

Installation and Operation Manual



BISTRO LINE

Stone Hearth Oven

Gas-Fired, Gas/Wood Combination Models

BISTRO 3030 WS-BL-3030-RFG

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

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

BISTRO 4836 WS-BL-4836-RFG



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

STONE HEARTH COOKING EQUIPMENT

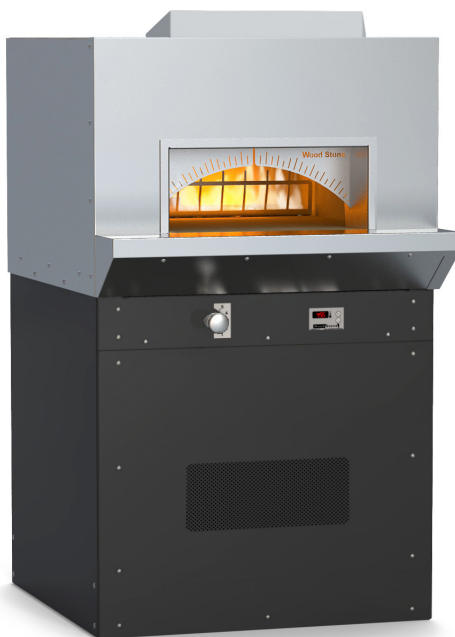
WS-BL-3030-RFG-(NG, LP)

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

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

WS-BL-4836-RFG-(NG, LP)

ADDITIONAL COPIES AVAILABLE UPON REQUEST



Shown: WS-BL-4343-RFG

**INSTALLATION AND OPERATION MANUAL FOR THE WOOD STONE BISTRO OVEN
GAS-FIRED STONE HEARTH OVEN****RETAIN THIS MANUAL FOR FUTURE REFERENCE**

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

For prompt responses to service/maintenance questions, call us at @ 1-800-988-8103.

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.

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.

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.

AVERTISSEMENT: L'installation, le réglage, la modification, la réparation ou l'entretien incorrect de cet appareil peut causer des dommages matériels, de blessures ou la mort. Lire attentivement les instructions d'installation, de fonctionnement et d'entretien avant de procéder à son installation ou entretien.

DO NOT USE PRODUCTS NOT SPECIFIED FOR USE WITH THIS OVEN.

CAUTION: Never use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid or similar liquids to start or freshen a fire in this oven. Keep all such liquids well away from the oven when in use.

When this oven is not properly installed, a fire may result. To reduce the risk of fire, follow the installation instructions. It is recommended that this oven be installed, maintained and serviced by authorized professionals.

DISCONNECT POWER TO THE OVEN BEFORE SERVICING OR CLEANING.
NO ATTEMPT SHOULD BE MADE TO OPERATE THIS APPLIANCE DURING A POWER FAILURE

WARNING: Do not pack required air spaces (clearance) with insulation or other material.

EN AVERTISSANT: N'emballez pas les espaces aériens requis avec l'isolation ou tout autre matériel.

When non-combustible building materials contact the body of the oven, the clearances to combustibles are transferred to those non-combustibles.



A MAJOR CAUSE OF OVEN RELATED FIRES IS A FAILURE TO MAINTAIN REQUIRED CLEARANCES TO COMBUSTIBLE MATERIAL. IT IS OF UTMOST IMPORTANCE THAT THIS OVEN BE INSTALLED ONLY IN ACCORDANCE WITH THESE INSTRUCTIONS.

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

POUR VOTRE SÉCURITÉ: Ne pas entreposer ni utiliser d'essence ou d'autres vapeurs de liquides inflammables ou des liquides dans les environs de ce ou de tout autre appareil.

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



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.

This product must be installed by a licensed plumber or gas fitter when installed within the Commonwealth of Massachusetts.

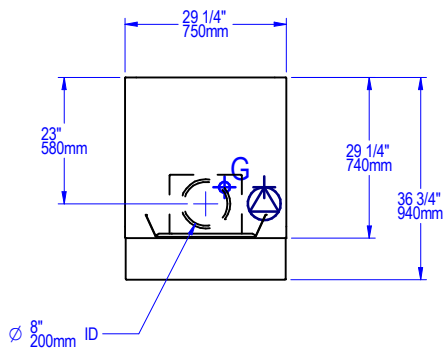
SAVE THE INSTRUCTIONS



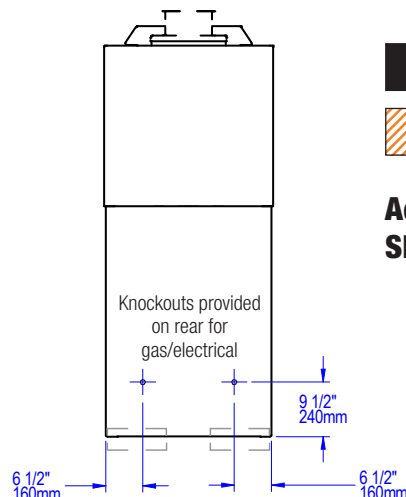
Wood Stone Bistro Line ovens have been tested and approved by Intertek Testing Services and conform to ANSI Z83.11, UL 2162, UL 737 and CGA 2.17; are certified to CSA 1.8, ULC/ORD 2162 and ULC S627; and to NSF/ANSI 4.



Plan view



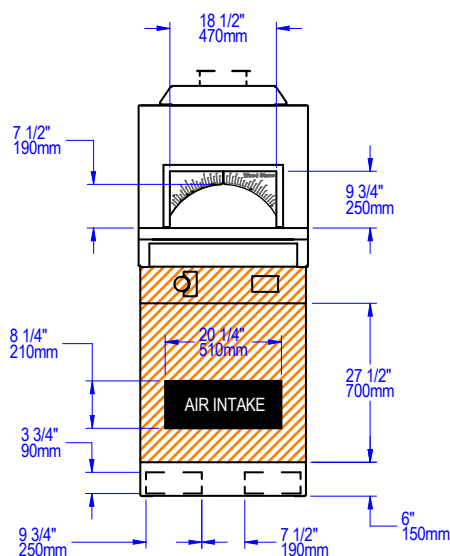
Rear view



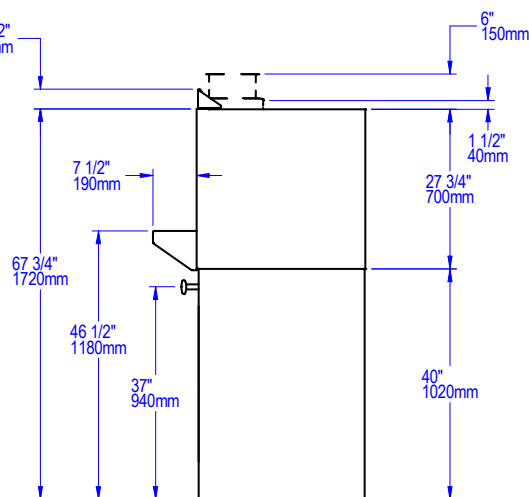
-  Air intake: Do not facade or cover over
-  Must be left removable for service

Actual weight: 850 lbs.
Ship weight: 1100 lbs.

Front view



Side view



UTILITIES SPECIFICATIONS

Gas

3/4 inch FNPT gas inlet
55,000 BTU/hr Natural Gas (NG)
OR
42,000 BTU/hr Propane (LP)
Maximum gas inlet pressure:
1/2 psi (14 inches W.C.)

Electrical

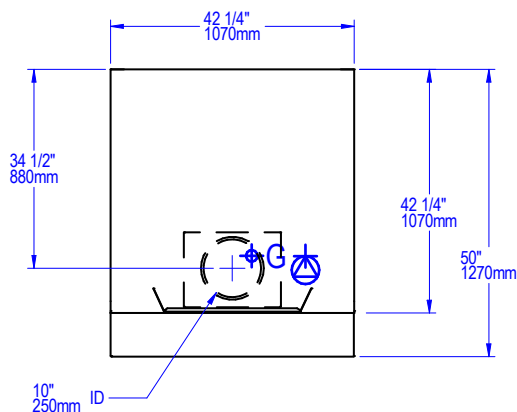
120 VAC, 2 A, 60 Hz
Optional: 220–240 VAC, 1 A, 60 Hz
All utility connections made at the back of the oven. Remove front panel for access.
Refer to data plate when installing.

Venting

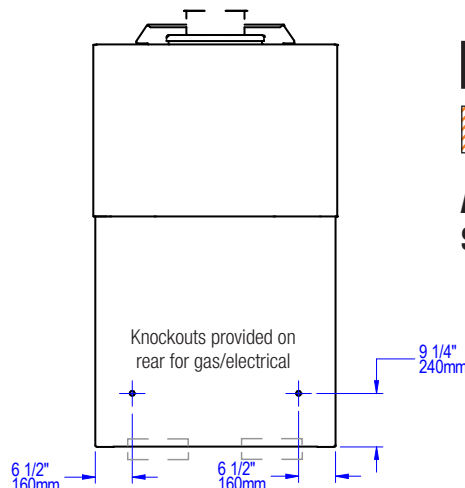
The Bistro has an 8-inch I.D. flue collar. It can be direct connected to a power-ventilated, grease-rated chimney, or can be vented with a Listed Type 1 exhaust hood, or one constructed in accordance with NFPA 96 and all relevant local and national codes. The flue adapter is for direct connection to a duct system only. Do not install if oven is installed under 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



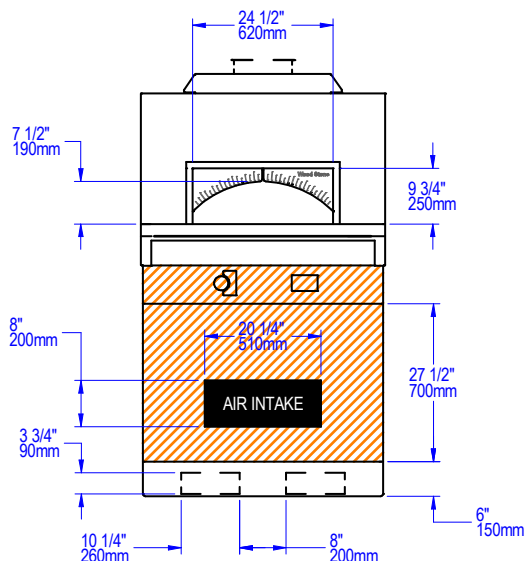
Rear view



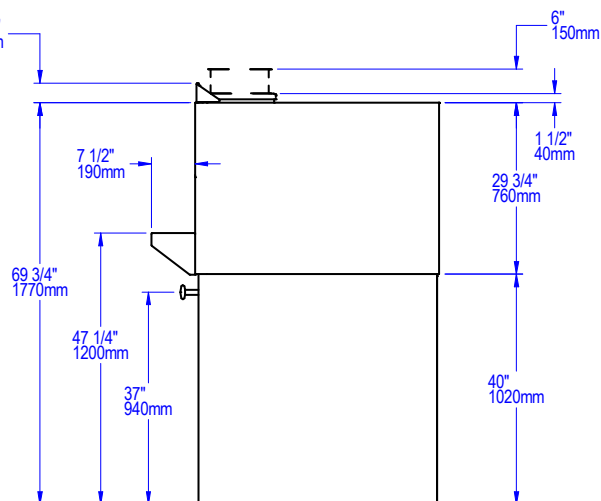
 Air intake: Do not facade or cover over
 Must be left removable for service

Actual weight: 1650 lbs.
Ship weight: 2100 lbs.

Front view



Side view



UTILITIES SPECIFICATIONS

Gas

3/4 inch FNPT gas inlet
80,500 BTU/hr Natural Gas (NG)
OR
68,000 BTU/hr Propane (LP)
Maximum gas inlet pressure:
1/2 psi (14 inches W.C.)

Electrical

120 VAC, 2 A, 60 Hz
Optional: 220–240 VAC, 1 A, 60 Hz
All utility connections made at the back of the oven. Remove front panel for access.
Refer to data plate when installing.

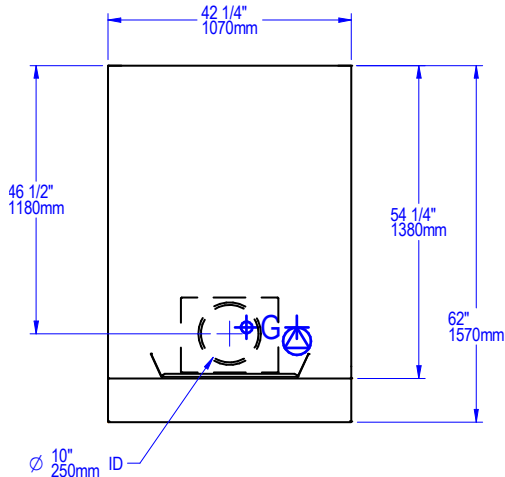
Venting

The Bistro has a 10-inch I.D. flue collar. It can be direct connected to a power-ventilated, grease-rated chimney, or can be vented with a Listed Type 1 exhaust hood, or one constructed in accordance with NFPA 96 and all relevant local and national codes. The flue adapter is for direct connection to a duct system only. Do not install if oven is installed under 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 have jurisdiction.

