

## How effective is the Solar Air Shifter?

### Works all day and night

When there is sunlight, the Solar Air Shifter works all day for free using the sun's energy to power the fans and at night it can automatically switch to mains power to continue generating the air movement.

### Moves air at 6m<sup>3</sup>/min

By moving up to 6m<sup>3</sup>/minute of air and circulating it throughout your home, you will get a much better distribution of temperature, so less really cold or hot spots. You can take advantage of the existing heat or cold within your building without incurring additional energy costs. The air moves so gently that you won't notice any breeze, just a more comfortable environment.

### Creates 3°C or more in temperature change

Just a 2-3 degree change in temperature, plus the gentle air movement is often sufficient to eliminate the need for additional mains powered heating or cooling. If you do need more heating or cooling, that is 2-3 degrees of temperature change that you don't have to pay for.

### Reduces electricity bills & GHG emissions

Adding a small electric heater to warm up other rooms could potentially add around \$200-\$400 a year to your electricity bills as well as the cost of the heater. This is up to 4 tonnes CO<sub>2</sub>E of greenhouse gases as well as the money.

## Other products in the Sun Lizard Suite

### Solar Climate Control System

A completely solar powered heating and cooling system

### Solar Heat Extractor

Effectively remove heat from a building and introduce cooler air and ventilation.

### Solar Heat Collector

Smart and efficient solar collector for preheating air in existing heating systems or custom solar system

For local distributors and installers or for more information, contact our head office or please visit our web site: [www.sunlizard.com.au](http://www.sunlizard.com.au)



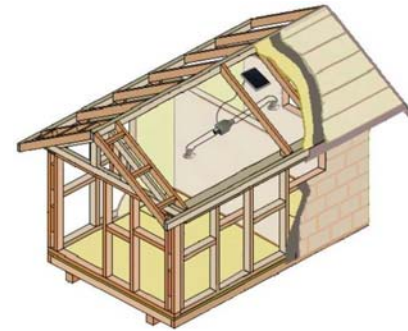
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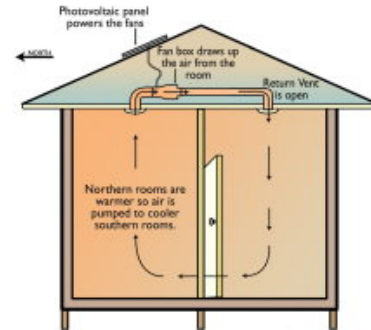
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Your Solar Climate Control System

## Sun Lizard Solar Air Shifter

The Sun Lizard Solar Air Shifter is an ideal and energy efficient way of extending the reach and effectiveness of your existing climate control systems, irrespective of whether you use passive solar design, active heating and air conditioning, or a combination of these options.

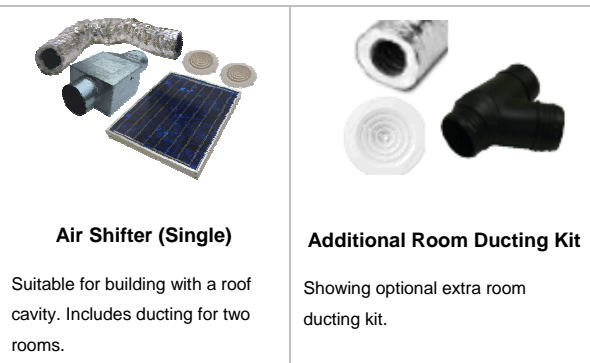
If you find that you can keep your main living rooms comfortable, but other rooms of the house are too cold in winter, and too hot and stuffy in summer you can take the warm or cool air from one space to up to two other rooms, equalising the temperature and creating air flow that removes damp or mustiness.

A simple and compact design is offered as a DIY installation kit which can also be installed by your local builder or plumber in to an existing building or to a building under construction.

A mains powered plug pack is provided so you can continue shifting the warm or cool air during night time when solar energy is unavailable. It can be plugged into an existing power point for ease of installation and without the need for an electrician.

### Available Systems

The Solar Air Shifter is suitable for an area of up to 100sqm. It is recommended to be installed in the roof cavity, but other variations are possible. Additional room ducting kits are available.



## How Does the Solar Air Shifter Work?

The Sun Lizard Solar Air Shifter harnesses sunlight and convert this free energy into electricity so you can shift warm or cool air to different rooms in a building. This allows the temperature to be distributed evenly, making the building more comfortable all year round. The standard system comes with the following key components:

- (a) Photovoltaic Panel (PV) - generates electricity for the fans and electronic control system
- (b) Fan Box –moves the air from one room to up to two rooms at a time.
- (c) Ducting and (d) registers
- (d) Electronic Control System

### Moving Warm Air in Winter

Place the inlet vent of the Air Shifter either:

- (a) near your existing heater or
- (b) near the northern parts of your building that gets passive solar heating
- (c) upstairs in a double storey building

Place the outlet vent either:

- (a) in a cooler southern part of the building
- (b) in the lower floor of a double storey building

This shifts warm air to cooler parts of the building.

### Moving Cool Air in Summer

Place the inlet vent of the Air Shifter either:

- (a) near your existing cooling system / air conditioner or
- (b) in a southern part of your building or
- (c) in a room that is shaded from the sun
- (d) in a cellar or under the building

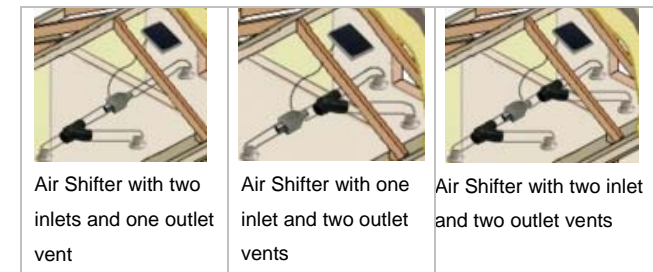
Place the outlet either:

- (a) in a warm northern part of your building
- (b) in the upper level of a double storey building

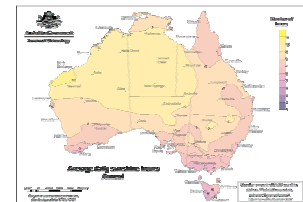
This moves cool air to other areas which are hot. It provides ventilation and cooling that will spread the cool air more evenly around the building and reduce your dependence on mains powered cooling or air-conditioning systems. A solar heat extractor would help remove heat from the building and improve the performance of the Solar Air Shifter.

**Additional Room Ducting Kit:** can be purchased to add additional inlet and outlet vents to the standard system.

Examples of combinations include:



To find the potential amount of hours of free solar energy, visit the Bureau of Meteorology web site ([www.bom.gov.au](http://www.bom.gov.au)). You can view maps of the average daily sunshine hours for each area of Australia



| City      | Average Sunlight Hrs per day (May- Sept) | Average Sunlight Hrs per Day (Oct – Apr) |
|-----------|--|--|
| Sydney    | 6-7 hours                                | 7-8 hours                                |
| Melbourne | 4-5 hours                                | 7-8 hours                                |
| Brisbane  | 7-8 hours                                | 7-8 hours                                |
| Adelaide  | 5-6 hours                                | 8-9 hours                                |
| Perth     | 5-6 hours                                | 9-10 hours                               |
| Hobart    | 4-5 hours                                | 6-7 hours                                |
| ACT       | 5-6 hours                                | 8-9 hours                                |