



Installation and Operation Manual

BISTRO SERIES

Gas-Fired Stone Hearth Oven
Commercial Dual Burner Model



BISTRO 4343

WS-BL-4343-RFG-LR

BISTRO 4355

WS-BL-4355-RFG-LR

CUSTOM MODELS

WS-CS-REC-9-RFG-LR

WS-CS-REC-11-RFG-LR



Wood Stone

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INSTALLATION AND OPERATION MANUAL FOR THE WOOD STONE BISTRO

NATURAL GAS OR PROPANE FUELED DUAL BURNER STONE HEARTH OVEN

**WS-BL-4343-RFG-LR-(NG OR LP), WS-BL-4355-RFG-LR-(NG OR LP),
CS-REC-9-RFG-LR-(NG OR LP), AND CS-REC-11-RFG-LR-(NG OR LP)**

ADDITIONAL COPIES AVAILABLE UPON REQUEST



This appliance is for professional use by qualified personnel. This appliance must be installed by qualified persons in accordance with the regulations in force. This appliance must be installed with sufficient ventilation to prevent the occurrence of unacceptable concentrations of substances harmful to health in the room in which it is installed. This appliance needs an unobstructed flow of fresh air for satisfactory combustion and must be installed in a suitably ventilated room in accordance with current regulations. This appliance should be serviced by qualified personnel at least every 12 months, or sooner if heavy use is expected.



WOOD STONE BISTRO GAS OVEN INSTALLATION AND OPERATING INSTRUCTIONS DO NOT THROW THIS MANUAL AWAY

RETAIN THIS MANUAL FOR FUTURE REFERENCE

Additional copies of this manual and prompt responses to service/maintenance questions are available from Wood Stone @ 1-800-988-8103.

IMPORTANT: Consult your local gas supplier for a statement outlining a procedure to be followed in the event you smell gas. Post the statement in a prominent location.

FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance. Also, always keep the area under and around this appliance free and clear of any and all combustible materials.

It is recommended that this oven be installed, maintained and serviced by authorized professionals.

WARNING: Improper installation, adjustment, alteration, service or maintenance can result in property damage, injury or death. Read the installation, operation and maintenance instructions thoroughly before installing or servicing this equipment.

WARNING

This product must be installed by a Licensed Plumber or Gas Fitter when installed within the Commonwealth Of Massachusetts.



