## **Bread Stone Ovens, LLC**

9758 Skillman Street, Dallas, TX 75243 U.S.A

www.breadstoneovens.com

#### **Instruction for ovens:**

950 B-C, 1030 C, 1200 B-C-L, 1400 B-C, 1500 B-C

Options: Brick, Concrete, Raised, Gas

## **Manufactured In partnership with:**

Four "Grand Mere" 2 rue de la Gare, 88700 Jeanmenil FRANCE

This unit was tested and listed to OMNI Report number 0508GM001S by OMNI-Test Laboratories



Report Number: 0508GM001S

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## **Assembly Instruction and User Guide**

This instruction are available in French on our website breadstoneovens.com

Ces instruction sont disponibles en Français sur notre site breadstoneovens.com

#### Warning!

Contact your local gas supplier to obtain instruction to be followed should you smell gas. This instruction must posted in a prominent place.

#### FOR YOUR SAFETY

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

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

#### Warning!

Do not obstruct the fresh air vent, gas burner nor the chimney exhaust.

Damper must be open must be open prior to and remain open during the operation of the oven.

Prior to installing your oven, you should consult with the local authorities having jurisdiction such as, but not limited to, municipal building department, fire department, fire prevention bureau, to determine the need to obtain a permit.

SAVE THESE INSTRUCTIONS

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## **Assembly Instruction**

The oven is delivered fully assembled. This information is provided should the oven be disassembled partially to fit through an opening.

#### **Oven Stand**

Only use the provided oven stand.

## 1) Electrical Wiring of the Oven

#### Warning!

Electrical and gas connection should be performed by a licensed professional.

#### Warning!

All electrical should be switched off at the main electrical panel prior to servicing any equipment.

Check power has been fully turned off prior to servicing the equipment.

#### Warning!

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

- 1.1) The oven electrical panel, gas burner system has been pre-wired at our factory. Please refer to wiring diagram for repair and maintenance.
- 1.2) Power supply to the control panel

The control panel is to be plugged using a 110 Volt 15 amps outlet

1.3) Temperature control of the oven with gas burner

Ensure the thermocouple is properly inserted into the oven dome. Fig. 1

The thermocouple protrudes through the dome and no less than a 1/4" (10 mm) into the oven, on the left or right of the door about 3" (76 mm) above the floor of the oven.

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### Warning!

Any modification or repairs to the gas burner or control must only be performed by a licensed professional.

Any warranty is void if the equipment is modified or altered outside of the parameters listed in these instructions and user guide.

Fig. 1



Fig. 2



## 2) Gas Connection

### Warning!

Gas should be turned off at the main gas valve prior to servicing the equipment

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#### Warning!

The gas burner should be fitted with an orifice that does not exceeds the BTU output listed for your oven.

#### Warning!

Any modification, conversion or repairs to the gas burner or control must only be performed by a licensed professional.

If applicable, the vent line from the gas appliance pressure regulator shall be installed to the outdoors in accordance with local codes, or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA 54, or the Natural Gas and Propane Installation Code, CSA B149.1, as applicable.

The gas connection can be made with a flex hose or a hard pipe connection. The gas connection should be made through the back of the oven, below the stand. Do not run the gas line through the sides or front of the oven.

The gas line and connection can be made at an angle if needed.

The gas burner has been fitted with an orifice according to the size of your oven. It is possible to increase or decrease the BTU output of the gas burner to be adjusted to your preference. Please refer to the gas burner manufacture instruction and user guide manual attached in order to properly and safely calibrate and adjust the settings for your gas burner.

The gas burner must be connected to a 1/2 gas line. Please refer to the manufacturer's instructions below for proper pressure test and installation.

The installation must conform with local codes, or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA, or the Natural Gas and Propane Installation Code, CSA B149.1, as applicable, including:

- 1. The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of ½ psi (3.5 kPa).
- 2. The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than  $\frac{1}{2}$  psi (3.5 kPa).

All warranty are void if the equipment is modified or altered outside of the parameter listed in this instruction and user guide.

See Heat Gas Burner Instructions

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### 3) Oven Placement

#### 3.1) Type of floor

The oven must be place on a non-combustible leveled surface that support the full weight of the oven.

