

fabian +nCPAP evolution  
Our 3-in-1 device.

**ACUTRONIC**



Ventilation Beyond Limits



# When It Comes to Life, There Is No Compromise

## Distributing worldwide

ACUTRONIC is a privately held company that develops, manufactures, and distributes high-tech ventilation and monitoring solutions for neonatal, pediatric and adult ICUs and intensive care transportation in over 90 countries. When it comes to the most critical areas of respiratory care, we are the leading partner for hospitals in neonatology, pediatrics, jet ventilation, and difficult airway management.

## Forward thinking

It is our aspiration to develop innovative solutions that simplify the busy clinical routine for caregivers and increase patient safety. With over 30 years of experience our global network of clinical experts, we are quickly able to translate new developments into real innovations – and keep challenging ourselves to improve and set new benchmark.

## Exploring where others stop

ACUTRONIC products have an excellent reputation for precision, quality, and service in the industry. We strive every day to provide the best solutions for the most challenging groups of patients. We continue to explore where others stop.

**ACUTRONIC – Ventilation Beyond Limits**



# fabian +nCPAP evolution

## Our 3-in-1 device.

From delivery room to NICU: the fabian +nCPAP evolution offers the best respiratory treatment solutions – normally available from different devices – in a single device.

### Ease of Use

Putting the focus back on the baby: the fabian +nCPAP evolution is designed from a user's point of view, minimizing the time needed to manage ventilator controls.

### Modularity

Future-oriented: in addition to the pre-integrated conventional and triggered ventilation modes, any option that may be required in the future can be configured according to your needs.

### Developmental Care

Particularly silent, optimized handling of the baby, bonding and kangaroo care. The fabian +nCPAP evolution is designed to fully support these concepts in a low-stress environment.

### Mobility

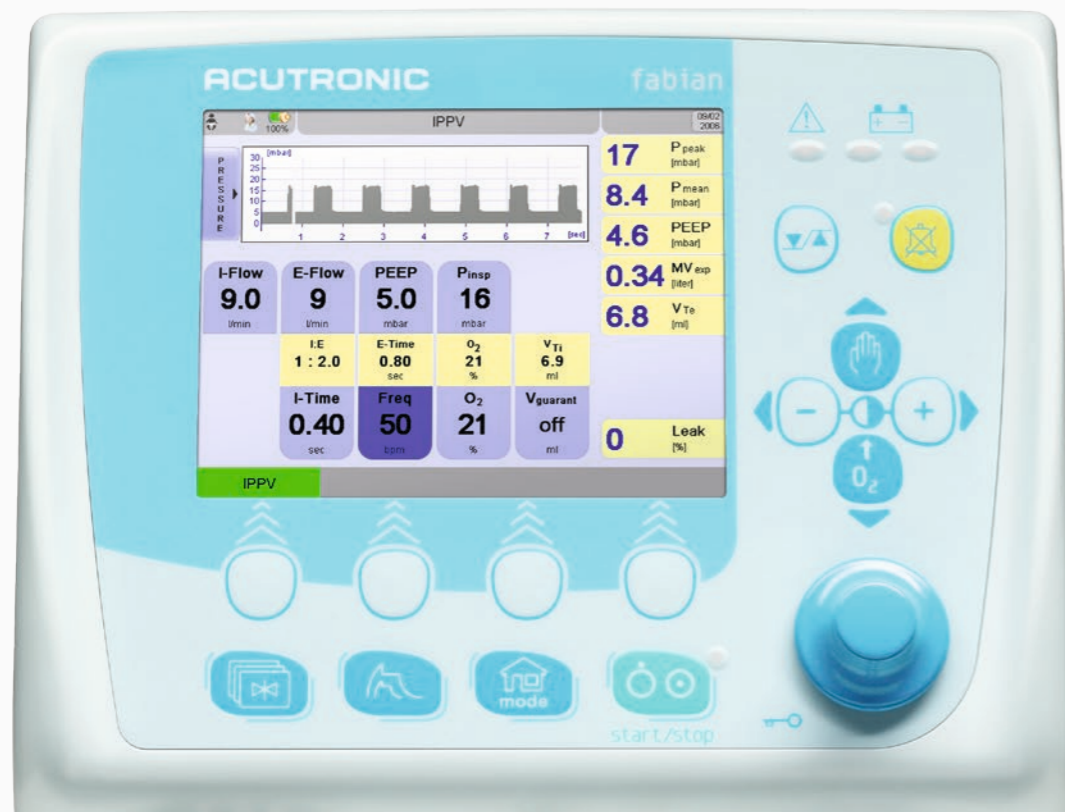
Designed for mobility: thanks to its compact and intelligent size, the fabian +nCPAP evolution allows easy access to the baby at all times without even disturbing the bedside inside the NICU or PICU.

