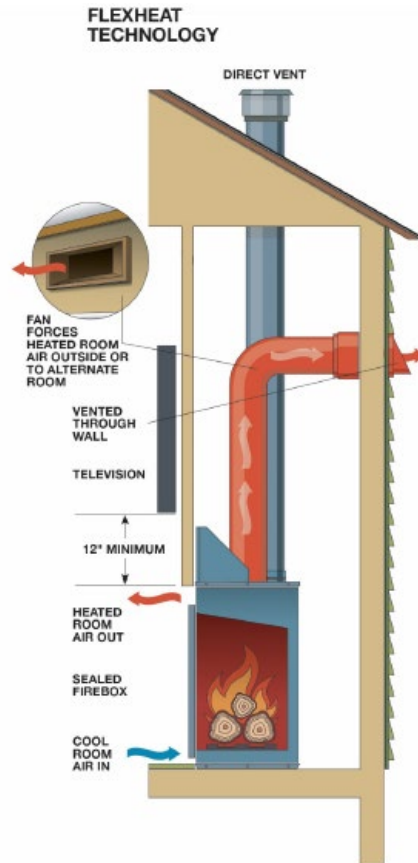


AA-11-00943 FLEXHEAT

Heat Transfer System Installation Instructions



Attention:

- This kit must be installed by a qualified installer.
- It is your responsibility to read and understand all instructions before starting the installation of this product. Read and follow the installation instructions carefully.
- These instructions are to be used in conjunction with the fireplace installation manual to ensure proper installation, framing dimensions adjustments and clearances to combustibles.
- Modification of this kit or any of its components will void all warranty.
- Installation must be in compliance with all local, state, provincial, and national codes.
- This FlexHeat Heat Transfer Kit is tested under the remote duct sections of ANSI Z.21.88 CSA 2.33.
- All electrical wiring should be done by a qualified electrician and must be in compliance with local codes and with the National Electric Code ANSI/NFPA No. 70 current in the U.S. or CSC2.1 Canadian Electrical Code.
- **There is no clearance minimums for the flex duct to combustibles.**
- **Both blower motors must be installed and used regardless of installation type.**

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GENERAL INFORMATION

Application

The FlexHeat system can be installed on all Mendota zero clearance fireplaces except for the M27 Chelsea.

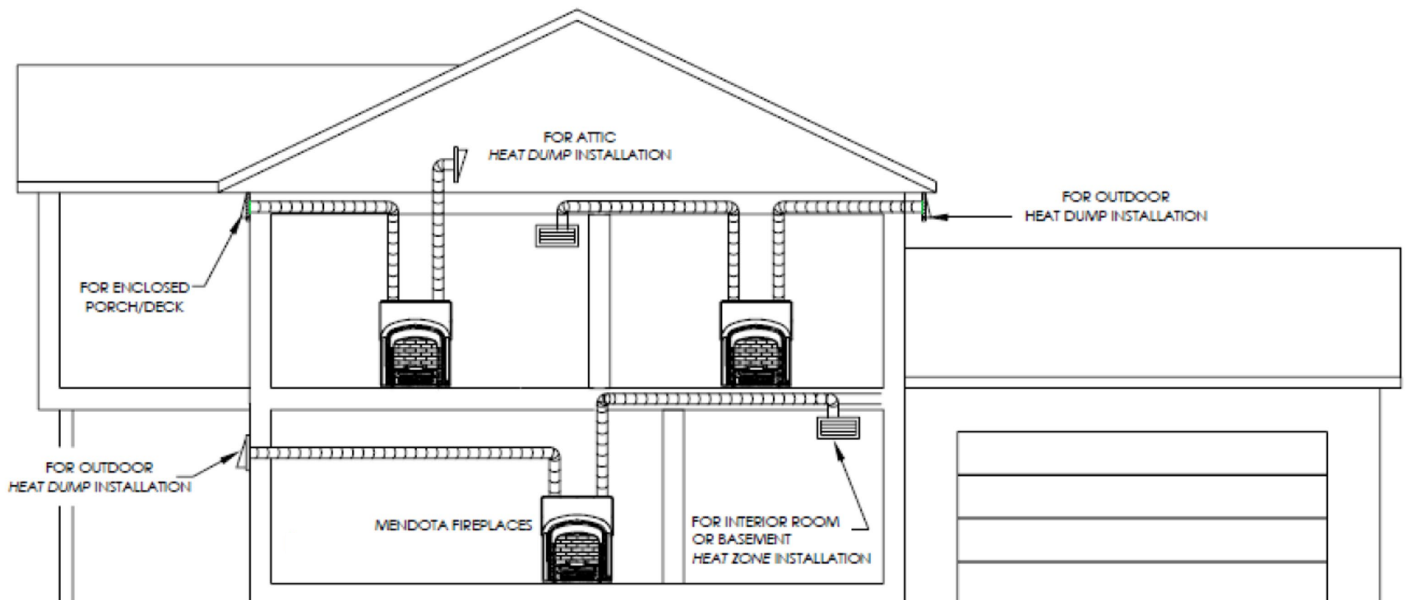
The FlexHeat system utilizes 2-190 CFM blowers to transfer over 90% of the convective heat from the fireplace. The vents can be terminated in another room of the home or to the exterior of the home. The two blowers must run in sequence at their highest RPM output. Each blower has a maximum flexible duct run of 40 feet. Vertical terminations can be made by using a 6" flex to 6" B-vent adaptor, 6" B-vent pipe, flashings and termination cap. Interior terminations can be finished with a heat register.

If the blower is mounted vertically above the fireplace, it must be at least 3 feet above the top of the fireplace. The blower can be installed horizontally anywhere within the ducting run.

Note: Components needed to terminate vertically or to the interior of the home are not included with the FlexHeat kit and must be sourced separately.

Attention:

- If terminating the FlexHeat to the exterior of the home check the existing central furnace system to determine if additional makeup air will be required.
- The FlexHeat must not be terminated into an attached garage or into a central furnace system.



KIT CONTENTS

2 – 8" x 6" starter adapters (45-01-00158)

6 – "L" brackets for mounting the starter adapters (HA-19-00268)

2 – 6" backdraft dampers (45-01-00321)

8 – 6" hose clamps (50-06-00079)

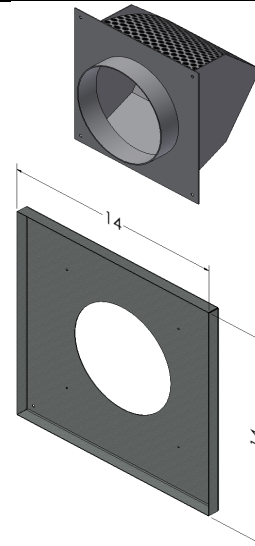


2 – 190 CFM cyclone blowers with adjustable mounting brackets. (15-02-00086)

2 – Optional mounting brackets for end line termination - used when mounting the blower at the termination cap (HA-51-00183)



- 2- 6" end cap (45-01-00444)
- 2- End cap mount plate (45-01-00443)



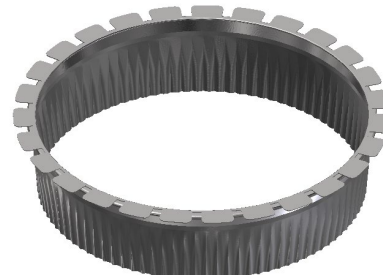
- 1 – single gang wall box (10-04-00131)
- 1 – wall switch, white (10-01-00085)
- 1 – cover plate, white (10-04-00117)
- 1 – snap disk with magnetic bracket (HA-42-00176)
- 1 – Molex connector for ProFlame 2 X13 (65-11-00011)
- 1 – Sheet metal screw hardware bag (50-01-00156)



- 20 feet of aluminum ducting (45-01-00266)



- 2 – 6" starter collars for use with Cool Wall kit (45-01-00435)



INSTALLATION

Locating Blowers

The FlexHeat kit comes with 2 – 190 CFM blowers. The blowers can be mounted anywhere in the ducting run beyond the minimums, including at the horizontal termination draft hoods. The blowers must be installed where they are accessible for service. Maximum ducting run length is 40 feet.

