Servo-u Ventilator
The power of you

This document is intended to provide information to an international audience outside of the US.
We take breathing for granted. Until we can’t.

If there’s one thing you can be certain of in the ICU, it’s that a patient’s situation can change in a matter of seconds. The best way to deal with the unexpected every day?

– Be prepared for everything.

Servo-u gives you many effective options for protective and personalized ventilation. All of them more accessible, understandable and easy to implement, empowering you to utilize advanced protective strategies in your routine patient care.

Welcome to the new power of you.
The system’s Safety Scale tool makes parameter changes quick and intuitive, while dynamic images illustrate how those changes affect ventilation.

Context-based guidance
Servo-u provides informative text guidance for everything from pre-use check to initial parameter setting and throughout the entire treatment.

Safety Scale parameters
The system’s Safety Scale tool makes parameter changes quick and intuitive, while dynamic images illustrate how those changes affect ventilation.
Simple to learn, safer to use.

Servo ventilators build on 50 years of close collaboration with intensive care clinicians around the world. The result is better patient safety thanks to higher levels of use safety and a superior user experience.¹

The intuitive touchscreen makes Servo-u a breeze to learn and use. Help menus, recommendations and prompts help staff to orientate quickly and follow guidelines. The interface also simplifies knowledge sharing, making it easy to retrieve screenshots and recordings or connect to a larger screen.

Servo-u features an ergonomic design. The screen can be rotated through 360°, which means you can place the ventilator anywhere around the bed depending on clinical requirements. You can also mount Servo-u on a ceiling supply unit or shelf. The system is light and compact, making it highly suitable for intra-hospital transport.

Choose your view
Basic, Advanced and Loops
Servo Compass
Distance and Family

Alarm management
The frame lights up when an alarm is triggered, and this visual signal is easy to see from any vantage point. On-screen checklists help you to manage each active alarm and avoid undesired alarms.
Detect risks early and protect in time

Many ventilators lack good bedside tools to detect risk, which means lung protection is often delayed and inconsistently applied. This can lead to lung injury and worsened outcome. Servo-u helps you to detect changes and assess your intervention to provide the right protection at the right time.

**Detect**
Servo Compass clearly visualizes when driving pressure or tidal volume per kilogram of predicted bodyweight is off target, notifying staff when adjustments are needed. Precisely calculated dynamic compliance and Stress Index complete the picture, helping you detect changes in lung volume and verify over-distension.

**Assess**
Open Lung Tool helps you assess lung mechanics and gas exchange breath by breath, in real-time and retrospectively. It guides you through the recruitment maneuver, helping you to set a personalized PEEP and reduce driving pressure. The tool can also help you to assess other interventions, such as prone positioning and extracorporal life support.
Protect
PRVC is a volume-targeted mode that automatically adapts the inspiratory pressure to account for changes in lung mechanics. Separated regulation of controlled and assisted breaths reduces tidal volume variations and ensures low driving pressures. A low tidal volume ventilation strategy can therefore be maintained when the patient starts to breathe spontaneously.
Diagnose breathing and start weaning

Edi – the vital sign of respiration – is a bedside diagnostic tool that allows you to monitor and safeguard the patients' diaphragm activity.\(^9,10\)

Servo-u lets you visualize Edi on screen, making it easier to identify over-assist, over-sedation and asynchrony when optimizing ventilation delivery and assessing weaning readiness. The result: earlier and more informed interventions.\(^11,12\)

Edi assures that breathing efforts from all patient categories are effectively assessed. It is also helpful for monitoring recovery when ventilatory support is no longer provided.
Activate the diaphragm and protect the lungs
Servo-u offers several options to start weaning your patients:

- Interactive modes
- Neural ventilation
- Non-invasive ventilation (NIV)
- High-flow therapy

The interactive Automode eases the transition to spontaneous breathing for patients and staff. It switches seamlessly between controlled and supported modes depending on patient effort.

NAVA (Neurally Adjusted Ventilatory Assist) uses the Edi to deliver personalized support, invasively and non-invasively. It promotes lung protective spontaneous breathing with higher diaphragmatic efficiency, and fewer periods of over and under-assist.\textsuperscript{13-19} It also improves the patient’s ICU experience, helping you to reduce sedation with improved comfort and sleep quality.\textsuperscript{11, 20-23}

NIV NAVA is a non-invasive technique useful in helping avoid intubation and preventing respiratory failure from worsening.\textsuperscript{24-27} It is also leakage independent, helping to reduce skin tear.\textsuperscript{28, 29}

High-flow therapy reduces the patient’s work of breathing through an accurate flow of heated and humidified oxygen, improving comfort and tolerance.

