

Introducing Astral with IntelligentAir

When you choose Astral with IntelligentAir, you are not only choosing life support. You are discovering a way to help your patients breathe easier.

Delivering on its promise to provide confident care, greater freedom and designed efficiency, Astral is proving itself to be a leading life support ventilator series for a wide range of patients.

With the introduction of an auto-adjusting volume assurance mode, which includes an intelligent back-up rate and optional auto-adjusting EPAP, Astral 100 and Astral 150 set a new quality standard in personalised and responsive life support ventilation. Together, we call these technologies IntelligentAir.



iVAPS

**Intelligent Volume-Assured Pressure Support (iVAPS):**  
Targets and intelligently maintains each patient's alveolar ventilation.



iBR

**Intelligent Backup Rate (iBR):**  
Provides backup breaths only when needed to give patients a chance to spontaneously trigger the ventilator.



Auto EPAP

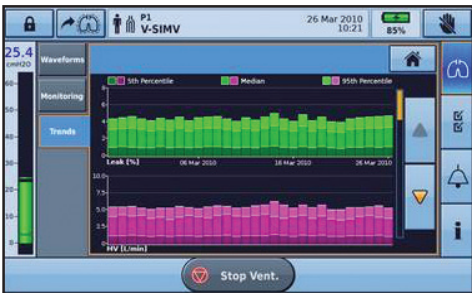
**AutoEPAP:**  
Auto-adjusts the expiratory pressure in response to partial and full upper airway obstructions.

To keep you informed on patient changes over time, a number of different monitoring tools are at your disposal.

**ResScan™:** ResMed's patient data management software provides clinicians with a great way to record summary and detailed data, even as their patients receive treatment at home.

**Oximetry:** Integrated FiO<sub>2</sub> and optional SpO<sub>2</sub> monitoring are available.

**Real-time waveforms:** Pressure and flow curves are quickly accesible on a large colour touch screen, and provide continuous visuals on patient trends.



Monitoring options with at-a-glance visuals

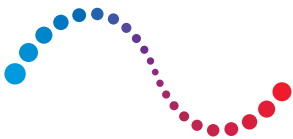
Astral includes features to add greater customisation and peace of mind for more dependent patients.

**Alarms:** Astral is equipped with a set of fixed and adjustable alarms, categorised by priority, to bring patients and carers to attention when needed. The dedicated disconnection alarm has also been modified for optimised patient setup and customisation.

**Big-button:** Included for quick access to start or stop ventilation, as well as to mute alarms. This feature is particularly useful for those with impaired dexterity or eyesight.



Big-button for greater accessibility



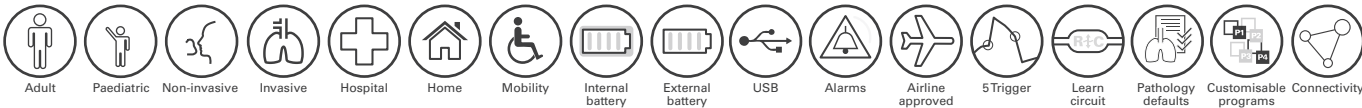
ResMed

Astral specifications

	Astral 100	Astral 150
<b>Indications for use</b>	Life support for patients over 5 kg	Life support for patients over 5 kg
<b>Circuit</b>		
Single circuit with leak	•	•
Single circuit with valve	•	•
Double circuit		•
<b>Therapy</b>		
Valve circuit therapy: CPAP, (A)CV, P(A)CV, P-SIMV, V-SIMV, PS	•	•
Leak circuit therapy: CPAP, (S)T, P(A)C, iVAPS** with iBR and optional AutoEPAP	•	•
Manual breath		•
Sigh breath (recruitment)		•
Apnoea ventilation	Volume and pressure	Volume and pressure
Preset programs	2	4
<b>Pressure range and settings</b>		
Delivered pressure (cm H <sub>2</sub> O)	2–50 (leak circuit) 0–50 (valve circuit)	2–50 (leak circuit) 0–50 (valve circuit)
Delivered tidal volume (mL)	Adult: 100 to 2500 mL Paediatric: 50 to 300 mL	Adult: 100 to 2500 mL Paediatric: 50 to 300 mL
Respiratory rate	Adult: Off, 2 to 50 bpm Paediatric: Off, 5 to 80 bpm	Adult: Off, 2 to 50 bpm Paediatric: Off, 5 to 80 bpm
<b>Data</b>		
SpO <sub>2</sub> monitoring	Optional	Optional
FiO <sub>2</sub> monitoring	Optional	Standard
On screen	30 days of summary data Real-time pressure and flow (25 Hz)	30 days of summary data Real-time pressure and flow (25 Hz)
ResScan (via download)	365 days of summary data 7 days of detailed data	365 days of summary data 7 days of detailed data
AirView ***	365 days of summary data 7 days of detailed data	365 days of summary data 7 days of detailed data
<b>Alarms</b>	A wide range of settable alarms are available including FiO <sub>2</sub> and SpO <sub>2</sub> when connected.	
<b>Dimensions</b>		
Weight	3.2 kg	3.2 kg
Dimensions (L x W x H)	285 mm x 215 mm x 93 mm	285 mm x 215 mm x 93 mm
Internal battery	Lithium-Ion battery, 14.4 V, 6.6 Ah, 95 Wh. 8 hour run time	Lithium-Ion battery, 14.4 V, 6.6 Ah, 95 Wh. 8 hour run time
Sound power level	43 ± 3 dBA ****	43 ± 3 dBA ****
Sound pressure level	35 ± 3 dBA ****	35 ± 3 dBA ****
<b>IEC 60601-1 CLASSIFICATIONS:</b>	Class II (double insulation) Type BF Medical electrical equipment - general requirements for basic safety and essential performance.	

