

Installation and Operation Manual



BISTRO LINE - CE

Stone Hearth Oven

*Gas-Fired, Gas/Wood Combination
European Models*

BISTRO 3030 WS-BL-3030-RFG-CE

BISTRO 4343 WS-BL-4343-RFG-(W)-CE

BISTRO 4355 WS-BL-4355-RFG-(W)-CE

BISTRO 4836 WS-CS-REC-8-RFG-CE

Wood Stone

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**INSTALLATION AND OPERATION MANUAL
FOR THE WOOD STONE BISTRO**

**WS-BL-3030-RFG-CE-(NG,LP),
WS-BL-4343-RFG-(W)-CE-(NG, LP) AND WS-BL-4355-RFG-(W)-CE-(NG, LP)
WS-CS-REC-8-RFG-CE-(NG, LP)**

EUROPEAN MODEL NATURAL GAS OR PROPANE FUELED STONE HEARTH OVEN

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.

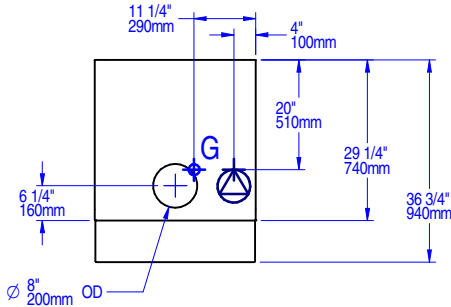
IF THIS OVEN IS NOT PROPERLY INSTALLED A FIRE MAY RESULT. TO REDUCE THE RISK OF FIRE, FOLLOW THESE INSTALLATION INSTRUCTIONS. A MAJOR CAUSE OF OVEN RELATED FIRES IS FAILURE TO MAINTAIN REQUIRED CLEARANCES (AIR SPACES) TO COMBUSTIBLE MATERIALS. IT IS OF UTMOST IMPORTANCE THAT THIS OVEN BE INSTALLED ONLY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

Wood Stone's gas-fired ovens have been tested and approved.





Plan view

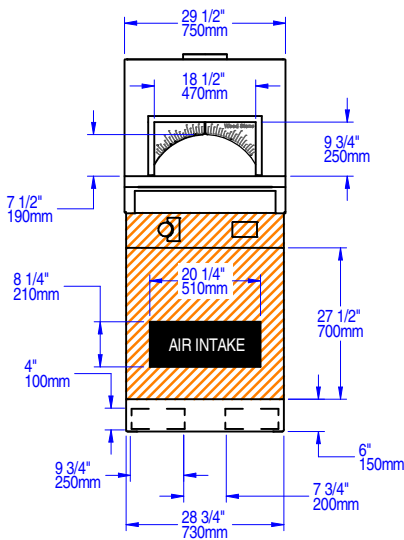


- Air intake: Do not facade or cover over
- Must be left removable for service

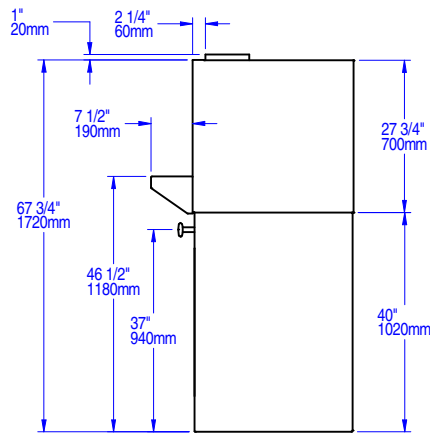
**Actual weight: 385 kg
850 lbs.**

**Ship weight: 499 kg
1100 lbs.**

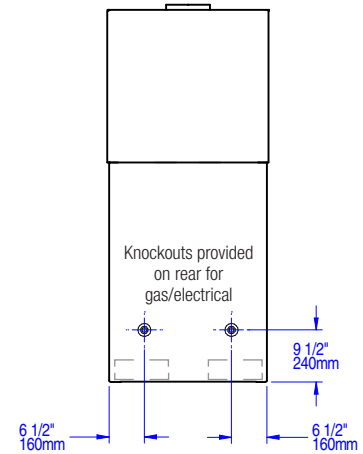
Front view



Side view



Rear view



UTILITIES SPECIFICATIONS

EN 437 Gas Group	I _{2H}	I _{2E}	I ₃₊	I _{3B/P(30)}	I _{B/P(50)}	I _{3P}
Declared Input (kW)	16.1	16.1	13.6	13.6	13.6	12.3

Inlet Pressure (mbar)					
I _{2H}	I _{2E} & I _{2ELL}	I ₃₊	I _{3B/P(30)}	I _{3B/P(50)}	I _{3P}
20	20	28-30/37/50	30	50	30/37/50

Valve Outlet Pressure (mbar)					
I _{2H}	I _{2E} & I _{2ELL}	I ₃₊	I _{3B/P(30)}	I _{3B/P(50)}	I _{3P}
11.2	11.2	17.4	17.4	17.4	17.4

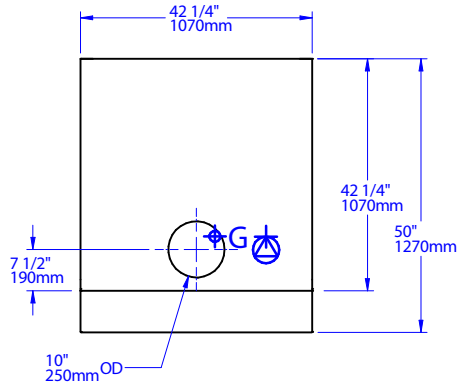
Electrical: 230 VAC, .042 A, 50 Hz

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.

Venting: The Bistro must be vented as a Type A or Type B₁₁ appliance, and in accordance with all applicable codes.



Plan view



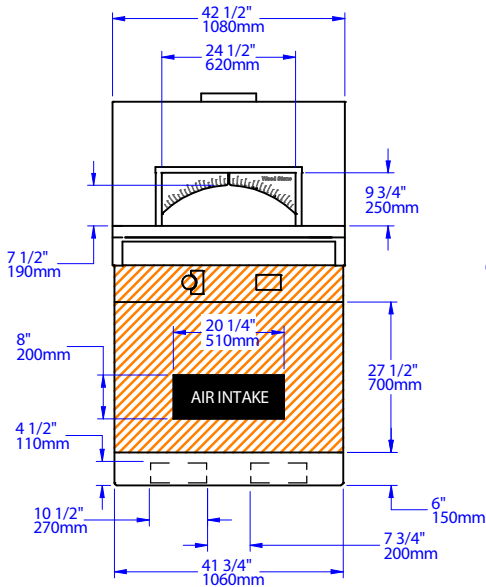
Air intake: Do not facade or cover over

Must be left removable for service

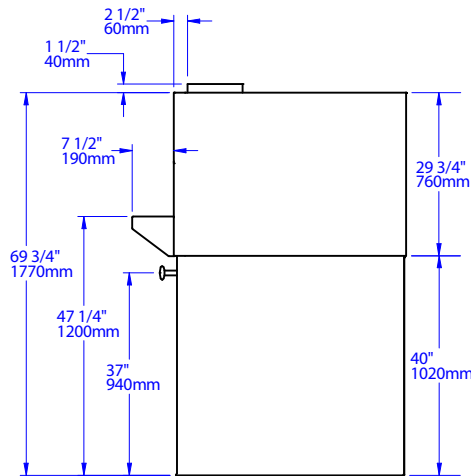
Actual weight: 748 kg
1650 lbs.

Ship weight: 953 kg
2100 lbs.

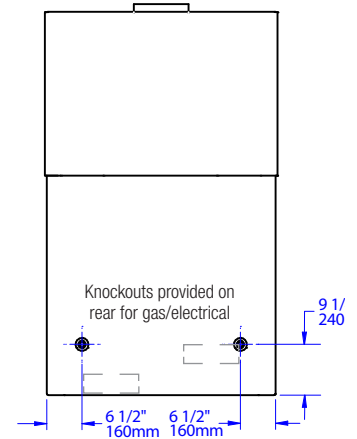
Front view



Side view



Rear view



UTILITIES SPECIFICATIONS

EN 437 Gas Group	I _{2H}	I _{2E}	I ₃₊	I _{3B/P(30)}	I _{B/P(50)}	I _{3P}
Declared Input (kW)	23.3	23.3	23.3	23.3	23.3	21.0

Valve Outlet Pressure (mbar)				
I _{2H} and I _{2E}	I ₃₊	I _{3B/P(30)}	I _{3B/P(50)}	I _{3P}
11.2	22.4	22.4	22.4	22.4

Inlet Pressure (mbar)				
I _{2H} & I _{2E}	I ₃₊	I _{3B/P(30)}	I _{3B/P(50)}	I _{3P}
20	28-30/37/50	30	50	30/37/50

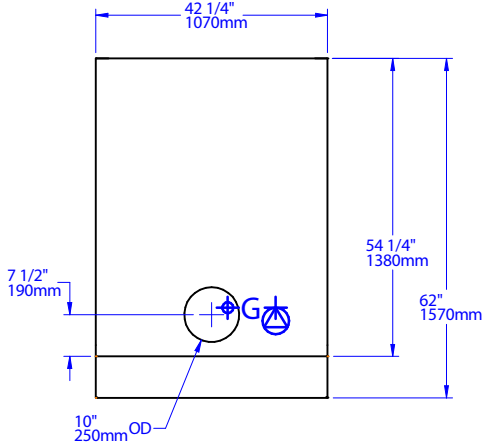
Electrical: 230 VAC, .042 A, 50 Hz

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.

Venting: The Bistro must be vented as a Type A or Type B₁₁ appliance, and in accordance with all applicable codes.