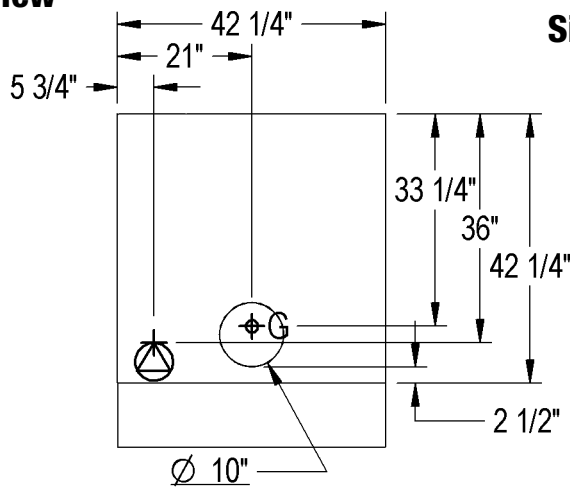
ANSI Z83.11b-2006
CSA 1.8b-2006



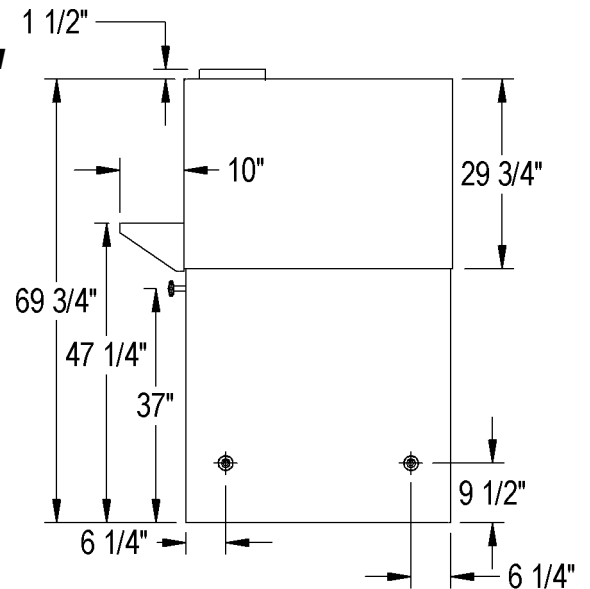
ANSI/NSF STD 4



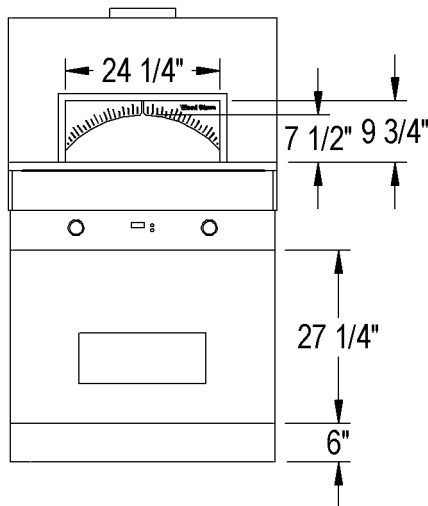
Top View



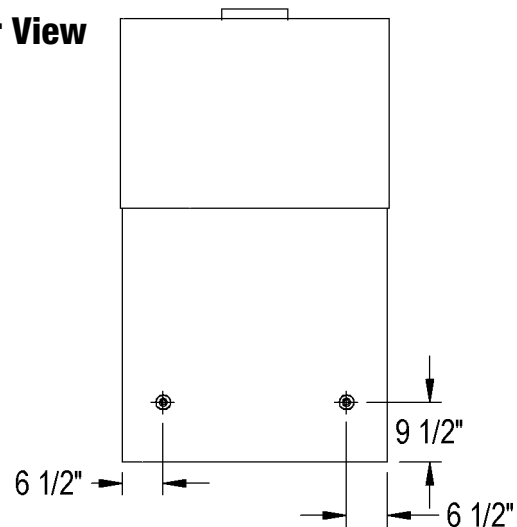
Side View



Front View



Rear View



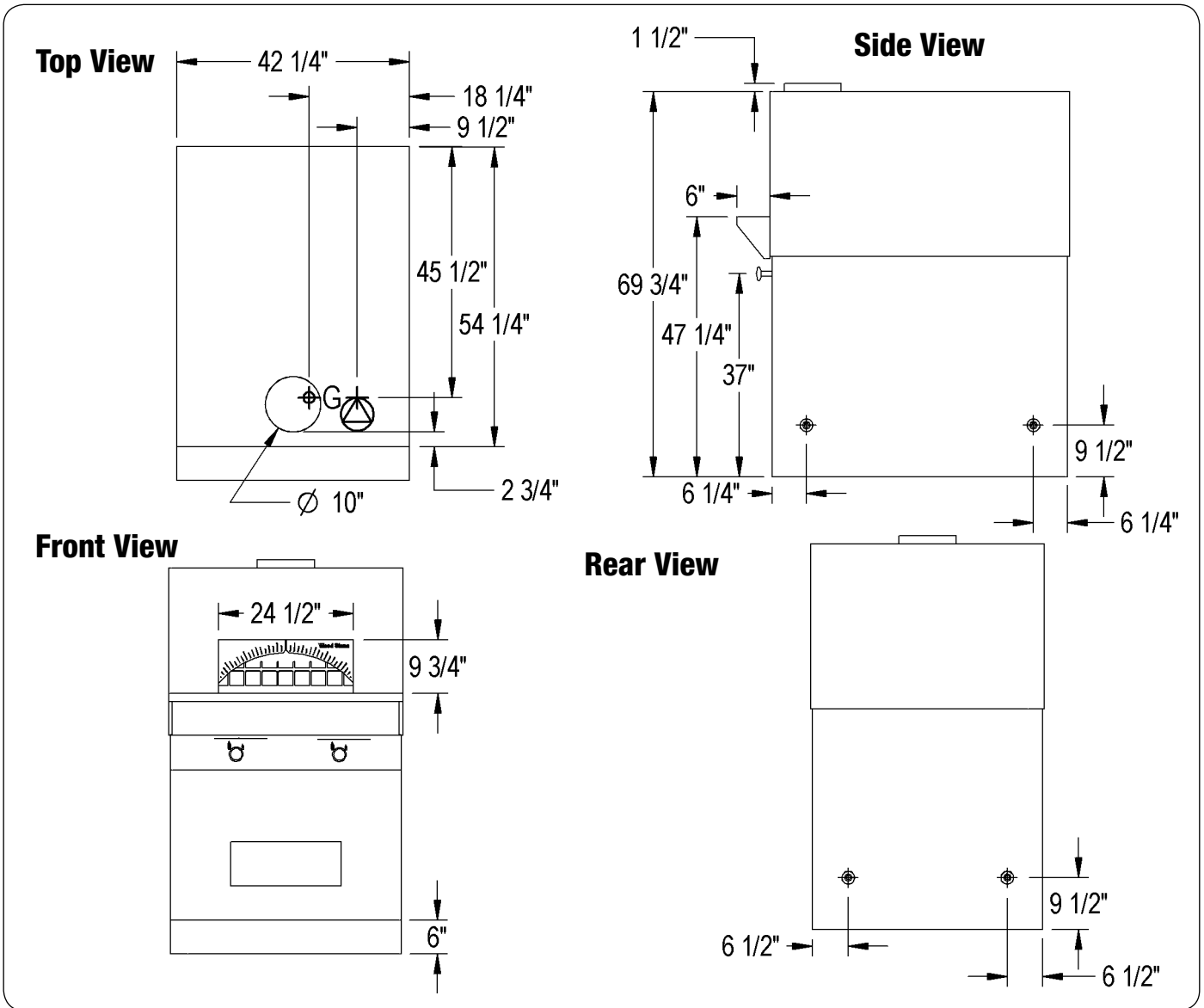
UTILITIES SPECIFICATIONS

Gas-3/4 inch gas inlet (female threaded)
 121,650 BTU Natural Gas Supply OR
 Contact factory for LP rating
 Maximum gas inlet pressure-
 1/2 psi (14 inches WC)

Actual Weight: 1650 lbs.
Shipping Weight: 2050 lbs.

Electrical

120 VAC, 4 amp, 50/60 Hz
 Optional- 240 VAC, 1 amp 50/60 Hz
 All utility connections made on the back of the oven control box. Remove front or rear panel for access, use utility knockouts (provided) to route gas and electrical supplies. Refer to data plate when installing.



UTILITIES SPECIFICATIONS

Gas-3/4 inch gas inlet (female threaded)
 121,650 BTU Natural Gas Supply OR
 Contact factory for LP rating
 Maximum gas inlet pressure-
 1/2 psi (14 inches WC)

Actual Weight: 2100 lbs.
Shipping Weight: 2500 lbs.