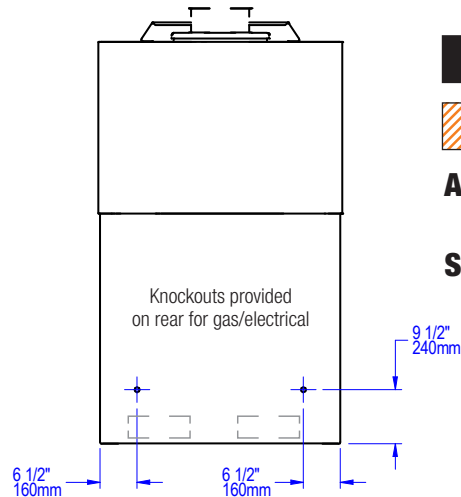
Important: “-W” models must be vented as solid-fuel oven.



Plan view



Rear view

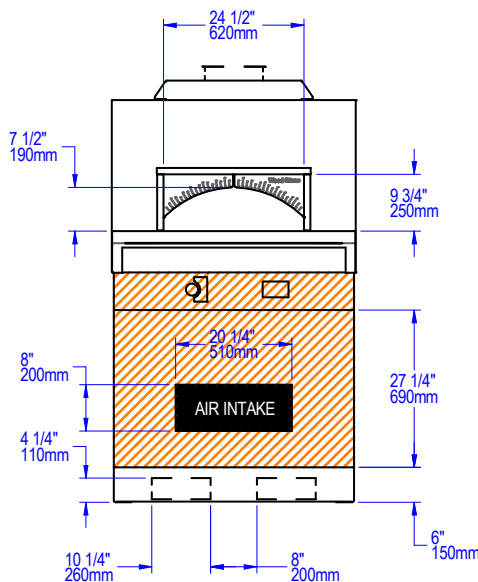


-  Air intake: Do not facade or cover over
-  Must be left removable for service

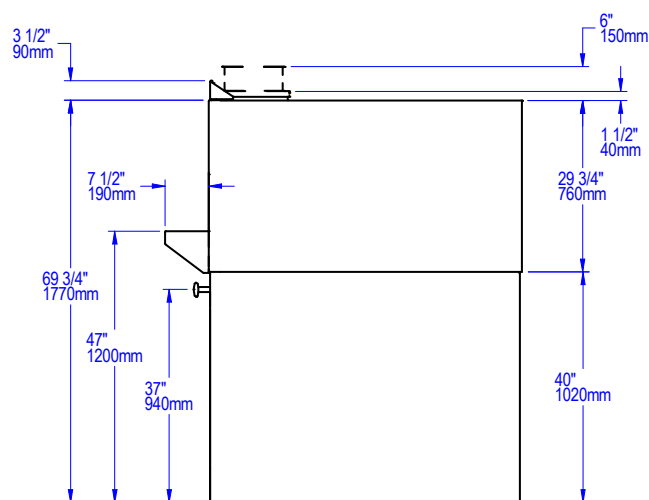
**Actual weight: 998 kg
2200 lbs.**

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

Front view



Side view



UTILITIES SPECIFICATIONS

Gas

3/4 inch FNPT gas inlet
80,500 BTU/hr Natural Gas (NG)
OR
68,000 BTU/hr Propane (LP)

Maximum gas inlet pressure:
1/2 psi (14 inches W.C.)

Electrical

120 VAC, 2 A, 60 Hz
Optional: 220–240 VAC, 1 A, 60 Hz
All utility connections made at the back of the oven. Remove front panel for access.
Refer to data plate when installing.

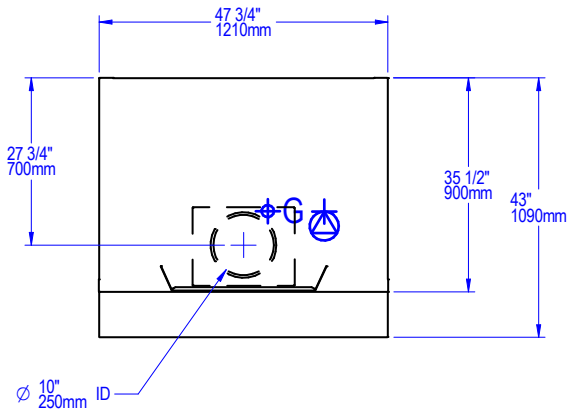
Venting

The Bistro has a 10-inch I.D. flue collar. It can be direct connected to a power-ventilated, grease-rated chimney, or can be vented with a Listed Type 1 exhaust hood, or one constructed in accordance with NFPA 96 and all relevant local and national codes. The flue adapter is for direct connection to a duct system only. Do not install if oven is installed under 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.

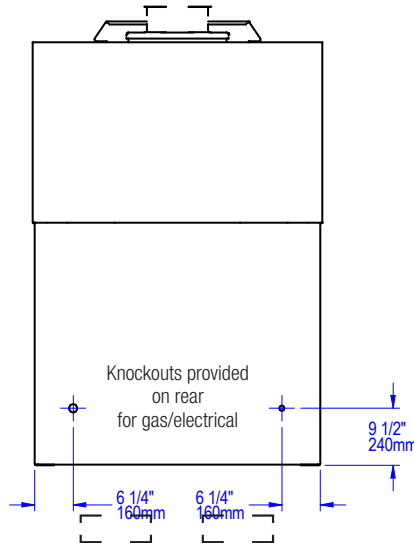
Important: “-W” models must be vented as solid-fuel oven.



Plan view



Rear view

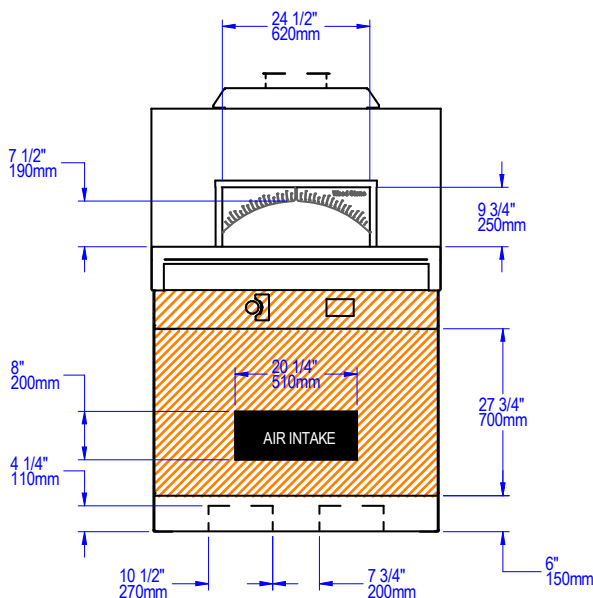


-  Air intake: Do not facade or cover over
-  Must be left removable for service

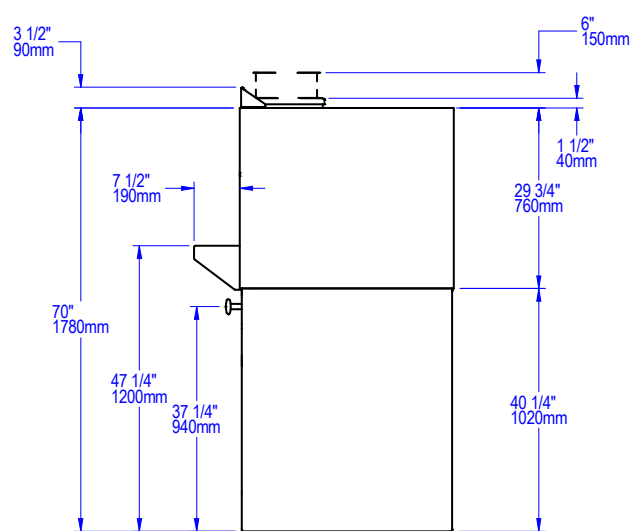
**Actual weight: 750 kg
1650 lbs.**

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

Front view



Side view



UTILITIES SPECIFICATIONS

Gas

3/4 inch FNPT gas inlet
80,500 BTU/hr Natural Gas (NG)

OR

80,500 BTU/hr Propane (LP)

Maximum gas inlet pressure:
1/2 psi (14 inches W.C.)

Electrical

120 VAC, 2 A, 60 Hz
Optional: 220–240 VAC, 1 A, 60 Hz
All utility connections made at the back of the oven. Remove front panel for access.

Refer to data plate when installing.

Venting

The Bistro has a 10-inch I.D. flue collar. It can be direct connected to a power-ventilated, grease-rated chimney, or can be vented with a Listed Type 1 exhaust hood, or one constructed in accordance with NFPA 96 and all relevant local and national codes. The flue adapter is for direct connection to a duct system only. Do not install if oven is installed under 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 have jurisdiction.



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.

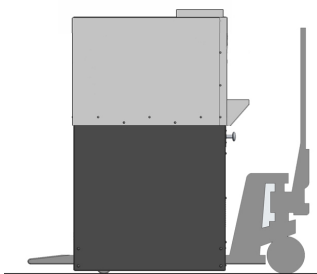
LEVELING AND SHIMMING THE OVEN

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 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.

 WARNING Minimum Required Forklift Capacities			
Model	Approximate Ship Weight	Required Forklift Capacity	Min. Fork Length
BL-3030	1,100 lbs	2,000 lbs	4'
BL-4343	2,100 lbs	3,200 lbs	5'
BL-4355	2,500 lbs	5,000 lbs	
BL-4836	1,850 lbs	3,200 lbs	

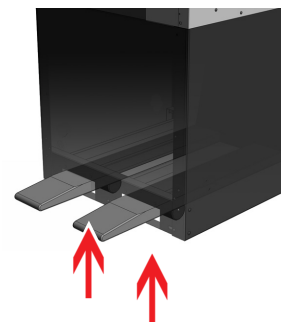
MOVING THE OVEN



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

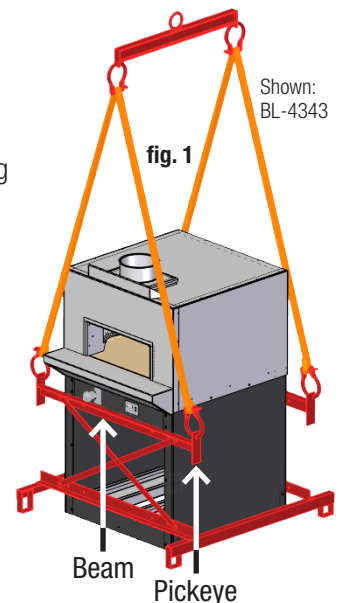
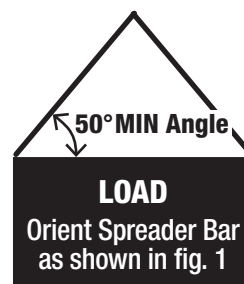
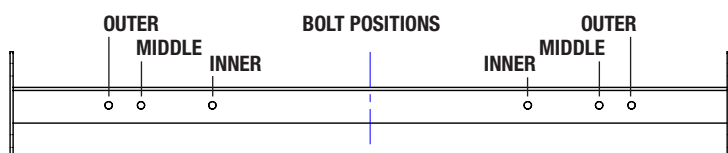
The oven arrives with Pickeys attached. When craning a Wood Stone oven, use a Spreader Bar with a two-legged sling rigged on each end. The spreader bar should be of a sufficient length to keep the sling from contacting the oven, and oriented as shown in fig. 1.

PICKEYE CAPACITIES PER BEAM

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

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

2,700 lbs: Outer holes (BL-4836)





WARNING: Do not pack required air spaces (clearance) with insulation or other material.

EN AVERTISSANT: N'emballez pas les espaces aériens requis avec l'isolation ou tout autre matériel.

When non-combustible building materials contact the body of the oven, the clearances to combustibles are transferred to those non-combustibles.



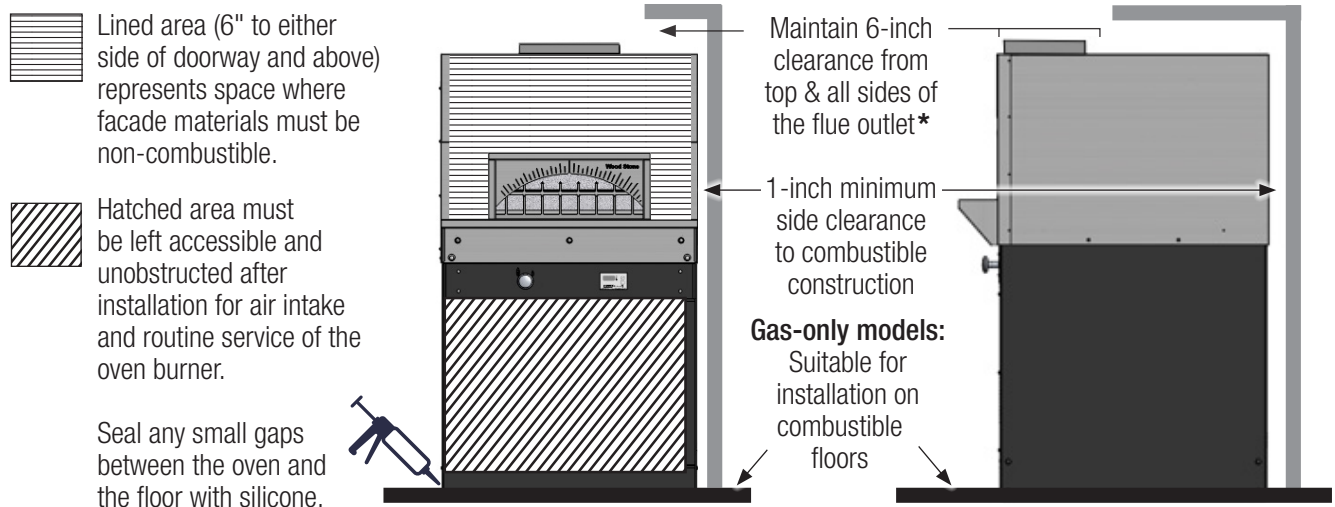
WARNING: Installation and servicing of this product could expose you to glasswool/ceramic fibers as well as calcium silicate dust. ALWAYS WEAR RESPIRATORY AND EYE PROTECTION WHEN INSTALLING OR SERVICING THIS APPLIANCE. Please read this entire manual before you install the oven. Failure to follow instructions 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 oven must have a minimum 1-inch clearance to combustibles from all sides, and 6-inch 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 6 inches 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 (convient à l'installation sur un plancher combustible).

