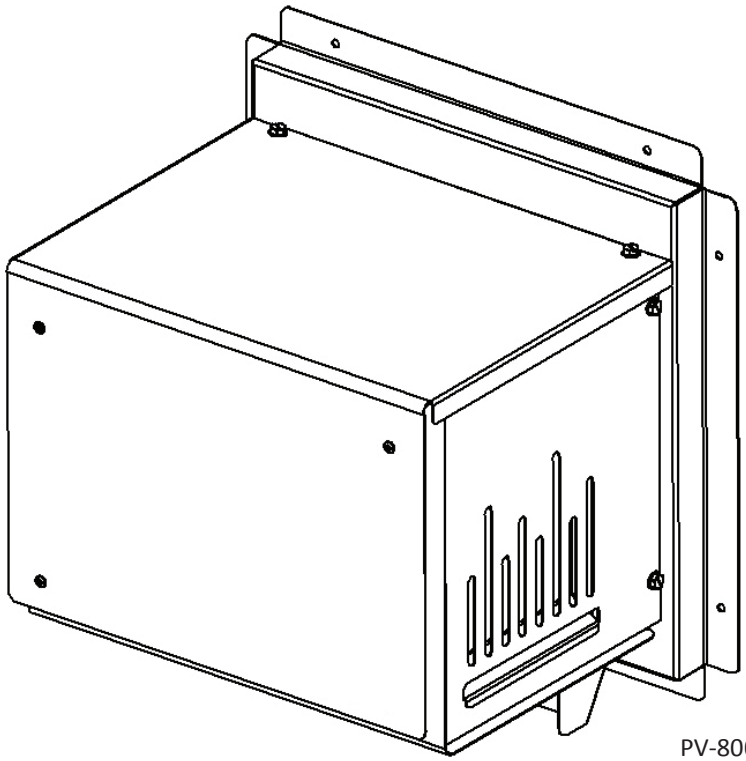
SPARK MODERN FIRES

DIRECT VENT
POWER VENT KIT
PART # PV-800HZ AND PV-850V

INSTALLATION & OPERATION MANUAL

THIS POWER VENT KIT IS ONLY FOR USE WITH THE FOLLOWING
MODELS: Vu Thru Models 512 and 612



PV-800HZ SHOWN

DUE TO HIGH TEMPERATURES, THE APPLIANCE SHOULD BE LOCATED OUT OF TRAFFIC AND AWAY FROM FURNITURE AND DRAPERIES.

CHILDREN AND ADULTS SHOULD BE ALERTED TO THE HAZARDS OF HIGH SURFACE TEMPERATURE AND SHOULD STAY AWAY TO AVOID BURNS OR CLOTHING IGNITION.

YOUNG CHILDREN SHOULD BE SUPERVISED WHEN THEY ARE IN THE SAME ROOM AS THE APPLIANCE.

CLOTHING OR OTHER FLAMMABLE MATERIAL SHOULD NOT BE PLACED ON OR NEAR THE APPLIANCE.

KEEP THE ROOM AREA CLEAR AND FREE FROM COMBUSTIBLE MATERIALS, GASOLINE, AND OTHER FLAMMABLE VAPORS AND LIQUIDS.

WARNING: Improper installation, adjustment, alteration, services or maintenance can cause injury of property damage. Refer to this manual. For assistance or additional information, consult a qualified installer, service agency or the gas supplier.

Tested & Listed By O-T-L Portland Oregon USA C US OMNI-Test Laboratories, Inc.

Report #0361GF006S

Ce manual est disponsible en Francais sur demande.

INSTALLER: Leave this manual with the appliance | **CONSUMER:** Retain this manual for future reference

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WE STRONGLY SUGGEST THAT YOU READ THIS MANUAL THOROUGHLY BEFORE BEGININNG THE INSTALLATION OF THE SPARK MODERN FIRES POWER VENT KIT. THIS SPECIFIC PRODUCT HAS ITS OWN UNIQUE SET-UP AND INSTALLATION REQUIREMENTS THAT MUST BE FOLLOWED EXACTLY. PLAN YOUR INSTALLATION IN ADVANCE BY CAREFULLY RE-VIEWING ALL THE INFORMATION CONTAINED IN THIS MANUAL.

POWER VENT KIT CONTENTS

This kit can only be used in conjunction with the SÓLAS Contemporary Fire products listed below. This installation must conform with local codes, or, in the absence of local codes, with the National Fuel Gas Code, ANSIZ2223.1/NFPA 54, or the Natural Gas and Propane Installation Code, CSA B149.1.

THIS POWER VENT KIT IS ONLY FOR USE WITH THE FOLLOWING SÓLAS MODELS:
SEE-THRU MODELS: BI-48-ST, BI-60-ST, BI-72-ST
SINGLE SIDE MODELS: BI-48-SSL, BI-48-SSR, BI-60-SSL, BI-60-SSR, BI-72-SSL, BI-72-SSR

CONTENTS OF POWER VENT KIT

ITEM	PART#	DESCRIPTION	QTY.
1	HRD-800HZ	HORIZONTAL POWER VENT KIT	1
2	HRD-801	VENT ADAPTER W/ PRESSURE TAP	1
3	HRD-802	HARDWARE KIT	1
4	HRD-803	POWER VENT RELAY HARNESS	1
5	HRD-804	POWER VENT CONTROL W/ PRESSURE SWITCH	1

ITEM	PART#	DESCRIPTION	QTY.
6	HRD-805	ADJUSTABLE RESTRICTOR	1
7	HRD-806	PRESSURE SWITCH TUBING	1
8	HRD-850V	OPTIONAL VERTICAL TERMINATION CAP	1
9	HRD-851V	OPTIONAL VERTICAL TERMINATION BOX	1
10	HRD-852V	OPTIONAL VERTICAL TERMINATION HARDWARE KIT	1

This kit uses either M&G Duravent direct vent pipe, Secure Vent direct vent pipe, or Selkirk Direct-temp vent pipe with a 4” inner pipe and a 6” outer pipe.

