

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-7-RFG-CE

WoodStone

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

ORIGINAL INSTRUCTIONS

STONE HEARTH COOKING EQUIPMENT

WS-BL-3030-RFG-(NG, LP)

WS-BL-4343-RFG-(NG, LP)-(W)

WS-BL-4355-RFG-(NG, LP)-(W)

WS-CS-REC-7-RFG-(NG, LP)

CE MODELS

ADDITIONAL COPIES AVAILABLE UPON REQUEST



Shown: WS-BL-4343-RFG-CE

**WOOD STONE BISTRO LINE CE GAS-FIRED OVEN OPERATING INSTRUCTIONS****DO NOT THROW THIS MANUAL AWAY****RETAIN THIS MANUAL FOR FUTURE REFERENCE**

Additional copies of this manual at woodstone-corp.com.

For prompt responses to service/maintenance questions, call your distributor.

READ ALL INSTRUCTIONS BEFORE INSTALLING AND USING 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.

FOR YOUR SAFETY: Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

Always keep the area under and around this appliance free and clear of any and all combustible materials.

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.

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.

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

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



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.

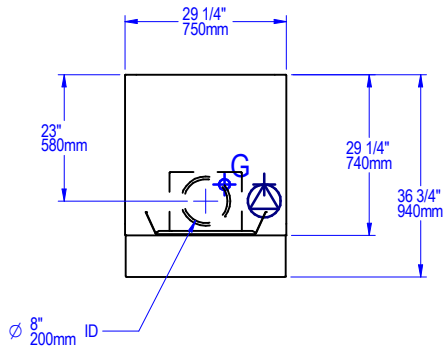
IF THIS OVEN IS NOT PROPERLY INSTALLED A FIRE MAY RESULT. TO REDUCE THE RISK OF FIRE, FOLLOW THESE INSTALLATION INSTRUCTIONS. A MAJOR CAUSE OF OVEN RELATED FIRES IS FAILURE TO MAINTAIN REQUIRED CLEARANCES (AIR SPACES) TO COMBUSTIBLE MATERIALS. IT IS OF UTMOST IMPORTANCE THAT THIS OVEN BE INSTALLED ONLY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

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

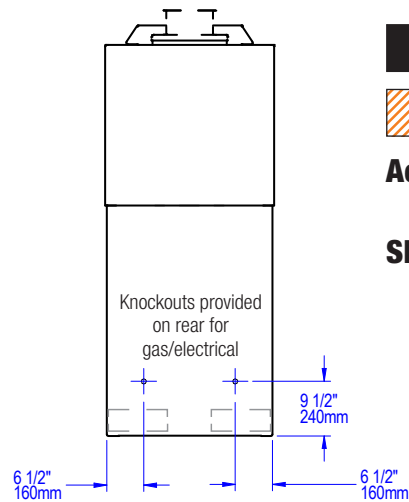




Plan view



Rear view

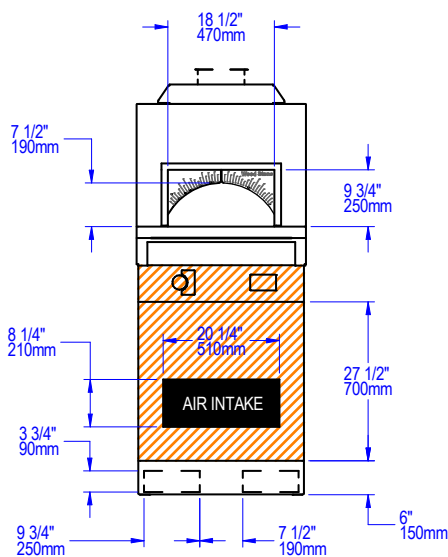


- Air intake: Do not facade or cover over
- Must be left removable for service

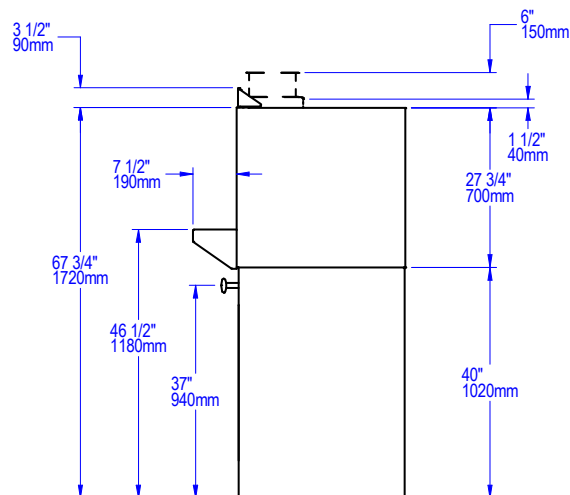
**Actual weight: 385 kg
850 lbs.**

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

Front view



Side view



UTILITIES SPECIFICATIONS

Gas

19mm (3/4") FBSPT female threaded gas inlet
See Gas Specifications on page 23 of this manual.

Maximum gas inlet pressure:
34 mbar
(1/2 psi or 14" W.C.)

Electrical

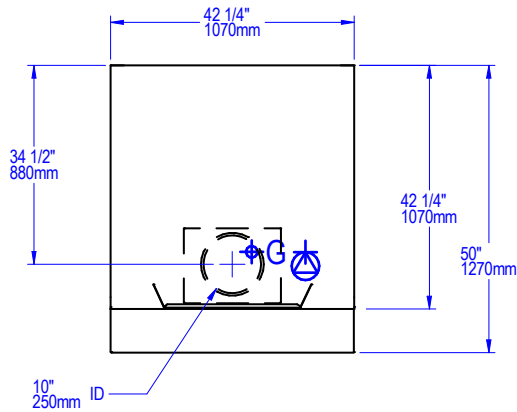
230 VAC, 2 A, 50 Hz
All utility connections made beneath oven as shown.
Refer to data plate when installing.

Venting

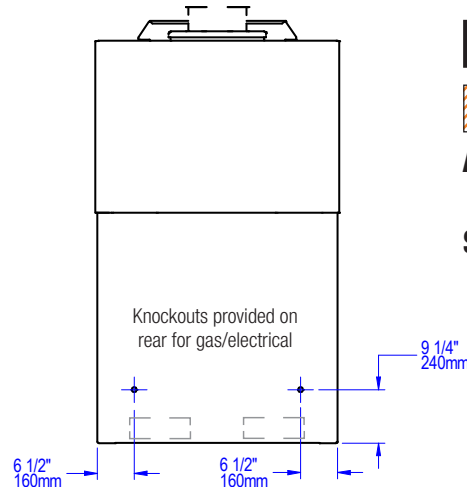
254mm (10") O.D. flue collar. The oven has been approved as a Type B11 appliance and may be direct connected to a power-ventilated, grease-rated chimney. It is also approved as a Type A appliance and may be vented with a Listed Type 1 Exhaust Hood. Remove round collar if venting with an exhaust hood. The oven must be vented in accordance with all relevant local and national codes, and in a manner acceptable to the authority having jurisdiction.





Plan view



Rear view

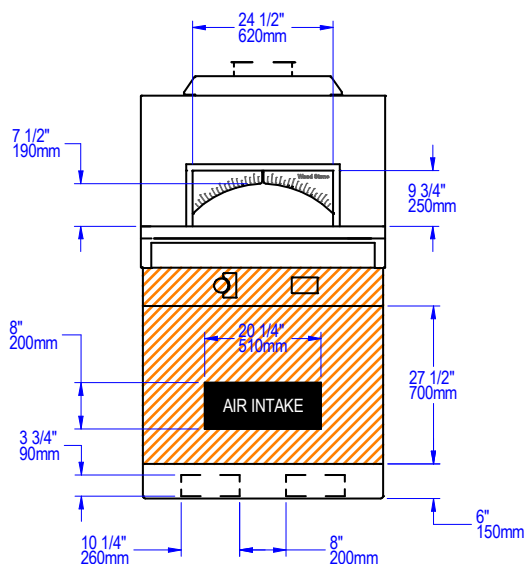


-  Air intake: Do not facade or cover over
-  Must be left removable for service

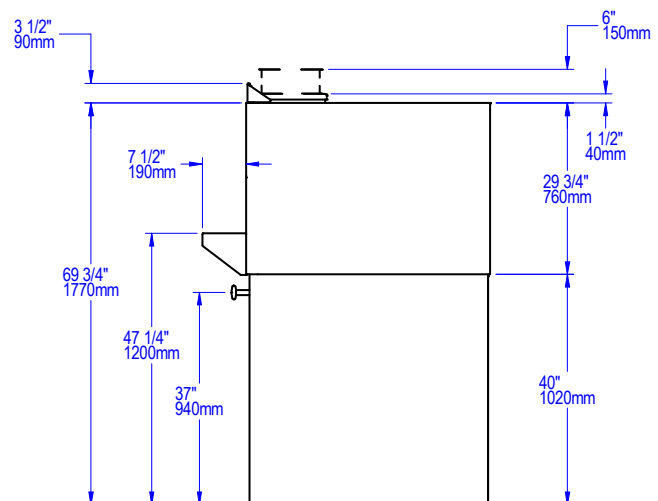
**Actual weight: 748 kg
1650 lbs.**

**Ship weight: 953 kg
2100 lbs.**

Front view



Side view



UTILITIES SPECIFICATIONS

Gas

19mm (3/4") FBSPT female threaded gas inlet
See Gas Specifications on page 24 of this manual.

Maximum gas inlet pressure:
34 mbar
(1/2 psi or 14" W.C.)

Electrical

230 VAC, 2 A, 50 Hz
All utility connections made beneath oven as shown.
Refer to data plate when installing.

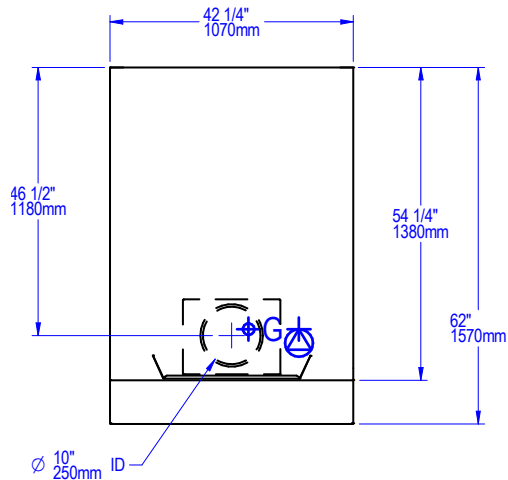
Venting

254mm (10") O.D. flue collar. The oven has been approved as a Type B11 appliance and may be direct connected to a power-ventilated, grease-rated chimney. It is also approved as a Type A appliance and may be vented with a Listed Type 1 Exhaust Hood. Remove round collar if venting with an exhaust hood. The oven must be vented in accordance with all relevant local and national codes, and in a manner acceptable to the authority having jurisdiction.