Blower Location Minimums

If the blower is mounted vertically above the fireplace, it must be at least 3 feet above the top of the fireplace.

The blower can be mounted horizontally anywhere within the duct run.

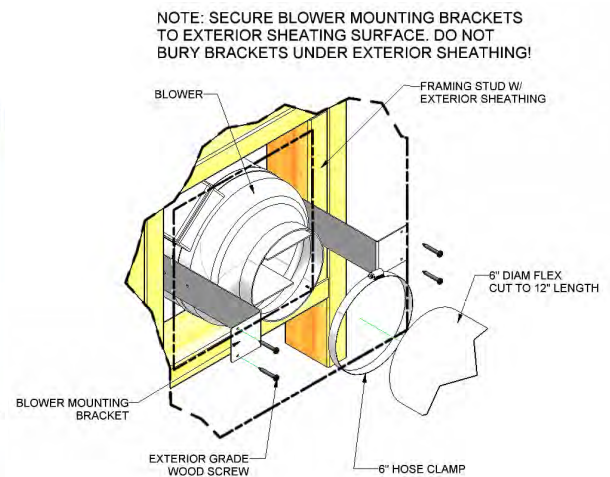
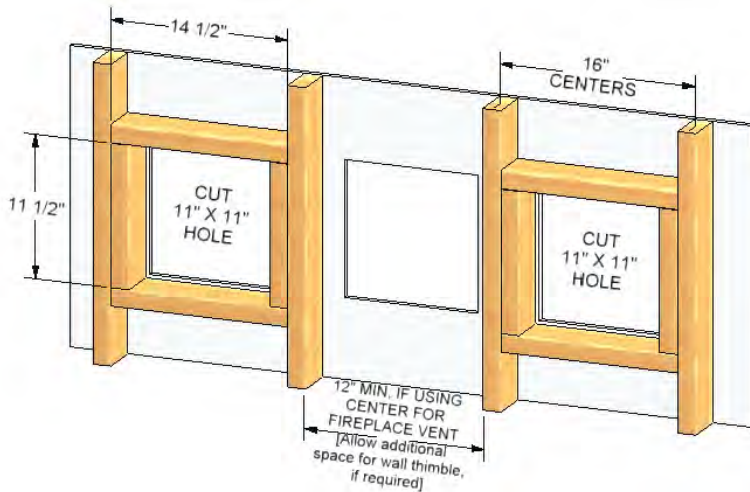
Two sets of mounting brackets for the blowers are included. The shorter brackets shown on the left below can be used when mounting the blower in line, the longer set on the right are specifically for mounting the blower at the horizontal termination draft hood. They allow service access to the blower at the termination draft hood.



The blowers have an arrow on them to indicate the direction of air flow. Ensure the blowers are mounted in the correct direction.

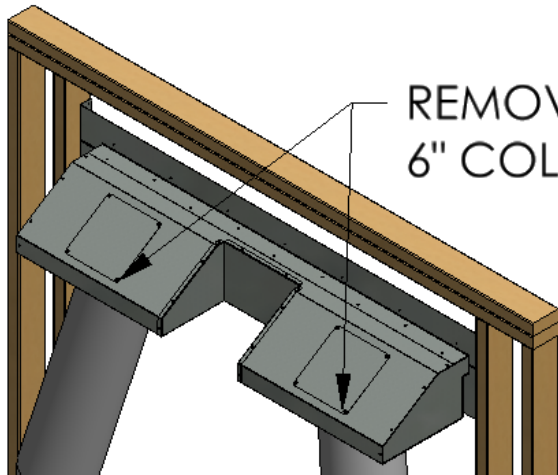


If mounting the blowers at the termination hoods, frame a 11" x 11" opening to mount the blowers in. The termination hood will then cover the opening.



Installing with a Cool Wall System

If installing the FlexHeat with a Cool Wall system remove the covers on top of the Cool Wall vent. Then install the two 6" starter collars to the openings on the top of the Cool Wall vent. Skip forward in the instructions to the installation of the backdraft damper. The backdraft damper will be installed into the 6" starter collar. Then proceed with the installation.



REMOVE COVERS AND ATTACH
6" COLLARS TO OPENINGS.

Installing to the Fireplace

The fireplace will have two 8" cutouts on the top of the fireplace where the FlexHeat system will install. Start by using a tin snip or side cutters to snip the tabs around the perimeter of the knockout. Remove the knockout to expose the insulation.



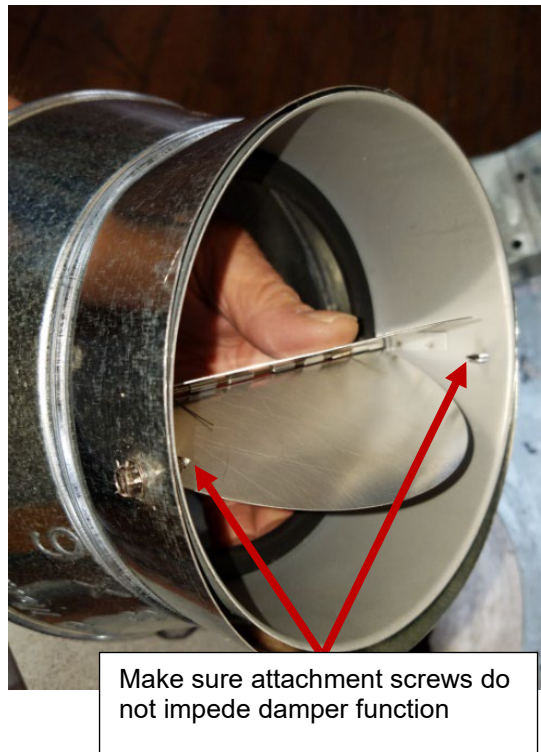
The insulation is perforated in a circle as well. Remove the circles of insulation to expose the inner shield of the fireplace. Like the top of the fireplace the inner shield also has tabs around the perimeter of the knockout. Cut these tabs and remove the knockout.



Next install the 8" to 6" adapter to the top of the fireplace. Remove any loose pieces of insulation and push the insulation away from the inner cutout. Place the adapter in the knockout hole. The adapter will sit on top of the inner shield. Then use three "L" brackets and sheet metal screws to fasten the adapter to the top of the fireplace.



Next install the backdraft dampers. If the damper comes with a foam gasket on its exterior, first remove the gasket. If left in place the foam may smell when heated. Insert the damper into the adapter and fasten it in place using two sheet metal screws. Position the screws so that they do not interfere with the damper opening. After the damper is installed check the damper can fully open and close.



After the blower location is determined and damper has been installed use the flex venting to connect the adapter on the fireplace to the blower and the blower to the termination vent. Use the included hose clamps to secure the flex vent. If the blowers are mounted at the termination hoods use a 12" piece of flex between the blower and hood to allow the hood to be removed for service. If desired, metal tape can be used to seal the connections. Never use silicone or any other sealant to attach the ducting.

20 feet of flex vent is included with the kit. Each vent run can be a maximum of 40 feet. If additional venting is needed it can be sourced locally or additional vent can be ordered from Mendota.

