LXi™ Sidewall Vent Installation Kit

⚠WARNING

FOR YOUR SAFETY: This product must be installed and serviced by a professional service technician, qualified in pool/spa heater installation and maintenance. Improper installation and/or operation could create carbon monoxide gas in flue gases which could cause serious injury, property damage, or death. Improper installation and/or operation will void the warranty.

These instructions are to be used with the following Jandy® Installation Kit:
R0467301--Sidewall Vent Installation Kit, Pool/Spa Heater Model LXi™, 250/300
R0467302--Sidewall Vent Installation Kit, Pool/Spa Heater Model LXi™, 400

⚠WARNING

If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

This document gives instructions for installing the sidewall vent kit on all LXi™ pool/spa heaters. The instructions must be followed exactly. The document also provides important information on replacing gaskets.

These instructions were written with safety as the priority. Not following the written procedure or taking short cuts may increase the risk of personal injury. Read through the instructions completely before starting the procedure.

Before starting the procedure, use the parts list at the back of these instructions to identify the parts that are in your kit. If any parts are missing from the kit, please call your local Jandy® distributor for assistance. For technical assistance, please contact our Technical Service Department at (707) 776-8200, extension 260.

A. Exhaust Venting

When converted to indoor and outdoor shelter venting configuration, the LXi heater has a vent collar fitting for attachment to the venting. The diameter of the vent collar and, thus, the minimum diameter of the vent pipe to be used is determined by the model of heater installed and the type of venting. **The only correct procedure for vent pipe sizing is to do so in accordance with Table 1 and the applicable installation code as stated in the following WARNING.** Note that with horizontal Category III type vent installations that the venting may be smaller than the vent collar for Category I vertical venting (see Table 1).

⚠ WARNING

Vent pipe diameter must be as required by the National fuel Gas Code Z223.1 or the Canadian Installation Codes for Gas Appliances CAN/CSA-B149.1. Undersized pipe can result in inadequate venting and oversize pipe can result in vent condensation. In either case the result can be release of combustion products to the indoors. This can cause serious injury or death by carbon monoxide poisoning or asphyxiation.

B. Vent Pipe Sizing and General Installation

The LXi may be installed with venting as a Category I or III Fan-Assisted appliance or outdoors with the integral vent grill.

1. Outdoor Installations

For outdoor installations, exhaust venting considerations will determine the placement of the heater (Refer to Installation and Operation Manual, Section 2.3.4). If the heater cannot be placed so as to meet the requirements stated in the LXi Installation and Operation Manual, a vent collar may be added to the heater to move the exhaust vent opening to a position that complies with the requirements. In all cases, vent collars must be of the same diameter as the exhaust outlet of the heater. Approved vent collars may be obtained through your Jandy distributor.

Table 1. Vent Pipe Sizing

Heater Size	Vent Collar Size		Minimum Vertical Vent Pipe Diameter (Refer to NFPA 54 or local codes)		Horizontal Vent Pipe Diameter		Maximum Horizontal Vent Length		Maximum No. of Elbows	Sidewall Vent Kit
250	6 in	15 cm	6 in	15 cm	5 in	13 cm	25 ft	7.6 m	3	R0467301
300	7 in	18 cm	7 in	18 cm	5 in	13 cm	25 ft	7.6 m	3	R0467301
400	8 in	20 cm	8 in	20 cm	6 in	15 cm	25 ft	7.6 m	3	R0467302

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2. Indoor and Outdoor Shelter Installations

All indoor installations and outdoor shelter installations require a factory approved vent collar. The vent collar must be installed without modification and the vertical vent collar comes factory installed.

All vent installations must be made in accordance with all local, state or provincial codes and with:

1. The National Fuel Gas Code, ANSI Z223.1 (NFPA 54), latest edition; pay particular attention to the chapter addressing "Venting of Equipment". Applicable provisions in additional applicable local building codes may also need to be followed.
2. In Canada, CAN/CSA B149.1.

Avoid terminating heater vents near air conditioning or air supply fans. The fans can pick up exhaust flue products from the heater and return them inside the building, creating a possible health hazard.

Do not locate the vent terminal where flue products could strike against building materials and cause degradation.

Vent opening should be well away from trees or other obstructions that would prevent free air flow to and from vent terminal. Do not terminate the vent under decks, stairways, or car ports.

The LXi may be installed for use with standard vertical venting per tables provided in most local codes for Category I Fan-Assisted appliances. If the local code does not include such tables, refer to the National Fuel Gas Code NFPA 54 / ANSI Z223.1 or the Canadian Natural Gas and Propane Installation Code, CAN/CSA-B149.1. Note that the tables for fan-assisted appliances include both maximum and minimum vent loading figures. The primary purpose of the maximum ratings are to assure that the vent operates with negative pressure throughout its length. The minimum ratings are to assure that vent gases don't cool too much and thereby assure that condensation doesn't occur.

