

Compatibility Notes

This kit with any DaVinci or Maestro fireplace with TouchSmart™ controls.

Overview

The heat exchanger is designed to circulate room air through the fireplace to extract heat from the exhaust stream and deliver that heat back into the room. The heat exchanger is installed in line with the venting and air from a blower is routed through the exchanger and back into the room through a register.

Install the heat exchanger when venting the appliance. Make sure all work on ducts is complete and sealed before installing drywall.

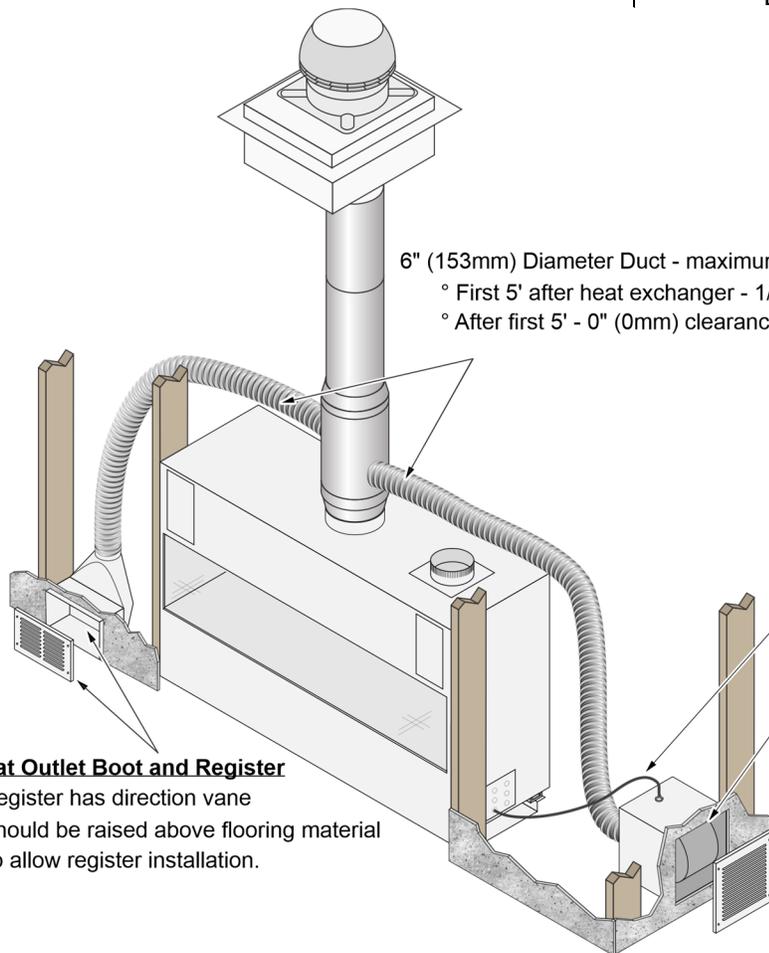
Listing

Tested and Listed by



Report # 0028GF103S
ANSI Z21.50-2016
CSA 2.22-2016

Gas-Fired Domestic and Commercial Heating Equipment "Vented Gas Fireplace"



6" (153mm) Diameter Duct - maximum 75' (22.86M) combined length
 ° First 5' after heat exchanger - 1/2" (13mm) clearance
 ° After first 5' - 0" (0mm) clearance

Heat Outlet Boot and Register

- Register has direction vane
- Should be raised above flooring material to allow register installation.

Power for Blower

- Power for the blower comes from the fireplace and is controlled by the touch screen.
- A power line is routed to the fireplace (not supplied - use romex, etc.).

