ResMed

Supporting your patients' every breath

Astral with iVAPS

A smarter solution for portable ventilation

Astral's latest set of clinical enhancements, which includes iVAPS (intelligent Volume-Assured Pressure Support), make it the industry's smartest life support ventilator. As each patient's condition changes, so may his or her therapy needs. That's why Astral, already renowned for its portability and intuitive color touch screen, now features a suite of intelligent technologies that deliver adaptive ventilation to suit each patient's individual needs.

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

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

Personalized for patient comfort

With nine different therapy modes, including the newly added iVAPS, Astral offers the ultimate in personalized comfort. With offerings of single leak, single valve and double limb circuits, you can cater to a wide range of patient types – from adults to pediatric patients weighing as little as 5kgs. And for patients requiring oxygen therapy, Astral accommodates flow rates of 30 L/min, with integrated FiO_2 monitoring in Astral 150 for fine-tuning of oxygen therapy.

Astral also features the following technologies that can be fine-tuned to allow you to tailor therapy on a patient-to-patient basis, for individualized comfort and synchrony.
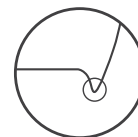

Vsync

Vsync for automated leak management

TiControl

TiControl™ for customised minimum and maximum inspiratory thresholds

NIV+

NIV+ technology for greater sensitivity in trigger detection

Greater freedom

Astral ventilators strike the perfect balance of battery run-time with weight and portability to give patients the freedom to get out and enjoy day-to-day activities.

Astral mobility bag

Astral SlimFit mobility bag

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

Mobility bags: When patients are ready for mobility, 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 staying connected to remote or hospital alarm systems.

Designed with efficiency in mind

Astral's award-winning design, easy setup and simple servicing make ventilation support straightforward and efficient.

Quick and easy setup: Astral's intuitive navigation and menus streamline staff training and enable consistent and accurate patient setup. And with QuickConnect™, you can easily incorporate two pressure lines into one.

Multiple programs for therapy flexibility: Using up to four pre-settable 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 ventilation interruption.

Simple maintenance options: Pneumatic block replacement is only required every 35,000 hours and can be quickly and seamlessly replaced during an in-field service or at the service center, reducing downtime for the device and improving cost efficiencies.

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

Stay informed of patient changes throughout the therapy journey.

ResScan™: ResMed's patient data management software provides clinicians with a great way to view statistical, summary, detailed and alarm data.

FiO$_2$ and oximetry: Integrated FiO$_2$ and optional SpO$_2$ monitoring are available.

Real-time waveforms: Pressure and flow waveforms are quickly accessible on Astral's large color touch screen, while offering continuous patient trending.

Monitoring options with at-a-glance visuals

Added safety features provide peace of mind when caring for dependent patients.

Alarms: Astral is equipped with a set of fixed and adjustable alarms, categorized by priority. The dedicated disconnection alarm allows for patient customization and gives caregivers peace of mind.

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

Astral specifications

Indications for use	Astral 100	Astral 150
Indications for use	Life support for patients over 5 kg	Life support for patients over 5 kg
Circuit		
Single circuit with leak	•	•
Single circuit with valve	•	•
Double circuit		•
Therapy		
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	•	•
Manual breath		•
Sigh breath (recruitment)		•
Apnea ventilation	Volume and pressure	Volume and pressure
Preset programs	2	4
Pressure range and settings		
Delivered pressure (cm H$_2$O)	2–50 (leak circuit) 0–50 (valve circuit)	2–50 (leak circuit) 0–50 (valve circuit)
Delivered tidal volume (cm H$_2$O)	Adult: 100 to 2500 mL Pediatric: 50 to 300 mL	Adult: 100 to 2500 mL Pediatric: 50 to 300 mL
Respiratory rate	Adult: Off, 2 to 50 bpm Pediatric: Off, 5 to 80 bpm	Adult: Off, 2 to 50 bpm Pediatric: Off, 5 to 80 bpm
Data		
SpO$_2$ monitoring	Optional	Optional
FiO$_2$ 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
Alarms	A wide range of settable alarms are available, including FiO$_2$ and SpO$_2$ when connected.	
Dimensions		
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**

IEC 60601-1 CLASSIFICATIONS:
Medical electrical equipment - general requirements for basic safety and essential performance.

Class II (double insulation) Type BF
Continuous operation
Suitable for use with oxygen

* iVAPS therapy mode is indicated for patients weighing 30 kg and above.
** As measured according to ISO 80601-2-12:2011

Product and accessory codes

Astral 150
27003
Astral 100
27001

Hospital trolley
27914

Astral mobility bag
27917

Astral SlimFit mobility bag
27949

Astral table stand
27915

External battery
27919

Astral Remote Alarm II
27903
(does not include cable)

Single circuit smooth bore 15mm QuickConnect™ circuit
21312

Oximetry set with reusable soft sensor
36942

See the ventilation accessories catalog for the full suite of ResMed accessories.

Adult | Pediatric | Non-invasive | Invasive | Hospital | Home | Mobility | Internal battery | External battery | USB | Alarm | Airline approved | iVAPS | iBR | Vsync | ™ TiControl | 5 Trigger | NIV+ | Learn circuit | Customizable programs

ResMed.com/Astral