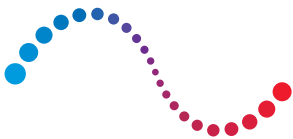
\* Through the ResMed Data Exchange you can integrate your application with AirView to exchange and use patient and device data.  
\*\* iVAPS therapy mode is indicated for patients weighing 30 kg and above.

\*\*\* AirView might not be available in your region. Please consult your local ResMed representative for further information.  
\*\*\*\* As measured according to ISO 80601-2-12:2011.



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ResMed

Astral™ series

Life support ventilators

Product and accessory codes

	Astral 150 Astral 100
	Homecare stand without interface/ top plate <b>27963</b>
	Astral top plate <b>27956</b>
	Homecare stand IV pole kit <b>27948</b>
	Hospital trolley <b>27914</b>
	Astral mobility bag <b>27917</b>
	Astral SlimFit mobility bag <b>27949</b>
	Astral table stand <b>27915</b>
	External battery <b>27918</b>
	Remote alarm II <b>27902</b> (does not include cable)
	Oximetry set with reusable soft sensor <b>22370</b>
	ResMed Connectivity Module <b>27203</b>
	MPV circuit support arm <b>27955</b>

See the ventilation accessories catalogue for the full suite of ResMed accessories. Some accessories might not be available in all countries.

Supporting your patients' every breath



# Confident care

Because time and information are important, Astral gives you the tools to help provide quality patient therapy, close observation and informed decision making.

**Versatile modes, circuits and interfaces:** Astral is home to nine different therapy modes, including the newly added iVAPS. With compatibility across single leak, single valve and double limb circuits, as well as multiple patient interfaces, you can cater for a wide range of patient types – from adult to paediatric patients (weighing as little as 5 kg), and those with chronic obstructive pulmonary disease (COPD), obesity hypoventilation syndrome (OHS), neuromuscular disease (NMD), spinal cord conditions or chest wall disorders.

**Supplemental oxygen:** For patients requiring oxygen therapy, Astral allows flow rates of up to 30 L/min, which can deliver an FiO<sub>2</sub> of up to 100%.

## Excellence in non-invasive and invasive ventilation

Helping you provide confident care, the following technologies can be fine-tuned to allow you to tailor therapy on a patient-to-patient basis for individualised comfort and synchrony.



Vsync

Vsync for automated leak management



TiControl

TiControl™ for customised minimum and maximum inspiratory thresholds



NIV+

NIV+ technology for greater sensitivity to trigger detection



# Connected care, better insight

For even more confident care, Astral is available with cellular connectivity through ResMed Connectivity Module. This enables you to transmit therapy data straight from your patients’ homes to AirView™, ResMed’s securely-hosted, cloud-based patient management system for remote monitoring.

With secure access to daily online updates via AirView or AirView Exchange\*, you can remotely view therapy reports and monitor trends as required without the need for manual downloads. You can perform timely interventions and feel well prepared for visits to home-based patients.



# Greater freedom

Day after day, Astral does what it does best: help clinicians provide quality ventilation wherever it’s needed – in hospitals and homes of patients on life support – renewing their sense of independence and freedom.

Lightweight and discreet, Astral is designed to provide acute or long-term care to patients, even as they move through different care environments. A range of accessories is available to help staff with day-to-day tasks while also encouraging patients to continue with their day-to-day activities.



**Battery options:** With an internal battery lasting up to 8 hours, and the capacity to add a further two external batteries, Astral’s battery life can be extended up to a total of 24 hours.



**Mobility bags:** When patients are ready to move away from the hospital or home, they have the choice of two custom-built protective mobility bags that allow for uninterrupted ventilation on the go.



**Remote alarm II:** Patients on life support require close attention and care, but they can recuperate with an appropriate amount of independence by keeping connected to remote or hospital alarm systems.

# Designed efficiency

When you bring any new device into a clinical environment, it is essential for your staff to find it easy to use. Knowing how to set up different patient conditions helps reduce time and resources spent on training.

**Delivering quick and easy setup:** Astral’s intuitive navigation, user-friendly menus, and organisational aids, such as Setup Assistant, Learn Circuit and the QuickConnect™ circuit system, not only streamline staff training, but also enable consistent and accurate patient setup.

**Multiple programs:** Using up to four presettable programs, patients with treatment requirements that change under particular conditions (e.g. day/night or with/without humidification) can be transitioned easily from one therapy program to another without manual fine-tuning.

**Minimising inventory and maintenance:** Designed for a long-working relationship, Astral’s fast turnaround times and simple servicing (required only once every two years) reduce the need for backup ventilators, saving both time and money.



Award-winning designs: Astral’s craftsmanship was recognised in 2014 with an International Red Dot Award for product design as well as Australia’s Good Design Award.

