

MENDOTA

AMERICA'S LUXURY FIREPLACE

AA-11-00943 MENDOTA HEAT DUMP KIT INSTALLATION INSTRUCTIONS

Open this package and identify the parts included with this Mendota Heat Dump Kit. If any parts are missing, contact your Mendota Dealer before proceeding with this installation and obtain the missing parts.

Parts not supplied: Makeup Air Dampers, Additional ducts, internal heat registers.

NOTE: SEE PAGE #11 FOR SPECIFIC INSTRUCTIONS ON HOW TO ATTACH THE BLOWER MOUNTING BRACKETS TO THE BLOWER HOUSING.

MENDOTA HEAT DUMP KIT PACKING LIST		
QTY.	PART NO.	DESCRIPTION
2	15-02-00086	BLOWER W/ BRACKET
2	45-01-00264	8"X6"REDUCER w/ DAMPER
2	45-01-00267	VENT CAP
1	45-01-00266	FLEX TUBING, 20'
8	50-06-00079	6" HOSE CLAMP, 6' HS-104
1	10-01-00085	ON/OFF SWITCH-SPST
1	10-04-00117	COVER PLATE, ON/OFF SWITCH
1	85-03-00779	INSTALLATION INSTRUCTIONS
8	50-01-00102	#8X1/2 HEX HEAD SELF DRILLING SCREW
4	50-01-00156	#8X1/2 TYPE A, HEX HEAD SHEET METAL SCREW

- One Switch controls both Heat Dump Blowers. Switch may be mounted anywhere in the home.
- Simple Flexible duct installation with duct runs up to 40 feet per run (40 feet allowed for each blower).
- Dual back-flow prevention dampers are integrated into each heat dump circuit to keep cold air out at the cap and to prevent heated air from entering heat dump ducts when heat dump fans are not in use.
- Paintable vent cap arrives with a primer coat, ready to paint to match any home exterior finish color.
- Inspection and maintenance of blower system is extremely easy. Removing vent cap provides complete access to heat dump blower.
- *It is NOT APPROVED to dump the heat from Mendota Fireplaces into the Cold Air Return side of a Central Furnace using this Heat Dump Kit. Excessive heat on the Cold Air Return side of the furnace can damage the Furnace Blower Motor and the Furnace Air Filter(s).*

WARNINGS

1. THE HEAT DUMP BLOWERS MUST BE INSTALLED AND WIRED TOGETHER EXACTLY AS INSTRUCTED IN THESE INSTRUCTIONS.
2. **BOTH HEAT DUMP BLOWERS MUST OPERATE AT THEIR MAXIMUM RPM RATINGS AT ALL TIMES DURING OPERATION OF THE HEAT DUMP KIT.**
3. THE HEAT DUMP BLOWER'S SPEED CANNOT BE CONTROLLED. MOTOR SPEED CONTROL DEVICES ARE NOT ALLOWED. ADDITION OF ANY SPEED CONTROL DEVICE TO THE HEAT DUMP BLOWER CIRCUIT WILL VOID ALL APPLICABLE WARRANTY.
4. THE BLOWERS MUST BE INSTALLED SO THAT THEY ARE ACCESSIBLE AT ALL TIMES, FOR MAINTENANCE AND SERVICE NEEDS.

- WARNING -

THE HEAT DUMP CAPS MUST BE SECURED ON TOP OF ANY EXTERIOR SHEATHING MATERIALS. SIDING MUST BE INSTALLED OUTSIDE CAP PERIMETERS.