Vertical installations must use the optional HRD-850V vertical termination cap. HRD-850V includes HRD-851V vertical termination box, and HRD-852V vertical termination hardware kit. The vertical termination box can only be installed on flat surfaces; sloped surfaces require construction of a chase which provides the minimum interior square opening of 11”x11” (279mm x 279mm) for the venting and wiring to pass through. Flat roofs may require a chase depending on local codes and roof construction. (If in doubt check with local inspector)

ALWAYS MAINTAIN 1.5” (38mm) CLEARANCE TO COMBUSTIBLES AROUND VENT PIPE.

The Power Vent termination must be located in accordance with the clearances outlined in the venting section of this manual on page 3.

For replacement parts, refer to page 9. Replacement parts can be ordered through your authorized SÓLAS dealer.

POWER VENT CLEARANCES

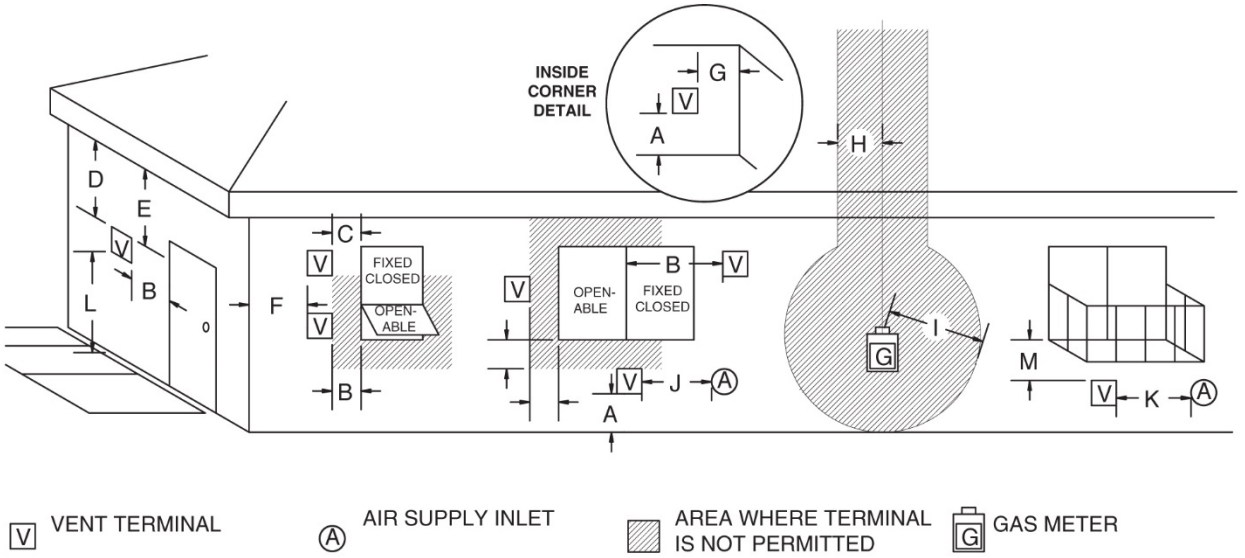


Figure #1

A. clearances above grade, veranda, porch, deck, or balcony [*12 inches (30 cm) minimum]
B. clearance to window or door that may be opened [* 12 inches (30 cm) minimum]
C. clearance to permanently closed window [minimum 12 inches (30 cm) recommended to prevent condensation on window]
D. vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet (60 cm) from the edge of the terminal [12 inches (30 cm) minimum]
E. clearance to unventilated soffit [12 inches (30 cm) minimum]
F. clearance to outside corner [6 inches (15 cm) minimum]
G. clearance to inside corner [6 inches (15 cm) minimum]
H. * not to be installed above a meter/regulator assembly within 3 feet (90 cm) horizontally from the center-line of the regulator
I. clearance to service regulator vent outlet [* 6 feet (1.8 m) minimum]
J. clearance to non-mechanical air supply inlet to building or the combustion air inlet to any other appliance [* 12 inches (30 cm) minimum]
K. clearance to a mechanical air supply inlet [* 6 feet (1.8 m) minimum]
L. ^ clearance above paved side-walk or a paved driveway located on public property [* 7 feet (2.1 m) minimum]
M. clearance under veranda, porch, deck, or balcony [12 inches (30 cm) minimum**]

^ a vent shall not terminate directly above a side-walk or paved driveway which is located between two single family dwellings and serves both dwellings*
** only permitted if veranda, porch, deck, or balcony is fully open on a minimum of 2 sides beneath the floor*
* as specified in CGA B149 Installation Codes, Note: local Codes or Regulation may require different clearances
* for U.S.A. Installations follow the current National Fuel Gas Code, NSI Z223.1

VENTING CONFIGURATIONS

Maximum vent length is 110 ft. plus six 90-degree elbows or combination of other elbows equaling 90-degrees, with a maximum 66ft vertical rise. Minimum horizontal vent length is 3 ft. plus one 90-degree elbow. The vent can be installed with any combination of rise and run between the figures including up to 3 ft. below the unit.