A concrete slab is best to properly support the oven.

#### 3.2) Securing the Oven

The oven must secured to the floor using the pre-drilled metal plates

## 4) Smoke exhaust and Venting

The oven smoke exhaust must be connected using either of the 2 options described bellow.

- **4.1**) An 8" (204 mm) direct vent UL 103 ( or ULC S629 for Canada ) type of chimney system in compliance with your local building code or
- **4.2**) A type 1 hood in compliance with your local building code

## 5) Oven Enclosure

Your oven must be installed and sealed inside a non-flammable enclosure directly around the oven respecting the air gap and flammable material clearances.

When exposed to the elements, the enclosure must be water proof and offer sufficient protection so water can not infiltrate, drain or in anyway get into the oven. Water in the oven would result in severe cracking of your oven. Failure to properly enclose the oven would result in voiding the warranty.

#### **5.1**) Proper Clearance from flammable materials

Allow 2" (51 mm) air gap between the sides and back of the oven the insulation or outside finish and any flammable materials.

Allow 2" (51 mm) air gap between the top of the oven the insulation or outside finish (including the insulation of the smoke circulation pipe) and any flammable materials.

Allow 36" (915 mm) of non flammable flooring materials in front and the side of the door opening.

There is no minimum spacing between multiples oven units.

Please refer to the diagram on Fig. 13 to ensure proper air gap and clearance from flammable materials.

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#### **5.2**) Enclosure venting

For indoor installation, there are no requirement for venting of the enclosure. However we do recommend a small vent such an under eave vent or gable vent made of non flammable materials.

#### **5.3**) Enclosure access

The enclosure should be designed to allow access under the oven for repairs and routine maintenance with an access door no less than 24" (610 mm) wide by 24" (610 mm) tall.

WARNING! You must seal the enclosure around the oven.

### 6) Wood storage

The wood intended for heating-up and maintaining the fire in the oven should be stored away from the oven. The minimum space between the oven and wood storage must be 36" (914mm). The would should not be stored within the space required for charging and ash removal.

WARNING! DO NOT STORE WOOD UNDER THE OVEN

WARNING! DO NOT STORE ANYTHING UNDER THE OVEN

## 7) Fresh Air Supply

The installation and enclosure should allow sufficient fresh air supply to the fire and the gas burner

#### 7.1) Wood Fire

Fresh air intake vent opening under the oven where the ash box is located must be no less than 30" wide by 30" (762 mm) tall.

#### 7.2) Gas Burner only or with Wood Fire Combination

Fresh air intake vent opening under the oven must be no less than 30" (762 mm) wide by 30" (762 mm) tall to ensure sufficient air supply to the gas burner.

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### **User Guide**

#### FOR YOUR SAFETY

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

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

#### WARNING!

This unit was designed for indoor use only.

#### WARNING!

Any part of the oven may become extremely hot and cause serious burns and injuries.

Always use proper protections to prevent burns while firing the oven and after the fire has been removed.

Never throw wood into the oven as you may injure yourself and damage the oven. Use fire management tools or a pizza peel to place the wood in the oven especially in hard to reach places such the back of the oven

Only burn fully dried, well seasoned wood.

Only burn hard wood such oak, ash or maple.

Never burn any type of sappy wood such as evergreens.

Leave the door of the oven open while firing the oven.

Do not over fire- IF OVEN OR CHIMNEY CONNECTOR GLOWS, YOU ARE OVER FIRING.

Do not over fire – when flames spill out of the oven, you are over firing.

flames SHOULD NOT BE coming out through the door of the oven and SHOULD BE contained inside the oven.

Never throw water in the oven under any circumstances as it may result in serious injuries and damaging the oven.

The chimney pipe and smoke exhaust requires cleaning at least once a year. More frequent cleaning may be required depending on the type of wood burnt and the frequency with which the oven is used.

Prior to installing your oven, you should consult with the authorities having local jurisdiction such as, but not limited to, municipal building department, fire department, fire prevention bureau, to determine the need to obtain a permit.