Plan view

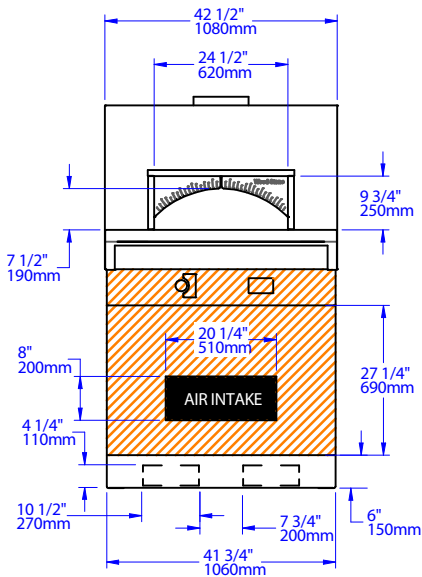


- Air intake: Do not facade or cover over
- Must be left removable for service

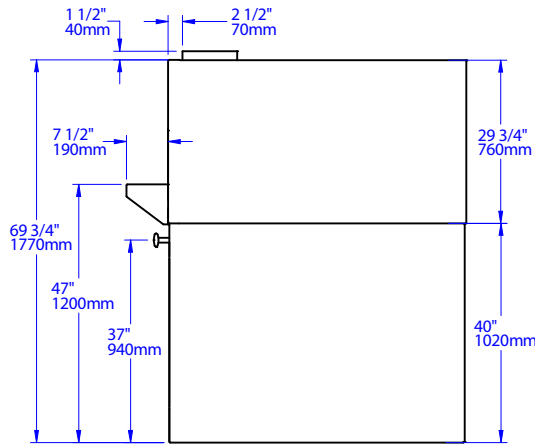
**Actual weight: 998 kg
2200 lbs.**

**Ship weight: 1134 kg
2500 lbs.**

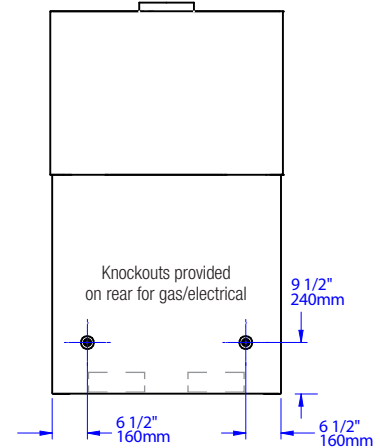
Front view



Side view



Rear view



UTILITIES SPECIFICATIONS

EN 437 Gas Group	I _{2H}	I _{2E}	I ₃₊	I _{3B/P(30)}	I _{B/P(50)}	I _{3P}
Declared Input (kW)	23.3	23.3	23.3	23.3	23.3	21.0

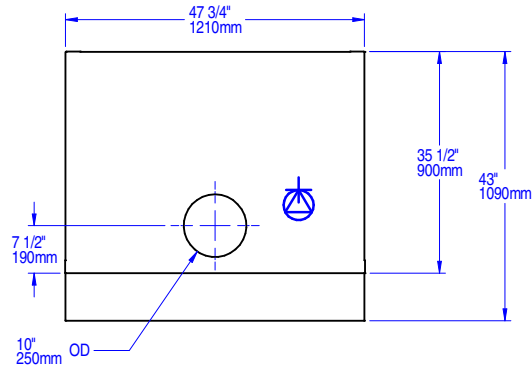
Valve Outlet Pressure (mbar)				
I _{2H} & I _{2E}	I ₃₊	I _{3B/P(30)}	I _{3B/P(50)}	I _{3P}
11.2	22.4	22.4	22.4	22.4

Inlet Pressure (mbar)				
I _{2H} & I _{2E}	I ₃₊	I _{3B/P(30)}	I _{3B/P(50)}	I _{3P}
20	28-30/37/50	30	50	30/37/50

Electrical: 230 VAC, .042 A, 50 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.
Venting: The Bistro must be vented as a Type A or Type B₁₁ appliance, and in accordance with all applicable codes.



Plan view

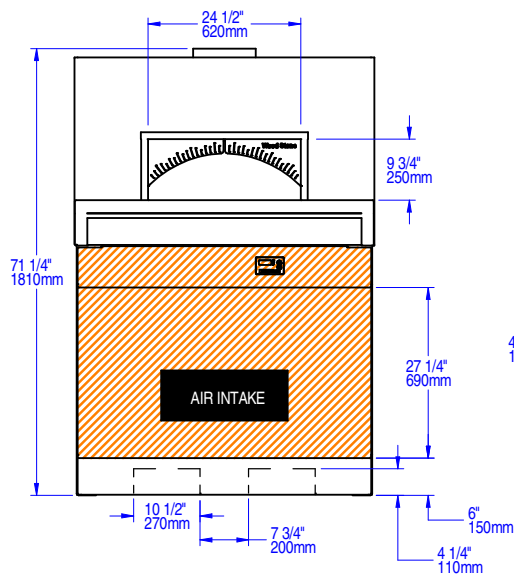


- Air intake: Do not facade or cover over
- Must be left removable for service

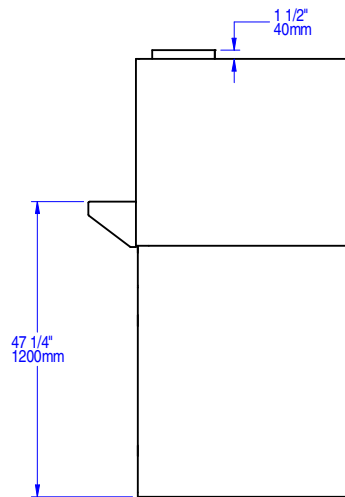
Actual weight: 750 kg
1650 lbs.

Ship weight: 816 kg
1m800 lbs.

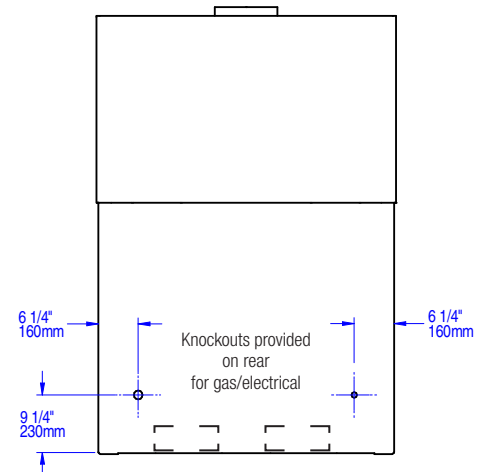
Front view



Side view



Rear view



UTILITIES SPECIFICATIONS

EN 437 Gas Group	I _{2H}	I _{2E}	I ₃₊	I _{3B/P(30)}	I _{B/P(50)}	I _{3P}
Declared Input (kW)	23.3	23.3	23.3	23.3	23.3	21.0

Valve Outlet Pressure (mbar)				
I _{2H} and I _{2E}	I ₃₊	I _{3B/P(30)}	I _{3B/P(50)}	I _{3P}
11.2	22.4	22.4	22.4	22.4

Inlet Pressure (mbar)				
I _{2H} & I _{2E}	I ₃₊	I _{3B/P(30)}	I _{3B/P(50)}	I _{3P}
20	28-30/37/50	30	50	30/37/50

Electrical: 230 VAC, .042 A, 50 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.

Venting: The Bistro must be vented as a Type A or Type B₁₁ appliance, and in accordance with all applicable codes.



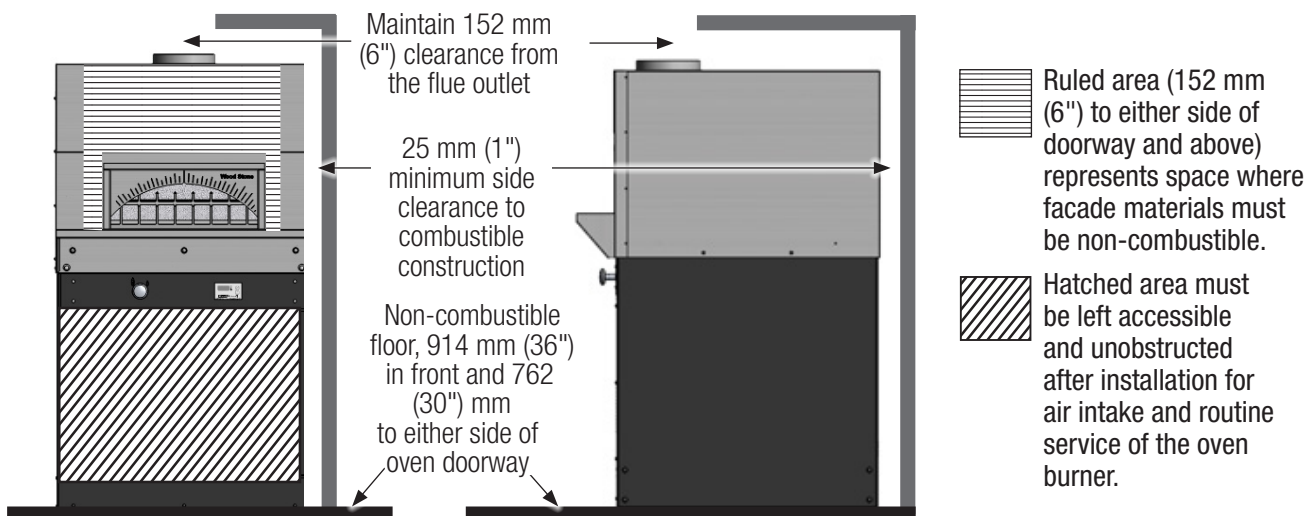
WARNING: Do not pack required air space (clearance) with insulation or other materials. When non-combustible building materials contact the body of the oven, the clearances to combustibles are transferred to those non-combustibles.



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

- The Wood Stone Phoenix oven must have a **minimum 25 mm (1") clearance to combustibles from all sides, 152 mm (6") clearance to combustibles from the top and 152 mm (6") from the flue collar.** If building a facade that will contact the oven, use completely non-combustible materials. Any facade wall built 152 mm (6") to either side of the doorway or above must be of non-combustible construction. Please note that standard Drywall (or Sheetrock) is considered a limited combustible. Any walls perpendicular to the front of the oven in the area 762 mm (30") to either side of the doorway and 914 mm (36") in front of the oven should have a non-combustible surface.
- The oven must be installed on a non-combustible floor surface. The non-combustible floor surface must extend 914 mm (36") in front of and 914 mm (30") to either side of the oven doorway.





Wood Stone ovens should be vented in accordance with pertinent national, regional and local codes concerning such appliances; check venting plans with the authority having jurisdiction before proceeding with installation.

The above statement taking precedence, Wood Stone Corporation recommends the following two venting options:

1. The Wood Stone Bistro ovens can be vented as a Type A appliance (with no flue connection), designed to be installed under an exhaust hood (canopy). The hood must be a Type 1 (grease rated) hood connected to a (grease-rated) duct system. The venting system must be designed and installed in accordance with all relevant codes pertaining to grease and smoke producing commercial cooking appliances. Ovens that utilize solid fuel must be vented separately from any non-solid fuel burning appliances. There may be requirements for interlocking the oven or its gas supply with the ventilation system. Check with your local code official. Airflow should be adjusted according to the requirements specified by the hood manufacturer and/or local codes.

OR

2. The oven is also approved as a Type B₁₁ appliance, designed to be connected directly to a chimney which is installed in accordance with all relevant local and national codes. The chimney system must be installed and constructed to the same requirements as a duct that serves grease and smoke producing commercial cooking appliances. If venting the oven with this method, the oven must be vented independently of other equipment. A suitable fan should be used at the end of the duct run to ensure proper draft in all conditions. Wood Stone does not recommend using an in-line type fan. When installed, the fan speed/air flow should be adjusted to attain the appropriate duct pressure at the oven flue collar:

For gas fired ovens without solid fuel: 0.25 mbar, (0.1" W.C.)

For any oven utilizing solid fuel: 0.35 mbar, (0.14" W.C.)

This pressure may be checked by inserting the pressure test probe up through the oven doorway to the point where the duct is connected to the oven flue collar.

The fan must also be of a suitable temperature rating.

For gas fired ovens without solid fuel the fan must be rated for a minimum of 150 °C (300 °F) continuous.

For any oven utilizing solid fuel the fan must be rated for a minimum of 232 °C (450 °F) continuous.

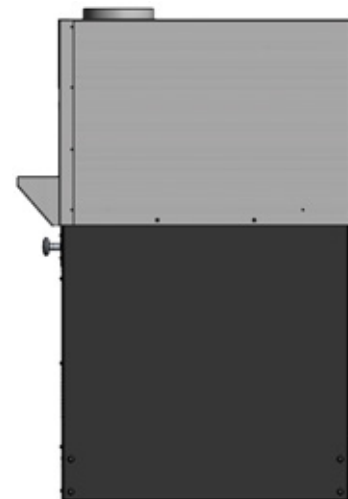
There may be requirements for interlocking the oven or its gas supply with the ventilation system. Check with your local code official.