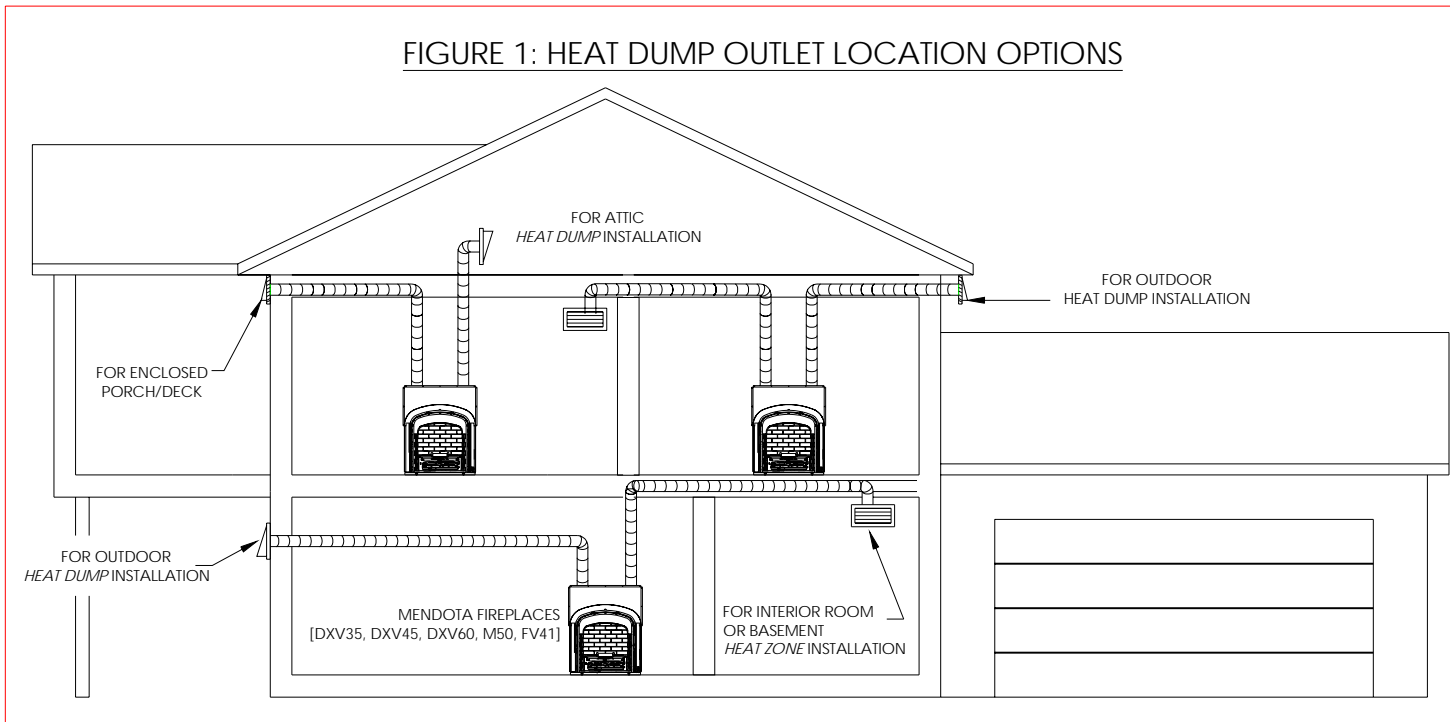
Introduction

The Mendota Heat Dump Kit [#AA-11-00943] is designed to extract heat from Mendota ZC Fireplaces and expel it to a desired and predetermined location in another room in the home, to a basement space, to the unheated attic space or to the exterior of the home. The Heat Dump Kit, when installed and connected to a Mendota Fireplace, as intended and communicated in these instructions, will extract 95% of the convective heat generated by the Mendota Fireplace and transfer it to the desired location. Table 1 shows the amount of heat that the Heat Dump Kit will extract from specific Mendota Fireplace Models.

The Mendota Heat Dump Kit may be installed with up to two (2) Mendota Heat Zone Kits [#AA-11-00998, not supplied with this kit, which allows you to manually change the location to which the heat is transferred at anytime. This is a versatile feature that allows you to dump the heat outside the home or to an unheated attic space when heat is not desired and to an interior room when heat is desired. Consider installing the Mendota Heat Zone Kit in conjunction with the Mendota Heat Dump Kit [ordered separately].

FIREPLACE MODEL	TOTAL HEAT TRANSFER (BTUH)	HEAT TRANSFER TO OUTLET #1	HEAT TRANSFER TO OUTLET #2
DXV-35	25,000	12,500	12,500
DXV-42	32,000	16,000	16,000
DXV-45	35,000	17,500	17,500
DXV-60	46,000	23,000	23,000
FV-41	28,000	14,000	14,000
M-50	40,000	20,000	20,000

The figure, below, shows the possible locations for the Heat Dump Outlets. **Due to Fire Codes, Heat Dump Outlets are not allowed in Garages.**



WARNINGS

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2. **BOTH HEAT DUMP BLOWERS MUST OPERATE AT THEIR MAXIMUM RPM RATINGS AT ALL TIMES DURING OPERATION OF THE HEAT DUMP KIT.**
3. THE HEAT DUMP BLOWER'S SPEED CANNOT BE CONTROLLED. MOTOR SPEED CONTROL DEVICES ARE NOT ALLOWED. ADDITION OF ANY SPEED CONTROL DEVICE TO THE HEAT DUMP BLOWER CIRCUIT WILL VOID ALL APPLICABLE WARRANTY.

Mendota Heat Dump Kit - Features

- Extracts 95% of the fireplace's heat and expels it out of the home, to the basement, attic or any desired location.
- At the flip of a switch, converts the most efficient fireplace in the industry (Mendota Model M50 w/ 90%+ steady state efficiency) and other Mendota high efficiency fireplaces to decorative appliances that yield beautiful dancing flames and ember glow effects while only adding soothing radiant heat in small doses to the room.
- One Switch controls both Heat Dump Blowers. Switch may be mounted anywhere in the home.
- Allows installation of large and high BTUH rated Mendota Fireplaces in smaller areas of the home without concerns of overheating the small space.
- Allows extended use of Mendota Heater Rated Fireplaces year round, even in warmer climates.
- Highest Quality Centrifugal Blowers used are Super-quiet during operation and yield only air flow noise similar to furnace air return duct openings' noise.
- Simple Flexible duct installation with duct runs up to 40 feet per run (40 feet allowed for each blower).
- Dual back-flow prevention dampers are integrated into each heat dump circuit to keep cold air out at the cap and to prevent heated air from entering heat dump ducts when heat dump fans are not in use.
- Paintable vent cap arrives with a primer coat, ready to paint to match any home exterior finish color.
- Inspection and maintenance of blower system is extremely easy. Removing vent cap provides complete access to heat dump blower.

Make-Up Air Requirements –

In order to move heat from one location to another, it is necessary to move heated air. The Mendota Heat Dump System has been designed to extract 450 CFM of heated air when both heat outlets are ducted to the outside of the home. When the heat is “dumped” outside the home, the air removed from the home must be replaced with fresh air to prevent the creation of negative pressure inside the home.

Newer central furnaces include makeup air damper mechanisms. Check the function of the makeup air damper installed in the existing central furnace of the home. Some systems are designed to operate if a negative pressure is detected inside the home. Other systems only operate while the central furnace blower is operating. Check the existing system and determine if additional Makeup Air Dampers are required.

Makeup Air Dampers are readily available at local HVAC supply stores and through HVAC contractors. The Makeup Air dampers shall be sized based on the number of cubic feet of air expelled to the exterior of the home. One of the Heat Dump Blowers extracts approximately 225 CFM. If both Heat Dump Blowers are ducted to the exterior of the home, use 450 CFM as the volume of air extracted per minute to calculate the Makeup Air Damper size.

