

VENTIlogic LS

The solution for life-supporting invasive and non-invasive ventilation

VENTIlogic LS (Life-Support) is an innovative ventilator to supplement the NIV therapy devices in our VENTI family. It can be used for life-supporting invasive and non-invasive ventilation. VENTIlogic LS, which can also be used as a titration device, permits the use of all hose systems (leakage circuit, single and double circuits with patient valve) and thus covers nearly all indications for invasive ventilation.



Titration

- Settings can be made for all Weinmann devices.
- The following modes are covered with the leakage circuit: CPAP, S, T, ST, TA, SX and SXX.
- The following modes are covered with patient circuits with patient valve: PSV, PCV, aPCV, VCV, aVCV and SIMV.

Therapeutic efficiency

- Trigger lockout: effective protection from false triggering and trigger artefacts in order to:
 - Stabilize spontaneous breathing pattern
 - Prevent hyperventilation
 - Prevent alveolar hyperinflation
- Volume compensation: The speed of the automatic regulation to target volume can be adjusted (three setting levels).
 - Ideal adaptation to patient needs
- TA mode (Timed Adaptive Ventilation)
 - Reduction of patient's Work of Breathing (WOB)
 - Continuous analysis of patient's (spontaneous) breathing pattern and correspondingly adjusts controlled ventilation
 - Optimized synchronization with ventilator

Secretion management with cough support

- LIAM (Lung Insufflation Assist Maneuver) to:
 - Improve ventilation
 - Reduce susceptibility to infection
- Make coughing easier

WEINMANNsupport

- Trend analysis and advanced storage functions for therapy with help of SD (Secure Digital) card
- Complete recording of course of ventilation session

Simple operation

- Intuitive operation with rotary pushbutton and direct access to most important ventilation parameters
- Numeric and graphic display of ventilation parameters
- Compatibility with VENTI line accessories

The bridge between NIV and IV

VENTI*logic* LS closes the gap between non-invasive (NIV) and invasive (IV) ventilation. With this device Weinmann supports its partners in providing complete care of their patients. The integrated rechargeable battery ensures reliable and safer operation of the ventilator.

The combination of NIV and IV inlets offers a broad range of applications: from support of spontaneous breathing and intermittent self-ventilation to continuous (24 hours per day) life-sustaining ventilation.

Because VENTI*logic* LS can be converted from a leakage circuit to a single or double patient circuit with patient valve, nearly all indications for ventilation can be covered, including obstructive, restrictive and neuromuscular diseases.

The VENTI*logic* LS therapy device is distinguished by its simple and convenient operation and intuitive user guidance. Thanks to the shared operating concept and similar design of all VENTI devices, all the accessories in the Weinmann ventilation product line can also be used with VENTI*logic* LS. That simplifies operation and ensures additional safety.



Leakage circuit



Single patient circuit with patient valve



Double patient circuit with patient valve



O₂ measurement set consists of:
O₂ sensor with T-piece and connecting cable



PCV mode, graphic monitoring



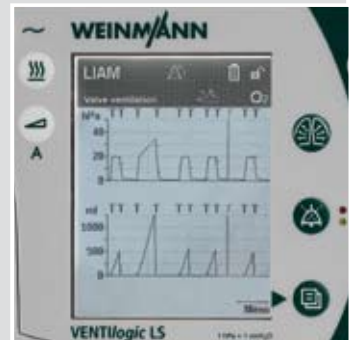
TA mode, graphic monitoring



TA mode, numeric monitoring



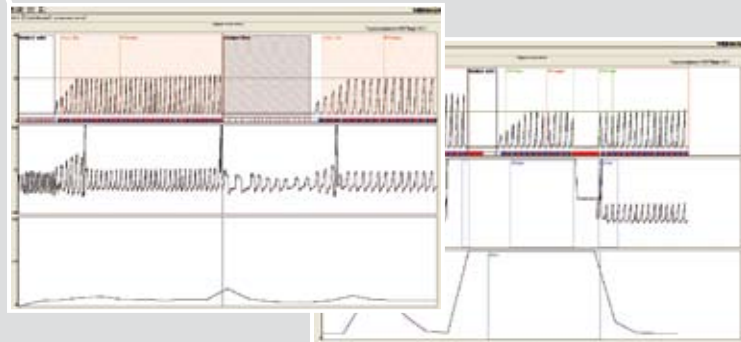
Lung Insufflation Assist Maneuver (LIAM), parameter setting



Lung Insufflation Assist Maneuver (LIAM), graphic monitoring



SD card for storage of therapy data



WEINMANNsupport (Software)