When the installation requires horizontal venting in excess of what is allowed for Category I installations or calls for horizontal discharge, the LXi may be installed with a Category III venting system. Category III applications must be installed per this installation manual and the vent manufacturer's installation instructions. The venting materials must comply with UL 1738 for Category III venting systems and be constructed of stainless steel. In Canada, the venting materials must be ULC S636 compliant. Vent piping must be adequately supported with no low spots or sagging that will allow condensate to collect. The heater must not be used to support the vent pipe. Horizontal runs must be sloped upwards away from the heater to a vent terminal at a minimum of 1/4" per horizontal foot (2 cm/m). The LXi is designed for Category III venting with a maximum of 25 ft (7.6 m) of vent pipe and up to 3 elbows. For each additional elbow, reduce the maximum vent pipe length by 10 ft (3 m). See Table 4 for the minimum vent diameter for the model size to be installed.

Sidewall vents must be installed and located in accordance with the National Fuel Gas Code NFPA 54 / ANSI Z223.1 or the Canadian Natural Gas and Propane Installation Code CAN/CSA-B149.1. See Figure 8 Sidewall Vent Terminations.

IMPORTANT NOTE In the Commonwealth of Massachusetts, additional requirements, covered in document CMR 248 5.00, which supersede some of the requirements of ANSI Z223.1 (NFPA 54) apply to Sidewall Horizontally Vented appliances. If installing this product using an approved side-wall horizontal vent system in the Commonwealth of Massachusetts, be sure to adhere to these additional requirements. These requirements include verbiage that says that the property owner is to ensure that Carbon Monoxide Detectors are installed in the vicinity of the appliance and also on all levels of the dwelling in which the appliance is installed. For further instructions contact Jandy Pool Products Technical Service Department. at (707) 776-8200 extension 260.

Jandy Pool Products does not recommend using a "Common Vent" to vent multiple applicances through a common duct. However, if no other option is deemed available by the installer, each appliance must have its own vent temperature limit switch. All vent limit switches must be wired in series so as to prevent any appliance from firing in the event of a blocked vent. Refer to ANSI Z223.1 or, in Canada, to CAN/CSA B149.1 for more information on multiple venting. Seek the assistance of a Registered Professional Engineer for proper design of a common venting system.

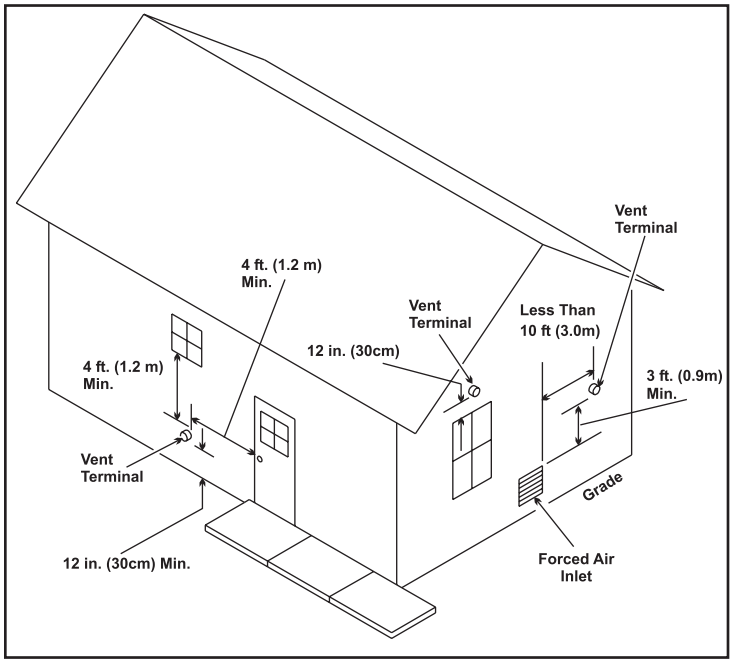

Figure 1. Sidewall Vent Terminals

C. Important Information on Gaskets

⚠ WARNING

In order to avoid serious injury or death resulting from flue gases, including Carbon Monoxide, follow these instructions exactly to ensure that all joints in the vent assembly are properly sealed.

The LXi pool/spa heater has a fan-assisted combustion system. A specially designed combustion blower pushes flow through the system, most of which operates at positive pressure.

All components of the vent box assembly use gaskets along with screws to seal the joints between the parts. These joints are important, because they ensure proper heater operation and ensure that exhaust products including carbon monoxide, are not misdirected. All gaskets must be in place and properly installed. Leakage of air into the system can cause operational problems and reduce efficiency.

