

Natural Vent Adapter Installation

GS33/ GS33E/ C34-11/ C34E-11/ RC500E

Natural Draft Adapter Requirements

When installed with Natural Draft Adapter Kit #946-861 this heater is equipped with a vent safety switch designed to sense incorrect venting and react by shutting down the gas supply. This thermally actuated switch is located within the Natural Draft Adapter and will detect either a blocked chimney or backdraft condition where the chimney flow has reversed. If this switch shuts the unit down, it indicates a drafting problem that must be identified and rectified without delay - the thermally activated switch must never be bypassed or disconnected as a hazardous or deadly condition can result.

The Natural Draft Adapter must not be altered, obstructed, or blocked in any way, and the unit must be installed so that the adapter is in the same atmospheric pressure zone as the combustion air inlet to the burner. This heater must be properly connected to a venting system. This heater is equipped with a vent safety shutoff system.

WARNING: Operation of this heater when not connected to a properly installed and maintained venting system or tampering with the vent safety shutoff system can result in carbon monoxide (CO) poisoning and possible death.

WARNING: When installed with the Natural Draft Adapter, this appliance needs fresh air for safe operation and must be installed with provisions for adequate combustion and ventilation air available to the room in which it is to be operating.

WARNING: Appliances converted using the Natural Vent Adapter kit cannot be installed in a manufactured (mobile) home.

Venting Requirements

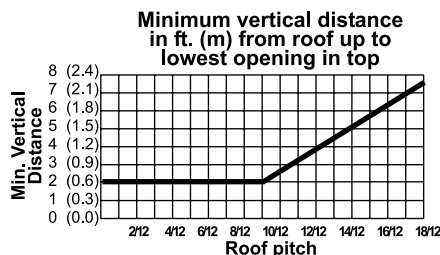
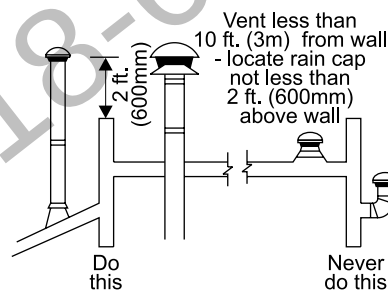
A four inch diameter vent is required unless an increaser is used at the immediate outlet of the Natural Vent Adapter. B-Vent, Class A or Masonry with an approved liner are all acceptable. Follow all venting manufacturer's requirements and local building codes. In cold climates, we recommend the use of insulated B-vent, chase, and liners. For altitudes above 2000 ft. we recommend that a minimum flue height of 12 ft. is used.

Installation into Existing Woodstove Flue System

- 1) Clean existing Chimney system.
- 2) Run an approved 4" flex liner or "B" vent into existing chimney.

Note: See the chimney systems manufacturer for detailed installation instructions.

Vent Terminations



Natural Vent Adapter Installation

GS33/ GS33E/ C34-11/ C34E-11/ RC500E

NATURAL VENT ADAPTER VENTING CHART

QUALIFIED INSTALLERS ONLY

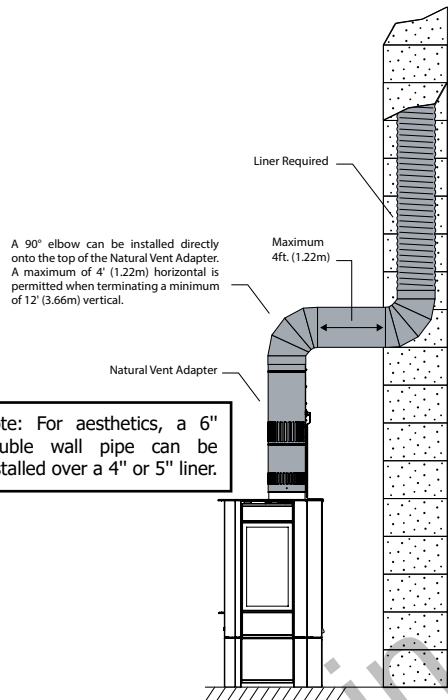
**THIS NATURAL VENT ADAPTER MUST BE INSTALLED VERTICALLY AS SHOWN.
A CHIMNEY VENTING THIS STOVE SHALL NOT VENT ANY OTHER APPLIANCE.
FOLLOW ALL LOCAL CODES**

This appliance may be vented in various types of applications, including:

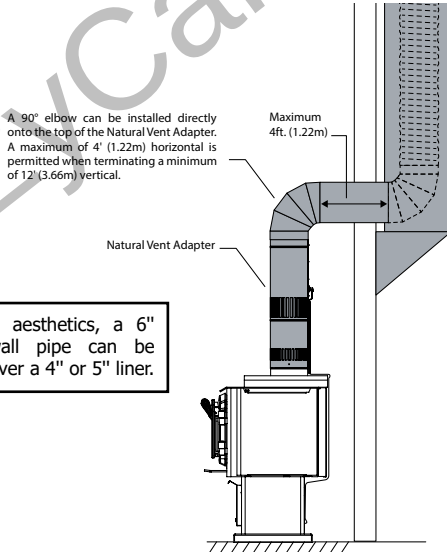
- A masonry clay lined chimney
- A solid fuel wood burning chimney
- A B-Vent liquid fuel gas burning chimney

A B-Vent liquid fuel gas chimney or 4" Flex pipe may be used. When installing with B-Vent liquid fuel gas chimney, install as per B-Vent manufacturer installation specifications. Horizontal, Vertical, and offset installations are allowed. **NOTE: Installation of B-Vent must follow B-Vent Manufacturers Installation Instructions when being used.** Follow the B-Vent chart for horizontal, vertical, or offset venting.

