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56826

MODEL SS2G INSTALLATION INSTRUCTIONS

 Recognize this symbol as an indication of important safety information!

OWNER INSTRUCTIONS, DO NOT DESTROY

NOTE: MAXIMUM FLUE GAS TEMPERATURES MUST NOT EXCEED 650°F.

 **WARNING**

THESE INSTRUCTIONS ARE INTENDED AS AN AID TO QUALIFIED, LICENSED SERVICE PERSONNEL FOR PROPER INSTALLATION, ADJUSTMENT AND OPERATION OF THIS UNIT. READ THESE INSTRUCTIONS THOROUGHLY BEFORE ATTEMPTING INSTALLATION OR OPERATION. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN IMPROPER INSTALLATION, ADJUSTMENT, SERVICE OR MAINTENANCE POSSIBLY RESULTING IN FIRE, ELECTRICAL SHOCK, CARBON MONOXIDE POISONING, EXPLOSION, PERSONAL INJURY OR PROPERTY DAMAGE.

**DO NOT DESTROY. PLEASE READ CAREFULLY AND
KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.**

Tjernlund Products welcomes your comments and questions.
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Customer Service
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White Bear Lake, MN 55110-6794
or contact Tjernlund Products at 800-255-4208.

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SideShot® is a registered trademark of Tjernlund Products, Inc. for their Model SS2G Vent System.

DESCRIPTION

The SS2G is a mechanical vent system designed and listed for use with natural draft gas heating equipment. It is factory assembled and wired. The SS2G automatically vents the flue gases from heating equipment to the outdoors. By recirculating indoor air with a cooling fan, surrounding combustible materials remain at safe temperatures. After each burner cycle the SS2G will continue to operate for a nonadjustable timed period of approximately 45 seconds to purge the heater and vent of residual flue gases. The SS2G features a safety system consisting of a Fan Proving Switch and a High Limit temperature control. These devices monitor the SS2G's performance and will interrupt the main burner if a venting malfunction is detected.

APPLICATION TABLE

Verify that the total BTU/hr. input of the heating appliance(s) falls within the inputs listed below. The BTU/hr. capacity range is based on a maximum of 50 equivalent feet. To determine equivalent feet, add the total length of straight vent pipe plus 10 feet for each 90 degree elbow and 5 feet for each 45 degree elbow. Vent runs of over 15 linear feet require the use of an approved, insulated vent connector to prevent problems related to condensation.

WARNING

The SS2G Vent System may only be used on Natural or LP gas fired appliances.

MODEL	Fan Assisted Natural & LP Gas	Atmospheric Natural & LP Gas	Max. Equivalent Feet
SS2G	40,000-150,000 BTU/hr	40,000-125,000 BTU/hr	50

SPECIFICATIONS

Motor: 115/1/60, 3000 RPM, 1/25 HP, 1.6 FLA, Ball Bearing Permanently Lubricated.

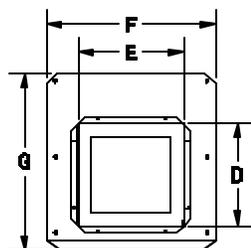
Fan Proving Switch: Non-adjustable set point of $\sim .40"$ W.C. on pressure drop. Contacts rated for an inductive load of 6.2 FLA.

High Limit: Manual reset N/C contacts, open at $170^{\circ}\text{F} \pm 8^{\circ}\text{F}$. Contacts rated at 10 FLA at 120 VAC.

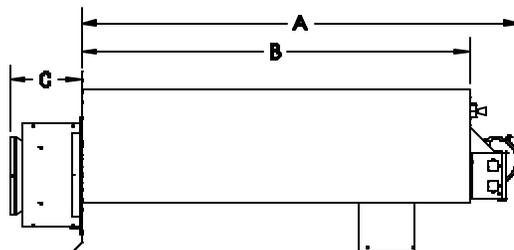
Post-Purge Timer: Nonadjustable 24 VAC input, approximately 45 second post-purge delay.

Cooling Fan: 115/1/60, RPM 3200, AMPS .2, CFM 105, DB Level 50.

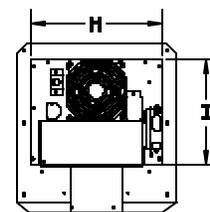
A	B	C	D	E	F	G	H	I
34 1/4"	28 1/2"	5 1/2"	7 3/4"	8"	12 1/2"	13 1/4"	10 1/2"	8 1/2"



FRONT VIEW



SIDE VIEW



REAR VIEW

GENERAL INFORMATION

Each SS2G is electrically factory line tested before shipment.

After opening carton, inspect thoroughly for hidden damage. Impeller should rotate freely. If any damage is found notify freight carrier and your distributor immediately and file a concealed damage claim.

INSTALLATION RESTRICTIONS

1. The SS2G may not be installed on condensing appliances.
2. The SS2G may only be installed on appliances equipped with a draft hood, draft diverter or barometric draft control.
3. The SS2G shall not be installed where flue gas temperatures exceed 650°F at its inlet. Flue gas temperature verification:
 - A) After 15 minutes of operation, measure flue gas temperature to verify it is not more than 650°F at SS2G inlet.
4. The electrical load controlled through the Fan Proving Switch must not exceed its nameplate ratings.
5. Vent runs of over 15 linear feet require the use of an approved, insulated vent connector to prevent problems related to condensation.

⚠ WARNING

Improper installation, adjustment, alterations, service or maintenance can cause injury, property damage or death. Refer to this manual. For assistance or additional information consult a qualified installer, service agency or the equipment supplier.

Do not exceed the recommended input range of the SS2G. Under no circumstances shall the minimum draft adjustment be used for the larger input range of this product. Improper adjustment may result in the dispersion of flue products (carbon monoxide) into the building interior causing carbon monoxide poisoning or death.

CAUTIONS

⚠ WARNING

The Power Venter must be installed by a qualified installer in accordance with these instructions and all local codes or in their absence in accordance with the latest edition of The National Fuel Gas Code (NFPA #54), the latest edition of the National Electrical Code (NFPA#70) and the Occupational Safety and Health Act (OSHA) when applicable. Improper installation can create a hazardous condition such as an explosion, fire, electrical shock or carbon monoxide poisoning resulting in property damage, personal injury or death.

⚠ WARNING

Disconnect the power supply when making wiring connections or when working around the fan wheel and motor. Failure to do so can result in electrical shock, personal injury, death or property damage.

1. "Qualified Installer" shall mean an individual properly trained and licensed.
2. Plan the vent system so that Code required distances are maintained from plumbing and wiring.
3. Make certain the power supply is adequate for the fan motor requirements. Do not add the Power Venter to a circuit where the total load is unknown.
4. The installer must verify that the BTU/hr. input of the appliance does not exceed the recommended input of the SS2G. See Application Table on page 1 of these instructions for sizing information.
5. Flue gas temperatures must not exceed 650 degrees F at the Power Venter inlet. Ambient temperatures must not exceed 104 degrees F. Temperatures above this range can cause a fire resulting in property damage, personal injury or death.
6. "Safety inspection of a previously used gas appliance" as outlined below must be performed before installation of the SS2G as outlined in ANSI Z223.1/NFPA #54, Appendix H.
7. The electrical load controlled through the Fan Proving Switch must not exceed the electrical ratings marked on the Fan Prover.

⚠ WARNING

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

*SAFETY INSPECTION OF A PREVIOUSLY USED GAS APPLIANCE

(Perform prior to SS2G installation)

The following procedure is intended as a guide to aid in determining that an appliance is properly installed and is in safe condition for continuing use.

The following procedure is based on central furnace and boiler installations and it should be recognized that generalized procedures cannot anticipate all situations. Accordingly, in some cases deviation from this procedure may be necessary to determine safe operation of the equipment.

