



WEINMANN
medical technology

 **MEDUVENT Standard**

Ventilation any time, any place

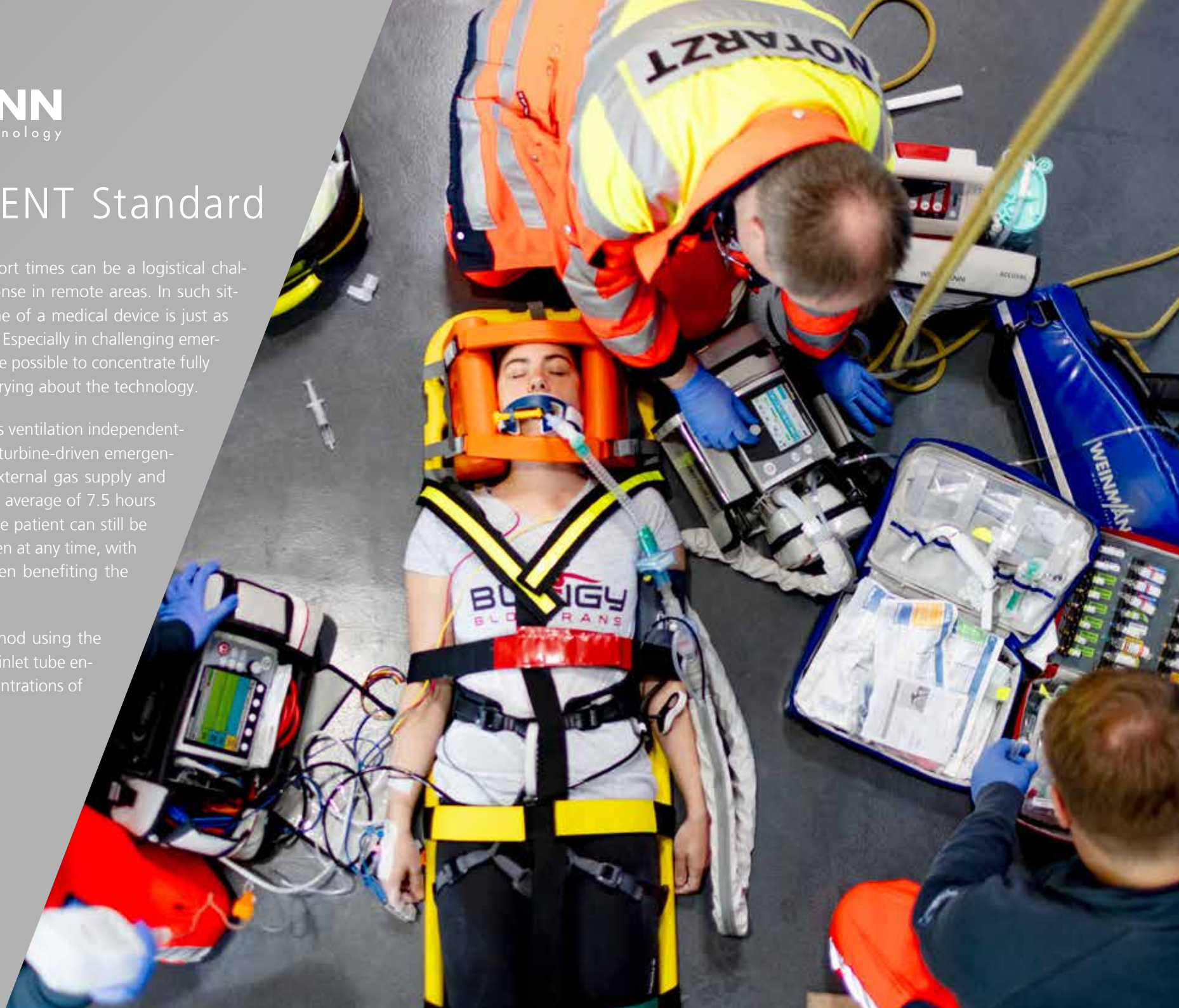
MEDUVENT Standard

Long distances and transport times can be a logistical challenge for emergency response in remote areas. In such situations, the battery runtime of a medical device is just as critical as its oxygen supply. Especially in challenging emergency situations, it should be possible to concentrate fully on the patient without worrying about the technology.

MEDUVENT Standard allows ventilation independently of oxygen cylinders. The turbine-driven emergency ventilator requires no external gas supply and maintains ventilation for an average of 7.5 hours on one battery charge*. The patient can still be supplied with medical oxygen at any time, with all the oxygen supplied then benefiting the patient.