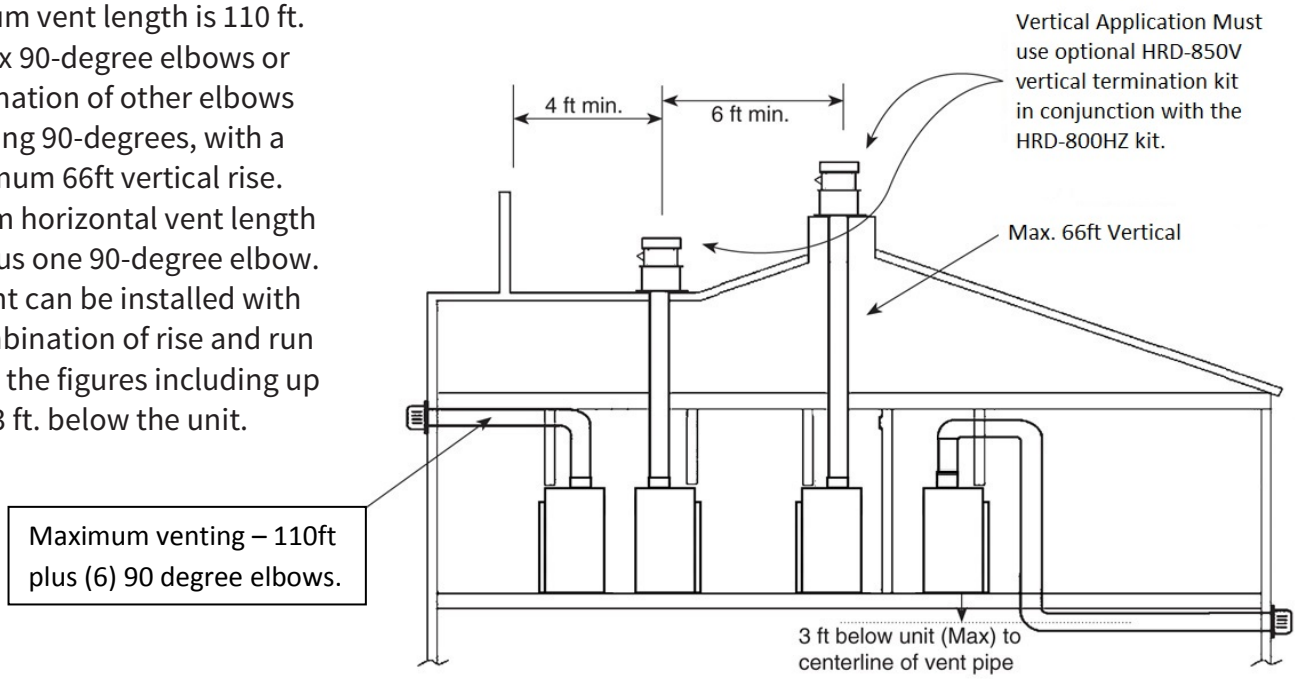


Figure #2

WARNING:

A minimum clearance to combustibles of 1.5” (38mm) is required around the vent pipe at all times. Failure to maintain this clearance may result in property damage, injury, or death.

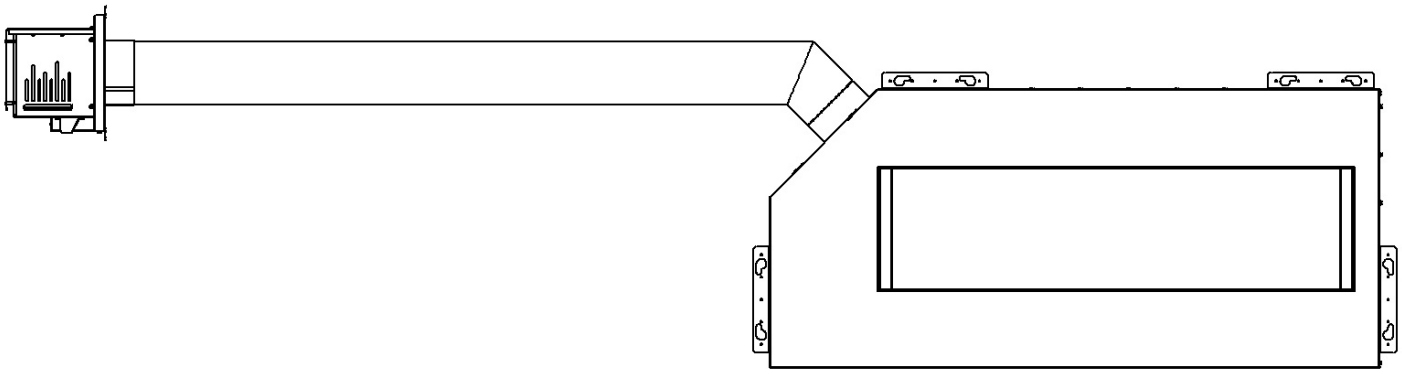


Figure #3

NOTE:

IT IS PERMISSABLE TO VENT HORIZONTALLY, DIRECTLY OFF OF THE UNIT, NO VERTICAL RISE IS REQUIRED WHEN EQUIPPED WITH A POWER VENT AS SHOWN IN FIGURE #3.

