# Odyssey

*Intelligent Hybrid Ventilation*

## A money saving evolution in home cooling






- **Natural whole home cooling**
- **Lower energy costs**
- **World first technology**

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# An evolution in home cooling

## THE SEARCH FOR LOWER HOME COOLING COSTS DURING THE SWELTERING SUMMER IS OVER!

Odyssey is a revolutionary way to keep your home cool. It ingeniously takes advantage of natural temperature differences inside and outside your home to lower the temperature in your living space and your cooling costs.

Designed and built in Australia to meet the demands of the harsh Australian climate, Odyssey incorporates award winning and highly efficient hybrid technology.

The sleek roof mounted unit is ducted through your roof space to an attractive ceiling vent located in a central area. Internal and external sensors monitor the ambient temperatures inside and outside your home and intelligently work out how best to maintain a comfortable living environment.

With the touch pad control system you can set your preferred temperature or choose the boost setting to give your home that fresh air feeling.




**ODYSSEY CAN REPLACE ALL THE AIR IN A 150m² HOME IN JUST 11 MINUTES.**



## THE SCIENCE BEHIND THE SYSTEM

The Odyssey is designed to provide fast and effective relief from heat that builds up in the fabric of your home during the day so you don't feel like you're living in a hot box.

When the outside temperature falls below that of the inside, the Odyssey automatically switches to indoor cool mode to efficiently remove the heat from your living space and replace it with cooler, fresh external air. With its large capacity ventilator, one Odyssey unit has the ability to replace all the air in a 150m$^2$ home in just 11 minutes.

Odyssey continues to work throughout the night to cool down the walls and floors of your home which would otherwise continue to radiate the stored heat.

During the day, when external temperatures are higher than inside your home, the Odyssey works in roof cool mode to exhaust the hot air from your roof space and reduce the heat soaking through your ceiling.

These combine to significantly lower air-conditioning running costs and deliver a more comfortable home for you and your family. In fact for many, Odyssey could be a complete replacement for air-conditioning.



## DELIVERING LASTING VALUE

- ✓ Lower summer indoor temperatures
- ✓ Reduced cooling energy costs.
- ✓ A more pleasant sleeping environment
- ✓ Sleek innovative design
- ✓ Ultra-quiet operation
- ✓ Reduced condensation and mould
- ✓ Less odours trapped within the home
- ✓ Plug and go installation
- ✓ 5 year warranty

# Lower indoor temperatures



Odyssey is the result of over 7 years of extensive research and development into the science of building fabric temperature control.

We have been taught to regard the temperature of the air as the key to our comfort, but air temperature is only part of how we interpret how warm we feel. We are also affected by the temperature of the solid things around us (walls, ceilings, floors, window glass, etc.). Also vital to our comfort is the amount of humidity and speed of air movement.

The typical Australian home has around 220 tonnes of mass which acts like a giant battery soaking up heat during the day and then releasing it slowly overnight when the temperatures are cooler. During a run of hot days the building may not have time to cool down, resulting in a continuously hot and uncomfortable living environment.

To provide lasting relief a cooling system has to adequately cool the air in your home, whilst also helping to cool the entire building structure overnight.

Air conditioners are great at cooling the air but they are increasingly expensive to run and often noisy to operate overnight when they can have the biggest impact on the building.

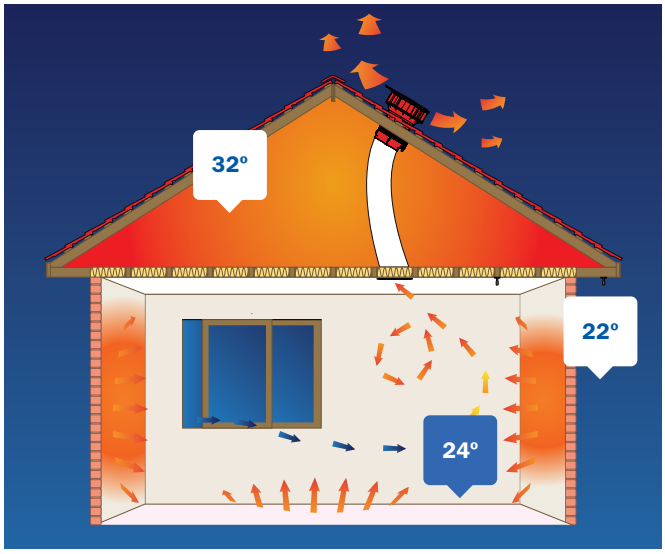
Odyssey is designed to take advantage of the cooler evening air to cost effectively cool your family and your home.

## TYPICAL OPERATION

When the external temperature falls below that of the inside, this whisper quiet high performance system draws outside air into your home providing an instant cooling air influx. But it doesn't stop there - it continues to run overnight to help reduce the temperature of the building fabric so you can wake to a comfortable home that will store less heat during the following day.