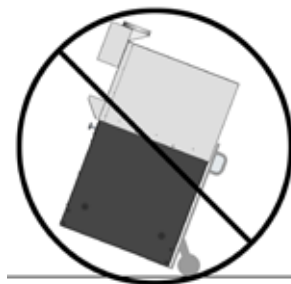
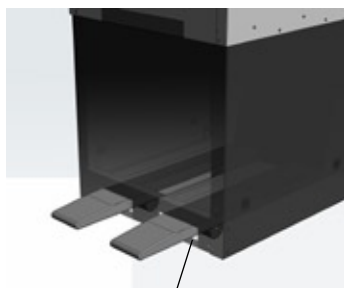
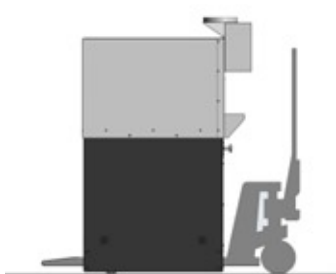
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The oven can be moved over a flat surface with a pallet jack using the LOWER forklift pockets. If the oven is to be installed against a wall, you may need to leave access to the back of the oven to complete the utility connections.

CAUTION: The 4343 model Bistro weighs approximately 1700 lbs. The 4355 model Bistro weighs approximately 2200 lbs. The oven is very top-heavy. **IF THE OVEN TIPS IT CAN CAUSE SEVERE INJURY OR DEATH! NEVER ATTEMPT TO USE A HAND TRUCK TO MOVE THE OVEN!** The oven should only be moved using a Pallet Jack on a LEVEL FLOOR. If the oven must be moved over an inclined surface, a forklift or other suitable means should be employed. If the installer does not have the equipment or experience required to move the oven safely, we recommend you secure the services of a qualified rigging company.



Make sure the pallet jack wheels do not contact the underside of the fork pocket when lifting to avoid damaging the stand.



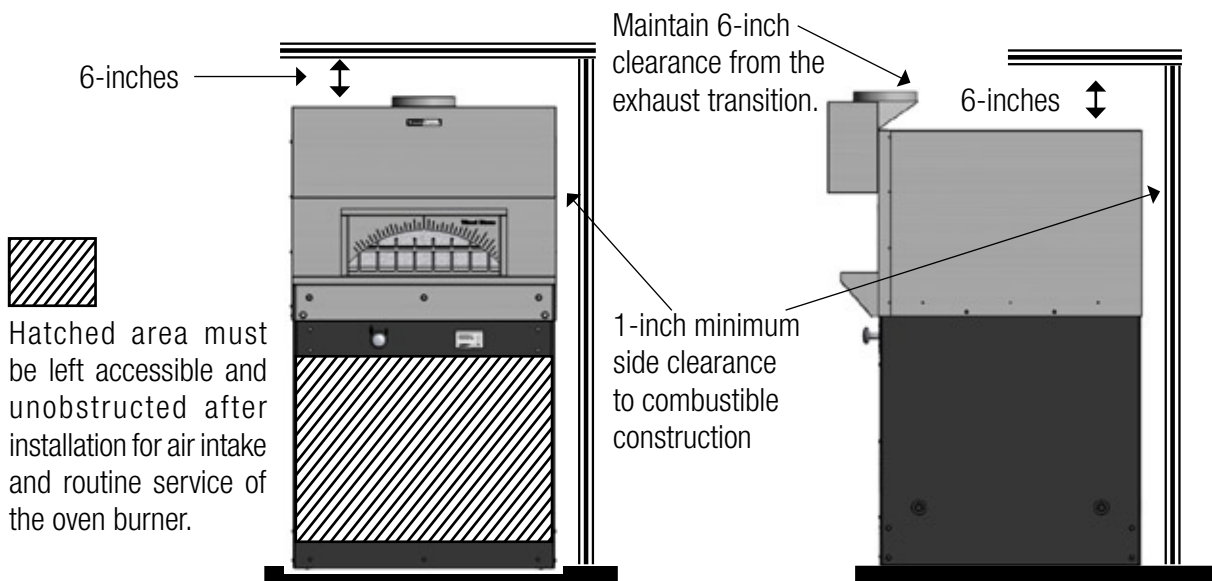
IF THIS OVEN IS NOT PROPERLY INSTALLED A FIRE MAY RESULT. TO REDUCE THE RISK OF FIRE, FOLLOW THESE INSTALLATION INSTRUCTIONS. A MAJOR CAUSE OF OVEN RELATED FIRES IS FAILURE TO MAINTAIN REQUIRED CLEARANCES (AIR SPACES) TO COMBUSTIBLE MATERIALS. IT IS OF UTMOST IMPORTANCE THAT THIS OVEN BE INSTALLED ONLY IN ACCORDANCE WITH THESE INSTRUCTIONS.



WARNING: Installation and servicing of this product could expose you to glasswool/ceramic fibers as well as Calcium Silicate dust. **ALWAYS WEAR RESPIRATORY AND EYE PROTECTION WHEN INSTALLING OR SERVICING THIS APPLIANCE.** Please read this entire manual before you install the oven. Failure to follow instructions may result in property damage, bodily injury or even death. Contact your local building or fire officials about restrictions and installation inspection in your area.