HORIZONTAL (SIDE WALL) VENTING

This kit uses either Simpson Duravent GS direct vent pipe, Secure Vent direct vent pipe or Selkirk Direct-temp vent pipe with a 4" inner pipe and a 6" outer pipe.

1. Locate the power vent termination following the clearance to combustible table, venting configuration diagram (Fig. #2 & 3), and terminal location diagram (Fig. #1).
2. Cut and frame an 11" x 11" opening. The center of the square hole should line up with the center
3. Install the M&G Duravent (or equivalent) Wall thimble, part number 46DVA-WT (not supplied with kit) in the opening to retain any insulation in the wall and maintain proper clearances. If the wall being penetrated is constructed of noncombustible material only (i.e., Masonry block or concrete) the wall thimble is not required and a hole with zero clearance is acceptable. (6 5/8” hole)

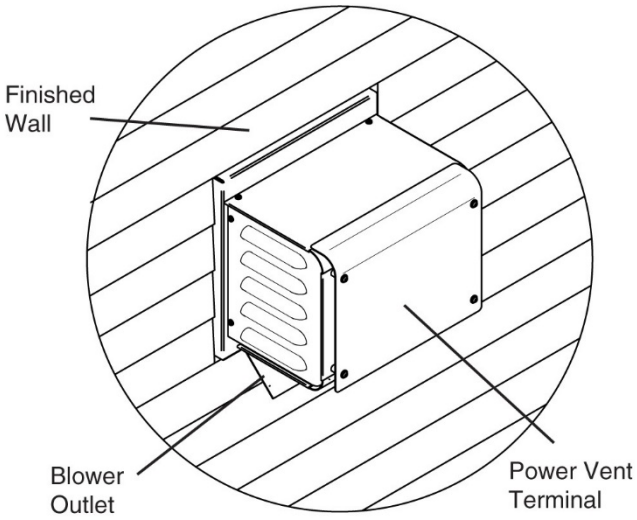


Figure #4

4. Attach the terminal to the outside wall. Ensure that the terminal is the right way up and that only the outer flanges that are used to secure the terminal to the building are covered by the exterior wall or siding. (Fig.#4) **Note: No other part of the terminal can be recessed into the exterior wall or siding.**
5. Attach the vent adaptor directly to the appliance after the initial 45□ elbow before any horizontal or vertical pipe is added. Tape all exterior seams on the venting system with foil HVAC tape. **Note: The inner pipe does not need to be sealed.** (Fig. #5)
6. Connect the high temperature silicone tube to the vacuum pressure tap on the adaptor, secure with the hose clamp provided and route the tube through the utility access panel back to Power vent control location. (Fig. #5) Tube may touch unit and be trimmed if required. Connect the pressure switch tubing to the light grey port on the power vent control. Note: Ensure that there are no blockages in this tube, as this will cause the control to malfunction. Do not allow tube to rest on firebox after it is routed.
7. Run the required Simpson Duravent GS / Secure Vent / Selkirk Direct-temp pipe from the adaptor to the terminal assembly. Assemble as per the vent pipe manufacturer’s instructions.

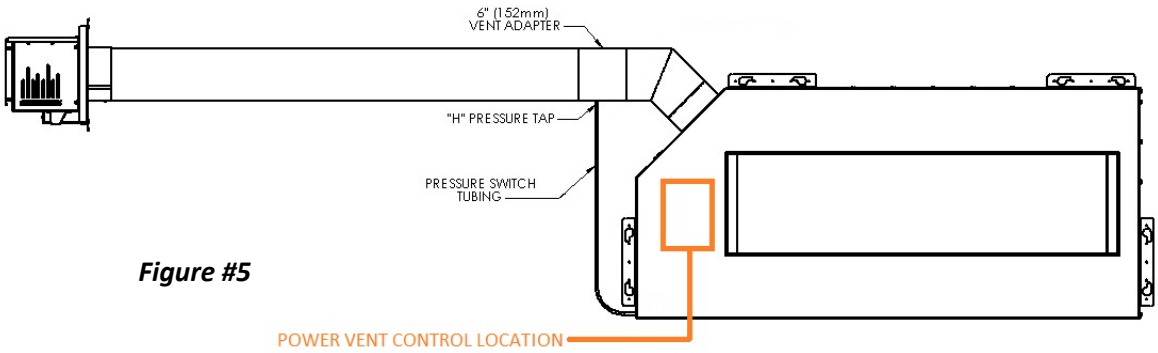

6" (152mm)
VENT ADAPTER
"H" PRESSURE TAP
PRESSURE SWITCH
TUBING
POWER VENT CONTROL LOCATION

Figure #5

VERTICAL (THROUGH ROOF) VENTING

INSTALLATION

All part numbers in the following section are shown in Fig. #6.

1. Place the flashing (Part A) onto the chase and seal using silicone.
2. Put a bead of silicone on the underside of the vertical standoff (Part B) and place it on top of the flashing. Align the eight holes and secure both parts to the chase using eight #8 x 1 1/2" screws provided.
3. Install the drip shield (Part C) onto the top of the vertical standoff using a bead of silicone between the two. Do not screw this part in place.
4. Bring the 14-2 electrical wire (not supplied) up through the holes in both the flashing and the drip shield leaving at least 12" of excess wire above the drip shield.
5. IMPORTANT: Attach an appropriate length(s) of the vent to the power vent terminal, sufficient to pass through the chase. Note: do not connect an adjustable length vent pipe to the terminal.

