



Whole of Home

# ESP PLUS

SERIES 2

Energy Smart Performance.



*That's better. That's Actron.*



**ActronAir**

# ActronAir. Because Australia needs Australian Air Conditioning

The year 1984 saw Advanced Australia Fair become our National Anthem, the 1 dollar coin come into circulation and a small family air conditioning business open its doors. Today, ActronAir is a proud Australian company recognised for making world-class air conditioners. Well, it stands to reason. The team at ActronAir experience our harsh Australian conditions first hand, and our climate places demands on air conditioning not found in other parts of the world.

And that's why ActronAir's engineers have developed the most advanced air conditioning systems specifically for the unique and harsh Australian environment.

Made with a superior operating range of -10°C to 50°C, and coming packed with a host of innovative features, ActronAir's ESP Plus ducted system is engineered to withstand the hottest and coldest conditions Australia can throw at it. Where other air conditioners struggle and shut down, the ESP Plus will be there for you when you need it most.



**More than a quarter of a million Aussies take comfort in ActronAir**

## Superb comfort and energy savings through digital technology

ESP stands for Energy Smart Performance and it's how our ESP Plus ducted system keeps you superbly comfortable all year round without wasting energy. Our ESP Plus delivers comfort with such precision you'll forget you even have air conditioning, and because of that precise control you'll also save some serious cash when the electricity bill arrives.



### A superior operating range made for Australia

Most overseas air conditioners are only designed with a maximum temperature range of 43°C to 46°C. The made-in-Australia for Australia ESP Plus operates up to 50°C. Big deal? Yes.

The temperature around the outdoor unit can reach far higher than what they're saying on the weather report due to direct sun or heat radiating off the ground. They're often located against a wall or fence where there's low air circulation.

ESP Plus not only operates at higher temperatures, it also performs at a higher capacity leading up to that peak temperature.



“ Nothing beats performing under extremes. Engineered for Australia, you can trust ActronAir to be there when you need it most. ”

**Mark 'Frosty' Winterbottom**  
V8 Supercars Champion & ActronAir Brand Ambassador

# Better Features

## Smarter outside



### Vertical discharge

The ESP Plus' clever outdoor unit features a vertical, rather than horizontal, discharge of air. Unlike foreign brands, we're well aware that the side of the Australian home is not only a handy space for an outdoor unit, but is also often tight. And we know that if you don't let hot air escape it will surround the unit, reducing its performance and in turn lead to higher energy consumption. That's why we've engineered the ESP Plus to release hot air upwards, rather than pushing air straight into the neighbour's fence.

## Aussie tough



### Louvered grille

The ESP Plus range is engineered using only the very best quality components. With its unique powder coated, louvered grille guard, it ensures better airflow and protection against Australia's toughest conditions.

## Here for the long haul



### Coated coil protection

ActronAir uses blue fin epoxy coated protection on the indoor and outdoor coils of ESP Plus. It reduces corrosion from the harsh Australian conditions, as well as assisting the defrosting process, thus improving heating efficiency.



## Unheard of technology



### Quieter operation

Clever design, technology and choice of materials led to SRS, ActronAir's Sound Reduction System, in the ESP Plus' outdoor unit.

Sound is reduced inside as well thanks to ESP Plus' highly efficient EC fan technology, which provides incremental airflow adjustments when zones are turned off. That way you won't be struggling to make yourself heard over the air conditioning.

## Turn on, bliss out



### A smarter start-up

In winter, some air conditioners when turned on blast out unheated air until the indoor heating coil catches up. ActronAir engineers developed a better way. ESP Plus has a smart preheat delay function so that the coil heats up before the fan comes on. That's better - simple and smart.

## Pick up where you left off



### Auto-restart

Blackout? No problem. Our ESP Plus restarts automatically in its last programmed setting once the power is restored, which means you don't have to take the time to reprogram your system.

