



SunGenius Mini Dehydrator and the Patio Solar Oven Owner's Manual

Owner's Manual Mini Solar Drying Oven

Dear Customer,

Congratulations, on becoming the owner of the new SunGenius Mini Solar Drying Oven.

Your oven does not need any assembly and is ready to use. All you have to do is removing all the protective plastic.

How does it work?

- Do not leave your oven in the sun with the fan not running. The oven is designed to generate a lot of heat and the access heat needs to be replaced by the fan.
- Pull the top and back plastic panels out and remove the plastic protection. These two transparent panels are the key to the operation of your oven. They should be kept clean at all times.
- A clean oven works best. Clean the transparent lids with Windolene and a soft cloth.
- The black area should face the sun. The black area gets very hot and transfers heat directly into the oven. It also heats up the air trapped between the black area and the transparent lid. The cavity at the back and the top of the oven are inter-connected. Air is being pre-heated at the back, it moves up into the top cavity, heated up further and sucked into the oven.
- The solar only oven has a switch for the fan (right) and an additional switch for the 300w element (left). The element will only be needed early in the morning, at night, in cloudy weather or for an increased temperature.
- The oven swivels on lockable wheels and can therefore easily be manipulated to follow the sun.
- Cool dry air is sucked in by the fan from the opening at the back, into the oven and the warm wet air escapes through the opening at the bottom of the oven.
- The polycarbonate, almost unbreakable door closes by just pushing it in place. The bended sides of the door can be manipulated for a perfect fit. It will not break in doing so. It does not have to seal airtight, as air needs to escape anyway. The oven was never designed to be a sealed unit.

- The oven can easily be manipulated to face the sun directly for maximum temperature or turned away from the sun for lower temperatures.
- The performance of your oven will depend on the weather, the time of the day, the quantity of rusks or fruit in the oven, your experience and knowledge you will acquire over time.
- We guarantee that your oven will reach you in perfect working condition.

Keep in mind that all ovens are handmade by a farmer. It might not look like an imported well designed Chinese household appliance, but you will love it.

Kind Regards

Johan

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Owner's Manual Patio Solar Oven

Dear Customer,

Congratulations, on becoming the owner of the new SunGenius Patio Solar Oven.

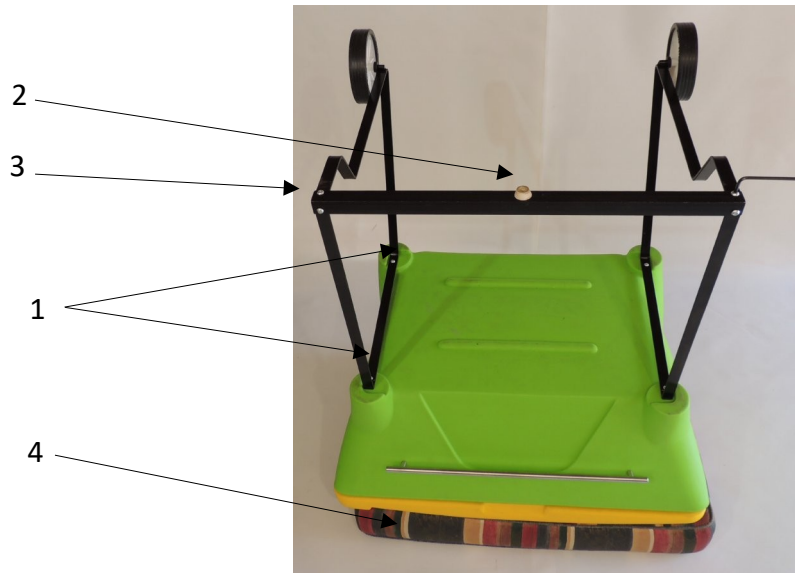
We are confident that after using it for a few days you will have some confidence and with a little more effort you might even become a dedicated solar chef like us. You will be able to experience a new lifestyle that is already well established here and in many parts of the world.

Your solar oven has been designed to compete with other household appliances for quality, convenience and style. We therefore believe that if you like your new oven and enjoy the food you cook, you will share this with your friends and automatically contribute towards a cleaner and greener environment.

Features

- High density insulation installed between the aluminium sheets and the outer plastic body. (ceramic fibre)
- The upper lid is hinged to the body and can be locked at different angles to reflect additional sunlight onto the black area inside the oven.
- A double, unbreakable polycarbonate transparent lid can be kept open by pushing the outer lid fully backwards and just let the transparent lid rest against the upper lid.
- Put your solar oven in direct sunlight for 30 minutes. This will remove any trapped odours if any.
- Clean all surfaces properly with a soft clean cloth and window cleaner. A clean oven always performs better

Patio Solar Oven assembly



- Remove all the loose parts from the inside of the oven
- Also remove the black plate. It will prevent it from damaging the aluminium sides in the oven if it is turned upside down for the installation of the stand
- Turn the oven upside down on a cushion as indicated (4) It will prevent the top lid from losing its shape temporarily.
- Install the two frames with **wheels pointing outwards** and tighten them properly.
- Install the front flat bar, with the adjustable knob pointing upwards. between the two frames and **tighten all bolts and nuts**. We do not use an angle iron any more as indicated
- Put the oven back on its stand for easy operation
- Put the loose plate back into the oven with the black side facing upwards.

Orientation

- The oven will face the sun directly if the shadow of the oven falls directly behind it
- The reflective lid should be set to reflect the sunlight on the black area inside the oven. Pots directly in the reflective area gets hotter than those
- **Warning: Never set the reflection to shine on the transparent lid hinges, It might melt and damage your oven**
- A practical setting is always to orientate the oven 30min to an hour "before" the sun and leave it till 30min to an hour "after" the sun before setting it again.