The innovative supply method using the globally compatible oxygen inlet tube enables you to generate concentrations of 21 % to 100 %.

* Assuming typical ventilation settings for an adult patient



Always reliable thanks to turbine technology



21 % - 100 % FiO_2



Mix in O_2 at any time



Rapid start



Contamination protection



Lightweight and compact



Intuitive and ergonomic

Your benefits at a glance

Safety for patients and emergency staff

- The built-in visual and acoustic alarm system alerts medical staff in critical situations such as high and low airway pressure, patient disconnection, high PEEP and more.
- MEDUVENT Standard ensures sustained oxygenation and ventilation (CO₂ evacuation) of the lungs in the event that spontaneous breathing fails.
- The hygiene filter protects patient, staff, and ventilator from contamination.*1
- The automatic function check ensures safety.

User ergonomics is the top priority

- MEDUVENT Standard weighs just 2.1 kg and has a volume of 3.5 l.
- Specially designed for emergency response and patient transport: MEDUVENT Standard can also be installed in emergency vehicles with little space or requiring lightweight equipment.

*1 The virus filtration efficiency for the filter material is > 99.999 % in a test method in accordance with ASTM F2101. The filtration efficiency according to ISO 23328-1 (filters for breathing systems used in anesthesia and ventilation - Part 1: Test method using salt particles to evaluate filter performance) with the most penetrating particle identified (MMPS, most penetrating particle size 0.3 µm) is > 99 %.

Wide variety of potential applications

- MEDUVENT Standard is perfectly suitable for use at the emergency site and in emergency vehicles of all kinds: ambulances, helicopters, aircraft, etc., demonstrated by shock and vibration tests
- The ventilator offers volume- and pressure-controlled ventilation for all emergency situations.
- Safe and rapid start to ventilation is supported by pre-set emergency modes or by the initiation of treatment based on height

Higher performance and efficiency

- Long operating time: average 7.5 hours on one battery charge*2
- Short charging time: from 0 % to 95 % charge in just 2.5 hours
- Flexible charging options: either via a 230 V power supply unit and charger or directly on the 12 V on-board power supply
- Perform software updates simply and conveniently using the SD card

*2 Assuming typical ventilation settings for an adult patient



Clear and simple



- 1. Ideal monitor layout**
displays all measured values and settings
- 2. Connection for O₂ supply**
via O₂ cylinders, O₂ concentrators, and gas supply systems
- 3. Connection for measuring circuit**
enables pressure to be measured and PEEP to be controlled, as well as oxygen to be routed to the patient
- 4. Accessories connection accessible from the front**
for MEDUtrigger
- 5. Connection for ventilation hose**
connects the device to the ventilation hose of the breathing circuit
- 6. Hygiene filter**
protects the device from viral and bacterial contamination
- 7. Data storage and updates**
SD memory card makes it easy to transfer device configurations and session data and to perform software updates yourself
- 8. User-friendly operation**
navigation knob for swift navigation in the menus
- 9. Li-ion rechargeable battery**
with an average operating time of 7.5 hours*

*Assuming typical ventilation settings for an adult patient



The right options for the perfect setup

MEDUVENT Standard provides ventilation modes for invasive and non-invasive ventilation. With its clear and simple design, the device helps select the right mode. For information about the individual ventilation modes, go to our website at www.WEINMANN-Emergency.com

The IPPV, CPAP, and Manual options are included when purchasing the device.

FlowCurve Pro option

The FlowCurve Pro option includes flow measurement and Assisted Spontaneous Breathing (ASB) pressure support. This assists the patient's respiratory effort.

- Monitoring of the expiratory tidal and minute volume as well as leakage for more effective assessment of the ventilation
- Inspiration and expiration trigger can be set individually
- Display of the pressure/flow curve facilitates better monitoring and corresponding treatment
- Adjustable pressure support

Pressure-controlled ventilation modes option

The option Pressure-controlled ventilation modes with the ventilation modes PCV, aPCV, BiLevel + ASB and PRVC + ASB improves the supply of ventilated patients with:

- PCV: lung-protective, controlled ventilation using guiding inspiratory pressure
- aPCV: possibility of synchronizing the patient in a time window
- BiLevel + ASB: lung-protective ventilation and adaptive support for spontaneous breathing of the patient using two different pressure levels and mandatory mechanical breaths
- PRVC + ASB: pressure-controlled ventilation with adjustable target volume and support for spontaneous breathing

Pressure-controlled ventilation can prevent harmful peak pressures and therefore lung damage associated with ventilation*:

- The set pressure cannot be exceeded.
- Lower airway pressures are applied.