MASONRY CLAY LINED CHIMNEY:

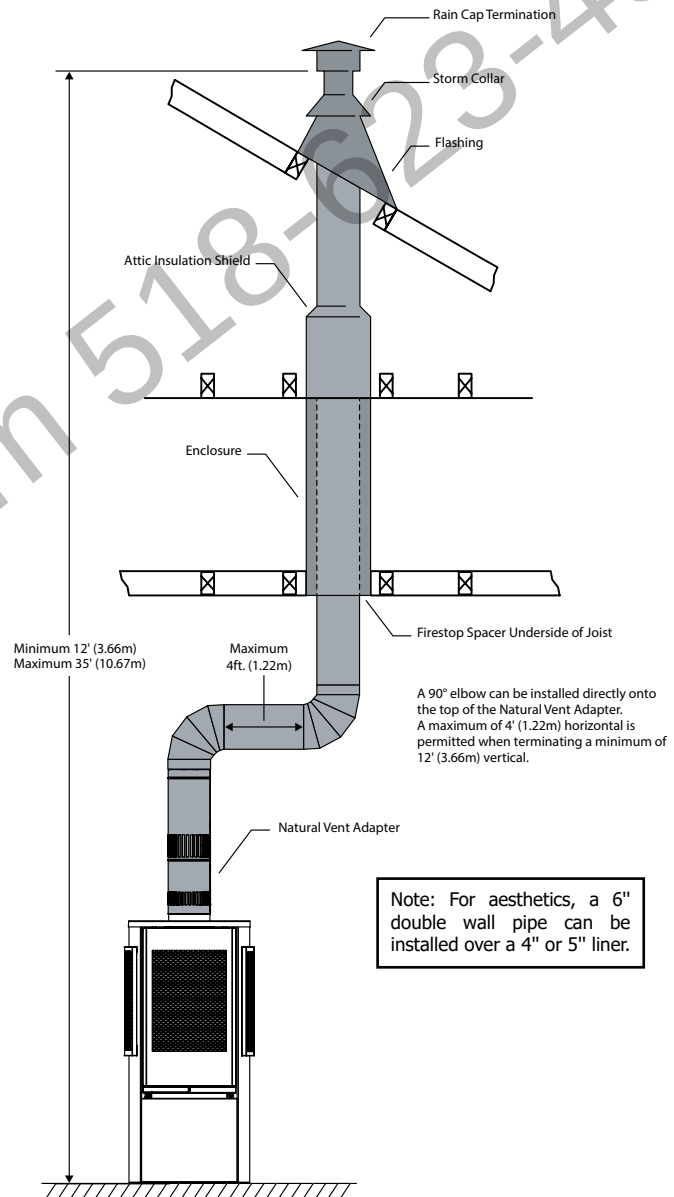


SOLID FUEL WOOD BURNING CHIMNEY: Liner required if inside diameter is greater than 6"



B-VENT LIQUID FUEL GAS BURNING CHIMNEY:

Liner required if inside diameter is greater than 6"



Minimum Vertical 12 ft (3.66 m)

Maximum Vertical 35 ft (10.67 m)
SEAL ALL CONNECTIONS IN VENTING SYSTEM

Maximum Horizontal 4' (1.22 m)

Natural Vent Adapter Installation

GS33/ GS33E/ C34-11/ C34E-11/ RC500E

Natural Vent Kit: 946-861

Part #	Description	Qty
911-470	Natural Vent Wiring Harness (Factory installed)	1
911-473	Wire Connector	1
911-469	Spill Switch (Factory installed)	1
911-472	Female Spade Connector	2
904-531	1/2" Split Bushing	1
910-177	5/8" Split Bushing	1
904-519	#8 x 1/2 Black Self Tapping Screw	4
920-978	Conversion Decal	1
918-842	Warning Decal	1
910-199	Wire Clip	2
948-745	Wire Cover	1
920-981	Instruction Sheet	1

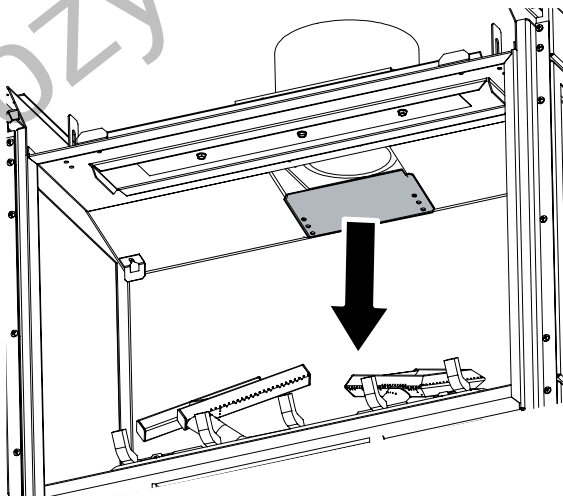
Note: This kit must be installed or serviced by a qualified installer, service agency or gas supplier. These instructions are to be used in conjunction with the main installation instructions for the above listed models.

1. Turn the unit off and allow it to cool to room temperature.
2. Unplug or disconnect the stove power source.

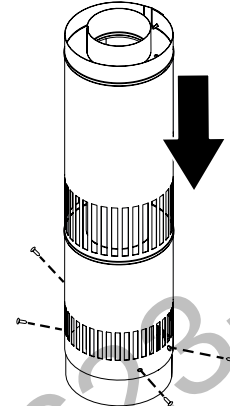
Note: Steps 3-5 only apply to GS33 and GS33E installations.

Warning: When using the Natural Vent Adapter, the appliance's Vent Restrictor plate must be removed if installed.

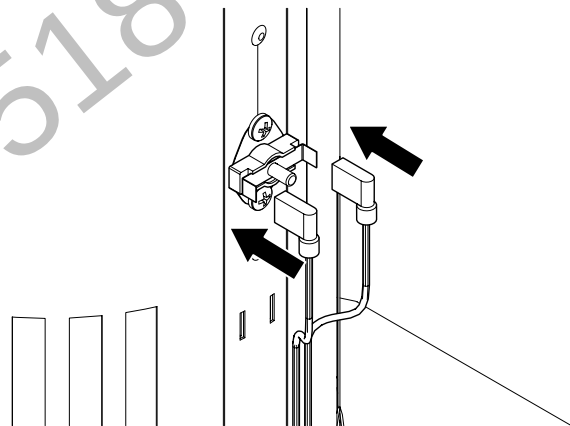
3. To access the restrictor plate, refer to Installation sections in the manual (Top Removal, Front Assembly Removal & Front Glass Removal).
4. Remove the restrictor plate by removing the two screws.