For gas/wood combination models, this oven is suitable for installation on combustible floors (convient à l'installation sur un plancher combustible). The minimum hearth extension area to be covered with a non-combustible floor surface must extend 36 inches in front of and 30 inches to either side of the oven door opening.

NOTICE: For stucco-ready appliances, the same clearances as described above apply. Non-combustible stucco mix must be used and applied to a minimum thickness of 1".



*For direct connect installations, refer to NFPA 96 and local codes for duct installation clearances

Gas/wood combination models: This oven is suitable for installation on combustible floors (convient à l'installation sur un plancher combustible). The minimum hearth extension area to be covered with a non-combustible floor surface must extend 36 inches in front of and 30 inches to either side of the oven door opening.



All of the combustion products and cooking vapors from the WS-BL-4343, WS-BL-4355 and BL-4836 pass through the 10-inch diameter flue collar (8" for the WS-BL-3030). The oven can be direct connected to a power-ventilated, grease-rated chimney, or placed under a Listed Type 1 exhaust hood. All gas-fired models that include a "-W" in the model number are listed to allow the burning of up to 15 lbs of wood per hour for flavor, but **MUST** be vented as SOLID FUEL equipment. **Do not over fire the oven.**

The following are the manufacturer's requirements for venting Wood Stone Bistro Line ovens. It is never appropriate to use "B vent" in any part of an exhaust system connected to a Wood Stone oven. All duct material must be manufactured to the specifications of a grease duct. Due to the possibility of sparks entering the duct, exhaust systems serving solid fuel equipment **SHOULD NOT** be combined with exhaust systems serving other non-solid fuel cooking equipment. The venting system should be cleaned and inspected at least every 3 months. **Wood Stone recommends cleaning and inspection at least monthly on any ventilation system serving solid fuel equipment.**

WHEN BURNING SOLID FUEL, THE DUCT AND VENTILATION SYSTEM MUST BE CLEANED AT LEAST MONTHLY.

THERE ARE TWO VENTING OPTIONS:

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

A static pressure of -0.1 inches water column (-0.14 inches water column for models burning solid fuel) is necessary at the oven flue collar to ensure proper flue temperatures at the fan. The airflow required to attain this static pressure will depend on the configuration of your particular installation but will probably be approximately 400 CFM. The exhaust fan must be turned on any time the oven is running.

2. A Listed Type 1 Exhaust Hood or one that is constructed and installed in accordance with NFPA 96 and all relevant local and national Codes. Wood Stone offers eyebrow-type hoods designed specifically for Wood Stone ovens. See specification sheet on ventilators for Wood Stone ovens.

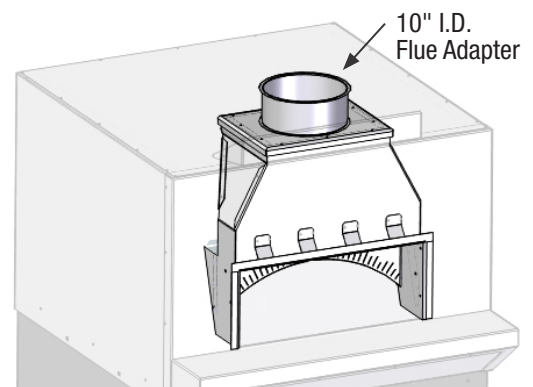
Contact local building or fire officials concerning any installation restrictions or need for inspection of the oven installation.

FIRE SUPPRESSION: GAS-FIRED OVENS

Check with your local code officials to see if fire suppression is required in your area. If fire suppression is required, you must vent the oven using a Type 1 hood, constructed and installed in accordance with NFPA 96. If fire suppression is required, Wood Stone recommends providing protection for the hood and duct plenum. The fusible link in the hood must be rated at 450 °F minimum. Wood Stone offers Listed Exhaust hoods for our ovens that are pre-piped for ANSUL R-102 fire suppression. **Wood Stone does not recommend aiming any fire suppression nozzles into the cooking chamber of the oven.** All installations are subject to the approval of the local authority having jurisdiction.

FIRE SUPPRESSION - WOOD-FIRED OVENS

Check with your local code officials to see if fire suppression is required in your area. If fire suppression is required, you must vent the oven using a Type 1 hood, constructed and installed in accordance with NFPA 96. If fire suppression is required, Wood Stone recommends providing protection for the hood and duct plenum. The fusible link in the hood must be rated at 450 °F minimum. Wood Stone offers Listed Exhaust hoods for our ovens that are pre-piped for ANSUL R-102 fire suppression. All installations are subject to the approval of the local authority having jurisdiction.



Wood Stone ovens should be vented in accordance with NFPA 96 and/or all pertinent national, regional and local codes concerning such appliances. Check venting plans with the authority having jurisdiction before proceeding with installation.



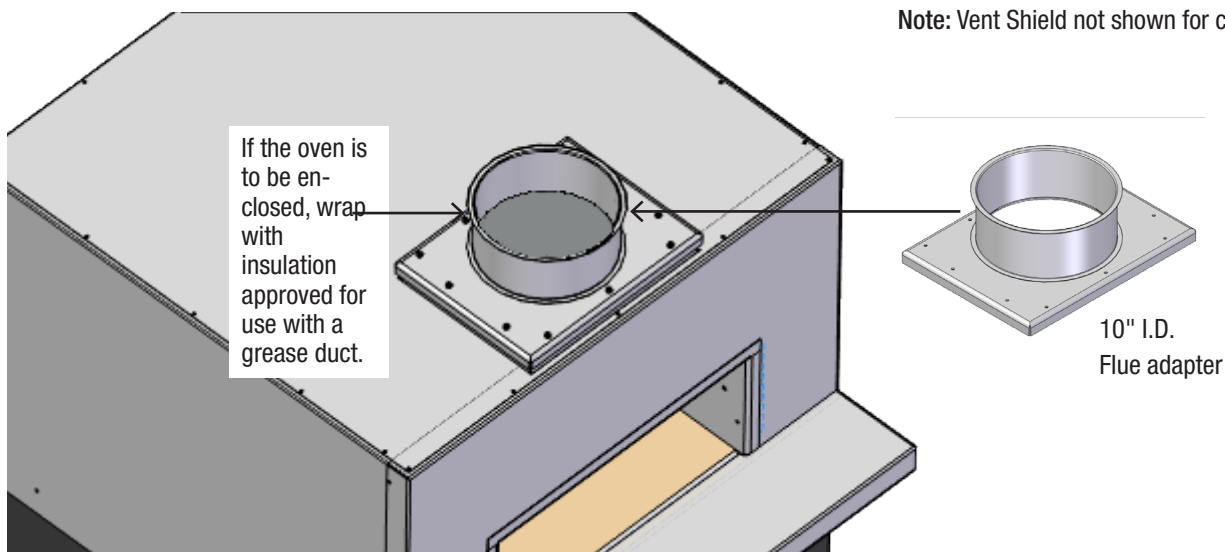
BISTRO LINE OVENS: FLUE ADAPTER INSTALLATION

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.**

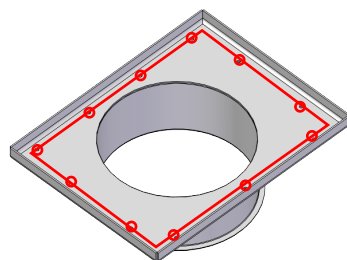
FLUE ADAPTER ATTACHED TO OVEN FLUE COLLAR



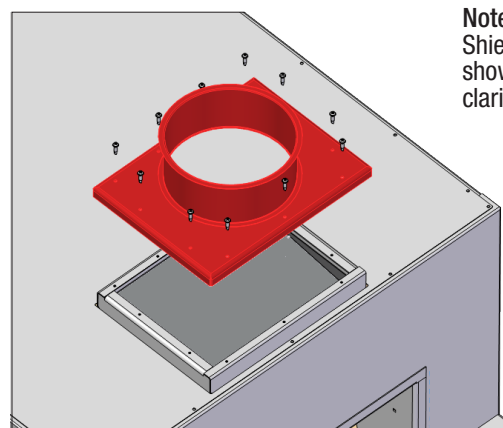
Note: Vent Shield not shown for clarity

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 Line ovens are approved for outdoor installation. The oven may be installed in a weatherproof enclosure. If so, be sure to maintain all clearances and adhere to the installation requirements included in this manual.

For freestanding outdoor installations not in a weatherproof enclosure, ordering the optional rain cover is recommended, offering additional protection from the weather.

For outdoor installations, the indoor installation methods mentioned previously in this manual may be used, OR when installed outdoors or in an open air outdoor structure such as a covered patio or similar structure, the oven may be vented without the use of an exhaust fan when the duct run includes no horizontal sections. A natural draft duct, listed or constructed to the requirements of a grease duct as described in NFPA 96 or the International Mechanical Code, attached directly to the oven flue collar may be used. The duct must be sufficient length and installed in such a manner that proper clearances from combustible construction and proper clearances in regards to the termination of the duct are maintained (i.e. clearances from roofs, window and door openings, etc.). All clearances must be in accordance with NFPA 96, the International Mechanical Code or the applicable local code in force. All manufactured duct systems must be installed in accordance with the duct manufacturer's listing and instructions.

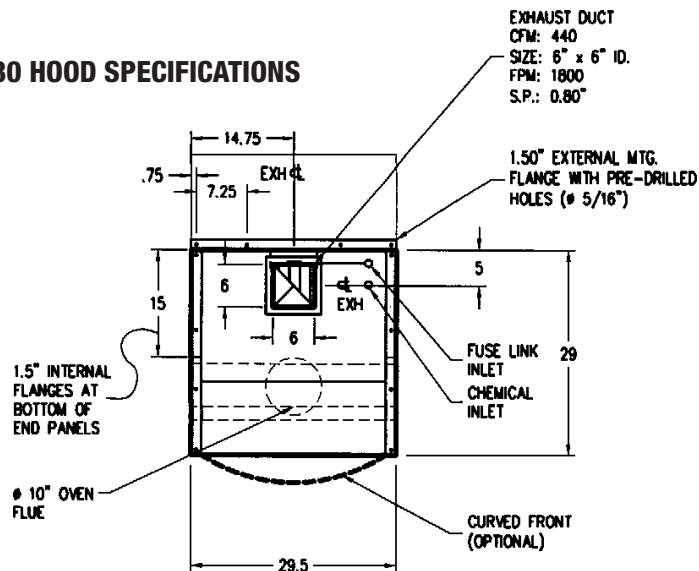
When the oven is installed free standing outdoors or in its own non-combustible enclosure, no fan is required, and a suitable metal, stone, clay or ceramic pipe may be used to extend the flue collar outlet above the oven.

Be aware that wind blowing directly at the oven can cause performance and reliability issues. When installing the oven outdoors choose a location that best minimizes wind exposure for the oven. Please note: Keep the area around and beneath the appliance clear of grass, leaves and other combustible materials.

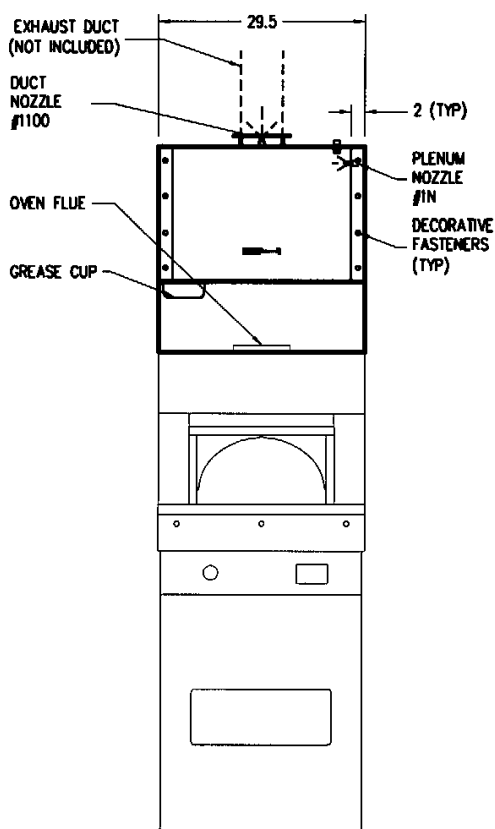


Wood Stone Hoods by Gaylord Specs
Required CFM - 440 CFM
Static Pressure - 0.80" W.C.
Duct Collar - 6" x 6" I.D.