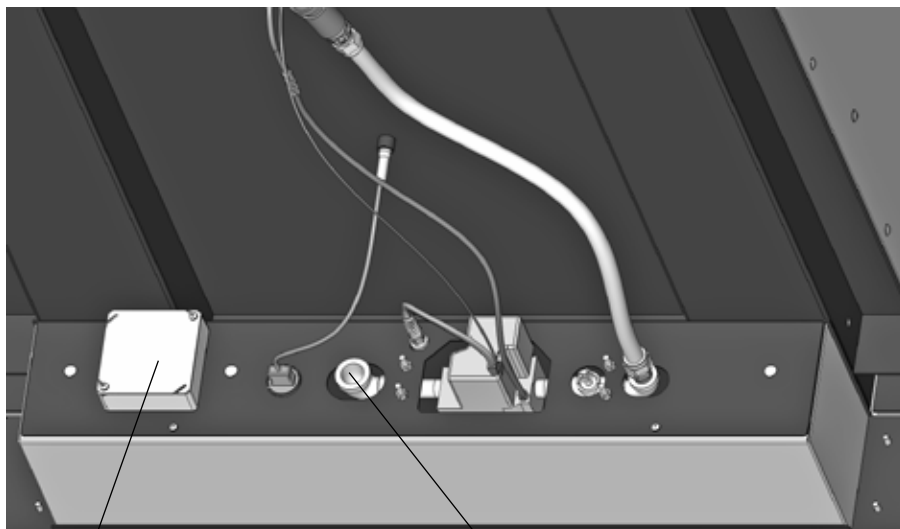
CLEARANCES

- a.** The Wood Stone Bistro oven should have a **minimum 1-inch clearance to combustibles from all sides, 6-inch clearance to combustibles from the top, and 6-inch clearance from the exhaust transition and flue collar.** Any facade wall built above or 6 inches to either side of the doorway must be of non-combustible construction. If building a facade that will contact the oven, use completely non-combustible materials. Any facade wall built above or to either side of the doorway must be of non-combustible construction. Please note that standard drywall (or sheet rock) is considered a limited combustible. Any walls perpendicular to the front of the oven in the area 30 inches to either side of the doorway and 36 inches in front of the oven should have a non-combustible surface.
- b.** This oven should be installed on a non-combustible floor surface. The non-combustible floor surface must extend 36 inches in front of and 30 inches to either side of the oven doorway.





Make utility connections, at the rear of the control box. Gas and electrical connections must comply with all relevant national and local codes, and in a manner acceptable to the authority having jurisdiction.



Make the electrical connection to the terminals in this junction box. *Correct voltage is specified on this junction box and the equipment data plate.

Connect the incoming gas supply to the 3/4 inch NPT (female) gas inlet.

Knockouts are provided on the sides of the oven stand for the incoming gas and electrical supplies. If necessary, holes may be drilled in the back panel for the incoming gas and electrical. Gas and electrical supplies should be routed in such a way that they do not interfere with the removal of the oven burner, or block the access to the space under the oven for service. The area beneath the burner needs to be kept clear of conduit and piping to allow for removal of the burner for service. **The rear panel must be installed!** A 3/4 inch full-flow gas shut-off valve should be installed on the gas supply near the oven in such a way that it is readily accessible.

This appliance must be electrically grounded in accordance with local code, or in the absence of local code, with the national electrical code, ANSI/NFPA 70, or the Canadian Electrical Code, CSA C22.2, as applicable.

An electrical diagram is provided inside the bottom cover of the control box, and at the end of this manual.



The installation must conform with local codes, or in the absence of local codes with the National Fuel Gas Code, ANSI 223.1, Natural Gas Installation Code, CAN/CGA-B149.1, as applicable. The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psi. The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply system at test pressures equal to or less than 1/2 psi.

The incoming gas supply pressure must not exceed 1/2 psi (14 inches WC). If the incoming gas pressure exceeds 1/2 psi, an external gas regulator must be installed in the supply line. If the supply pressure is less than 1/2 psi, no external regulator is required.

The installer should bleed any air out of the gas line supplying the oven. All gas connections and fittings on the oven should be leak checked with an approved soap solution.

CHECKING THE BURNER MANIFOLD PRESSURES

The burner manifold pressures have been set at the factory, however they should be checked by the installer. The pressures should be checked at the outlet tap on each Honeywell gas valve, located on the back of the control box. Once the manometer is connected, turn the oven on and use the knob on the oven to adjust the flame to its maximum height. Then check the manifold pressure.

NATURAL GAS (NG) 4343, 4355, REC-9, REC-11 Models- 4.5" WC

PROPANE (LP) 4343, 4355, REC-9, REC-11 Models-9" WC

This information can also be found on the data plate located beneath the oven.

FRONT AND REAR PANEL INSTALLATION

Install the rear panel, front panel, and toe kick using the 1/4-20 screws provided. The front panel on the oven must not be covered, so as to allow access for service to the oven components. The oven should be bolted to the floor using the holes provided at the base of the stand.



All of the combustion products and cooking vapors from the WS-BL-4343 models located on top of the oven at the front. The oven can be connected to a power ventilated chimney, or placed under a Type 1 hood.

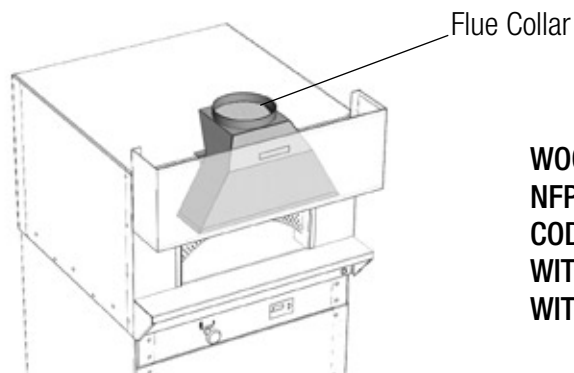
The following are the manufacturer's recommendations for venting Wood Stone Bistro Line ovens. It is never appropriate to use "B vent" in any part of an exhaust system connected to a Wood Stone oven. All ducting material must be manufactured to the specifications of a grease duct. Due to the possibility of sparks entering the duct, exhaust systems serving **SOLID FUEL** equipment **SHOULD NOT** be combined with exhaust systems serving other (non-solid fuel) cooking equipment. The venting system should be cleaned and inspected at least every 3 months, more frequently with wood fired applications.