If deemed necessary, add one or two Make-Up Air Dampers in the home to replace the air that is expelled out of the home. Installing the Makeup Air Dampers in the ceiling at the opposite end of the home from where the fireplace is located is recommended. Alternatively, install the makeup air dampers at a high level of a vaulted ceiling. This will help dilute the cold incoming air with air that is normally higher in temperature than areas that are normally habituated.

Electrical Requirements – One SPST 110 VAC Switch (single switch) is supplied with the Heat Dump Kit

The two Heat Dump Blowers supplied for the Mendota Heat Dump Kit use a total of 3 Amps at 110VAC. You may install a dedicated 10 Amp circuit for the Heat Dump Kit and its accessory Zone Damper Kits. Alternatively, you may tap power from an existing 10, 15 or 20 Amp circuit in the home if the maximum electrical load on that circuit will not exceed the Amp Rating of that circuit after the Heat Dump Kit is installed.

A Single On/Off switch is supplied with the Heat Dump Kit to control both the Heat Dump Blowers. You must connect both blowers to this switch. If you are installing one or two Mendota Heat Zone Kits in addition to the Heat Dump Kit, you must install a double or triple switch that provide integrated control of all dump and zone components in a small package.

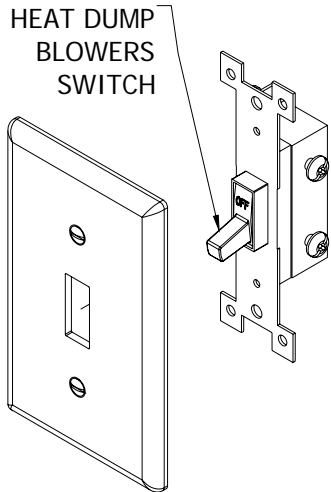
INFORMATION ABOUT INSTALLING SWITCHES FOR HEAT DUMP KIT AND HEAT ZONE KITS

If you are installing a Mendota Heat Zone Kit [#AA-11-00998 in addition to this Mendota Heat Dump Kit, you must order a double or triple switch based on one or two Heat Zone Kits you are installing. Mendota offers compact double or triple switches that fit in a single-gang electrical box to control the Heat Dump Kit and either one or two Heat Zone Kits. Use a Double Switch if installing a single Heat Zone Kit with the Heat Dump Kit. Use a triple Switch if installing two Heat Zone Kits with the Heat Dump Kit. Contact your Mendota Dealer to obtain the appropriate switch kit.

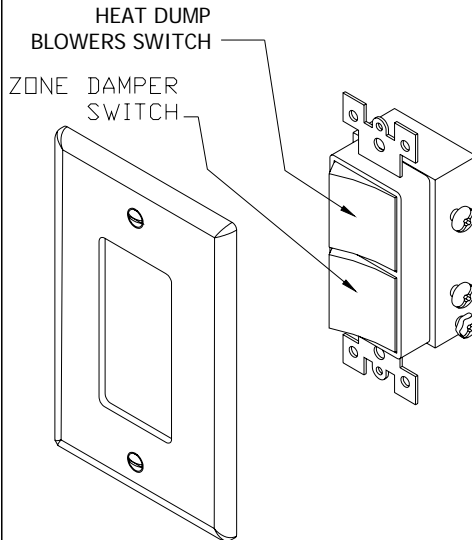
A SINGLE SWITCH [110VAC] IS PACKAGED WITH THE HEAT DUMP KIT.

SINGLE SWITCH

USE IF ONLY A HEAT DUMP KIT IS INSTALLED.



TWO SWITCH OPTIONS EXIST AND ARE AVAILABLE WHEN INSTALLING HEAT ZONE KITS. SELECT A DOUBLE OR TRIPLE SWITCH BASED ON ONE OR TWO HEAT ZONE KITS INSTALLED.

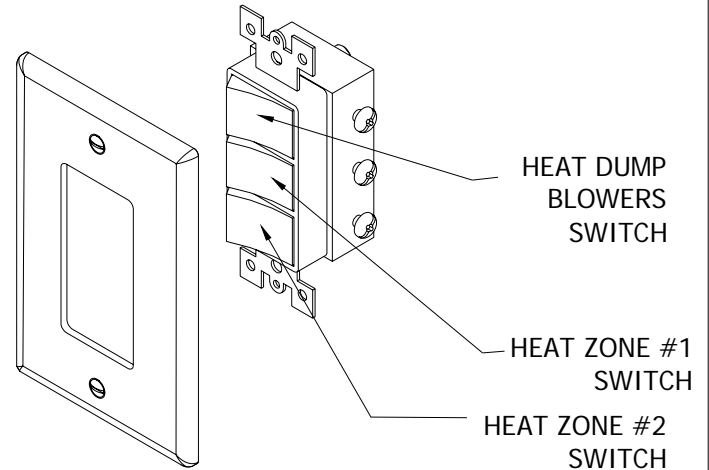


DOUBLE SWITCH

USE IF ONE ZONE KIT IS INSTALLED WITH A HEAT DUMP KIT.

TRIPLE SWITCH

USE IF TWO ZONE KITS ARE INSTALLED WITH A HEAT DUMP KIT.



Heat Dump Kit Ducting Requirements – 20 feet long, 6”-diameter Flex Duct is supplied

One 20 feet long, 6” diameter flex duct is provided with the Heat Dump Kit. Cut this flex duct into four primary pieces: Two (2) 12 inch long pieces to connect the blower outlets to the heat dump caps and Two (2) pieces to the desired lengths to connect the fireplace Heat Dump outlets to the Heat Dump Blowers. For extensions of the heat dump circuit beyond the distance you can achieve with the 20 feet supplied, you may order additional flexible duct in 25 feet increments from Mendota or you may use single-wall rigid galvanized steel ducts and components that are commonly available at local Home Improvement and Hardware stores.

