

Directions for Using Your

All American **SUN OVEN**[®]

Using your **All American SUN OVEN**[®] is easier than you might think. The best way to learn is to start cooking. After a few meals, you will feel like an expert. Don't be afraid to experiment. Nothing will burn and you will find your **All American SUN OVEN**[®] much more forgiving than a conventional gas or electric oven.

Placement

Put your **SUN OVEN**[®] in a sunny place which is unobstructed by shadows from trees, buildings, etc. Remember that areas not currently shadowed may be affected later by trees, buildings, or other large objects as the sun moves across the sky.

Setup

Unsnap the webbing strap that holds the reflectors in place. Lift and unfold the reflectors (which are hinged to the top of the **SUN OVEN**[®]) and slide the slot in the bottom section of the reflectors over the thumbscrew in the wooden frame, making sure the thumbscrew fits through the slot. Twist the thumbscrew one-quarter turn to hold the reflectors in place.

The latches that hold the glass door shut (on the right side of the door) are tightened before shipping – you will need to unscrew them ¼ to ½ turn to make them easier to operate.

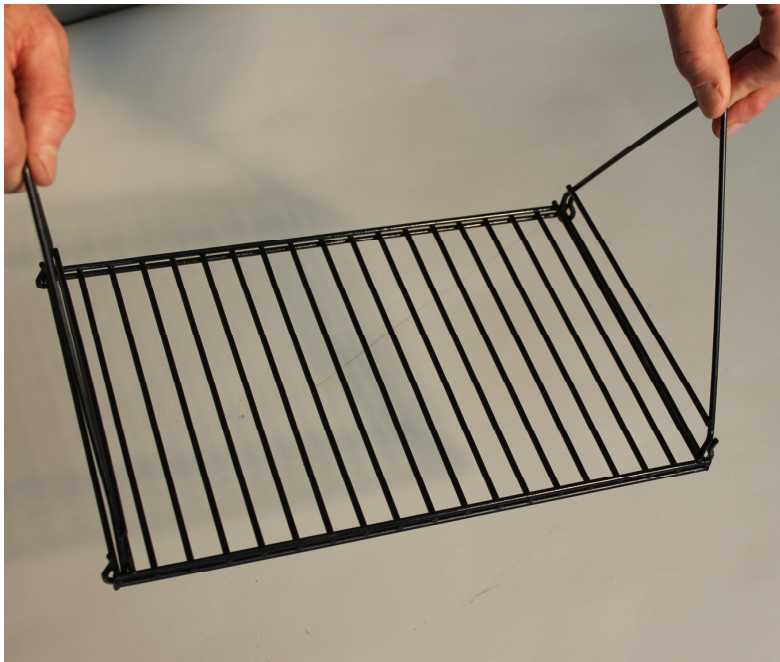
(Note: To protect the reflectors during assembly and shipping, a protective film has been applied and must be removed before initial use.)

Before you start cooking, the first time you use the oven, it is best to leave it in the sun for 90 to 120 minutes with an open pot of vinegar (3 cups of straight vinegar). The glass door should be closed and latched down and the vinegar will steam the oven chamber. After the oven has been pre-heated, completely clean the inside of the chamber and the inside of the glass door with the hot vinegar. While cleaning, it is best to scrub hard on the interior of the glass around the area where the glass meets the black gasket. Now you're ready to start cooking.

Dual-Purpose Leveling Rack

The **All American SUN OVEN**[®] is equipped with a dual-purpose leveling rack which hangs from the threaded rods inside the oven and swings freely to prevent spilling. The dual-purpose leveling rack can also be set on the floor of the oven to increase the usable area inside the **SUN OVEN**[®] and allow larger pots or pans to be used. (It is important to note that pots and pans should be placed on the dual-purpose leveling rack, not on the floor of the oven. To cook evenly, there must be air flow all the way around the pot. The rack will allow air to pass under the pot and ensure an even heat.)

To hang the rack, bend the side arms inward and place the rack on the threaded rods.



The side arms can fold below the rack as shown below.