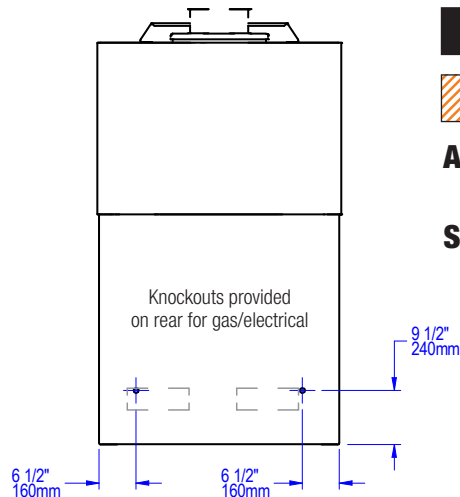
Important: "-W" models must be vented as solid-fuel oven.



Plan view



Rear view

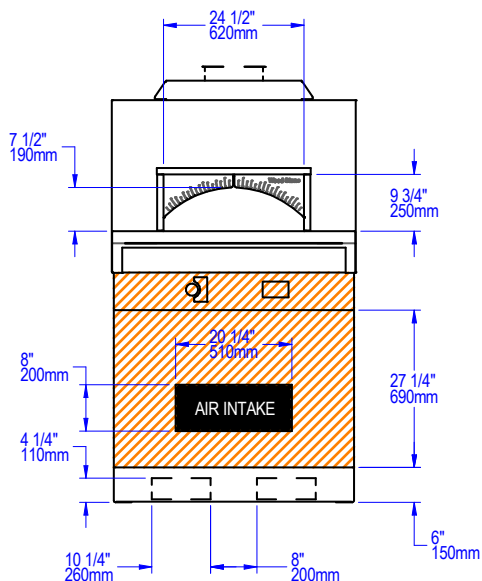


- Air intake: Do not facade or cover over
- Must be left removable for service

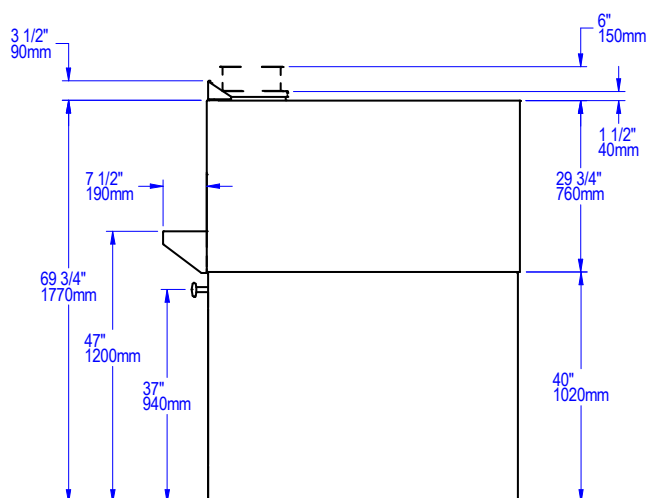
**Actual weight: 998 kg
2200 lbs.**

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

Front view



Side view



UTILITIES SPECIFICATIONS

Gas

19mm (3/4") FBSPT female threaded gas inlet
See Gas Specifications on page 24 of this manual.

Maximum gas inlet pressure:
34 mbar
(1/2 psi or 14" W.C.)

Electrical

230 VAC, 2 A, 50 Hz
All utility connections made beneath oven as shown.
Refer to data plate when installing.

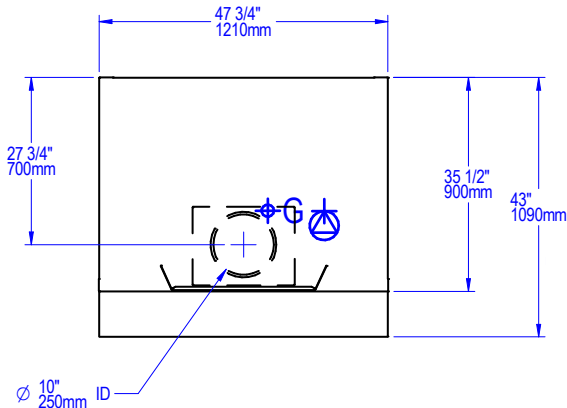
Venting

254mm (10") O.D. flue collar. The oven has been approved as a Type B11 appliance and may be direct connected to a power-ventilated, grease-rated chimney. It is also approved as a Type A appliance and may be vented with a Listed Type 1 Exhaust Hood. Remove round collar if venting with an exhaust hood. The oven must be vented in accordance with all relevant local and national codes, and in a manner acceptable to the authority having jurisdiction.

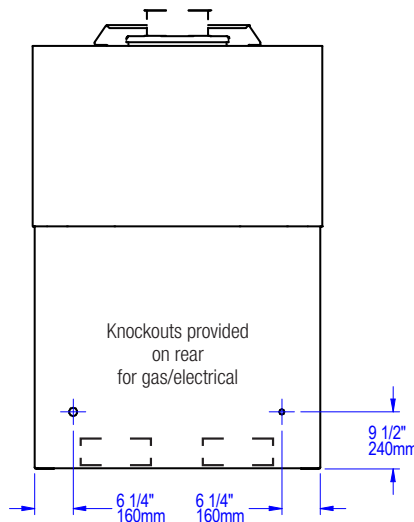
Important: "-W" models must be vented as solid-fuel oven.



Plan view



Rear view

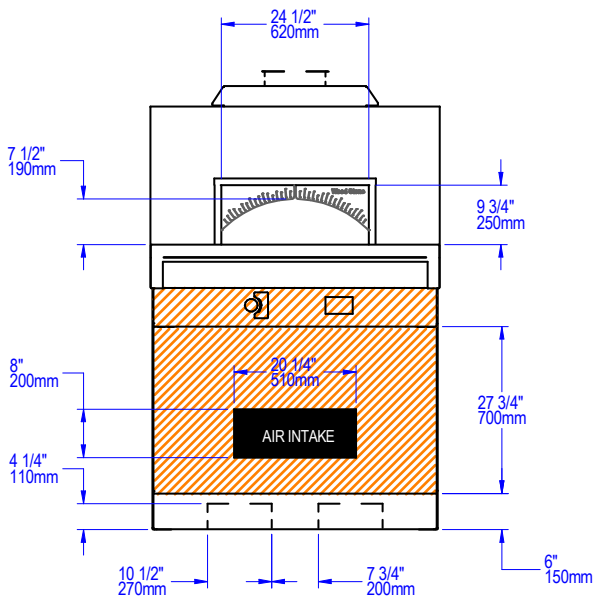


- Air intake: Do not facade or cover over
- Must be left removable for service

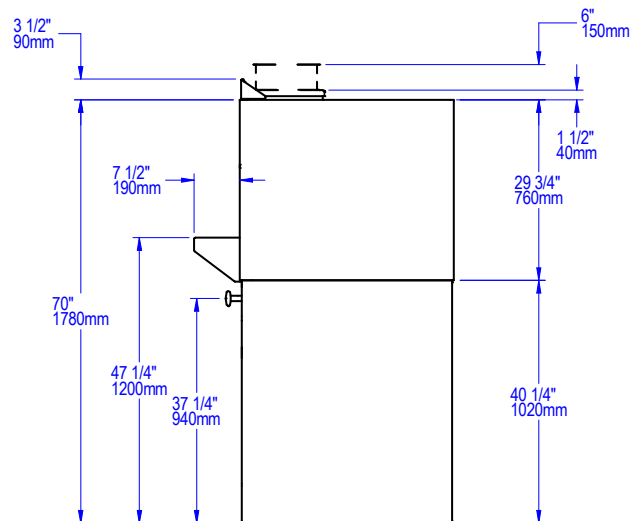
**Actual weight: 750 kg
1650 lbs.**

**Ship weight: 816 kg
1800 lbs.**

Front view



Side view



UTILITIES SPECIFICATIONS

Gas

19mm (3/4") FBSPT female threaded gas inlet
See Gas Specifications on page 24 of this manual.

Maximum gas inlet pressure:
34 mbar
(1/2 psi or 14" W.C.)

Electrical

230 VAC, 2 A, 50 Hz
All utility connections made beneath oven as shown.
Refer to data plate when installing.

Venting

254mm (10") O.D. flue collar. The oven has been approved as a Type B11 appliance and may be direct connected to a power-ventilated, grease-rated chimney. It is also approved as a Type A appliance and may be vented with a Listed Type 1 Exhaust Hood. Remove round collar if venting with an exhaust hood. The oven must be vented in accordance with all relevant local and national codes, and in a manner acceptable to the authority having jurisdiction.



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.

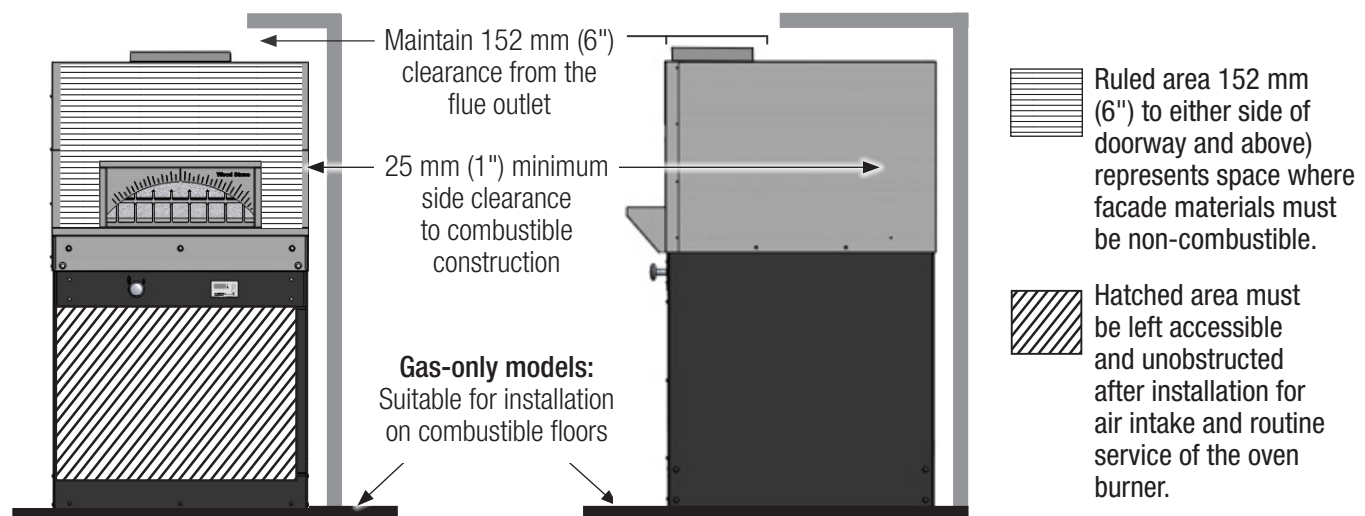


WARNING: Installation and servicing of this product could expose you to glasswool/ceramic fibers as well as calcium silicate dust. ALWAYS WEAR RESPIRATORY AND EYE PROTECTION WHEN INSTALLING OR SERVICING THIS APPLIANCE. Please read this entire manual before you install the oven. Failure to follow instructions 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

1. The Wood Stone Bistro ovens must have a minimum 25 mm (1") clearance to combustibles from all sides, and 152 mm (6") clearance to combustibles from the top. If building materials will contact the oven, they must be completely non-combustible. Please note that standard Drywall (or Sheetrock) is considered a combustible. When non-combustible building materials contact the body of the oven, the respective clearances are transferred to those non-combustibles.
2. Any facade 152 mm (6") to either side of the oven doorway or above, must be constructed of non-combustible building materials.
3. **For gas-only models**, this oven is suitable for installation on combustible floors.
For gas/wood combination models, this oven is suitable for installation on combustible floors. The minimum hearth extension area to be covered with a non-combustible floor surface must extend 914 mm (36") in front of and 762 mm (30") to either side of the oven door opening.