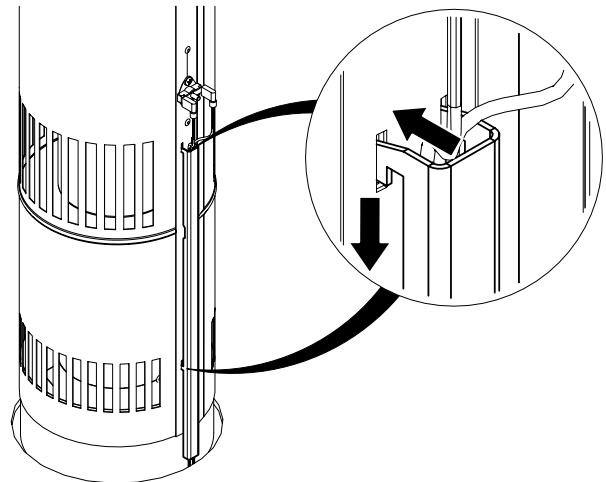
5. Reinstall the front glass, front assembly, and unit top.
6. Install the Natural Vent Adapter to the rigid pipe adapter and secure with 4 screws. Ensure to position the switch and wiring to the rear of the unit.



7. Ensure the connectors from the wire harness are firmly inserted into the spill switch.



8. Ensure the wire cover is firmly attached to the Natural Vent Adapter. The wire cover is hooked into slots in the Adapter.

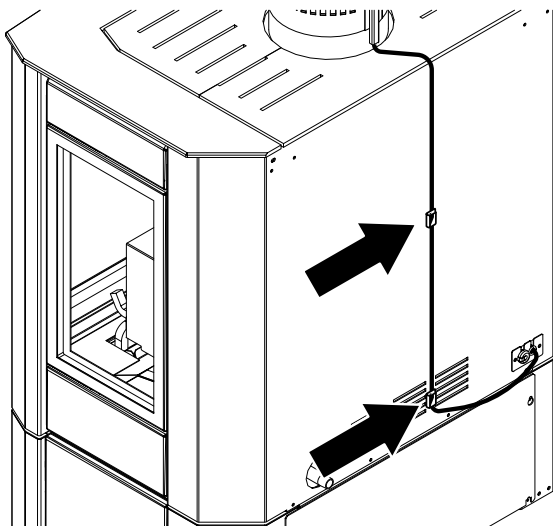


C34E-11 & C34-11: Skip to Step 8a (page 6).
RC500E: Skip to Step 9a (page 8).

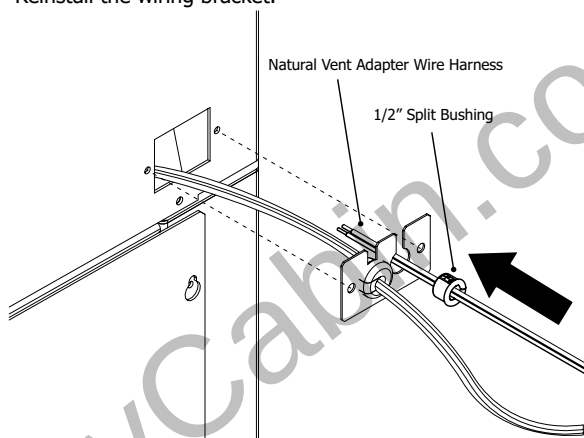
Natural Vent Adapter Installation

GS33E & GS33:

9. At the back of the unit, route the natural vent wiring using the provided wire clips. Suggested placement below.



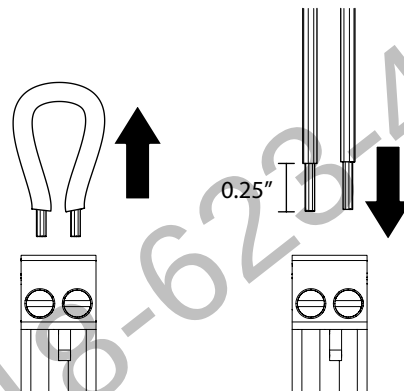
10. At the rear of the unit, remove the wiring bracket by removing two screws.
11. Thread the Natural Vent Adapter wire harness through the 1/2" Split Bushing then install into the wiring bracket.
12. Reinstall the wiring bracket.



GS33E specific instructions steps 13-17 below.

13. Access the IFC (refer to "IFC Replacement" in the manual).
14. Remove the green connector (X4) from the IFC.
15. Remove the jumper wire from the X4 connector and secure the two leads of the Natural Vent Adapter wire harness to the X4 connector.

Note: Before securing the natural vent wires, fully back out the screws on the green connector.



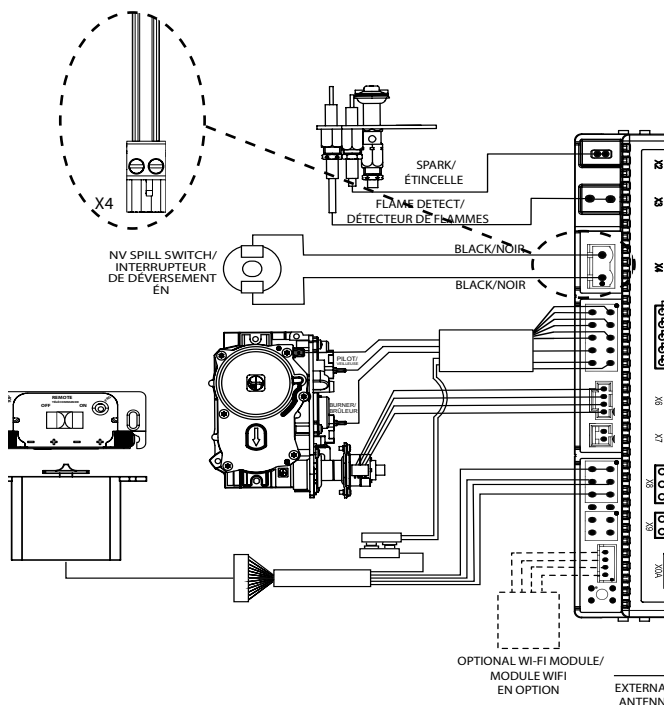
X4 Connector with Jumper

X4 Connector with Natural Vent Adapter Wire Harness Leads Installed

See wiring diagram back of the instructions for reference.

16. Reinstall the X4 connector and harness back onto the IFC.
17. Apply the conversion and warning decals by the control area then re-install the IFC.