*Larsen R. Maschinelle Beatmung und NIV [Mechanical ventilation and NIV]. Anästhesie und Intensivmedizin für die Fachpflege. 2016 Jun 14:745–95. German. doi: 10.1007/978-3-662-50444-4_56. PMID: PMC7531439.

SIMV (Synchronized Intermittent Mandatory Ventilation) mode option

The SIMV mode option supports the existing respiratory drive of patients. In addition to the mandatory ventilation with a trigger window of 20 % of the expiratory time, supporting spontaneous mechanical breaths can be triggered.

S-IPPV (Synchronized Intermittent Positive Pressure Ventilation) mode option

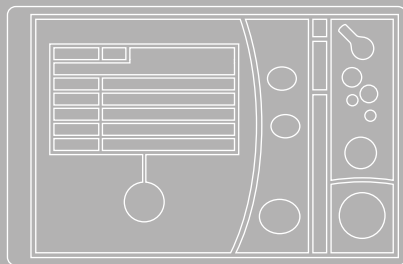
The S-IPPV mode option offers assisted volume-controlled ventilation with a trigger window of 100 % of the expiratory time. This facilitates synchronization of the mandatory ventilation of the patient throughout the entire expiratory phase.

CBRN (chemical, biological, radiological and nuclear hazards) option

The CBRN option together with the CBRN connection kit facilitates attending incidents under CBRN conditions. This enables ventilation to be performed in unconventional emergency situations.



Technical data



| | |
|--|--|
| Device dimensions | W: 206 mm x H: 137 mm x D: 130 mm |
| Weight | Without rechargeable battery: 1.75 kg With rechargeable battery: 2.10 kg |
| Product class according to Directive 93/42/EEC | IIb |
| Operating conditions | <ul style="list-style-type: none"> • Temperature range: - 20 °C to + 50 °C • Humidity: 15 % rh to 95 % rh, no condensation • Air pressure: 540 hPa to 1,100 hPa • Altitude above sea level: -500 m up to 5,000 m |
| Lithium-ion rechargeable battery | <ul style="list-style-type: none"> • Runtime: average 7.5 hours (assuming adult lung parameters) • Charging time (0 % - 95 %): 2.5 h |
| Display | TFT color display 4.3" |
| Data storage | Internal device memory and SD card |
| Ventilation modes | <p>Mandatory/triggered:</p> <ul style="list-style-type: none"> • Volume-controlled: IPPV, S-IPPV, SIMV (+ ASB) • Pressure-controlled: BiLevel + ASB, PRVC + ASB, PCV, aPCV <p>Spontaneous: CPAP (+ ASB)</p> <p>Other: Manual with MEDUtrigger</p> |
| Operating gas | Ambient air, medical oxygen (100 % O ₂) or concentrator oxygen (93 % O ₂) can also be supplied |
| Monitoring | <ul style="list-style-type: none"> • Measured values displayed: O₂i, MVe, f(fsp), Vte, pPlat, pMean, pPeak, Vleak • Bar graph: pressure with pAw • Curves: airway pressure, flow |
| Maximum outlet flow | 150 l/min (BTPS) |
| Tidal volume | 50 ml to 2,000 ml |
| Ventilation rate | 5/min to 40/min |
| PEEP | 0 mbar to 20 mbar |
| Pressure limit (pMax) | 10 mbar to 60 mbar |
| I:E | 4:1 - 1:4 / 1:1 in Manual mode |
| Standards used | <ul style="list-style-type: none"> • Consistent serviceability confirmed on the ground and in the air to EN 13718-1, RTCA/DO 160G, EN 60601-1-12 • Ruggedness confirmed by successful shock and vibration tests to MIL-STD 810 G, RTCA/DO 160G and EN 1789 • Emergency and transport ventilator confirmed to EN 794-3 and ISO 10651-3 |