Wean early with an active diaphragm
Recent clinical studies reveal that diaphragm weakness is prevalent (23–84%) in ICU patients and consistently associated with poor outcome.\textsuperscript{8} Servo-u lets you monitor the patient’s diaphragm activity (Edi) to personalize ventilation for successful weaning.
Optimizing uptime and efficiency
– Ownership with less stress

Servo-u is an investment both for now and for the future. The flexible, modular platform is always ready to adapt to your changing clinical needs, and our expert support is on hand every step of the way.

Protect your investment with Getinge Care
Maximizing uptime does not have to break your budget. By following a routine preventive maintenance schedule with remote and on-site services, Getinge Care keeps things running smoothly with minimal interruption. And if something should need urgent attention, our certified field service representatives will be there to deliver original parts, maximizing the lifespan of your equipment.

Expect seamless connectivity
Connectivity is essential to drive efficiency and positive outcomes in healthcare. Servo-u connects to a range of PDMS systems and patient monitors. It can also use MSync (optional) as HL7 converter, which makes the system conform to IHE Technical Frameworks.
## Ventilator options*

<table>
<thead>
<tr>
<th>Non-invasive ventilation</th>
<th>PEEP</th>
<th>2 – 20 cmH₂O</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure above PEEP</td>
<td>0 – (60-PEEP) cmH₂O</td>
<td></td>
</tr>
<tr>
<td>Leak Compensation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult</td>
<td>Inspiratory up to 200 l/min</td>
<td></td>
</tr>
<tr>
<td>Pediatric/Neonatal</td>
<td>Expiratory up to 65 l/min</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inspiratory up to 33 l/min</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Expiratory up to 25 l/min</td>
<td></td>
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<tr>
<td></td>
<td>Nasal CPAP up to 20 l/min</td>
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</tbody>
</table>

## Ventilation modes*

### Invasive ventilation

- Automode
- Bi-Vent/APRV
- NAVA
- PC
- PRVC
- PS/CPAP
- SIMV
- VC
- VS

### Non-invasive ventilation

- Open Lung Tool trends
- High Flow therapy
- Servo Compass

### Miscellaneous information

- Screen: 15” TFT LCD touchscreen
- Dimensions patient unit: W 300 x D 205 x H 420 mm, H incl. user interface 826 mm
- Weight: ~ 23 kg (patient unit 15 kg, user interface 4 kg), ~ 35 kg with mobile cart
- Batteries, hot swappable: 6 (2 included)
- Battery back-up time: at least 3 h (with 6 batteries)
- Nebulization: Aerogen, integrated
- Respiratory vital sign: Edi plug-in module
- Y sensor monitoring: Hot-Wire Anemometer plug-in module
- CO₂ analyzer: Capnostat 5 plug-in module
- External device interfaces: 2 x RS-232C ports, USB, remote alarm, remote services
- IHE technical framework: MSync HL7 converter

*Not all modes/options are available in the standard configuration. Please contact your local Getinge representative for further information. Refer to the Servo-u datasheet for additional technical specifications.

### Inspiratory tidal volume

<table>
<thead>
<tr>
<th>Adult</th>
<th>100 – 4000 ml</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pediatric</td>
<td>10 – 350 ml</td>
</tr>
<tr>
<td>Neonatal</td>
<td>2 – 50 ml</td>
</tr>
</tbody>
</table>

### Inspiratory flow

- ≤ 200 l/min

### PEEP

- 1 – 50 cmH₂O

### Pressure above PEEP

<table>
<thead>
<tr>
<th>Adult</th>
<th>0 – (120-PEEP) cm H₂O</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pediatric/Neonatal</td>
<td>0 – (80-PEEP) cm H₂O</td>
</tr>
</tbody>
</table>
References


4. Data on file Maquet Critical Care AB.


GETINGE

Getinge is a global provider of innovative solutions for operating rooms, intensive care units, sterilization departments and for life science companies and institutions. Based on our firsthand experience and close partnerships with clinical experts, healthcare professionals and medtech specialists, we are improving the everyday life for people – today and tomorrow. This document is intended to provide information to an international audience outside of the US.

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