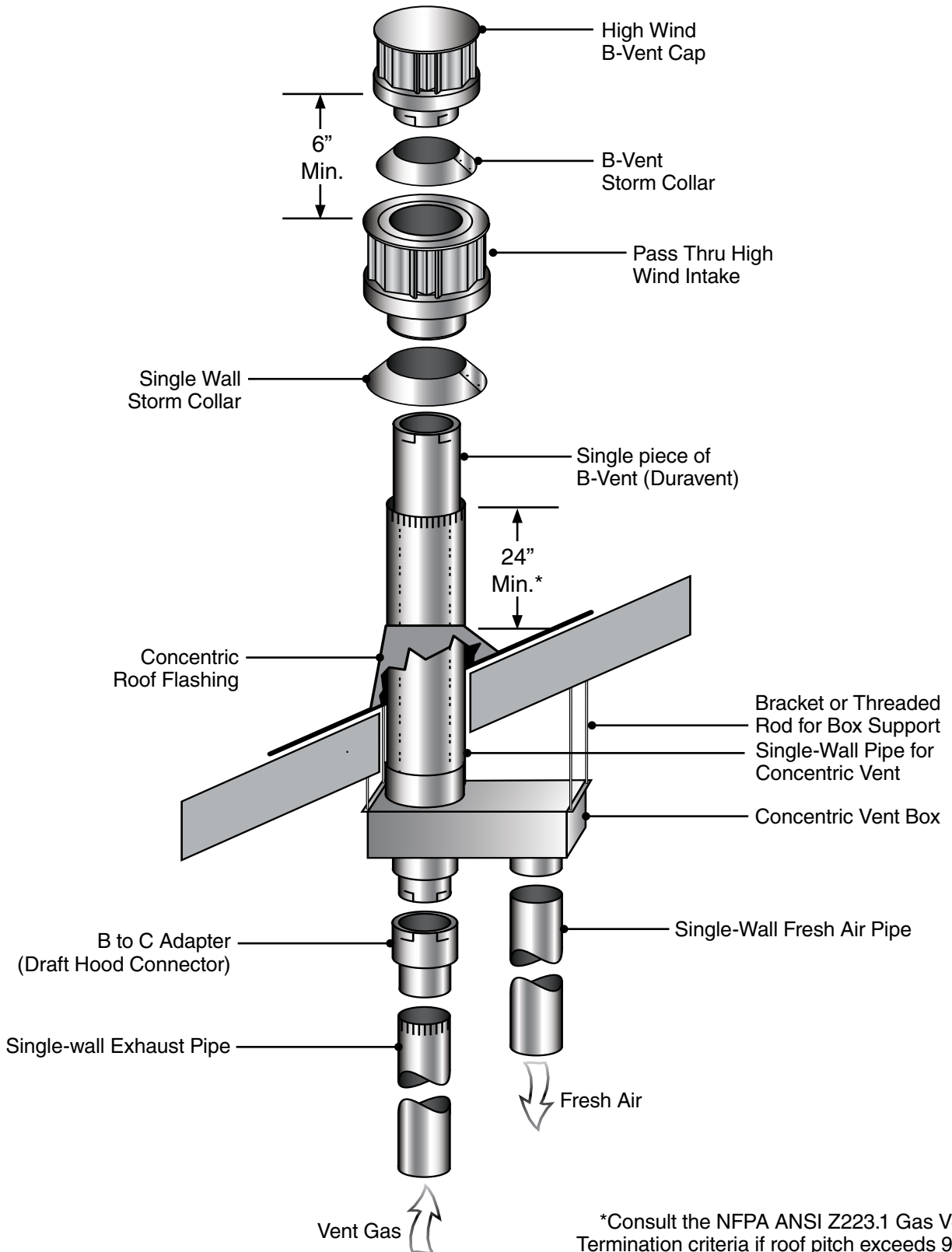
WARNING

The following installation **MUST** be performed by a qualified service person. Improper installation, operation, or maintenance can cause property damage, injury, or death. Read and understand these supplemental instructions along with the heater's Installation, Operation, and Maintenance Manual before installing the concentric vent kit.

- ❶ Select the optimal location for the vent to terminate. Take into consideration external features of the building such as windows, overhangs, adjacent buildings, as well as internal features. Prepare mounting surface.
- ❷ Cut a penetration hole through the roof according to the kit size (see Chart 1).
- ❸ Mark locations for hanging points for the concentric vent box.
- ❹ Prepare mounting of the concentric vent box. On a flat roof, box can be mounted directly to the surface. For pitched roofs, the box must be hung level from the roof using a suitable bracket or threaded rod. Insulate concentric vent box if located in un-tempered climate or if condensation is likely to occur. (insulation optional).
- ❺ Install cone roof flashing, ensuring that the single wall pipe for the concentric vent will be vertically level. Use of a plumb-bob or 4 foot level is recommended.
- ❻ Cut a piece of single wall pipe for the connection to the concentric vent connection. Ensure that the length of pipe of pipe extends beyond the roof cone flashing to the desired length when the box is in its final mounting position. A crimp on one side will allow for easier installation of the pass-thru high wind intake cap (SK-#).
- ❼ Fasten the piece of single wall pipe for connection to the concentric vent connector with at least three (3) sheet metal screws. Seal the vent with high temperature silicone sealant.
- ❽ Insert pipe through the penetration and roof cone flashing. Anchor the adaptor box in place.
- ❾ Install single wall storm collar onto single wall pipe.
- ❿ Install the pass through High Wind Intake Cap to the vent pipe and secure with at least three (3) sheet metal screws. Seal the connection.
- ⓫ From the inside of the building, Slide the single piece of B-Vent through the concentric vent box and the hole in the high wind intake cap.
- ⓬ Install B-Vent storm collar onto B-Vent pipe.
- ⓭ Install the high wind B-Vent Cap to the B-vent and twist to lock in place.
- ⓮ Connect Vent pipe of unit to B-Vent. If using single wall pipe, install a B to C adapter (Draft Hood Adapter) onto the single piece of B-Vent to allow for connection of the flue pipe to the vent termination.
- ⓯ Connect the flue pipe and combustion air pipe from concentric vent box to the unit heater. Follow venting instructions from the unit heater manual.

Vertical Installation (Roof)

Figure 4 • Outside Combustion Air Roof Intake - Side View



*Consult the NFPA ANSI Z223.1 Gas Vent Termination criteria if roof pitch exceeds 9:12



© 2017 Detroit Radiant Products Co.
21400 Hoover Road • Warren, MI 48089
Phone: (586) 756-0950 Fax: (586) 756-2626
www.detroitradiant.com • sales@drp-co.com



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