NOTICE: For stucco-ready appliances (model numbers including an "-S"), the same clearances as described above apply. Non-combustible stucco mix must be used and applied to a minimum thickness of 25mm (1").



Gas/wood combination models: This oven is suitable for installation on combustible floors. The minimum hearth extension area to be covered with a non-combustible floor surface must extend 914 mm (36") in front of and 762 mm (30") to either side of the oven door opening.

* For direct connect installations, refer to duct manufacturer's instructions and applicable local codes for duct installation clearances.



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 venting option:

This Wood Stone Bistro oven 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 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.

Model numbers containing a “-W” (other than the first letter of the model number) should be vented in accordance with codes concerning solid fuel appliances. Due to the dangers of creosote buildup and sparks entering the duct, these models should be vented separately from all other kitchen equipment or in such a manner acceptable to the authority having jurisdiction.

Solid fuel exhaust contains creosote and other substances that accumulate in ducting, creating a risk of fire. The rate of accumulation will vary with respect to flue gas temperature, wood type and moisture content. Frequent, regularly scheduled, thorough flue cleaning is the best way to minimize the risk of flue fires. **Wood Stone recommends cleaning and inspection at least monthly on any ventilation system serving solid fuel equipment.**

**WOOD STONE RECOMMENDS THAT THE OPERATOR REFER TO THE EXHAUST HOOD
MANUFACTURERS FOR INSPECTION, MAINTENANCE AND CLEANING.**

DUCT PRESSURE

- 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.)

m³/sec REQUIREMENTS (DIRECT CONNECT)

All Models	.19 m ³ /sec (400 cfm)
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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.

FAN TEMPERATURE RATING

The fan must 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 gas-fired ovens utilizing solid fuel, the fan must be rated for a **minimum of 232 °C (450 °F)** continuous.

INTERLOCK SYSTEM

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



BISTRO LINE OVENS: FLUE ADAPTER INSTALLATION

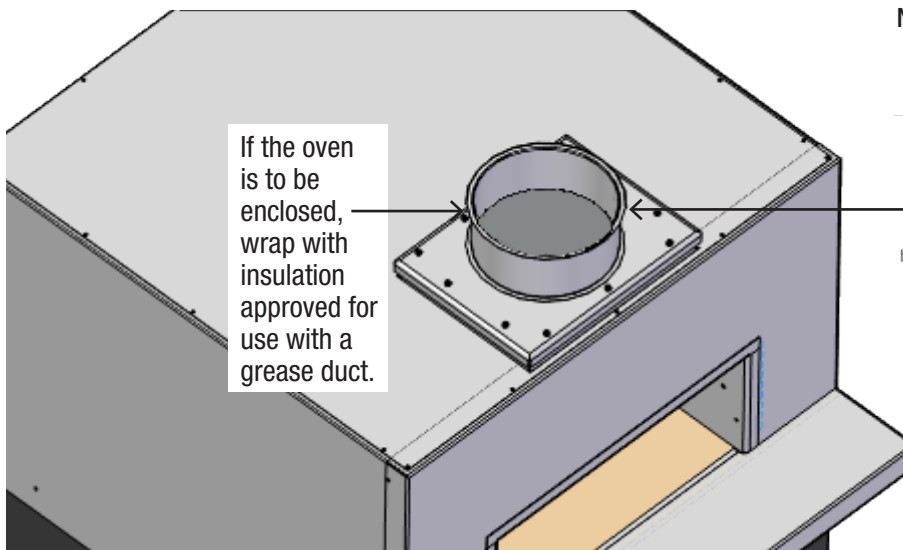
The flue adapter unit is designed to facilitate connection to a round duct. Use the provided stainless steel screws and sealant provided to attach the flue adapter (10" I.D.) to the exhaust outlet on the oven.

Note: If using a Selkirk or other modular-type duct, attach according to the manufacturer's instructions. Otherwise, the duct must be attached with a full perimeter weld. Grease-rated duct is required throughout the system. If the oven is going to be enclosed, the flue adapter and exhaust outlet must be wrapped with an insulating material approved for use with a grease-duct.

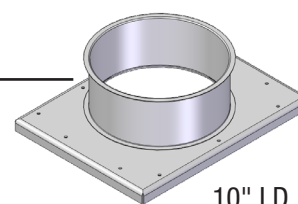
The flue adapter is for direct connection to a duct system ONLY.

DO NOT install if oven is installed under an exhaust hood.

FLUE ADAPTER ATTACHED TO OVEN FLUE COLLAR



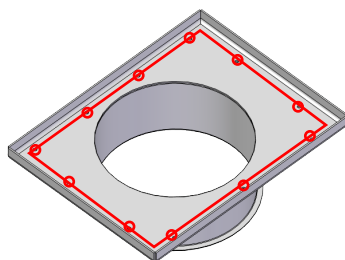
Note: Vent Shield not shown for clarity



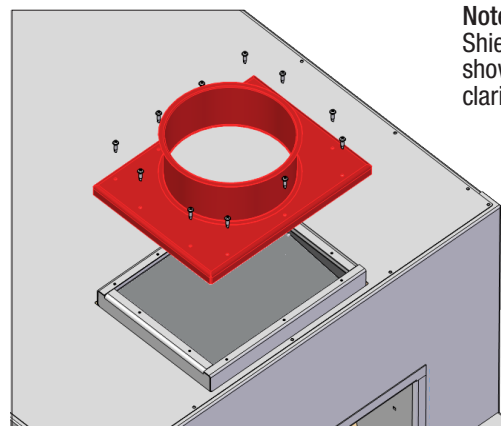
10" I.D.
Flue adapter

FLUE ADAPTER INSTALLATION (If not already installed)

- ☐ Apply the supplied Engineered Grade Ceramic Sealing Compound to the underside of the Flue Adapter with an unbroken bead around the perimeter, and around each individual screw hole.
- ☐ Then fasten with the supplied screws.



Underside of Flue Adapter showing where Ceramic Sealing Compound should be applied



Note: Vent Shield not shown for clarity



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.

USING A FORKLIFT | PALLET JACK

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.** 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.

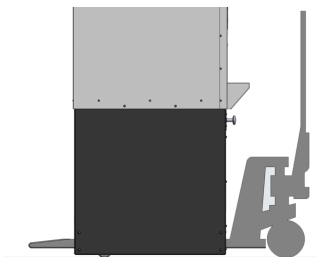
The oven should only be moved using a Pallet Jack on a smooth, LEVEL FLOOR.

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 for floor loading information.

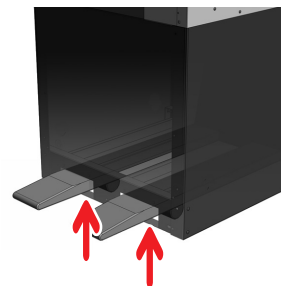
MOVING THE OVEN



The oven should only be moved using a Pallet Jack on a smooth, 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

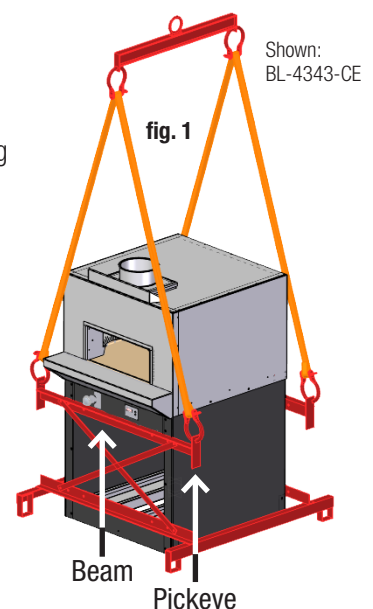
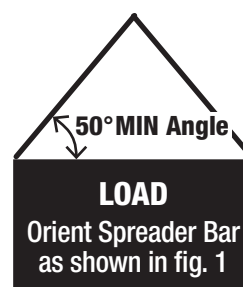
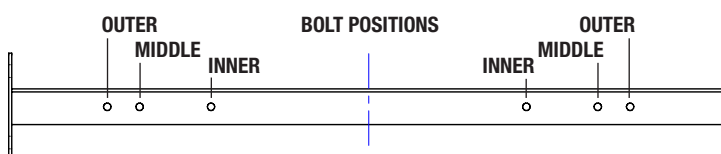
The oven arrives with Pickeys attached. When craning a Wood Stone oven, use a Spreader Bar with a two-legged sling rigged on each end. The spreader bar should be of a sufficient length to keep the sling from contacting the oven, and oriented as shown in fig. 1.

PICKEYE CAPACITIES PER BEAM

1,300 lbs: Inner holes (BL-3030-CE)

2,000 lbs: Middle holes (BL-4343-CE, BL-4355-CE)

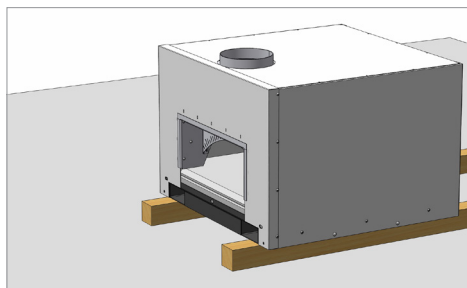
2,700 lbs: Outer holes (CE-REC-7-CE)



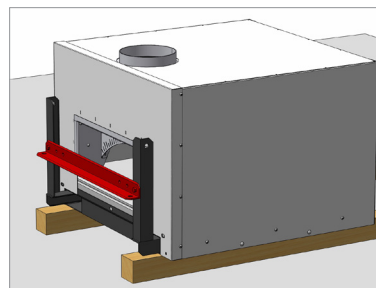


MOVING A DISASSEMBLED BISTRO OVEN THROUGH A NARROW DOOR OR PASSAGEWAY USING THE OPTIONAL LIFTING SYSTEM

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-7 will be approximately 32 inches wide. This will allow for easier access through small passages. Note: The 3030 is 30" wide without tilting.