THERE ARE TWO OPTIONS:

1. A Listed building heating appliance chimney, also listed as a grease duct connected directly to the oven flue collar and provided with a power ventilator listed for restaurant appliance exhaust and rated for operation at a minimum of 300 degrees F, 450 degrees F for units burning solid fuel. Use a stack or curb mounted fan. Wood Stone does not recommend the use of an in-line fan. A field built grease duct installed and constructed according to the requirements spelled out in NFPA 96, or the International Mechanical Code.

A static pressure of -0.1 inches water column is necessary at the oven flue collar to ensure proper flue temperatures at the fan. The airflow required to attain this static pressure will depend on the configuration of your particular installation but will probably be between 300 and 500 CFM. The exhaust fan must be turned on any time the oven is running. See instructions for optional interlocking of the oven to the fan at the end of this manual.

2. A Listed Type 1 Exhaust Hood or one that is constructed and installed in accordance with all relevant Local and National Codes. Wood Stone offers eyebrow-type hoods designed specifically for Wood Stone ovens. See specification sheet on ventilators for Wood Stone ovens.



WOOD STONE OVENS SHOULD BE VENTED IN ACCORDANCE WITH NFPA 96 AND/OR ALL PERTINENT NATIONAL, REGIONAL AND LOCAL CODES CONCERNING SUCH APPLIANCES; CHECK VENTING PLANS WITH THE AUTHORITY HAVING JURISDICTION BEFORE PROCEEDING WITH INSTALLATION.



INITIAL OVEN STARTUP FOR DUAL BURNER BISTRO MODELS

FIRST DAY

1. Make sure main gas supply is on (valve parallel with gas line).
2. Push I/O button on controller. It may take a while for the gas to purge all the air from the gas lines.
3. Once the burners ignite, make sure the flames are at their lowest setting and allow the oven to operate at this setting for about 8 hours, or until the temperature reaches 450 Degrees F.

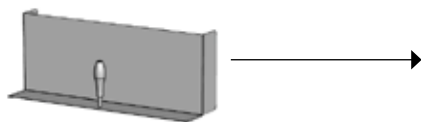
SECOND DAY

1. Turn the radiant flames all the way up until the desired cooking temperature is achieved.

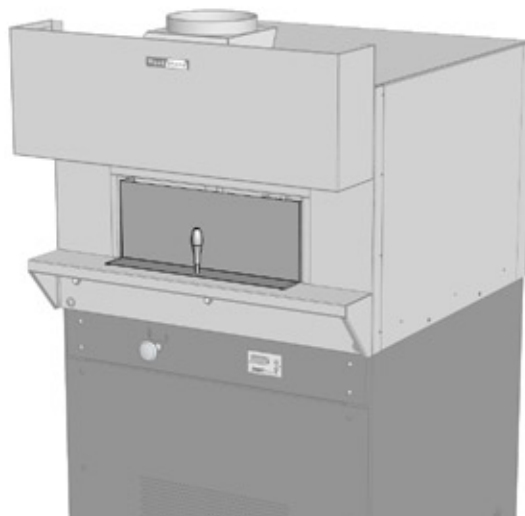
IMPORTANT NOTE ON DUAL BURNER MODELS:

The (2) flame height control knobs are linked together for ease of use. Turning either knob will raise or lower both flames. If you wish to unlink the knobs for individual control of each burner, please contact the factory for instructions.

NIGHT DOOR



The night door should be removed whenever the oven is turned 'ON'.





GENERAL DAILY OVEN OPERATION

The oven floor temperature is displayed on the controller readout.

END OF THE DAY

Push 'I/O button', all gas will go off, even the pilots. When the oven is turned off, use the night door to help retain heat in the oven. The night door is placed into the oven doorway.

BEGINNING OF THE DAY

Make sure the night door is removed. Push 'I/O button' and turn the radiant flames to their highest setting. Oven should reach the desired cooking temperature within two hours. Use the flame height knob to control the amount of heat in the oven.

CLEANING THE OVEN

1. As needed (twice per hour), use the floor brush to sweep stray food debris to the doorway, where it can be easily removed with a dough cutter or spatula.
2. As needed, swab the deck using a damp (not wet) rag wrapped around the floor brush.

DO NOT USE ICE OR EXCESSIVE LIQUID OR FIRE SUPPRESSION CHEMICALS ON THE OVEN FLOOR. THIS IS TO PREVENT THERMAL SHOCKING OF THE CERAMIC FLOOR AND VOIDS THE WARRANTY.

SUDDEN INTRODUCTION OF FIRE SUPPRESSION CHEMICALS COULD CAUSE INJURY OR DEATH!



OVEN INTERIOR

There is a stainless steel burner guard to prevent food from falling on and thereby obstructing the gas orifices of the radiant flame. If food gets into the radiant flame well and the flame is visibly obstructed, turn the oven off immediately, and call for service.

DO NOT USE THE RADIANT BURNER WELL AS A DUMP FOR DEBRIS OR TRASH INCINERATION; MAKE EVERY ATTEMPT TO KEEP DEBRIS FROM DROPPING INTO THE WELL.

Wood Stone recommends the use of a brass bristled brush for sweeping aside excess food particles that will accumulate on the floor of the oven during use. The oven floor can be cleaned with a damp rag.

DO NOT USE ICE OR EXCESSIVE LIQUID OR FIRE SUPPRESSION CHEMICALS ON THE OVEN FLOOR. THIS IS TO PREVENT THERMAL SHOCKING OF THE CERAMIC FLOOR AND VOIDS THE WARRANTY.