GS33E Wiring Diagram (see manual for full diagram)



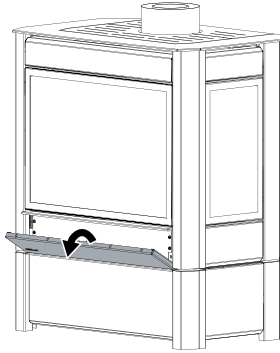
Natural Vent Adapter Installation

GS33:

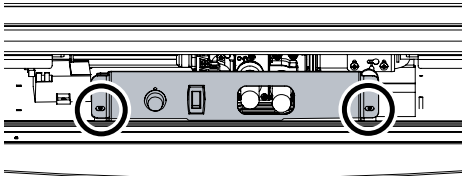
GS33 specific instructions steps 18-25 below.

18. Access the valve by opening the front door, removing the control panel secured by 2 screws.

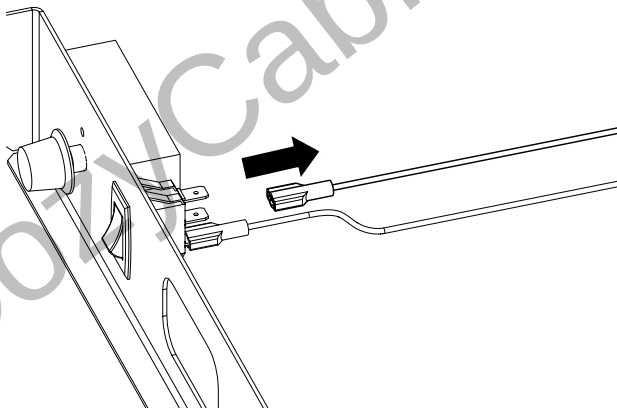
19. Open the front door as shown below.



20. Remove the control panel secured by 2 screws.

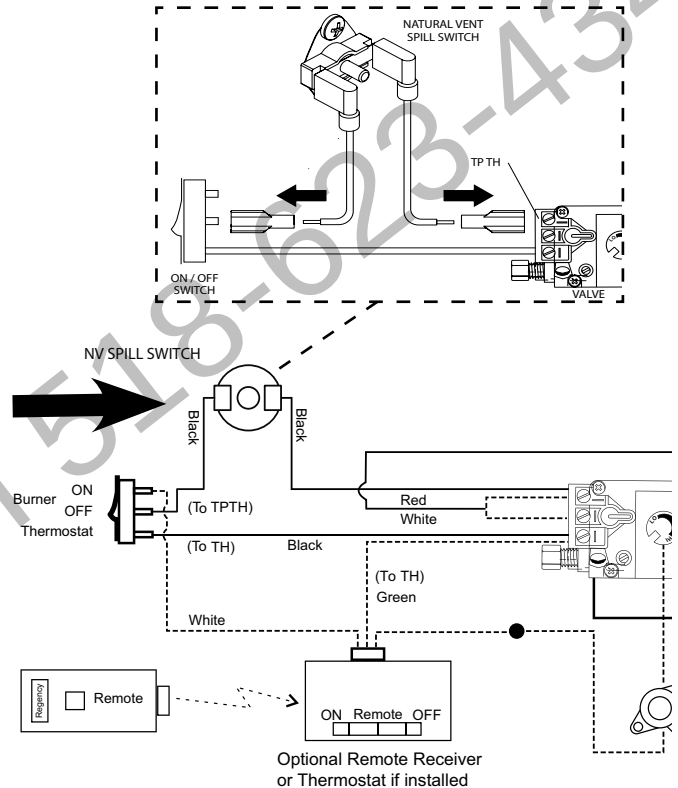


21. Access the switch on the control board and the valve behind the control board and disconnect the middle wire from the switch and the TPTH wire on the valve.



22. Crimp a female connector onto the Natural Vent bare wire end, and connect it to the middle terminal of the switch.
23. Crimp a female connector onto the other Natural Vent bare wire end, and connect it to the valve's TPTH terminal.
24. Apply the conversion and warning decals by the control area.
25. Reverse steps to reinstall the control board and close the front door.

GS33 Wiring Diagram (see manual for full diagram)

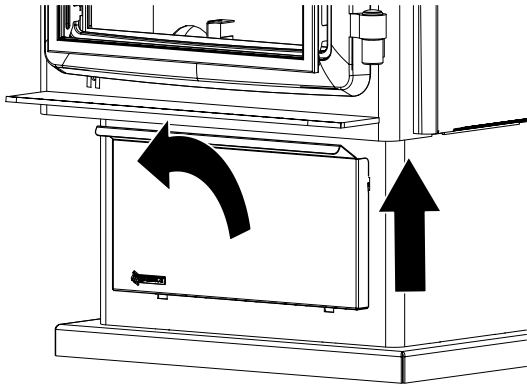


Natural Vent Adapter Installation

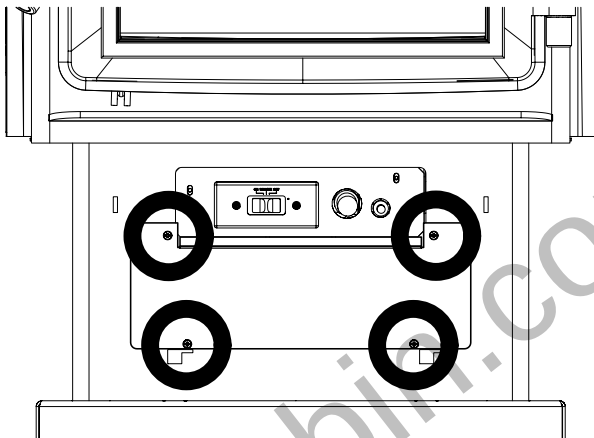
C34E-11 & C34-11:

Pedestal Option

- 8a. Remove the pedestal front door by sliding it up, pulling it out and sliding the bottom out.

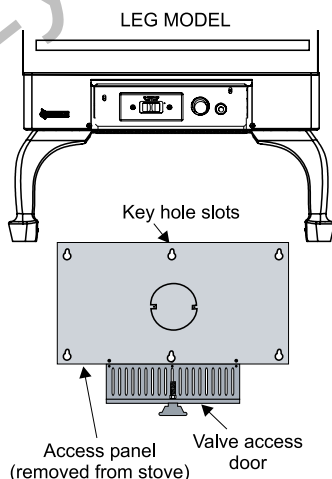


- 8b. Remove the four circled screws as shown in the picture from the pedestal blanking plate.