Bistro Model 3030

203 mm (8") O.D. duct collar

Bistro Models 4343/4355/REC-8

254 mm (10") O.D. duct collar





Bistro models are shipped fully assembled. The oven can be moved into place with a Pallet Jack using the forklift pockets. If the oven is to be installed against a wall, leave access to the back of the oven to complete the utility connections.

If you need to disassemble the oven to move it through a narrow door or passageway, see the DISASSEMBLY section in this manual.

FORKLIFT REQUIREMENTS

Bistro ovens are very top-heavy. **If the oven tips it can cause severe injury or death. Never 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 securing the services of a qualified rigging company.

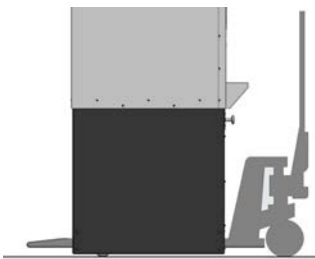
Model	Shipping Weight	Required Forklift Capacity	Minimum Fork Length
BL-3030-CE	499 kg (1,100 lbs)	900 kg (2,000 lbs)	1.2 m (4')
BL-4343-CE	953 kg (2,100 lbs)	1450 kg (3,200 lbs)	1.5 m (5')
BL-4355-CE	1134 kg (2,500 lbs)	1600 kg (3,500 lbs)	1.5 m (5')
CS-REC-8-CE	816 kg (1,800 lbs)	1450 kg (3,200 lbs)	1.5 m (5')

LEVELING AND SHIMMING THE OVEN

The installed oven must be level. Use metal shims to level the oven if necessary. Because the weight of the oven is carried by the full perimeter of the oven stand, make certain there are no gaps larger than approximately 13mm (1/2") where the oven stand is unsupported by shims. Seal any small gaps between the oven and the floor with silicone. Failure to solidly support the full perimeter of the oven stand can result in costly damage to the oven and will void the warranty. The floor design and construction must be adequate to handle the weight of the oven.

Please see woodstone-corp.com/resources/downloads/loads-footprints for floor loading information.

MOVING THE OVEN



The oven should only be moved using a Pallet Jack on a LEVEL FLOOR. Use a Forklift or other suitable means if the oven must be moved over an inclined surface.



Never use a Hand Truck to move the oven.



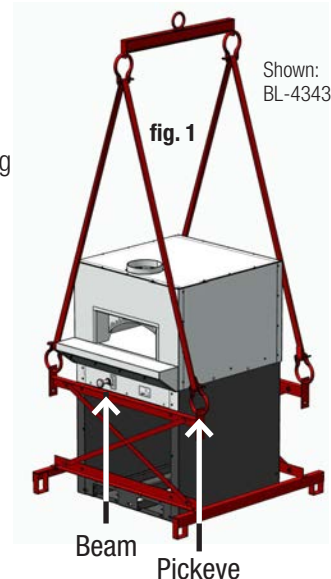
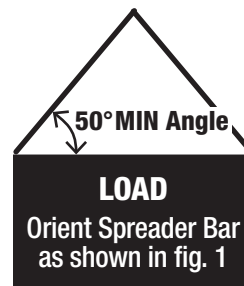
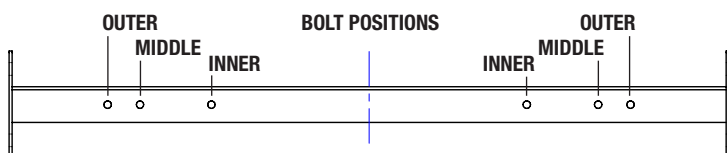
Make sure the Pallet Jack wheels do not contact the underside of the fork pocket when lifting to avoid damaging the stand.

USING A CRANE

The oven arrives with Pickeys attached. When craning a Wood Stone oven, use a Spreader Bar with a two-legged sling rigged on each end. The spreader bar should be of a sufficient length to keep the sling from contacting the oven, and oriented as shown in fig. 1.

PICKEYE CAPACITIES PER BEAM

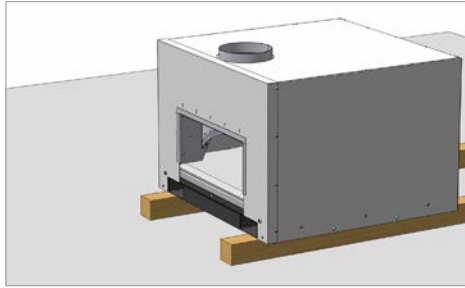
- 1,300 lbs:** Inner holes (BL-3030-CE)
- 2,000 lbs:** Middle holes (BL-4343-CE, BL-4355-CE)
- 2,700 lbs:** Outer holes (BL-4836-CE)



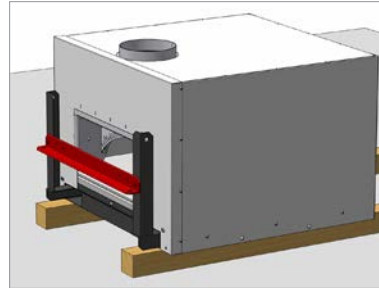


MOVING A DISASSEMBLED BISTRO OVEN THROUGH A NARROW DOOR OR PASSAGEWAY USING THE OPTIONAL LIFTING SYSTEM

An optional Lifting System is available from Wood Stone to facilitate tipping the oven body onto its back and lifting it. When turned on its back, the upper oven portion of Bistro models 4343, 4355 and REC-8 will be approximately 32 inches wide. This will allow for easier access through small passages. Note: The 3030 is 30" wide without tilting.

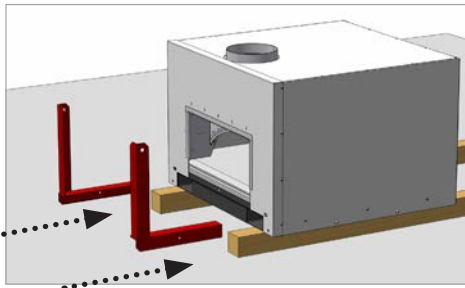


1. Use a forklift or other suitable lifting means to set the oven body onto 4x4" blocks oriented as shown. Refer to DISASSEMBLY section of manual for disassembly instructions.

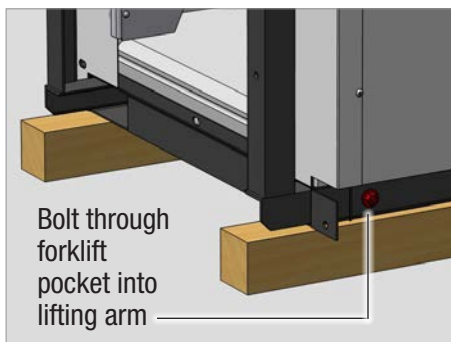
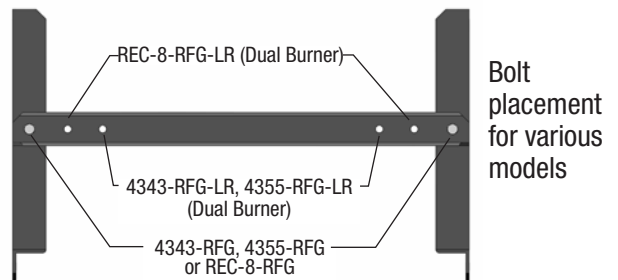


4. Attach the Crosspiece using the hardware provided. See drawing below for placement of bolts on various models.

Tighten all Pickeye and Crosspiece bolts.

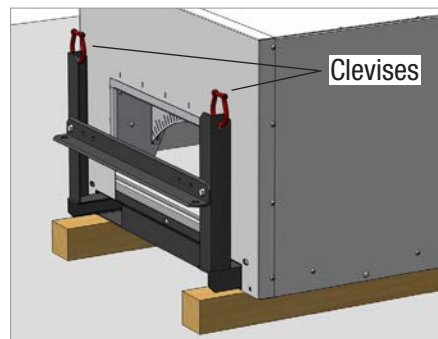


2. Insert the left & right Pickeye Inserts of the Lifting System into the forklift pockets from the oven front.

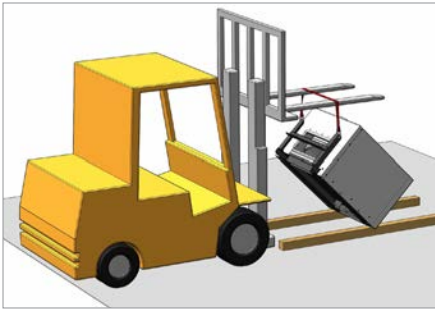


Oven cut-away view showing right Pickeye Insert of Lifting System in forklift pocket

Bolt through forklift pocket into lifting arm



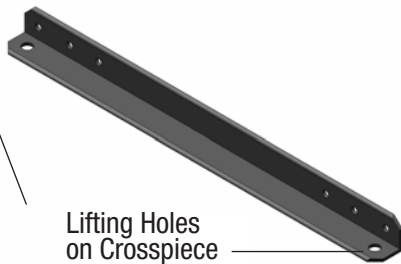
5. Install a clevis in the Top Hole of each Pickeye Insert of the Lifting System.



6. Attach strap to the clevises at the top of each Pickeye Insert. Using an appropriate hoist or lift, tilt the oven on its back, onto 4x4" blocks.



10. Once the oven is on the other side of the passageway, attach strap to the clevises at the Lifting Holes on the Crosspiece and, with a gantry crane, lift the oven straight up.
Remove pallet jack.
Lower the oven onto 4x4" blocks.



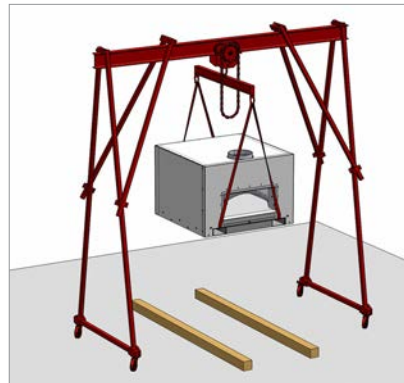
7. Change the position of the clevises to the Lifting Holes on the Crosspiece and attach straps.



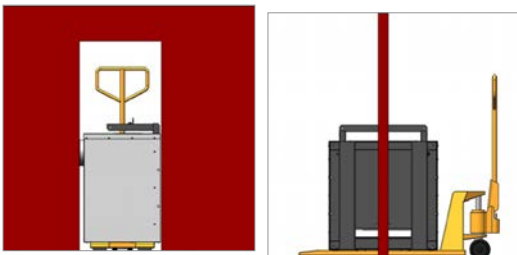
11. Move strap to the clevises at the top of the Pickeye Inserts and tilt the oven down onto the 4x4" blocks positioned as shown.
Remove the Lifting System from the oven.



8. Lift the oven straight up and position pallet jack under the oven.
Lower the oven, on its back, onto the pallet jack.

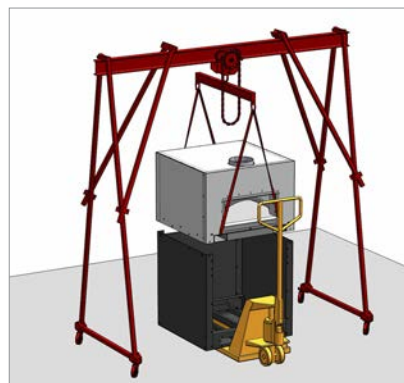


12. Run straps through forklift pockets and up to a Spreader Bar.
Note: The Spreader Bar must be wide enough so the straps clear the body of the oven.
Lift the oven straight up and remove the 4x4" blocks.