Blower Box

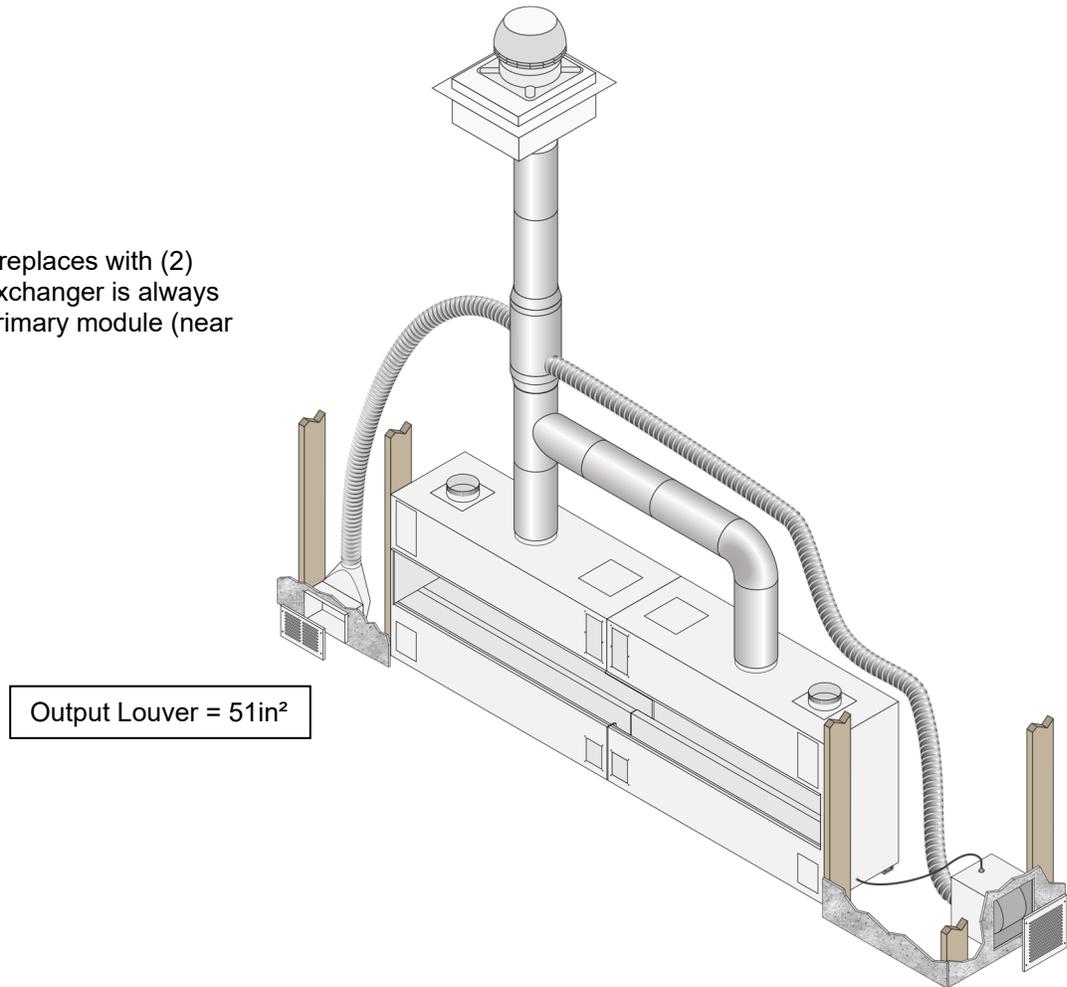
- Bottom edge must be 1-1/2" (39mm) minimum above finish floor
- Must not be placed on its side
- Must draw air from inside the household/structure (do not pull from an exterior location).
- Includes grill

Packing List

- Heat Exchanger Vent section
- Blower Assembly with Strain Relief
- Blower Grill
- (4) #8 x 1" screws (to secure the blower grill)
- Heat Exchanger Lead (2-wire Molex)
- Register Boot - 6" Dia. to 6" x 12" (153mm Dia. to 153mm x 305mm)
- Output Register (12" x 6") (305mm x 153mm)
- 33' (10.06M) of 6" (153mm) Diameter Duct (U.L. 181)
- 10" starter collar (for use with inline 180 fan **only**)
- (12) Tek screws
- (5) wire nuts

Category 2 - Heat Exchanger Location

- For category 2 fireplaces with (2) flues, the heat exchanger is always located on the primary module (near the exhaust).



NOTE: For maximum performance, we recommend wrapping the flex duct downstream from the heat exchanger in foil-backed fiberglass insulation capable of withstanding temperatures of up to 250° F. Consult your local codes and the authority having jurisdiction for insulation listing requirements or other requirements.