# Better Energy Efficiency

## What's zoning and why do I need it?

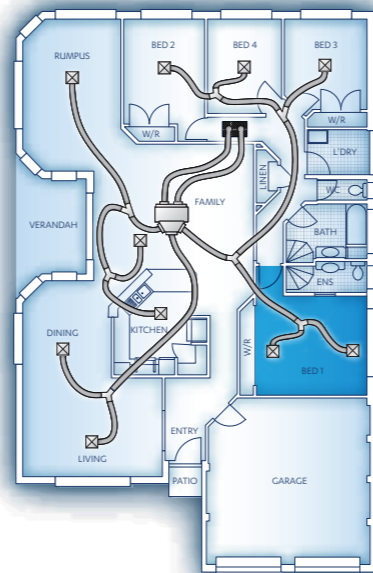
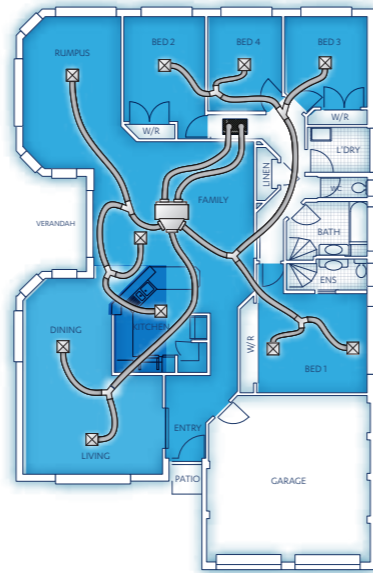
When you're fast asleep tucked up in bed, you simply don't need the rest of your house air conditioned. That's where Energy Smart Zoning comes in. Your home can be split into different zones and air conditioned accordingly, right down to a single room.



## Light's out - Energy Smart Zoning delivers better energy savings

When you leave a room you turn off the light to save electricity, right? With ESP Plus' Energy Smart Zoning you do exactly the same thing with your zones, only there's added benefits.

Aussie homes usually have large living areas that are split into zones when air conditioning is installed. Individual rooms are zones as well. The problem with conventional inverter systems is that even when you shut off a zone, they still deliver more air than is required. So for the zones still on, you get an 'air dump' effect that's noisy, inefficient and a real curtain blower.



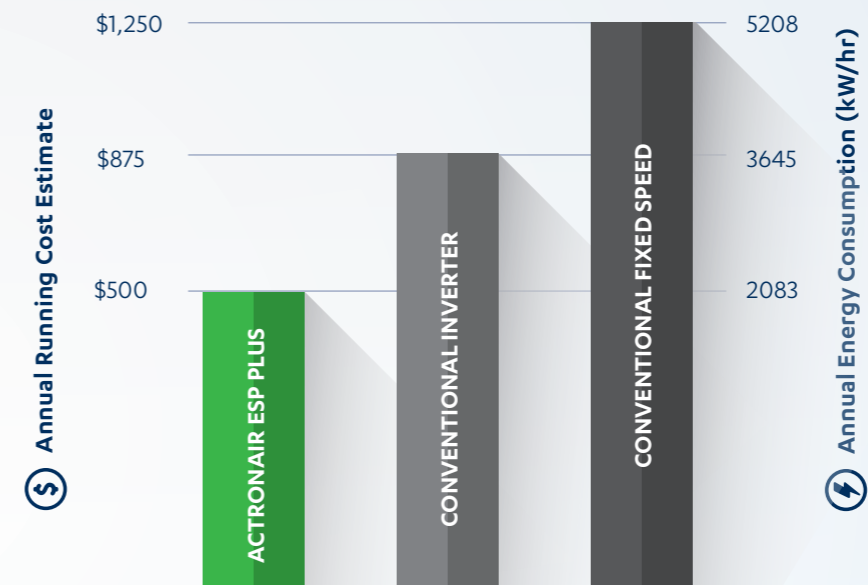
## No more billowing curtains

ESP Plus has Variable Fan Technology that delivers just the right amount of conditioned air to the zones you want – right down to 20% of its total airflow volume. So on that hot summer evening you get a better, quieter night's sleep, without the billowing curtains, and wasted energy.



### Energy Modeling

Typical 14kW Unit - Cooling Only



Based on electricity price of 24c per kW/H and the cooling energy consumption, this translates to a saving of up to \$700\* per annum compared to conventional fixed speed systems.

## A more comfortable electricity bill

The energy saving features in an ESP Plus system can make a huge difference to the cost of living. Over 5 years you could **save up to \$3,500** on your electricity costs for cooling alone. When heating is taken into consideration that could be even more. In fact, ESP Plus digital technology is **up to 60% more efficient** than conventional fixed speed air conditioners, and **up to 40% more efficient** than a conventional inverter system.