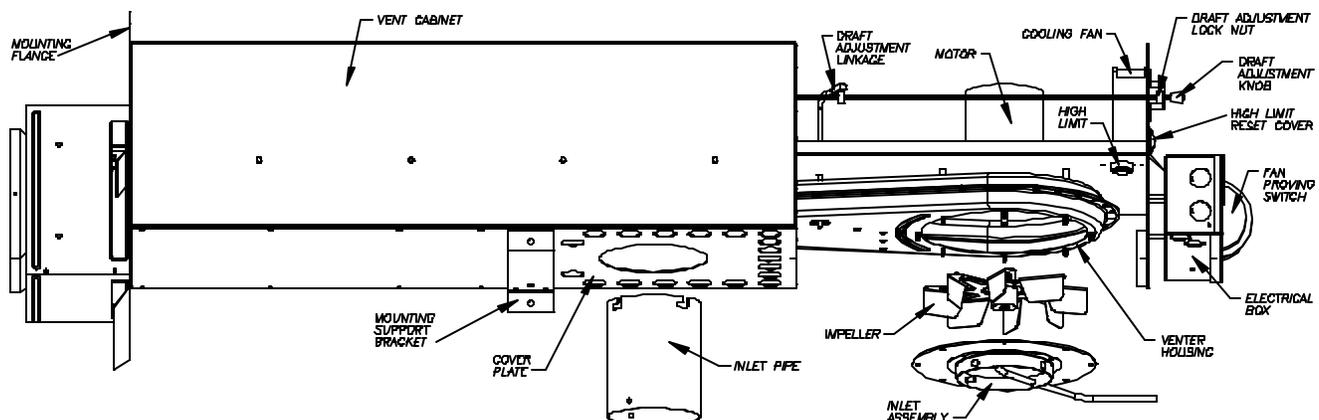
- a. Perform this procedure prior to any attempt at modifications of the appliance or installation of the SS2G.
- b. If it is determined there is a condition which could result in unsafe operation, shut off the appliance and advise the owner of the unsafe condition.

Follow the steps below in making the safety inspection:

1. Conduct a gas leakage test of the appliance piping and control system downstream of the shutoff valve in the supply line to the appliance.
2. Visually inspect the venting system and determine there is no blockage or restriction, leakage, corrosion and other deficiencies which could cause an unsafe condition.
3. Shut off all gas to the appliance(s).
4. Inspect burners and crossovers for blockage and corrosion.
5. Applicable only to furnaces: Inspect heat exchanger for cracks, openings or excessive corrosion. Check both the limit control and fan control for proper operation.
6. Applicable only to boilers: Inspect for evidence of water or combustion product leaks. Determine that the water pumps are in operating condition. Test low water cutoffs, automatic feed controls, pressure and temperature limit controls and relief valves in accordance with the manufacturer's recommendations to determine that they are in operating order.

* Excerpts from the National Fuel Gas Code (ANSI Z223.1/NFPA #54), Appendix H.

SIDESHOT® MODEL SS2G TERMINOLOGY



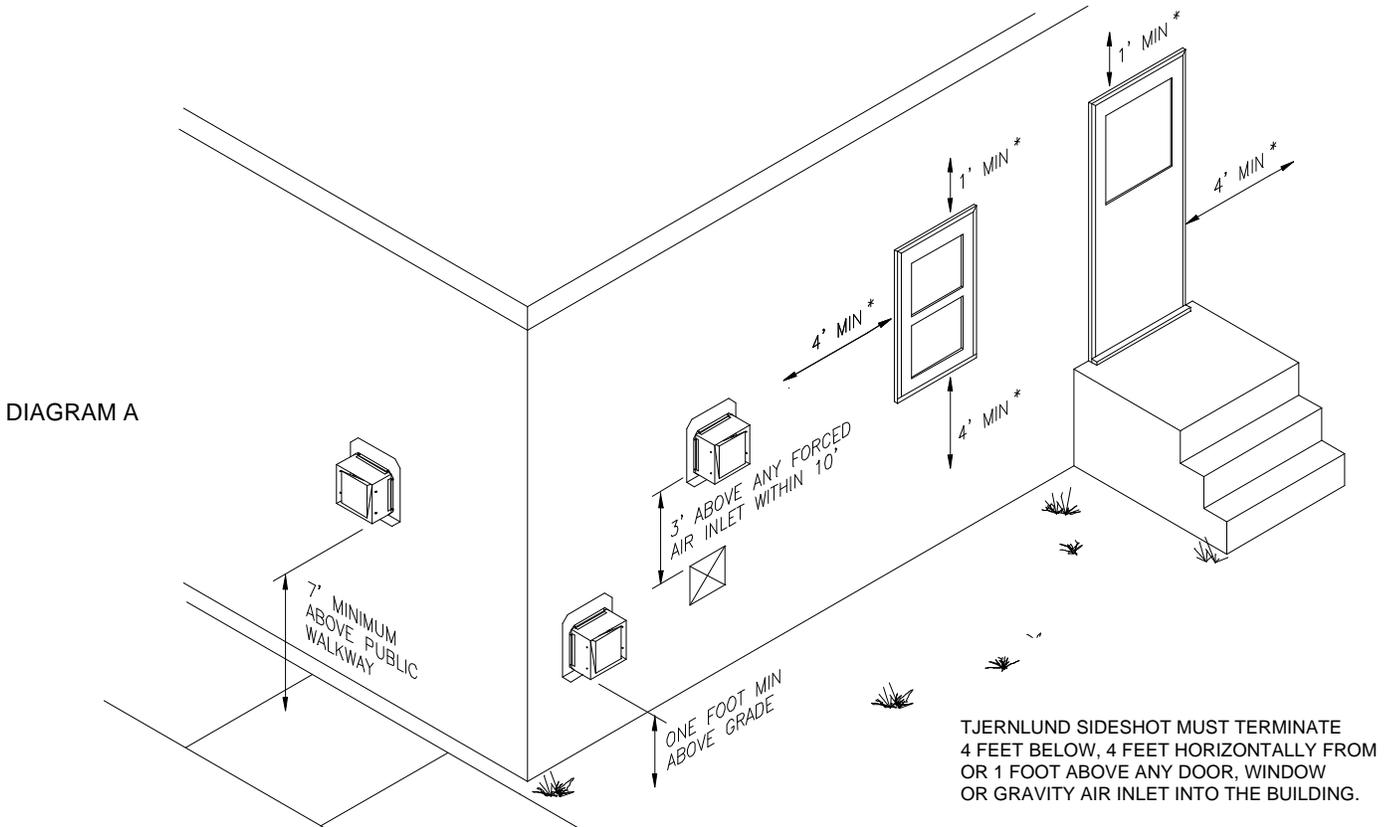
VENT HOOD TERMINATION CLEARANCES

The SS2G has been ETL Listed according to the requirements of the National Fire Protection Association #54, and #211 as follows below, (See Diagram A).

- The exit terminals of mechanical draft systems shall not be less than 7 feet above grade when located adjacent to public walkways.
- A venting system shall terminate at least 3 feet above any forced air inlet located within 10 feet.
- The venting system shall terminate at least 4 feet below, 4 feet horizontally from or 1 foot above any door, window or gravity air inlet into any building.
- The bottom of the vent terminal shall be located at least 12 inches above grade.
- The exit terminal shall be so arranged that the flue gases are not directed so as to jeopardize people, overheat combustible structures or enter buildings.
- Not to be less than 10 feet from an adjacent building.

The SS2G is also Listed to terminate a minimum of 12 inches from soffits, decks or adjacent sidewalls.