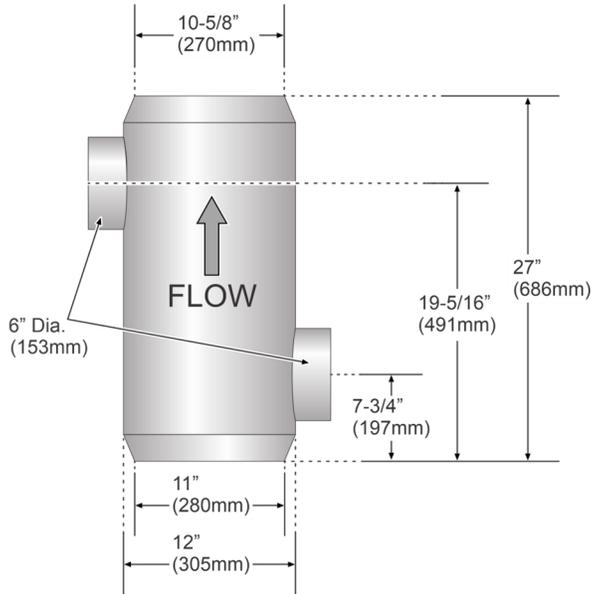
Additional Options

- Remote Blower Intake Grill, SKU # 94400131 (allows for intake box to be concealed & air to be drawn from a register)

Installation Warnings

- WARNING:** This kit must be installed as specified in these instructions. Do not modify any component.
- WARNING:** Use of any external blower other than the blower included with this kit will void the warranty and listing of this appliance and may create a fire hazard.
- WARNING:** Disconnect power to the fireplace (turn the service breaker off) before conducting the installation. Enable power to the fireplace only after the installation is verified.
- NOTE:** This kit **must** be installed by a qualified service technician.
- NOTE:** Some building codes may require the use of firestop spacers whenever the duct passes from room to room.

Heat Exchanger Dimensions



Fireplace Heat Exchanger Requirements

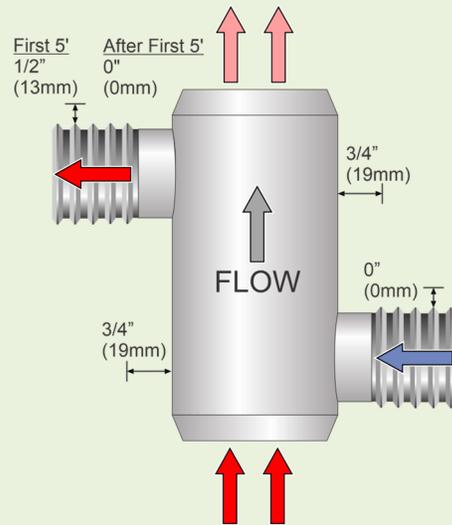
- The further the heat exchanger is from the flue collar of the appliance, the less heat that can be reclaimed from the exhaust. For the most effective heat exchange, the heat exchanger should be installed directly on the flue starter collar (or on top of the vent “t” section if it is installed on a 2-flue fireplace) however, the exchanger may be installed anywhere along the vent run (must be installed before the inline exhaust fan, if used).
- The heat exchanger fan must be ducted to the lower of the two side collars on the heat exchanger.
- The inlet and outlet of the heat exchanger must be in the same airspace (cannot be installed in separate rooms that can be isolated by a door).
- All connections to and from the heat exchanger (vent and duct) must be sealed with aluminum (U.L. 181A-P) tape.

Heat Exchanger Clearances

Vertical Install

- Minimum 3/4” (19mm) clearance is required to the heat exchanger.
- The duct (and its connection to the heat exchanger) has a minimum 1/2” (13mm) clearance for the first 5 feet after the heat exchanger. After the first 5’ the clearance can be reduced to 0” (0mm).