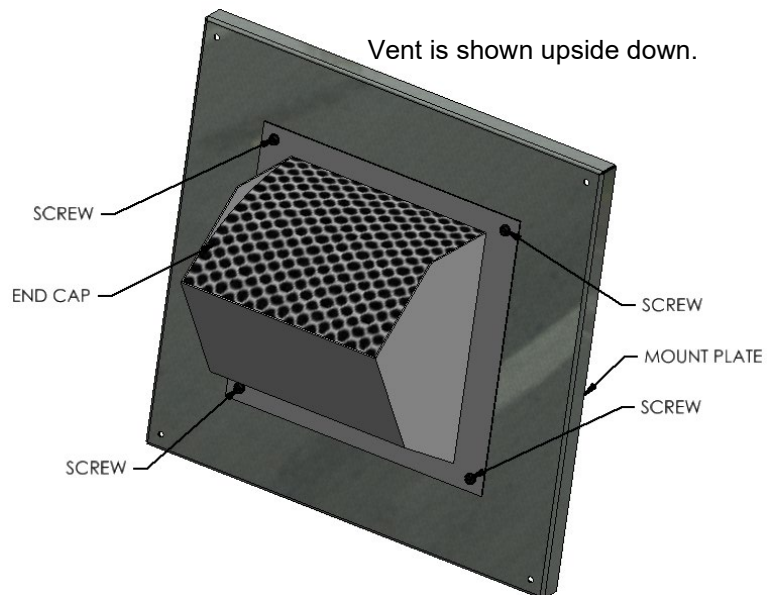
Warning: Flexible duct must be aluminum. Do not use flexible ducting made of other materials like polyester. **Note:** There is no clearance minimums for the flex duct to combustibles.

To maximize heating efficiency insulated ducting can be used. Insulated ducting must be UL 181 listed. Insulated ducting must be 6" aluminum flex with fiberglass insulation.



If the blower is mounted inline and can be accessed for service, the end cap can be used by itself.

If the blower is installed at the termination the end cap can be attached to the included mount plate. The larger mount plate will allow access to the blower if service is required. Place a bead of silicone around the end cap between the end cap and mount plate. Then secure the end cap to the plate with the included screws. The assembly can then be installed at the termination.



Wiring and Switching Options and Installation

There are multiple ways to wire the FlexHeat system that will allow for the system to be turned on manually by a switch or a remote or utilize a snap disk to turn on the blower automatically when the fireplace heats up.

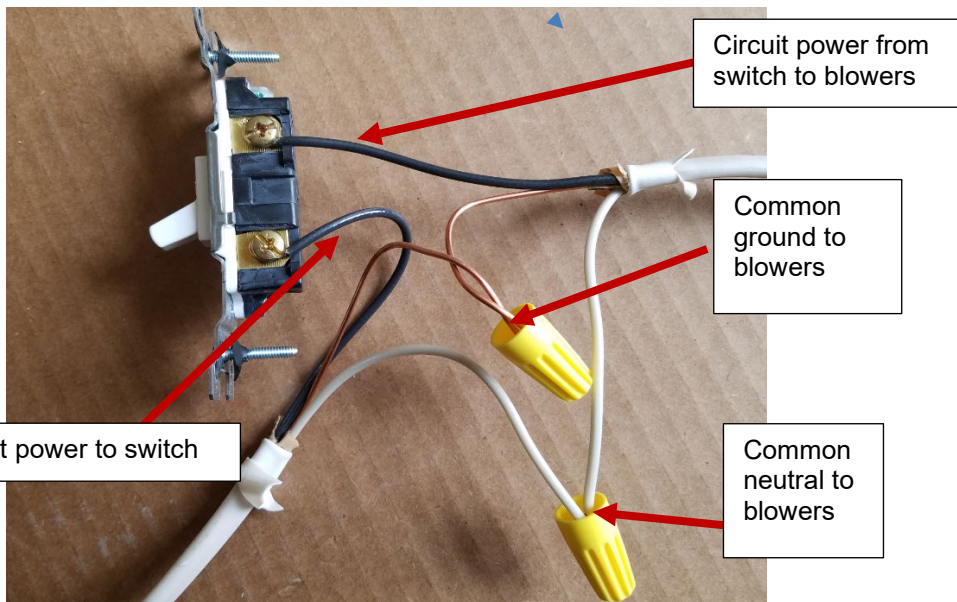
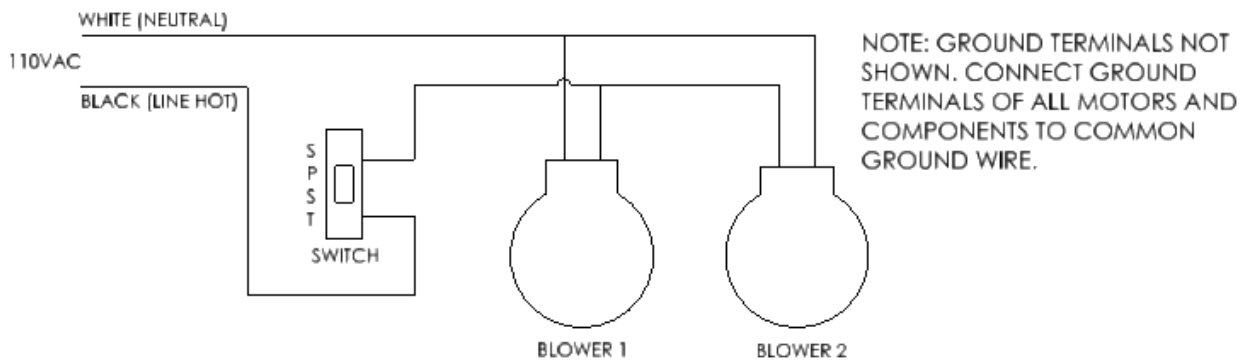
Wall Switch

Wiring the system to a wall switch allows for manual control of the system. When the switch is **off** heat from the fireplace will enter the room from the fireplace. When the switch is turned **on** the heat will be transferred to the terminations of the FlexHeat system.

The blowers must be wired in series and run at maximum speed. A rheostat is not allowed to control the speed of the blowers.

Choose the location of the switch and mount the single gang electrical box to install the switch. Use minimum 14-2 Romex on a 120 VAC 15-amp circuit.

All wiring must be done by a qualified electrician and must comply with local electrical codes.

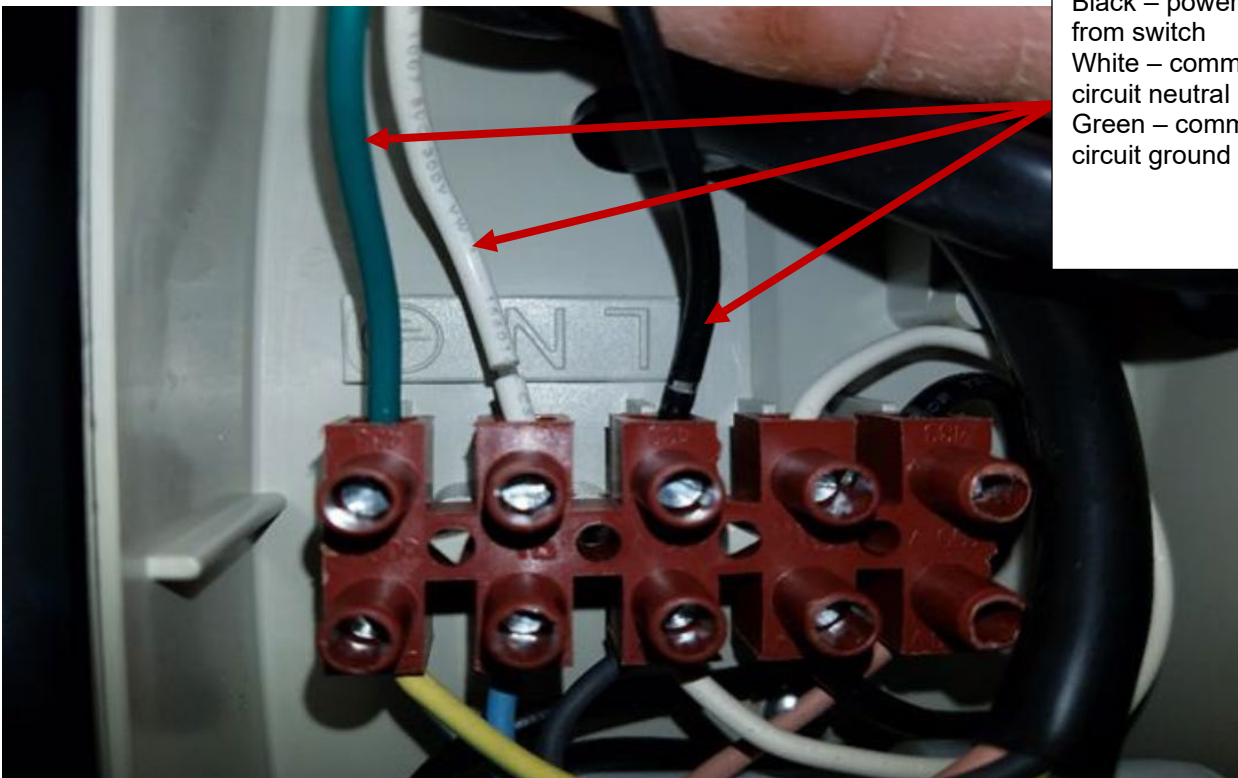




Remove cover plate to wire blowers.