### Patient Safety

Keeping babies safe and protected whenever they are ventilated is the starting point of all our thoughts – and that includes easy maintenance with only few parts for disinfection and sterilization, reduced Work Of Breathing (iWOB) and much more.

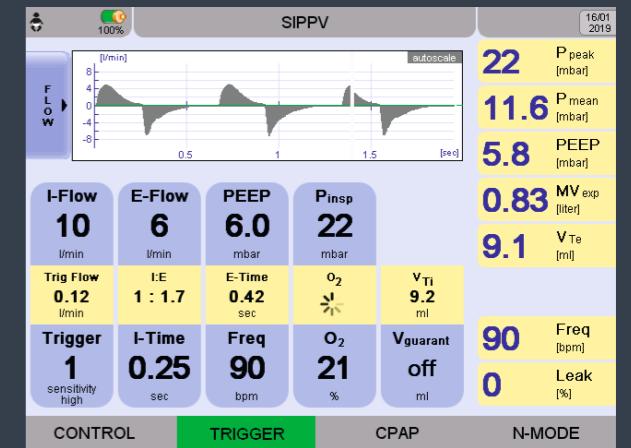
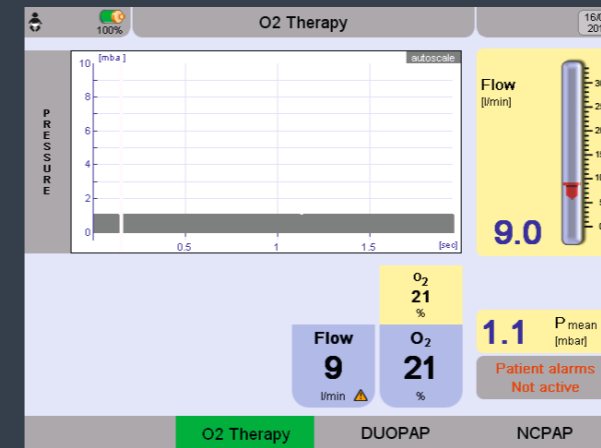
### Compatibility & Interface

The fabian +nCPAP evolution is equipped with several communication interfaces and service modes. This flexible system is also compatible with all conventional breathing circuits currently available on the market.



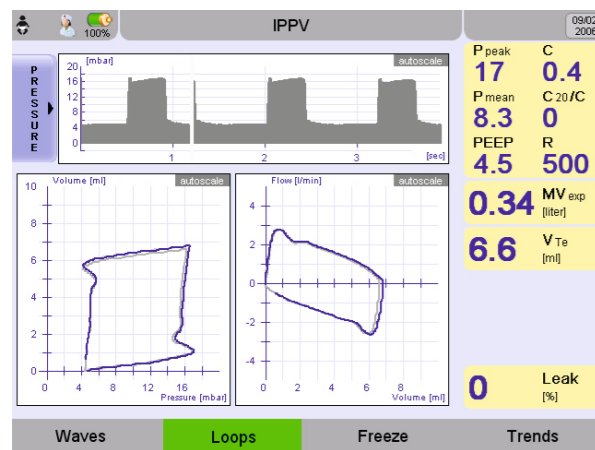
# Modularity

A true modular system with a variety of ventilation modes for the ventilator configuration you need – more can be added and enabled whenever desired.



