





Astral Hospital Brochure



Enrich life

From initial setup to everyday use, the Astral 100 and Astral 150 life support ventilators offer confident care, greater portability and designed efficiency to enrich you and your patients' lives.

Confident care

Astral offers a range of treatment options for both adult and pediatric patients. It is compatible with a variety of patient interfaces and is designed for both invasive and noninvasive applications.

Greater portability

Astral is lightweight and has an 8-hour internal battery, promoting intrafacility transport. Its size and weight allow it to be used during transfer and mobilization of patients in critical care areas, promoting the pulmonary rehabilitation process.

Designed efficiency

With easy setup, simple servicing and an intuitive interface, Astral has been designed to make ventilation support straightforward and efficient.





Confident care

Versatile treatment options

Astral delivers excellence in leak and valve ventilation for invasive and noninvasive applications and provides a full suite of therapy modes to suit both adult and pediatric patients. Astral's double limb circuit configuration ensures accuracy in ventilation with measurement of exhaled tidal volumes in even your smallest patients.

Easy monitoring

Real-time waveforms and patient information are displayed on the large color touch screen to ensure correct setup and to monitor patient condition. FiO₂ and SpO₂ are integrated to complete the therapy picture. RSBI monitoring can serve as an adjunct when weaning patients from the ventilator. Modes like P-SIMV, V-SIMV and CPAP – as well as the ability to set four programs – is another way in which Astral provides a solution for weaning environments.

Simple patient setup

Astral's intuitive interface, presettable programs and setup assistant allow for fast and accurate patient setup. The QuickConnect™ valve circuits have been specifically designed to reduce known and common setup errors so therapy can be delivered quickly and safely.



A full suite of modes offer versatile therapy options as the patient's condition progresses.

Greater portability

Balancing battery capacity with portability

Mobility in its most practical sense requires balancing battery run-time with the weight and portability of the ventilator. At just 7 lbs with an 8-hour internal battery, you can provide patients with greater mobility knowing they have the reliability of Astral behind them. The combination of internal and external batteries provides up to 24 hours of run-time, so planning patient transports, rehabilitation and daytime activities can be scheduled with confidence.

Designed efficiency

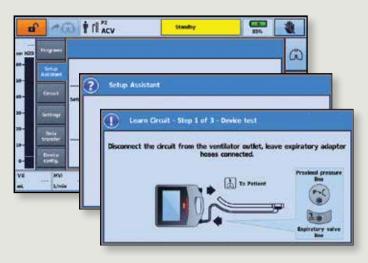
Saving time during training and patient setup

Astral's intuitive interface and easy operation can alleviate training pressures and minimize training time. Easy navigation with user-friendly menus enable quick and confident setup so clinicians can focus on what's important: the overall care of patients.

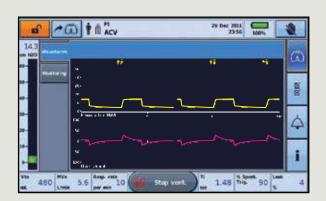
Simple servicing

Astral's modular design requires minimal parts and components to make servicing simple and straightforward. Long-service intervals deliver our best efficiencies yet. Servicing can be provided by our ResMed Service Center or your staff can be trained in servicing Astral – the choice is yours.

Astral Enrich life



The built-in Learn Circuit feature evaluates and compensates for resistance in the circuit to optimize ventilation and ensure accuracy in monitoring.



Real-time pressure and flow waveforms display essential therapy parameters on the large touch screen and allow detection of patient–device asynchrony.



Hospital trolley

ResMed's hospital trolley has been designed to transport Astral around any hospital or clinical setting. It features the option of a medical grade power strip located in the center console, which lets you connect multiple electrical devices and power them with just one cord.

Remote alarm II

ResMed's Remote Alarm II provides the convenience of monitoring alarms from another room, ward or central monitoring station. It offers peace of mind and freedom for caregivers to move away from the patient's bedside without compromising patient safety.