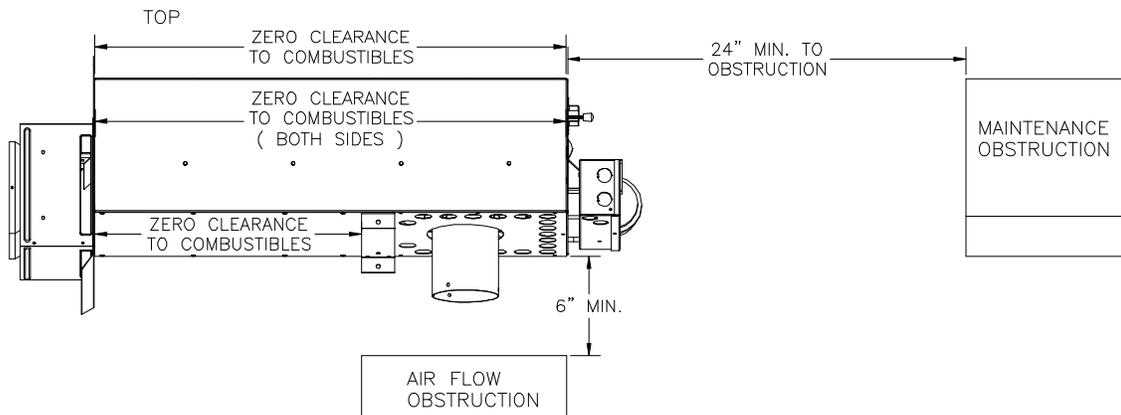
It is not recommended for the SS2G to be terminated on a wall that faces the direction of the prevailing winds. Backdrafts by severe winds can interrupt equipment operation.



SS2G VENT SYSTEM CLEARANCES FROM COMBUSTIBLES & OBSTRUCTIONS

With an inlet flue gas temperature of 650°F or below, the SS2G has been Listed for Zero Clearance from combustibles.

NOTE: You must allow a minimum 2 foot distance of unobstructed clearance behind the SS2G Vent System for maintenance. Allow 6" minimum clearance from bottom of vent cabinet to any obstruction for air flow.



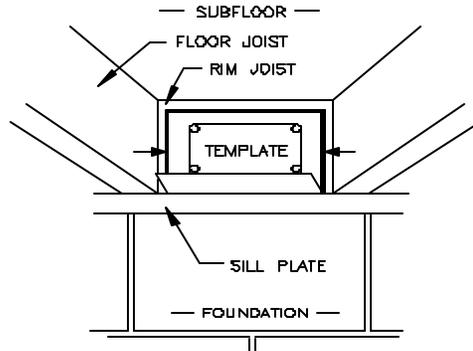
INSTALLATION TOOLS REQUIRED

- | | | |
|--|--|---|
| <ul style="list-style-type: none"> • Nut Runner Set • Screwdriver Set • Reciprocating Saw | <ul style="list-style-type: none"> • Drill w/Bits • Wire Cutter/Stripper | <ul style="list-style-type: none"> • Combination Wrench Set • Draft Gauge |
|--|--|---|

INSTALLING SS2G VENT CABINET

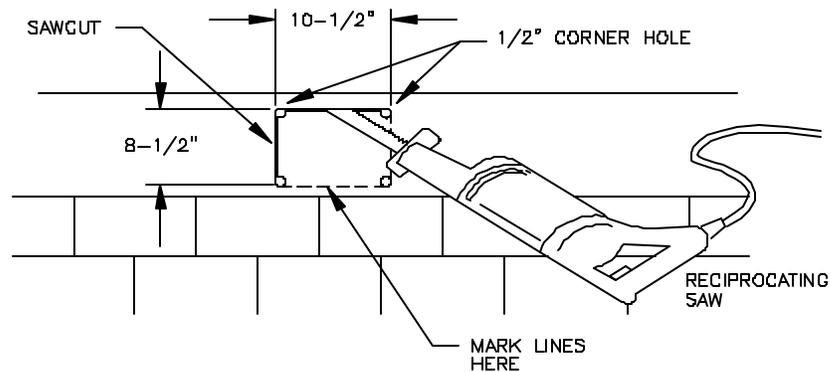
1. a) Fold SS2G Vent Cabinet template (Page 14) along dashed line and attach between the floor joists ensuring that it is snug against the sill plate and centered between the floor joists. Follow same procedure if floor trusses are used, (See Diagram B).
- b) If the SS2G is not being installed between floor joists, attach the template to the wall it will be exiting ensuring it is level.

DIAGRAM B



2. Verify that wall penetration will not come in contact with concealed wiring or plumbing. Using 1/2" bit, drill pilot holes noted on each side of the template from inside through rim-joist, wall board, siding, etc., keeping drill bit perpendicular to the wall. 1/2" bit must be long enough to penetrate through exterior.
3. Remove template from rim-joist and attach to building exterior, aligning pilot hole markings on template with holes previously created in Step #2.
4. Drill remaining (4) corner holes noted on the template through the building exterior. Remove the template and mark lines from the **outside** edge of the holes drilled, forming a rectangle.
5. Using reciprocating saw and appropriate blade, cut a rectangular opening through the rim joist, wall board, siding, etc., on the lines marked in step 4. The rectangular opening should be no larger than 10-1/2" in width by 8-1/2" in height, (See Diagram C).
6. Knock out block material exposing rectangular opening through the wall.

DIAGRAM C



NOTE: For easy one person installations, remove (9) screws from rear and bottom of vent cabinet. Slide venter assembly out of SS2G cabinet and set aside being careful not to damage housing. After SS2G cabinet is secured to the outside wall, and the vibration isolation mount is installed to the inside wall, replace venter assembly and (9) screws, (See Diagram D).

7. Apply two beads of exterior rated caulk approximately 3/8" in width at the seam of the outside casing of the SS2G Vent Cabinet and on the inner flange of the Vent Hood Termination, (See Diagram E).

DIAGRAM D

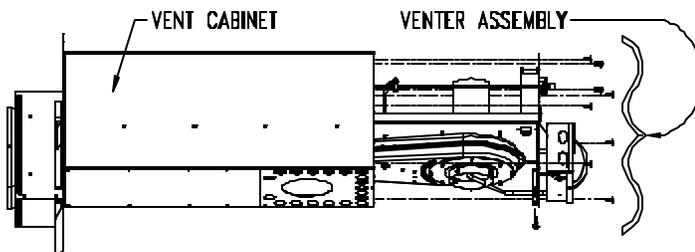
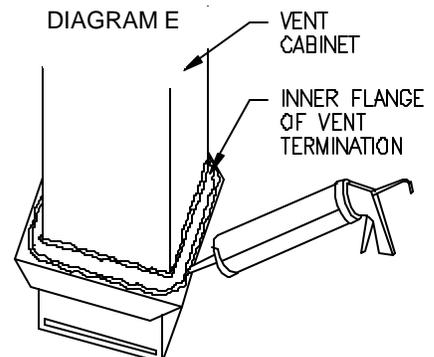
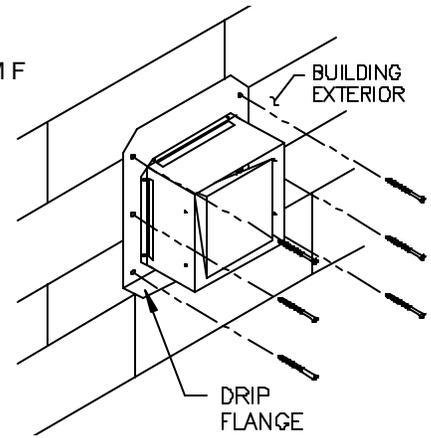


DIAGRAM E



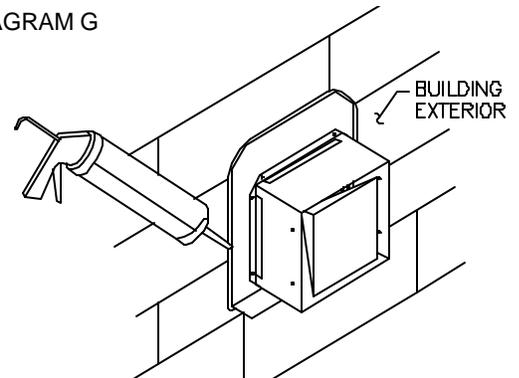
8. Slide the SS2G vent cabinet through the wall with drip flange facing down towards ground, (See Diagram F). Mount Vent Hood to exterior using (6) #10 x 1 1/4" wood screws provided, (See Diagram F). If installing in masonry wall drill 1/4" holes and use wall anchors provided.