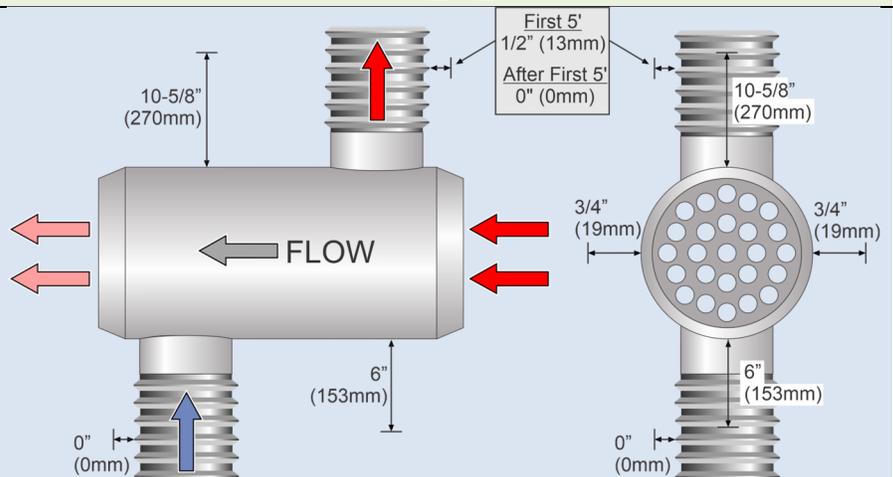
Vertical Install



Horizontal Install

- Minimum 6” (153mm) clearance is required to the bottom of the heat exchanger.
- Minimum 3/4” (19mm) clearance is required to the sides of the heat exchanger.
- Minimum 10-5/8” (270mm) clearance is required to the top of the heat exchanger.
- The duct (and its connection to the heat exchanger) has a minimum 1/2” (13mm) clearance.

Horizontal Install



Duct Installation

Maximum Duct Length

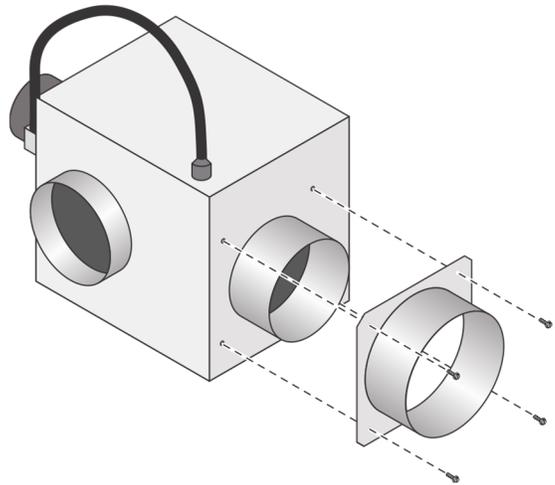
- The maximum duct length is 75' (22.9M) (inlet and outlet combined length).

Using an Inline Power Vent

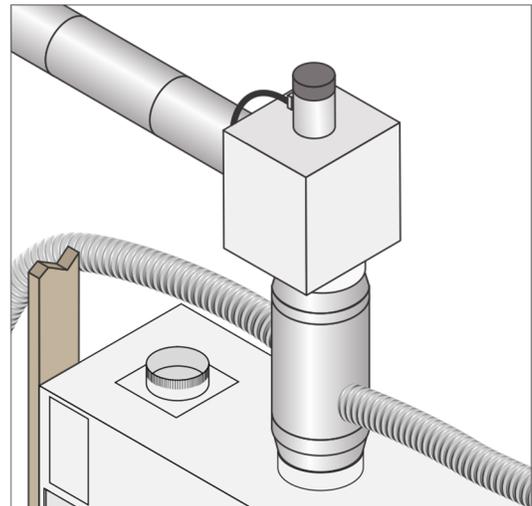
! A 10" to 8" reducer must be installed on top of the heat exchanger or 10" pipe must be run from the heat exchanger to the power-vent when using an inline power vent fan. A 10" collar will be offered with the inline power-vent for heat exchanger installations.

If using an inline power vent fan in conjunction with the heat exchanger, you must use the Inline 180. The collar on the inline fan is 8" and the heat exchanger is 10". A 10" starter is included with this kit to adapt the fan to the heat exchanger.