Technical Data VENTIlogic LS

<p>Product class as per 93/42/EEC: II b</p>	<p>IPAP pressure range: 6 to 35 hPa (leakage circuit) 4 to 45 hPa (valve system)</p> <p>EPAP pressure range: 4 to 20 hPa (leakage circuit) 0 to 20 hPa (valve system)</p> <p>CPAP pressure range: 4 to 20 hPa (leakage circuit)</p> <p>Pressure precision: to 35 hPa ± 0.8 hPa above 35 hPa ± 1.5 hPa</p> <p>Increment: 0.2 hPa (1 hPa = 1 mbar ≈ 1 cm H₂O)</p>
<p>Dimensions (W x H x D): 230 x 145 x 340 mm</p>	<p>Minimum pressure limit stability (PLS_{min}) (min. pressure in case of device failure): ≥ 0 hPa</p> <p>Maximum pressure limit stability (PLS_{max}) (max. pressure in case of device failure): ≤ 60 hPa</p>
<p>Weight: approx. 6.5 kg</p>	<p>Respiratory rate: 5 to 45 1/min</p> <p>Precision: ± 0.2 1/min</p> <p>Increment: 0.5 1/min</p>
<p>Temperature range</p> <p>■ Operation: +5 °C to +35 °C</p> <p>■ Storage: -40 °C to +70 °C</p>	<p>I:E Ratio</p> <p>■ Inspiration time: 15 % to 67 % of breathing period</p> <p>■ Increment: 1 %</p> <p>■ Precision: ±1 %</p>
<p>Air pressure range: 600 – 1100 hPa (below 700 hPa leakage is to be kept low because the device may not be able to compensate for high ventilation pressures)</p>	<p>Trigger level: Can be set in 8 levels, separate for inspiration and expiration, in ST mode Trigger for expiration can be disabled</p>
<p>Electrical connection: 115 – 230 V AC, 50 – 60 Hz Tolerance -20 %, +10 %</p>	<p>Pressure increase speed: Can be set in 6 levels</p>
<p>Power consumption at 230 V 115 V</p> <p>■ Operation: 0.25 A 0.5 A</p> <p>■ Standby: 0.07 A 0.14 A</p>	<p>Pressure decrease-speed</p> <p>■ Leakage circuit: Can be set in 6 levels</p> <p>■ Valve system: One permanently set level</p>
<p>Maximum power consumption: 120 W</p>	<p>Precision</p> <p>Volume measurement: at 23 °C: ± 20 %</p>
<p>Switching capacity</p> <p>Remote alarm connection: 60 V DC/2A; 42 V AC/2A</p>	<p>Max. allowable flow for oxygen feed: 15 l/ at ≤ 1000 hPa</p>
<p>Internal rechargeable battery 19.2 V / 3 Ah</p> <p>■ Capacity at typical loads:</p> <p>Load 1: (IPAP 10 hPa, EPAP 0 hPa, f = 20/min, Ti/T = 40 %, VT = 450 ml, R = 8 hPa/l/s, C = 40 ml/hPa) about 3 h</p> <p>Load 2: (IPAP 20 hPa, EPAP 0 hPa, f = 15/min, Ti/T = 25 %, VT = 795 ml, R = 20 hPa/l/s, C = 75 ml/hPa) about 2.5 h</p>	<p>Max. heating of respiratory air at 35 °C ambient temperature: 41 °C</p>
<p>Classification as per EN 60601-1</p> <p>■ Protection from electric shock: Protection class II</p> <p>■ Degree of protection from electric shock: Type BF</p>	<p>Pressure constancy measured as per DIN EN ISO 17510 in CPAP mode: < 10 hPa: Δp ≤ 0.5 hPa > 10 hPa: Δp ≤ 1.0 hPa</p>
<p>Time required for full charge: approx. 15 hrs.</p>	<p>Fine filter separation level at 2 µm: ≤ 99.7%</p>
<p>Electromagnetic compatibility (EMC) as per EN 60601-1-2</p> <p>■ Radio interference suppression: EN 55011</p> <p>■ Radio interference resistance: EN 61000-3-2, EN 61000-3-3, EN 61000-4-2 to 6, EN 61000-4-8, EN 61000-4-11</p>	<p>Fine filter service life: 1000 hours in normal ambient air</p>
<p>Mean sound level/operation as per EN ISO 17510 in patient position at distance of one meter from device: approx. 28 dB(A) at 10 hPa</p>	<p>Allowable humidity</p> <p>Operation and storage: ≤ 95% rel. humid. (no condensation)</p>
<p>Sound level Alarm: approx. 69 dB(A) as per EN 60601-1-8</p>	<p>Flow at max. speed at 0 hPa: 300 l/min (leakage circuit) 280 l/min (single patient circuit with patient valve) 260 l/min (double patient circuit with patient valve)</p> <p>Tolerance: ± 15 l/min</p>
	<p>Flow at max. speed with bacteria filter at 0 hPa: 270 l/min (leakage circuit) 250 l/min (single patient circuit with patient valve) 230 l/min (double patient circuit with patient valve)</p> <p>Tolerance: ± 15 l/min</p>