Make sure blowers are mounted according to the airflow directional indicator.

Once the cover plate is removed, wire the blower as shown. Replace cover plate.



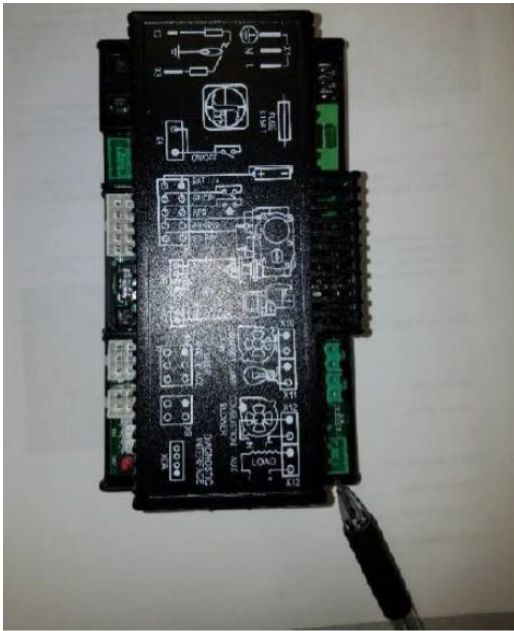
Black – power from switch
White – common circuit neutral
Green – common circuit ground

Auxiliary Switch on ProFlame System

For fireplaces that use the ProFlame 2 system the FlexHeat system can be wired to the X-13 auxiliary switch on the control board. This allows the FlexHeat system to be turned on and off using the fireplace remote.

Use minimum 14-2 Romex on a 120 VAC 15-amp circuit.

All wiring must be done by a qualified electrician and must comply with local electrical codes.



X 13 Auxiliary Connection

Requires 65-11-00011 Molex



Auxiliary Mode, Proflame 2 Remote

Allows VersiHeat ON/OFF Only

ATTENTION

This option cannot be used with the following fireplace models if they have an optional floor light kit installed. The AUX function is used to control the floor lights.

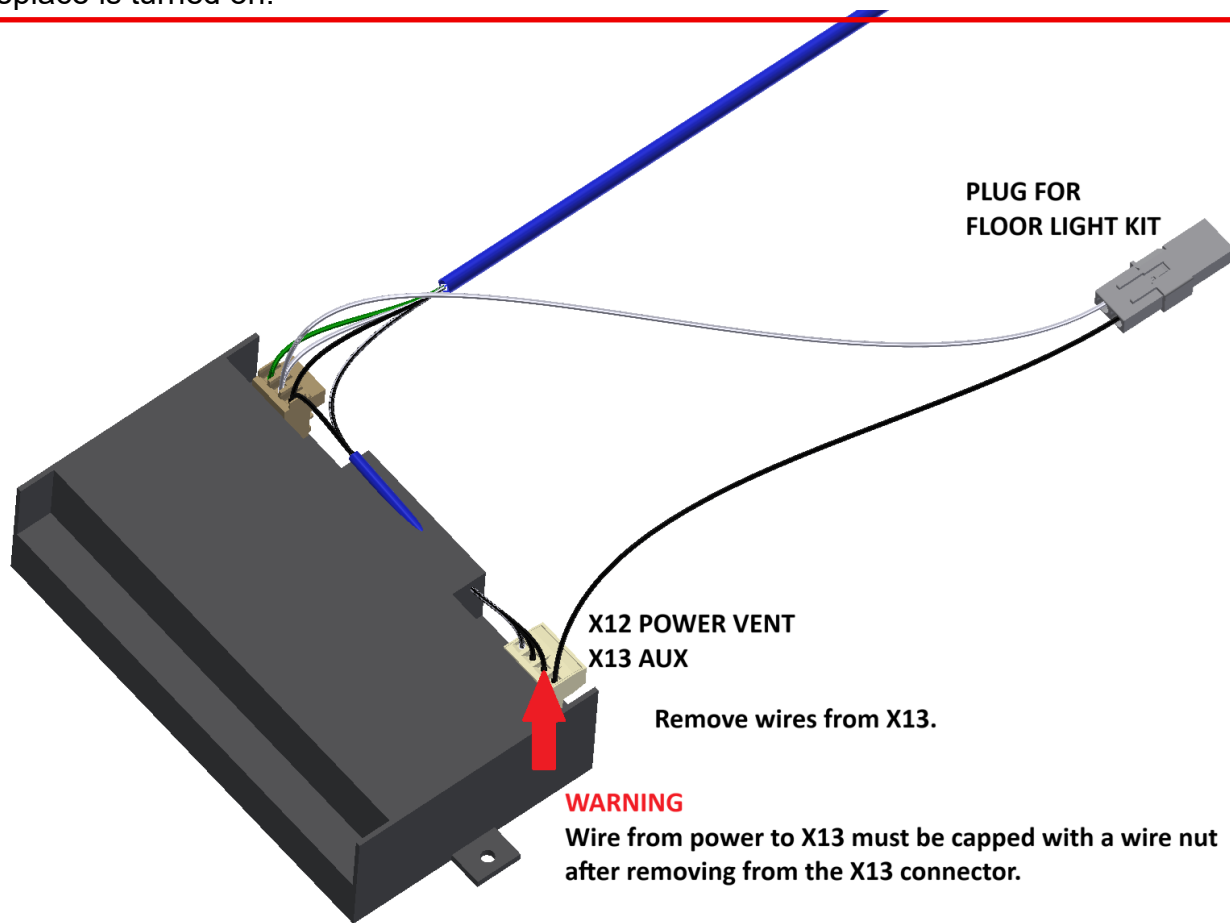
- FV34 FireIn
- FV36 FireIn
- FV42 FireIn
- FV48 FireIn
- FV41 FireIn
- FV46 FireIn

For these models if the optional floor light kit is not installed the wire harness can be modified to use the AUX X13 connection to control the fans.

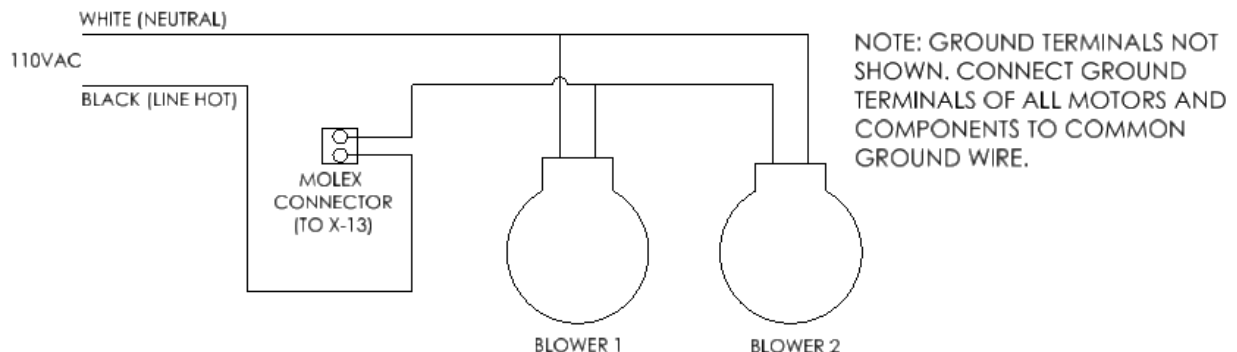
The wire harness that comes with the fireplace has a 4 pin connector that is in the X12 and X13 connection on the SIT control board. Use a small flat screwdriver to loosen and remove the two wires from the X13 side of the connector.