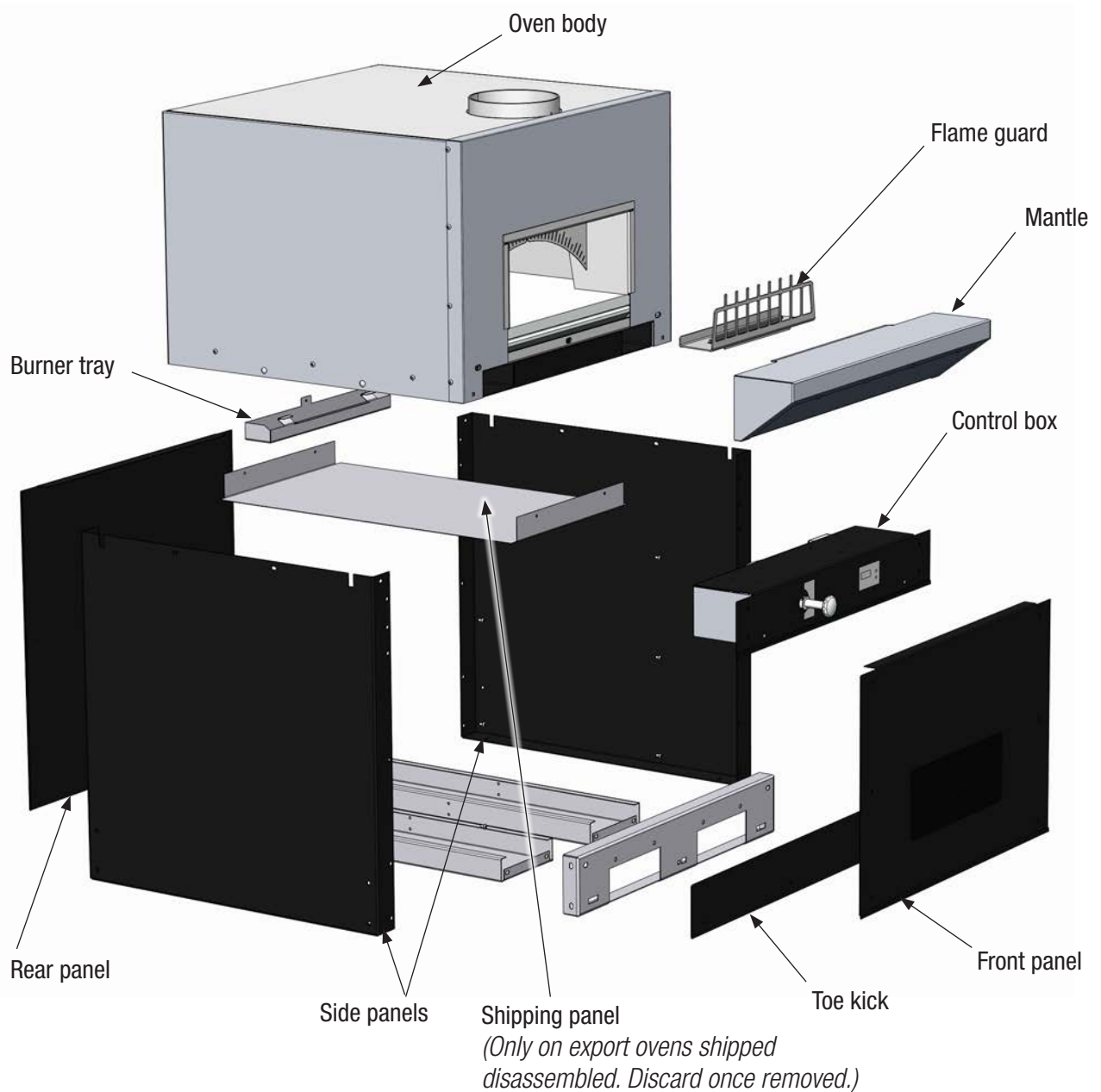


9. The oven can now be moved through a narrow doorway or passageway.

DANGER: Never attempt to move the oven in this manner on any type of incline or sloped floor.



13. Maneuver oven stand into position under the oven using pallet jack.
Lower oven and secure oven to stand with bolts.



All parts shown below, rear panel included, provided with the oven (except the shipping panel) **MUST** be installed to ensure the safe and proper operation of the oven.



Follow these instructions only if the oven was shipped disassembled, or disassembled to move through a narrow door or passageway.

The oven must be installed on a flat level surface. The weight of the oven is carried by the full perimeter of the oven stand. If it is necessary to shim the oven for leveling purposes, it is critical that the shim material be metal, and that the shims are installed in such a way that the full perimeter of the stand is solidly supported. Any gaps created by shimming between the oven and the floor must be sealed for proper ventilation. **Failure to solidly support the full perimeter of the oven stand can result in costly damage to the oven and will void the warranty.**

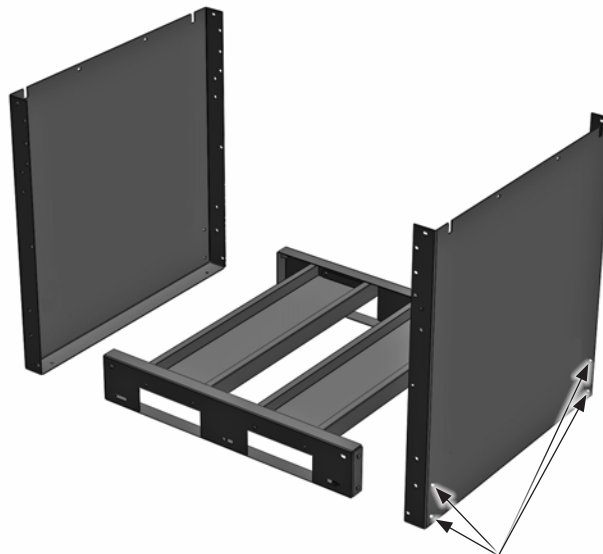
The floor design and construction must be adequate to handle the weight of the oven.

Please see woodstone-corp.com/installation_footprints.htm for floor loading information.

1. Lay out pieces.



2. Use the 9.5 mm x 25 mm (3/8" x 1") carriage bolts to assemble the stand. Be sure to use the washers provided and to tighten nuts and bolts securely.



Carriage bolts

9.5 x 25mm (3/8 x 1")

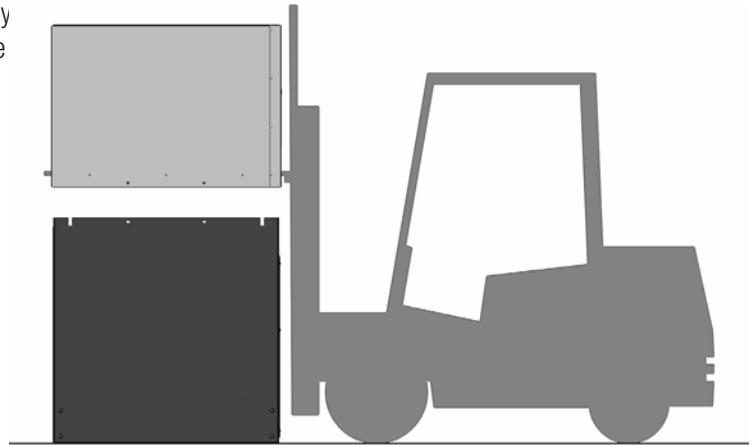
3030 only: 9.5 x 19mm (3/8 x 3/4")

On 3030 models only

Use 3/8 x 3/4" (9.5 x 19 mm) long carriage bolts instead of the 9.5 x 25 mm (3/8 x 1") long carriage bolts.

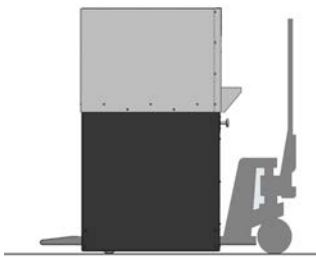


- Using a forklift or other suitable lifting device, carefully lower the body of the oven on to the stand so that the bolt holes line up. While supporting the oven with the lift, install the 10 mm x 25 mm (3/8" x 1") carriage bolts. Use the washers provided and tighten all nuts securely. Be sure to use the forklift pockets when lifting the body of the oven.

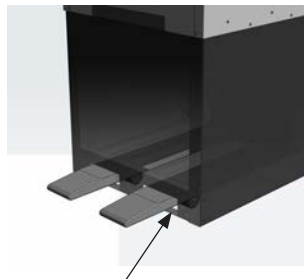


- After the oven body is bolted to the stand, the oven can be moved into place with a pallet jack using the LOWER forklift pockets. If the oven is to be installed against a wall, leave access to the back of the oven until the assembly is completed.

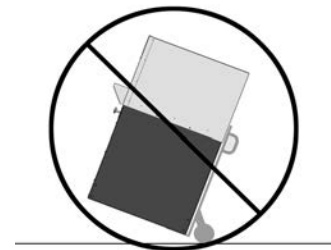
CAUTION: The 3030 model Bistro weighs approximately 445 kg, the 4343 approximately 953 kg, the 4355 approximately 1134 kg and the REC-8 approximately 816 kg. All models are very top-heavy. **If the oven tips, it can cause severe injury or death!** The oven should only be moved in this manner (pallet jack) on a LEVEL FLOOR. Do not attempt to move the oven with a hand truck. 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.



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.



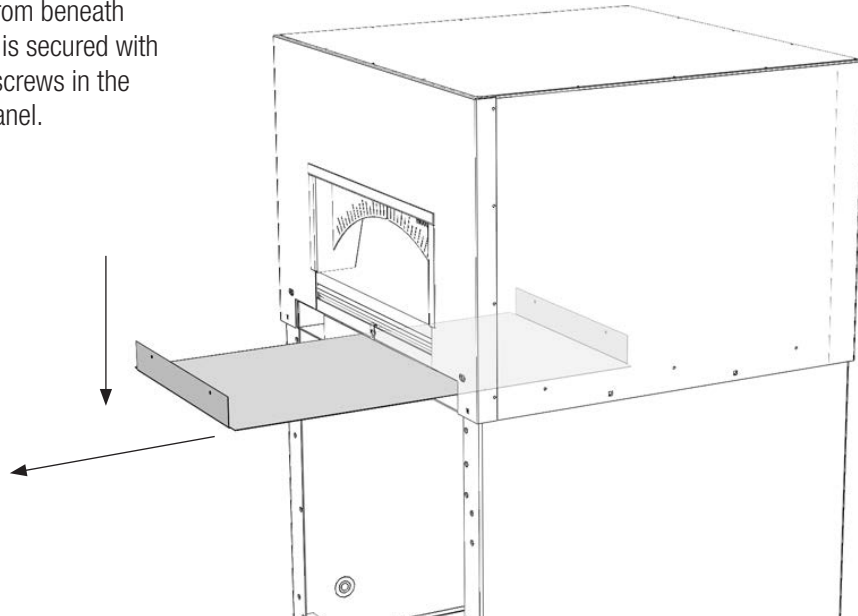
Make sure the pallet jack wheels do not contact the underside of the fork pocket when lifting to avoid damaging the stand.