Maximum 40 feet length of duct is allowed per run from each blower outlet to the heat dump cap or grill. You may install an additional 15 feet of duct between the fireplace and the blower inlet in addition to the 40 feet from the blower outlet to the Heat Dump cap or grill. Any Grill or vent cover installed at heat outlets must be a minimum of 60% open to reduce airflow restriction and to prevent overheating of the blower motors. The blower motors are designed to be thermally protected and will shut down if restrictions in the ducting cause the motor temperatures to increase beyond 140F.

Up to Four (4) 90 degree turns are allowed if rigid-metal 90° elbows are used to make turns in the duct system. It is highly recommended that rigid metal elbows be used to make full 90° turns for smooth airflow-direction changes.

If the flexible duct is bent in 90° turns, a maximum of two (2) 90° turns are allowed. Bending the flexible duct to make turns creates higher air-flow restriction when compared to smooth-rigid-metal ducts.

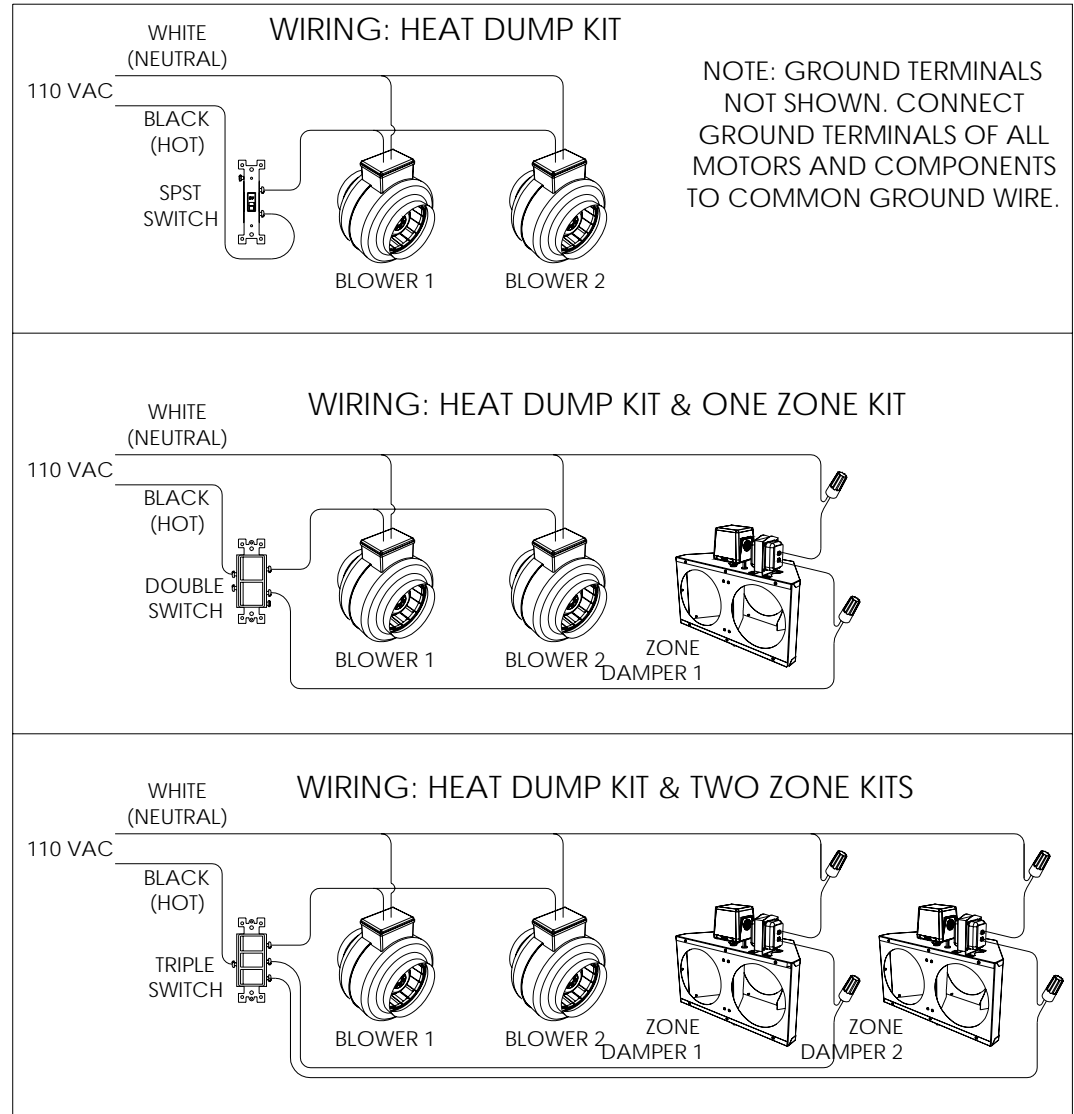
Clearance Requirements to Ducts - 1” clearance from duct surface to combustibles within 6 feet of the fireplace connection. Zero (0)” clearance from duct surfaces to combustibles beyond the first 6 feet from the fireplace connection.

Insulation Requirements – It is recommended that the ducts be insulated to prevent heat loss through the duct if using ducts to transfer heat to remote rooms in the home. Use unfaced fiberglass batting insulation or commonly available duct insulation.

Electrical Connections -

All wiring is to be done using 3-conductors 14 Gage, Solid Copper cable. Common 14-2 solid copper wire cable shall be used for all wiring and the wiring must be routed per local and National Electrical Codes. Only those knowledgeable of household wiring practices shall perform the electrical wire routing and wiring connections for the Mendota Heat Dump Kit.