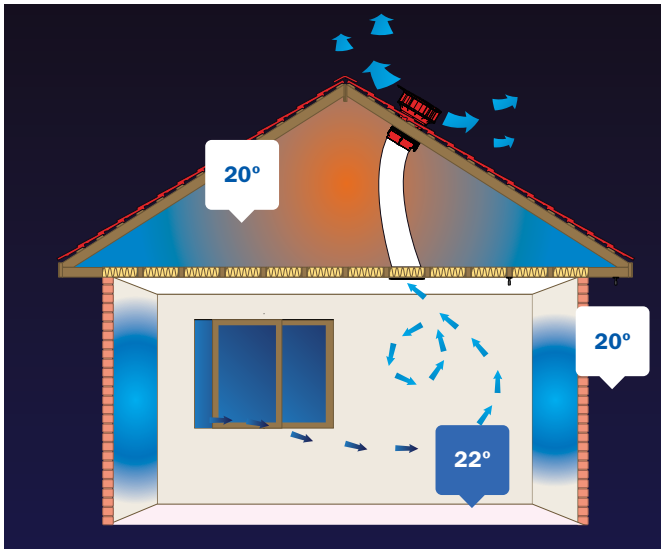
During the day Odyssey keeps working in roof cool mode helping to reduce the heat in your roof space that can soak into your home through the ceiling. Its unique hybrid technology is able to take advantage of free available wind power but as the temperature rises it switches to power mode for more effective cooling.





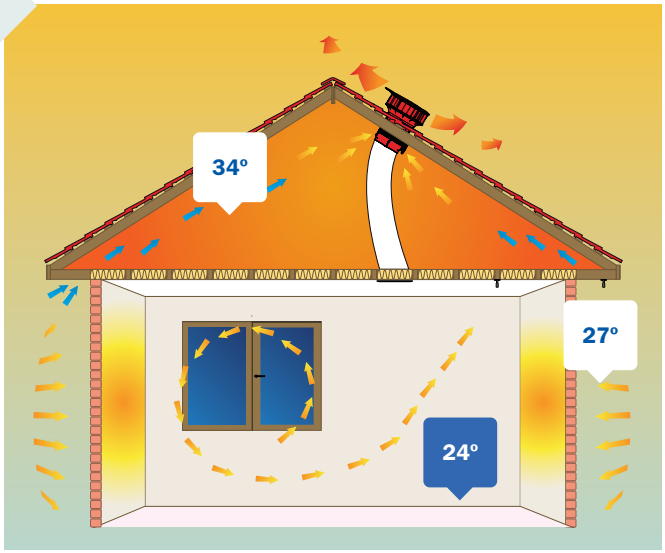

## EVENING

- External temperature lower than internal
- Indoor cool mode
- Odyssey provides cooling breeze throughout your home



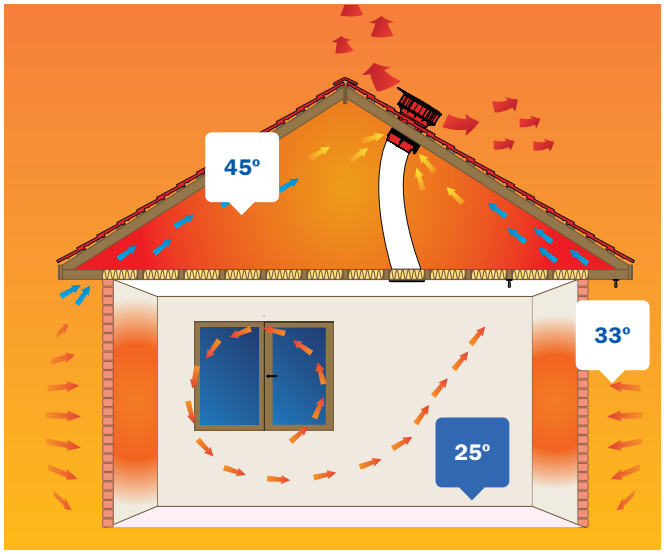

## NIGHT-TIME

- External temperature lower than internal
- Indoor cool mode
- Odyssey's whisper quiet operation all night long cools the fabric of your home



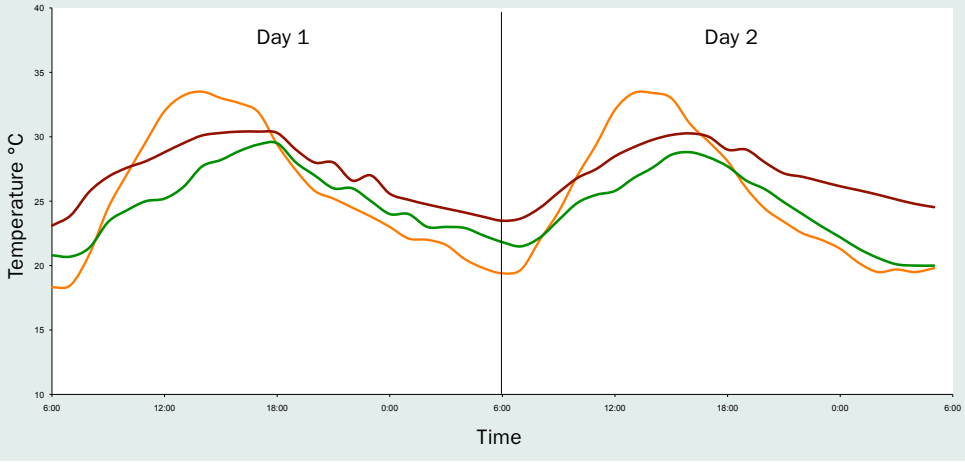

## MORNING

- External temperature higher than internal
- Wind driven roof cool mode
- Odyssey helps slow heat seeping into your home