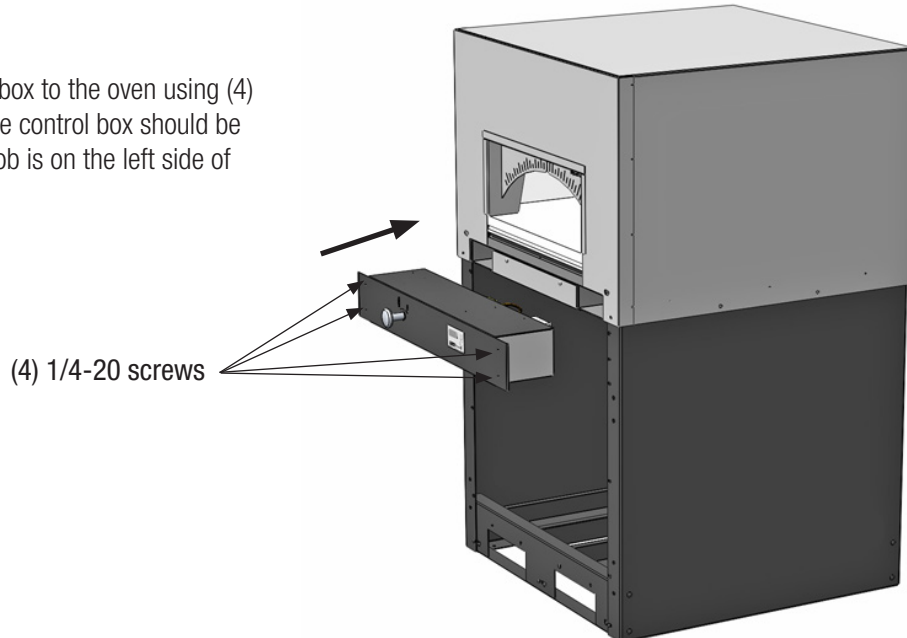
Never attempt to use a hand truck to move the oven.



5. Remove the shipping panel from beneath the oven. The shipping panel is secured with 2 screws in the front, and 2 screws in the back. Discard the shipping panel.

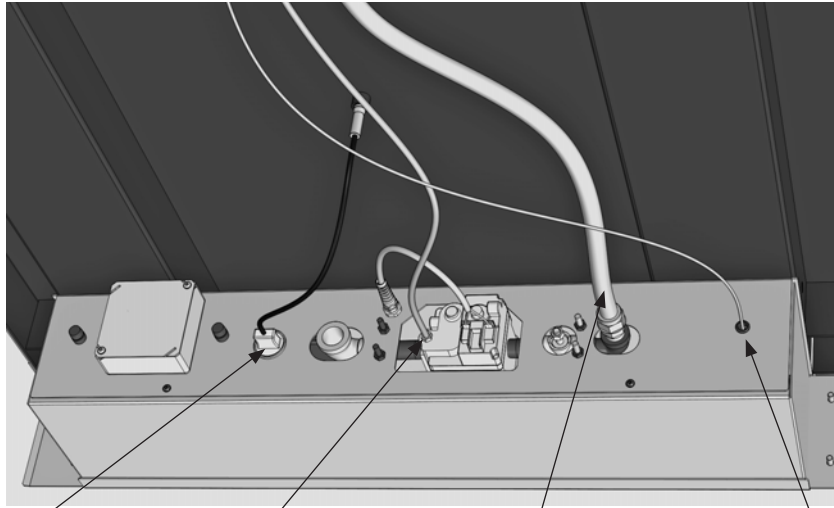


6. Attach the control box to the oven using (4) 1/4-20 screws. The control box should be oriented so the knob is on the left side of the control box.





7. Connect burner assembly components and thermocouple at the rear of the control box.



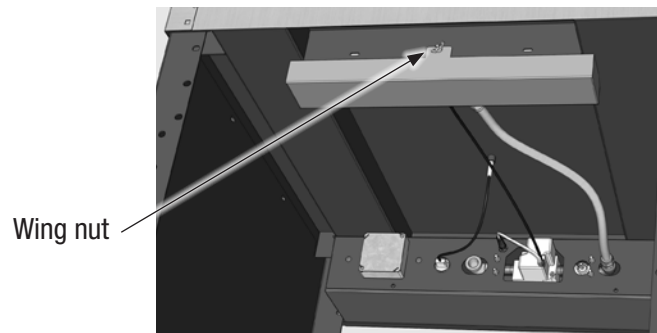
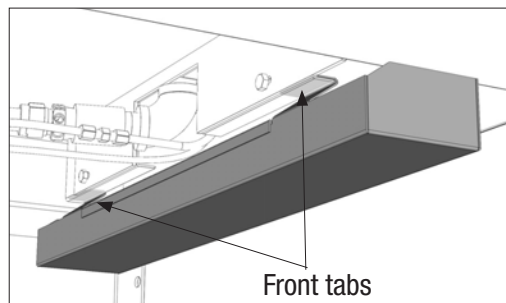
Plug in thermocouple wire here.

Attach flexible pilot tube here. Tighten the fitting firmly.

Use flexible gas pipe provided to connect the burner.

Remove the lower control box cover. Route the igniter wire through this hole and plug it into the terminal marked "SPARK" on the ignition module.

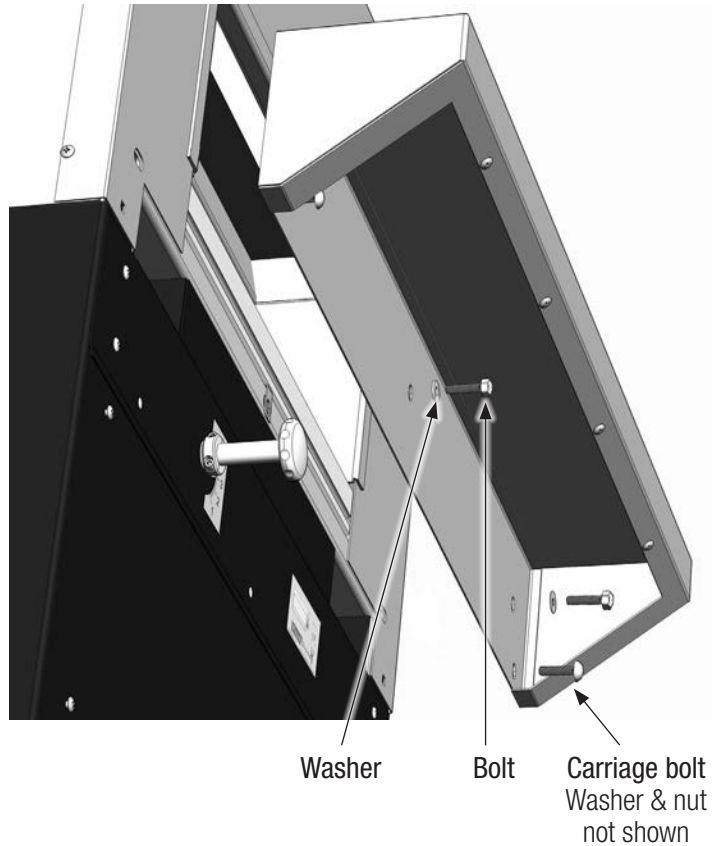
8. Install the burner tray. Slip front tabs of the burner tray over the lip of the burner while the rear tab of the burner tray slips over the threaded stud at the back of the burner. Install the wing nut onto the stud and tighten to secure the burner tray in place.



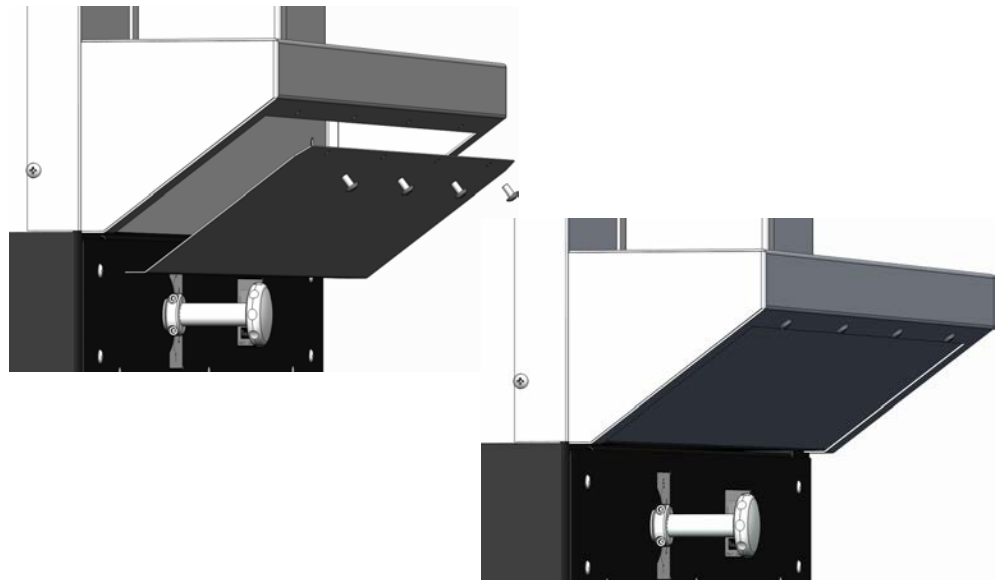


8. Install the mantle. Fasten using 3 bolts and 2 carriage bolts (see illustration).

If the oven has been supplied with a granite mantle, affix the granite slab to the mounting bracket using a generous amount of the adhesive provided.



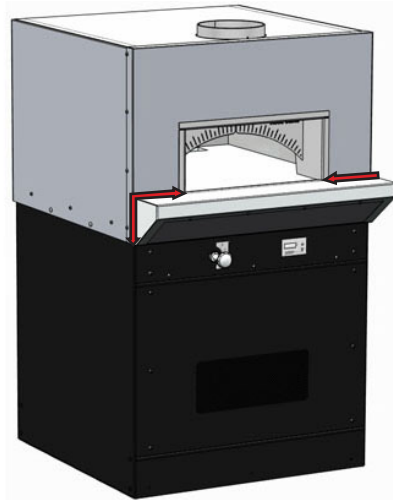
10. Place the mantle faceplate cover over the open area under the top of the mantle. Install the cover plate using the screws provided (3 for BL-3030_CE and 4 for BL-4343-CE or BL-4355-CE).



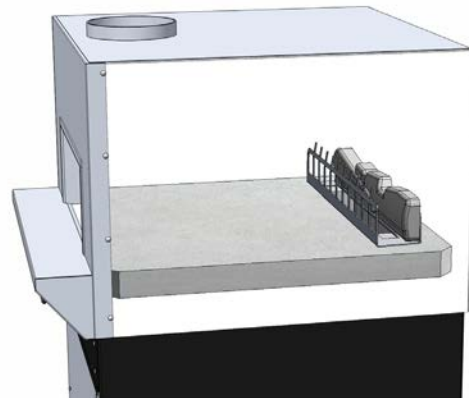


If the oven has been supplied with a granite mantle, affix the granite slab to the mounting bracket using the silicone adhesive provided.