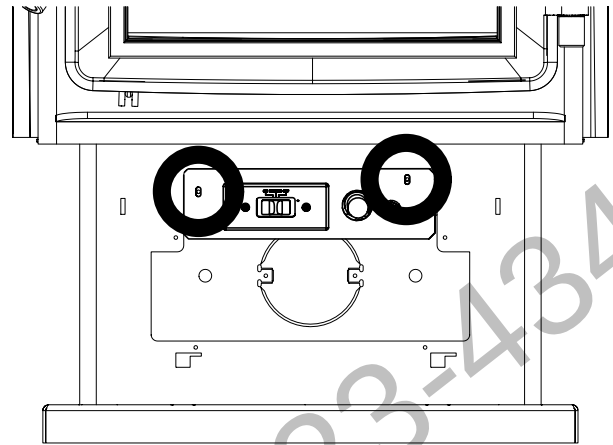


Legs Option

9. Remove the bottom Access panel by loosening 5 screws. Slide the panel out slightly to release it from the keyed holes.

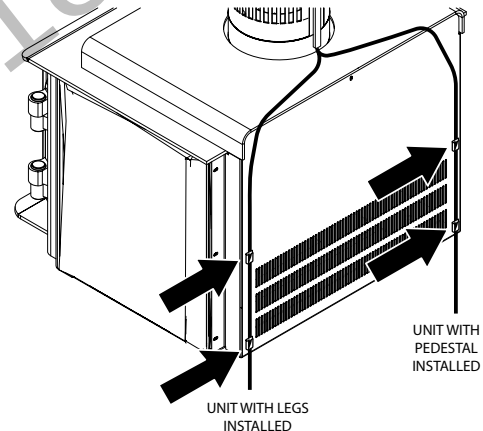


10. Remove the two circled screws, as shown in the picture, from the control panel.

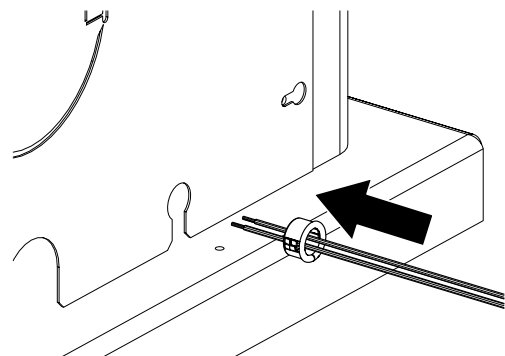


11. At the back of the unit, route the natural vent wiring using the provided wire clips.

If a legs base is installed, route the wiring to the left of the unit. If a pedestal base is installed, route the wiring to the right of the unit as shown.



12. Insert Natural Vent wires into the 5/8" plastic split bushing, then secure the assembly into the opening.



C34E-11: Proceed to Step 13.
C34-11: Skip to Step 19.

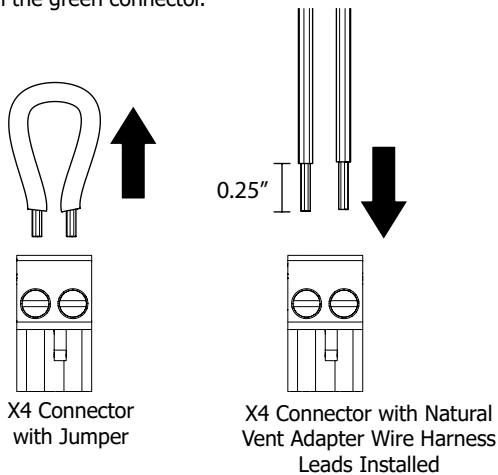
Natural Vent Adapter Installation

C34E-11 & C34-11:

C34E-11 specific instructions steps 13-18 below.

13. At the front of the unit, route the wire harness to the IFC.
14. Remove the green connector (X4) from the IFC.
15. Remove the jumper wire from the X4 connector and secure the two leads of the Natural Vent Adapter wire harness to the X4 connector.

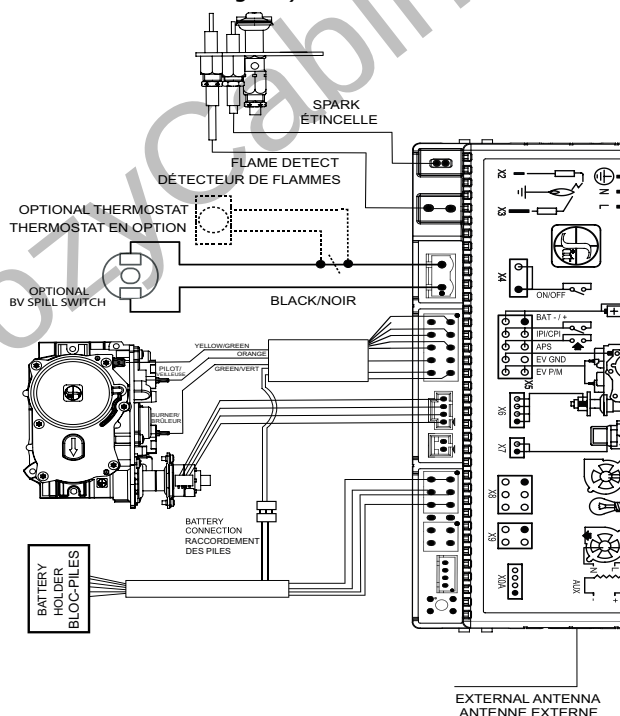
Note: Before securing the natural vent wires, fully back out the screws on the green connector.



16. Reinstall the green X4 connector and harness back onto the IFC.
17. Apply the conversion and warning decals by the control area then re-install the IFC.
18. Depending on the optional base installed, reverse steps 8-10 and continue to step 25 to remove the restrictor.