Why pay extra for air when you could be putting it towards your next holiday?



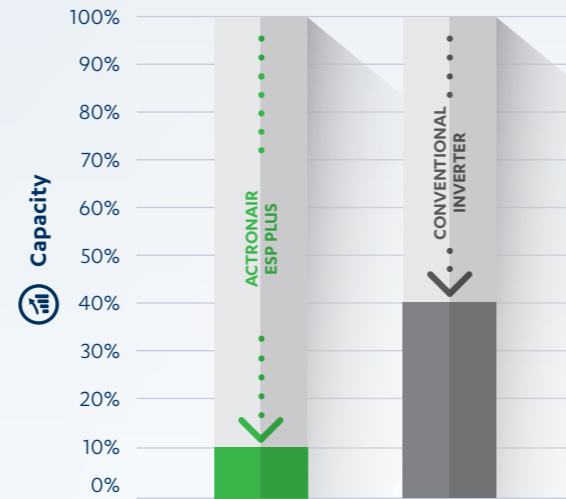
# Better Technology

## Why a digital compressor?

A digital system has a lot of advantages over a conventional inverter system.

ActronAir's ESP Plus digital compressor can operate right down to 10% of its total capacity, whereas even the best performing conventional inverters can only get down to 40%. That's a big deal because it means you only use the amount of energy you need.

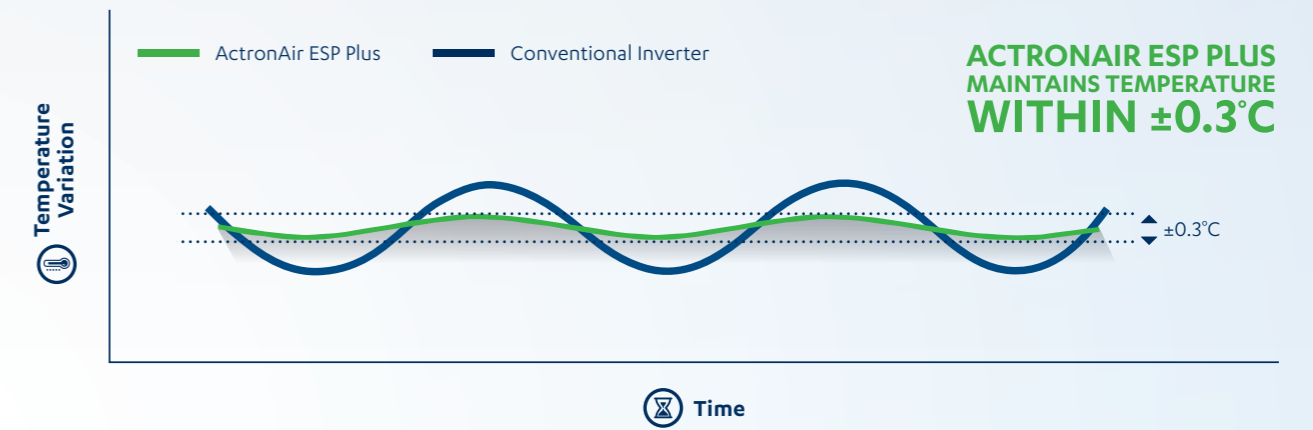
When combined with the EC inverter fan's ability to provide variable airflow capacity, ESP Plus also creates a more comfortable environment. When the baby's asleep, you don't want more air pouring into the room just because the air conditioner can't operate at low levels.



## Stopping the stop-start, stop-start

Generally conventional inverters don't work below 40% of capacity, they simply turn on, then off, then on again as they struggle to keep a set temperature.

Our ESP Plus Digital system is a lot more precise. Working right down to 10% of capacity, it not only gets to your perfect temperature faster, it operates more smoothly, and can maintain the temperature to within  $\pm 0.3^{\circ}\text{C}$  at the sensor location.