11. Run a bead of silicone (provided) along visible joints where the mantle and the oven intersect—in the front and on both sides (right side not shown).



12. Reinstall the burner guard, and optional log set if supplied. The lower tab of the guard fits into the front of the burner opening. The log set pieces fit onto the studs on the burner guard, behind the opening in the guard, so the logs sit at the rear of the burner opening.





WS-BL-3030-CE MODELS

UTILITY SPECIFICATIONS

3/4 inch B.P.T (19 mm) gas inlet (female threaded)

EN 437 Gas Group	I _{2H}	I _{2E} AND I _{2ELL}	I ₃₊	I _{3B/P(30)}	I _{3B/P(50)}	I _{3P}
Declared Input (kW)	16.1	16.1	13.6	13.6	13.6	12.3
Inlet Pressure (mbar)	20	20	28-30/37/50	30	50	30/37/50
Declared Pressure at Gas Valve Outlet (mbar)	11.2	11.2	17.4	17.4	17.4	17.4

SCOPE OF APPROVALS

I_{2H(20)} for use in AT, DK, ES, FI, IE, IT, PT, GB, SE, CH, GR, EE, LV, SI, CR, SK and CZ

I_{2E(20)} for use in: DE and PL

I_{2L(25)} for use in: NL and HU

I_{2ELL(20)} for use in: DE

I_{3+(28-30/37/50)} for use in: BE, ES, FR, IE, IT, PT, GB, CR, GR, CH and CY

GAS SUPPLY AND PRESSURE

I_{3B/P(28-30/37/50)} for use in: SE, CH, AT, DK, FI, DE, NL, NO, HU, PL, SI, FR, CY, LT, SK, MT and CZ

I_{3P(30/37/50)} for use in: BE, DE, ES, FR, IR, IE, NL, PT, GB, IS, GR, CY, EE, HU, LV, MT, SI and CH

Declared Input (kW)	16.1		13.6			12.3
Gas Group	I _{2H}	I _{2E} & I _{2ELL}	I ₃₊	I _{3B/P(30)}	I _{3B/P(50)}	I _{3P}
Inlet Pressure (mbar)	20	20	28-30/37/50	30	50	30/37/50
Declared Setting Pressure at the outlet from the gas valve (mbar)	11.2	11.2	17.4	17.4	17.4	17.4



WS-BL-4343-CE, WS-BL-4355-CE AND CS-REC-8 MODELS

EN 437 Gas Group	I _{2H}	I _{2E}	I _{2ELL}	I ₃₊	I _{3B/P(30)}	I _{3B/P(50)}	I _{3P}
Declared Input (kW)	23.3	23.3		23.3	23.3	23.3	21.0
Inlet Pressure (mbar)	20	20	20	28-30/37/50	30	50	30/37/50
Declared Pressure at Gas Valve Outlet (mbar)	11.2	11.2		22.4	22.4	22.4	22.4

SCOPE OF APPROVALS

UTILITY SPECIFICATIONS

3/4 inch B.P.T (19 mm) gas inlet (female threaded)

NATURAL GAS

Gas Supply and Pressure

G20 @ 20 mbar - I_{2H(20)} - AT, DK, ES, FI, IE, IT, PT, GB, SE, CH, GR, EE, LV, SI, CR, SK and CZ

G20 @ 25 mbar - I_{2HS(25)} - HU

G20 @ 20 mbar - I_{2E(25)} - DE, PL

G20, G25 @ 20 mbar - I_{2ELL(20)} - DE

G25 @ 25 mbar - I_{2L(25)} - NL, HU

PROPANE

Gas Supply and Pressure

G31 @ 30mbar, 37mbar, 50mbar - I_{3p(30/37/50)} - BE, DE, ES, FR, IR, IE, NL, PT, GB, IS, GR, CY, EE, HU, LV, MT, SI and CH

G30 @ 28-30mbar, 37mbar - I_{3+(28-30/37)} - BE, ES, FR, IE, IT, PT, GB, CR, GR, CH, and CY

G30 @ 28-30mbar, 37mbar, 50mbar - I_{B/P(28-30/37/50)} - SE, CH, AT, DK, FI, DE, NL, NO, HU, PL, SI, FR, CY, LT, SK, MT, and CZ



IMPORTANT: It is the responsibility of the installer to determine the best location for electrical and gas service to enter the stand enclosure of the oven, and to create the necessary aperture(s) for this entry. Gas and electrical routing to this appliance should be provided in a manner consistent with all relevant local and national codes and in a manner acceptable to the authority having jurisdiction. The front and rear panels **MUST** be installed to ensure proper operation and the structural integrity of the stand.

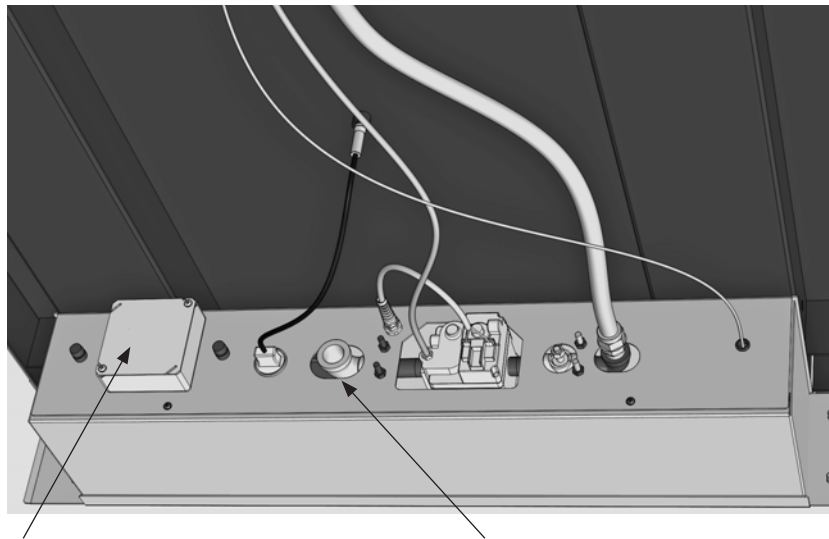
GAS

The Wood Stone Bistro is equipped with a 3/4-inch N.P.T. (19mm) female gas connection. The gas supply should be consistent with the gas type and volume specified on the equipment data plate.

Have a qualified gas installer provide the hookup and test all fittings and pipe connections for leaks. Wood Stone recommends that the oven be equipped with an individual shutoff valve and that this individual shutoff valve (supplied by others) be left easily accessible. The shutoff valve must have an inside diameter of no less than 3/4-inch (19 mm).

ELECTRICAL

Have a qualified electrician wire the transformer terminal strip with a power supply corresponding to the specifications on the oven data plate. Electrical diagrams are located on the oven and also at the end of this manual. This appliance must be electrically grounded. Electrical service to this appliance should be installed in accordance with all relevant local and national codes and in a manner acceptable to the authority having jurisdiction.



Electrical Junction Box

Remove the cover and attach the leads to the terminal strip. Use one of the knock-outs on the side of the junction box to anchor the incoming power cord in a manner acceptable to the authority having jurisdiction.

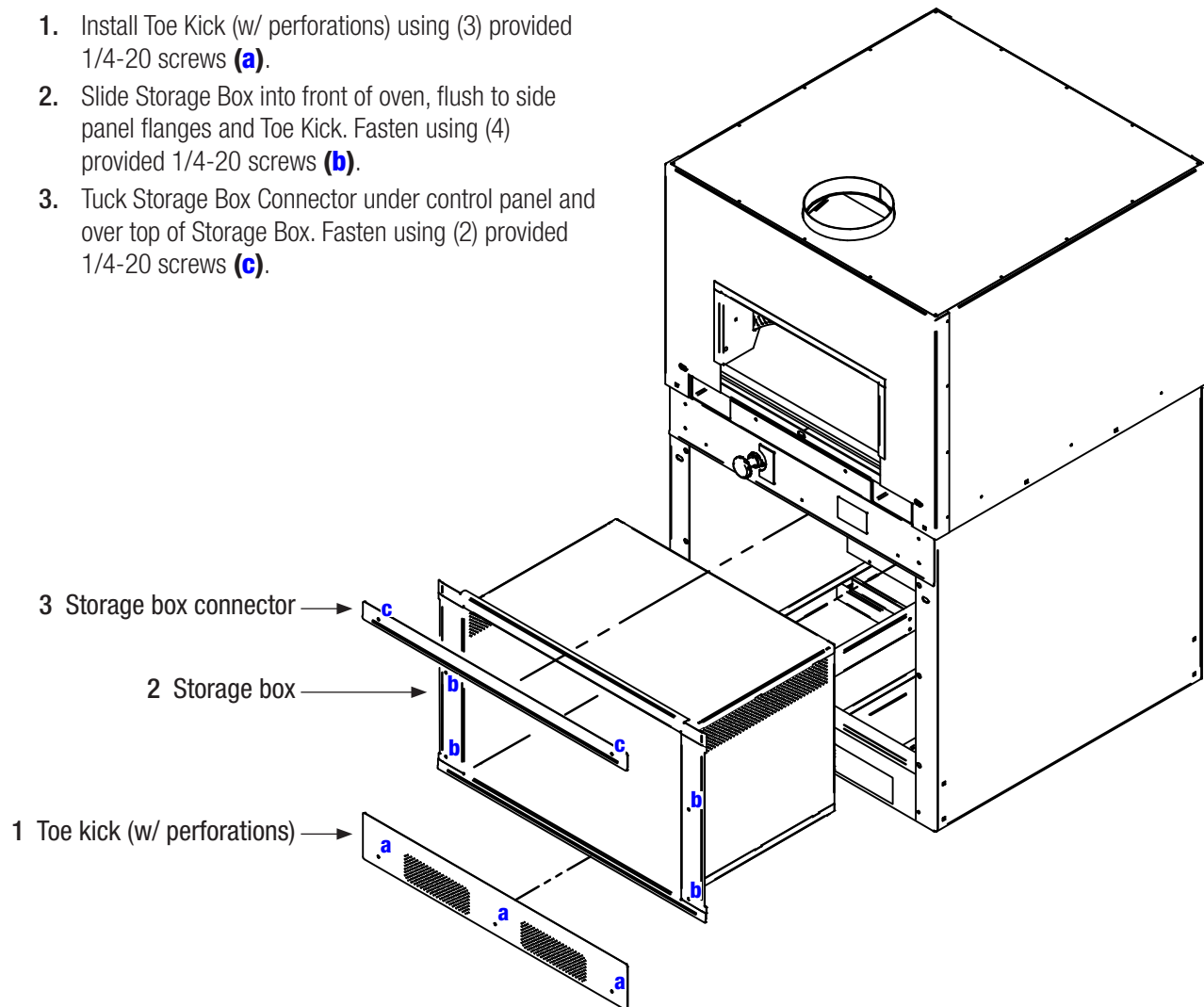
3/4 inch N.P.T. (19mm) Gas Inlet

Provide gas service through a 3/4 inch (19 mm) line to this inlet in accordance with all relevant local and national codes, and in a manner acceptable to the authority having jurisdiction. The inlet for all natural gas models will not be equipped with a regulator.