The figures, on this page, depict the wiring schematic for connecting the Mendota Heat Dump Kit and the, optional, Heat Zone Dampers.



Allowances for Ducting:

1. A maximum of 40 feet of duct is allowed per heat dump circuit run.
2. Up to Four (4) 90 degree turns are allowed ONLY IF rigid metal 90° elbows are used to make turns in the duct system. If bending the flexible duct to make turns, a maximum of Two (2) 90 degree turns are allowed. It is highly recommended that rigid metal elbows be used to make full 90 degree turns for smooth airflow directional changes.
3. Clearances to Combustible Materials Requirements to Ducts = 1" within 6 feet of fireplace connection. 0" clearance beyond the first 6 feet from fireplace connection.
4. Insulating the ducts is recommended to prevent heat loss through the duct if using the ducts to transfer heat to remote rooms in the home. Use unfaced fiberglass batting insulation or commonly available duct insulation.

Connecting to top of fireplace -

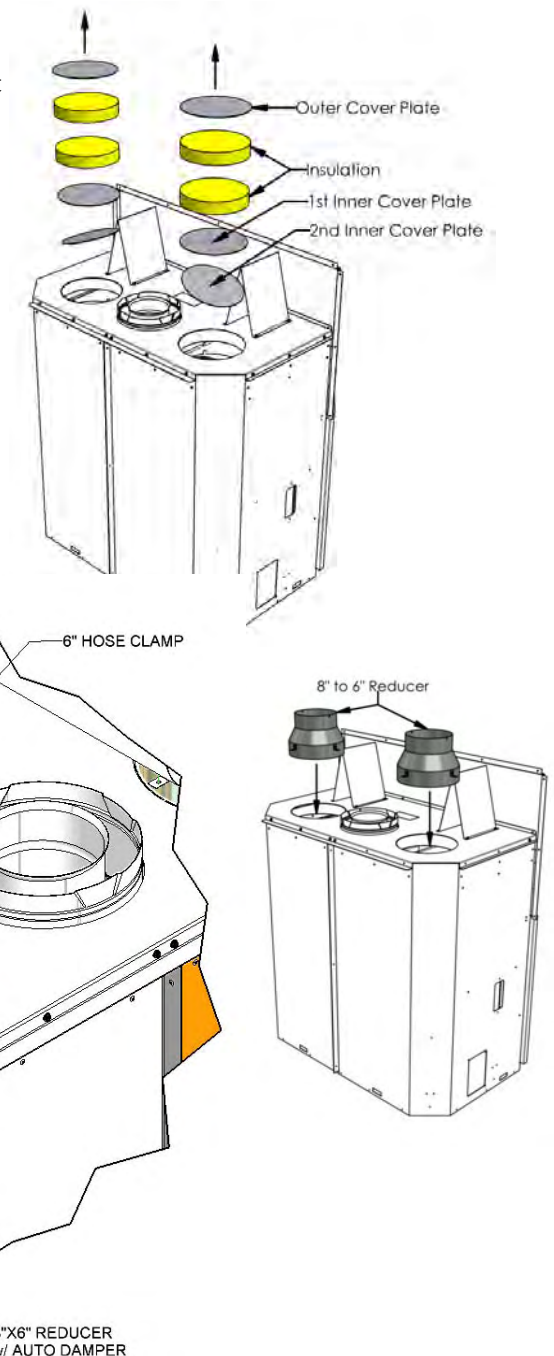
On the top surface of Mendota DXV35, DXV42, DXV45, DXV60, M50 and FV41 Zero Clearance Fireplaces, you will find two round and partially cut circles indicating the openings for the Mendota VersiHeat or Mendota Heat Dump adapter. Use tin snips to cut the micro joints along the circle perimeter and remove the two metal circles and discard. Inside, in some models, you will find insulation material. Using a hacksaw blade vertically cut circular piece of the insulation layers within the round openings. Remove the circular pieces of insulation and discard. Below the layers of insulation, you will find another circular metal with micro joints. Use tin snips to cut the micro joints and remove the two circular plates. You should now see the firebox top. Some models may have additional layers of insulation and sheet metal.

Insert the 8" side of the starter adapter into the 8" holes. ***Make certain that the spring loaded damper secured inside the 8x6 adapter is positioned correctly to open upward when the Heat Dump Blower applies suction.*** Secure the adapter to the top of the fireplace by driving #8x1/2 self drilling screws through holes in the small L-brackets that are attached to the 8" to 6" Reducer.

INFORMATION ON SPRING LOADED DAMPER -

The Spring Loaded Damper installed inside the 8"x6" adapter is designed to open only when the Heat Dump Blowers are activated. When the Heat Dump Blowers are OFF, these dampers will close automatically and remain closed preventing cold drafts from entering the fireplace cavity and the home.

While installing, make certain that these spring loaded dampers open when pushed upward and close when no force is applied. Perform this check as a final check during installation. If you find a damper installed backwards, call Mendota Technical Support.