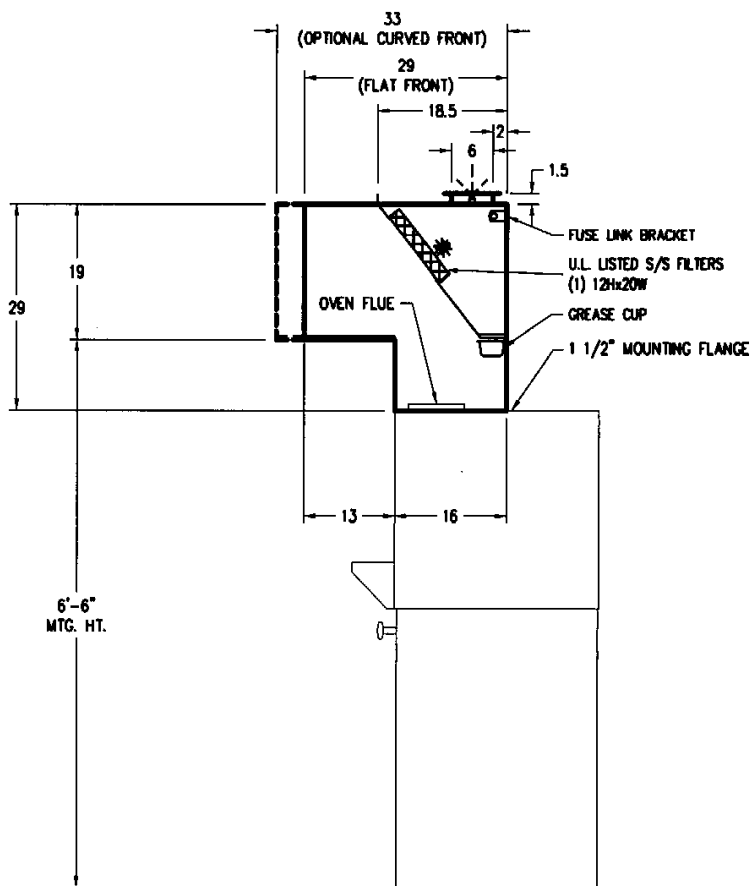
BL-3030 HOOD SPECIFICATIONS



PLAN VIEW



ELEVATION VIEW

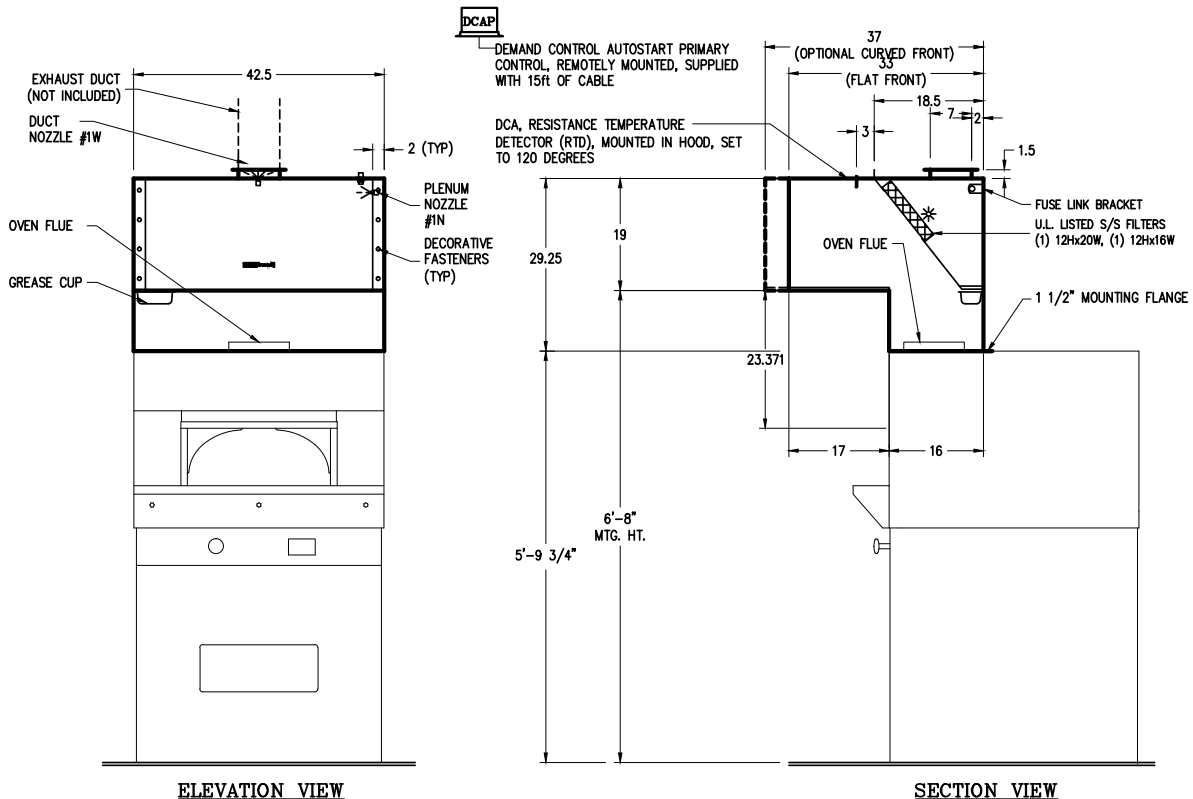
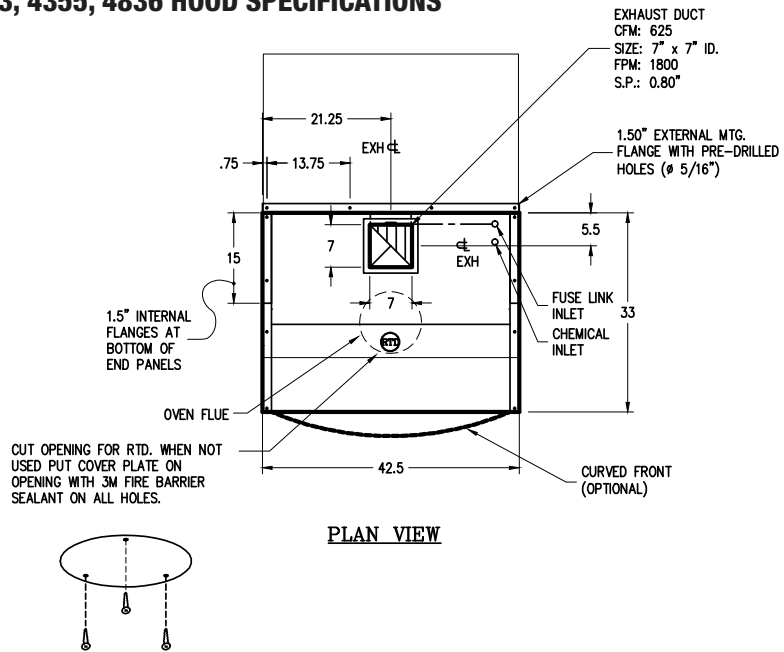


SECTION VIEW



BL-4343, 4355, 4836 HOOD SPECIFICATIONS

Wood Stone Hoods by Gaylord Specs
Required CFM - 625 CFM
Static Pressure - 0.80" W.C.
Duct Collar - 7" x 7" I.D.



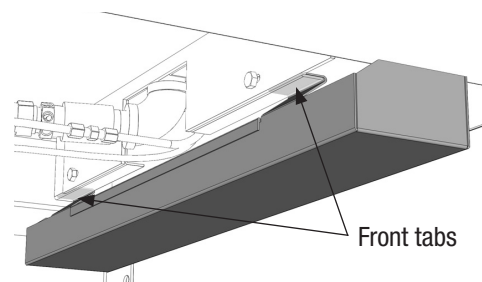
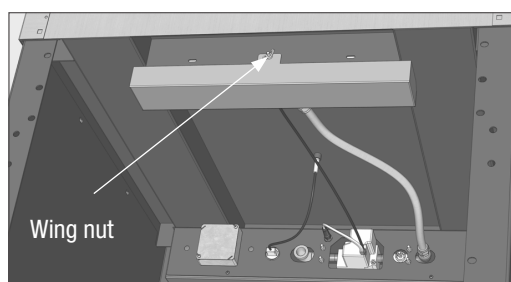


WARNING

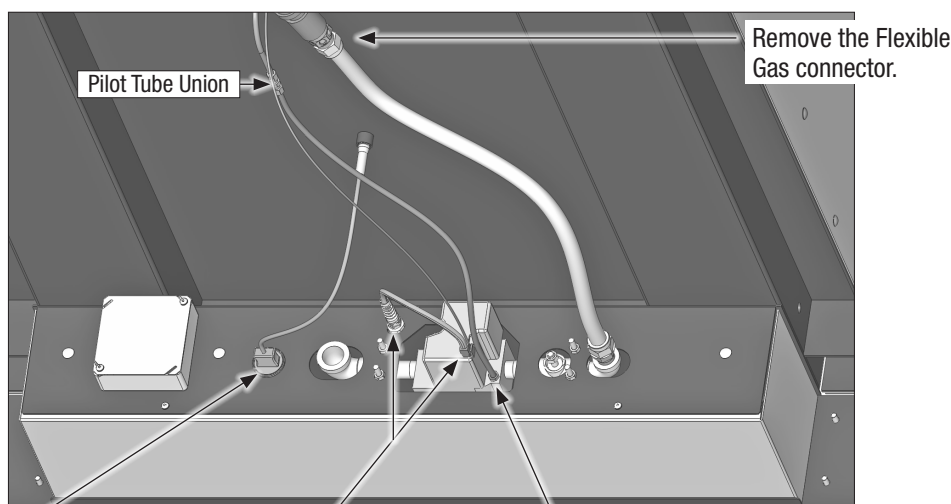
Disassembly & reassembly of this appliance should only be performed by a qualified technician. The oven body is extremely heavy. (4343, 4836 = 1,500 pounds, 4355 = 2000 pounds. Use an appropriate forklift to lift the oven body, and enlist the services of an experienced rigging company when forklift access is not possible. The rigger will have the equipment and the expertise to do the job safely.

DISASSEMBLING THE APPLIANCE TO MOVE THROUGH A NARROW DOOR OR PASSAGEWAY

1. Remove the Burner Tray (if equipped) beneath the oven by removing the Wing Nut at the back of the Tray and pushing the Burner Tray towards the rear of the oven and off the front tabs.



2. Disconnect utility connections at rear of Control Box as described.

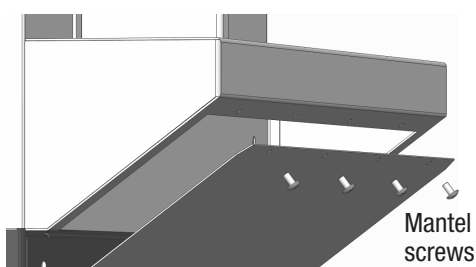


Unplug Thermocouple wire from Control Panel, coil it and tape it under the oven to prevent damage while moving the main body. **DO NOT REMOVE THERMOCOUPLE FROM OVEN FLOOR.**

Unplug Igniter wire from the Gas Valve/Control Panel, coil them up and tuck them into the Burner.

Disconnect Pilot Tube at the Gas Valve and at the Union. Carefully bend the remaining length of Tube from the Pilot up inside the Burner Assembly to protect it.

3. To begin disassembly of the Mantel, remove the screws (3 for BL-3030 and 4 for BL-4343, BL-4355 and BL-4836) from the Mantel Faceplate Cover.



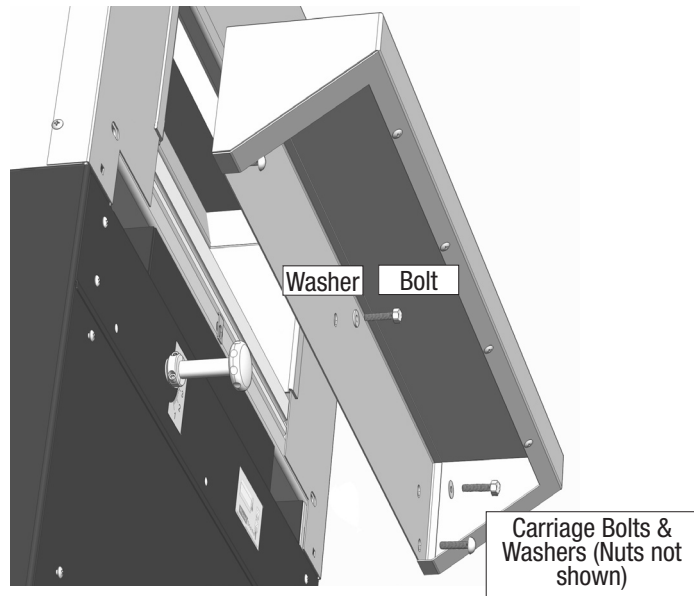


WARNING

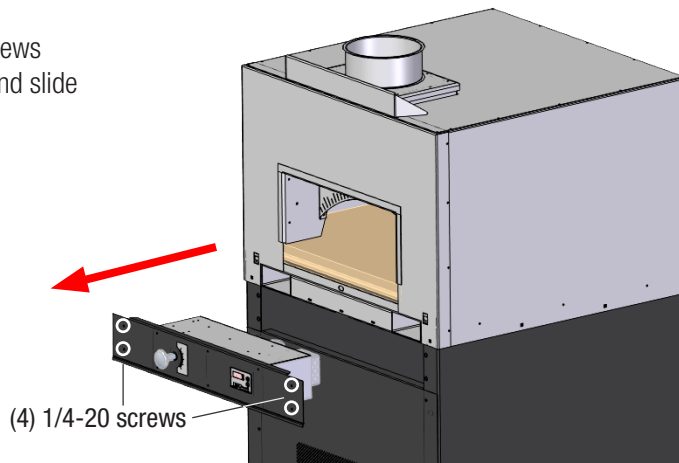
If a forklift is not available, or forklift access is not possible, enlist the services of an experienced rigging company, to lift, remove and reinstall the oven body.