DIAGRAM F



9. After the SS2G is completely installed, apply a bead of exterior rated caulk between the Vent Hood Termination mounting flange and the exterior of the building, (See Diagram G).

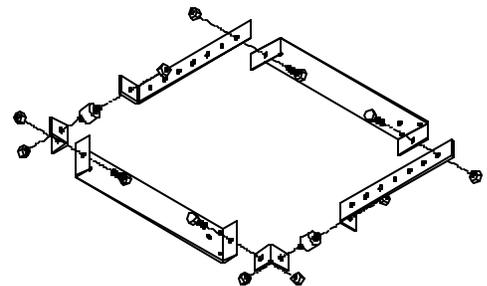
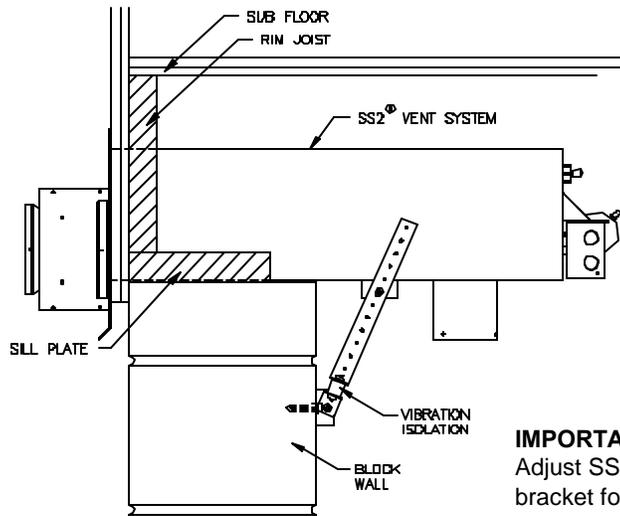
DIAGRAM G



INSTALLATION OF WALL SUPPORT BRACKET

1. To prevent damage to the SS2G, temporarily support the bottom of the SS2G cabinet (prop on ladder top) while assembling the wall support bracket. Assemble the wall support bracket as shown, (See Diagram H).
2. Connect mounting bracket to SS2G using (4) #8 x 3/8" sheet metal screws. Line up holes on bottom of SS2G with mounting bracket to ensure proper placement, (See Diagram H).
3. Adjust the wall support bracket so that a slight pitch is maintained for moisture drainage and vibration isolation. Use the prepunched holes on the wall bracket as a template to mark holes to be drilled into the side wall for mounting screws, (See Diagram H).
4. a) If installing the bracket into a wood wall, drill 2 pilot holes at each point established in step 3 with a 1/8" drill bit approximately 1" deep and install the screws provided to secure the bracket to the wall.
- b) If installing the bracket into a masonry wall, drill 2 holes at each point established in step 3 with a 1/4" masonry drill bit Tap the masonry anchors into the 2 holes drilled and screw the wall bracket onto the wall.

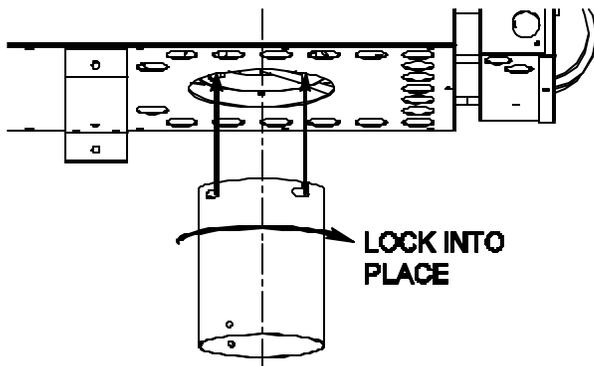
DIAGRAM H



IMPORTANT:
Adjust SS2G mounting bracket for slight pitch.

INLET PIPE INSTALLATION

DIAGRAM I



1. Remove 4" round inlet pipe from box.
2. Align the 4 slots of the inlet pipe to the 3 pins and proving switch sensing tube, push pipe up until it bottoms out in the SS2G inlet.
3. Turn the inlet collar clockwise to lock in place, (See Diagram I). **IMPORTANT:** After vent pipe is installed verify inlet pipe is locked tightly in place.

INSTALLATION OF VENT PIPE

The SS2G inlet is designed to accept 4" single wall or type "B" vent pipe. It will also accept 4" flexible vent connectors. The vent pipe used must be in compliance with local codes and the listing of the vent pipe/connector manufacturer.

Always use a vent pipe/connector of the same diameter as the appliance flue outlet. Use a tapered reducer near the SS2G inlet pipe if the appliance flue outlet is larger than 4".

Determine vent pipe layout which will allow for the least amount of elbows to the appliance. Calculate the equivalent vent pipe length from the appliance to the SS2G Vent System by adding the straight vent pipe length and the equivalent elbow lengths. Each 90 degree elbow is equal to 10 feet of straight vent pipe, each 45 degree elbow is equal to 5 feet of straight pipe. The equivalent vent pipe length must not exceed 50 feet from the appliance to the SS2G Vent System. Vent runs of over 15 linear feet require the use of an approved, insulated vent connector to prevent problems related to condensation. It is not necessary to maintain a 1/4" rise per foot of horizontal when Side Wall Venting.

NOTE: Installing a vent pipe "jog" on vertical vent pipe layouts allows for easier dismantling when servicing is necessary, (See Diagram J).

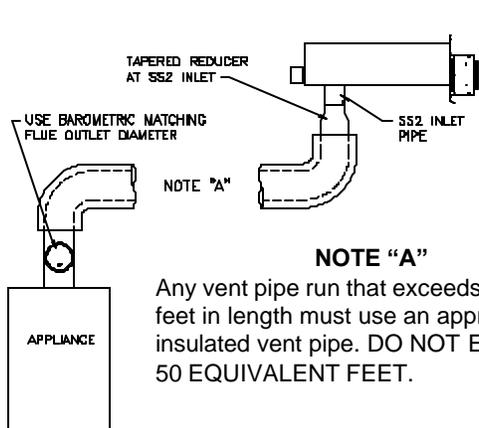
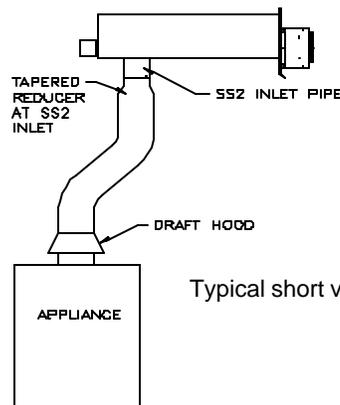


DIAGRAM J



Typical short vent pipe installation

ELECTRICAL WIRING

⚠ WARNING

All wiring from the SS2G to the appliance must be appropriate Class 1 wiring as follows: installed in rigid metal conduit, intermediate metal conduit, rigid non-metallic conduit, electrical metallic tubing, Type MI Cable, Type MC Cable, or be otherwise suitably protected from physical damage. **Note:** We recommend the use of flexible conduit for connections to the SS2G to allow for slide out servicing feature of venter assembly.