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VENTIlogic LS

with leakage circuit WM 27100

- VENTIlogic LS basic device with rechargeable battery, WM 27130
- Power cord, WM 24177
- Protective bag for VENTIlogic LS, WM 27106
- Retrofit set for leakage circuit, packed, WM 15545, consists of:
 - Leakage circuit adapter, WM 27122
 - Drying adapter, WM 24203
 - Leakage circuit, WM 24130
- Info and replacement parts set, WM 15494, consists of:
 - Coarse dust filter, WM 24880
 - Fine filter, packed, WM 15026
 - Coarse dust filter, fan, WM 27759
 - O₂ coupling, WM 27166
 - Allen wrench, size 3, WM 24708
 - Patient passport, WM 66810
- User Manual, EN, WM 66802



VENTIlogic LS

with single patient circuit with patient valve WM 27700

- VENTIlogic LS basic device with rechargeable battery, WM 27130
- Power cord, WM 24177
- Protective bag for VENTIlogic LS, WM 27106
- Single patient circuit with patient valve, WM 27181
- Test adapter, packed, WM 27140
- Adapter leakage ventilation, packed, WM 27199
- Info and replacement parts set, WM 15494, consists of:
 - Coarse dust filter, WM 24880
 - Fine filter, packed, WM 15026
 - Coarse dust filter, fan, WM 27759
 - O₂ coupling, WM 27166
 - Allen wrench, size 3, WM 24708
 - Patient passport, WM 66810
- User Manual, EN, WM 66802



VENTIlogic LS

with double patient circuit with patient valve WM 27710

- VENTIlogic LS basic device with rechargeable battery, WM 27130
- Power cord, WM 24177
- Protective bag for VENTIlogic LS, WM 27106
- Retrofit set for double patient circuit with patient valve, packed, WM 15546, consists of:
 - Expiration module, packed, WM 27185
 - Double patient circuit with patient valve, WM 27182
- Test adapter, packed, WM 27140
- Adapter leakage ventilation, packed, WM 27199
- Info and replacement parts set, WM 15494, consists of:
 - Coarse dust filter, WM 24880
 - Fine filter, packed, WM 15026
 - Coarse dust filter, fan, WM 27759
 - O₂ coupling, WM 27166
 - Allen wrench, size 3, WM 24708
 - Patient passport, WM 66810
- User Manual, EN, WM 66802

Accessories

- 1 **VENTIpower**
WM 27640
external rechargeable battery
- 2 **Bacteria filter (for leakage circuit)**
WM 24148
- 3 **Bacteria filter (for valve system)**
WM 24476
- 4 **VENTIclick (only for leakage circuit)**
WM 24365
Humidifier
- 5 **O₂ measurement set**
WM 15732
consists of:
 - Connecting cable for O₂ sensor – WM 27792
 - O₂ sensor – WM 27128
 - T-piece, O₂ sensor – WM 27143
- 6 **VENTIremote alarm (10 m)**
WM 27745
- **VENTIremote alarm (30 m)**
WM 27755
- 7 **Connecting cable for nurse call**
WM 27780 (10 m)
WM 27790 (30 m)
- 8 **Leakage circuit**
WM 24130 (can be disinfected)
WM 24120 (can be sterilized)
- **Single patient circuit with patient valve (not shown)**
WM 27181
- 9 **Double patient circuit with patient valve**
WM 27182
- 10 **Analogbox D/A**
WM 27560
- 11 **Power inverter (adapter for car)**
WM 24616
- 12 **Protective bag**
WM 27106
- **Carrying bag (not shown)**
WM 27706
for mobile use of VENTIlogic LS
- **Test adapter, packed (not shown)**
WM 27140
- **WEINMANNsupport RS 232 (not shown)**
WM 93300
- **WEINMANNsupport USB (not shown)**
WM 93305