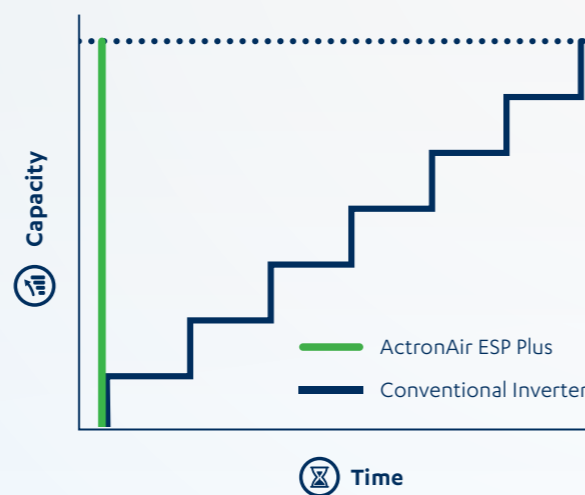


## From zero to comfort – quickly

Our digital compressor also gets up to speed much faster. It's perfect for when you arrive home on a sizzling summer's day, or freezing winter's night, and need to get comfy fast.

A conventional inverter uses 'step, rest and stop' cycles, so the temperature 'jumps' up and down with each step. That's a power drainer. Not only that, it can take between 5 and 10 minutes to get up to full capacity before it gets to work cooling or heating your space, whereas an ESP Plus system can get up to maximum capacity almost immediately.

It does all of this happily too. Our testing shows that digital compressors seem to wear in, not out, meaning you'll have a system that keeps working hard, long into the future.



## That's cool, but ActronAir uses inverters too. Ours are just better.

We call our inverter the Tru-Inverter, using it in our ESP Platinum series of ducted air conditioners. An advanced approach to traditional inverter technology allows the Tru-Inverter to reach preset temperatures with precision, speed and smoothness.

Compared to conventional inverter systems, both our ESP Plus Digital system and ESP Platinum Tru-Inverter system deliver superior levels of comfort at home, with significant long-term energy savings. Each system has its pluses, it's just that when it comes to inverters we prefer to use the best in the business. Put simply, if you're looking for the best energy efficient air conditioner for your home, you only need to look for the ActronAir badge.

**So if you're interested in an inverter, check out our ESP Platinum series of ducted air conditioners.**



Tru-Inverter

# Better Control

## 8 zones under your control

ActronAir builds its own controls in Australia to ensure they integrate well with your ESP Plus and operate together seamlessly. An 8-zone touch pad is conveniently integrated into our master controller, avoiding the need for a second device on your wall to control zones. Importantly, the slimline controller is logical and user-friendly, with controls in easy to read 'plain English'. And with a 7 day 24 hour programmable timer, it's completely 'set and forget'.

And for precise comfort control, our system allows you to set the temperature in 0.5°C degree increments.

ESP Plus does provide an optional secondary controller with mimic logic. It's ideal for those who live in large or double storey houses. Rather than having to trounce up and down every time you want to change the settings, ESP Plus allows you to setup a controller on each floor for absolute convenience.

Plus, with your choice of white or grey controllers and sensors, ESP Plus allows you to select a colour to match your environment.

## Set your comfort remotely

The optional ActronConnect allows you to control your ESP Plus ducted system wirelessly via smartphone or computer. Cool your house down on your way home, warm up the baby's room or check you've turned off the air conditioning. It's all in the palm of your hand.



Master Controller



Remote Sensors




Optional ActronConnect

## No operating manual? No problem.

ESP Plus' range of Master Wall Controllers come with Near Field Communication (NFC) included as standard. This feature allows for quick and easy access to operating instructions from your NFC supported smart phone.

### Just follow these 4 simple steps:

- 1 Enable NFC on your smart device through your settings.
- 2 Tap your phone at the location of the  Logo on the controller.
- 3 Your internet connected smart phone will open a browser displaying the 'Operation Manuals' webpage.
- 4 Navigate to the 'LM7-2/LM24-2' Operating Manual. Tap to open the PDF.



# Better Engineered

## Inside and out - innovation designed for more comfortable living

We understand that for most people their air con's outdoor unit is a box best forgotten. But with ActronAir it's here that a lot of our technological innovations, design improvements and quality material choices add up to better comfort, better energy savings and a family air conditioner you can trust to last season after season, year after year.

High efficiency performance fans and heat exchangers, seamless system controls – the list goes on and on, just like an ActronAir.

# Better Service

## Local service you can count on

ESP Plus is designed and manufactured in Australia, so you'll never have to call far or wait long for service and support. Our National Service Network has service staff on the ground and parts on the shelves. They're friendly, reliable and prompt. Furthermore, ActronAir's 5 year warranty will keep you comfortable with absolute peace of mind.