The electrical contact ratings for the diaphragm Fan Proving Switch and High Limit are as follows:

FAN PROVING SWITCH

3 Amps (full load) at 24 VAC
36 Amps (locked rotor) at 24 VAC

HIGH LIMIT

10 Amps (full load) at 24 VAC
60 Amps (locked rotor) at 24 VAC

The Fan Proving Switch and High Limit are not suitable for loads which exceed the above limits.

1. The installer must ensure that all electrical connections between the appliance and Power Venter are tight and that all wires are positioned and secured so they cannot come in contact with high temperature locations. Use adequate conduit supports where necessary.
2. The installer must ensure that the internal appliance transformer is rated no lower than 40VA.

3. The installer must ensure that the heat anticipator in the comfort thermostat is adjusted according to the thermostat manufacturer's recommendation.
4. All wiring must be in compliance with local codes or in their absence, with the latest Edition of the National Electric Code (NFPA #70).
5. Disconnect 115V power before attempting to wire the Power Venter to the appliance. Power may be disconnected by means of the appliance circuit breaker/fuse.

NOTES:

While it is impossible to include every possible wiring scenario, the following diagrams represent the most common. If wiring the SS2G to an appliance not equipped with the controls shown on the following diagrams, determine which terminals of the gas valve are considered "HOT" and "COMMON" and follow the steps on page 9.

When wiring Power Venter to the gas valve wire all thermostats, zones, circulators and limits as would normally be done if venting into a chimney.

WIRING SS2G WITH SINGLE ZONE THERMOSTAT

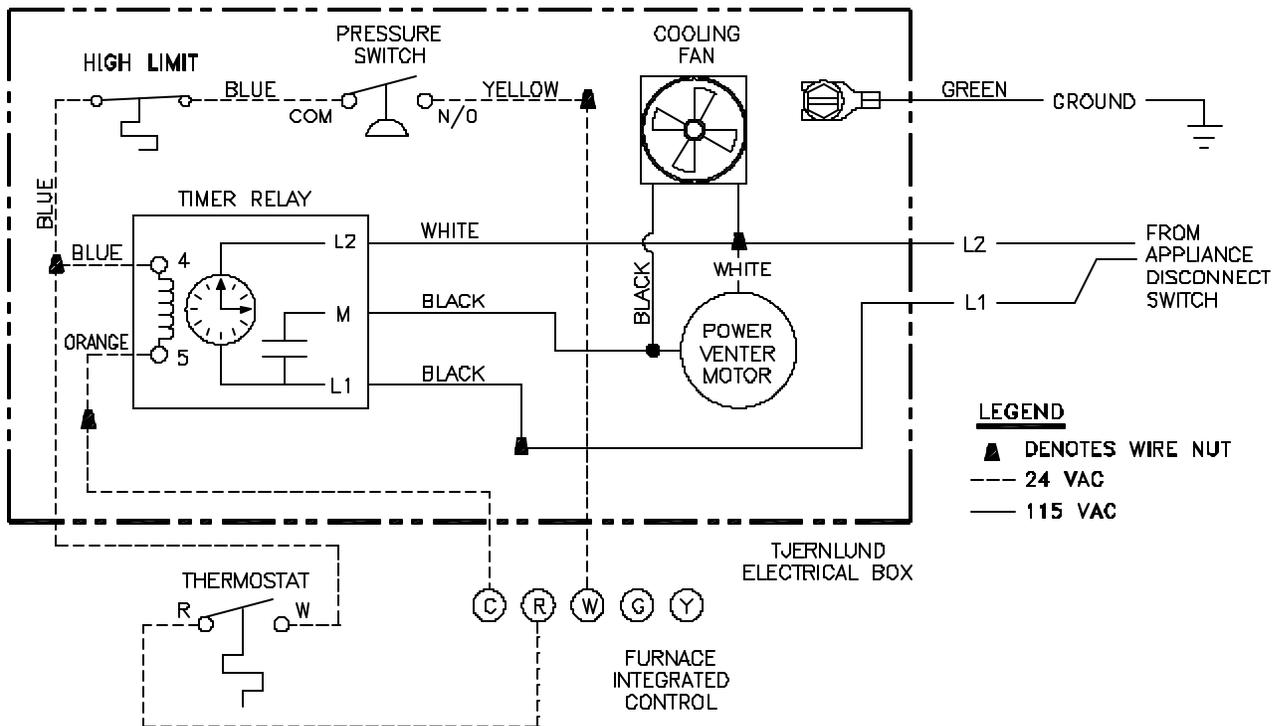
SEQUENCE OF OPERATION WITH SINGLE ZONE THERMOSTAT:

Adjust the furnace thermostat to call for heat. The Power Venter should start. After a slight delay, the furnace burner should fire. The delay is caused by the Power Venter fan proving switch. The delay will be no more than 4 seconds. If you are unable to detect a slight delay, contact Tjernlund Products, Inc. at 1-800-255-4208 for assistance. When the fan proving switch closes, the furnace combustion relay is energized. Normal combustion sequence for the furnace begins: induced draft furnace blower starts, its proving switch makes energizing ignition control and/or gas valve. **DO NOT OPERATE THE FURNACE WITHOUT THE FAN PROVING SWITCH WIRED INTO THE 24V FURNACE CIRCUIT!**

NOTE: When Power Venter is interlocked with a thermostat wire all zones, circulators and limits as would normally be done if venting into a chimney.

If you are unable to wire the SS2G as outlined in these instructions, call Tjernlund's Customer Service Department toll free at 1-800-255-4208 for assistance.