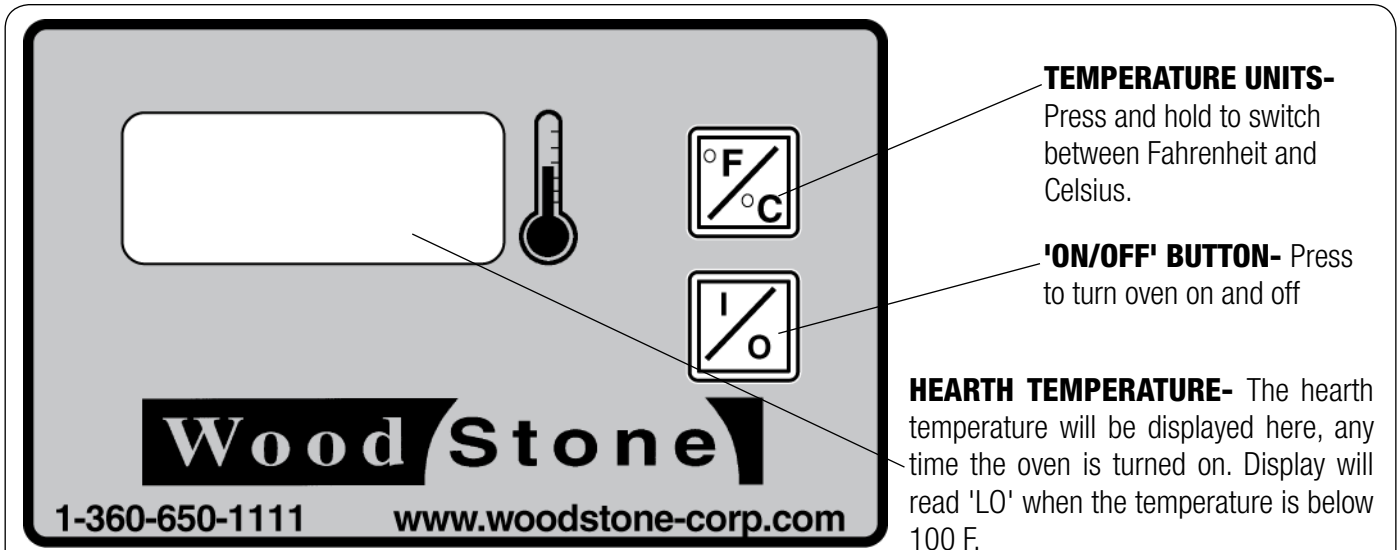
SUDDEN INTRODUCTION OF FIRE SUPPRESSION CHEMICALS COULD CAUSE INJURY OR DEATH!

OVEN EXTERIOR

All painted and stainless steel surfaces should be cleaned as necessary using an approved mild detergent, hot water and a soft cloth or sponge. Stubborn residues may be removed using a nonmetallic scouring pad. When scouring stainless steel surfaces, scrub with the grain of the metal to prevent scratching.

THERMAL CLEANING

GAS-FIRED OVEN- If a Wood Stone gas-fired oven is operated at low temperatures (below 525 degrees Fahrenheit [F]), you may notice a buildup on the oven floor. Note that this floor buildup may be perceived as the floor flaking away. If you operate the oven below 450 F you may also notice some buildup on the interior walls and/or ceiling of the oven. To remove any buildup that has accumulated inside of the oven, simply turn the radiant flame to its highest setting. Monitor the floor temperature displayed on the controller. When the floor reaches 650 degrees F, lower the flame slightly so as to maintain the oven floor temperature near 650 degrees F for about an hour. Heavy accumulations may require more time. Heavy accumulations on the floor may require some additional scraping with a utility peel or a floor scraping tool. Once the oven appears clean, allow the oven to return to normal operating temperatures and continue normal operation.

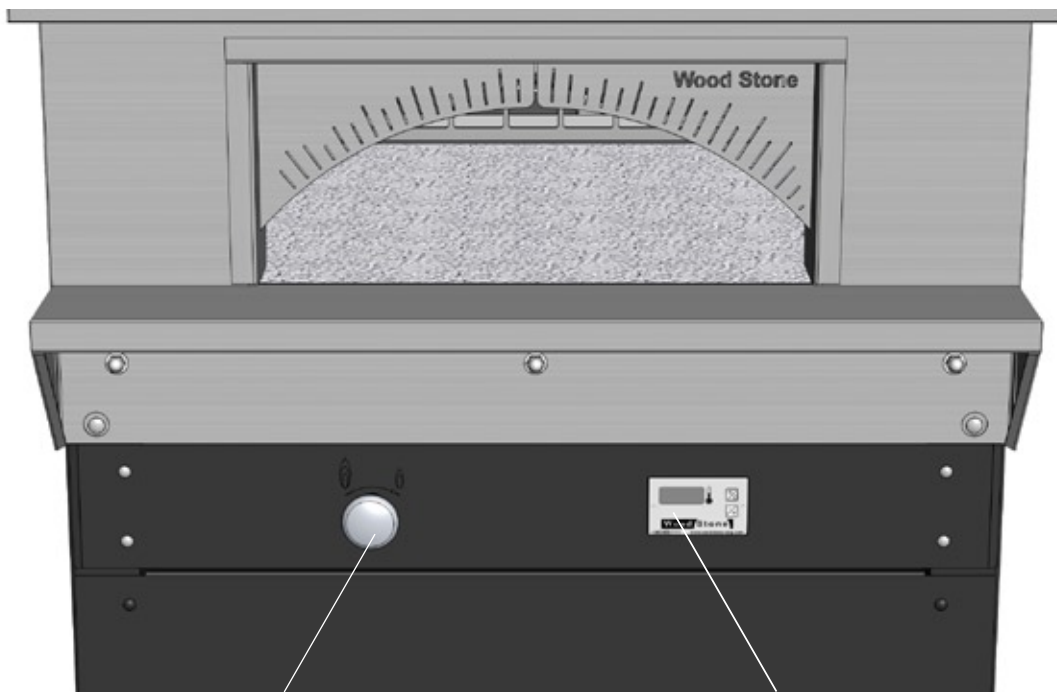


TEMPERATURE UNITS-

Press and hold to switch between Fahrenheit and Celsius.