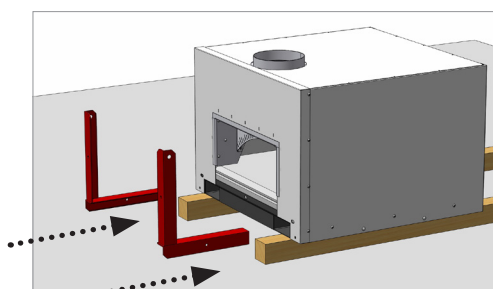


1. Use a forklift or other suitable lifting means to set the oven body onto 4x4" blocks oriented as shown. Refer to DISASSEMBLY section of manual for disassembly instructions.

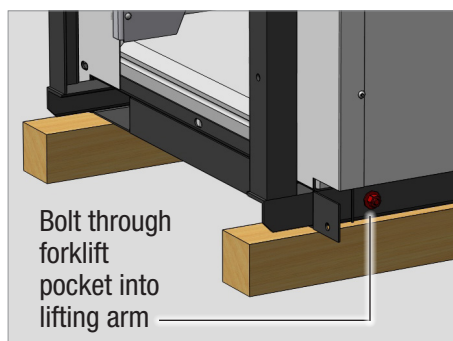
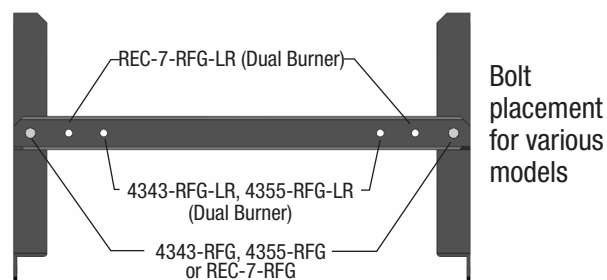


4. Attach the Crosspiece using the hardware provided. See drawing below for placement of bolts on various models.

Tighten all Pickeye and Crosspiece bolts.

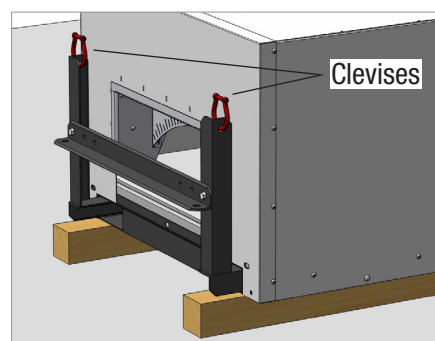


2. Insert the left & right Pickeye Inserts of the Lifting System into the forklift pockets from the oven front.

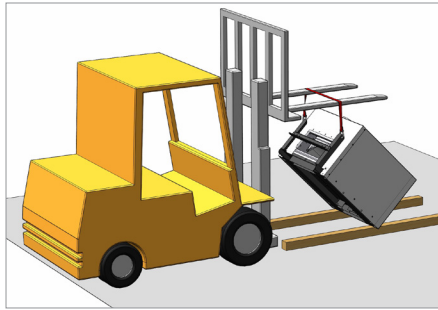


Oven cut-away view showing right Pickeye Insert of Lifting System in forklift pocket

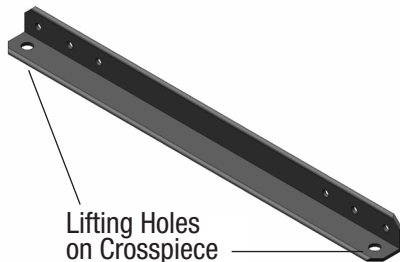
3. Loosely bolt each Pickeye Insert to the forklift pocket as shown in the cut-away view to above.



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



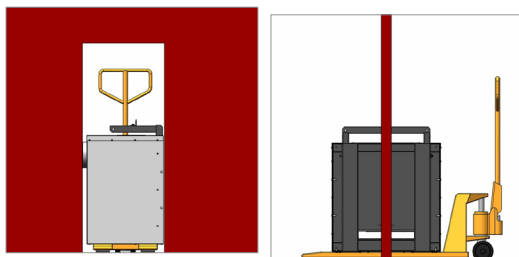
6. Attach strap to the clevises at the top of each Pickeye Insert. Using an appropriate hoist or lift, tilt the oven on its back, onto 4x4" blocks.



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

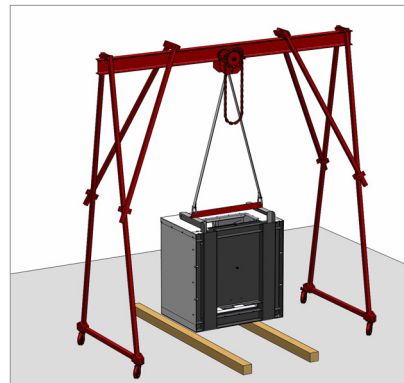


8. Lift the oven straight up and position pallet jack under the oven.
Lower the oven, on its back, onto the pallet jack.



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

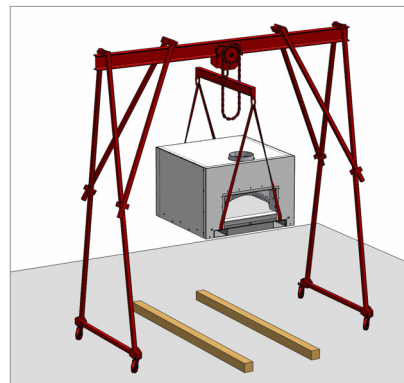
DANGER: Never attempt to move the oven in this manner on any type of incline or sloped floor.



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.



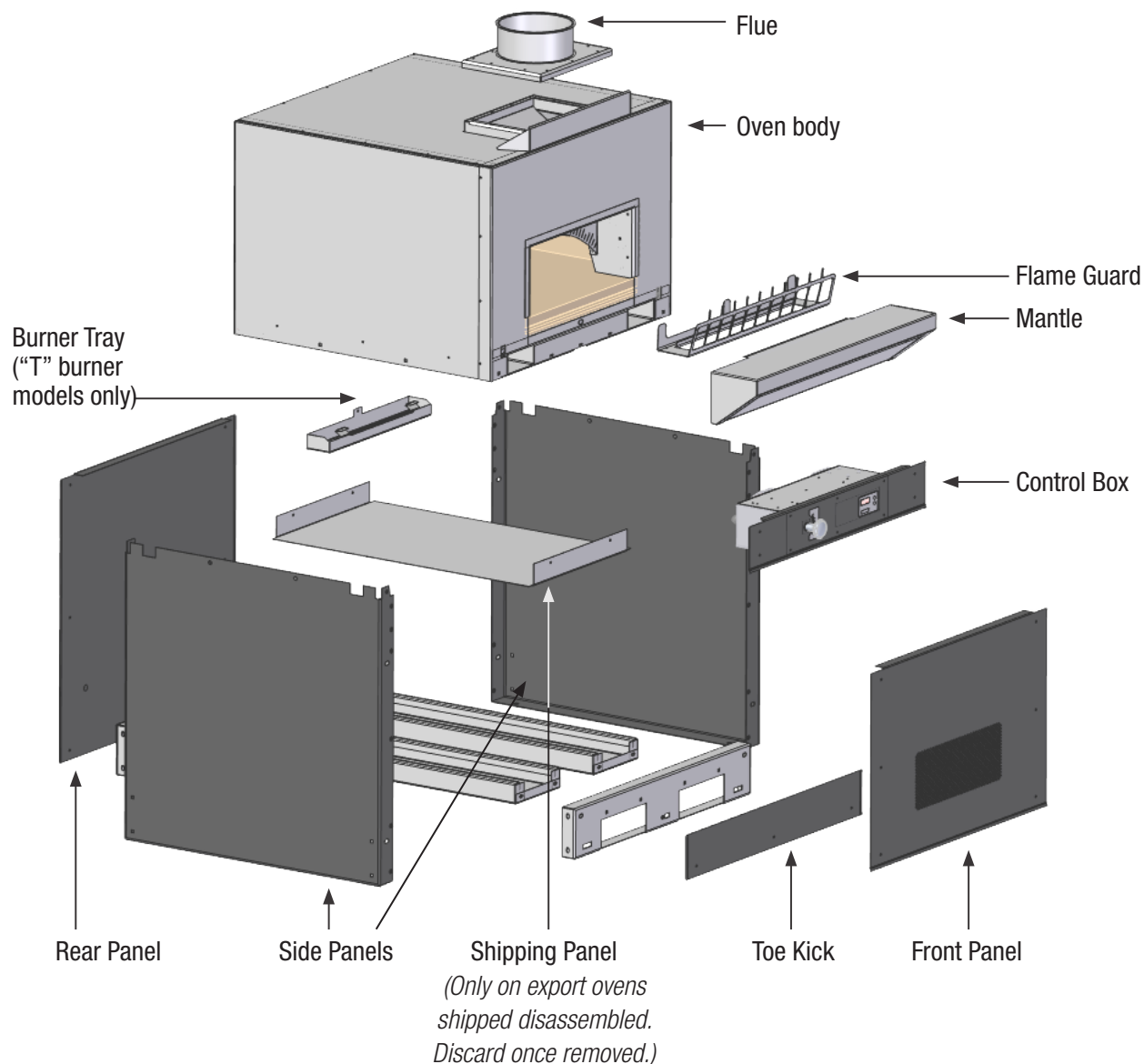
11. Move strap to the clevises at the top of the Pickeye Inserts and tilt the oven down onto the 4x4" blocks positioned as shown.
Remove the Lifting System from the oven.



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.



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



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

NOTE: REAR PANEL MUST BE INSTALLED FOR THE OVEN TO FUNCTION PROPERLY.

Service issues resulting from failure to install the Rear Panel will not be covered by the oven warranty.



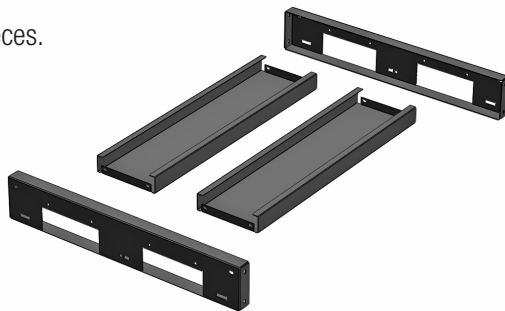
Follow these instructions only if the oven was shipped disassembled, or disassembled to move through a narrow door or passageway.