THIS APPLIANCE IS EQUIPMENT FOR  $\square$  NATURAL GAS or  $\square$  LIQUID PROPANE

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The color of the discount is a part of the		
The orifice size for this unit is to provide BTU		
Firing up the oven:  WARNING! USER MUST OPEN THE DAMPER PRIOR TO OPENING THE OVEN'S DOOR		
OR OPERATING THE OVEN.		
Damper is open when the handle is vertical and closed when the handle is horizontal. Damper must remain open while the oven is in use Do not use grate or elevate fire-build, wood fire directly on hearth Due to the very high temperatures generated by the oven, we recommend leaving the door wide open to prevent serious injuries. Should you decide to partially close the door for a faster heat-up time, never completely close the door as this would result in asphyxiating the fire and possibly generating carbon monoxide. When handling the door while the oven is still hot, never touch the door with your bare hands. Always use the appropriate heat protection device or a tool to handle the door when it may be hot.  Use small pieces of wood such as kindle or small wood trimming along with some paper to start the fire		
A diagram of the electrical diagram is provided inside the electrical panel.		
This unit was designed for pizza and bread cooking with direct contact to the floor.		
When cooking other food items, such food items should be placed in pan to prevent spillage. To prevent spillage ensure the pan is big enough and that nothing will over flaw. Never attempt to boil water in the oven.  Never attempt to fry in the oven as the oil could catch on fire.		
Operating the oven		
1) Wood and Gas fired ovens		
Warning! Ensure all connection has been performed according the instructions listed above by licensed professional		
Warning! In case of emergency push the emergency red off switch button.		
The oven can be fired simultaneously using gas and wood.		
Warning!		

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Never use the gas burner to prop-up the wood

#### Warning!

Never build the fire on top of the burner or in a way that could obstruct the flame Fig.8

#### Warning!

Manage the wood, embers and ash build-up to ensure it is never to a point where it could cover, fall into or overflow into the gas burner.

Refer to the instruction listed on 1) and 2) for proper operation.

The oven must be cured or dried prior to heating temperatures. Please see curing instruction page 14.

Open the damper located right above the door

Turn on the main power switched located at the top right of the panel

Check the log guard is properly placed to ensure to log cannot roll on or near the gas burner.

Monitor the temperature with a infrared thermometer by measuring the temperature on the floor and the dome

**Warning:** Your oven must cured prior to heating it to full temperature.

Please refer to page 18 for full curing instructions.

Around 572 F or 300 C the dome of the oven will start turning from black to a white / grey color. Once the entire dome of the oven has achieved the white / grey color, we consider the oven to be fully dried.

If firing the oven above 752 F or 400 C, you must remove the dome thermometer to prevent damaging it.

Do not over heat the oven. Any temperature above 1000 F or 572 C is considered over heating Do not over fire the oven. When flames spill out of the door or up the chimney, this is considered over firing

## 2) Oven cleaning:

We recommend for the oven cooking chamber to be emptied of all ashes, wood and other debris after each use. Using the proper heat protective gear and a long handle wire brush and or scraper. Disposal of Ashes –

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Ashes should be placed in a steel container with a tight-fitting lid and moved outdoors immediately. Other waste shall not be placed in this container. The closed container of ashes should be placed on non-combustible floor or on the ground, well away from combustible materials, pending final disposal. When the ashes are disposed by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.

Never use any water to clean the oven even when it has completely cooled. There should be no fire burning when cleaning the oven.

- 2.1) Using the proper heat protective gear and a long handle wire brush or ember rake, rake the ashes into a metal container.
- 2.2) Let the embers and ashes cool off before removing the ash box container.

#### Warning!

As precaution wear the appropriate protective gears when removing and emptying the ash box as some live embers may remain and the content may steel be hot.

#### 2.3) Disposal of Ashes

#### Warning!

Never use any water to clean the oven even when it has completely cooled.

Establish a routine for the fuel, wood burner and firing technique. Check daily for creosote buildup until experience shows how often you need to clean to be safe. Be aware that the hotter the fire the less creosote is deposited, and weekly cleaning may be necessary in mild weather even though monthly cleaning may be enough in the coldest months. Contact your local municipal or provincial fire authority for information on chimney fires and have a clearly understood plan to handle a chimney fire.