WARNING

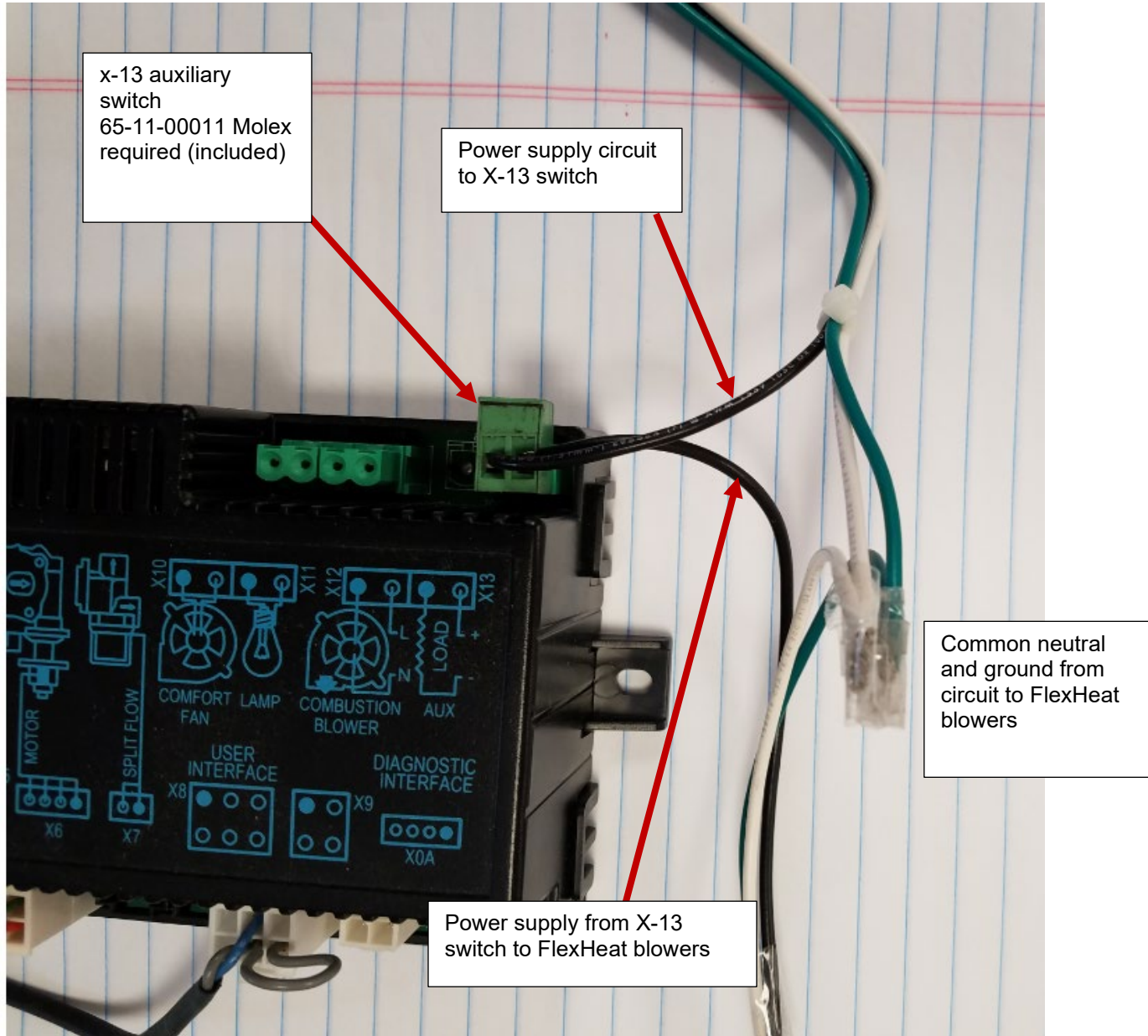
After removing the wires from X13, cap them with a wire nut. The wires will be live when the power to the fireplace is turned on.



After removing and capping the wires from X13 the FlexHeat blowers can be wired to the X13 connection. On fireplace models without optional floor lights the X13 will not have wires installed. On these models the FlexHeat blowers can be wired to X13 without any other modifications.



If the fireplace is not power vent compatible a 4 pin connector will not be included with the control board. For these units use the 65-11-00011 Molex connector included with the FlexHeat kit to connect the FlexHeat blowers to the X-13 AUX connection.



For information on wiring the blowers reference the section for installing a wall switch.

Snap Disc

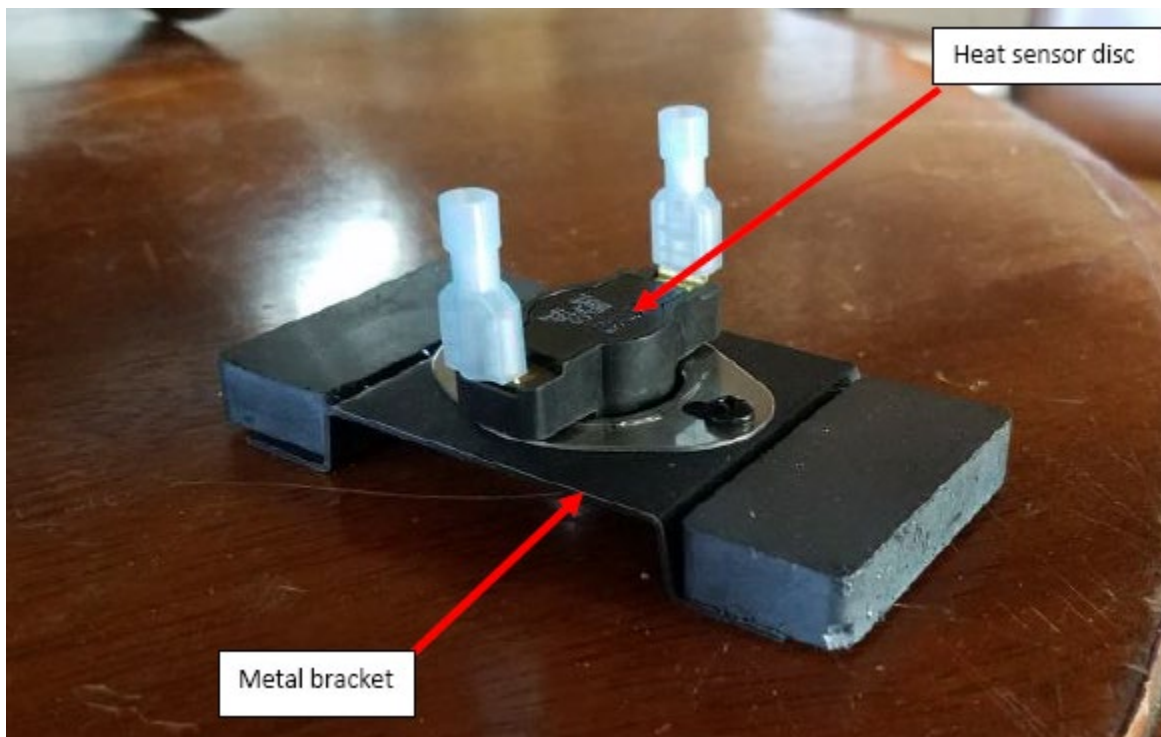
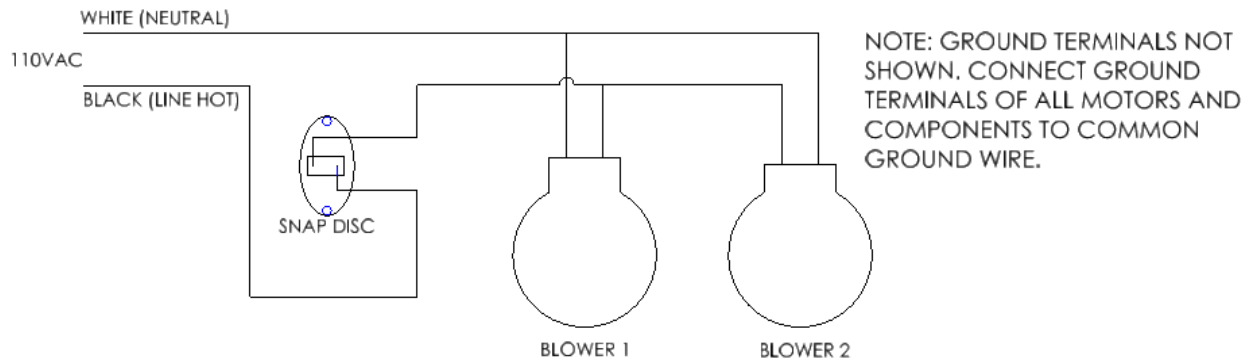
Wiring the system with a snap disc allows the FlexHeat system to come on automatically when the fireplace heats up. This installation is recommended when the FlexHeat system is being used to allow installation of a television above the fireplace.