Wind Resistant Alignment Leg

The **All American SUN OVEN**[®] is equipped with a wind resistant alignment leg which will allow you to raise or lower the ovens orientation to meet the sun on the horizon. During shipping the alignment leg is placed in the packing foam on the side of the oven. (The alignment leg is T-shaped.) Locate the alignment leg and insert it into the back of the oven and follow the focusing instructions. Two wire stakes are included which can be put through the holes in the alignment leg base and stuck into the ground for increased stability on windy days.



Focusing

Locate the white E-Z Sun-track indicators attached to the bottom corners of the glass door. Aim the front of your **SUN OVEN**[®] towards the sun.

If you stand behind or on the left side of the **SUN OVEN**[®] you will notice that each indicator has two small holes. As the light of the sun shines through the top hole, a small round dot of light will appear inside the indicator. When the oven is perfectly aligned with the sun, the round dot will be centered over the bottom hole. Move the oven from side to side and adjust the height of the rear alignment leg so the round dot of light shines directly into the bottom hole.



While cooking it will be necessary to occasionally move the oven to follow the sun. To maintain the maximum temperature it is best to refocus every 30 minutes. If you are leaving the oven unattended for a long period of time, we suggest that you immediately aim the **SUN OVEN**[®] towards where the sun will be during its strongest time (between 10 AM and 2 PM). The **SUN OVEN**[®] works best on clear, sunny days. Intermittent clouds will slow down (but not stop) the cooking.

Preheat

The **SUN OVEN**[®] should be preheated before cooking. It is recommended that you place the **SUN OVEN**[®] with the glass door closed and latched down in the sun and let it preheat. In strong sun the **SUN OVEN**[®] will usually reach 300 degrees F in about twenty minutes.

Cooking

Place food in the cooking pot or pan on the tray inside the oven. Close the glass door quickly, and latch it down, using both latches. Use potholders when removing the pot or pan.

Cooking Tips

The **SUN OVEN**[®] method of cooking is so natural and subtle that much less moisture is required for recipes – cooked in covered pans, that is. The natural, internal juices come into unique play, resulting in a superior, moist taste. Be sure to cut down, by at least one-third, any liquid measurements called for in rice, stews or sauces. This does NOT apply to bakery products.

Since foods do not burn in the **SUN OVEN**[®], it is not necessary to stir foods after they are placed in the oven. Use a meat thermometer to determine when to remove meats (put the meat thermometer in the meat before placing it in the oven). Opening the oven door unnecessarily will slow the cooking process, since some heat will escape.

Cooking Pans

With your **SUN OVEN**[®], you can cook in any kind of pan that can fit into its interior. However, maximum results are obtained by using LIGHTWEIGHT black or dark-colored pans. With anything requiring a lid, you can use either clear or colored Pyrex. Avoid shiny materials such as foil; the reflection reduces the cooking efficiency of the oven.

After Cooking Care

When you are done cooking it is best to remove any moisture from the interior of your **SUN OVEN**[®] by wiping it out with a dry cloth. When not in use, it is recommended that the glass door not be latched shut.

Maintenance

Maintenance on your **SUN OVEN**[®] is very minimal. Using any non-abrasive glass cleaning solution, such as Windex, will keep the reflector material and glass clean. If the reflectors and glass are not kept clean, the oven will not reach its target temperature.

Recipes

You may look at our web site for recipes.

Video Demonstration

To see a video demonstration of how to use the oven please visit:

<http://www.sunoven.com/sun-cooking-usa/how-to-use>

All American **SUN OVEN**[®] Frequently Asked Questions

What can I cook in a **SUN OVEN[®]?**

Anything you can cook in a conventional electric or gas oven and most things you cook on a stovetop can be cooked in a **SUN OVEN**[®]. You can bake, boil, and steam, so the only foods you cannot cook are fried foods.

Where are the **SUN OVENS[®] manufactured?**

The **SUN OVENS**[®] sold in North America are made in Elburn, Illinois. With the exception of the thermometer, all of the component parts used in the **SUN OVENS**[®] are made in the USA.

SUN OVENS[®] used outside of North America are often made in the country in which they are used.

What is the cooking temperature range?

The **SUN OVEN**[®] will reach temperatures of 360-400 degrees Fahrenheit. Cooking temperatures will vary depending on the brightness of the sun and how often the oven is refocused to follow the sun.