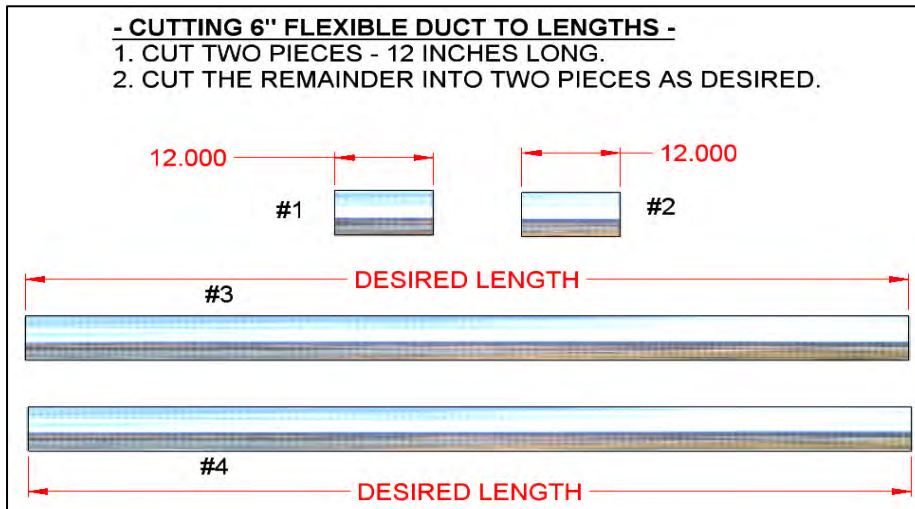
Framing the Opening for caps in outside wall -

Frame a square 11" X 11" opening for each Heat Dump Cap at the designated location on the selected exterior wall. Frame as shown. It is important that you frame the opening exactly as shown. A smaller opening will not allow you to remove the Heat Dump Blower for cleaning or servicing purposes in the future.

Note: The Heat Dump Caps are not required to be directly behind the fireplace. They may be installed directly behind the fireplace on the side walls of exterior chases. Installation on the side walls of an exterior chase will make the Heat Dump Caps less visible and aesthetically more appealing.

Cutting Flexible Duct to Required Lengths -

The supplied 6" flexible duct is 20 feet long, when stretched out. First, cut two 12" lengths (stretched). These two pieces will connect between the Heat Dump Blower Outlets and the Heat Dump Caps.

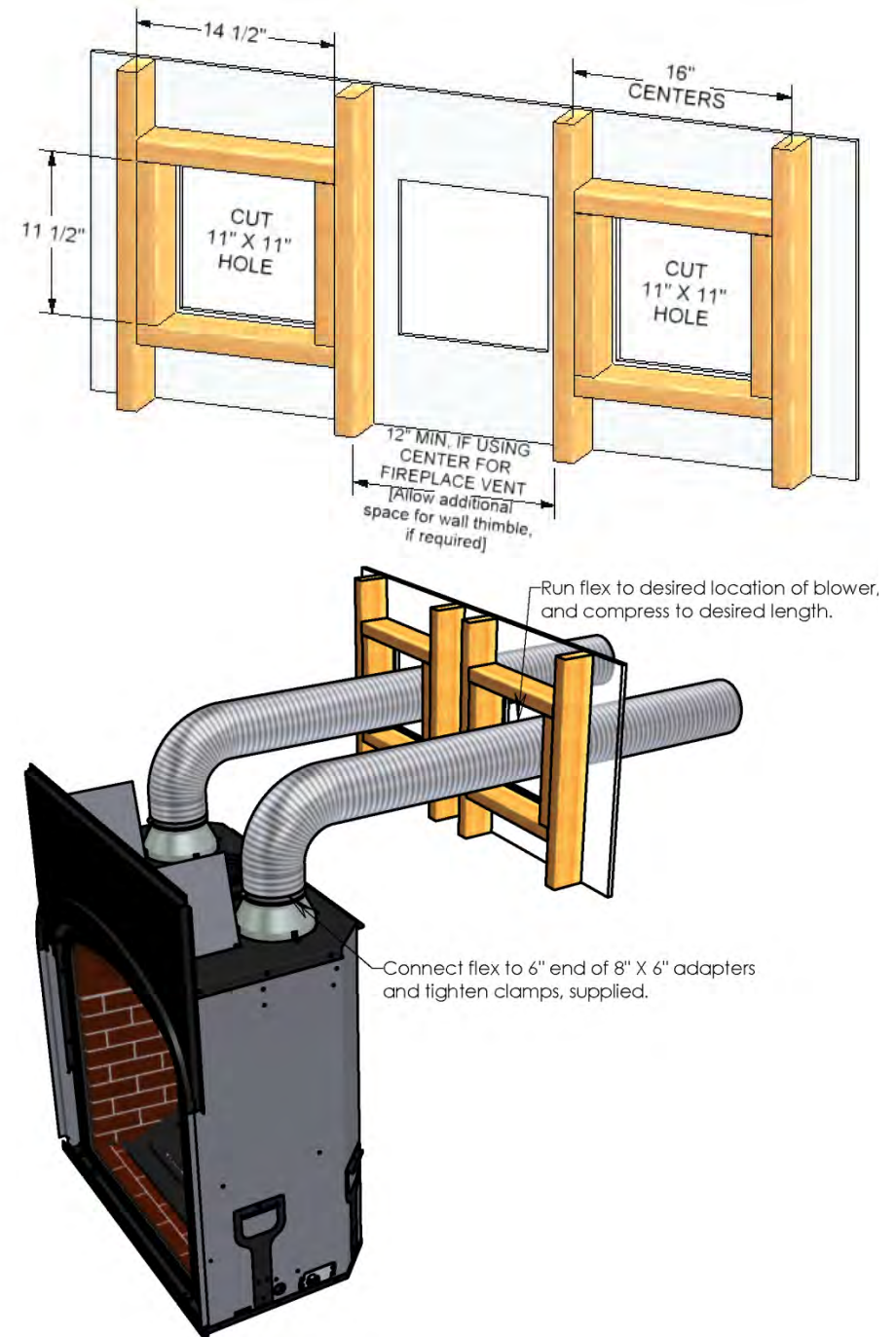


Second, Measure the distance from each outlet on the fireplace top to the location of the Heat Dump Caps. Always budget an extra 12 inches for each leg of the duct running to the Heat Dump Cap. If more than a total of 18 feet is required for two Heat Dump Duct runs, you will need to supply additional lengths of 6" flexible aluminum duct or 6" rigid metal ducts to make up the difference.