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.**

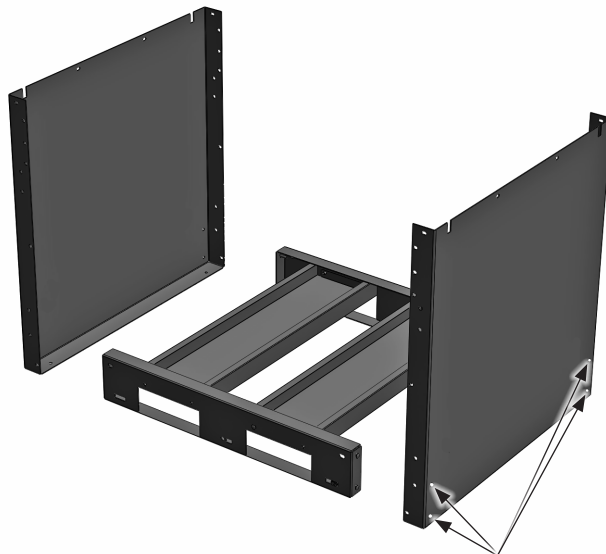
The floor design and construction must be adequate to handle the weight of the oven.

Please see woodstone-corp.com 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.



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.

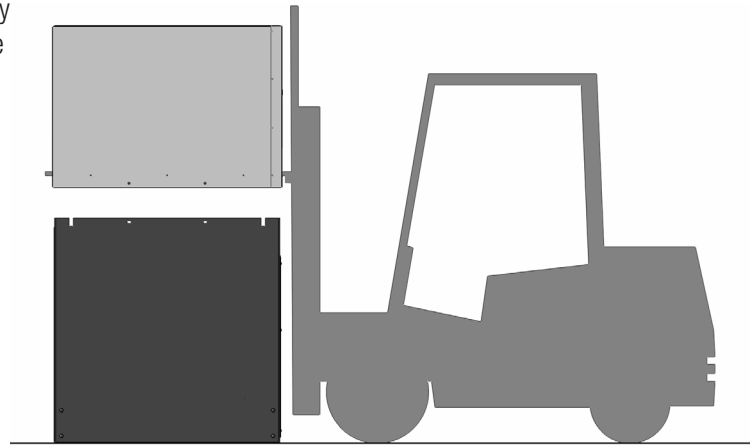
Carriage bolts

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

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

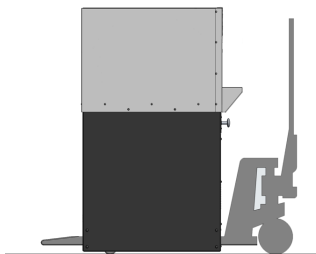


3. Using a forklift or other suitable lifting device, carefully lower the body of the oven on to the stand so that the bolt holes line up. While supporting the oven with the lift, install the 10 mm x 25 mm (3/8" x 1") carriage bolts. Use the washers provided and tighten all nuts securely. Be sure to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

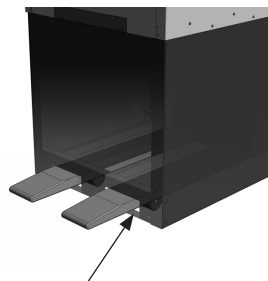


4. After the oven body is bolted to the stand, the oven can be moved into place with a pallet jack using the LOWER forklift pockets. If the oven is to be installed against a wall, leave access to the back of the oven until the assembly is completed.

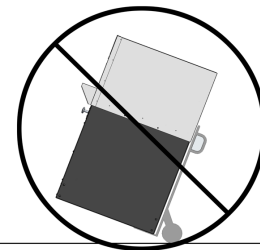
CAUTION: The 3030 model Bistro weighs approximately 445 kg, the 4343 approximately 953 kg, the 4355 approximately 1134 kg and the REC-7 approximately 816 kg. All models are very top-heavy. **If the oven tips, it can cause severe injury or death!** The oven should only be moved in this manner (pallet jack) on a SMOOTH, FLAT, 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 smooth, flat level floor. If the oven must be moved over an inclined surface, a forklift or other suitable means should be employed.



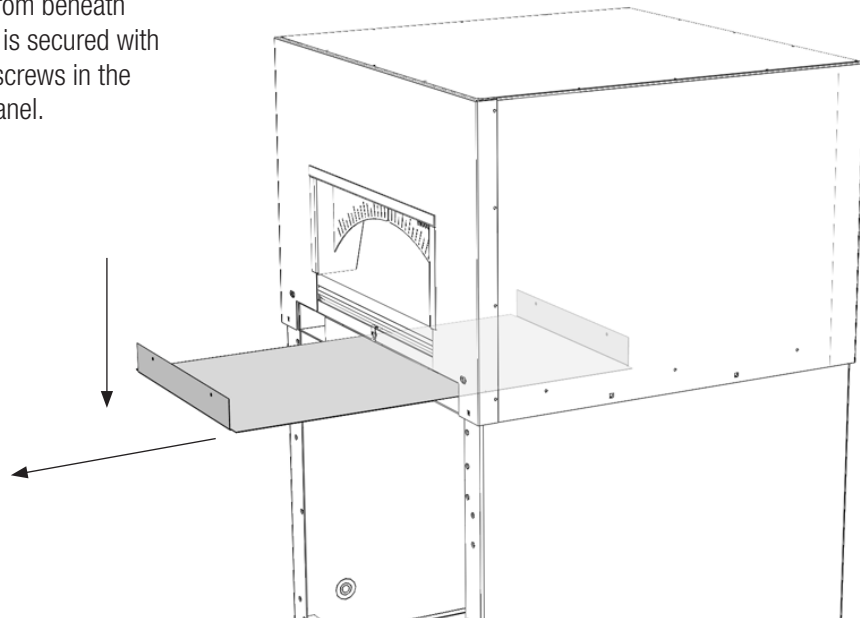
Make sure the pallet jack wheels do not contact the underside of the fork pocket when lifting to avoid damaging the stand.



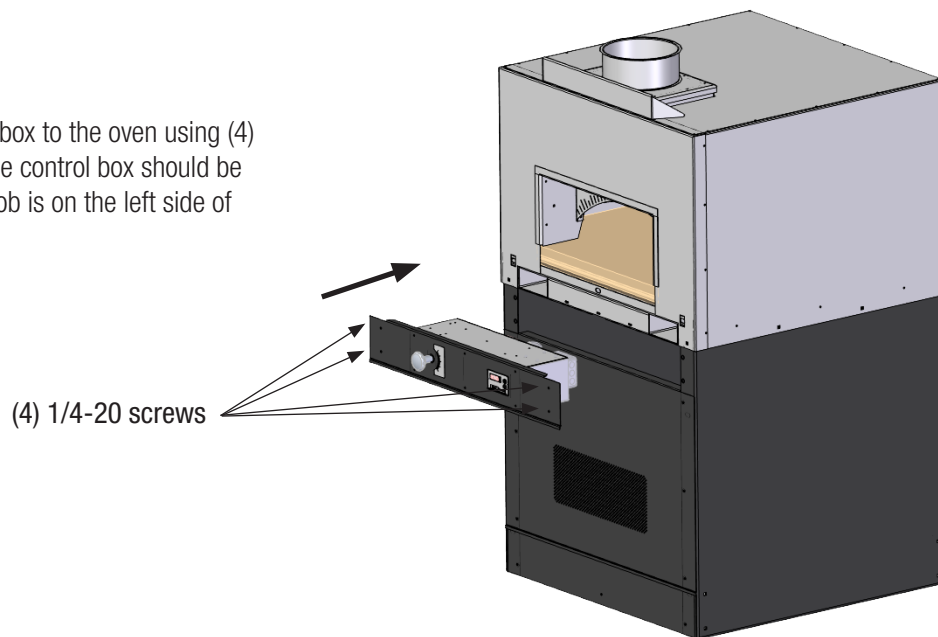
Never attempt to use a hand truck to move the oven.



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.

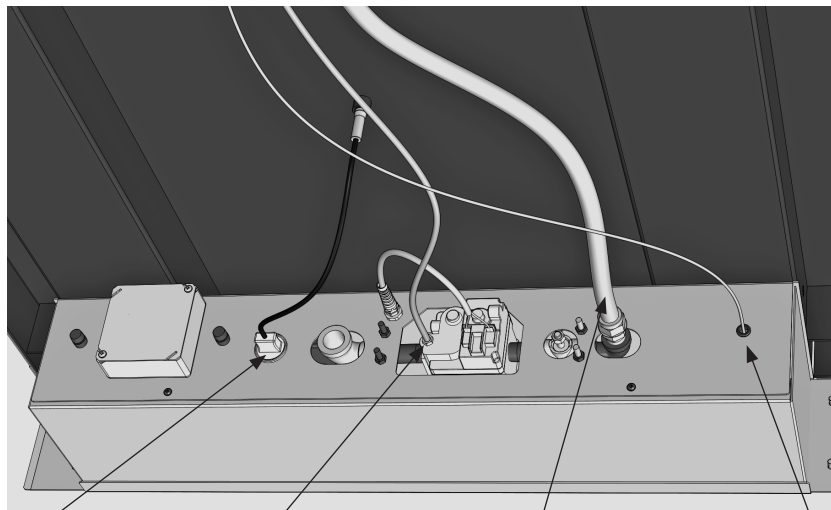


6. Attach the control box to the oven using (4) 1/4-20 screws. The control box should be oriented so the knob is on the left side of the control box.





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



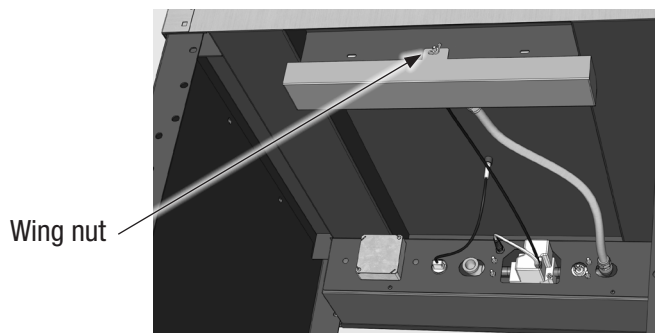
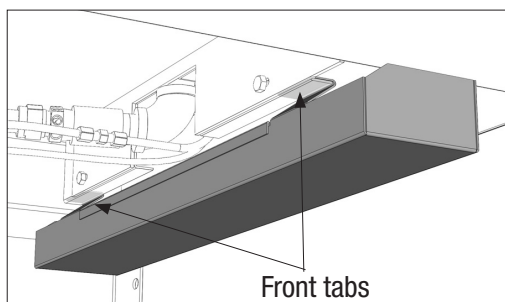
Plug in thermocouple wire here.