Devices and accessories



Astral 100, 27001 Astral 150, **27003**



Astral Mobility Bag 27917



External Battery 27919



Astral Table Stand 27915



Remote Alarm II **27903** (does not include cable)



Remote Alarm II Cable 2 m **27904**, 5 m **27905**, 10 m **27906**, 20 m **27907**

Nurse Call Cable 27912



Single circuit smooth bore 22 mm with QuickConnect



Pulse Oximeter 22305



Hospital Trolley 27914





| INDICATIONS FOR USE Life support for patients above 11 lbs (5 kg) Life support for patients above 11 lbs (5 kg) CIRCUIT Single circuit with leak • • Single circuit with valve • • Double circuit • • THERAPY Valve circuit therapy. • CPAP, ACV, P-SIMM, V-SIMM, PS • • Leak circuit therapy. • • CPAP, ST, PAC • • Manual breath • • Sligh breath (recruitment) • • Appea eventilation Volume and pressure Volume and pressure Presst programs 2 4 PRESSURE RANGE AND SETTINGS • • Delivered Pressure (cm H, 0) 2 – 50 (leak circuit) 0 – 50 (valve circuit | Technical Specifications | Astral 100 | Astral 150 |
|--|---|------------------------|------------------------|
| Single circuit with leak Single circuit with valve Double circuit THERAPY Valve circuit therapy: CPAP, ACV, PACV, P.SIMV, V.SIMV, PS Leak circuit therapy: CPAP, ST, PAC Manual breath Sigh breath (recruitment) Apnea ventilation Volume and pressure Volume and pressure Volume and pressure Volume and pressure Presset programs 2 4 PRESSURE RANGE AND SETTINGS Delivered Pressure (cm H ₂ 0) Delivered Tidal Volume (cm H ₂ 0) Pediatric: 50 to 300 mL Pediatric: 50 to 300 mL Pediatric: 50 to 300 mL Pediatric: 50 to 500 pm Pediatric: 0ff, 5 to 80 bpm Pediatric: 0ff, 5 to 80 spm Pediatric: | INDICATIONS FOR USE | | |
| Single circuit with valve Double circuit THERAPY Valve circuit therapy: CPAP, ACV, PACV, P.SIMV, V.SIMV, PS Leak circuit therapy: CPAP, SC, PAC Manual breath Sigh breath (recruitment) Apnea ventilation Volume and pressure Volume and pressure Volume and pressure Volume and pressure Presset programs 2 4 PRESSURE RANGE AND SETTINGS Delivered Pressure (cm H ₂ O) Delivered Pressure (cm H ₂ O) Pediatric: 50 to 300 mL Pediatric: 0ff, 5 to 80 bpm Pediatric: 0ff, 5 to 80 spm Adult: 0ff, 2 to 50 bpm Pediatric: 0ff, 5 to 80 spm Pediatric: 0ff, 5 to | CIRCUIT | | |
| Double circuit THERAPY Valve circuit therapy: CPAP, ACV, PACV, PSIMV, V-SIMV, PS Leak circuit therapy: CPAP, ST, PAC Manual breath Sigh breath (recruitment) Apnea ventilation Volume and pressure Volume and pressure Volume and pressure Volume and pressure Preset programs 2 4 PRESSURE RANGE AND SETTINGS Delivered Pressure (cm H, 0) Delivered Tidal Volume (cm H, 0) Delivered Tidal Volume (cm H, 0) Adult: 100 to 2500 mL Pediatric: 50 to 300 mL | Single circuit with leak | • | • |