- The more frequently and accurately you set your oven, the higher the temperature will become and the better your results will be.

The temperature inside your Patio Solar Oven is influenced by the following factors:

- The angle of the sun
- The time of the day
- The ambient temperature
- The quantity of food in the oven
- The orientation of the box and reflective lid towards the sun. The lid should preferably reflect onto the black area inside the oven
- The colour of the pots(black is best)
- The number of times the oven is opened as it allows the heat to escape
- Keep the reflective and transparent lids clean
- Clouds
- Wind. Put your oven in a less windy area
- Do not open the oven unless it is necessary.
- Your oven is designed to cook any meal without having to move the oven during the cooking process. However, you can speed up the cooking process and increase the temperature by constantly orientates your oven towards the sun. The frequency of having to do so will come with experience.
- The solar oven has been designed to cook from the sun only, but we added a 200W electrical element for added convenience (Hybrid model only).
- Your solar oven will always register two temperatures. A lower temperature in the oven and a higher temperature in the pot or pan.

What can be cooked?

Always cook or bake in a pot or pan with a lid. The darker the colour of the pot, the better it will work, Pots with transparent lids work well as you can see from the outside what is happening in the pot.

Your SunGenius Patio Solar Oven can cook almost anything from the sun only. Confidence and perfection will come with time and experience.

For a starter cook something small. Put a potato in a pot with a lid for an hour. No water and test it after an hour or so.

For now we want you to consider some of the easiest and most popular dishes you probably already cook from time to time.

We suggest that you use your regular recipes and just put them in your solar oven.

- Any potjiekos, chicken, leg of lamb/pork, shoulder, neck of lamb, lamb and pork rib in a black pot
- Pap

- Bread/potbrood
- Drying Rusks
- Cooking jam

Choose a sunny day for your first meal and make sure that you can look after your oven and food to ensure that your first experience is a success. The confidence you get from your first experience will increase the possibility of solar cooking becoming a new lifestyle.

How long does it take to cook?

For your first meal, cook or bake something small.

Normally, when the steam accumulates on the lid, the food is cooked, but as you will know, most foodstuffs just get better the longer it cooks. So, try it out.

Does food require constant stirring?

Food in your solar oven will not easily burn, unless you use the electrical power. Therefore you do not need to stir the food. Keep in mind that every time you open the lid, heat escapes and the temperature drops. During peak cooking times in summer, opening the oven will not really make a big difference, but in winter much more care should be taken.

How hot can the oven get?

You can expect maximum temperatures of up to 170°C in summer and 150°C in winter from the sun only.

How much food can it cook?

An entire meal for a medium size family can be cooked. If you can get the pots in the oven and you use the features as described your food will be cooked.

How safe is it to use the oven?

It should always be remembered that this is an oven and it should be handled with care. The pots become extremely hot and should be handled with protective gear.

General solar cooking hints (box Cookers)

- Thermal energy from the sun is up to four times more effective than photovoltaic or grid energy.
- Food is cooked in its own juices - cook without water except for rice, beans pap.
- Food is cooked for longer periods of time - The advantages of slow cooking have been well researched. It is an investment in healthier and tastier foods.

- You can simply put your food in the oven without watching or worrying. The therapeutic benefits are immense.
- Start with something small. Confidence is valuable in solar cooking. You need to be convinced that the sun will cook every meal you want.
- You can use your solar oven to keep your food warm
- As your food can not burn, pots are always easier to clean
- Only add water to cook pap, rice and beans or food that requires water. Potatoes, vegetables, potjiekos and even eggs can be cooked without water.

More about the oven

- **WARNING:** *The mirror reflector on the lid is curved as to increase the temperature inside the oven. It has the same effect as a magnifying glass. Special care should be taken that the reflection from the mirror is NEVER focused on the metal hinges area of the oven. It will melt the plastic.*
- **Notice:** The electrical supply (200W) serves as a backup only and not as a primary energy source. Never leave the electrical supply on without any food in the oven as the food helps to control the temperature inside the oven. The electrical supply should be switched on and off as needed as it has no thermostatic control
- **Notice:** Do not pre-heat the oven above 165°C
- **Notice:** The transparent lid should only be cleaned with a soft wet cloth. No chemicals should be used
- **Notice:** Solar ovens get very hot. Use protective gloves when removing pots from the oven
- **Notice:** Do not let children handle the oven unattended
- **Notice:** A clean oven, free of scratches, dust and dirt is necessary for optimal performance
- The oven is designed to cook most meals without having to move the appliance during the day. However, you will speed up the cooking process and reach higher temperatures if the oven and lid is frequently orientated towards the sun
- The top lid can be set at different angles to focus its reflection on the black area inside the oven. The reflection from the lid increases the temperature inside the oven by up to 20°C
- The transparent lid can be kept in the open position by pushing the top lid completely backwards and let the transparent lid rest against the top lid.
- The double transparent lid has two openings which serve as a natural vent for drying rusks. Hot moist air escapes through the top opening, while sucking in dry air from the lower vent
- The oven generates up to 600W from the sun only and 200W from the electrical element

This is your next step to solar independence and a new cooking lifestyle

We are in the process of putting together our own Patio Solar Oven Cookbook, but in the meantime you will be able to learn a lot from other solar cooking guru's at:

<https://solarcooking.fandom.com/wiki/Recipes>

I will also add you to our solar chefs whatsapp group of solar oven owners and learn from their experience,

Regards
Johan

www.sungenius.co.za

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