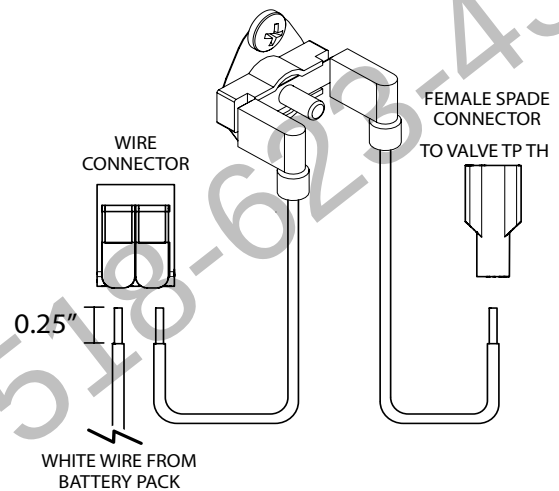
C34E-11 Wiring Diagram

(see manual for full diagram)



C34-11 specific instructions steps 19-23 below.

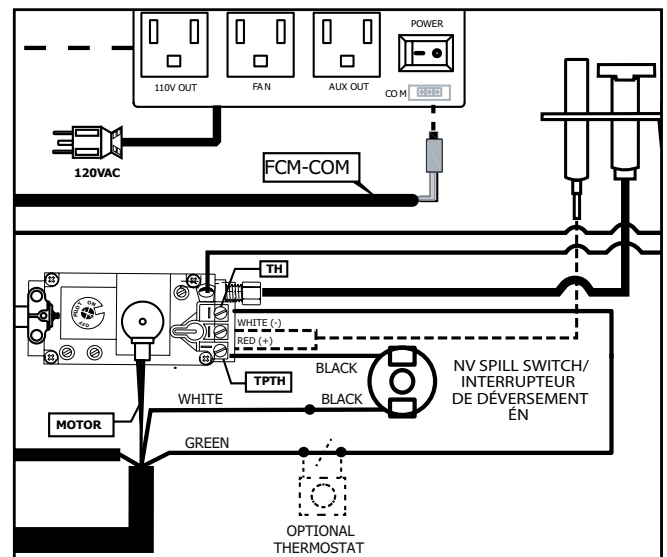
19. At the front of the unit, disconnect the white wire from the gas valve labeled TPTH then cut the connector off from the wire.
20. Strip a 1/4" of insulation off the end of the white wire and connect the bare section to the wire connector.
21. Connect one of the bare ends of the Natural Vent wire harness into the wire connector.
22. Crimp a female connector onto the other Natural Vent wire end, then connect it to the valve labeled TPTH



23. Apply the conversion and warning decals by the control area then re-install the IFC.
24. Depending on the optional base installed, reverse steps 8-10.

C34-11 Wiring Diagram

(see manual for full diagram)



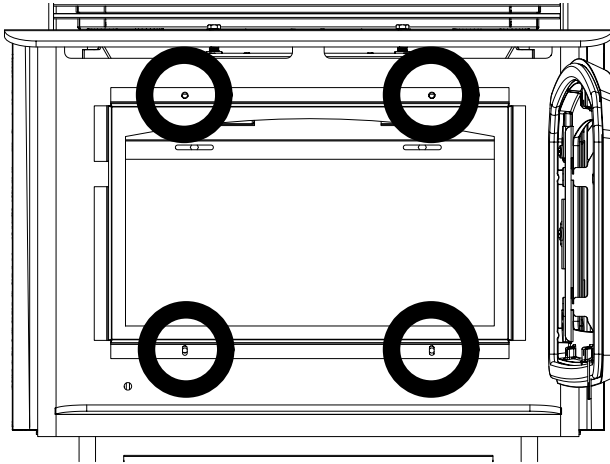
Natural Vent Adapter Installation

C34E-11 & C34-11:

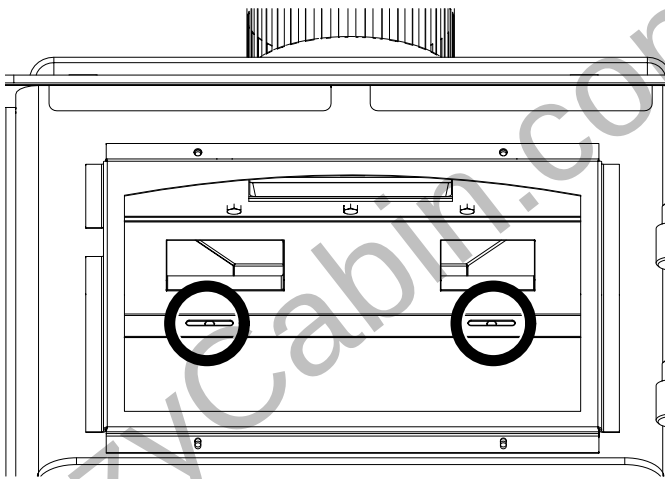
25. Remove the restrictor.

Warning: When using the Natural Vent Adapter, the appliance's Vent Restrictor plate must be removed if installed.

26. Undo the four circled hex nuts to remove the glass.



27. Remove the two circled screws and discard the restrictor plate.

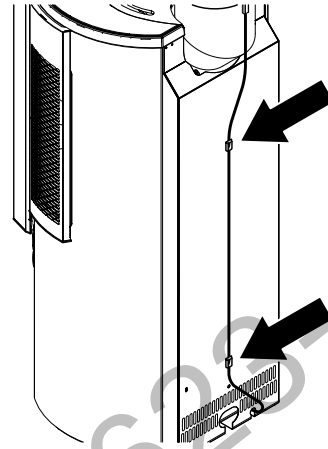


28. Reinstall the two removed screws.

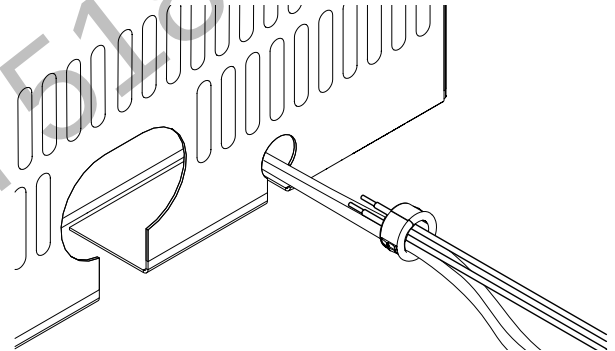
29. Reverse step 26 to reinstall the glass.