## Make a smart connection to comfort

The ESP Plus also has the ability to operate with a bridging platform that, when used in conjunction with an ActronAir BMS card, can assist in integrating with over 40 home automation systems, including:



# Technical Specifications

## ESP Plus Split Ducted Variable Capacity - Single/Three Phase (12.27-23.00kW)

		Technical Information					
		Single Phase			Three Phase		
OUTDOOR MODEL		SRD131C	SRD151C	SRD191C	SRD173C	SRD203C	SRD233C
INDOOR MODEL		SRV131E	SRV151E	SRV191E	SRV171E	SRV201E	SRV231E
<sup>1</sup> Total (Gross) Capacity (kW) (AS/NZS3823.1.2)	Cooling (Rated)	12.75	14.67	19.33	17.45	20.10	23.59
	Heating (Rated)	11.71	14.64	17.90	17.39	19.38	22.97
Nett (Rated) Capacity (kW) (AS/NZS3823.1.2)	Cooling (min - max)	12.27 (1.23-12.27)	14.37 (1.44-14.37)	18.64 (1.86-18.64)	16.88 (1.69-16.88)	19.32 (1.93-19.32)	23.00 (2.30-23.00)
	Heating (min - max)	12.16 (2.31-12.16)	15.00 (2.85-15.00)	18.52 (3.52-18.52)	17.93 (3.41-17.93)	20.09 (3.82-20.9)	23.50 (4.47-23.50)
Input Power (kW) (AS/NZS3823.1.2)	Cooling	3.68	4.29	5.73	5.02	5.78	6.76
	Heating	3.30	4.49	5.33	4.81	5.24	6.91
<sup>2</sup> EER Rated (AS/NZS3823.1.2)	Cooling	3.33	3.35	3.25	3.36	3.34	3.40
<sup>3</sup> COP Rated (AS/NZS3823.1.2)	Heating	3.68	3.34	3.47	3.73	3.83	3.40
Power Supply (V / Ph / Hz)	Outdoor	230V / 1Ph + N / 50Hz			400V / 3Ph + N / 50Hz		
	Indoor	230V / 1Ph + N / 50Hz					
Rated Load Amps (AS/NZS3823.1.2)	Outdoor / Indoor / Total	13.5 / 3.6 / 17.1	17.5 / 2.3 / 19.8	20.8 / 5.1 / 25.9	8.7 / 4.1 / 12.8	9.2 / 5.4 / 14.6	14.0 / 4.0 / 18.0
Full Load Amps (AS/NZS3823.1.2)	Outdoor / Indoor / Total	23.6 / 4.3 / 27.9	27.1 / 4.3 / 31.4	32.5 / 5.4 / 37.9	12.3 / 4.3 / 16.6	13.5 / 5.9 / 19.4	16.2 / 4.9 / 21.1
<sup>4</sup> Circuit Breaker Amps		32.0	32.0	40.0	20.0	20.0	25.0
IP Rating	Outdoor	IP44					
	Indoor	IP20					
Compressor	Type / No. per Unit	Digital Scroll / 1					
	Starting Method	Soft Starter					
No. of refrigeration Circuits/No of capacity stages (Capacity range)		1/ Variable (10-100% capacity)					
Refrigerant		R410A					
Fans (Type x Number per unit)	Outdoor	Axial / 6 Pole External Rotor / Direct Drive x 2					
	Indoor	Twin Deck Centrifugal / ECM Direct Drive x 1					
Airflow Range Indoor (l/s)	Maximum	780	880	1180	900	1200	1440
	Nominal	650	770	980	850	1000	1200
	Minimum	130	155	195	170	200	240
External Static Pressure (Pa) at:	Maximum Airflow	120	120	128	116	120	70
	Nominal Airflow	225	218	192	164	188	170
Outdoor Dimensions (mm)	Depth	580	580	580	580	580	685
	Height	990	990	1045	1045	1045	1105
	Width	1320	1320	1460	1460	1460	1685
Indoor Dimensions (mm)	Depth	615	615	680	615	680	695
	Height	412	412	435	412	435	485
	Width	1090	1290	1420	1290	1420	1470
<sup>5</sup> Nominal Weight (kgs)	Outdoor	146	155	200	186	196	225
	Indoor	58	61	76	62	76	90
Field Pipe Size	Liquid Pipe - mm (inch)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	* 12.70 (1/2)	12.70 (1/2)
	Gas Pipe - mm (inch)	19.05 (3/4)	19.05 (3/4)	19.05 (3/4)	19.05 (3/4)	* 22.22 (7/8)	25.40 (1)
<sup>6</sup> Sound Pressure Level (dBA)	Outdoor (low/high fan)	47 / 50	50 / 52	52 / 54	52 / 54	52 / 54	54 / 59
<sup>7</sup> Sound Power Level (dBA)	Outdoor (low/high fan)	64 / 67	67 / 69	69 / 71	69 / 71	69 / 71	70 / 75
MEPS Compliant		Yes	Yes	Yes	Yes	Yes	Yes
<sup>9</sup> Demand Response Capability (AS4755.3)		Potentially capable if alternate outdoor board is purchased					
8 Zone Capability		Standard	Standard	Standard	Standard	Standard	Standard