The exhaust terminal is either a grill for outdoor installation (shipped in place) or a vent collar for connection to vent piping. Vent piping and all vent connections are important because their failure can result in the release of exhaust products, including carbon monoxide, indoors. A leak from under the top cover can result in recirculation of exhaust products through the heater and condensation of combustion product water inside the heater. The latter can result in operating problems with the controls.

D. Installing Sidewall Vent Kit

⚠ WARNING
SHOCK HAZARD!

Turn off all switches and the main breaker in the pool/spa heater electrical circuit before starting the replacement procedure. Failure to comply may cause a shock hazard resulting in severe personal injury or death.

1. Turn off the electrical power to the heater. Turn off the main gas supply to the heater at the meter or the manual gas cock outside the heater.
2. Remove the heater front panel (door).
3. Turn the gas control knob to OFF.
4. Remove the four (4) screws that secure the vent grill. Discard the vent grill. See Figure 2.
5. Disconnect the four wires of the universal controller from the power interface. These wires (from top to bottom: Black, Orange, Blue and Red) are identified on the power interface board as "User Interface 1." The power interface board can be found on the control panel. See Figure 3.
6. Remove the six (6) screws that secure the top assembly to the cabinet. Remove the top assembly. See Figure 2.

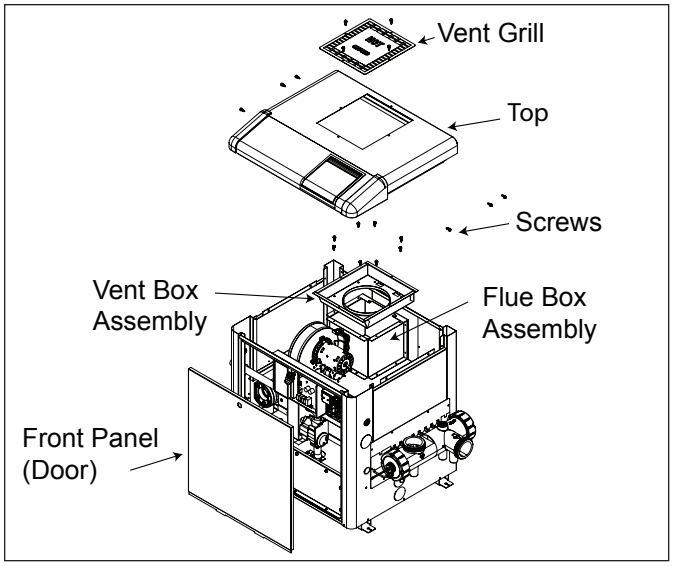

Figure 2. Accessing the Vent Box Assembly

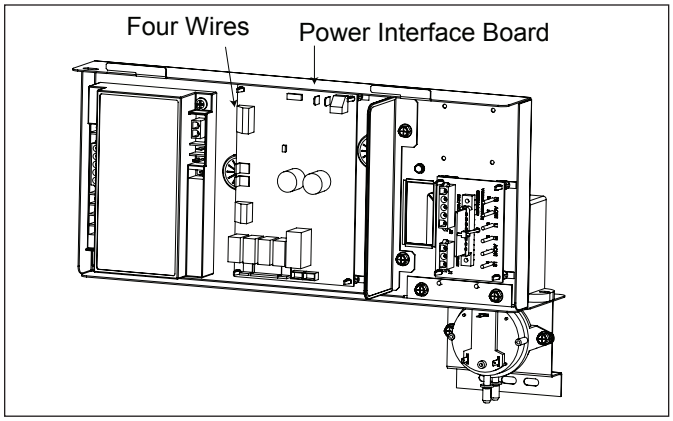

Figure 3. Control Panel

7. Remove the eight (8) screws that secure the vent box assembly to the flue box assembly. See Figure 2.
8. Remove the six (6) screws that secure the flue box plate to the flue box and discard the flue box plate.
9. Discard the old gaskets and clean all mating surfaces of any corrosion or debris.
10. Install new gaskets.

NOTE Install the new gasket onto the flue box assembly. See Figure 4.