4. Remove 3 Bolts across the oven face and 2 Carriage Bolts on either end that hold the Mantel in place, and remove the mantel.

It may be necessary to cut the silicone at the joint between the Mantel and the oven.



5. Remove the (4) 1/4-20 screws securing the Control Box and slide it out from the oven.

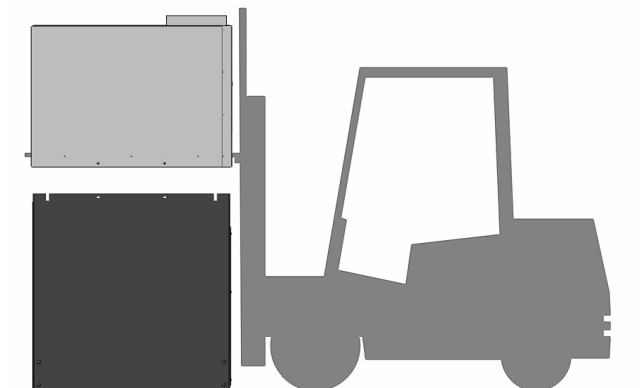


6. Using the upper forklift pockets, support the oven with a forklift or other suitable device. Remove the bolts that attach the oven body to the stand. Lift the oven off of the stand and place it on blocks as shown in Step 1 in LIFTING THE OVEN section.

Follow the instructions in the LIFTING THE OVEN section for tilting and moving the main body.

Disassemble the stand if necessary. Follow the assembly instructions in the ASSEMBLY section to reassemble the oven.

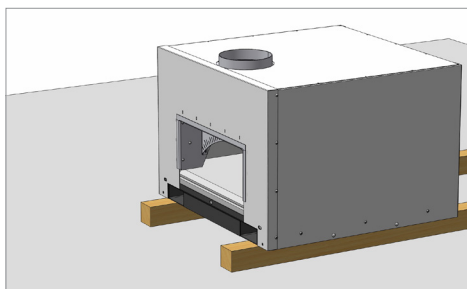
FOR BISTRO 3030 MODELS: Forklift pockets are on the front only and do not extend all the way through the oven.



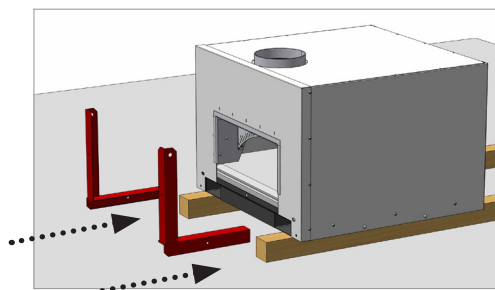


MOVING A DISASSEMBLED BISTRO OVEN THROUGH A NARROW DOOR OR PASSAGEWAY USING THE OPTIONAL TILTING KIT

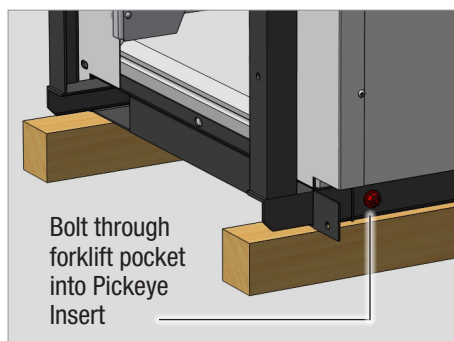
An optional Tilting Kit (P/N 000-010-2) is available from Wood Stone to facilitate tipping the oven body onto its back and lifting it. When turned on its back, the upper oven portion of Bistro or Phoenix models 4343, 4355 and 4836 will be approximately 32 inches wide. This will allow for easier access 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.



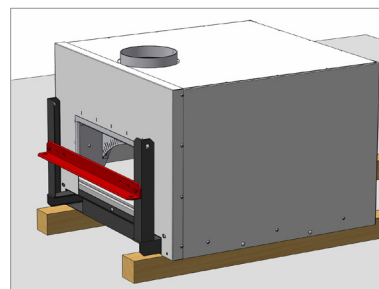
2. Insert the left & right Pickeye Inserts of the Tilting Kit Assembly into the forklift pockets from the oven front.



Oven cut-away
view showing
right Pickeye
Insert of
Tilting Kit in
forklift pocket

Bolt through
forklift pocket
into Pickeye
Insert

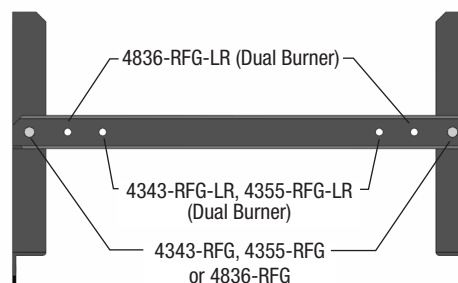
3. Loosely bolt each Pickeye Insert to the forklift pocket as shown in the cut-away view to above.



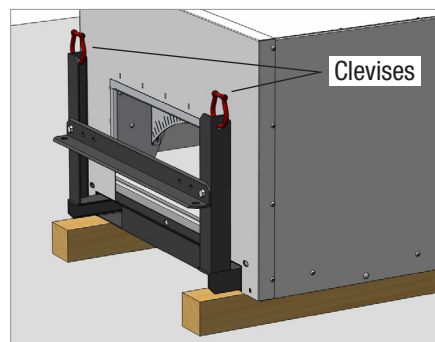
WARNING

If a forklift is not available, or forklift access is not possible, enlist the services of an experienced rigging company, to lift, remove and reinstall the oven body.

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

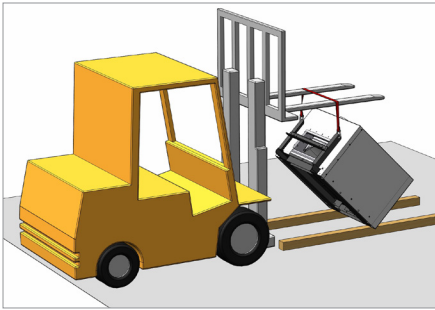


Bolt
placement
for various
models

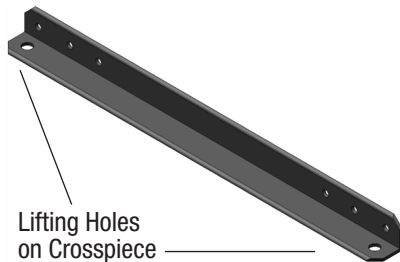


Clevises

5. Install a clevis in the Top Hole of each Pickeye Insert of the Tilting Kit.



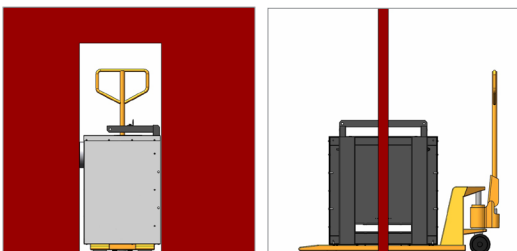
6. Attach strap to the clevises at the top of each Pickeye Insert. Using an appropriate hoist or lift, tilt the oven on its back, onto 4x4" blocks.



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

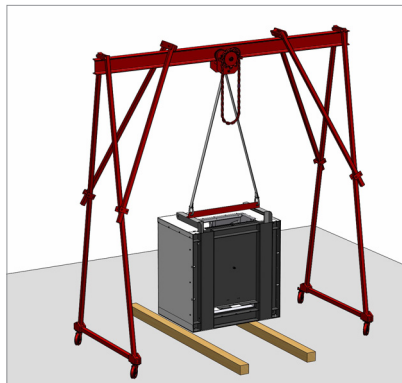


8. Lift the oven straight up and position pallet jack under the oven.
Lower the oven, on its back, onto the pallet jack.



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.

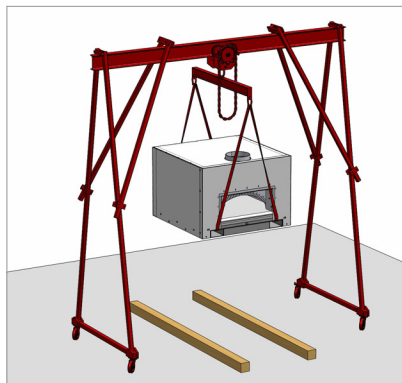
Remove pallet jack.

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 Tilting Kit 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.

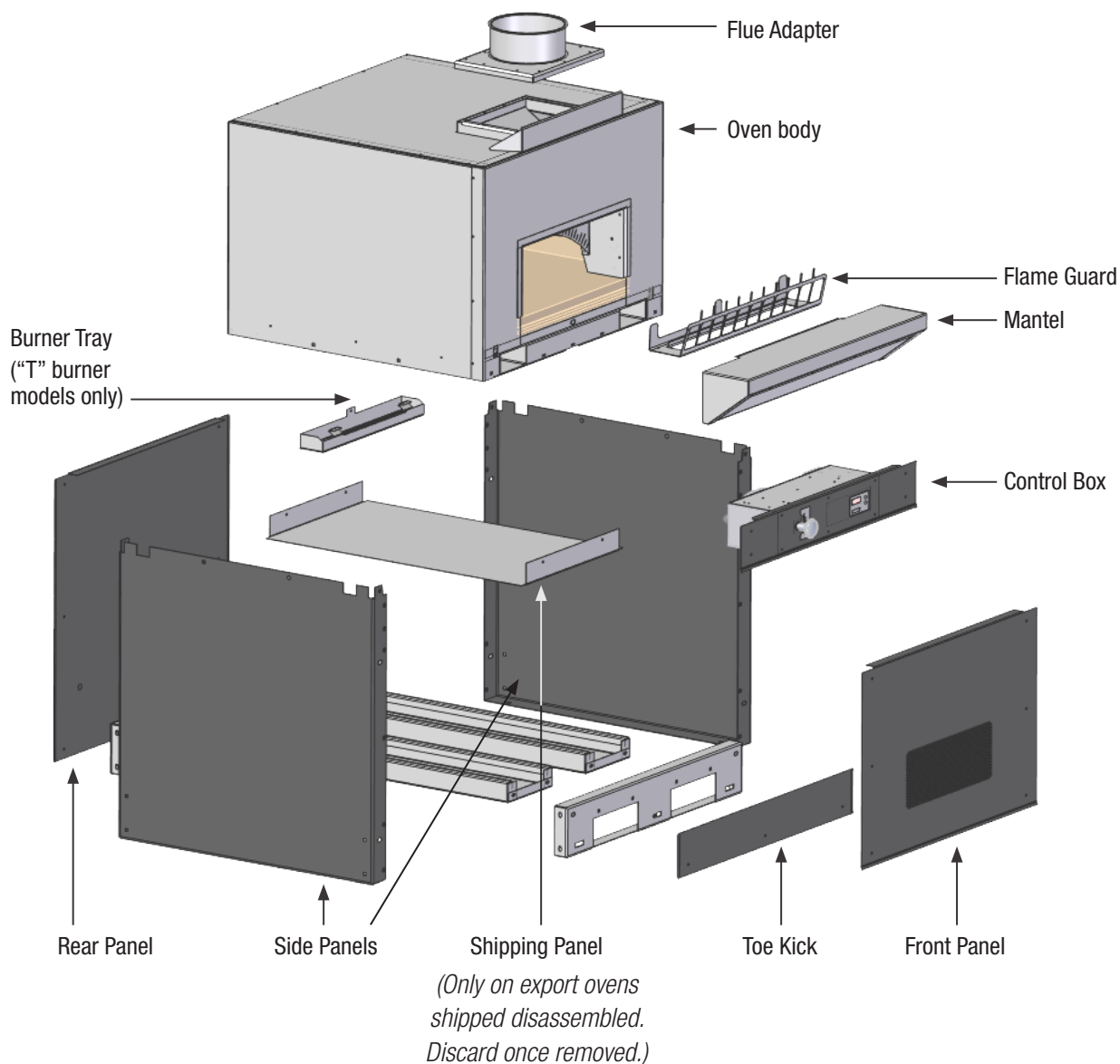


13. Maneuver oven stand into position under the oven using pallet jack.

Lower oven and secure oven to stand with bolts.