Complex ventilation at a glance

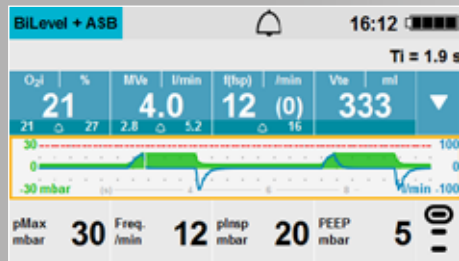
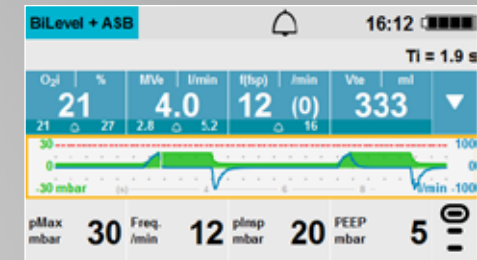
Clear display of bar graph or curves



Direct setting of alarm limits



Curve display



Rapid changeover to night colors



View of all ventilation parameters by change of menu levels



Clear display of all monitoring values





Configure your portable unit to suit your requirements. A short guide can be found on our website.

Compelling comb



MEDUVENT Standard on LIFE-BASE light XS

Compact and lightest variant if no automatic charging, wall mounting, or protective bag are required. Article no.: WM 9901



Ventilator



MEDUVENT Standard on LIFE-BASE 1 NG XS incl. protective bag

Smallest, lightest unit if crash resistance, rapid removal, and accommodation of accessories are the key criteria. Article no.: WM 9911



Ventilator



MEDUVENT Standard with O₂ cylinder on LIFE-BASE 3 NG incl. protective bag

Compact unit if the O₂ cylinder needs to be available in every situation. Article no.: WM 9938



Ventilator



Oxygen supply

inations



MEDUVENT Standard with MEDUCORE Standard² on LIFE-BASE 1 NG XL
incl. protective bag

Compact unit if a ventilator with a monitor and defibrillator on a portable unit is required.
Article no.: WM 9915



Defibrillator



Ventilator



RESCUE-PACK Plus with MEDUVENT Standard

Emergency equipment and ventilator for all incidents. Article no.: WM 9099

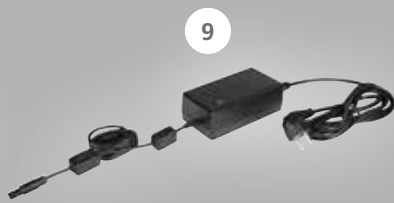


Emergency equipment



Ventilator

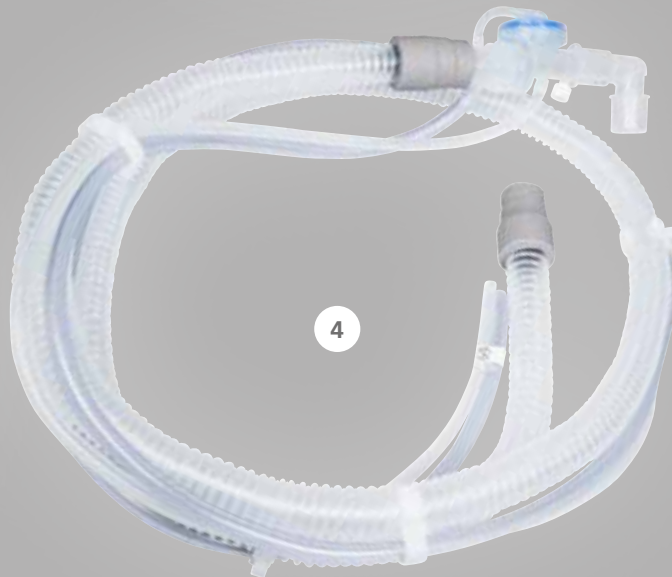
Accessories and spare parts



- | | |
|--|----------|
| 1. NIV premium mask, size S (children) | |
| • Individual article | WM 20717 |
| • Set of 10 | WM 17940 |
| • Set of 40 | WM 17941 |
| 2. NIV premium mask, size M (adult) | |
| • Individual article | WM 20718 |
| • Set of 10 | WM 17942 |
| • Set of 40 | WM 17943 |
| 3. NIV premium mask, size L (large adult) | |
| • Individual article | WM 20719 |
| • Set of 10 | WM 17944 |
| • Set of 40 | WM 17945 |
| 4. MEDUtrigger | |
| for 2 m breathing circuit | WM 28992 |
| 5. MEDUtrigger | |
| with FlowLine-FlowCheck connection line | WM 32508 |
| 6. Breathing system filter | WM 22162 |
| 7. Hygiene filter | |
| • Individual article | WM 35730 |
| • Set of 5 | WM 17915 |
| 8. Lithium-ion rechargeable battery | WM 35775 |
| 9. Power supply unit and charger | WM 28937 |
| 10. SD card | |
| 2 GB memory | WM 29791 |
| 11. EasyLung test lung | |
| for the function check | WM 28625 |
| 12. CBRN kit | |
| Kit, connection for CBRN filter, disposable, with disposable breathing circuit with FlowCheck, 2 m | WM 18096 |