| THERAPY Valve circuit therapy: CPAP, ACV, PACV, PSIMV, V-SIMV, PS Leak circuit therapy: CPAP, ST, PAC Manual breath Sigh breath (recruitment) Apnea ventilation Volume and pressure Preset programs 2 4 PRESSURE RANGE AND SETTINGS Delivered Pressure (cm H₂0) Adult: 100 to 2500 mL Pediatric: 50 to 300 mL Pediatric: 00 to 500 mL Pediatric: 00 to 300 mL Pediatric: 00 to | Single circuit with valve | • | • |
| Valve circuit therapy: CPAP, ACV, PACV, PSIMV, V-SIMV, PS Leak circuit therapy: CPAP, ST, FAC Manual breath Sigh breath (recruitment) Apnea ventilation Volume and pressure Volume and pressure Volume and pressure Presst programs 2 4 PRESSURE RANGE AND SETTINGS Delivered Pressure (cm H ₂ O) Adult: 100 to 2500 mL Pediatric: 50 to 300 mL Pediatric: 50 to 300 mL Pediatric: 50 to 300 mL Pediatric: 50 to 50 bpm Pediatric: 50 to 50 b | Double circuit | | • |
| CPAP, ACV, PACV, PACV, PSIMV, V-SIMV, PS Leak circuit therapy: CPAP, ST, PAC Manual breath * Sigh breath (recruitment) Apnea ventilation Volume and pressure Presst programs 2 4 * * * * * * * * * * * * * * * * * * | THERAPY | | |
| CPAP, ST, PAC Manual breath Sigh breath (recruitment) Apnea ventilation Volume and pressure Volume and pressure Volume and pressure Volume and pressure Preset programs 2 4 PRESSURE RANGE AND SETTINGS Delivered Pressure (cm H ₂ O) Delivered Tidal Volume (cm H ₂ O) Adult: 100 to 2500 mL Pediatric: 50 to 300 mL Pediatric: 50 to 3 | ' ' | • | • |
| 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) Delivered Tidal Volume (cm H ₂ O) Adult: 100 to 2500 mL Pediatric: 50 to 300 mL Pediatric: 50 to 300 mL Adult: 100 to 2500 mL Pediatric: 50 to 300 mL Pediatric: 50 to 300 mL Pediatric: 50 to 300 mL Pediatric: 0ff, 2 to 50 bpm Pediatric: 0ff, 5 to 80 bpm Pediatric: 0ff, 5 | | • | • |
| Apnea ventilation Volume and pressure Volume and pressure Preset programs 2 4 PRESSURE RANGE AND SETTINGS Delivered Pressure (cm H ₂ 0) Delivered Tidal Volume (cm H ₂ 0) Delivered Tidal Volume (cm H ₂ 0) Adult: 100 to 2500 mL Pediatric: 50 to 300 mL Pediatric: 0ff, 5 to 80 bpm Pediatric: 0ff, 5 | Manual breath | | • |
| Preset programs 2 4 PRESSURE RANGE AND SETTINGS Delivered Pressure (cm H₂0) Delivered Tidal Volume (cm H₂0) Delivered Tidal Volume (cm H₂0) Pediatric: 50 to 300 mL Respiratory rate Adult: 00f, 2 to 50 bpm Pediatric: 50 to 300 mL Respiratory rate DATA Sp0₂ monitoring Optional Optional Fi0₂ monitoring Optional On screen and download ALARMS A wide range of settable alarms are available including Fi0₂ and Sp0₂ when connected. DIMENSIONS Weight 7 lbs (3.2 kg) 7 lbs (3.2 kg) 7 lbs (3.2 kg) 7 lbs (3.2 kg) Tilternal battery Lithium-lon battery, 14.4 V, 6.6 Ah, 95 Wh. 8 hour run time 8 hour run time Sound power level | Sigh breath (recruitment) | | • |
| PRESSURE RANGE AND SETTINGS Delivered Pressure (cm H₂0) Delivered Tidal Volume (cm H₂0) Pediatric: 50 to 300 mL Respiratory rate Adult: 100 to 2500 mL Pediatric: 50 to 300 mL Pediatric: 50 to 300 mL Pediatric: 50 to 500 bpm Pediatric: 0ff, 2 to 50 bpm Pediatric: 0ff, 5 to 80 bpm Pediatric: 0ff, 5 to 80 bpm Pediatric: 0ff, 5 to 80 bpm Pediatric: 0ff, 5 to 80 bpm Pediatric: 0ff, 5 to 80 bpm Pediatric: 0ff, 5 to 80 bpm Pediatric: 0ff, 5 to | Apnea ventilation | Volume and pressure | Volume and pressure |