RC500E

9a. Attach two wire clips to the rear of the unit to secure the Natural Vent wire harness in place.

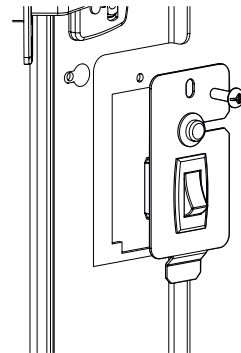


10. Remove the bushing from the back of the unit and run the Natural Vent wires into the unit. Then re-install the bushing with the power cord wires and Natural Vent wires.



11. To access the IFC, open the lower door and remove the lower access panel. Refer to "Lower Access Panel Removal / Installation" in the manual.

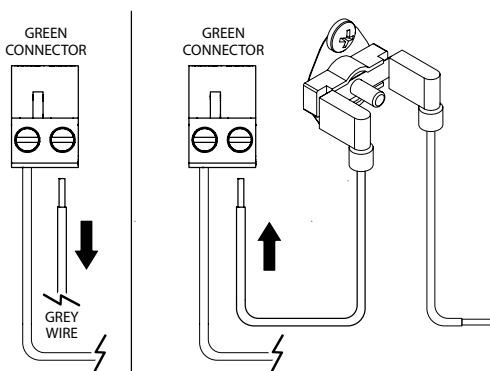
12. Remove the switch plate, to expose the two grey wires connected to the ON/OFF switch, by removing one screw.



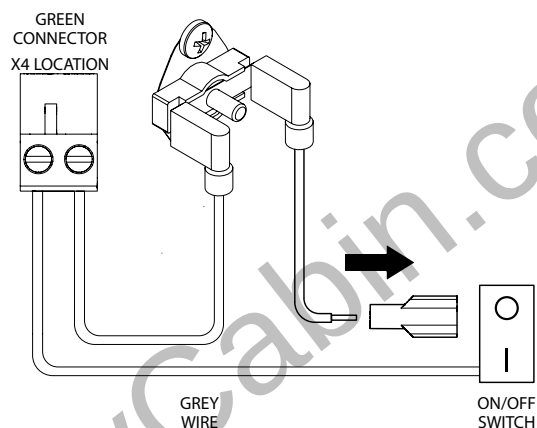
13. Remove the green connector (X4) from the IFC.

Natural Vent Adapter Installation

14. Remove one of the grey wires from the green connector (X4) and connect one of the Natural Vent wires back onto the green (X4) connector.



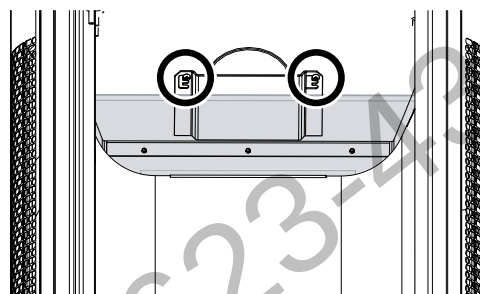
15. Tape the grey wire removed from the green (X4) connector to the other Natural Vent wire and pull it through the body of the unit to the ON/OFF switch.
16. Crimp a female spade connector onto the end of the Natural Vent wire.
17. Disconnect the grey wire (one removed from the green (X4) connector) from the ON/OFF switch and connect the Natural Vent wire onto the ON/OFF switch.



18. Re-install the switch plate onto the unit and the green (X4) connector back onto the IFC.
19. Apply the conversion and warning decals by the control area then re-install the lower access panel.

Warning: When using the Natural Vent Adapter, the appliance's Vent Restrictor plate must be removed if installed.

20. To access the restrictor plate, firstly, open the glass door by referring to the manual's "Opening the Front Glass Door" section.
21. Remove the restrictor plate by removing the two screws. Then reinstall the removed screws and reverse step 20.