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.

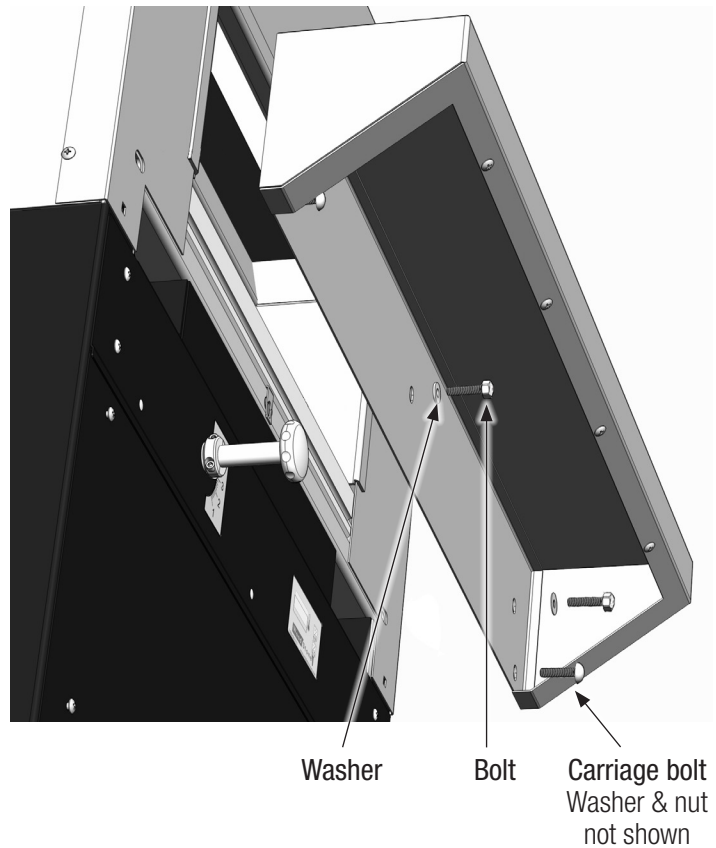
8. Install the burner tray. Slip front tabs of the burner tray over the lip of the burner while the rear tab of the burner tray slips over the threaded stud at the back of the burner. Install the wing nut onto the stud and tighten to secure the burner tray in place.



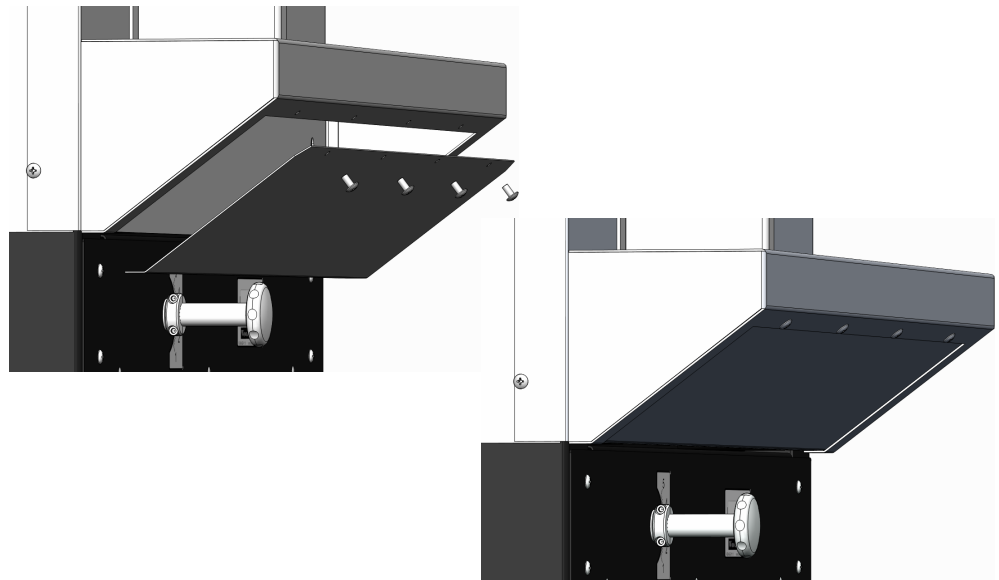


8. Install the mantle. Fasten using 3 bolts and 2 carriage bolts (see illustration).

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.



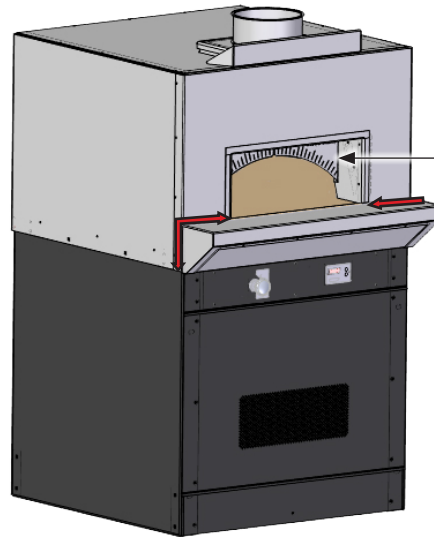
10. Place the mantle faceplate cover over the open area under the top of the mantle. Install the cover plate using the screws provided (3 for BL-3030_CE and 4 for BL-4343-CE or BL-4355-CE).





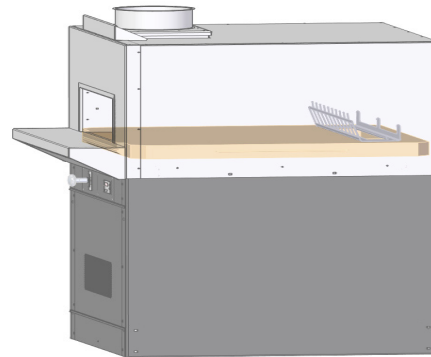
If the oven has been supplied with a granite mantle, affix the granite slab to the mounting bracket using the silicone adhesive provided.

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).



Oven Arches
DO NOT REMOVE
Removal will affect structural integrity, heat retention, operation and **void the Warranty**.

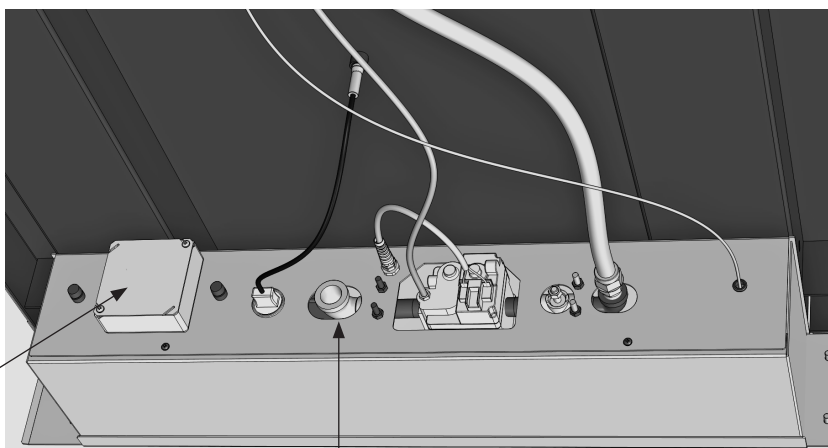
12. Install the burner guard, and optional log set, if supplied. The lower tab of the guard fits into the front of the burner opening. The log set pieces fit onto the studs on the burner guard, behind the opening in the guard, so the logs sit at the rear of the burner opening.



13. Knockouts are provided on rear of the oven stand for the incoming gas and electrical supplies. If necessary, holes may be drilled in either side panel for the incoming gas and electrical supplies. 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. A 19mm (3/4") 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. The rear panel must be installed in order for the oven to work properly.



- 14.** 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.



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.

19mm (3/4 inch) FBSPT Gas Inlet

Provide gas service through a 19mm (3/4 inch) 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.

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.

GAS

The Wood Stone Bistro is equipped with a 19mm (3/4") FBSPT gas connection (female threaded). 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 shut-off valve and that this individual shut-off valve (supplied by others) be left easily accessible. The shut-off valve must have an inside diameter of no less than 19mm (3/4").

ELECTRICAL

The oven is rated at 230 VAC, 2 A, 50 Hz. 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 Grounding: This appliance must be electrically grounded (earthed).

Provide Disconnect Device: This appliance must be provided with an all-pole type disconnect device in the incoming power supply so that the appliance can be completely isolated from the power supply.

- 15.** 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.

NOTE: REAR PANEL MUST BE INSTALLED FOR THE OVEN TO FUNCTION PROPERLY.

Service issues resulting from failure to install the Rear Panel will not be covered by the oven warranty.



NATURAL GAS (NG)

Gas Supply and Pressure

WS-BL-3030-RFG-CE-NG MODELS

EN 437 Gas Group	I _{2H}	I _{2L}	I _{2HS}	I _{2ELL}	I _{2EK}
Declared Input (kW)	16.1	16.1	16.1	16.1	13
Inlet Pressure (mbar)	20	25	25	20	20/25
Declared Pressure at Gas Valve Outlet (mbar)	11.2	11.2	11.2	11.2	11.2

SCOPE OF APPROVALS

G20/G25.3 @ 20/25 mbar - I_{2EK(20)} - NL

G20 @ 20 mbar - I_{2H(20)} - AT, CH, CZ, DK, EE, ES, FI, GB, GR, HR, HU, IE, IT, LT, LV, NO, PT, RO, SE, SI, SK and TR

G20 @ 20 mbar - I_{2HS(20)} - HU

G20 @ 20 mbar - I_{2ELL} - DE

G20/25 @ 20/25 mbar - I_{2E+} - BE and FR

Natural Gas (NG): Maximum inlet gas pressure must not exceed 34 mbar (14" W.C. or 1/2 psi)

PROPANE (LP)

Gas Supply and Pressure

WS-BL-3030-RFG-CE-LP MODELS

EN 437 Gas Group	I ₃₊	I _{3B/P}	I _{3B/P}	I _{3P}
Declared Input (kW)	13.6	13.6	13.6	12.3
Inlet Pressure (mbar)	28-30/37/50*	30/37*	50*	30/37/50*
Declared Pressure at Gas Valve Outlet (mbar)	17.4	17.4	17.4	17.4