- Locate the (4) screws around the intake of the fan and remove them using a 1/4" nut driver
- Place the 10" collar over the existing 8" collar and secure using the screws

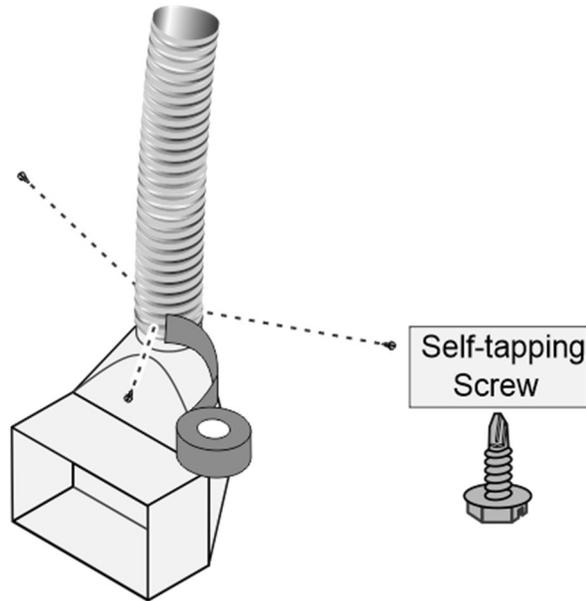


- Secure the 8" pipe to the outlet of the blower with self-tapping screws.
- Seal the pipe to the outlet of the inline blower with 600° rated silicone caulk.
- All pipe between the heat exchanger and the inline fan must be 10" diameter.
- All pipe between the inline fan and the termination must be 8" diameter.
- Install the heat exchanger directly on the flue collar of the fireplace.
- The inline fan can be installed directly on top of the heat exchanger. Support as needed.



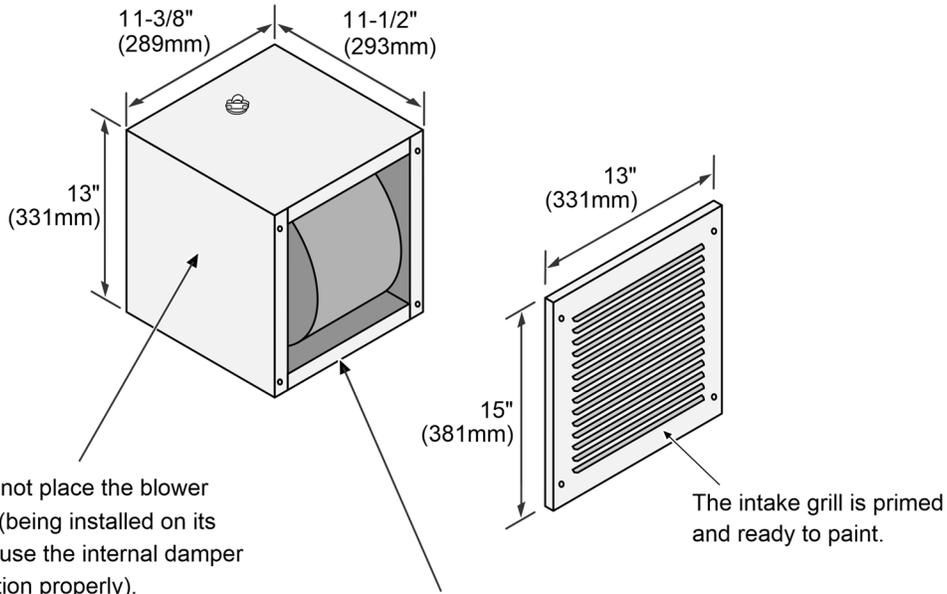
Duct Routing

- The duct has a 1/2" (12.7mm) minimum clearance to combustibles for the first 5' (1.52m) from the heat exchanger. After the first 5' (1.52m) the duct has 0" clearance to combustibles.
- The duct must maintain a minimum 1" (26mm) clearance to the fireplace B-Vent exhaust.
- Do not route duct in external areas or areas subject to severe cold or heat.
- The duct inlet and outlet must be placed within the household/structure. Do not pull air from outside the household/structure.
- The included duct is listed to U.L. 181. If using an alternative duct, make sure it complies with U.L. 181.
- Secure all flex connections with three self-tapping screws and seal with aluminum (U.L. 181A-P) tape



Blower Box Placement

- The blower box has a removable grill that allows access to the blower. The blower box must be placed so it may be accessed at a later time.
- The blower box must only be placed on the standoff legs (the grill cannot be facing upward or downward). **Do not place the blower box on its side** (power inlet on the side with the grill on its side).



