

GE Healthcare

# iVent201\*



## ICU Treatment

One of the most versatile ICU class ventilators on the market.

With its comprehensive list of standard features, including the latest modes of ventilation, the iVent201 is appropriate for all levels of patient acuity and in all care settings, from the patient's bedside to transport to another point of care.

## On The Go

Taking the ICU with you...

With its highly featured transport capability and rugged construction, the iVent201 takes ICU ventilation outside of the cosy confines of the hospital. Optimized NIV and the exclusive Adaptive Flow\* & Adaptive I-Time\*, concept, help caregivers to maximize patient comfort and synchrony.



GE imagination at work

# ICU Treatment

With its advanced features, the iVent201 facilitates patient comfort and sedation as patients go through the recovery process.

Use Adaptive Flow\* & Adaptive I-Time\* to enhance your patient's comfort & reduce Work Of Breathing, by allowing the patient to manage their own inspiratory time & inspiratory flow rate in a volume targeted mode.

Use our friendly Easy Exhale\* feature to minimize problems of gas trapping, auto-peep & triggering failure in patients with acute obstructive lung disease.

You can use Easy Exhale\* with intubated patients or with non-invasive ventilation using our Adaptive Bi-Level\* feature that enables a responsive and leak compensated ventilation for a transportable solution from the ED to the ICU, or maybe from the ICU to the MRI suite. The iVent201 has the capability to provide critical care level ventilation support to critically ill patients in the MRI suite, showing, yet again, its versatility in the ICU unit.

With its comprehensive list of standard features, 72 hour trending of all settings and monitored patient data, loops with freeze and overlay capability, respiratory mechanics (static and dynamic), programmable nebulizer and now built in SPO<sub>2</sub>, the iVent201 is the epitome of versatility among ICU-class ventilators.



# On The Go

The iVent201 incorporates the entire recommended feature set for NIV including automatic leak compensation :

- Adaptive Bi-Level\* feature that enables a responsive and leak compensated ventilation.
- Adaptive Flow\* & Adaptive I-Time\* for enhanced comfort and reduced WOB.
- Up to 40 lpm – for better patient synchrony.
- Built-in oxygen blender for precise oxygen delivery.
- Waveform display providing visual feedback on patient condition.
- No CO<sub>2</sub> rebreathing with variable leaks.
- Alarms tailored to NIV.
- Portability in an oxygen conserving design.
- True tidal volume measurement.

These features are found together in a transportable, MR Conditional<sup>1</sup> ventilator that is capable of acute care support and is well-suited to your needs.

The iVent201 software-based platform can be easily upgraded so it is able to offer the most up-to-date features today and in the future.

Weighing under 25 lbs. (11.3 kg), the iVent201, with its self-contained turbine and standard or optional extended internal battery, is an exceptional, transportable non-invasive ventilator.

1. Please refer to the iVent201 user manual for the complete list of MRI environment and conditions

# Specifications<sup>2</sup>

## Basic Description

- Electrically powered, computer controlled ventilator
- Closed loop flow & pressure controller
- Ventilation modes:
  - Assist control (A/C):
    - Volume controlled
    - Pressure controlled
  - Synchronized intermittent mandatory ventilation (SIMV):
    - Volume controlled
    - Pressure controlled
  - Continuous positive airway pressure (CPAP)
  - Pressure support ventilation (PSV)
- Special features:
  - Adaptive Bi-Level\* (NIV)
  - Adaptive Flow\*
  - Adaptive I-Time\*
  - Preset parameters by patient weight
  - Apnea backup ventilation
  - Adjustable rise time
  - Easy Exhale
  - Sigh breath
  - 100% O<sub>2</sub> suction

## Ventilation Performance and Controlled Parameters

Respiratory rate:	1 to 80 bpm
Tidal volume:	50 to 2,000 ml
Inspiratory pressure limit:	5 to 80 cm H <sub>2</sub> O
Inspiratory time:	Adaptive I-Time* or 0.2 to 3 sec
Esens:	10-90%
Rise time:	Mid/high/max/auto
Peak flow:	Adaptive Flow or 1 to 120 L/min Spontaneous up to 180 L/min
Oxygen mix (FIO <sub>2</sub> ):	21 to 100%
PEEP:	0 to 40 cm H <sub>2</sub> O
Trigger sensitivity:	1 to 20 L/min flow sensitivity –0.5 to –20 cm H <sub>2</sub> O pressure sensitivity
PSV:	0 to 60 cm H <sub>2</sub> O
Positive pressure relief valve:	80 cm H <sub>2</sub> O
Synchronized nebulizer:	5 to 240 min