SCOPE OF APPROVALS

G31 @ 37 mbar* - I_{3P(37)} - BE, CH, CZ, ES, FR, GB, GR, HR, IE, IT, LT, NL, PL, PT, SI, SK, TR

G31 @ 50 mbar* - I_{3P(50)} - AT, BE, CH, CZ, DE, ES, FR, GB, NL, SK

G30 @ 28-30 mbar, 37 mbar* - I_{3+(28-30/37)} - BE, CH, CY, CZ, ES, FR, GB, GR, IE, IT, LT, PT, SI, SK, TR

G30 @ 30 mbar - I_{3B/P(30)} - AT, BE, CY, CZ, DE, DK, EE, FR, GB, HR, HU, IT, LT, NL, NO, PL, RO, SE, SI, SK

G30 @ 50 mbar* - I_{3B/P(50)} - AT, CH, CY, CZ, DE, FR, SK

*** Propane (LP): Maximum inlet gas pressure to the oven, after the external regulator (if used), must not exceed 34 mbar (14" W.C. or 1/2 psi).**



NATURAL GAS (NG)

Gas Supply and Pressure

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

EN 437 Gas Group	I _{2H}	I _{2L}	I _{2HS}	I _{2ELL}	I _{2EK}
Declared Input (kW)	23.3	23.3	23.3	23.3	20.5
Inlet Pressure (mbar)	20	25	25	20	20/25
Declared Pressure at Gas Valve Outlet (mbar)	11.2	11.2	11.2	11.2	11.2

SCOPE OF APPROVALS

G20/G25.3 @ 20/25 mbar - I_{2EK(20)} - NL

G20 @ 20 mbar - I_{2H(20)} - AT, CH, CZ, DK, EE, ES, FI, GB, GR, HR, HU, IE, IT, LT, LV, NO, PT, RO, SE, SI, SK and TR

G20 @ 20 mbar - I_{2HS(20)} - HU

G20 @ 20 mbar - I_{2ELL} - DE

G20/25 @ 20/25 mbar - I_{2E+} - BE and FR

Natural Gas (NG): Maximum inlet gas pressure must not exceed 34 mbar (14" W.C. or 1/2 psi)

PROPANE (LP)

Gas Supply and Pressure

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

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

SCOPE OF APPROVALS

G31 @ 37 mbar* - I_{3P(37)} - CH, ES, GB, GR, HR, IE, LU, NL, PL, SI and SK

G31 @ 50 mbar* - I_{3P(50)} - CH and CZ

G30 @ 28-30 mbar, 37 mbar, 50 mbar* - I_{3+(28-30/37/50)} - BE, CH, CY, CZ, ES, FR, GB, GR, IE, IT, LT, PT, SI, SK and TR

G30 @ 30 mbar - I_{3B/P(30)} - BE, BG, CY, CZ, DK, EE, FI, FR, GB, GR, HR, HU, IT, LT, LU, NL, NO, RO, SE, SI, SK and TR

G30 @ 37 mbar* - I_{3B/P(37)} - BE

G30 @ 50 mbar* - I_{3B/P(50)} - AT, CH, DE and SK

*** Propane (LP): Maximum inlet gas pressure to the oven, after the external regulator (if used), must not exceed 34 mbar (14" W.C. or 1/2 psi).**



GAS CONNECTION

SV-2 is the gas control valve that operates the interior Radiant Burner. The burner manifold pressures have been adjusted and tested at the factory. A variety of factors can influence these pressures, so be sure to test the individual burner manifold pressures and adjust the valves as necessary to achieve the required pressures.

Bistro Line ovens are equipped with a 19mm (3/4") FBSPT gas connection (female thread). Have a licensed gas installer provide the hook-up and test all fittings and pipe connections for leaks. Use approved gas leak detectors (soap solutions or equivalent) over and around the fittings and pipe connections to check for leaks. **DO NOT USE FLAME TO TEST FOR LEAKS!**

All gas piping up to the oven must have a minimum inside diameter of 19mm (3/4"), including all fittings and shut-off valves, which should be of the full flow type.

Wood Stone recommends that the Bistro be equipped with a manual, individual shut-off valve, located between the oven and the main gas supply, and that this shut-off valve (supplied by others) be left readily accessible. Wood Stone also recommends that inspection and maintenance of the burners and gas piping connections of this appliance be performed at regularly scheduled intervals and only by professional gas appliance service agencies.

Natural Gas (NG): Maximum inlet gas pressure must not exceed 34 mbar (14" W.C. or 1/2 psi)

Propane (LP): Maximum inlet gas pressure to the oven, after the external regulator (if used), must not exceed 34 mbar (14" W.C. or 1/2 psi)

GAS INLET PRESSURE

For ovens running on natural gas, an inlet pressure of 17.5–25 mbar (7 to 10" W.C.) is recommended to ensure optimum oven performance. Incoming gas pressure below this range will affect oven performance, the lower the pressure the greater the negative impact. If the gas supply pressure is greater than 34 mbar (14" W.C. or 1/2 psi), an external regulator, supplied by others, is REQUIRED to lower the gas pressure to the acceptable range. Issues caused by low or high gas pressure are installation issues, and will not be covered under the Warranty.

For ovens running on LP, the recommended inlet pressure to ensure optimum oven performance is 25–30 mbar (10 to 12" W.C.) Incoming gas pressure below this range will affect oven performance, the lower the pressure the greater the negative impact. If the gas supply pressure is greater than 34 mbar (14" W.C. or 1/2 psi), an external regulator, supplied by others, is REQUIRED to lower the gas pressure to the acceptable range. Issues caused by low or high gas pressure are installation issues, and will not be covered under the Warranty.

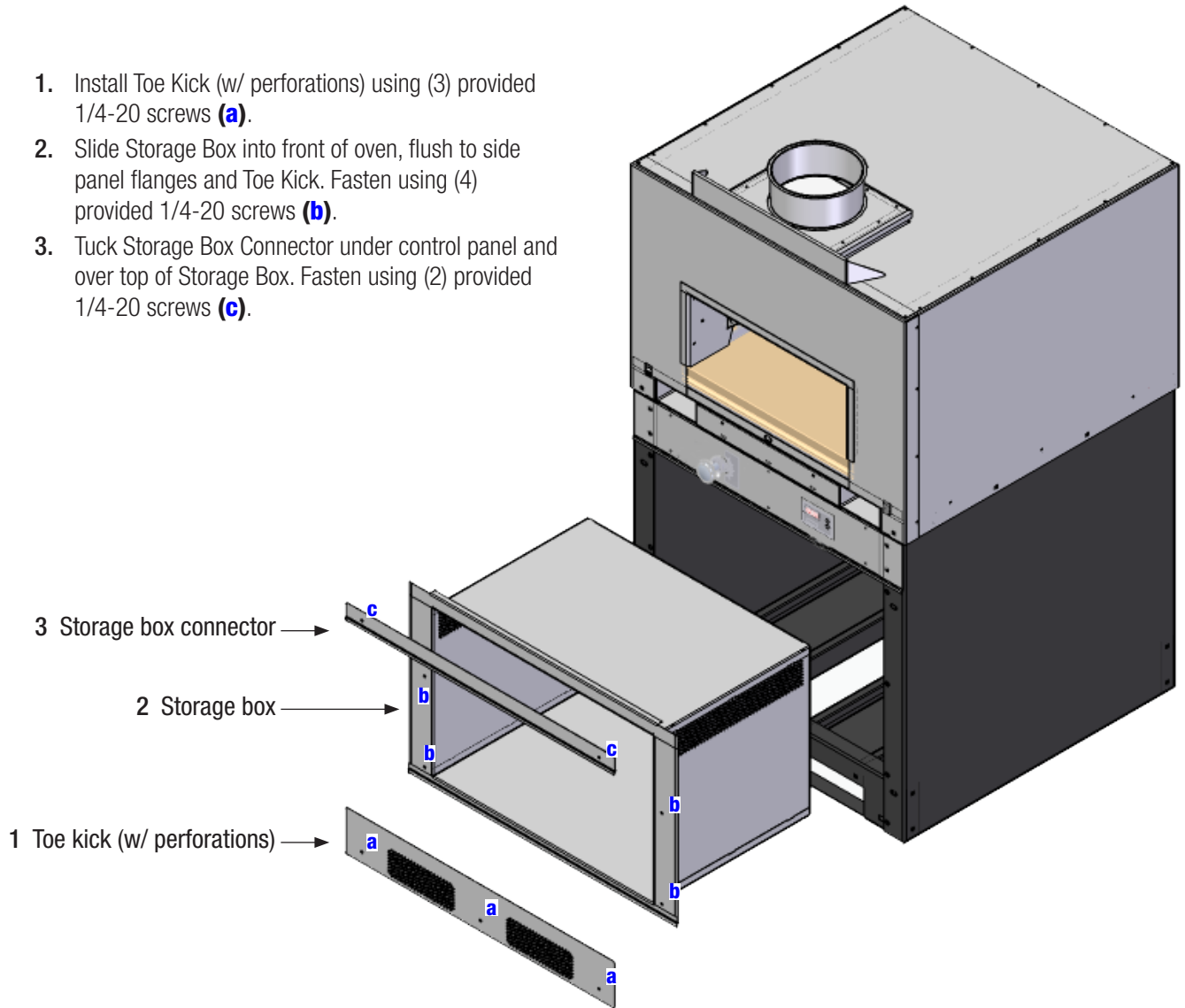
For all installations, follow best practices for proper gas line pipe sizing for the line serving the oven. To insure proper operation, all gas piping and fittings leading up to the oven should have an inside diameter equal to or greater than that of the oven gas connection. Also make sure that a readily accessible shut-off valve (supplied by others) is installed near the oven, and in accordance with all applicable codes. Shut-off valves must be of the full-flow type, and not introduce any restriction into the gas line.

The connection to the oven should be hard-piped whenever feasible, if this is not possible, use a properly sized flexible connector approved for this application. When using a flexible connector make sure that its design does not present any reduction in pipe diameter or other restriction. Oven issues caused by improper pipe sizing, improper shut-off valves, restrictive connectors, or any other deficiency in the gas supply design or installation will not be covered under the oven warranty.



INSTALLATION OF OPTIONAL STORAGE BOX ON BL-4343-CE, BL-4355-CE AND CS-REC-7-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 25 mm (1") below hearth surface. Display will read "LO" when the temperature is below 38 °C (100 °F).