INSTALLATION OF OPTIONAL STORAGE BOX ON BL-4343-CE, BL-4355-CE AND CS-REC-8-CE MODELS (DOES NOT INCLUDE BL-3030-CE)

1. Install Toe Kick (w/ perforations) using (3) provided 1/4-20 screws **(a)**.
2. Slide Storage Box into front of oven, flush to side panel flanges and Toe Kick. Fasten using (4) provided 1/4-20 screws **(b)**.
3. Tuck Storage Box Connector under control panel and over top of Storage Box. Fasten using (2) provided 1/4-20 screws **(c)**.





CONTROLLER FUNCTIONS

Hearth Temperature

The floor (hearth) temperature will be displayed when the oven is turned on. Sensor is embedded 1" below hearth surface. Display will read "LO" when the temperature is below 30 °C (100 °F).

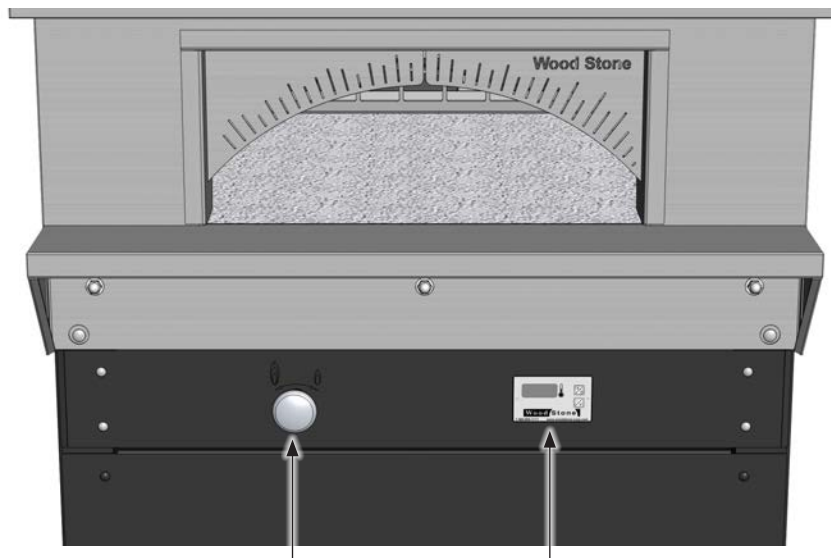


Temperature units

Press and hold to switch between Fahrenheit and Celsius.

ON/OFF button

Press to turn oven on and off.



Flame Height Control Knob

Use this knob to raise/lower the flame to control the oven temperature.

Controller

**INITIAL OVEN START-UP**

IMPORTANT: If at any time you feel that either or both of the burners are not operating properly, turn the oven off and call for service. Before servicing, disconnect the electrical supply at the breaker and turn off the gas supply at the appliance's individual gas shutoff valve. In the event of a power failure, no attempt should be made to operate the oven.

Your oven was cured at the factory. However in the course of shipment, storage on site, etc. the ceramic materials will have absorbed moisture. It is critical that the initial oven start-up procedure below be followed to ensure that this moisture is driven from the ceramic in a controlled fashion. This will minimize cracking and prevent damage to the oven that could otherwise occur by bringing the oven to temperature rapidly the first time it is used.

Occasionally, through the course of the initial start up, as the oven heats up it is possible that you will see some water dripping from the sides of the oven as moisture is driven out of the ceramic. This is not a defect in the oven, and once the oven has been fully saturated with heat, the moisture will be driven fully from the oven.

This initial oven start-up procedure need only be followed the first time the oven is fired and/or if the oven has not been used for an extended period of time.

FIRST DAY

1. Make sure main gas supply is on (and has been purged), and that the individual shutoff valve (supplied by others) is in the "flow" position.
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. When the radiant flame ignites, make sure it is turned to its lowest setting. Allow the oven to operate at this setting for two hours.
4. After two hours, raise radiant flame to 25% (16 cm flame), hold this setting for 4 hours.
5. After 4 hours at 25% flame, raise to 50% flame and hold for at least another 4 hours. The oven can be left at this setting all night, or turned off.

NOTE: Small "crazing" cracks will occur with normal heating and cooling. They will not affect the performance or durability of the oven. If cracks of 3 mm (1/8") wide or more develop, contact Wood Stone for evaluation.

SECOND DAY

1. Turn the oven on by pushing the I/O button on the controller.
2. Turn the radiant flame(s) to 75% height. The oven will heat up rapidly when the desired floor temperature is reached, lower the radiant flame setting to hold the oven at this temperature. The oven is now ready for cooking.



DAILY OVEN OPERATION

The floor temperature is continuously displayed by the controller. This reading is being taken by a thermocouple about 1 inch (25 mm) below the floor surface, so the actual surface temperature may be somewhat different, and is best measured using a non-contact (IR) thermometer.

END OF THE DAY

Push I/O button on the controller. All gas will go off, even the pilots. When the oven is turned off, use the Night Heat Retention 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 flame to its highest setting using the Flame Height Control Knob. The oven should reach the desired cooking temperature typically within 2 hours. Use the Flame Height Control Knob to control the amount of heat in the oven.

See woodstone-corp.com for detailed information on cooking in your Wood Stone oven.

OVEN INTERIOR

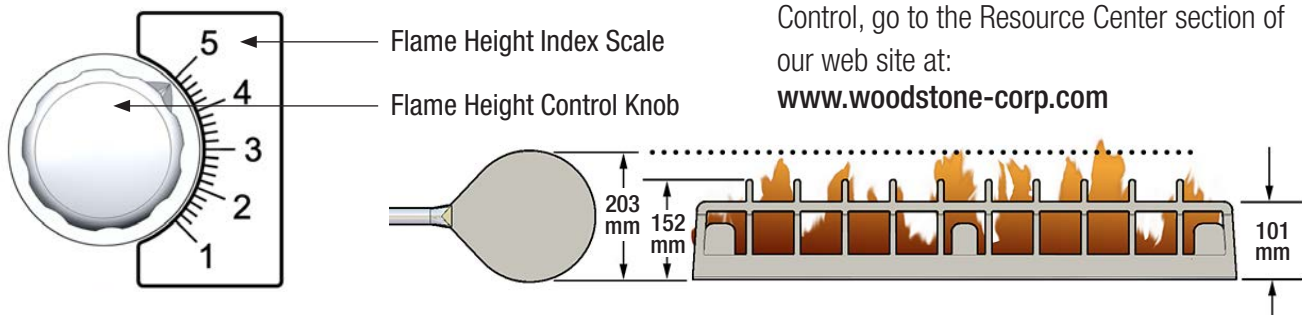
Wood Stone recommends the use of long-handled brushes for sweeping up surface debris that will accumulate on the floor of the oven during use. Use a natural fiber brush—always brushing away from the radiant burner well. For deeper cleaning, use a brass bristled brush. The oven floor can be then cleaned with a damp rag wrapped around the brass bristled brush head. (Wood Stone offers an assortment of oven brushes available through your dealer. Specification sheets may be viewed on the Wood Stone website under Tools & Accessories.)

NEVER PLACE ANYTHING IN OR ABOVE THE RADIANT FLAME

Gas fired models with a “-W” in the model number are approved for the burning of up to 1.4 kg (3 lbs.) of wood per hour when properly vented as a solid fuel appliance. Build the fire on the side of the oven, 150–250 mm (6–10”) away from the doorway of the oven or use a smoker tray. Never use the gas (radiant) flame as a fire starter, and keep the fire away from the radiant flame. Keep all ash and debris away from the radiant flame. See next page for ash disposal guidelines.

FLAME HEIGHT INDICATOR

Comprised of two parts





DETAILED DAILY OVEN OPERATION

IMPORTANT: If at any time you feel that the burner is not operating properly, turn the oven off and call for service. Before servicing, disconnect the electrical supply at the breaker and turn off the gas supply at the appliance's individual gas shutoff valve. In the event of a power failure, no attempt should be made to operate the oven.

1. DAILY START-UP

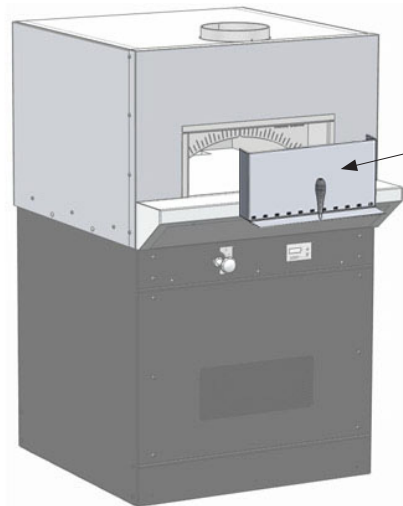
Press the I/O button to start the oven. The radiant flame will ignite.

2. TURNING OFF THE OVEN

Push the I/O button on the controller to turn the oven off. The burner will go out and the digital readout on the controller will go out.

3. ADJUSTING THE RADIANT FLAME

To adjust the radiant flame: The radiant flame is always on when the oven is operating and can be adjusted to any flame intensity between its highest and lowest setting; simply turn the Flame Height Control Knob. This burner is the sole heat source for the oven.



Night Heat Retention Door

NOTE: Never operate this appliance with the (optional) stainless steel Night Heat Retention Door in place. This option is for heat retention only, and should only be used when the appliance is turned off.

**OVEN INTERIOR**

Wood Stone recommends the use of long-handled brushes for sweeping up surface debris that will accumulate on the floor of the oven during use. Use a natural fiber brush—always brushing away from the radiant burner well. For deeper cleaning, use a brass bristled brush. The oven floor can be then cleaned with a damp rag wrapped around the brass bristled brush head. (Wood Stone offers an assortment of oven brushes available through your dealer. Specification sheets may be viewed on the Wood Stone website under Tools & Accessories.)

DO NOT POUR OR SPRAY LIQUIDS ONTO THE OVEN DECK OR INTO THE OVEN INTERIOR AS THIS CAN DAMAGE THE CERAMIC AND WILL VOID THE WARRANTY.

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.

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.**

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.**

IMPORTANT: DO NOT USE EXCESSIVE AMOUNTS OF LIQUID WHEN WIPING ON OR AROUND THE CONTROL BOX.

GAS-FIRED OVEN THERMAL CLEANING

If a Wood Stone gas-fired oven is operated at low temperatures below 274 °C (525 °F), you may notice a buildup on the oven floor. If you operate the oven below 232 °C (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 hearth floor temperature displayed on the controller. When the floor reaches 343 °C (650 °F), lower the flame slightly so as to maintain the oven floor temperature near 343 °C (650 °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.

Never use any type of chemical cleaner on the oven ceramic. This will damage the oven and void the warranty.

BURNER TRAY

At 6–12 month intervals, depending on the amount of usage, the burner tray beneath the oven should be removed and emptied of any accumulated debris. To remove: unscrew the wing nut at the back of the burner tray. See location in the EXPLODED PARTS DIAGRAM section. There should be very little debris in the tray if the oven is being operated properly.