Note: do not connect an adjustable length vent pipe to the terminal.

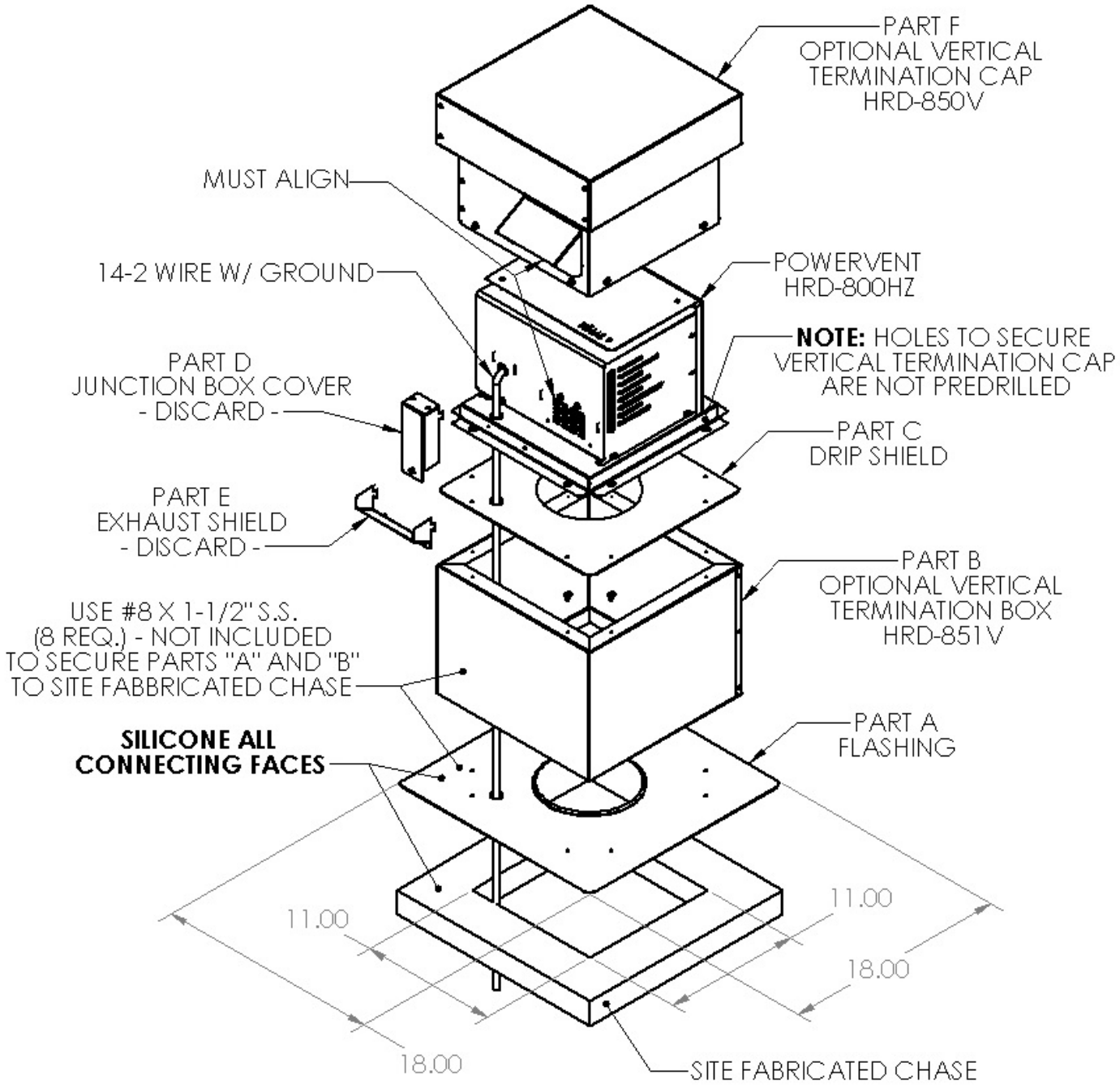
6. Seal the connection of the first length of pipe at the terminal and any other pipe to pipe joint by both screwing and taping the outside joint using high temperature foil tape.
7. Remove the junction box cover. (Part D)
8. Remove and discard the exhaust shield. (Part E)
9. Apply a bead of silicone on the “Part A Flashing” of the power vent terminal (HRD-850V)
10. Slide the vent through the drip shield and at the same time thread the electrical lead through the hole in the bottom of the terminal.
11. With the power vent terminal resting on the drip shield , align the eight holes in each side of the vertical standoff, the drip shield and the power vent terminal and then screw them together using the eight #8 x 1/2" stainless screws provided.
12. Join the 14-2 wire lead to the blower wires using the appropriate connectors and attach the ground wire. Reinstall the junction box cover.
13. Install the vertical rain cap (Part F) over the power vent blower. ALIGN THE EXHAUST OUTLET ON THE POWER VENT TERMINAL WITH THE EXHAUST PORT ON THE VERTICAL RAIN CAP.
14. Secure the vertical rain cap to the power vent blower with the remaining eight #8 x 1/2" stainless screws.

Note: there are no pilot holes in the base of the power vent terminal. 1/8" diameter pilot holes should be drilled using the holes in the vertical rain cap as a guide.