**ALL PARTS SHOWN 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.**





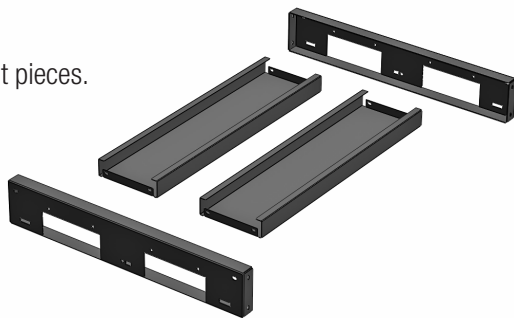
Follow these instructions only if the oven was shipped disassembled, or disassembled to move through a narrow door or passageway.

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.**

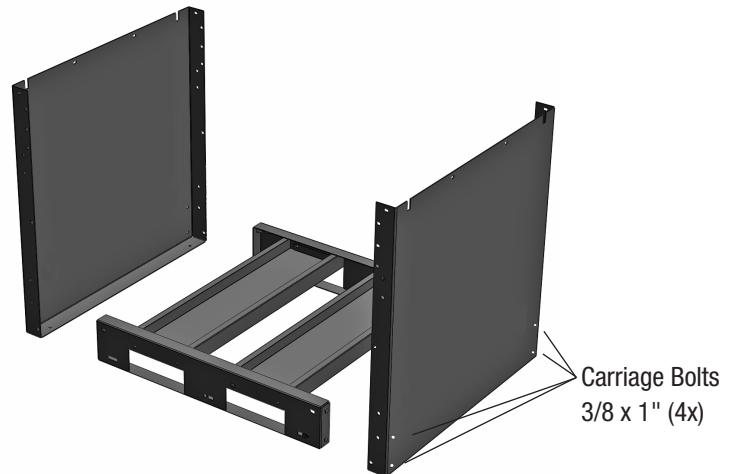
The floor design and construction must be adequate to handle the weight of the oven.

Please see woodstone-corp.com for floor loading information.

1. Lay out pieces.



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

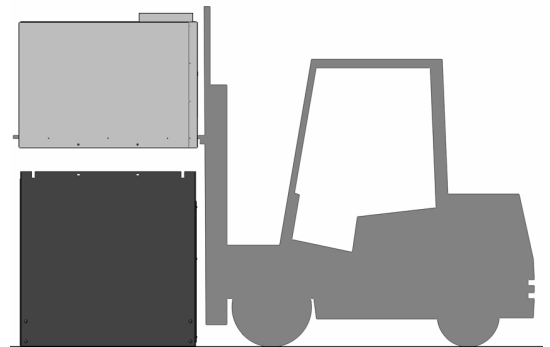


3. Using a forklift or other suitable lifting device, carefully lower the body of the oven on to the stand so that the bolt holes line up. While supporting the oven with the lift, install the 3/8-inch x 1-inch carriage bolts. Use the washers provided and tighten all nuts securely. Be sure to use the forklift pockets when lifting the body of the oven. **Bistro 3030 models:** Forklift pockets are on the front only and do not extend all the way through the oven.

NOTE: Oven ships with temporary 'X' braces across the front and back. Leave the 'X' bracing in place until the rear panel is installed.

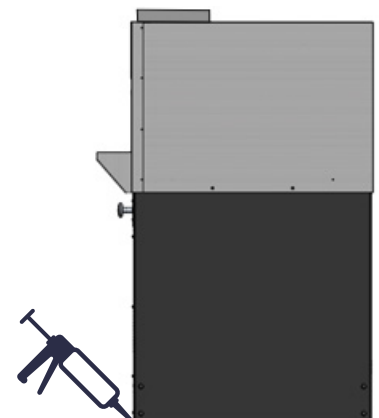
WARNING

If a forklift is not available, or forklift access is not possible, enlist the services of an experienced rigging company, to lift, remove and reinstall the oven body.



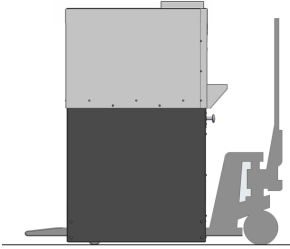
4. After the oven body is bolted to the stand, the oven can be moved into place with a pallet jack using the LOWER forklift pockets. If the oven is to be installed against a wall, leave access to the back of the oven until the assembly is completed. See Warning on next page.

5. **IMPORTANT:** The equipment is required to be sealed to the floor to establish proper sanitary operation. Seal any small gaps between the oven and the floor with silicone. This is intended to prevent liquid spillage on adjacent surfaces of the floor from passing under inaccessible portions of the equipment.

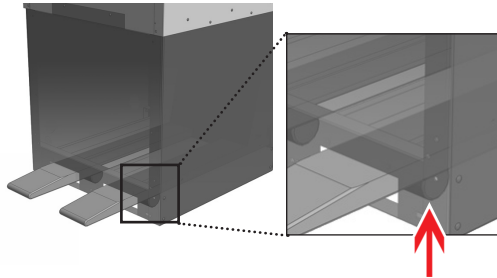




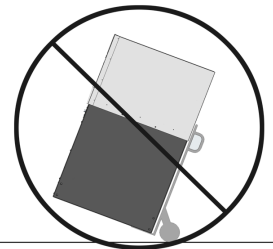
WARNING: The oven is very top-heavy. IF THE OVEN TIPS IT CAN CAUSE SEVERE INJURY OR DEATH! The oven should only be moved using a pallet jack on a smooth, LEVEL FLOOR. Do not attempt to move the oven with a hand truck. If the oven must be moved over an inclined surface, a forklift or other suitable means 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, LEVEL FLOOR. If the oven must be moved over an inclined surface, a forklift or other suitable means should be employed.

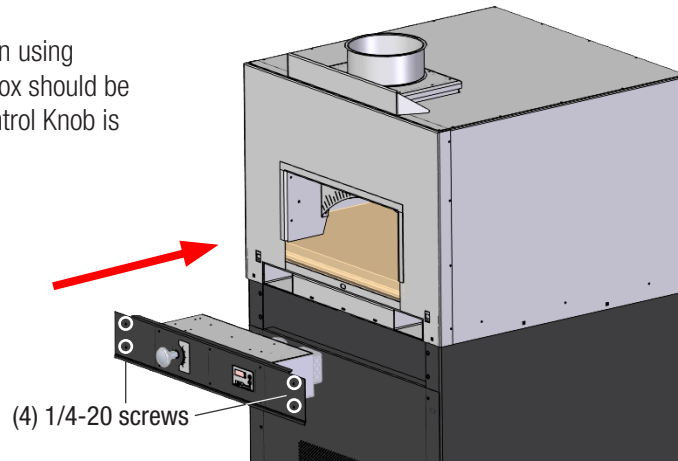


Make sure the pallet jack wheels do not contact the underside of the fork pocket when lifting to avoid damaging the stand.

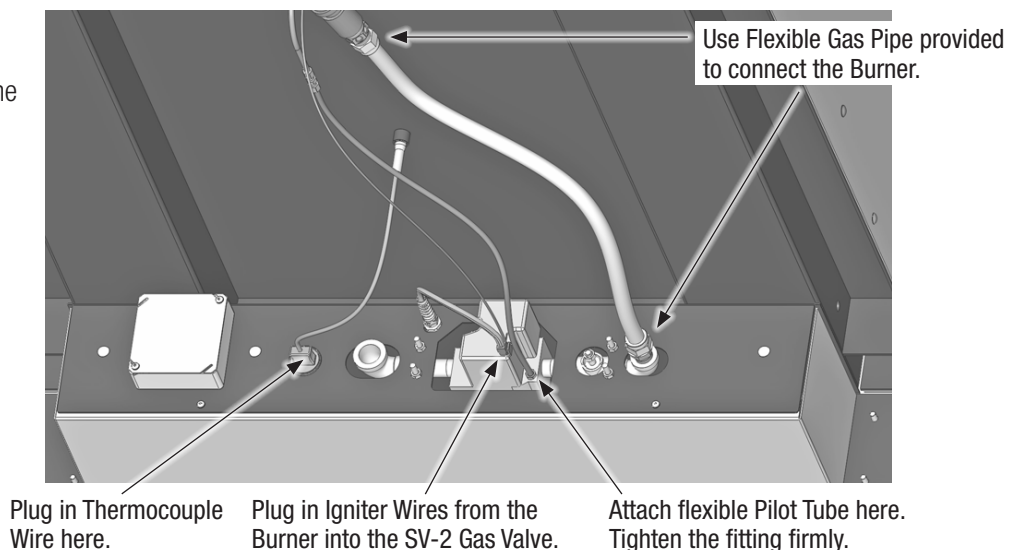


Never attempt to use a hand truck to move the oven.

5. Attach the Control Box to the oven using (4) 1/4-20 screws. The Control Box should be oriented so the Flame Height Control Knob is on the left side.

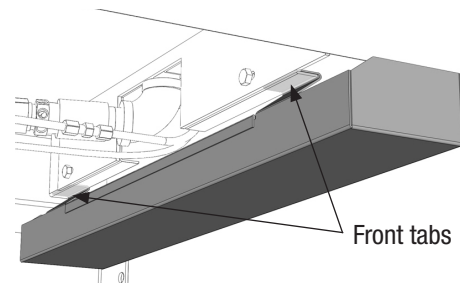
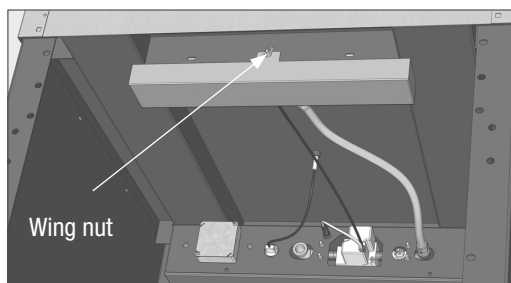


6. Connect Burner Assembly components and Thermocouple at the rear of the Control Box.



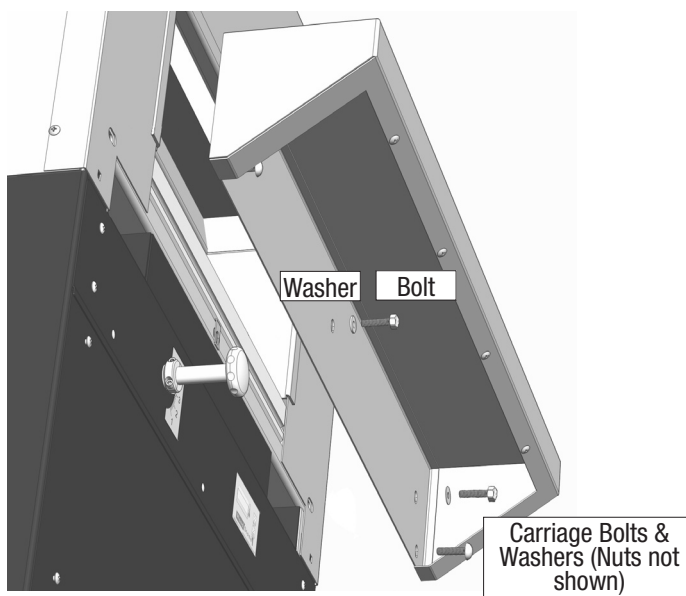


7. Install the Burner Tray. Slip Front Tabs of the Burner Tray over the lip of the Burner while the Tear Tab of the Burner Tray slips over the threaded stud at the back of the Burner. Install the Wing Nut onto the stud and tighten to secure the Burner Tray in place.

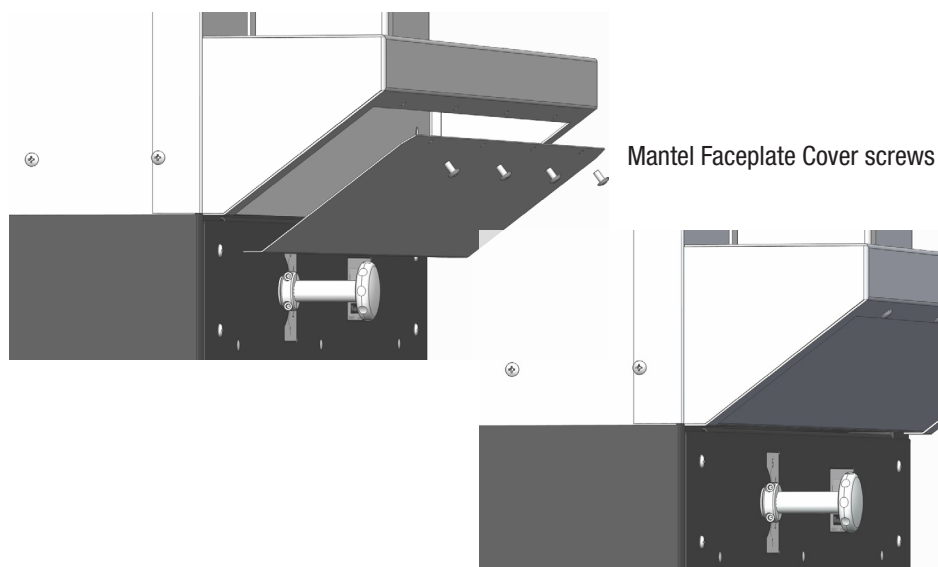


8. Install the Mantel. Fasten using 3 Bolts and 4 Carriage Bolts (see illustration).

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

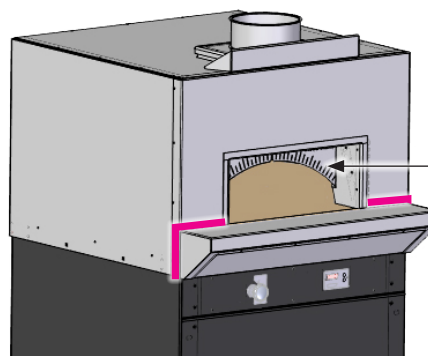


9. Place the Mantel Faceplate Cover over the open area under the top of the Mantel. Install the cover plate using the screws provided (3 for BL-3030 and 4 for BL-4343/BL-4355).