Gas Burner



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Guard

#### 2-4) Sanitizing the oven

#### 2-4-1) Inside Cooking Floor

The cooking floor should be cleaned on a daily bases by removing any food debris and firing the oven at desired temperature. Food debris that burn to ashes should be swept out of the oven. Do not use any damp towel or water as this may damage the oven floor.

#### 2-4-2) Oven Entryway

To clean the oven entry from food debris, scrape the food off and with a brass bristle brush gently brush the area to remove fine particles.

With a damp towel and appropriate food surface cleaning solution, wipe off the area until all food residue has been removed.

Do not use water to clean the inside of the oven including the entryway

#### 2-4-3) Door Cleaning

With a damp towel and appropriate food surface cleaning solution, wipe off any food particle. If rusting occurs, remove the door from the oven, brush off any rust and apply high heat paint. Painting should take place away from the oven and away from any open flame.

### 3) Gas Fired Ovens

#### Warning!

Ensure all connection has been performed according the instructions listed above by a licensed professional

#### Warning!

In case of emergency push the emergency red off switch button.

The oven must be cured or dried prior to heating full temperatures. Please see curing instruction.

#### **Precaution!**

When firing the oven from being completely cold (oven at room temperature) with the gas burner only, try to heat the oven progressively by increments of 15 to 20 minutes followed by a pause (burner off) of 10 minutes. This will allow for the heat to distribute more evenly. Follow this process till desired temperature is achieved.

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3.1) Open the damper located right above the door

#### Warning!

At least once damper should always be open at all times.

- 3.2) Ensure the burner control is plugged in and gas line is open
- 3.3) Turn on the gas burner switch Fig. 2

Please refer to the manufacturer manual for further operating details and trouble shooting

3.4) Set to the desired temperature



The top number is the oven current temperature The bottom numbers is your set temperature

Use the up and down arrows to adjust to desired temperature, then push the "Enter Key" button (bottom left button) to set the temperature.

**Enter Button** 



Fig. 4

Please refer to the manufacturer manual for further operating details and trouble shooting

3.5) Because of heat conductivity the set temperature on the controller and the cooking floor temperature may be different. It is important to monitor the temperature on the floor and the dome using an infrared thermometer.

Adjust the temperature on the controller accordingly on the controller

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We strongly recommend not firing the oven above 1000 F or 572 C. Do not over heat the oven. Any temperature above 1000 F or 572 C is considered over heating

- 3.6) To turn off the power to the oven, turn off the gas burner switch
- 3.7) If the power goes out, when the power comes back on, you may need to turn the burner off then back on prior the gas burner coming back on.

You will not be able to operate the oven during a power failure due to the safety mechanism. Do not attempt to operate the oven during a power failure.

#### 4) Creosote – Formation and need for removal:

When wood is burned slowly, it produces tar and other organic vapors that combine with expelled moisture to form creosote. The creosote vapors condense in a relatively cool oven flue and exhaust hood of a slow burning fire. As a result, creosote residue accumulates on the flue lining and exhaust hood. When ignited, this creosote makes an extremely hot fire. The oven flue should be inspected at least twice a year to determine when the creosote buildup has occurred. If a significant layer of creosote has accumulated (1/8" (3 mm) or more) it should be removed to reduce the risk of a chimney fire

**Warning!** The inspection and cleaning should be performed by a licensed professional.

**Warning!** When cleaning the hot air circulation pipes, the power should be turned off at the main switch. Also there should be no fire burning in the oven.

When the oven is installed inside a building, when you first start a fire, some smoke may escape through the door while the chimney pipe heats-up and set off the smoke detector. This should only be temporary. Under no circumstance you should disable smoke detector. It may be necessary to relocate the smoke detector to avoid nuisance activations.

## 5) Curing your oven and the first fire:

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**Important warning:** While firing or operating the oven any part of the oven may become extremely hot and cause serious injury if handled without the appropriate protection, and so for up to 48 hours after the fire has been removed.

#### The curing or drying of the oven should be done in the following manner:

Temperature should be measured using an infrared thermometer.