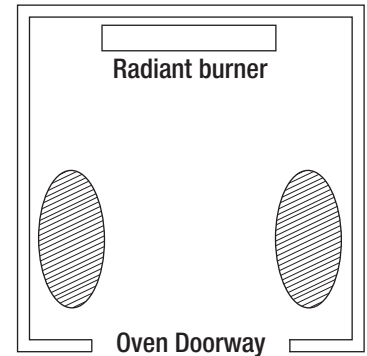
NOTE: Only RFG-W models are intended to allow the additional burning of wood. All gas-fired models that include a “-W” in the model number are listed to allow the burning of up to 6.8 kg (15 lbs) of wood per hour for flavor, but **MUST** be vented as SOLID FUEL equipment. **Do not over fire the oven.**


The fire should be placed to one side of the oven chamber (either right or left as shown in diagram at right), 150–250 mm (6-10 inches) away from the doorway of the oven. This is often described as the 9 o'clock or 3 o'clock position. Burn a maximum of 6.8 kg (15 lbs) of wood per hour. **If flames spill out of the doorway, or the oven temperature exceeds 455 °C (850 °F), you are over firing the oven.**

Make every effort to keep ash and other debris out of the radiant burner well. Do not use the radiant burner as a “backstop” when shoveling ash and/or coals out of the oven. **Burner problems resulting from debris or ash in the burner well will not be covered by the oven warranty.** Using the oven floor brush and ash shovel, move debris only toward the oven doorway and dispose of safely.

NOTE: Ovens burning solid fuel require a more frequent maintenance schedule.

**DO NOT USE THE RADIANT BURNER TO IGNITE WOOD
OR SUPPORT THE WOOD FIRE.**



 Wood fire location options
(either left or right side)

BUILDING & MAINTAINING THE FIRE

Use only seasoned heavy hardwoods with a moisture content of 15–20%. Use of soft woods, such as pine, cedar, hemlock etc., or wet “green” wood, will cause a build-up of creosote residue throughout the exhaust system. (See the FUELWOOD FACTS section of this manual, or consult Wood Stone for information on what types of wood can be used for oven fuel.)

The fire should be ignited a couple of hours before the oven needs to be at cooking temperature.

1. Stack 3 or 4 small pieces of wood in a conical tepee shape on top of any live coals towards the back of the fire box. Ignite a fire starter and place it under the wood. Once the oven is being used daily, the fire can be ignited using still glowing coals from the previous day's fire.
2. Once the fire has established, add additional wood to total about 6.8 kg (15 lbs) maximum. Do not toss or throw wood against back or side walls of oven—this may void the warranty.
3. At the end of the work day, put removable (optional) stainless steel Heat Retention Night Doors into door opening to hold heat in the oven overnight.



As with all commercial cooking equipment exhaust systems, a regular inspection and cleaning schedule is needed to prevent the possibility of a hood or duct fire. The frequency of inspection and cleaning will depend on hours of use and type and quality of wood used as fuel. Only use hardwood species dried to a moisture content of 20% or less.

CREOSOTE: FORMATION AND NEED FOR REMOVAL

When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool oven flue of a slow-burning fire. As a result, creosote residue accumulates in the duct. When ignited, this creosote makes an extremely hot fire.

The duct serving this oven should be inspected at least twice a month during the first two months of operation to establish a rate of creosote buildup and necessary cleaning schedule. If creosote or soot has accumulated, it should be removed to reduce the risk of a flue fire.

The interior floor and dome of the oven do not require creosote or soot removal. The oven flue and exhaust system will require inspection and cleaning. The exhaust system must be inspected and cleaned per the manufacturer's and or local code official's recommendations. **Wood Stone recommends cleaning and inspection at least monthly on any ventilation system serving solid fuel equipment.**

DO NOT USE THE RADIANT BURNER TO IGNITE WOOD OR SUPPORT THE WOOD FIRE.

Wood should be stored and handled in accordance with the recommendations outlined in NFPA 96.

DISPOSE OF ASH PER THE FOLLOWING:

1. Place ashes into a metal container with a tight fitting lid.
2. Place the closed container of ashes on a non-combustible floor or on the ground.
3. Place the closed container of ashes well away from all combustible materials, pending final disposal.
4. Retain the ashes in the closed container until all the cinders have thoroughly cooled. Ashes can then be disposed of safely.

Wood Stone's optional Double
Compartment Ash Dolly. View the
spec sheet at woodstone-corp.com
in the Tools and Accessories section.





WHAT TYPE OF WOOD SHOULD YOU USE TO FIRE YOUR SOLID FUEL COOKING EQUIPMENT?

The answer to this question depends on several considerations: geographical location, availability and relative cost of various fuelwood species and individual preferences regarding the flavor qualities of various wood types. There are a wide variety of good fuelwood species in all geographic locations. Each species of wood has different characteristics. The table below should help weigh the pros and cons of various types of wood. Wood from conifers (pine trees) is not recommended due to its poor fuelwood characteristics (low weight, low-med heat, poor coaling, high sparking and high residual creosote).

Wood Type	Heat	kg / Cord*	Lighting	Coaling	Sparks	Fragrance**
Alder	Med-Low	1130	Fair	Good	Moderate	Slight
Apple	High-Med	2000	Fair	Excellent	Few	Excellent
Ash	High	1590	Fairly Difficult	Good-Excellent	Few	Slight
Beech	High	1720	Difficult	Excellent	Few	Good
Birch (white)	Medium	1360	Easy	Good	Moderate	Slight
Cherry	Medium	900	Fair	Excellent	Few	Excellent
Elm	High	1045	Very Difficult	Good	Very Few	Fair
Hickory	Very High	1900	Fairly Difficult	Excellent	Moderate	Excellent
Maple (red)	High-Med	1450	Fairly Difficult	Excellent	Few	Good
Maple (sugar)	High	1680	Difficult	Excellent	Few	Good
Mesquite	Very High		Very Difficult	Excellent	Many	Excellent
Oak (live)	Very High	2090	Very Difficult	Excellent	Few	Fair
Oak (red)	High	1680	Difficult	Excellent	Few	Fair
Oak (white)	Very High	1900	Fairly Difficult	Excellent	Few	Fair
Pecan	High		Fair	Good	Few	Good

* Cord/Stere conversion

1 cord = 3.6 steres

1 stere = .27 cords

** The desirability of various fragrances is largely a matter of personal preference.

Whichever type of wood you use, **MAKE SURE YOU KNOW THE MOISTURE CONTENT.** Properly seasoned wood contains 20% moisture or less. If wood contains more than 20% moisture, it should not be accepted for use. Wood should be stored off the ground and out of the rain in an environment that allows good air circulation so that the drying process can continue. Wet wood is the most common operational difficulty associated with wood-fired cooking equipment. Wood Stone's optional Mini-Ligno E Wood Moisture Meter can save you from paying for water when you thought you were paying for wood (see the Tools & Accessories section of woodstone-corp.com, contact your dealer or Wood Stone).

Calculate your approximate monthly, daily and hourly fuel-wood costs using the following formulas:

The cost of well-seasoned hardwood varies greatly with geographical location.

$$\text{Cost per month} = A \times C \quad \text{Cost per day} = \frac{A \times C}{30} \quad \text{Cost per hour} = \frac{A \times C}{\frac{30}{12 \text{ hr day}}}$$

A = Cost/cord (from wood supplier)

B = kg/cord (from above table)

C = Cords/mth (from experience, or call Wood Stone for an estimate)

When burned, a kilo of any wood releases approximately 4.2 kWh (14300 BTU/hr), so it is better to compare the price of wood by the pound rather than by the cord. A full cord of wood measures 1.2 m x 1.2 m x 1.2 m when stacked.

$$\text{Cost per lb} = \frac{A}{B}$$



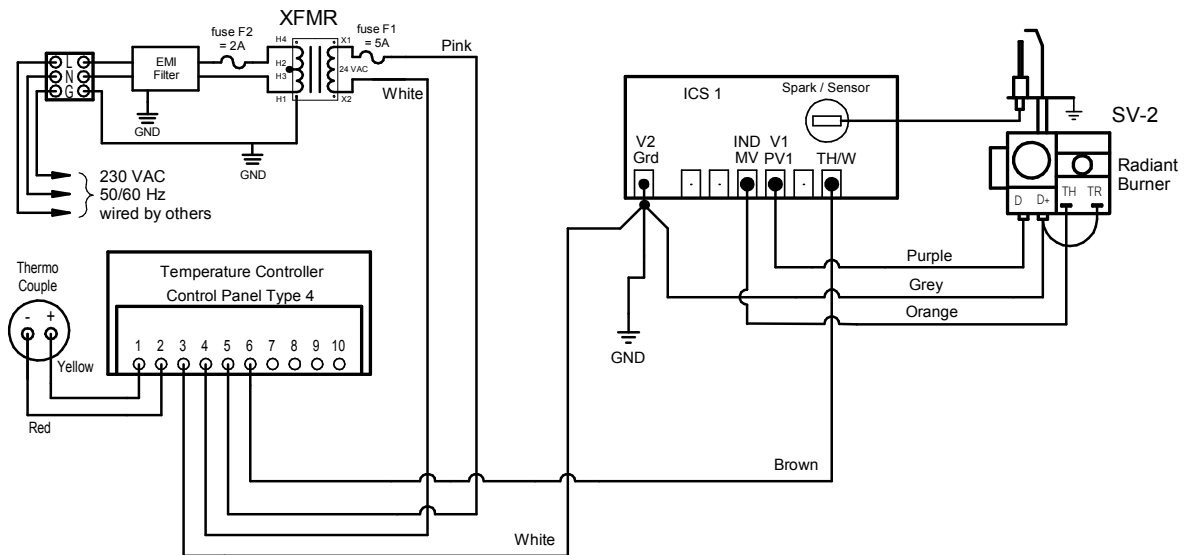
PROBLEM	CAUSE / SOLUTION
Controller will not turn on	<ol style="list-style-type: none"> 1. Incoming power to oven turned off. Check circuit breaker for circuit supplying the oven. Check that any wall switches external to the oven that control oven power are turned on. Check that any interlocks external to the oven are turned on. 2. Check for blown fuse on the back of the control box. If control still does not turn on, please contact your distributor 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. Burner is accessed from beneath the oven. Contact your distributor for assistance. 3. Pilot flame out of adjustment. Contact your distributor. 4. Damaged igniter, gas valve or ignition module. Contact your distributor for assistance. <p>If the oven is being started for the first time: Has all air been bled from the gas line?</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 your local distributor.

Please contact your local distributor should service be necessary, or if you have any questions about your oven.



WS-BL-3030, WS-BL-4343, WS-BL-4355 AND CS-REC-7 CE MODELS

Single RFG - CE



Bellingham, WA +1(360)650-1111 www.woodstone-corp.com

DIAG #: WD071 Rev. 2
DATE: 3/12/2018



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.

CONTACT YOUR LOCAL DISTRIBUTOR FOR WARRANTY SERVICE

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 and Operation Manual.
2. In the event the equipment is improperly or inadequately maintained. Proper maintenance is the responsibility of the user; proper maintenance procedures are prescribed in the Wood Stone Installation and Operation Manual. Burner problems resulting from debris or ash in the burner well will not be covered by the warranty. Call with questions regarding maintenance frequency.
3. In the event that the failure or malfunction of the appliance or any part thereof is caused by abnormal or improper 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 the ceramic firebox.
8. In wood-fired equipment configurations, in the event that pressed log products of any type have been burned in the equipment.
9. In coal-fired oven configurations, in the event any type of coal other than anthracite coal fuel has been used.
10. Damage resulting from the use of chemical cleaning products in the oven, as well as any damage from liquids or chemicals, including water, being poured or sprayed into the oven.

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, contact your local distributor.

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An ongoing program of product improvement may require us to change specifications without notice.