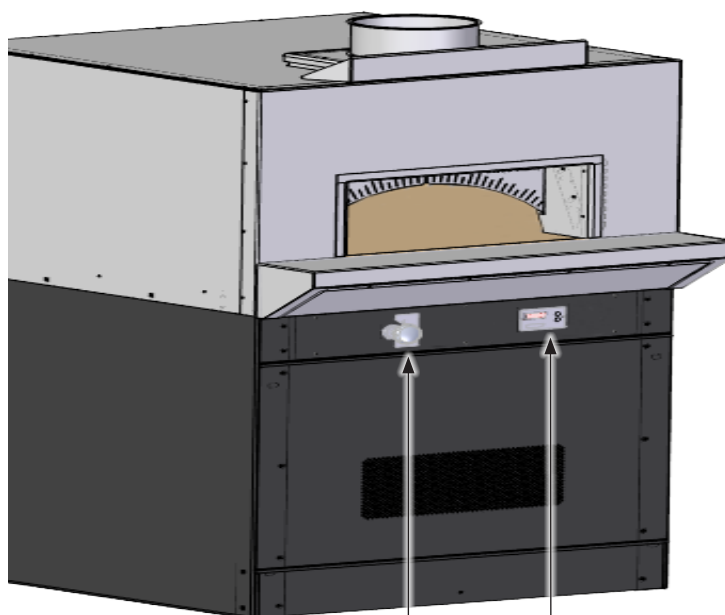


Temperature units

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 shut-off 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.

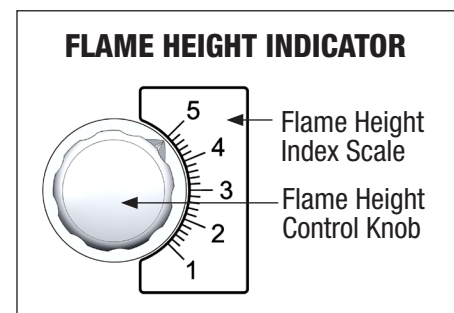
This initial oven start-up procedure need only be followed the first time the oven is fired and/or if the oven has not been used for an extended period of time.

FIRST DAY

1. Make sure main gas supply is on (and has been purged), and that the individual shut-off 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, "1" on the Flame Height Index Scale. Allow the oven to operate at this setting for two hours.
4. After two hours, raise radiant flame to 25% (~127 mm (5") flame, or ~"2" on the Index Scale), hold this setting for 4 hours.
5. After 4 hours, raise radiant flame height to 50% (~"3" on the Index Scale) and hold for at least another 4 hours. The oven can be left at this setting all night, or turned OFF.
6. At this point, the oven is ready for use.

SECOND DAY

1. Turn the oven ON by pushing the I/O button on the controller.
2. Turn up the radiant flame to maximum, **Heat-Up Flame** height ("5" on the Flame Height Index Scale).
3. When the desired floor temperature is reached, lower the radiant flame to the **Holding Flame** height, ~"2-3" on the Index Scale to maintain the floor temperature.
4. After introducing pizza/product into the oven, raise the flame to the **Cooking Flame** height—the level sufficient to maintain the floor temperature.



NOTE: You may notice some small "crazing" cracks in the ceramic dome and floor after a few heat-ups and cool-downs. This is normal and will not affect the longevity or performance of the oven. If cracks of 3 mm (1/8") wide or more develop, contact your local distributor for evaluation.



DAILY OVEN OPERATION

The floor temperature is continuously displayed by the controller. This reading is being taken by a thermocouple about 25 mm (1") 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. This option is for heat retention only, and should only be used when the appliance is turned OFF.

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 local distributor. Specification sheets may be viewed on the Wood Stone website under Tools & Accessories.)

BURNING WOOD

Gas-fired models with a “-W” in the model number (other than the first letter of 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.

NEVER PLACE ANYTHING IN OR ABOVE THE RADIANT FLAME

FLAME HEIGHT MANAGEMENT

TIP: You can visually estimate flame heights using the Wood Stone utility peel, which is 20 cm (8") tall when standing on edge in front of the flame. Then relate height to the corresponding number on the Flame Height Index Scale.

For more information regarding Flame Height Control, go to the Resource Center section of our web site at: www.woodstone-corp.com



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 shut-off valve. In the event of a power failure, no attempt should be made to operate the oven.

1. DAILY START-UP

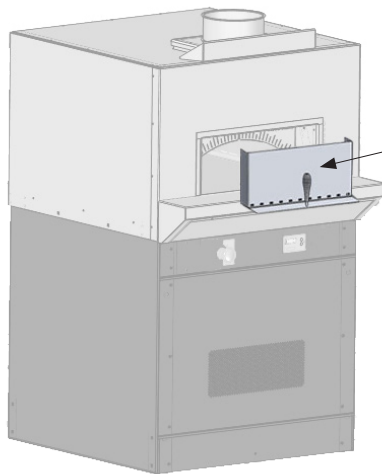
Press the I/O button to start the oven. The radiant flame will ignite.

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 local distributor. 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.

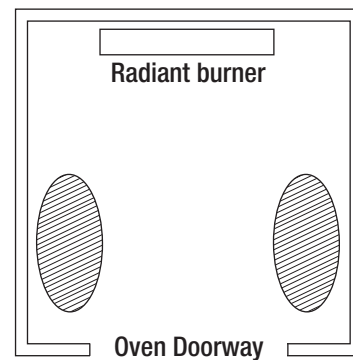


NOTE: Only RFG-W models are intended to allow the additional burning of wood. All gas-fired models that include a “-W” in the model number are listed to allow the burning of up to 6.8 kg (15 lbs) of wood per hour for flavor, but **MUST** be vented as SOLID FUEL equipment. **Do not over fire the oven.**

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. Wood Stone recommends cleaning and inspection at least monthly on any ventilation system serving solid fuel equipment.



 Wood fire location options
(either left or right side)

**WOOD STONE RECOMMENDS CLEANING AND INSPECTION AT LEAST MONTHLY
ON ANY VENTILATION SYSTEM SERVING SOLID FUEL EQUIPMENT.**

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 your local distributor 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. **Note:** This option is for heat retention **only**, and should only be used when the oven is turned OFF.

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



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 in local ordinances.

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	Lb/Cord	Lighting	Coaling	Sparks	Fragrance*
Alder	Med-Low	2500	Fair	Good	Moderate	Slight
Apple	High-Med	4400	Fair	Excellent	Few	Excellent
Ash	High	3500	Fairly Difficult	Good-Excellent	Few	Slight
Beech	High	3800	Difficult	Excellent	Few	Good
Birch (white)	Medium	3000	Easy	Good	Moderate	Slight
Cherry	Medium	2000	Fair	Excellent	Few	Excellent
Elm	High	2300	Very Difficult	Good	Very Few	Fair
Hickory	Very High	4200	Fairly Difficult	Excellent	Moderate	Excellent
Maple (red)	High-Med	3200	Fairly Difficult	Excellent	Few	Good
Maple (sugar)	High	3700	Difficult	Excellent	Few	Good
Mesquite	Very High		Very Difficult	Excellent	Many	Excellent
Oak (live)	Very High	4600	Very Difficult	Excellent	Few	Fair
Oak (red)	High	3700	Difficult	Excellent	Few	Fair
Oak (white)	Very High	4200	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 local distributor).

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.

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

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.

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



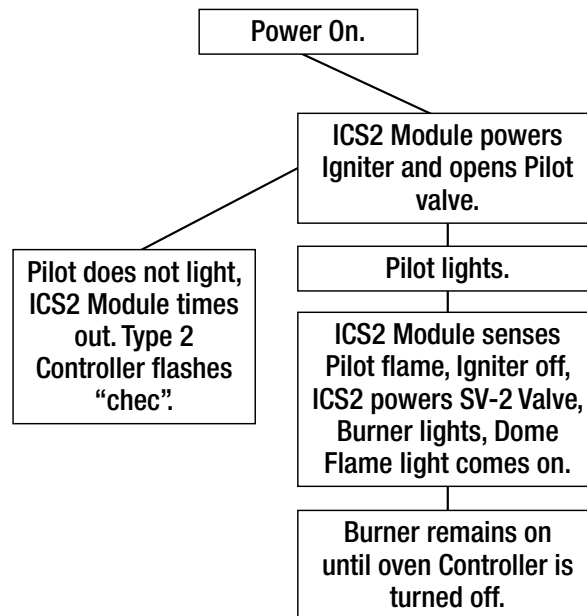
PROBLEM	CAUSE / SOLUTION
Controller will not turn ON	<ol style="list-style-type: none"> 1. Incoming power to oven turned OFF. Check circuit breaker for circuit supplying the oven. Check that any wall switches external to the oven that control oven power are turned on. Check that any interlocks external 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.



WoodStone

Operation Sequence RFG-CE & RFG-W-CE Ovens



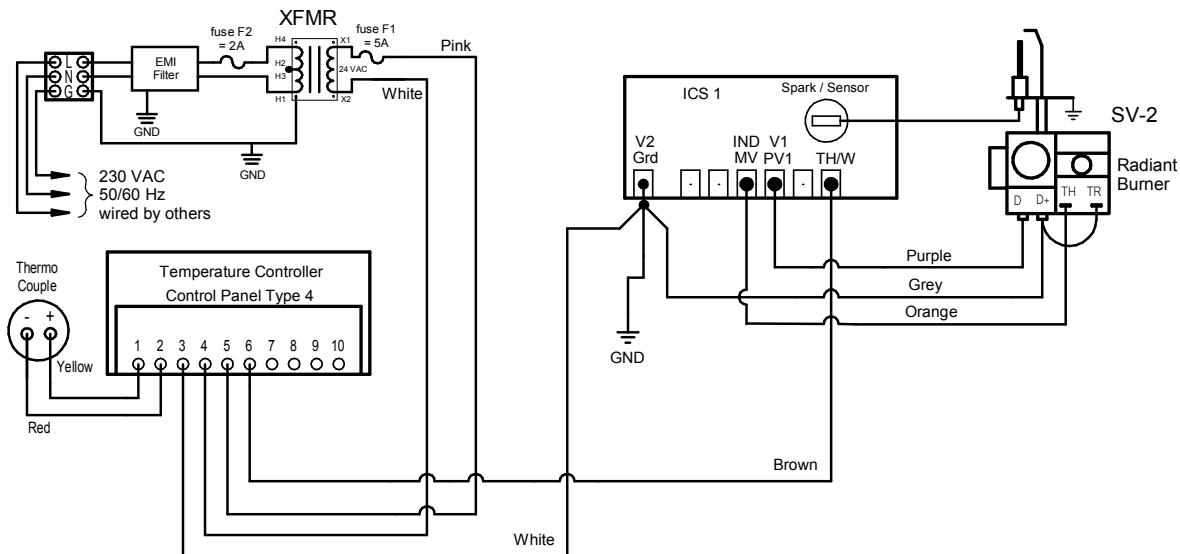
Note: Ovens equipped with 2 Radiant burners will have an additional ignition module-ICS3, which will be powered at the same time as the ICS2 module described above. The operation sequence is identical to that of ICS2. However, as long as ICS2 OR ICS3 lights, the Dome Flame Indicator light will come on.

L1114



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.