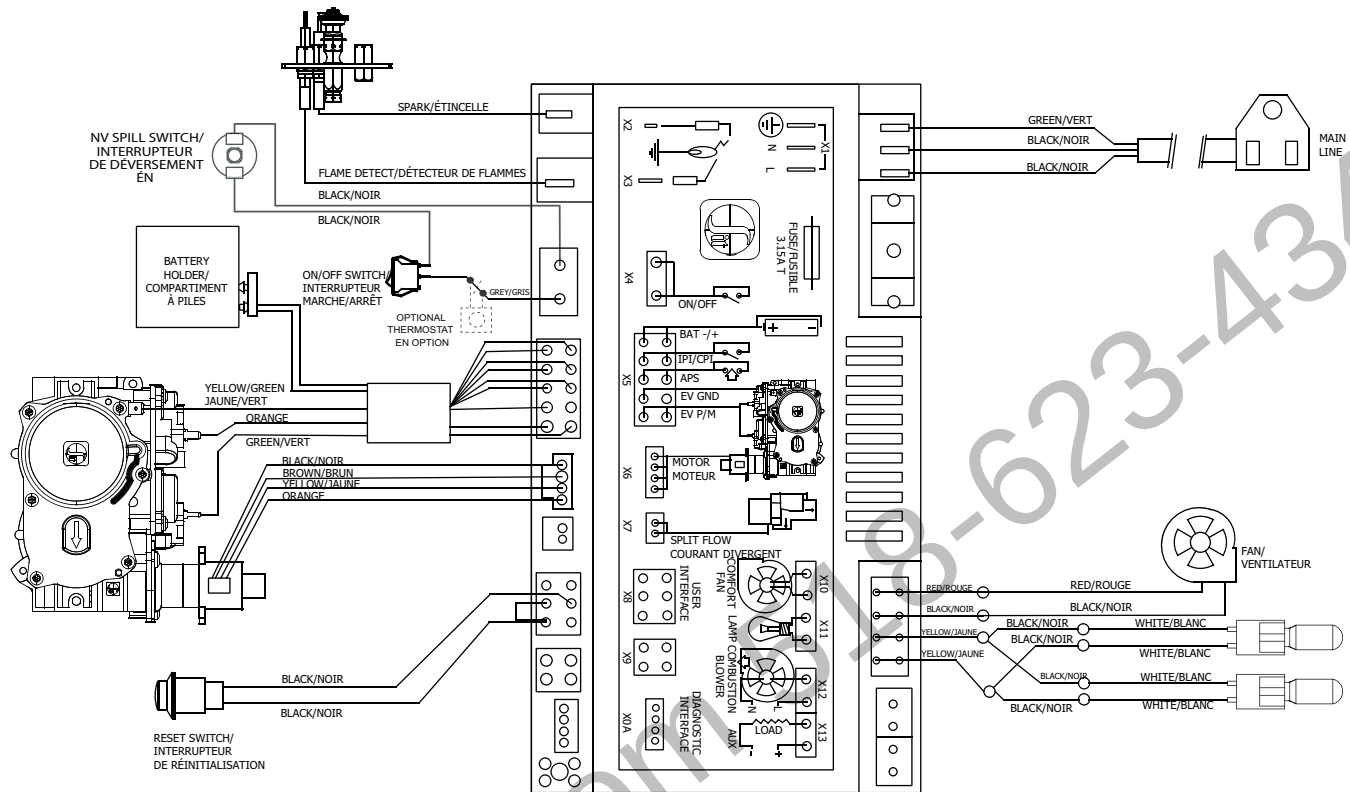


See wiring diagram back of the instructions for reference.

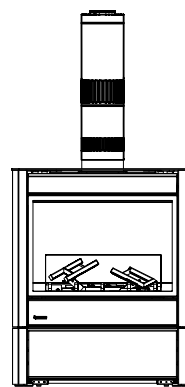
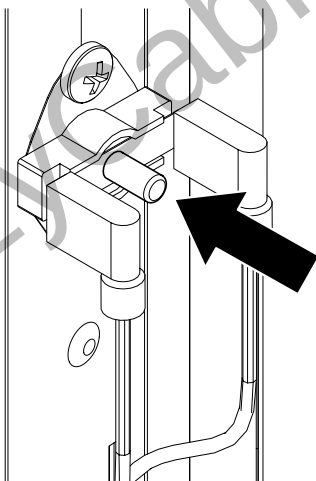
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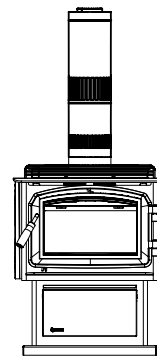
RC500E Wiring Diagram



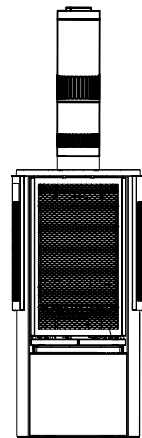
Note: If the Natural Vent circuit opens after installation and requires manual resetting, contact a technician before attempting to reset it.



GS33 & GS33E



C34 & C34E



RC500E

Natural Vent Adapter Installation

GS33/ GS33E/ C34-11/ C34E-11/ RC500E

TEST FOR FLUE SPILLAGE

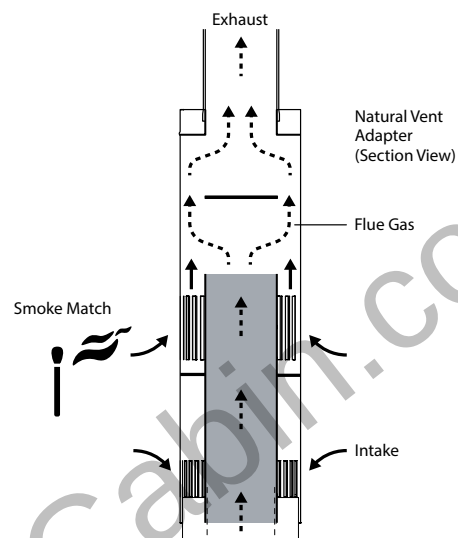
⚠ CARBON MONOXIDE POISONING HAZARD

Failure to follow the steps outlined below for each appliance connected to the venting system being placed into operation could result in carbon monoxide poisoning or death.

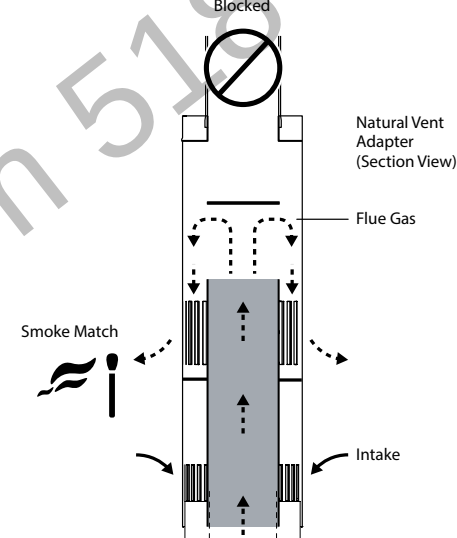
The following steps shall be followed for each appliance connected to the venting system being placed into operation, while all other appliances connected to the venting system are not in operation:

- 1) Seal any unused openings in the venting system.
- 2) Inspect the venting system for proper size and horizontal pitch, as required in the National Fuel Gas Code, ANSI Z223.1/NFPA 54 or the Natural Gas and Propane Installation Code, CSA B149.1 and these instructions. Determine that there is no blockage or restriction, leakage, corrosion and other deficiencies which could cause an unsafe condition.
- 3) As far as practical, close all building doors and windows and all doors between the space in which the appliance(s) connected to the venting system are located and other spaces of the building.
- 4) Close fireplace dampers.
- 5) Turn on clothes dryers and any appliance not connected to the venting system. Turn on any exhaust fans, such as range hoods and bathroom exhausts, so they are operating at maximum speed. Do not operate a summer exhaust fan.
- 6) Follow the lighting instructions. Place the appliance being inspected into operation. Adjust the thermostat so appliance is operating continuously.
- 7) Test for spillage from draft hood equipped appliances at the draft hood relief opening after 5 minutes of main burner operation. Use the flame of a match or candle.
- 8) If improper venting is observed during any of the above tests, the venting system must be corrected in accordance with National Fuel Gas Code, ANSI Z223.1/NFPA and/or Natural Gas and Propane Installation Code, CSA B149.1.
- 9) After it has been determined that each appliance connected to the venting system properly vents when tested as outlined above, return doors, windows, exhaust fans, fireplace dampers and any other gas-fired burning appliance to their previous conditions of use.

NORMAL DRAFT



BLOCKED DRAFT



DOWN DRAFT