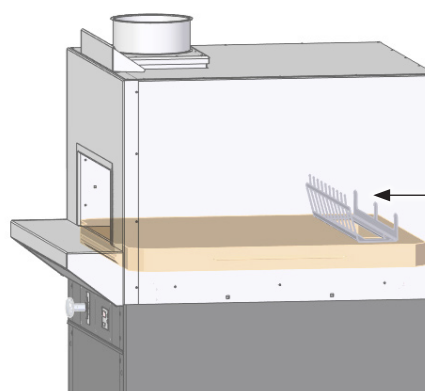


10. Run a bead of high temperature silicone (provided) along visible joints where the mantel and the oven intersect—in the front and on both sides of the oven (right side not shown).



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

11. 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 fits onto the studs on the Burner Guard, behind the opening in the guard, so the logs sit at the rear of the burner opening.

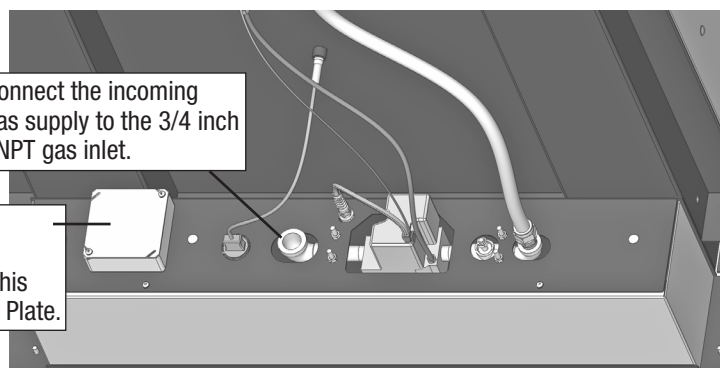


Flame Guard

12. 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.

Connect the incoming gas supply to the 3/4 inch FNPT gas inlet.

Make the electrical connection to the terminals in this Junction Box.
Note: Correct voltage is specified on this Junction Box and the equipment Data Plate.



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 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 3/4-inch full-flow gas shut-off valve should be installed on the gas supply near the oven in such a way that it is readily accessible.

THE REAR PANEL MUST BE INSTALLED IN ORDER FOR THE OVEN TO WORK PROPERLY.

ELECTRICAL CONNECTION

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

An Electrical Diagram is provided inside the bottom cover of the Control Box, and at the end of this manual.



- 14.** Check the burner manifold pressure. The burner manifold pressure has been set at the factory, however it should be checked by the installer. The pressure should be checked at the outlet tap on the Honeywell gas valve, located on the back of the control box. Once the manometer is connected, turn the oven on and use the knob on the oven to adjust the flame to its maximum height. Then check the manifold pressure. Additional details follow.

This oven requires no modifications or adjustments for use at high altitudes.

The installation must conform with local codes, or in the absence of local codes with the National Fuel Gas Code, ANSI Z223.1 or the Natural Gas Installation Code, CAN/CGA-B149.1, as applicable.

SV-2 is the gas control valve that operates the interior Radiant Burner. The manifold pressure is checked at the outlet port on the SV-2 gas valve.

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.

NOTE: The gas valves are shipped in the **ON** position.

NOTE: STANDARD BISTRO BURNERS

- On the BL-3030, BL-4343 and BL-4355 ovens, the standard burner is the T-Burner.
- On the BL-4836, the standard burner is the Jetted Burner.
- On all ovens with optional side burner configurations, the standard burner is the Jetted Burner.

**FACTORY SPECIFIED INDIVIDUAL BURNER MANIFOLD PRESSURES (W.C.)
FOR WS-BL MODELS**

Model	Natural Gas (NG)		Propane (LP)	
	T-Burner	Jetted Burner	T-Burner	Jetted Burner
3030	4.5" W.C.	3.75" W.C.	7" W.C.	7" W.C.
4343, 4355	4.5" W.C.	4.5" W.C.	9" W.C.	7" W.C.
4836	n/a	4.5" W.C.	n/a	7" W.C.

GAS CONNECTION

Bistro Line ovens are equipped with a 3/4-inch FNPT gas connection. 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. **DO NOT USE A FLAME TO TEST FOR LEAKS!**

All gas piping up to the oven must have a minimum inside diameter of 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 shutoff valve, located between the oven and the main gas supply, and that this shutoff 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.

**MAXIMUM HOURLY BTU INPUT RATES FOR WS-BL-RFG MODELS**

Model	Natural Gas (NG)		Propane (LP)	
	T-Burner	Jetted Burner	T-Burner	Jetted Burner
3030	55,000	55,000	42,000	48,000
4343, 4355	80,500	80,500	68,000	80,500
4836	n/a	80,500	n/a	80,500

Maximum inlet gas pressure must not exceed 14" W.C. (1/2 psi)

GAS INLET PRESSURE

For ovens running on natural gas, an inlet pressure of 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 14" W.C. (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 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 14" W.C. (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.

GAS CODE LIMITATIONS

The installation of this appliance must conform with local codes, or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1 or The Natural Gas Installation Code CAN/CGA-B149.1 as applicable.

The appliance and its individual shutoff valve (supplied by others) must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psi (3.45 kPa).

The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve (supplied by others) during any pressure testing of the gas supply piping system at test pressure, equal to or less than 1/2 psi (3.45 kPa).

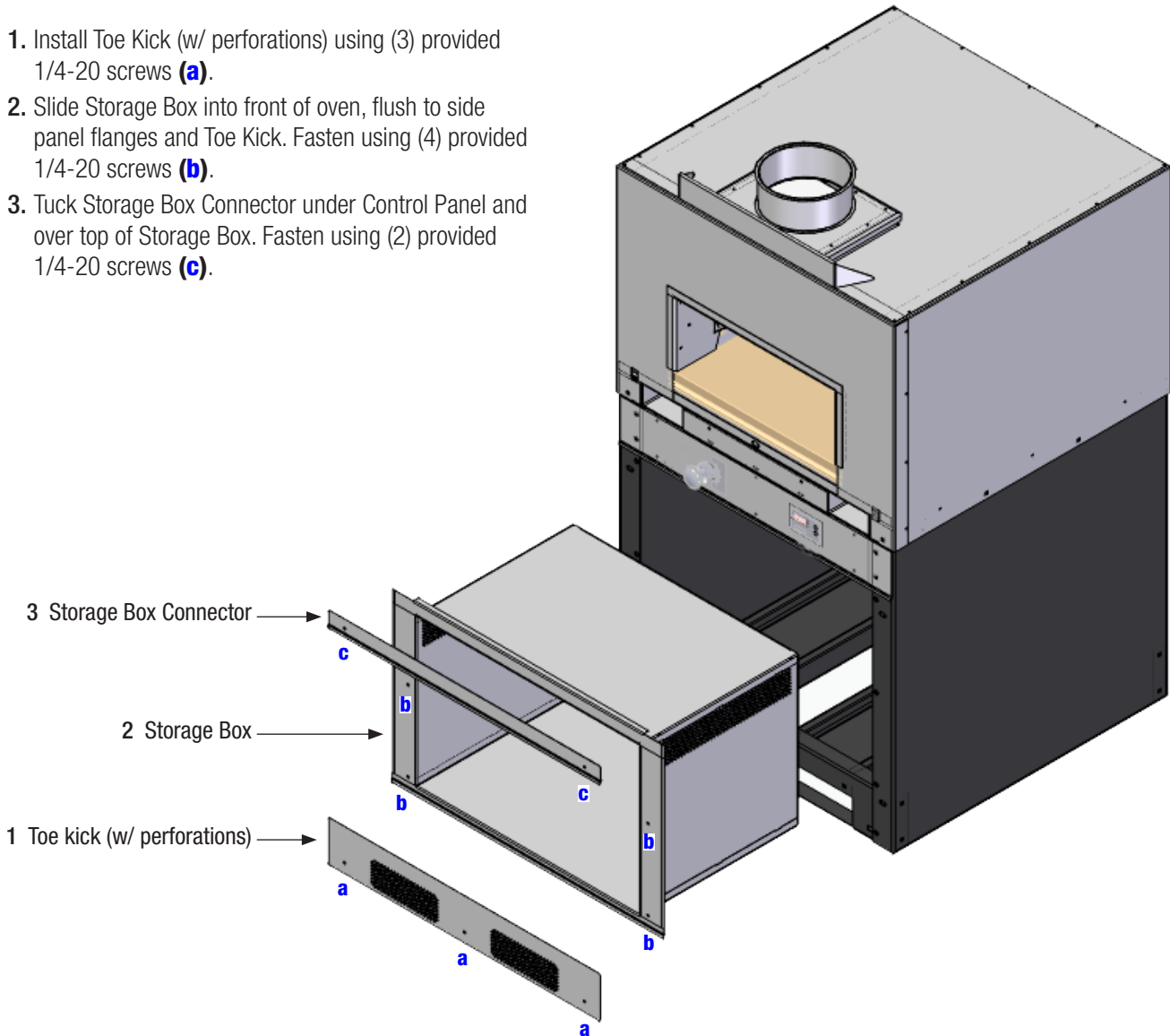
15. Install the rear panel, front panel and toe kick using the 1/4-20 screws provided. The front panel on the oven must not be covered so as to allow access for service to the oven components. The oven should be bolted to the floor using the holes provided at the base of the stand.

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



INSTALLATION OF OPTIONAL STORAGE BOX BL-4343, BL-4355 & BL-4836 ONLY

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 100 °F.

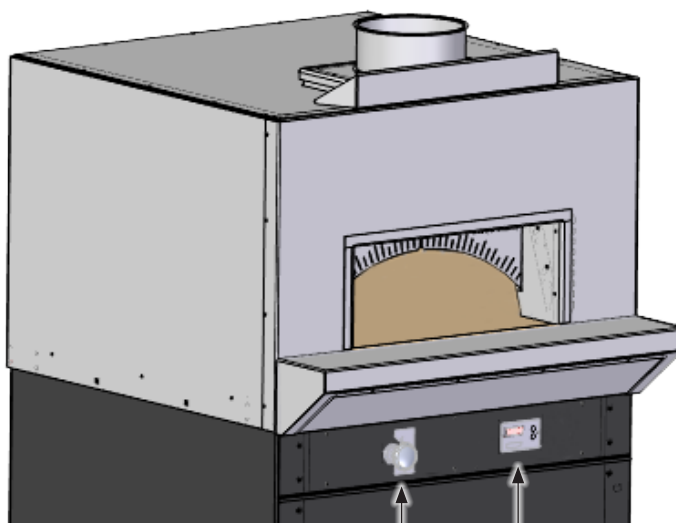


Temperature units

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**

NOTE: The ceramic materials used in the construction of your Wood Stone oven will absorb moisture if exposed to high humidity or damp conditions during shipment from the factory or extended periods of storage before installation. 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. After this initial process, you will not see any additional moisture from the oven unless the oven is not used for an extended period of time AND it is exposed to excessive moisture or high humidity.

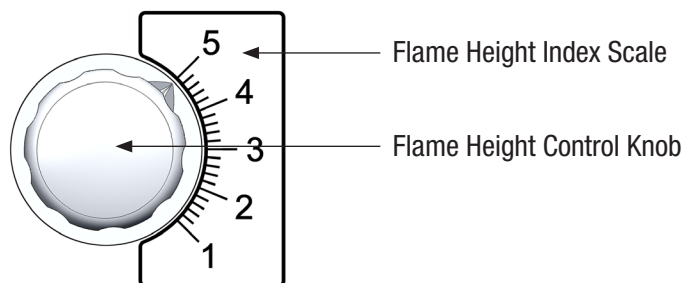
FIRST DAY

1. Make sure exhaust fan is properly wired and interlocked to the appliance and main gas supply is ON (valve parallel with gas line).
2. Push I/O button on the Controller. It may take a while for the gas to purge all the air from the gas lines. The exhaust fan should come on as well.
3. Once the burner ignites, make sure the flame is at its lowest setting, "1" and allow the appliance to operate at this setting for about 1 hour.
4. After 1 hour, raise Radiant flame to 25% (~5-inch flame, or ~2 on the Flame Height Control Index Scale) and hold this setting for 4 hours.
5. After 4 hours, raise radiant flame height to 50% (~3 on the Flame Height Index Scale) and hold another 4 hours. The oven can be left at this setting all night.
6. At this point, the oven is ready for use.

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 1/8" wide or more develop, contact Wood Stone for evaluation.

FLAME HEIGHT INDICATOR

Comprised of two parts



For more information regarding flame height control, go to the Resource Center section of our web site at:

www.woodstone-corp.com

**END OF THE DAY**

Push I/O button on the Controller. All gas will go off, including the pilots. When the oven is turned off, use the Night Heat Retention Door to help retain heat in the oven. Place the Night Heat Retention door(s) into the oven doorway.