## Monitoring and Displayed Parameters

- Airway pressure (analog bar graph & numerical)
- Total breath rate
- I:E ratio
- Exhaled tidal volume
- Exhaled minute volume
- Peak flow
- Inspiratory time
- Electrical power source (AC/external DC/internal DC)
- Battery level
- Pressure, flow and volume Waveforms software package:
  - Real-time pressure and flow waveforms
  - Waveform history browse
- Trending of monitored data (72 hours)
- Respiratory mechanics (C, R, MAP, RR/Vt)
  - Pressure, flow and volume loops
- SPO<sub>2</sub>

## User Adjustable Alarms

- Respiratory rate (high/low)
- Minute volume (high/low)
- Pressure (high/low)
- Low Vt (15 to 85%)
- SPO<sub>2</sub> (high/low)
- HR (high/low)
- Apnea time (0 to 120 seconds)
- FIO<sub>2</sub> (high/low)
- Leak (0 to 100%)

## Additional Alarms and Indicators

### Alarms:

- Inverse I:E ratio
- Low O<sub>2</sub> pressure
- AC disconnect
- Low/Empty battery
- Over temperature
- Service notice
- Patient disconnect
- Check sensor
- High PEEP
- Battery disconnected / damaged
- Sensor disconnect

### Indicators:

- Alarm silence icon and timer
- Breath type icon
- Internal battery use
- Date and time
- Hour meter
- Battery charge level
- Need calibration
- LED: On, charge, alarm
- Nebulizer status indicator

## Size and Weight

### Dimensions:

Height:	13"/33 cm
Width:	9.5"/24 cm
Depth:	10.3"/26 cm
Screen:	8.4" diagonal
Weight:	18.3 lb/8.3 kg (without battery)
Battery weight:	6.2 lb/2.8 kg
Overall weight with standard battery:	24.5 lb/11.1 kg
Overall weight with optional extended internal battery:	27.8 lb/12.6 kg

## Power Supply

External AC:	100 to 240 V, 50 to 60 Hz, Max 1.6 A
External DC:	12 to 15 V, Max 8.5 A
Internal battery:	Sealed lead-acid 12 V (7.8 Ah) (rechargeable)
Operating time:	Depending on ventilator settings and impedance – standard internal up to 2 hours, optional extended internal up to 4 hours and optional external up to 8 hours.

## Oxygen (Enrichment) Supply

High pressure supply:	40 to 75 psi (2.8 to 5.1 bar)
Low pressure:	Max 15 L/min or 0.5 psi

## External Interface

- Remote monitor (VGA)
- RS-232 serial port, 9 pin
- DIN keyboard connector
- RJ11 remote alarm connector

## Environmental Specifications

Operating temperature:	0 to 50° C/32 to 120° F
Storage temperature:	–15 to 70° C/–4 to 140° F
Relative humidity:	15 to 95% at 30° C/85° F
Water/dust resistance:	IP54 (splash proof)
Atmospheric pressure:	430 to 825 mm Hg (15,000 feet)
Vibration:	IEC 68-2-6 and IEC 68-2-34 MIL-STD-810E
Shock:	IEC 68-2-27 (100 g) MIL-STD-810E
Total external sound level:	40 to 45 dBA at one meter

## Standards and Safety Requirements

### Meets the requirements of:

- ASTM F1246-91
- CSA C22.2 No. 601.1/601.2
- UL 60601.1
- EN/IEC 60601-1
- EN/IEC 60601-1-2
- EN/IEC 60601-2-12
- EN 794-3
- ISO 10651-2/3
- EN/IEC 60601-1-6
- EN/IEC 60601-1-8

2. Some ventilation modes and features are optional and may vary according to the selected model.

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CAUTION: USA Federal law restricts this device to sale by or on the order of a licensed physician.

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GE Healthcare

P.O. Box 7550

Madison, WI 53707-7550, U.S.A.

Tel 800-345-2700

[www.gehealthcare.com/RespiratoryCare](http://www.gehealthcare.com/RespiratoryCare)



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