

CooKit Panel Cooker - instructions

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Thank you for choosing the *CooKit*. Please read these instructions carefully before using it.

Safety

Please observe the following rules to ensure safe use of your solar cooker:

General – most people in the UK are unfamiliar with solar cookers, so ensure that your *CooKit* is not set up where others might get curious and inadvertently burn or scald themselves by touching it, especially children. Make sure you explain the danger to others in the vicinity

Eye safety – the reflectors are designed to focus sunlight onto the cooking vessel, but from some angles it will be possible for some sunlight to be reflected into your eyes. NEVER stare at these reflections, and do your best to avoid them completely by standing behind or to the side of your cooker. ALWAYS wear dark polarising sunglasses with good UV radiation filtering properties while using your cooker. Make sure others take the same precautions.

Risk of burns or scalds - remember that this is a cooker, and it will operate at temperatures of up to 110°C. The cooking vessel will be hot enough to burn your hands, and the food will be hot enough to burn your mouth. ALWAYS use oven gloves to handle cooking vessels, and ALWAYS take the same precautions to prevent accidents that you would at home in your own kitchen while cooking and handling hot food. Sorry to labour the point, but people really do underestimate how hot these can get.

Broken glass – we strongly recommend that you use a borosilicate (Pyrex) dish to act as the 'greenhouse' for your *CooKit* (see below). If you use ordinary glass, there is much more risk that it will break due to thermal stress if it cools too rapidly. Even if you use borosilicate glass, treat it with care.

Food safety – Your *CooKit* will usually heat your food to between 90°C and 110°C in full continuous sunlight. You can think of it as a low powered 'slow cooker'. There is a risk of bacterial growth in food held between 8°C and 63°C and so this is known as the 'danger zone'. Because the *CooKit* is not powerful, you should make sure that your food passes through the danger zone as quickly as possible. NEVER use frozen food straight from the freezer, thaw it thoroughly first. ALWAYS use a thermometer (see below) to observe how rapidly the temperature rises in your *CooKit*. ALWAYS think twice about continuing to cook in your *CooKit* if the sun is not continuous until your food reaches 70°C. ALWAYS check that *the centre of* your food has been cooking for at least an hour at 63°C or above, more for chicken and some other meats. You can find more information about minimum cooking temperatures here: <http://tinyurl.com/q488krk> NEVER let your food drop below 63°C before serving it.

Setting up your *CooKit*

After removing all external packaging, unfold your *CooKit*, preferably in the shade, but always so that the shiny surfaces are pointing away from the sun. Correctly assembled, it should look like the picture



(below, left). Push the two outer wings through the slits and use the two clips provided to adjust the angle of the front flap (below, right). Put your *CooKit* on a flat horizontal surface, facing the sun. You can use any dark coloured metal cooking vessel with your *CooKit*, but vessels that are a) matt black in colour and b) as light (i.e. not heavy) as possible work best. You should use a short stand or trivet to keep your cooking vessel off the bottom of your 'greenhouse'. The 'greenhouse' is the transparent outer container that allows sunlight to reach your cooking vessel, but prevents hot air from escaping from around it. We prefer to use borosilicate glass like the container pictured on the left, but you *can* use high temperature plastic microwave cooking bags. You *can* use a solid lid for your cooking vessel, but a transparent



one allows you to check progress without letting heat escape. You can keep track of the air temperature inside the 'greenhouse' with an oven thermometer, and it is also wise to have a thermometer with a



metal probe so you can check the temperature of the centre of your food. Depending on the quantity and type of food you are cooking, it will take between two and six hours to cook. You will have to move the cooker every hour or two to make sure the sunlight is reflected onto your cooking vessel. In practice, you can set up the cooker so that it will be pointing directly at the sun in about an hour's time, then move it again after two hours. As long as it is in a safe place, free of interference or shade, it can be left to cook your food without any danger that it will burn. Place your food in the cooking vessel, then place the vessel on a trivet inside the greenhouse. Apart from re-aiming your *CookKit* every two hours, there is nothing else to do.

The picture on the left shows a small oven thermometer, a short trivet, and a matt black

cooking vessel inside a large borosilicate bowl with a transparent borosilicate lid (the 'greenhouse'). A plastic microwave food bag could be used instead of the borosilicate bowl and lid.

Cooking

CookKits are best suited to cooking water based one-pot dishes, like soups or stews. In the UK, *CookKits* operate best in bright sunlight between May and September. The earlier in the day you begin cooking, the better the chance of success. You can easily cook, say, chick-peas with a *CookKit* over a day without pre-soaking them. There are no 'hot-spots' in a *CookKit*, so your food will cook evenly and never burn. You do not need to turn the food, or stir it. In fact, it is better not to allow heat to escape by removing the lid if you can avoid it. You can brown scones with a *CookKit*, but the temperatures reached are too low to bake bread with a proper crust. For recipes and ideas about what to cook, why not visit the blog on our website at: www.slicksolarstove.com

Caring for your *CookKit*

The reflective material on your *CookKit* is plastic and can be cleaned with a damp cloth. Be careful not to get water on the back of your *CookKit* as it is made of cardboard. If it is left out in the rain, it will quickly become food for slugs. With care, and if kept dry, it should last you a few solar cooking seasons.

Cookware and accessories

(Note: This document appears on our website – you can [access the links below](#) from there)

When you assemble your solar cookware, think about the size of each component. For example, make sure you there is space to remove your HOT cooking vessel from the 'greenhouse'. You may already have suitable items in your kitchen, but here are some sources for the sorts of items you may find useful.

Cooking vessel – Almost any non-shiny black container will do. Make sure it fits inside your 'greenhouse'. Any black enamelled 'speckleware' (<http://tinyurl.com/q6kcktx>), or black anodised aluminium container like this (<http://tinyurl.com/nvbfo54>) with the handles removed will do a good job. Black cast iron cookware is also suitable, but takes much longer to heat up.

Greenhouse – These cooking bags (<http://tinyurl.com/ohnnl32>) are suitable, but for a more permanent solution, consider these large borosilicate containers (<http://tinyurl.com/og4pduy>). If you get one of those, you will need a lid (<http://tinyurl.com/q8r8nsp>) Or get two of these, one inverted on top of the other (<http://tinyurl.com/or476cy>) but try to get them with a 'lip' so you can clip them together.

Oven Gloves – Silicon gloves are best: We prefer this type (<http://tinyurl.com/oh44kby>).

Thermometers – Oven thermometers like these (<http://tinyurl.com/onzkvdg>) are good for monitoring greenhouse air temperature, but you need this type (<http://tinyurl.com/oty3v7z>) to check your food.

Our mission

Here at SLiCKsolarstove we hope to encourage the use of solar and integrated cooking in the UK. We welcome contact from solar cooks in the UK and we are keen to hear of your experiences – successes *and* failures – so we can all learn from each other. Please visit our website frequently and let us know how you are doing and/or ask for advice. We will always do our best to help.