| Delivered Pressure (cm H₂D) 2–50 (leak circuit) 0–50 (valve circuit) 2–50 (leak circuit) 0–50 (valve circuit) Delivered Tidal Volume (cm H₂D) Adult: 100 to 2500 mL Pediatric: 50 to 300 mL Pediatric: 0ff, 2 to 50 bpm Pediatric: 0ff, 5 to 80 bpm Pediatric: 0ff, 2 to 80 bpm | Preset programs | 2 | 4 |
| Delivered Pressure (cm H ₂ U) Delivered Tidal Volume (cm H ₂ O) Adult: 100 to 2500 mL Pediatric: 50 to 300 mL Respiratory rate Adult: 00 to 2500 mL Pediatric: 50 to 300 mL Adult: 00ff, 2 to 50 bpm Pediatric: 00ff, 5 to 80 bpm Pediatric: 00ff, | PRESSURE RANGE AND SETTINGS | | |
| Pediatric: 50 to 300 mL Pediatric: 50 to 300 mL Adult: Off, 2 to 50 bpm Pediatric: 0ff, 5 to 80 bpm Pediatric: 0ff, 2 to 8 dph Pediatric: 0ff, 2 to 8 dph Pediatric: 0ff, 2 to 8 dph Pe | Delivered Pressure (cm H ₂ 0) | | |
| Pediatric: Off, 5 to 80 bpm Optional Optional Optional Optional 7 days of high-resolution data with 25Hz pressure and flow On screen and download On screen and download Alarms A wide range of settable alarms are available including FiO₂ and SpO₂ when connected. DIMENSIONS Weight 7 lbs (3.2 kg) 7 lbs (3.2 kg) 7 lbs (3.2 kg) Dimensions (L x W x H) 11.22* x 8.46* x 3.6* (285 mm x 215 mm x 93 mm) Lithium-lon battery, 14.4 V, 6.6 Ah, 95 Wh. B hour run time Sound power level 43 ± 3 dBA* 43 ± 3 dBA* | Delivered Tidal Volume (cm H ₂ 0) | | |
| SpO₂ monitoring Optional Optional FiO₂ monitoring Optional • 7 days of high-resolution data with 25Hz pressure and flow On screen and download On screen and download 365 days of summary data On screen and download On screen and download A wide range of settable alarms are available including FiO₂ and SpO₂ when connected. DIMENSIONS Veight 7 lbs (3.2 kg) 7 lbs (3.2 kg) Dimensions (L x W x H) 11.22* x 8.46* x 3.6* (285 mm x 215 mm x 93 mm) (285 mm x 215 mm x 93 mm) (285 mm x 215 mm x 93 mm) Lithium-lon battery, 14.4 V, 6.6 Ah, 95 Wh. 8 hour run time 14.4 V, 6.6 Ah, 95 Wh. 8 hour run time 8 hour run time Sound power level 43 ± 3 dBA* 43 ± 3 dBA* | Respiratory rate | | · · |
| FiO ₂ monitoring Optional On screen and download On screen and download 365 days of summary data On screen and download On screen and download On screen and download ALARMS A wide range of settable alarms are available including FiO ₂ and SpO ₂ when connected. DIMENSIONS Weight 7 lbs (3.2 kg) 7 lbs (3.2 kg) 7 lbs (3.2 kg) 7 lbs (3.2 kg) Dimensions (L x W x H) 11.22* x 8.46* x 3.6* (285 mm x 215 mm x 93 mm) Lithium-lon battery, Lithium-lon battery, 14.4 V, 6.6 Ah, 95 Wh. 8 hour run time Sound power level 43 ± 3 dBA* 43 ± 3 dBA* | DATA | | |