Cut the flexible 6" Aluminum duct to the required lengths plus 12 inches, as measured for each duct run from the fireplace top to the blowers' inlet locations.

Connecting flexible ducts to fireplace -

Slide one end of each flexible 6" duct piece over the 6" starter collar on the 8"X6" adapter you installed on the top of the fireplace. Secure the flexible Aluminum duct to each of the 6" collars by tightening a hose clamp, provided with this kit.

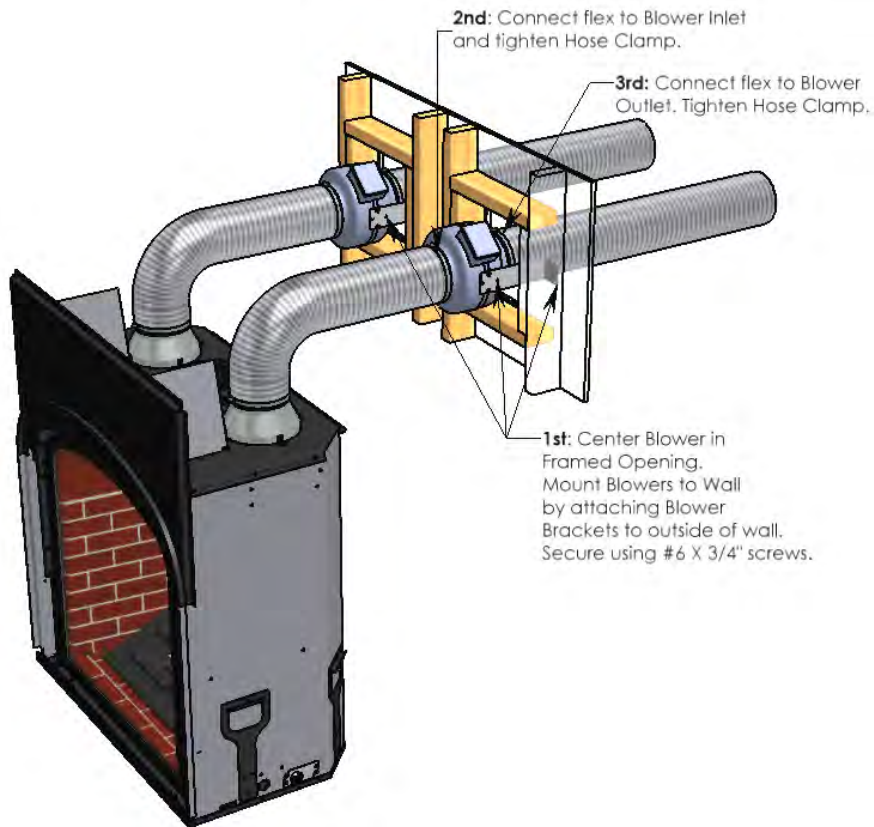


Mounting Blowers to Outside Wall –

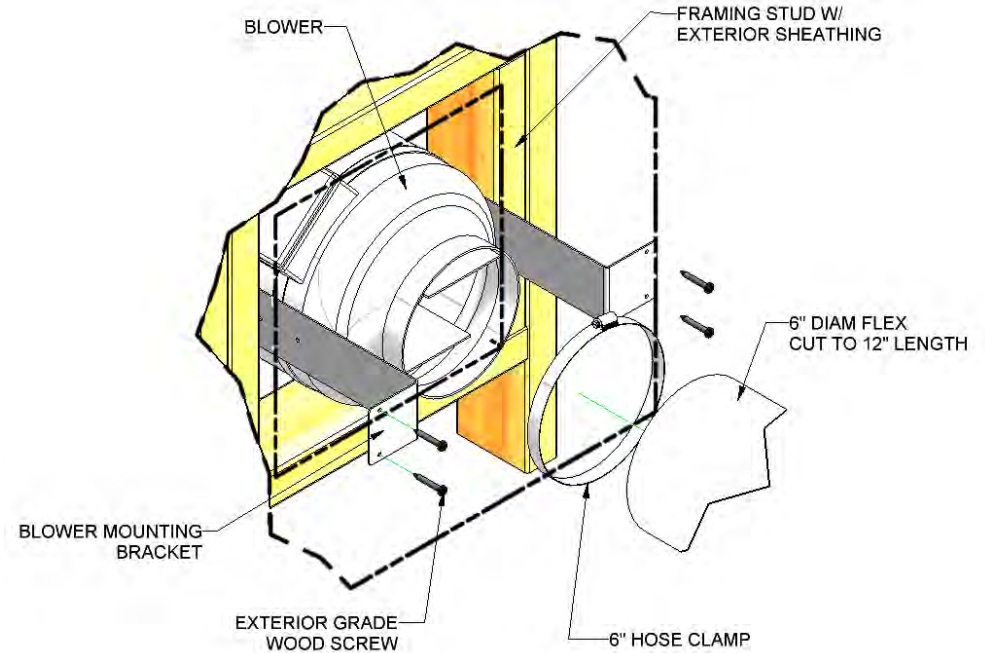
Center each blower in the framed opening (11" X 11"). Orient the blower so that the inlet is facing inside the home and the outlet is facing outside the home. Center the blower in the framed opening. Secure the "L" bracket flanges to the outside of the walls on top of the sheathing (plywood or OSB). **WARNING: Do not bury the bracket under the sheathing material or Siding material. If you do so, you will not be able to remove the blower for service or repair needs.**

Connecting flexible ducts to Blowers –

1. Stretch-out and connect the flex from each fireplace outlet to a Heat Dump Blower's inlet flange. Secure flex to blower using Hose Clamps, provided.
2. Connect the 12" piece of flex pieces that you cut earlier to the outlet flanges on the Heat Dump Blowers. Secure flex to Blower Outlet Flange by tightening Hose Clamps provided with this kit over the flex tube ends.