Will food prepared in a **SUN OVEN[®] taste the same as food prepared in my conventional oven?**

The food tastes much better! **SUN OVEN**[®] cooking allows many of the natural flavors of food, which get baked out in conventional ovens, to remain. The slow, even rise in temperatures in a **SUN OVEN**[®] gives the complex carbohydrates time to break down into simple sugars allowing subtle natural flavors to emerge. Sun baked-foods stay moist (the natural internal juices do not bake out) resulting in a superior, moist taste, and much less shrinkage.

How long does it take?

Cooking times are close to the same as those in a conventional oven. Because the sun sometimes goes behind clouds, cooking times can vary. At times it may take a little longer. Factors that affect cooking time are: quality of the sunlight at the time you are cooking, types and quantities of the food being cooked, and how often the oven is refocused. A good rule of thumb is to add 10 to 15 minutes of cooking time for each time the oven door is opened.

The amazing thing about a **SUN OVEN**[®] is that it is almost impossible to burn food; sun-cooked food does not dry out. This enables food to be cooked for a longer time at lower temperatures or in less time at higher temperatures, without affecting the quality of the food.

There are two ways to cook in a **SUN OVEN**[®]. If you refocus the oven to follow the sun every 25 to 30 minutes, cooking times and methods will be similar to cooking with a conventional stove or oven. Or a **SUN OVEN**[®] can be used for slow cooking, much like a crock-pot. You can prepare your dinner, put it in

the **SUN OVEN**[®] and point the oven toward where the sun will be approximately halfway through the time you will be gone. Leave, and come home to a tasty, slow-cooked dinner. If you run late, there is no need to worry; the **SUN OVEN**[®] will keep your food warm, moist, and fresh for hours.

Does a **SUN OVEN[®] require special pots and pans?**

No, but dark, thin-walled pots with lids work best. Dark pots change the light from the sun into heat energy. Shiny aluminum pots and pans cause light to be reflected out thereby reducing the oven's temperature. Glass casserole dishes with lids also work well.

With the exception of bakery goods, everything cooked in a **SUN OVEN**[®] should be cooked in a pot with a lid. Lids hold steam in the pot. If a lid is not used, the steam will fog the inside of the glass and reduce the temperature. For baking cakes, breads, cookies, and pies, dark cookie sheets and baking tins work best.

Can more than one thing be cooked at the same time?

Yes, the **SUN OVEN**[®] has been designed to accommodate baking two loaves of bread at a time. The optional **SUN OVEN**[®] *Multi-Level Dehydrating & Baking Racks* can be used for baking 3 layers of cookies, tarts, breadsticks, cinnamon rolls, flat bread, or fish. Two 3-quart stackable pots can be used on the dual purpose leveling rack. The dual purpose leveling rack can be set on the floor to increase the usable area inside the **SUN OVEN**[®] and allow larger pots or pans to be used.

(It is important to note that pots and pans should be placed on the dual purpose leveling rack, not on the floor of the oven. To cook evenly, there must be air flow all the way around the pot. A rack will allow air to pass under the pot and ensure an even heat.)

Does food need to be stirred?

No, stirring to prevent scorching is not required when cooking in a **SUN OVEN**[®] due to the fact that there are no hot spots. The temperature of the food and the pot remain the same and rise evenly. It is almost impossible to burn food in a **SUN OVEN**[®].

Will food brown when cooked in a **SUN OVEN[®]?**

In full sun, bread baked in a **SUN OVEN**[®] will brown. To insure a brown crust every time bread is baked, a light mist of water can be sprayed on the dough just before it is placed in **SUN OVEN**[®]. A dark lustrous finish on breads can be achieved by using an egg- or milk-wash on the dough before baking.

When poultry is baked in a **SUN OVEN**[®] in a covered pot it does not brown. A golden brown surface can be attained on meats and poultry by sprinkling a small amount of sugar over them. Paprika is also useful for creating an appetizing appearance.