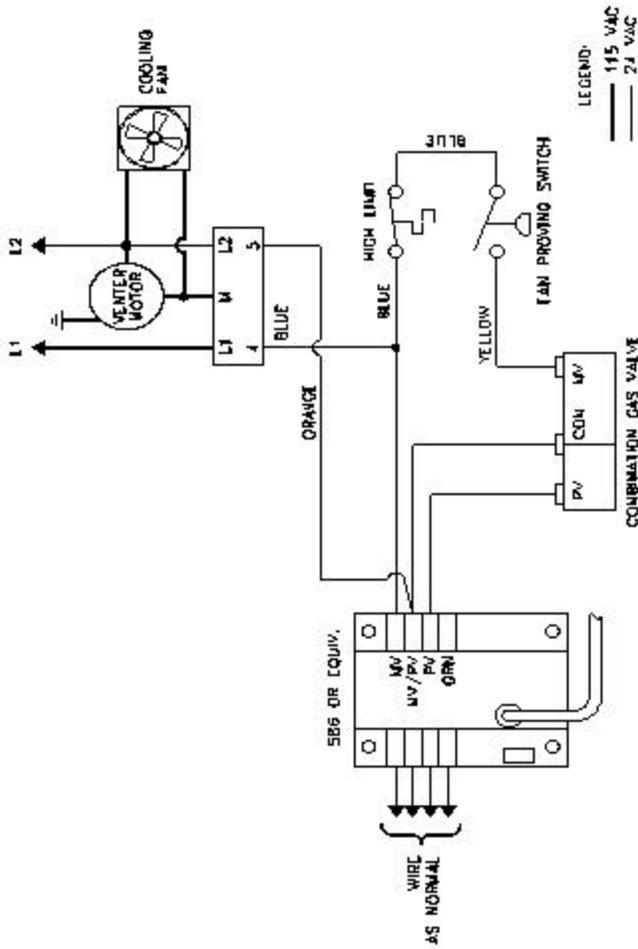
WIRING SS2G WITH THERMOSTAT



SS2G WIRED TO 24V GAS VALVE

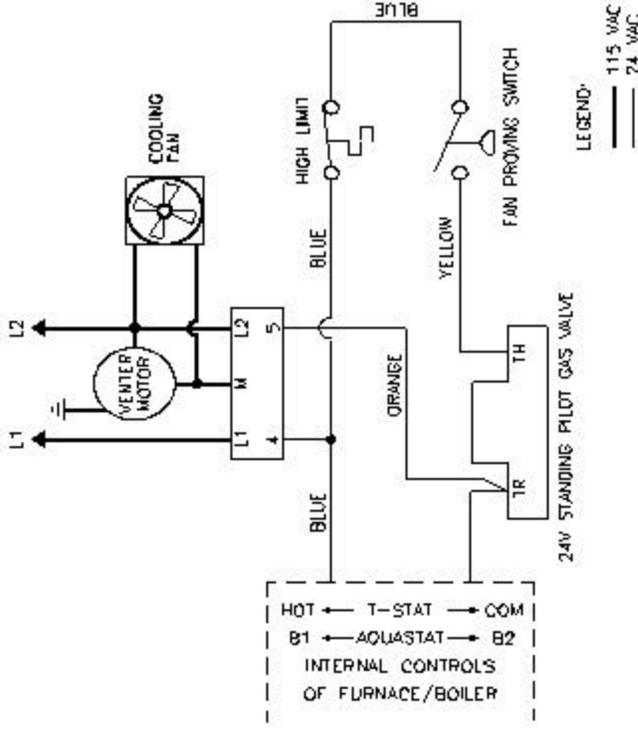
SS2 SEQUENCE OF OPERATION WIRED TO GAS VALVE:

As the thermostat/aquastat senses a need for heat, the internal switch of the thermostat/aquastat will close. The Switch closure completes the 24V electrical circuit to the internal controls of the appliance. Before the 24V signal reaches the appliance gas valve, it is interrupted by the Power Venter Relay/Timer and Fan Proving Switch. When the Power Venter Relay/Timer receives the 24V signal, the contact side closes completing the 115V circuit to the Power Venter motor. The air movement generated by the Power Venter closes the Fan Proving Switch and completes the circuit to the appliance gas valve. The appliance gas valve will only receive power when the appliance thermostat/aquastat is calling for heat and the Power Venter is operating. When the appliance thermostat/aquastat is satisfied, 24V will be discontinued to the Relay/Timer and the Power Venter will continue to operate for a nonadjustable post purge period of approximately 45 seconds.



NOTES: The Power Venter is typically interlocked with the gas valve of the appliance. Wire all other furnace/boiler controls as normally done when conventional venting before continuing. If your appliance is not equipped with the controls shown on this diagram, determine which terminals on the gas valve are "HOT" and "COM" and follow the steps below.

1. Cut the wire that is factory installed to the TH or MV (HOT) terminal of the gas valve, leaving enough wire connected to the terminal to make connection to Power Venter.
2. Connect both the BLUE wire from Fan Proving Switch and the BLUE wire connected to terminal #4 on Relay/Timer in Power Venter to the end of the wire that is connected to the TH or MV (HOT) of ignition module or internal controls.
3. Connect the YELLOW wire from Fan Proving Switch to the wire connected to the TH or MV (HOT) terminal of the gas valve.



4. Connect the ORANGE wire on terminal #5 of Relay/Timer in Power Venter to the TR or MV/PV (COM) terminal on the gas valve.
NOTE: Do not remove the factory installed wire from this terminal.
5. Connect the BLACK wire in the Power Venter to L1.
6. Connect the WHITE wire in the Power Venter to L2.
7. Connect the Ground to grounding screw in the Sideshot electrical box.

DRAFT ADJUSTMENT PROCEDURE

The SS2G Vent System will properly vent a wide range of BTU/hr. input capacities. To compensate for different burner capacities, vent connector lengths, types and sizes, it features a draft adjustment located on the back of the venter assembly. Turning this draft adjustment knob clockwise will increase draft and raise the BTU capacity. Turning knob counterclockwise will decrease draft and lower the BTU capacity. The SS2G is factory set for the highest draft (BTU capacity).

IMPORTANT:

Before proceeding, close all windows, doors and fireplace dampers. Turn on all appliances in the structure that exhaust indoor air such as clothes dryer, exhaust fans, range hoods, bathroom and whole house exhaust fans. Failure to perform the draft adjustment procedure may cause a poor vent system installation possibly resulting in fire, carbon monoxide poisoning, explosion, personal injury or property damage.

1. Place the heating system into operation. NOTE: there will be a slight pause between venter operation and burner operation. If installation uses a barometric draft control adjust it to the minimum or least draft setting. Allow heater to operate for 5 minutes.

2. PREFERRED METHOD: MUST HAVE DRAFT GAUGE AVAILABLE

Sample draft one foot after draft hood, diverter or barometric draft control using a draft gauge. If the draft reading is in excess of $-0.05''$ W.C. turn the draft adjustment knob on the SS2G counterclockwise so that a draft reading of $-0.02''$ to $-0.05''$ W.C. is obtained. Never adjust draft to a setting of less than $-0.02''$ W.C. If the vent system is terminated on a wall subject to prevailing winds a $-0.05''$ W.C. draft setting is recommended.

3. If a draft gauge is not available test for spillage at the draft hood, diverter or barometric draft control using the flame from a match, lighter or candle and determine the following:

A. The flame or smoke is being drawn into the draft hood, diverter or barometric draft control.

B. The main burner is burning properly, i.e. no floating, lifting or flash back.

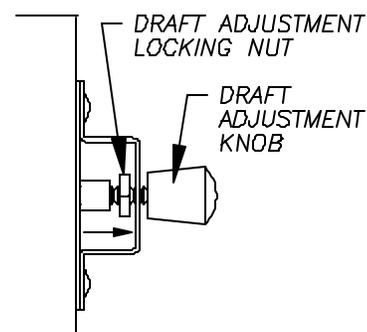
C. If the heater has a two stage or modulating gas valve verify that burner operates properly at both low and high fire.

If the draft appears excessive turn the draft adjustment knob counterclockwise and repeat steps A through C.

4. Lock the draft adjustment knob in place by tightening the locking nut behind the bracket, (See Diagram K).

5. Turn off appliances and exhaust fans activated for draft adjustment procedure.

DIAGRAM K



COMBUSTION AIR

Adequate combustion air is vital for proper combustion and for safe venting. Likewise, for proper SS2G performance, adequate combustion air must be available to the appliance. Many installers assume adequate combustion air is present, especially in older homes. In some cases this is a false assumption, because many older homes have been made "tight" due to weatherization. Size the combustion air opening(s) into the appliance room as outlined NFPA 54/NFPA 211. When installing a SS2G, it is not necessary to supply any more combustion air than normally required when conventional venting. Common symptoms of inadequate combustion air include: Fan Proving Switch short cycling, odor present at the end of burner cycle, outside air enters the structure through the SS2G Vent System on SS2G/Appliance off cycle.

FINAL SYSTEM OPERATION CHECK-OUT

1. Adjust thermostat or appliance controls to call for heat.

2. Verify that the SS2G operates first, prior to burner ignition.
Allow heating equipment and SS2G to operate continuously while performing steps 3-5.

3. Close all doors and windows of the building. If heating equipment is installed in utility room or closet, close the entrance door to this room. Close fireplace dampers.

4. Turn on all appliances in the structure that exhaust indoor air during their operation, e.g. turn on clothes dryer and exhaust fans such as range hoods, bathroom exhaust and whole house fans.

5. Allow SS2G and equipment to operate for at least 15 minutes. Tripping of the burner circuit by the Fan Prover Switch during the 15 minute operation indicates an unsafe operating condition. Turn fuel supply off to appliance and **DO NOT OPERATE UNTIL UNSAFE VENTING CONDITION IS INVESTIGATED BY QUALIFIED SERVICE PERSONNEL.**

6. Turn thermostat or equipment controls to the "off" position. Verify that the post-purge timer operates the SS2G for approximately 45 seconds while burner is not firing before the SS2G turns off.