11. Install the new sidewall vent plate onto the flue box assembly and secure it using six (6) screws. See Figure 4.
12. Re-install the vent box assembly onto the flue box assembly and secure it using six (6) screws. See Figure 4.
13. Re-install the top and secure it using six (6) screws. See Figure 2.
14. Remove the four (4) screws that secure the back cover plate onto the back panel. See Figure 4.
15. Re-install the back cover plate onto the top (where

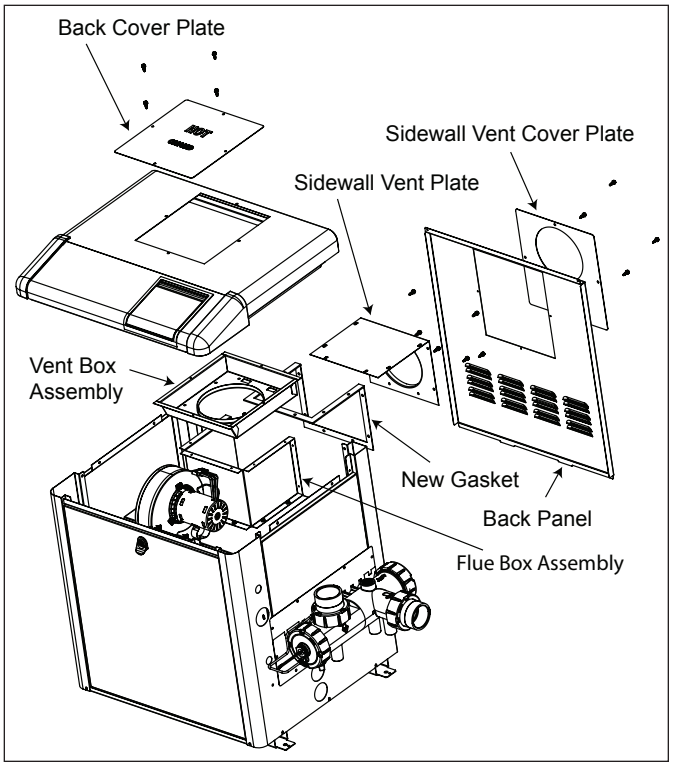

Figure 4. Installing New Sidewall Vent Plate

the vent grill was originally located) and secure it using four (4) screws. See Figure 4.

16. Install the vent tube (customer supplied) onto the sidewall vent plate and secure it using four (4) screws.
17. Install the new sidewall vent cover plate onto the back using four screws. See Figure 4.
18. Reconnect the four (4) wires (from top to bottom: Black, Orange, Blue, and Red) of the universal controller to the power interface board. The wires are identified on the power interface board as "User Interface 1." The power interface board can be found on the control panel. See Figure 3.
19. Follow the instructions in Section E to restore the electrical power and the gas supply.

E. Restore Power and Gas Supply

After replacing the necessary components, restore the electrical power and the gas supply.

1. Turn the gas control knob to ON.
2. Replace the heater front panel (door).
3. Restore electrical power to the heater.
4. Restore the gas supply.

F. Parts List

The table and drawings on the next page are for your reference. To order additional parts, please contact your local Jandy Distributor.

Parts List		
Description	**R0467301**	**R0467302**
Plate, Cover, Sidewall, Venting, LXi 250/300	1	-
Plate, Cover, Sidewall, Venting, LXi 400	-	1
Plate, Extruded Vent Ring, LXi 250/300	1	-
Plate, Extruded Vent Ring, LXi 400	-	1
Screw 10-16 x 5/8"	12	12
Gasket, Ceramic Fiber, 1" wide x 1/8" thick	1	1
Instructions	1	1

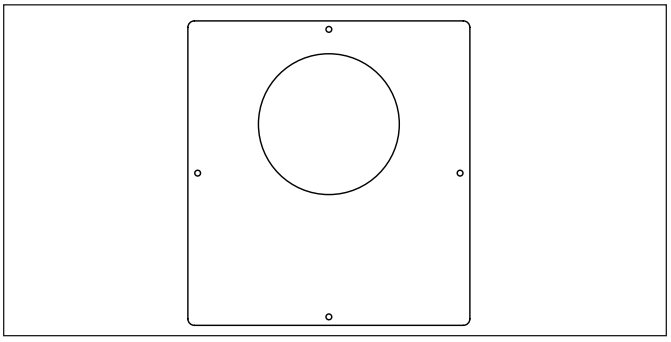

Figure 5. Sidewall Venting Cover Plate

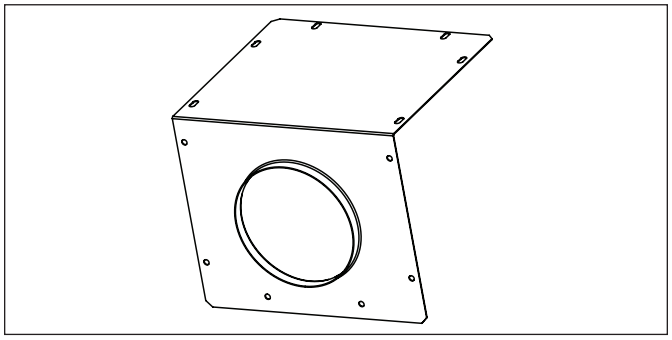

Figure 6. Extruded Vent Ring Plate

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