Do not silicone the vertical rain cap to the power vent terminal as it needs to be removable for servicing.

15. Attach the vent adaptor directly to the appliance with three screws and seal outer pipe with aluminum tape provided. **Note: The inner pipe does not need to be sealed.**
16. Connect the high temperature silicone tube to the vacuum pressure tap on the adaptor, secure with the hose clamp provided and route the tube through any hole back to Pressure Switch. (Fig. #5) **Note: Ensure that there are no blockages in this tube, as this will cause the control to malfunction.**
17. Run the required M&G Duravent GS / Secure Vent / Selkirk Direct-temp pipe from the adaptor to the terminal assembly. Assemble as per the vent pipe manufacturer’s instructions.

VERTICAL (THROUGH ROOF) VENTING



Final Installation Height: 21”

Figure 6

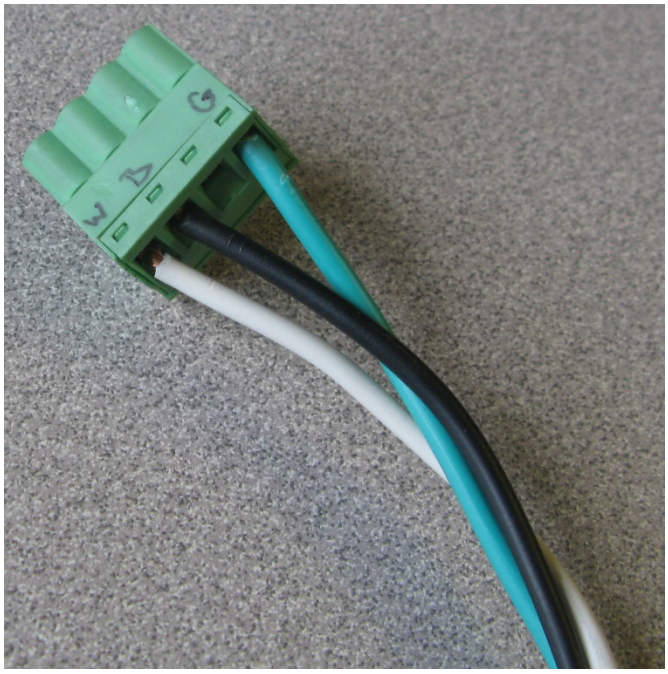
CONTROL INSTALLATION INSTRUCTIONS

The above image shows the power vent control with pressure switch, part #HRD-804.

The image below shows the pressure switch ports on the top surface of the power vent control enclosure. The black port should be left open to the atmosphere; the grey port should be connected to the vent pipe pressure tap. The pressure switch requires a positive pressure of 0.05” W.C. to confirm the power vent is running.

There are 2 female connectors on the bottom surface of the power vent control enclosure as shown above. The left connector is for the power vent relay harness part #HRD-803. The right connector is for outgoing power to the power vent blower at the vent termination. (see below).

Connect the White, Black, and Green lines of the 14-2 power line running to the power vent as shown in the image below. This connector is included in your hardware kit part #HRD-802.



CONTROL INSTALLATION INSTRUCTIONS

Install the power vent control HRD-804 on the flue side of the fireplace using the (3) #10 x 3/4” self-tapping sheet metal screws provided.

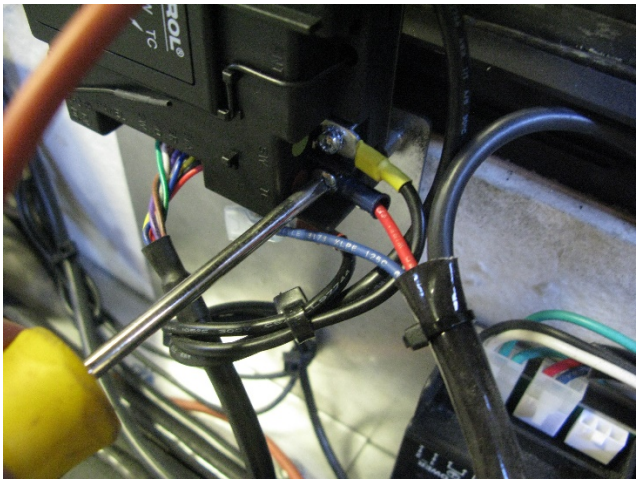
Hardware Kit, HRD-802

Install the vent adapter HRD-801 with pressure tap immediately following the 45□ elbow off the unit. Connect the pressure tap on the vent adapter to the light grey port on the control using the pressure switch tubing HRD-806 provided. Tape all seams in the venting system using Aluminum Foil HVAC Tape.

Use the adjustable restrictor HRD-805 (shown below) to reduce the draft within the firebox should the power vent be overpowering the fireplace. Once the desired level of restriction is found, secure the restrictor using (2) #10 x 3/4” self-tapping sheet metal screws provided.