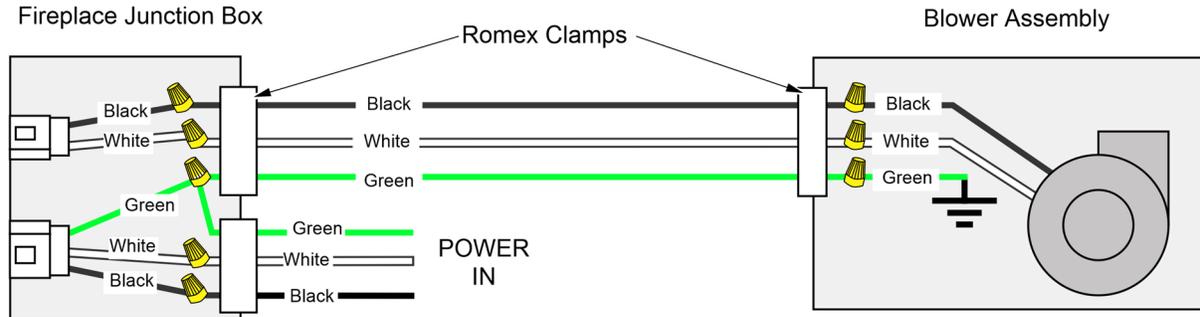
NOTE: Do not place the blower on its side (being installed on its side will cause the internal damper to not function properly).

NOTE: If placing the blower near the floor, make sure the bottom edge is a min. 1-1/2" (39mm) above the finished floor to allow the grill to install. You may need to shim under the housing to meet this requirement depending on the specifics of the job site & desired blower location.

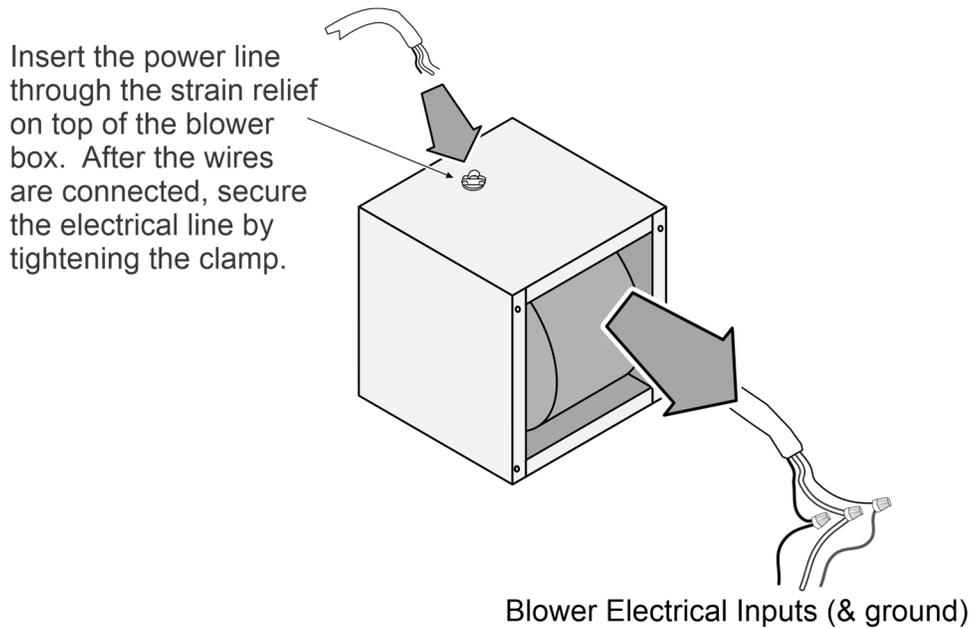
Wiring Instructions

WARNING: All wiring should be done by a qualified electrician and shall be in compliance with local codes and with the current National Electric Code ANSI/NFPA 70 (in the U.S.), or with the current CSC22.1 Canadian Electric Code (in Canada).