How difficult is it to focus a **SUN OVEN[®]?**

Focusing a **SUN OVEN**[®] is very easy. The *All American* **SUN OVEN**[®] is equipped with E-Z Sun-track indicators which have two holes. As the light of the sun shines through the top hole, a small round dot of light will appear inside the indicator. When the oven is perfectly aligned with the sun, the round dot will be centered over the bottom hole. The built-in alignment leg on the back of the oven allows you to raise or lower the ovens orientation to meet the sun on the horizon.

How often must a **SUN OVEN[®] be refocused?**

The need to refocus depends a great deal on what you are cooking, the time of day, and the temperature you wish to maintain. A good rule of thumb is to plan to readjust every 30 minutes to maintain maximum heat. At noon the sun is high in the sky and moves quickly past the maximum focus point, creating the need to refocus more often. Later in the day you will not need to refocus as often. The **SUN OVEN**[®] is

equipped with a dual-purpose leveling rack, which keeps food level and avoids spills while being refocused.

Many meals can be cooked without refocusing. **SUN OVEN®** users often will put their ovens outside, focused for the mid-day sun, with their dinner in it when they leave for work in the morning. As the sun moves overhead, the temperature in the **SUN OVEN®** chamber slowly rises to a cooking level. As the sun passes, the food is kept warm and when they return from work they have a warm, sun-cooked dinner. (Keep in mind food will not burn in a **SUN OVEN®** and that the chamber is extremely well insulated, allowing food to stay warm for hours.)

Will I need to be concerned about getting burned when using a SUN OVEN®?

The only parts that get hot are the oven chamber, the cooking pan, and the glass door. Proper care must be taken to use hot pads when opening the door and removing food. The entire exterior of the oven, including the reflectors, does not get hot and remains safe to touch.

How long will a SUN OVEN® last?

The estimated life of a **SUN OVEN®** is 15 + years. With proper care it should last a lifetime.

Do I need special recipes to cook in a SUN OVEN®?

The **SUN OVEN®** reaches temperatures comparable to that of conventional ovens; therefore no special recipes are required.

What are the dimensions of the SUN OVEN®?

The size of the **SUN OVEN®** is 19" x 19" with an average depth of 11". The total weight is only 22 pounds.

What materials are used in the construction of a SUN OVEN®?

The following materials used to make a **SUN OVEN®**:

Reflectors: Anodized aluminum (will never oxidize, rust, or corrode)

Outer shell: ABS plastic

Bezel: Poplar wood (kiln dried)

Inner shell: Anodized Aluminum

Door: Ultra White® Transparent Glass

Between the aluminum inner shell and the plastic outer shell there is a thick batt of food-grade fiberglass insulation.

Can I use a SUN OVEN® in the winter?

Yes, a **SUN OVEN®** can be used on a clear winter day. The most important factor in using a **SUN OVEN®** is the brightness of the sun, not the outside temperature. Often, a 40-degree, clear, low-humidity day will allow food to cook faster than a 100-degree day with high humidity. The **SUN OVEN®** has been used at the base camp of a Mt. Everest expedition where the temperatures are often well below zero. There are, however, more cooking hours available in the summer than in the winter. In the summer, it is not unusual to cook from 8:00 AM to 6:00 PM, whereas during the early winter, effective cooking is limited to 10:00 AM to 2:00 PM.

Can a SUN OVEN® be used to dry or dehydrate foods?

Yes, a **SUN OVEN®** makes an excellent solar dryer. When the latch (which holds the door shut for cooking) is turned inward and the glass door is set on top of the latch, moist air can escape and the temperature inside will remain low enough to keep items being dried from starting to cook.

Are SUN OVENS® used in countries outside of the United States?

Yes, **SUN OVENS INTERNATIONAL, INC.** is involved in solar cooking projects in deforested countries on 5 continents. We have been innovative in developing methods of placement, training, and marketing to assist in the positioning of over 70,000 family sized **SUN OVENS®** in the U.S. and more than 100 developing countries, and 250 large **VILLAGER SUN OVENS®** in deforested developing countries. We are striving to develop and implement comprehensive solar cooking programs which will decrease the developing world's dependence on fuel wood and dung as the primary cooking fuels, while benefiting the environment, raising the standard of living, and improving the health of the poor worldwide. Domestic **SUN OVEN®** sales help finance these endeavors.

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