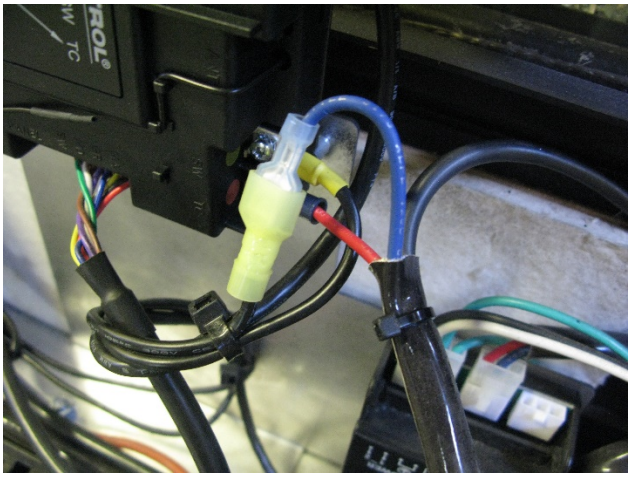
CONTROL INSTALLATION INSTRUCTIONS

Power Vent Relay Harness HRD-803

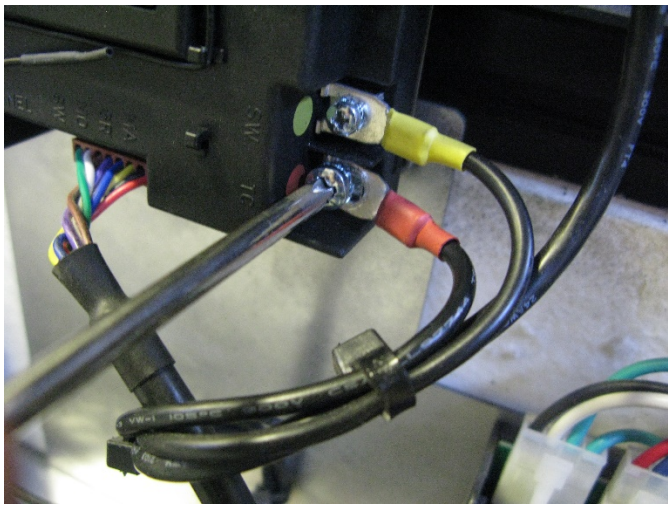


Connect the red wire spade connector from the power vent relay harness HRD-803.

Plug in the power vent relay harness HRD-803 to the AUX port on the fireplace control.



Cut the Red TC spade connector off, Crimp on the male quick disconnect connector included in your hardware pack HRD-802.



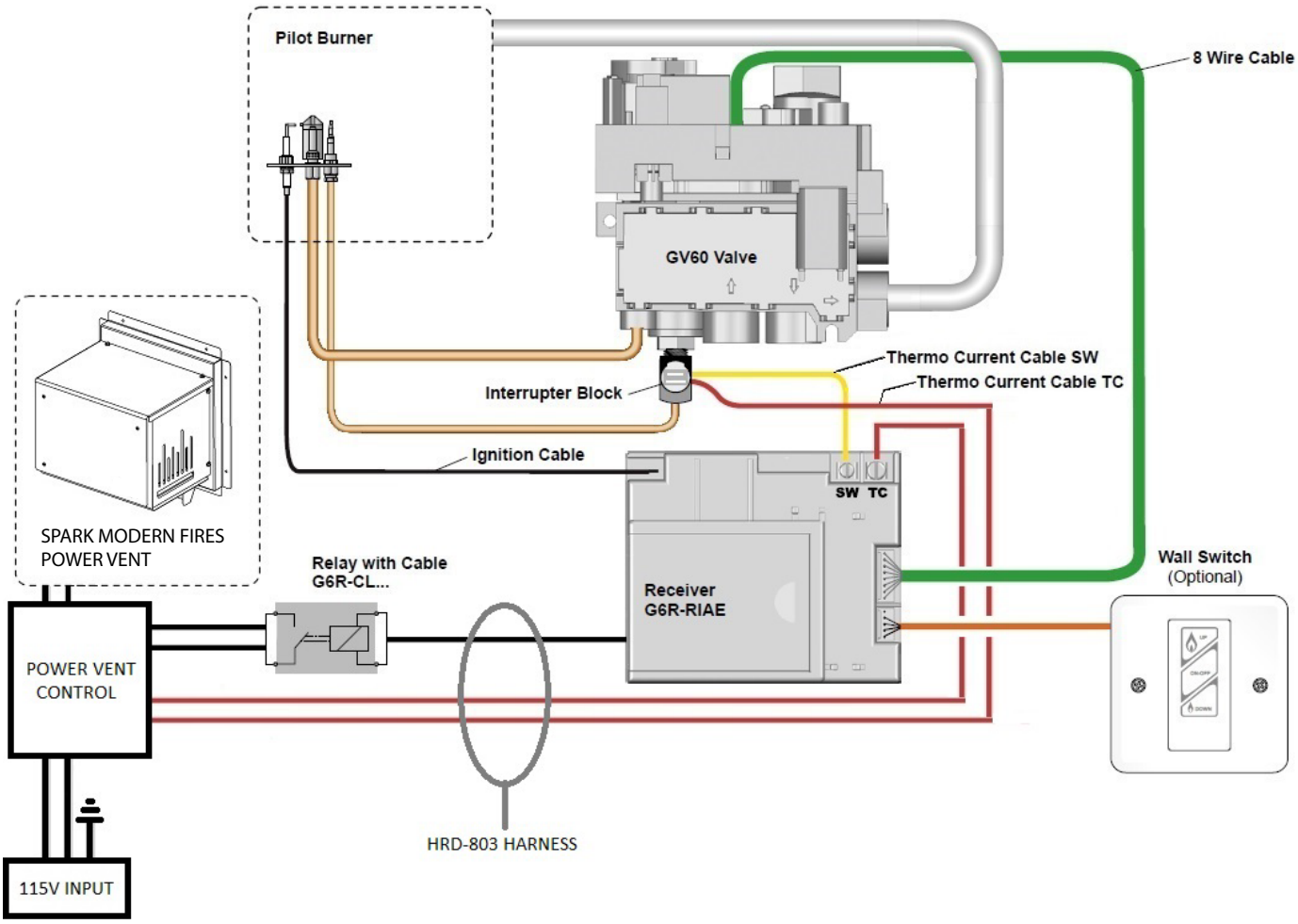
Disconnect the Red TC spade connector.