| 7 days of high-resolution data with 25Hz pressure and flow On screen and download On screen and download ALARMS A wide range of settable alarms are available including FiO ₂ and SpO ₂ when connected. DIMENSIONS Weight 7 lbs (3.2 kg) 11.22" x 8.46" x 3.6" (285 mm x 215 mm x 93 mm) (285 mm x 215 mm x 93 mm) Lithium-lon battery, 14.4 V, 6.6 Ah, 95 Wh. 14.4 V, 6.6 Ah, 95 Wh. 8 hour run time Sound power level 43 ± 3 dBA* 43 ± 3 dBA* | SpO_2 monitoring | Optional | Optional |
| 365 days of summary data On screen and download On screen and download A wide range of settable alarms are available including FiO₂ and SpO₂ when connected. DIMENSIONS Veight 7 lbs (3.2 kg) 7 lbs (3.2 kg) Dimensions (L x W x H) 11.22* x 8.46* x 3.6* (285 mm x 215 mm x 93 mm) 11.22* x 8.46* x 3.6* (285 mm x 215 mm x 93 mm) Lithium-lon battery, Lithium-lon battery, Lithium-lon battery, Internal battery 14.4 V, 6.6 Ah, 95 Wh. 14.4 V, 6.6 Ah, 95 Wh. 8 hour run time 8 hour run time Sound power level 43 ± 3 dBA* 43 ± 3 dBA* | FiO ₂ monitoring | Optional | • |
| ALARMS A wide range of settable alarms are available including FiO ₂ and SpO ₂ when connected. DIMENSIONS 7 lbs (3.2 kg) 7 lbs (3.2 kg) Dimensions (L x W x H) 11.22" x 8.46" x 3.6" (285 mm x 215 mm x 93 mm) (285 mm x 215 mm x 93 mm) 11.22" x 8.46" x 3.6" (285 mm x 215 mm x 93 mm) (285 mm x 215 mm x 93 mm) Lithium-lon battery, 14.4 V, 6.6 Ah, 95 Wh. 18 hour run time 8 hour run time Sound power level 43 ± 3 dBA* 43 ± 3 dBA* | 7 days of high-resolution data with 25Hz pressure and flow $$ | On screen and download | On screen and download |
| DIMENSIONS | 365 days of summary data | On screen and download | On screen and download |
| Weight 7 lbs (3.2 kg) 7 lbs (3.2 kg) Dimensions (L x W x H) 11.22" x 8.46" x 3.6" (285 mm x 215 mm x 93 mm) (285 mm x 215 mm x 93 mm) 11.22" x 8.46" x 3.6" (285 mm x 215 mm x 93 mm) Lithium-lon battery, Lithium-lon battery, Lithium-lon battery, Internal battery 14.4 V, 6.6 Ah, 95 Wh. 14.4 V, 6.6 Ah, 95 Wh. 8 hour run time 8 hour run time Sound power level 43 ± 3 dBA* 43 ± 3 dBA* | ALARMS | | |
| Dimensions (L x W x H) 11.22" x 8.46" x 3.6" (285 mm x 215 mm x 93 mm) 11.22" x 8.46" x 3.6" (285 mm x 215 mm x 93 mm) Internal battery Lithium-lon battery, 14.4 V, 6.6 Ah, 95 Wh. 14.4 V, 6.6 Ah, 95 Wh. 8 hour run time 14.4 V, 6.6 Ah, 95 Wh. 14.4 V, 95 Wh. 14.4 V | DIMENSIONS | | |
| Case mm x 215 mm x 93 mm Case mm x 215 mm x 93 mm Case mm x 215 mm x 93 mm Lithium-lon battery, Lithium-lo | Weight | 7 lbs (3.2 kg) | 7 lbs (3.2 kg) |
| Internal battery 14.4 V, 6.6 Ah, 95 Wh. 8 hour run time 14.4 V, 6.6 Ah, 95 Wh. 8 hour run time Sound power level 43 ± 3 dBA* 43 ± 3 dBA* | Dimensions (L x W x H) | | |
| * * | Internal battery | 14.4 V, 6.6 Ah, 95 Wh. | 14.4 V, 6.6 Ah, 95 Wh. |
| Sound pressure level $35 \pm 3 \text{dBA}^*$ $35 \pm 3 \text{dBA}^*$ | 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

Astral features







































^{*}As measured according to IEC80601-2-12:2011