The snap disc installation cannot be used with the M50 Greenbriar.

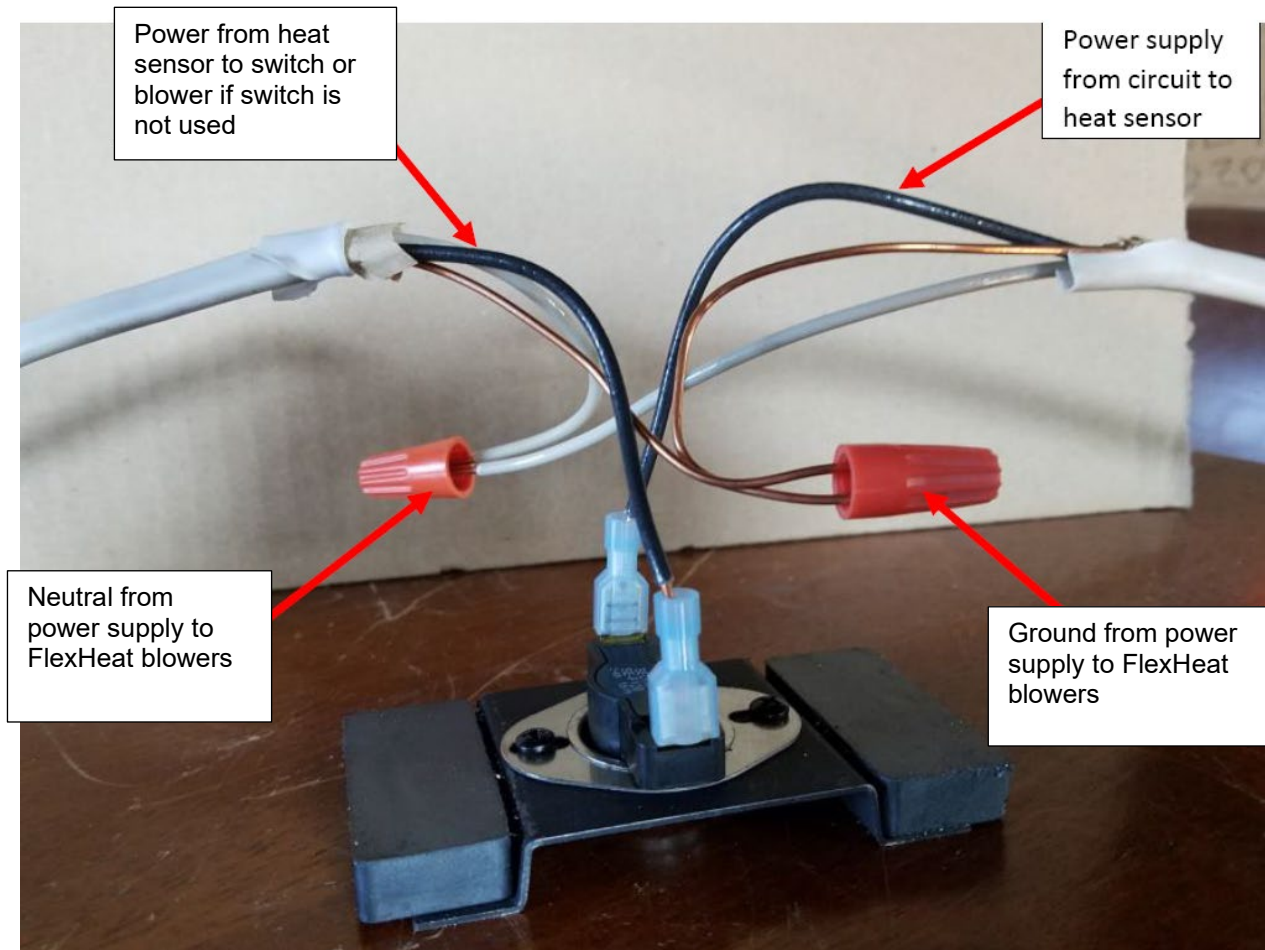
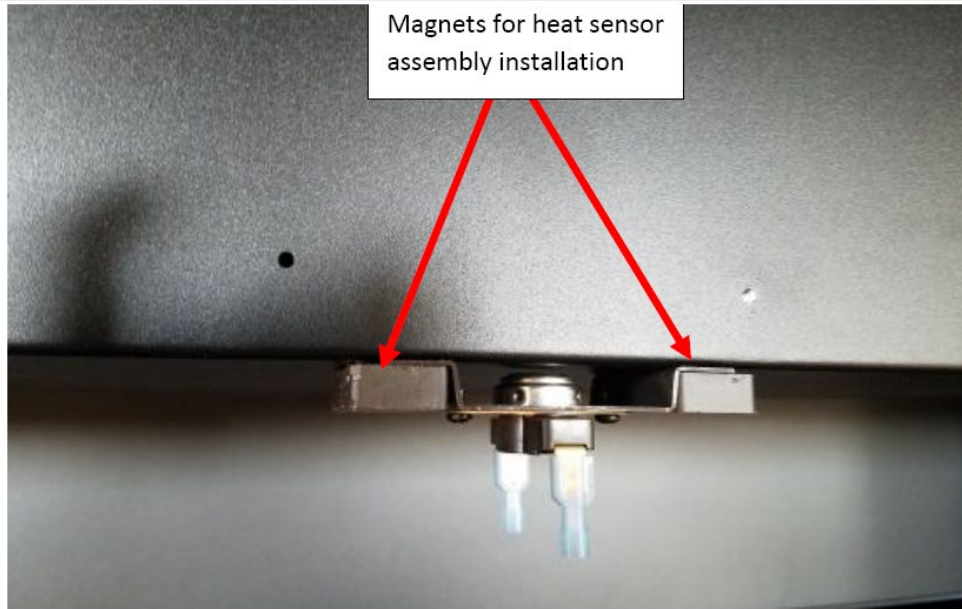
The snap disc can be wired in series with a wall switch or the X-13 auxiliary switch. This would allow the system to come on automatically if the switch is left on, but also allow the system to be shut off if desired.

Use minimum 14-2 Romex on a 120 VAC 15-amp circuit.

All wiring must be done by a qualified electrician and must comply with local electrical codes.