Wiring Diagram



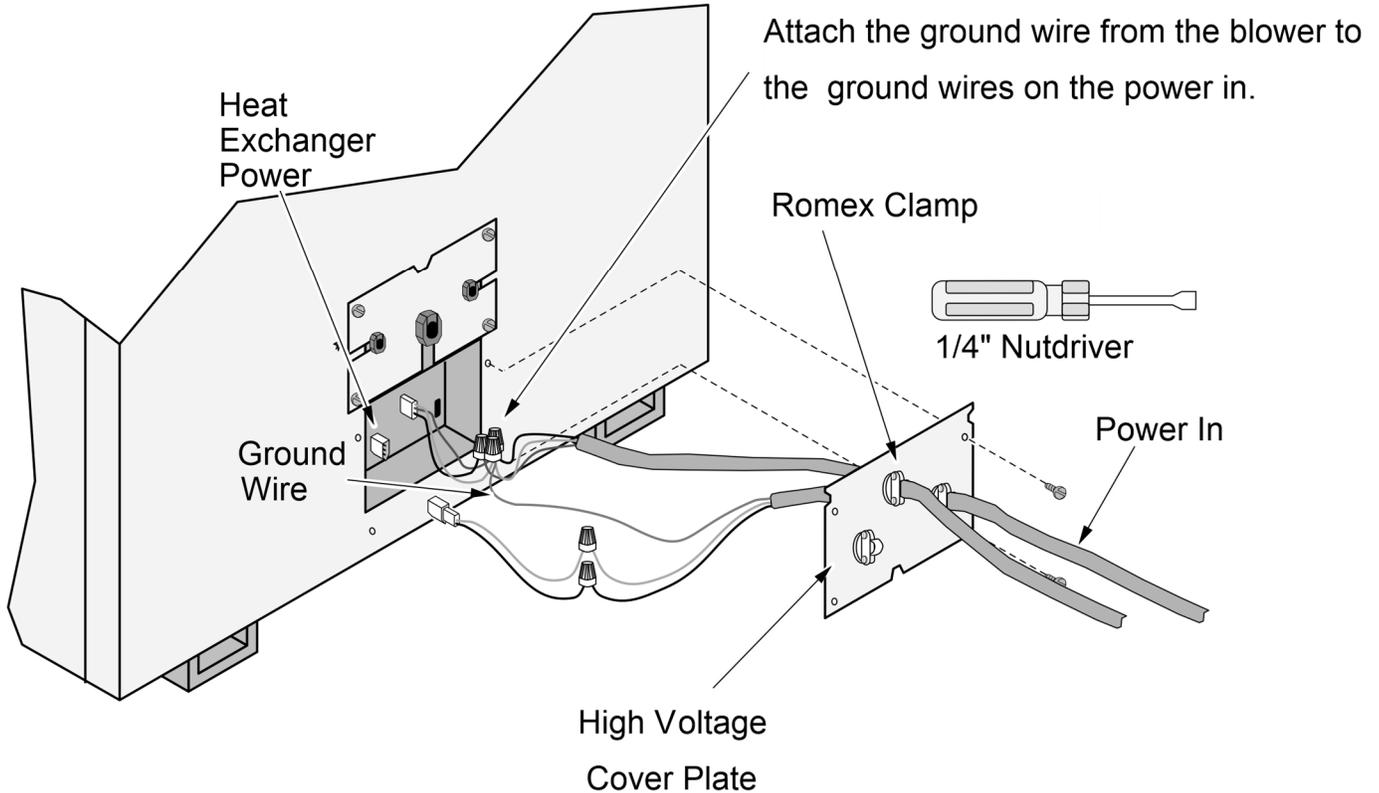
Blower Box Wiring



Wiring on the Fireplace Junction Box

- See the manual for details on accessing the junction box.
 - Route the power from the heat exchanger blower to the connector on the fireplace as shown below.
- NOTE:** The ground wire from the blower should be connected to the ground wire from the power in.

DaVinci HeatSmart™ Heat Exchanger



Operating Instructions

- The person operating the fireplace must turn the blower on and off manually using the fireplace TouchSmart™ controller. If the blower is left on and the fireplace is turned off, the heat exchanger will turn off as well and will come back on at the last setting when the fireplace is turned back on.
- Use the touch screen to control the blower speed (see manual for details).

Maintenance Instructions

- Once a year the grill should be removed and the blower area cleaned. Use a vacuum to clean around the squirrel-cage blower, being careful not to damage any of the blades.