7. Return all windows, doors and exhaust fans to their original conditions of use.

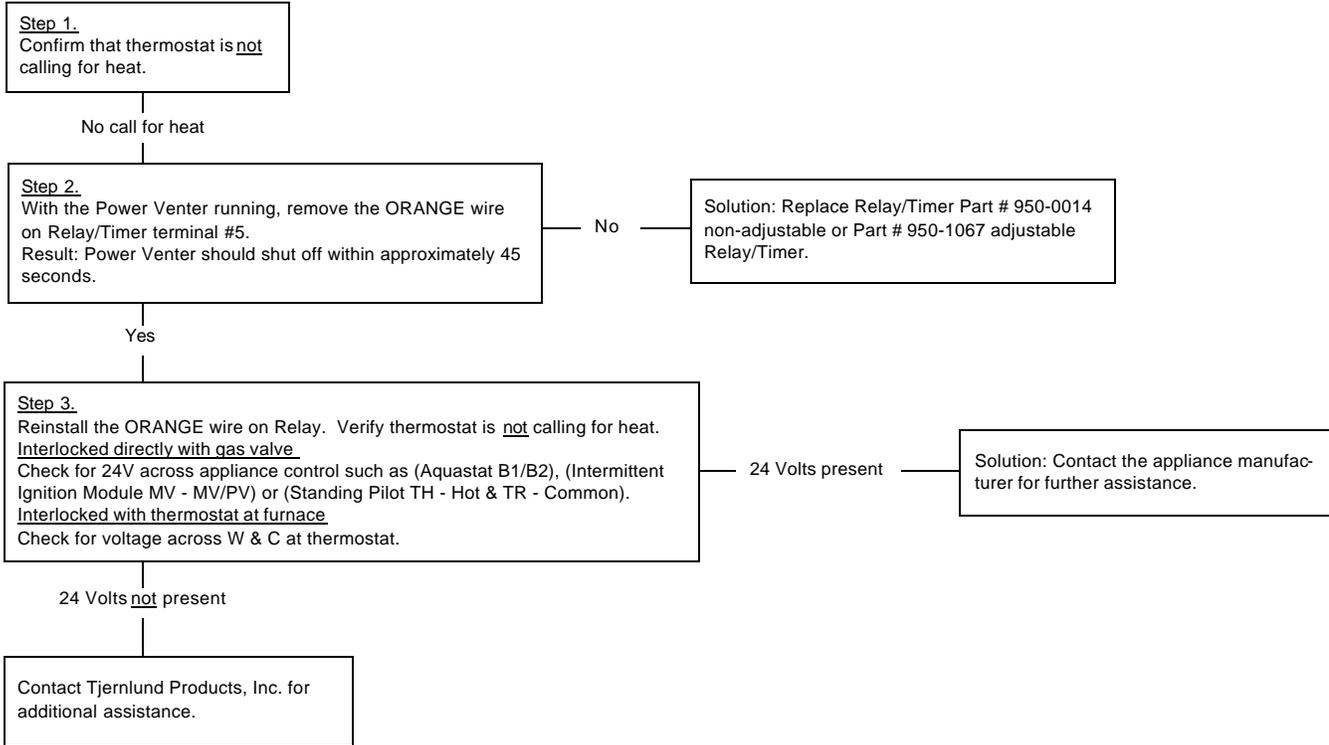
TROUBLESHOOTING

⚠ WARNING

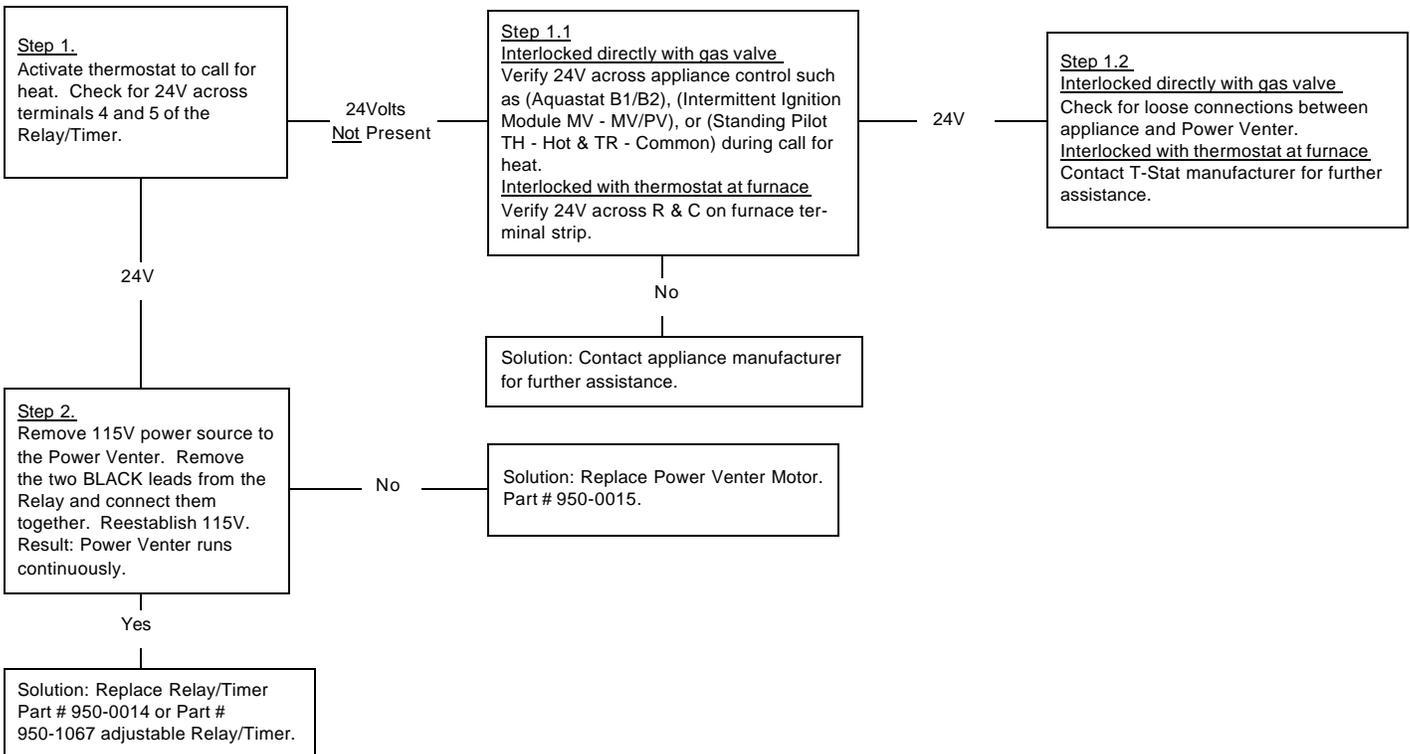
The following guide is intended to be used if a problem occurs during the use of the SS2G side wall vent system. At several steps throughout the guide you will be required to measure voltage with a voltmeter. **Extreme caution must be exercised to prevent injury.** If you are unable to determine the defective part with the use of this guide, call your Tjernlund distributor or Tjernlund Products direct at 1-800-255-4208 for further assistance.

NOTE: When 120 VAC is applied to SS2G terminals it may start up and run for up to 45 seconds. Do not initiate a call for heat with the appliance until the SS2G is finished with its post purge time cycle.