- **5-1)** Make short on period with the gas burner over the course of 3 days, consecutive or not, for about 8 hours a day. It is imperative that the temperature of the dome, as indicated by the dome thermometer, does not exceed 60°C or 150°F on the first and second day and 90°C or 195°F on the third day.
- **5-2**) The 1st day, short period of 15 to 30 seconds with the gas burner, followed by off period of 5 to 15 minutes. For 7 to 8 hours to slowly achieve a temperature of 60°C or 150°F. When measured with an infrared thermometer, the dome temperature must not exceed 60°C or 150°F.
- **5-3**) The next day short period of 20 to 40 seconds with the gas burner, followed by off period of 15 to 20 minutes. When measured with an infrared thermometer, the dome temperature must not exceed 70°C or 158°F.
- **5-4**) On the 3rd and 4th day short period of 30 to 60 seconds with the gas burner, followed by off period of 15 to 20 minutes. When measured with an infrared thermometer, the dome must not exceed 90°C or 190°F on day 3. When measured with an infrared thermometer, the dome must not exceed 100°C or 210°F on day 4.
- **5-6**) On the 5th day and after a period of two hours keeping a flame, it is possible to exceed 100°C or 210°F and increase gradually to obtain a white vault on the three quarters of the dome surface.
- **5-7**) The oven is now dried so it is possible to increase the temperature and get the entire dome to turn white. As the oven turns from black to white, tiny lines forming a web like design may appear. This is called marbling and is perfectly normal.

Micro cracks on a height until 5" (130 mm) can appear during the first heating at the back of the vault.

They do not affect the quality or the longevity of your oven.

If cracks reach the upper part of the vault or elsewhere, it is because you did not respect drying instructions.

We consider the oven to have achieved 300°C or 572°F when the inside dome goes from black to the clear or white color.

This temperature is sufficient to cook any food. We recommend not heating up your oven any higher than 540°C or 1000°F

Do not throw the wood inside the oven during its functioning because it would risk causing damages in the oven and sparks may fly injuring you or bystanders. To safely place the wood in the oven, especially in hard to reach place such as the back of the oven, use appropriate tools, such as a peel or ember rake to place the wood in the oven.

The heating of the oven is made by moving the fire from front to back and side to side in such a

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manner to evenly heat-up the floor.

The manufacturer is not responsible for any nuisance to the environment because of a wood fire which releases smoke or particles of carbon, these problems resulting most of the time from too wet wood, an unsuitable flue, from incapacity, or from an absence of air inlet in the backing room, or an insufficiently frequent Chimney-sweeping in accordance with the use.

The responsibility of the manufacturer would not be engaged in the case of an appearance of micro cracks due to a proved overheating.

Subject to the respect of these various specifications, our ovens are guaranteed three years. The installation of our ovens must be made by a professional or a qualified person.

### **6) Oven Maintenance**

Follow the instruction for the cooking chamber, ash box and hot air ventilation pipe maintenance.

The gas burner should be inspected yearly by a licensed professional to maintain the warranty.

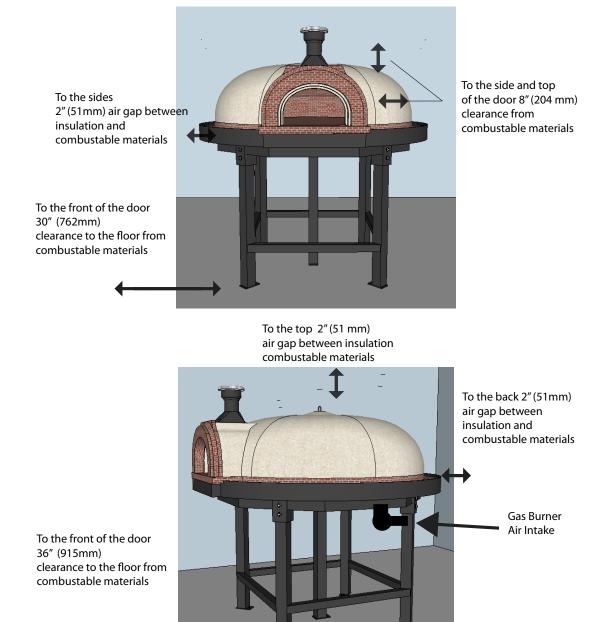
There is no lubrication required on the gas burner.

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Fig. 13

## Clearance From Combustable Materials



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