## DAYTIME

- External temperature higher than internal
- Roof cool mode
- If roof temperature >45°C Odyssey switches to power roof cool mode for more effective cooling




External Temperature

Internal Temperature Home without Odyssey

Internal Temperature Home with Odyssey

**5 DEGREES COOLER** after 2 consecutive hot days!

Measured temperature of a home in western Sydney fitted with two Odyssey prototype systems. Actual results for any home will depend on many variables including type of construction, location, shading, usage patterns etc.

## REDUCED AIR CONDITIONING COSTS

Odyssey compliments any ducted or room air-conditioning system. By drawing cooler fresh air into your home it reduces the work your air conditioning system has to do at a fraction of the running costs. The Odyssey is so efficient it uses around the same power as a single halogen downlight. Annual running costs of an Odyssey system are expected to be less than $30*.

## MORE COMFORTABLE LIVING AND SLEEPING ENVIRONMENT

With Odyssey your family enjoys fresh, not conditioned air. That means it's not artificially dry or stuffy. The Odyssey operates much more quietly than most air-conditioners to help you get a restful night's sleep and wake up refreshed.

*based on 26c/kWh



## REDUCED CONDENSATION AND MOULD

Operating as a natural wind powered ventilator, Odyssey exhausts moist and humid air from your roof space all year round, reducing the damaging effects of condensation that can lead to:

- Mildew and mould growth
- Loss of insulation effectiveness
- Increased energy costs
- Timber decay and loss of structural integrity
- 'Sick Building Syndrome' leading to serious health problems
- Phantom leaks and staining of plasterboard
- Corrosion of metal components

## LESS ODOURS

Odours can really linger in a poorly ventilated home, and who wants to get home to the smell of last night's dinner not to mention a teenager's bedroom.

Odyssey really is a breath of fresh air, helping to 'spring clean' the air and dispel odours. Its BOOST button can also provide an easy and convenient way to manually operate the system, providing up to two hours of complete home ventilation when you need it.



## INNOVATIVE DESIGN AND FINGERTIP CONTROL

The sleek roof mounted ventilator unit sits low on the roof for minimal, but architecturally modern, visual impact and is available in a range of four colours to compliment most metal and tile roofs.

The modern design of the internal ceiling grille blends seamlessly with your décor and features a magnetic release for ease of cleaning.

The touch screen control pad allows you to set your preferred internal home temperature which is constantly monitored by highly accurate sensors. The screen shows you which mode Odyssey is operating in and provides the option for setting the system in powered living space ventilation mode at any time, using the BOOST feature.

## INSTALLATION

Odyssey is designed for fitting to almost all homes which possess an accessible attic space. It is not suitable for raked ceiling homes.

Our fully trained staff can typically install an Odyssey system in under 4 hours. One Odyssey unit is sufficient for homes up to 150m$^2$. Two units are recommended for homes from 150m$^2$ to 300m$^2$.



## 5 YEAR WARRANTY

The complete Odyssey system and installation is covered by our comprehensive 5 year warranty and you can relax in the knowledge that it is backed by CSR, one of Australia's oldest and most respected companies.



## TECHNICAL SPECIFICATIONS

| Ventilation System | |
|---|---|
| Type: | Free air cooling & ventilation system |
| Nominal system diameter: | 400 mm |
| Electrical: | 240 VAC 50 Hz Max. 55W |

| Ventilator | |
|---|---|
| Type: | Hybrid (natural & powered) backward curved centrifugal |
| Inlet Throat nominal diameter: | 400 mm |
| Turbine/Impeller diameter: | 500 mm |
| Running speed: | 430 rpm |
| Motor: | 55W Electronic Commutating (EC) motor |
| Motor Voltage: | 240 VAC 50 Hz |

| Diverter Valve | |
|---|---|
| Type: | 2 way, 2 position air source diverter valve |
| Inlet/outlet nominal diameter: | 400 mm |
| Actuator Voltage: | 24 VDC |

| Ducting | |
|---|---|
| Type: | Flexible metallised polyester film with helix wire support. |
| Diameter: | 400 mm |
| Length: | 2 m |

| Ceiling Grille | |
|---|---|
| Type: | Plastic return air grille with magnetically detachable face |
| Diameter: | 400 mm |



| User Interface Panel | |
|---|---|
| Type: | 6 cm (2.4”) colour touch screen |
| Cable Length: | 15 m |

| Temperature Sensors | |
|---|---|
| Type: | Digital temperature sensor |
| Accuracy: | ±0.5 °C |
| Cable Length: | 10 m |










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