BEGINNING OF THE DAY

Make sure the night door is removed. Push I/O button on the controller to to the oven on. 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.

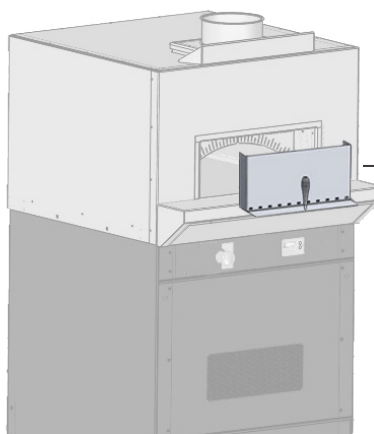
See woodstone-corp.com for detailed information on cooking in your Wood Stone oven.

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**BURNING WOOD**

Gas-fired models with a “-W” in the model number are listed for the burning of up to 3 lbs. of wood per hour when properly vented as a solid fuel appliance. Build the fire on the side of the oven, 6–10 inches 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 Ash Disposal Guidelines later in this manual.

**NIGHT HEAT RETENTION DOOR**

NOTE: Never operate this oven 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 oven is turned OFF.



**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.**

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

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

OVEN EXTERIOR

All painted and stainless steel surfaces should be cleaned as necessary using a 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.

GAS-FIRED OVEN THERMAL CLEANING

If a Wood Stone gas-fired oven is operated at low temperatures (below 525 °F), you may notice a buildup on the oven floor. Note that this floor buildup may be perceived as the floor flaking away. If you operate the oven below 450 °F, you may also notice some buildup on the interior walls and/or ceiling of the oven. To remove any buildup that has accumulated inside of the oven, simply turn the radiant flame to its highest setting. Monitor the hearth floor temperature displayed on the controller. When the floor reaches 650 °F, lower the flame slightly so as to maintain the oven floor temperature near 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.

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.

WOOD-FUELED MODELS: WOOD HANDLING AND ASH DISPOSAL

Wood should be stored and handled in accordance with the recommendations outlined in NFPA 96. 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 should be inspected and cleaned per the manufacturer's and or local code official's recommendations.

Dispose of ash per the following: place ashes into a metal container with a tight fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground, well away from all combustible materials, pending final disposal. They should be retained in the closed container until all the cinders have thoroughly cooled. Ashes can then be disposed of safely.

Wood Stone's stainless steel ash shovel and, Double Compartment Ash Dolly disposal system is a safe and convenient way to dispose of ash. See specifications on woodstone-corp.com or call your dealer or Wood Stone for details.



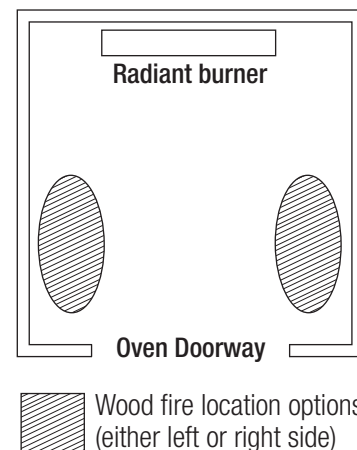
NOTE: Only RFG-W models are intended to allow the additional burning of wood. All gas-fired models that include a “-W” in the model number are listed to allow the burning of up to 15 lbs of wood per hour for flavor, but **MUST** be vented as SOLID FUEL equipment. **Do not over fire the oven.**

**WHEN BURNING WOOD, USE SOLID WOOD FUEL ONLY.
DO NOT USE PRODUCTS NOT SPECIFIED FOR USE WITH THIS OVEN.**

The fire should be placed to one side of the oven chamber (either right or left), as close to the door opening as is possible. This is often described as the 9 o'clock or 3 o'clock position (see diagram at right). Burn a maximum of 15 lbs. of wood per hour. **If flames spill out of the doorway, or the oven temperature exceeds 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.**

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 15 lbs. per hour 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.



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.

**WHEN BURNING WOOD, USE SOLID WOOD FUEL ONLY.
DO NOT USE PRODUCTS NOT SPECIFIED FOR USE WITH THIS OVEN.**

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	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

*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).

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.

Cost per month = $A \times C$

Cost per day = $\frac{A \times C}{30}$

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

A = Cost/cord (from wood supplier)

B = lb/cord (from above table)

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

When burned, a pound of any wood releases approximately 6500 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 4' x 4' x 8' when stacked.

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

Do not use pressed wood products in Wood Stone food service equipment, they may damage the ceramics.



PROBLEM	CAUSE/SOLUTION
Controller will not turn on	1. Incoming power to oven turned off. Check circuit breaker for circuit supplying the oven. Check that any wall switches external to the oven that control oven power are turned on. Check that any interlocks external to the oven are turned on. 2. If controller still does not turn on, please contact Wood Stone for assistance.
Flame does not light	1. Check that is gas turned on to the oven, and gas shut-off valve is turned all the way on. 2. Debris in burner. Burner may require cleaning. Contact Wood Stone for assistance. 3. Damaged igniter or gas valve. Contact Wood Stone for assistance. If the oven is being started for the first time: - Has all air been bled from the gas line? - Is the switch on the SV-2 valve in the ON position? NOTE: Valve is locate on the back of the control box, beneath the oven.
Flame cuts out	1. Debris in burner. 2. Oven is being run with the night door in place. Night Heat Retention Door must be removed whenever the oven is turned on. 3. Wind blowing into the oven, or other venting issues.
Display reads "OPEN"	1. Thermocouple is not plugged into control box. 2. Damaged thermocouple. Contact Wood Stone for assistance.

Please contact Wood Stone at 1-800-988-8103 should service be necessary, or if you have any questions about your oven. Our service hours are 8am to 5pm Pacific time. Follow the recorded instructions for Emergency Service if you require assistance during non-business hours. A Wood Stone technician will promptly respond to your call.

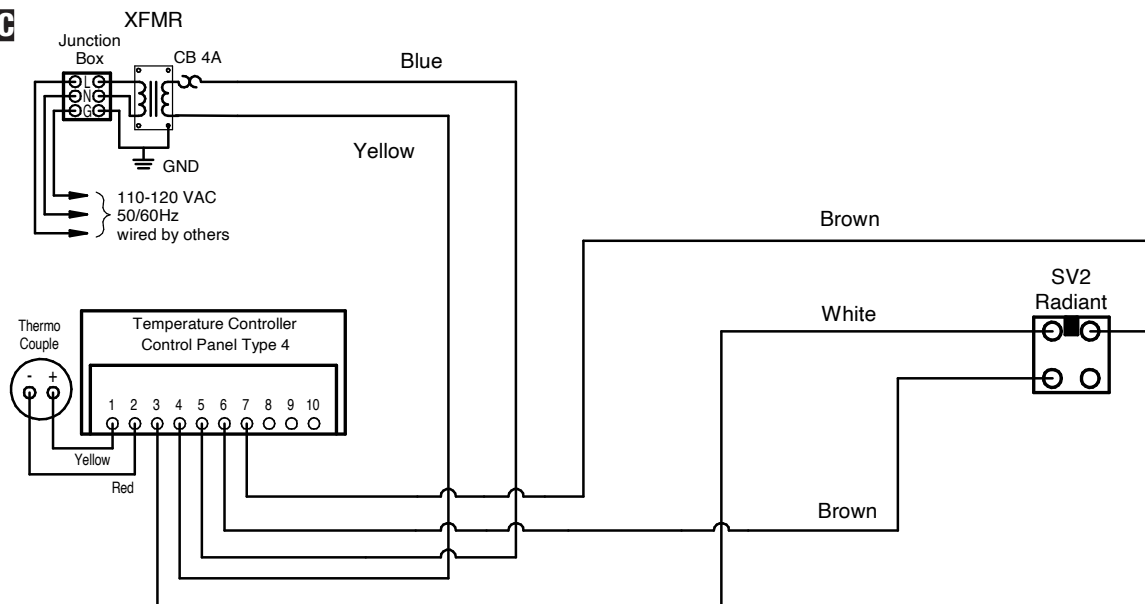


BISTRO MODELS 3030, 4343, 4355 AND 4836 ELECTRICAL DIAGRAM

Models produced **after** April 2005

See equipment data plate for correct voltage of your oven.

120 VAC



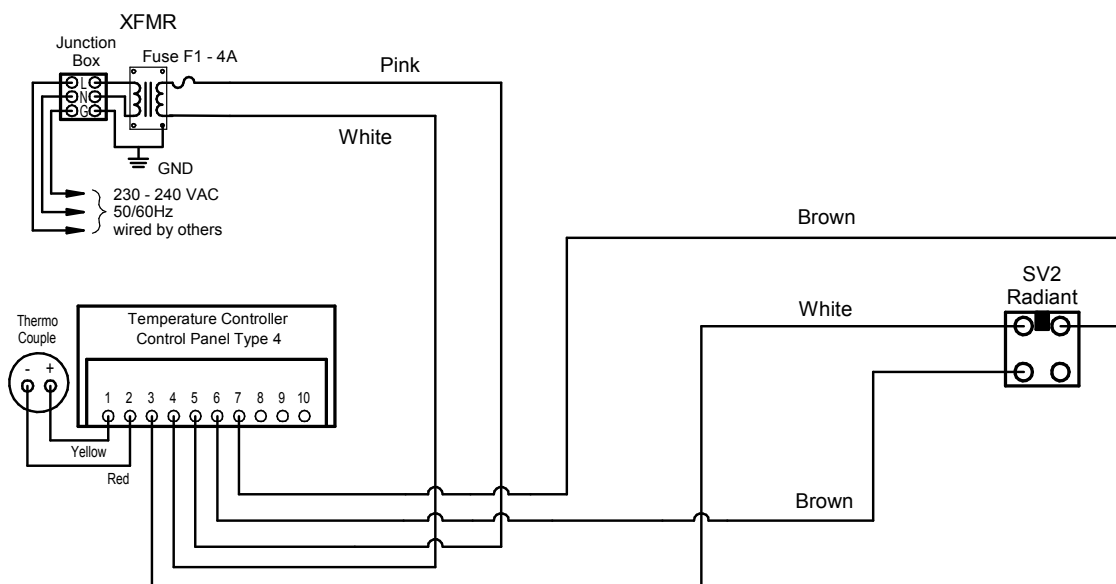
Wood Stone

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

DIAG #: WD070 Rev. 1

DATE: 2/2/2017

240 VAC



Wood Stone

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

DIAG #: WD077 Rev. 2

DATE: 12/12/2018

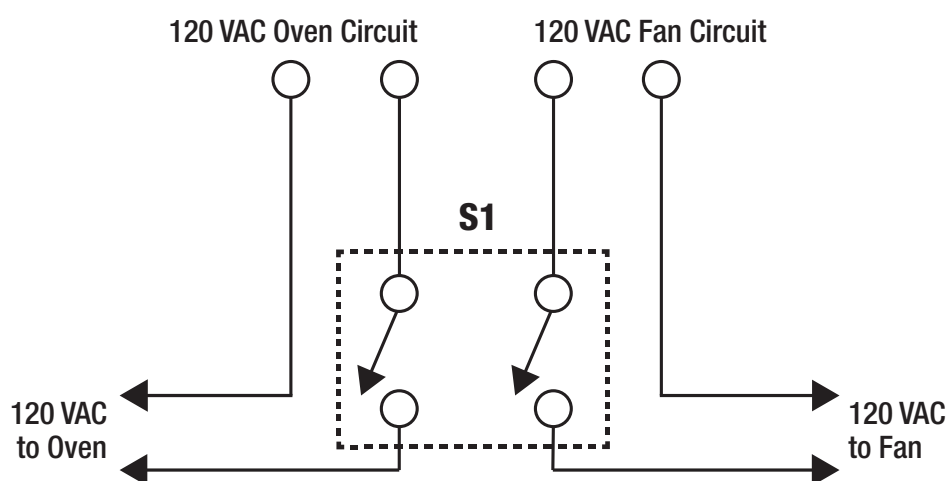
**INTERLOCK OF OVEN CONTROL TO AN EXHAUST FAN**

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

This connection is NOT to be used with ovens burning solid fuel.

The ventilation system must be running any time there is solid fuel burning in the oven.

Failure to follow this instruction can lead to a fire, as well as dangerous buildup of combustion byproducts, including Carbon Monoxide.

Wired by others

S1 is a Double Pole, Single Throw (DPST) switch provided by others.

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

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

For additional interlock options, see the Wood Stone Interlock Options supplement in the Manuals section on the website, woodstone-corp.com, or contact Wood Stone for additional information.

**ALL WARRANTY SERVICE MUST BE PRE-APPROVED BY WOOD STONE**

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.

Please contact the factory first at 1.800.988.8103 or 1.360.650.1111, seven days a week. Our normal business hours are 8am to 5pm Pacific time Monday–Friday. If calling during non-business hours, follow the recorded instructions for emergency service and a Wood Stone technician will get back to you promptly.

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:

Wood Stone Corporation, Attn: Service Department, 1801 W. Bakerview Rd., Bellingham, WA 98226 USA
Phone 1.800.988.8103 or 1.360.650.1111



WOOD STONE CORPORATION

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