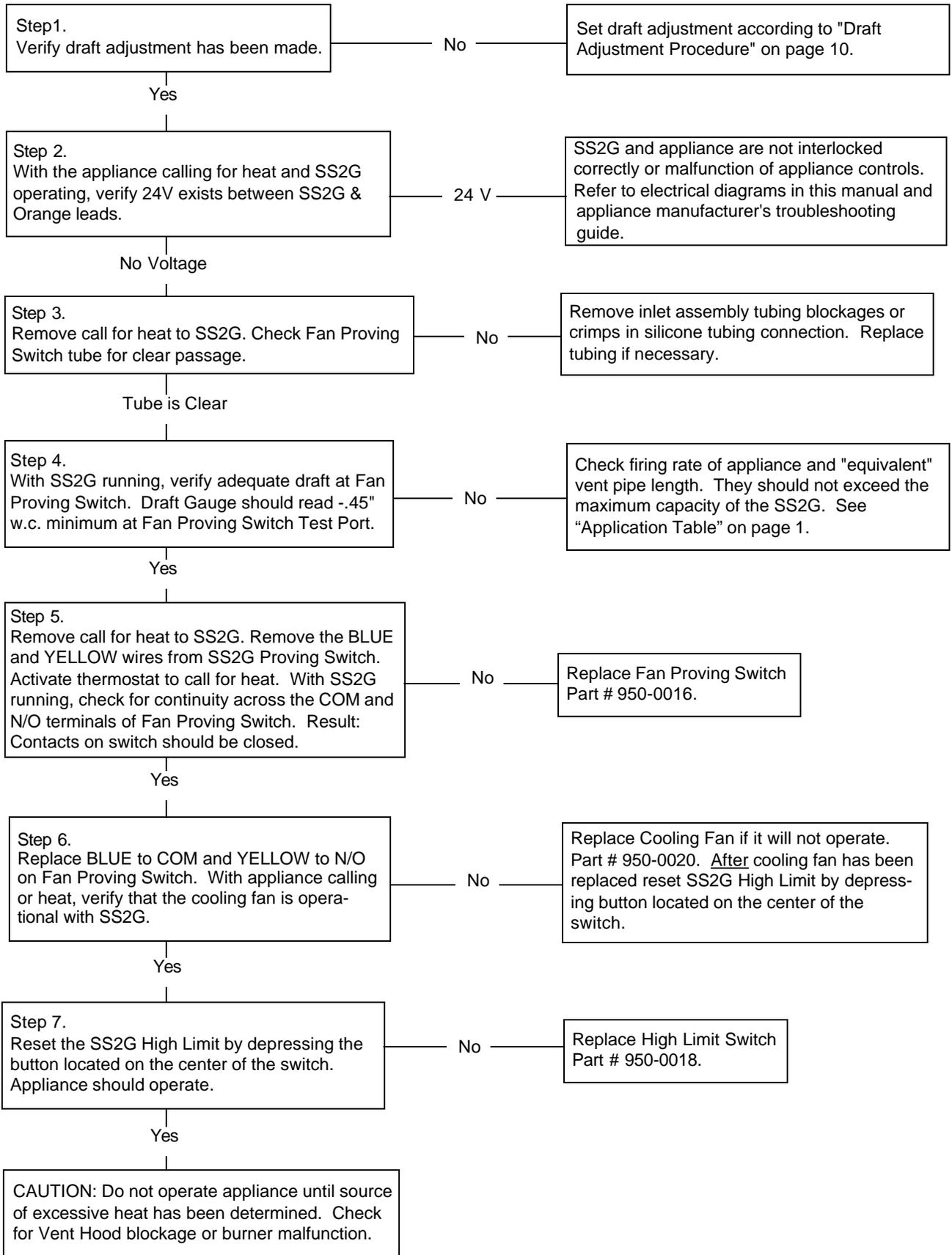
SYMPTOM 1: POWER VENTER RUNS CONTINUOUSLY / ERRATICALLY



SYMPTOM 2: POWER VENTER DOES NOT RUN DURING CALL FOR HEAT



SYMPTOM 3: APPLIANCE WILL NOT OPERATE, BUT SS2G DOES



MAINTENANCE

INSTALLER AND USER REQUIREMENTS

A vent system inspection must be performed annually by a qualified service agency. The inspection should include the operation circuit check, safety interlock test, combustion air test and a visual inspection of the complete vent system for corrosion, blockage or leaks. Any corrosion, blockage or leaks detected must be repaired or replaced immediately.

MOTOR OILING

The SS2G Motor has sealed ball bearings and requires no oiling.

HOW TO OBTAIN SERVICE ASSISTANCE

1. If you have any questions about your Power Venter or if it requires adjustment, repair or routine maintenance, we suggest that you contact your installer, contractor or service agency.
2. If you require technical information contact Tjernlund Products, Inc. at 1-800-255-4208.

When contacting Tjernlund Products, Inc., please have the following information available:

1. Model of the Power Venter as shown on the label attached to Power Venter.
2. Name and address of installer and any service agency who performed work on Power Venter.
3. Date of original installation and dates any service work was performed.
4. Details of the problem as you can best describe them.

LIMITED PARTS WARRANTY AND CLAIM PROCEDURE

Tjernlund Products, Inc. warrants the components of the SideShot for two years from date of installation. This warranty covers defects in material and workmanship. This warranty does not cover normal maintenance, transportation or installation charges for replacement parts or any other service calls or repairs. This warranty DOES NOT cover the complete SS2G if it is operative, except for the defective part.

Tjernlund Products, Inc. will issue credit or provide a free part to replace one that becomes defective during the two year warranty period. If the part is over 30 months old, proof of date of the installation in the form of the contractor sales/installation receipt is necessary to prove the unit has been in service for under two years. All receipts should include the date code of the SideShot to ensure that the defective component corresponds with the complete unit. This will help preclude possible credit refusal.

- 1.) Follow troubleshooting guide to determine defective component. If unable to determine faulty component, contact your Tjernlund distributor or Tjernlund Products Technical Customer Service Department at 1-800-255-4208 for troubleshooting assistance.
- 2.) After the faulty component is determined, return it to your Tjernlund distributor for replacement. Please include SideShot date code component was taken from. The date code is located on the Electrical Box coverplate. If the date code is older than 30 months you will need to provide a copy of the original installation receipt to your distributor. Credit or replacement will only be issued to a Tjernlund distributor after the defective part has been returned prepaid to Tjernlund.

WHAT IS NOT COVERED

Product installed contrary to our installation instructions
Product that has been altered, neglected or misused
Product that has been wired incorrectly
Product that has been damaged by a malfunctioning or mistuned burner
Any freight charges related to the return of the defective part
Any labor charges related to evaluating and replacing the defective part

TJERNLUND LIMITED TWO YEAR WARRANTY

Tjernlund Products, Inc. warrants to the original purchaser of this product that the product will be free from defects due to faulty material or workmanship for a period of (2) years from the date of original purchase or delivery to the original purchaser, whichever is earlier. Remedies under this warranty are limited to repairing or replacing, at our option, any product which shall, within the above stated warranty period, be returned to Tjernlund Products, Inc. at the address listed below, postage prepaid. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF, AND TJERNLUND PRODUCTS, INC. EXPRESSLY DISCLAIMS LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF THIS PRODUCT. THIS WARRANTY IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES AND NO AGENT IS AUTHORIZED TO ASSUME FOR US ANY LIABILITY ADDITIONAL TO THOSE SET FORTH IN THIS LIMITED WARRANTY. IMPLIED WARRANTIES ARE LIMITED TO THE STATED DURATION OF THIS LIMITED WARRANTY. Some states do not allow limitation on how long an implied warranty lasts, so that limitation may not apply to you. In addition, some states do not allow the exclusion or limitation of incidental or consequential damages, so that above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which may vary from State to State. Send all inquiries regarding warranty work to Tjernlund Products, Inc. 1601 9th Street, White Bear Lake, MN 55110-6794. Phone (651) 426-2993 • (800) 255-4208 • Fax (651) 426-9547.

REPLACEMENT PARTS

<u>Component</u>	<u>Part Number</u>
Motor	950-0015
Proving Switch	950-0016
Relay/Timer (approx. 45 second nonadjustable delay)	950-0014
Relay/Timer (1 to 10 minute adjustable delay)	950-1067
Impeller	950-0008
High Limit Switch	950-0018
Venter Housing	950-0009
Cooling Fan	950-0020