You will find a list of all articles in our supply catalog, available free of charge on our website at www.WEINMANN-Emergency.com

Breathing circuits



Reusable components to reorder

- | | |
|---|----------|
| 1. Complete breathing circuit with FlowCheck without FlowCheck connection line, length 2 m | WM 35970 |
| 2. Complete breathing circuit without MEDUtrigger, length 2 m | WM 35850 |

Disposable breathing circuit

- | | |
|--|----------|
| 3. Breathing circuit with FlowCheck | WM 35975 |
| • Set of 10 | WM 18097 |
| • Set of 25 | WM 18098 |
| • Set of 50 | WM 18099 |
| 4. Breathing circuit, length 2 m | WM 35860 |
| • Individual article | WM 17910 |
| • Set of 10 | WM 17911 |
| • Set of 25 | WM 17911 |
| • Set of 50 | WM 17912 |

Service straight from the manufacturer

Never miss a safety check or service interval again

MEDUVENT Standard reliably helps you plan required servicing. Every device reminds you about due maintenance/safety checks in good time. At the end of the function check, the device tells the user about upcoming maintenance/safety check dates. If the recommended interval is exceeded, MEDUVENT Standard also displays a small spanner symbol on the start-up screen. MEDUVENT Standard uses these reminders to support you in your responsibility as the legal operator of the device.

Remote diagnosis (telesupport) in the event of a device malfunction

Safety and reliability day after day

With the fast, simple function check, you can always be confident that your device is fault-free and ready for use. This is possible even without connecting to an external gas source. In approx. 25 seconds, MEDUVENT Standard performs the automatic function check and gives the user a status report. Should a device malfunction ever occur, its cause may not be immediately apparent. For reporting purposes, MEDUVENT Standard lets you save the log files from the device to an SD card and e-mail them to WEINMANN Emergency. Ideally, this data alone will be sufficient to enable our service technicians to resolve the device malfunction with you via telesupport. Should this not be the case, we will take a closer look at your device and, if necessary, you will be provided with a replacement device to cover this downtime.

Perform software updates yourself – Your benefits as the operator:

- Always up-to-date with the latest software
- You decide when to update – no deadline pressure, no waiting
- Remain ready for use – no need to ship device for update
- You decide who performs the update – thanks to password-protected operator menu
- No risk – performing the update is simple and safe

Active support of your quality management and documentation processes

Important information is saved automatically and can be exported to the SD card quickly and easily. Data included:

- Up to 6,000 function checks, including many details
- Software update history as a documentation sheet
- Error-free standardization: customized device configurations can be transferred from one device to others by SD card

 Your service hotline:
+49 40 88 18 96 0
We would be delighted to advise you!

Service data: MEDUVENT Standard

| | |
|---|---|
| Manufacturer's warranty | Various options |
| Technical Safety Check ("Sicherheitstechnische Kontrolle" in accordance with § 11 of the German regulation MPBetreibV) interval | Every 2 years |
| Maintenance interval | Every 4 years |
| COMFORT Plus service package with fixed annual fees available | ✓ |
| Automatic function check with brief summary | ✓ |
| Duration of function check | Approx. 25 seconds |
| Software update can be performed by operator/user | ✓ |
| User training without O ₂ consumption (free simulation software on PC) | ✓ |
| Password-protected operator menu | ✓ |
| Rechargeable battery simple for operator/user to replace | ✓ |
| Telesupport | ✓ |
| Service reminder in device display | E.g. scheduled safety check/maintenance |
| Electrical Safety Inspection to DGUV V3 (IEC 62353) | Not necessary |
| Turbine check during general function check | ✓ |



RESCUE-PACK Plus

The design of the RESCUE-PACK Plus facilitates intuitive operation and the best possible workflow support. The emergency equipment including MEDUVENT Standard is stowed neatly, leaving both your hands free to manage even difficult terrain. The accessories for oxygen therapy are to hand. RESCUE-PACK Plus only needs opening further once the session becomes more intensive. Highly reflective strips and optimized operating ergonomics ensure safety and carrying comfort.



Emergency equipment and ventilator for all incidents.









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Simplify Saving
Lives

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