'ON/OFF' BUTTON- Press to turn oven on and off

HEARTH TEMPERATURE- The hearth temperature will be displayed here, any time the oven is turned on. Display will read 'LO' when the temperature is below 100 F.



FLAME HEIGHT CONTROL KNOB

Use this knob to raise/lower the flame to control the oven temperature. Dual burner models have (2) knobs which are linked together.

CONTROLLER

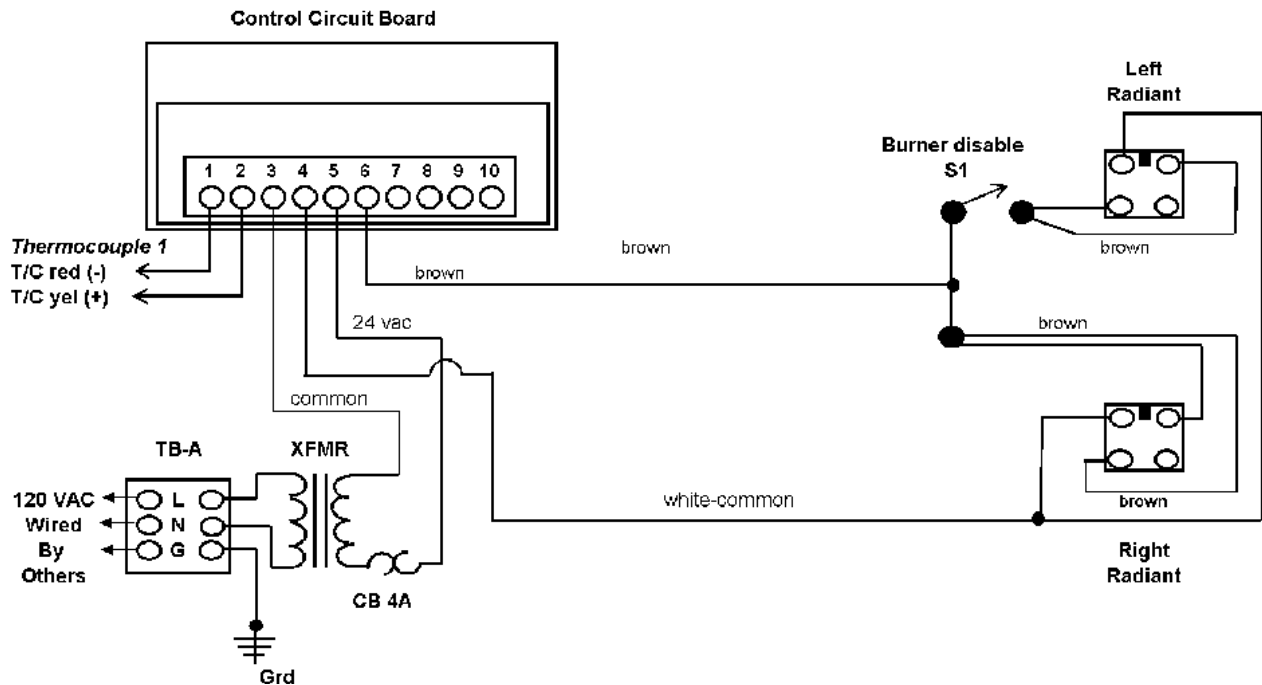


PROBLEM	CAUSE/SOLUTION
Controller will not turn on	<ol style="list-style-type: none"> 1. Incoming power to oven turned off. Check circuit breaker for circuit supplying the oven. Check that any wall switches external to the oven that control oven power are turned on. Check that any interlocks external to the oven are turned on. 2. If control still does not turn on, please contact Wood Stone for assistance.
Flame does not light	<ol style="list-style-type: none"> 1. Is gas turned on to the oven? Is gas shut-off valve turned all the way on? 2. Debris in burner. Burner may require cleaning Contact Wood Stone for assistance. 3. Damaged igniter or gas valve. Contact Wood Stone for assistance. <p>If the oven is being started for the first time: Has all air been bled from the gas line? Is the switch on the SV-2 valve in the 'ON' position? (Valve is locate on the back of the control box, beneath the oven.</p>
Flame cuts out	<ol style="list-style-type: none"> 1. Debris in burner. 2. Oven is being run with the night door in place. Night door must be removed whenever the oven is turned on. 3. Wind blowing into the oven, or other venting issues.
Display reads 'OPEN'	<ol style="list-style-type: none"> 1. Thermocouple is not plugged into control box. 2. Damaged thermocouple - call Wood Stone.

Please contact Wood Stone at 1-800-988-8103 should service be necessary, or if you have any questions about your oven. Our office hours are 8am to 4:30pm Pacific Standard Time. Follow the recorded instructions for Emergency Service if you require assistance during non-business hours. A Wood Stone technician will promptly respond to your call.