		Features					
LM7-2W (White) or LM7-2G (Grey) Wall Controller	Optional	Optional	Optional	Optional	Optional	Optional	
LM24-2W (White) or LM24-2G (Grey) Secondary Wall Controller	Optional	Optional	Optional	Optional	Optional	Optional	
Remote Temperature Sensor	Optional	Optional	Optional	Optional	Optional	Optional	
Blue Epoxy Coat Coil Fin Protection - Indoor & Outdoor Coils	Standard	Standard	Standard	Standard	Standard	Standard	
Home Automation / Remote ON / OFF Capability	Yes	Yes	Yes	Yes	Yes	Yes	
Maximum Number of Zones	8	8	8	8	8	8	
ActronConnect module for wireless control	Optional	Optional	Optional	Optional	Optional	Optional	
Phase Protection	N/A	N/A	N/A	Standard	Standard	Standard	
Soft Starter	Standard	Standard	Standard	Standard	Standard	Standard	
BMS Compatibility	Optional	Optional	Optional	Optional	Optional	Optional	

### Foot Notes 1-9

- Based on unit rating excluding indoor fan kW.
- EER Rated = Energy Efficiency Ratio (Rated Capacity Cooling / Rated Input Cooling).
- COP Rated = Coefficient of Performance (Rated Capacity Heating / Rated Input Heating).
- Refer to AS/NZS 3000 "Australian/New Zealand Wiring Rules" for more details.
- Refer to Catalogue Unit Weight Distribution Guide section for details of weight points.
- Sound Pressure Level at 3m distance is determined as the measured sound pressure at 3m perpendicular to the coil side of the condenser. Sound levels are determined in an anechoic chamber and may differ once the unit is installed due to ambient conditions.
- Measured based on ISO 3743-1, Determination of Sound Power Levels and Sound Energy Levels of Noise Sources Using Sound Pressure.
- For short pipe run of 0-20m or average 1-storey residential dwellings, 19.05mm (3/4") Gas Field Pipe and 9.52mm (3/8") Liquid Line may be used in place of the recommended 22.22mm (7/8") gas pipe and 12.7 (1/2") liquid line. Please refer to Capacity Selection Data & see Pipe Length Correction Multiplier for the drop in refrigeration capacity as a consequence of change in Gas Field Pipe diameter. Swaged end of Indoor and Outdoor Units' gas pipe to be cut in the field to fit ID into 19.05mm (3/4") replacement Field Pipe. Swaged end to be cut-off in the field to fit into field pipe.
- Third party inputs and Remote ON/OFF functions will be lost if Demand Response outdoor board is installed.

### Important Notes:

- The Local Electricity Supply Authority may require limits on - starting current, running current and voltage drop, please check prior to purchase.
- When the outdoor temperature exceeds the rated conditions, the cooling/heating capacities may decrease the rated nett values.
- Specifications subject to change without notice.

### Rated Conditions:

Cooling: 35°C DB Outdoor / Air Entering Indoor 27°C DB, 19°C WB  
Heating: 7°C DB, 6°C WB Outdoor / Air Entering Indoor 20°C DB

### Warranty:

For full terms and conditions of ActronAir warranty, please refer to warranty terms document - [www.actronair.com.au](http://www.actronair.com.au)



Designed and built  
in Australia



**SANDCASTLE  
AIR CONDITIONING  
& REFRIGERATION**



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