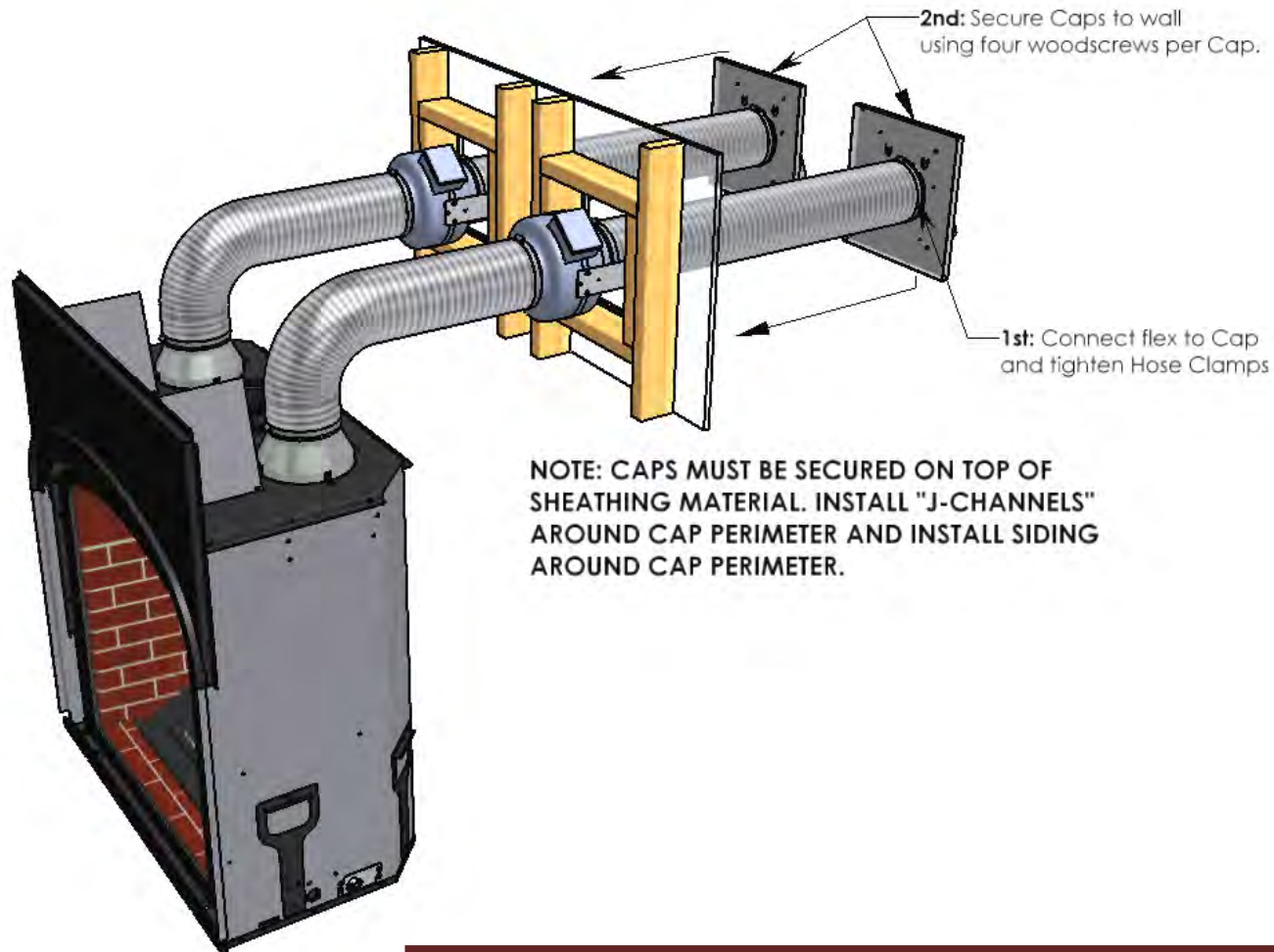
NOTE: SECURE BLOWER MOUNTING BRACKETS TO EXTERIOR SHEATHING SURFACE. DO NOT BURY BRACKETS UNDER EXTERIOR SHEATHING!



**-WARNING-
HEAT DUMP BLOWER BRACKETS MUST BE INSTALLED
ON TOP OF EXTERIOR SHEATHING MATERIAL.**

Connecting flexible ducts from blower to Cap and attaching Cap to wall –

1. Connect the loosed end of the 12" flexible duct pieces to the inlet end of one of the two Heat Dump Caps.
2. Secure flex hose to the Heat Dump Cap's inlet flange by tightening a hose clamp, supplied with this kit.
3. Compress 12" long flex between blower and cap as you push cap into place. Secure Heat Dump Cap to exterior wall, centered over Heat Dump Blower outlet, using exterior-grade drywall screws or wood screws. Repeat steps 1, 2 and 3 for 2nd Heat Dump Cap.



- WARNING -

THE HEAT DUMP CAPS MUST BE SECURED ON TOP OF ANY EXTERIOR SHEATHING MATERIALS. SIDING MUST BE INSTALLED OUTSIDE CAP PERIMETERS.

INSTRUCTIONS FOR ATTACHING THE BLOWER MOUNTING BRACKETS TO THE BLOWER HOUSING -

1. Locate the Blower Mounting Brackets. Four brackets are included in this kit.
2. Align hole and open slot in Blower Mounting Bracket with holes on the housing sides of the blower.
3. Secure Blower Mounting Brackets to Blower.