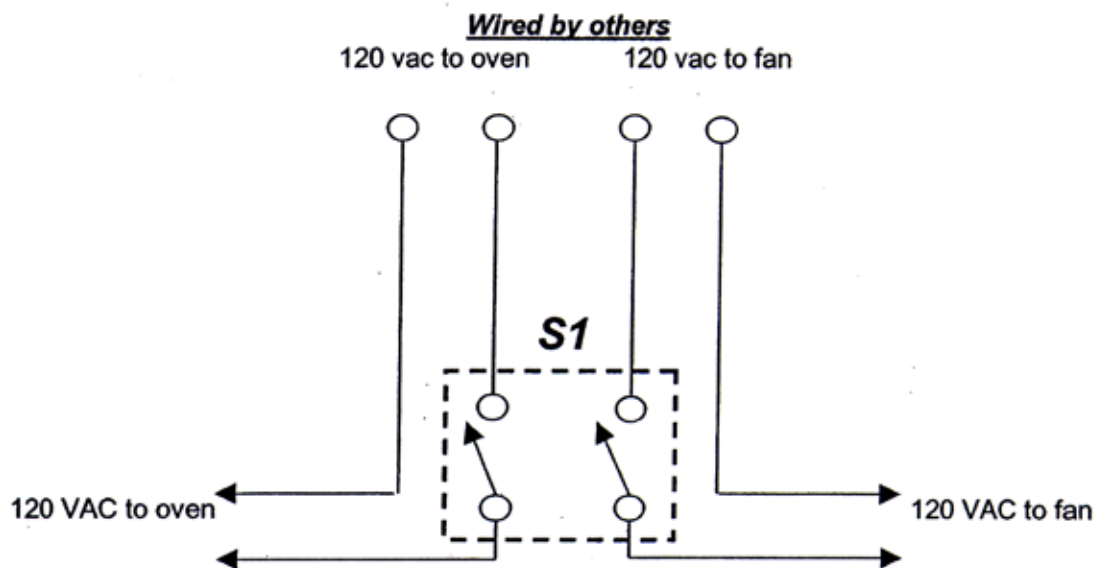
DUAL BURNER 4343 (CS-REC-9) AND 4355 (CS-REC-11)





INTERLOCK OF OVEN CONTROL TO AN EXHAUST FAN

This connection is intended to interrupt power to the oven until the fan is turned on.



S1 is a double pole - single throw switch (provided by others) that interrupts in-coming power to both the oven and the fan. The intent is to prevent the operation of the oven in the event the fan is shut off.

Any interruption of the power to the oven will cause the oven (including all burners and pilots) to shut off, and it will be necessary to restart the oven by pressing the start switch once power is restored.

No other connection to the oven control system is condoned by Wood Stone and may affect the oven warranty and cause damage to the oven controls.



ALL WARRANTY SERVICE MUST BE PRE-APPROVED BY WOOD STONE PLEASE CONTACT THE FACTORY FIRST

Please call 1-800-988-8103 or 1-360-650-1111 seven days a week. Our normal business hours are 8am to 4:30pm Pacific Standard time Monday through Friday. If calling during non-business hours, follow the recorded instructions for emergency service and a Wood Stone technician will get back to you promptly. Wood Stone warrants its equipment to the original purchaser against defects in material or manufacture for a period of one year from the original date of purchase subject to the following exclusions and limitations.

EXCLUSIONS

The warranties provided by Wood Stone do not apply in the following instances:

1. In the event that the equipment is improperly installed. Proper installation is the responsibility of the installer; proper installation procedures are prescribed by the Wood Stone installation manual.
2. In the event the equipment is improperly maintained. Proper maintenance is the responsibility of the user; proper maintenance procedures are prescribed in the Wood Stone installation manual.
3. In the event that the failure or malfunction of the appliance or any part thereof is caused by abnormal use or is otherwise not attributable to defect in material or manufacture.
4. In the event that the appliance, by whatever cause, has been materially altered from the condition in which it left the factory.
5. In the event that the rating plate has been removed, altered or obliterated.
6. On parts that would be normally worn or replaced under normal conditions.
7. Normal cracking due to expansion and contraction stress relief in either the dome or oven deck.
- 8. In the event that pressed log products of any type have been burned in the equipment.**

If any oral statements have been made regarding this appliance, such statements do not constitute warranties and are not part of the contract of sale. This Limited Warranty constitutes the complete, final and exclusive statement with regard to warranties.

THIS LIMITED WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES WHETHER WRITTEN, ORAL OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE OR WARRANTY AGAINST LATENT DEFECTS

LIMITATIONS OF LIABILITY:

In the event of warranty claim or otherwise, the sole obligation of Wood Stone shall be the repair and/or replacement, at the option of Wood Stone, of the appliance or component or part thereof. Such repair or replacement shall be at the expense of Wood Stone with the exception of travel over 100 miles or two hours, overtime, and holiday charges which shall be at the expense of the purchaser. Any repair or replacement under this warranty does not constitute an extension of the original warranty for any period of the appliance or for any component or part thereof. Parts to be replaced under this warranty will be repaired or replaced at the option of Wood Stone with new or functionally operative parts. The liability of Wood Stone on any claim of any kind, including claims based on warranty, expressed or implied, contract, negligence, strict liability or any other theories shall be solely and exclusively the repair or replacement of the product as stated herein, and such liability shall not include, and purchaser specifically renounces any rights to recover, special, incidental, consequential or other damages of any kind whatsoever, including, but not limited to, injuries to persons or damage to property, loss of profits or anticipated profits, or loss of use of the product.

TO SECURE WARRANTY SERVICE:

If you claim a defect covered by this Limited Warranty, direct your claim to:
Wood Stone Corporation 1801 W. Bakerview Rd. Bellingham, WA 98226 USA Attn: National Service Manager