ELECTRICAL INSTRUCTIONS

NOTE: Once the electrical wiring has been completed, test the system to be sure its performance is as desired before the finishing work is completed and the fireplace is enclosed.

WARNING

All electrical shall be completed by a licensed Electrician and must conform with local building code. Improper installation may result in property damage, injury, or loss of life.



Caution: Label all wires prior to disconnection when servicing the controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

REPLACEMENT PARTS LIST

REPLACEMENT PARTS

ITEM	PART#	DESCRIPTION	QTY.
1	HRD-800HZ	HORIZONTAL POWER VENT KIT	1
2	HRD-801	VENT ADAPTER W/ PRESSURE TAP	1
3	HRD-802	HARDWARE KIT	1
4	HRD-803	POWER VENT RELAY HARNESS	1
5	HRD-804	POWER VENT CONTROL W/ PRESSURE SWITCH	1

ITEM	PART#	DESCRIPTION	QTY.
6	HRD-805	ADJUSTABLE RESTRICTOR	1
7	HRD-806	PRESSURE SWITCH TUBING	1
8	HRD-850V	OPTIONAL VERTICAL TERMINATION CAP	1
9	HRD-851V	OPTIONAL VERTICAL TERMINATION BOX	1
10	HRD-852V	OPTIONAL VERTICAL TERMINATION HARDWARE KIT	1

NOTE:

Items 8, 9 and 10 are supplied as a kit and cannot be ordered separately.

For replacement parts and customer service contact your SPARK Modern Fires dealer or:

Spark Modern Fires

99B Greenwood Avenue, Bethel, CT 06801

Phone: 203.791.2725 Fax: 203.798.8661 **www.sparkfires.com**

INSTALLATION RECORD

The installer should complete the form below that describes the details of the installation. Having this written record of installation information available will greatly expedite trouble-shooting should any problem arise with your stove. The installer should keep a duplicate of this form for their records.

Date Purchased: _____

Dealer: _____

Date Installed: _____

Installer: _____

Fireplace Model: (circle one) 512 612

Serial Number: _____in. WC

Fuel: (circle one) Natural Gas (NG) Propane (LP)

Inlet Pressure (after installation): _____

Manifold Pressure (after Installation): High Fire: _____ in. WC

Low Fire: _____ in. WC

Altitude: (feet above sea level) _____

Was the stove de-rated? (circle one) Yes No

If the stove was de-rated, to what orifice size? _____

Other installation notes: _____

_____

_____

_____

_____

_____

_____

WARRANTY INFORMATION
KEEP THIS FOR WARRANTY

Model _____

Serial No. _____

Date Purchased _____

Always specify model and serial numbers when communicating with the factory.

LIMITED LIFETIME WARRANTY

The following components are warranted for life to the original owner, subject to proof of purchase: Firebox, Combustion Chamber, and Steel Burner.

BASIC WARRANTY
Spark Modern Fires warrants the components and materials in your gas appliance to be free from manufacturing and material defects for a period of two years from date of installation. After installation, if any of the components manufactured by Spark Modern Fires in the appliance are found to be effective in materials or workmanship, Spark Modern Fires will, at its option, replace or repair the defective components at no charge to the original owner. Spark Modern Fires will also pay for reasonable labor cost incurred in replacing or repairing such components for a period of two years from date of installation. Any products presented for warranty repair must be accompanied by a dated proof of purchase.

This Limited Lifetime Warranty will be void if the appliance is not installed by a qualified installer in accordance with installation instructions. The Limited Lifetime Warranty will also be void if the appliance is not operated and maintained according to the operating instructions supplied with the appliance, and does not extend to (1) firebox/burner assembly damaged by accident, neglect, misuse, abuse, alterations, negligence of others, including the installation thereof by unqualified installers, (2) the costs of removal, reinstallation or transportation of defective parts on the appliance, or (3) incidental or consequential damage. All service work must be performed by an authorized service representative.

This warranty is expressly in lieu of other warranties, express or implied, including the warranty of merchantability of fitness for purpose and of all other obligations or liabilities. Spark Modern Fires does not assume for it any other obligations or liabilities in connection with sale or use of the appliance. In states that do not allow limitations on how long an implied warranty lasts, or do not allow exclusion of indirect damage, those limitations of exclusions may not apply to you. You may also have additional right not covered in the Limited Lifetime Warranty. Spark Modern Fires reserves the right to investigate any and all claims against this Warranty and decide upon method of settlement. For information about this warranty, contact:

Spark Modern Fires
99B Greenwood Ave
Bethel, CT 06801
203-791-2725
info@sparkfires.com

Rev. 11/2016

RECORD YOUR PRODUCT INFORMATION

Model #:_____ Serial #_____

Date Purchased:_____ Date Installed_____

SPARK
modern fires