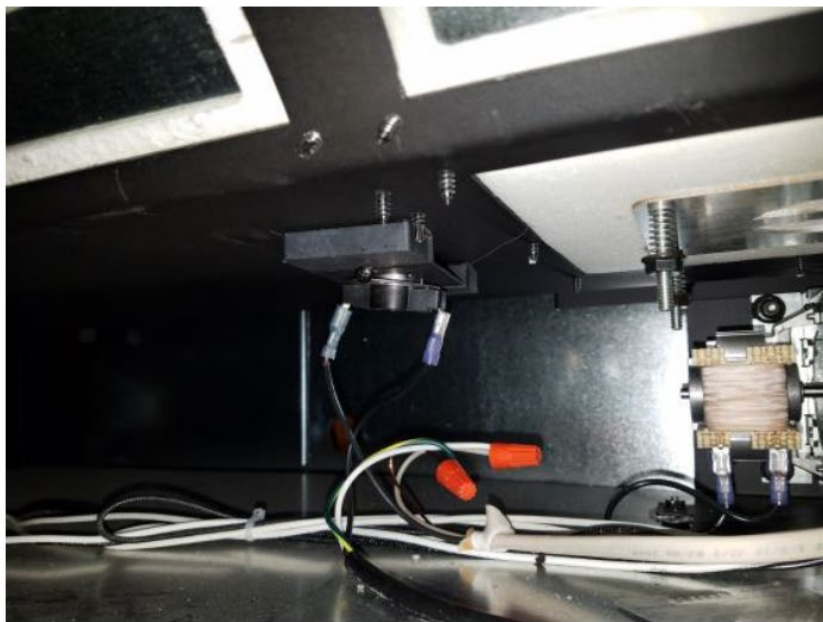
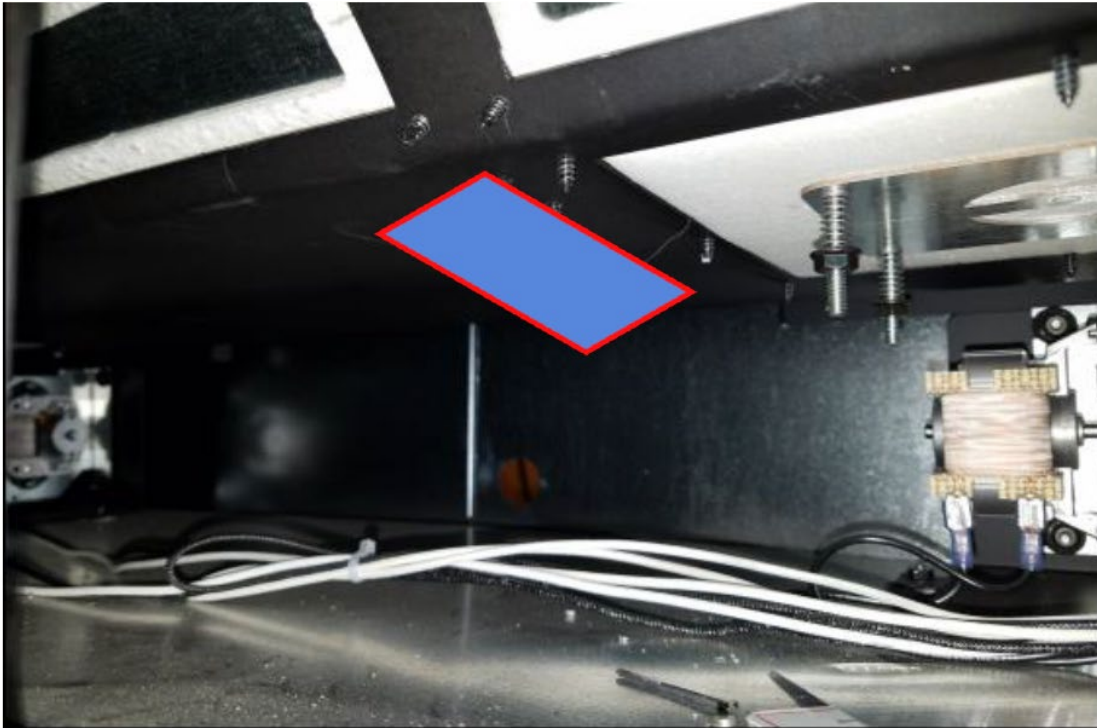


Locate the snap disc, metal bracket, magnets, and female spade connectors (included). Using sheet metal screws mount the sensor disc to the metal bracket as shown.



Locate the snap disc in the location shown below based on the fireplace model.

For ML model fireplaces place the snap disc assembly to floor of the firebox just to the left of the right-hand side explosion plate. This will allow service access to the snap disc and is on the right side of the fireplace where power is connected to the fireplace and the control board is located.



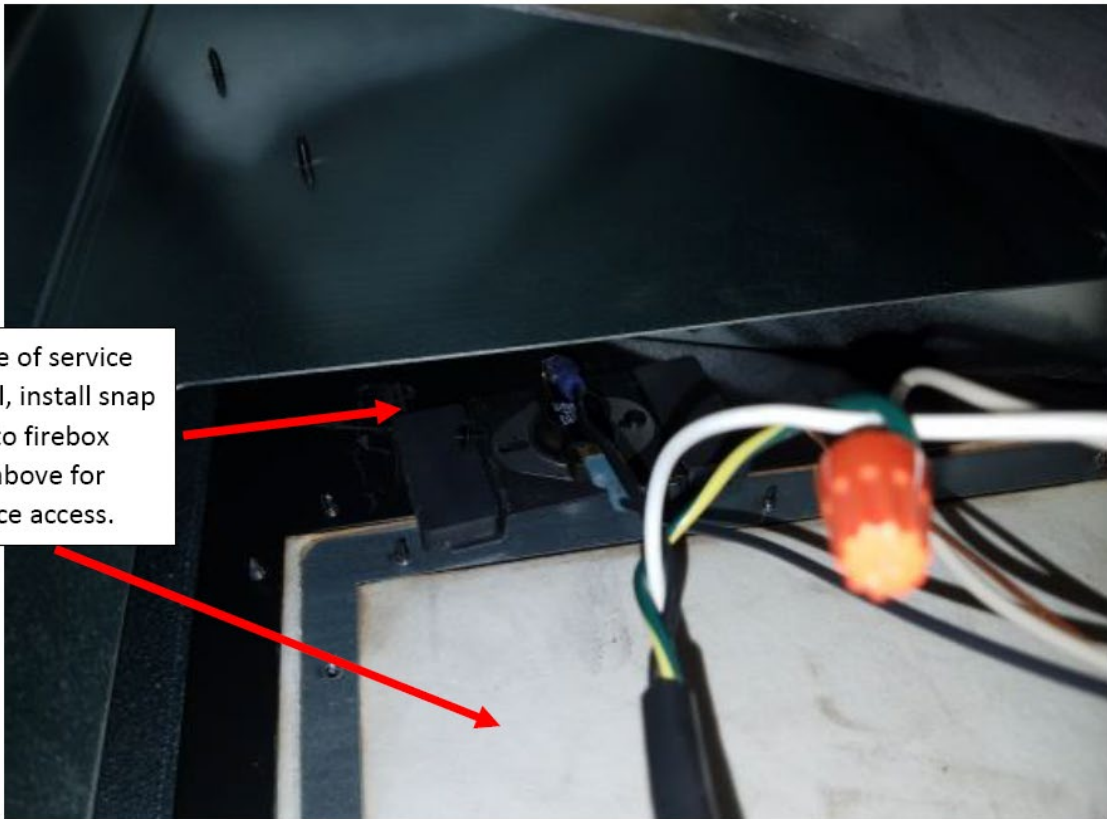
On FV model fireplaces mount the snap disc to the side of the firebox above the service access panel.



On Full View units the male spade connectors must be bent flat as shown to allow installation.

Locate the side of the unit where the control board is located, this allows easy access to the electrical supply.

Mount the Optional Snap Disc Assembly just above the service panel, magnet the snap disc to the firebox wall.

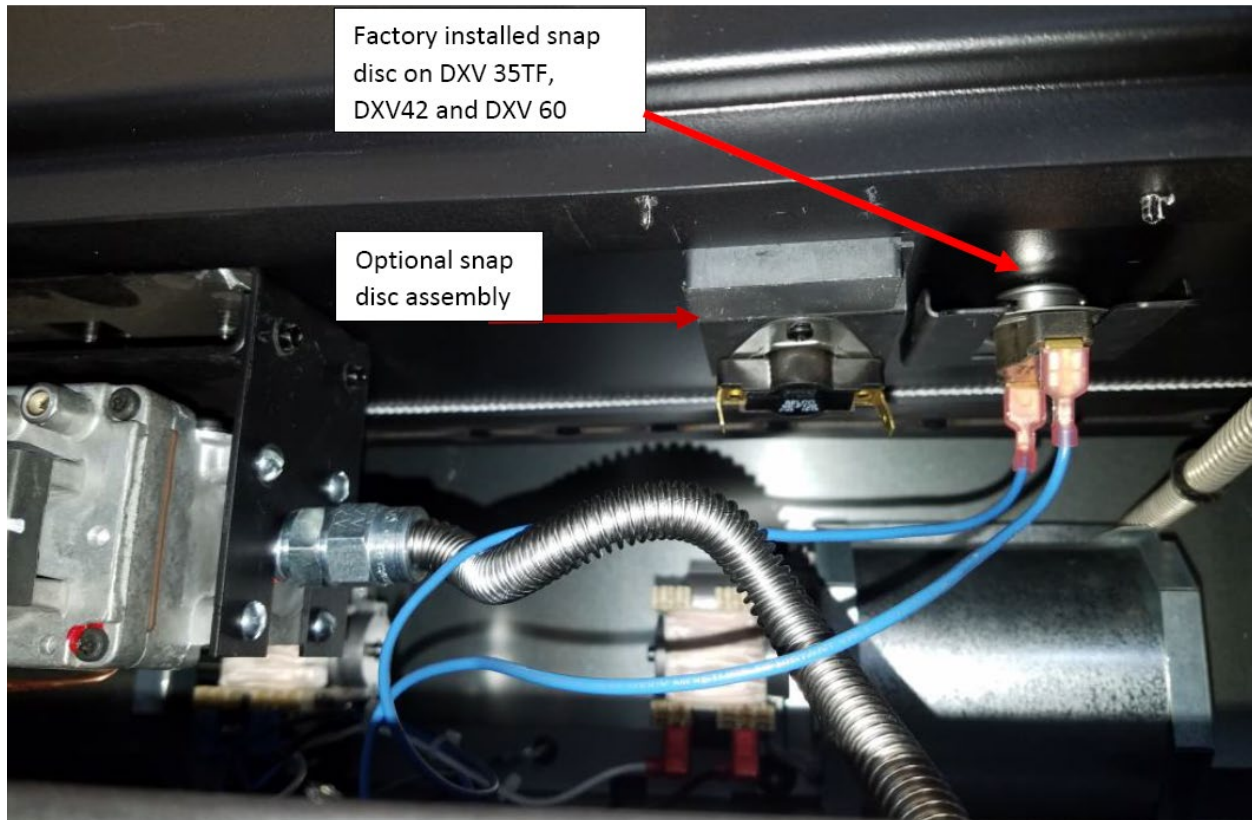


Inside of service panel, install snap disc to firebox just above for service access.

On DXV model fireplaces mount the snap disc to the bottom of the firebox.

On DXV35 Timberfire, DXV42 and DXV60 fireplaces a factory installed snap disc for internal convection blowers is already located in the fireplace. Place the magnetic snap disc assembly beside the factory installed snap disc.

On the other DXV fireplaces place the snap disc assembly to the right of the valve and in front of the right-side convection blower.

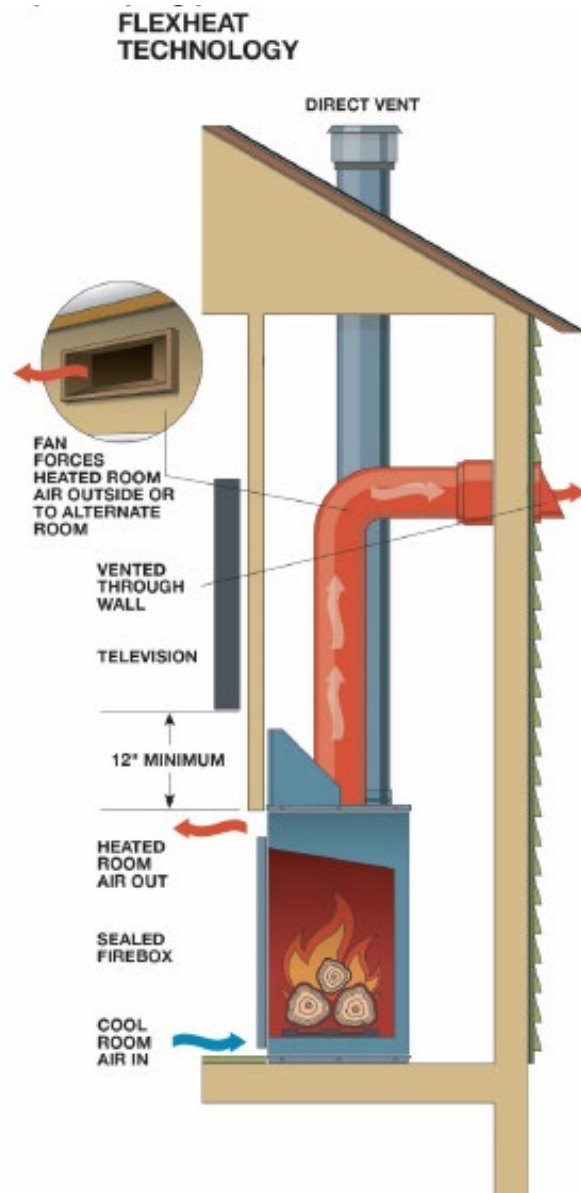


Using FlexHeat for a Television Application

WARNING: To reduce temperatures above the fireplace for mounting a television the FlexHeat system must always be on when the fireplace is in operation. **Because the FlexHeat system must be running to reduce temperatures, the fireplace cannot be operated during a power outage.**

Testing has shown that when using the FlexHeat system temperatures above the fireplace are reduced making it possible to mount a television 12" above the fireplace's top air gap.

Following these recommendations, a television can be installed 12" above the top heat convection opening with no other wall protection.



When utilizing the FlexHeat to reduce wall surface temperatures for a television or other heat sensitive product being installed above the fireplace, you must follow the Mendota Hearth recommendations below:

- When utilizing the FlexHeat Heat Transfer System you must utilize both ports located on top of the fireplace, both FlexHeat blowers, and run (2) flexible duct runs (40 feet max.) the FlexHeat blowers must be wired in sequence and run at their maximum RPM output.
- You must utilize the heat sensor snap disc assembly. The two FlexHeat blowers must automatically come on each time the fireplace heats up.
- You must eliminate the wall switch and / or the X-13 auxiliary switch. The FlexHeat blowers cannot be manually shut off while the fireplace is hot or in operation.
- The fireplace internal convection blowers must be disconnected from power (millivolt systems) or programmed out of the remote (ProFlame 2 systems).
- The snap disc assembly CANNOT be utilized on the M50 Greenbriar.

How to Program the Internal Convection Blowers Out of the ProFlame 2 Remote

- On fireplaces with electronic ignition system that come with a PF2 remote the convection fans function must be programmed out of the remote. This will ensure that the convection fans cannot be turned on. Follow the directions below to remove the convection fans function from the remote.
 1. Remove the battery from the remote.
 2. Hold down both the ON/OFF key and MODE key and reinstall the battery.
 3. Continue to hold the ON/OFF key. Release the MODE key. Press the MODE key once to highlight the convection fan function. *
 4. While still holding the ON/OFF key press the DOWN ARROW key. The display will change from "Set" to "Clr" to indicate that the convection fan function has been disabled.
 5. Release the ON/OFF key.