# Ease of Use

A clear, bright touch-screen TFT with intuitive commands reduces human error and puts the focus back on the baby.



## Graphics

See waveforms, numeric data, loops, ventilator status, and more. Clearly displayed and represented.

## One-touch principle

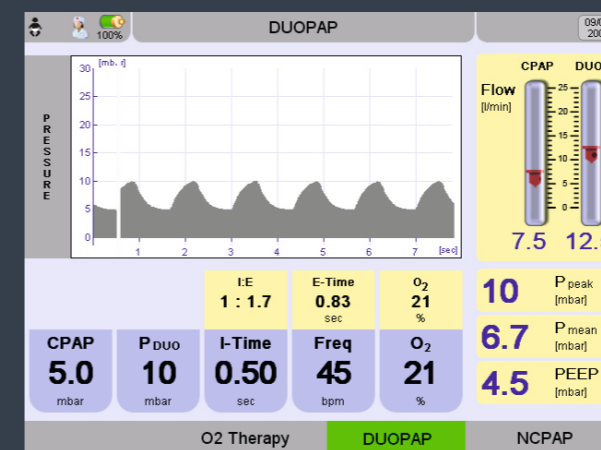
All operation procedures are carried out using a direct, time-saving and easy-to-understand one-touch principle.

## 3-in-1

All necessary neonatal and pediatric conventional ventilation modes, non-invasive ventilation modes and O<sub>2</sub> therapy mode with High Flow Nasal Cannula (HFNC) integrated in one device.

## Future-oriented

Neonatal and pediatric ventilation modes (IPPV, SIPPV, SIMV, PSV and SIMV+PSV) with independent adjustment of inspiratory and expiratory flow reduces the work of breathing and inadvertent PEEP.



## Ventilation beyond limits

nCPAP and DuoPAP modes, for nasal and mask ventilation, with automatic leak compensation, featuring two-level CPAP mode to improve CO<sub>2</sub> removal.



## Developmental Care

Premature babies are fragile. One of their special needs is quiet time for normal growth and development. The fabian +nCPAP evolution is equipped with an electromagnetic expiratory valve and highly precise electronic flow meters, making it one of the quietest ventilator in the world today – without using silencers.



## Patient Safety

On the receiving end of our ventilators are the tiniest and most fragile patients imaginable. Keeping them safe and protected whenever they are ventilated is our first priority of all our thoughts.

- › **Integrated lock function** to prevent inadvertent settings.
- › **Easy maintenance** with few parts for disinfection and sterilization without any risk of infection inside the ventilator.
- › **No bacterial filters** and therefore no risk of increased resistance during humidified ventilatory therapies.
- › **Optimal support** with reduced Work Of Breathing (iWOB).
- › **Reduced error risk** thanks to the self-training ACUTRONIC concept inside.
- › **Built-in backup battery** pack for up to 2.5 hours of self-powered operation.



# Designed for Mobility

Medical technology should speed up and simplify the work flow of clinicians. Interfaces should be familiar and intuitive. They should be consistent across different workstations, thus reducing the potential for error. Data should be entered just once and be available across multiple platforms to support decision-making.

Ultimately, innovations in ventilator design and clinical information management can improve both patient safety and outcomes, while supporting maximum flexibility.

## Comprehensive device

Allowing easy access to the baby at all times. No disturbances at the bedside in NICU/PICU from device reshuffles.

## Lightweight unit

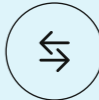
Designed for safe, practical transportation with integrated electronic gas blender and built-in battery.

# Compatibility & Interface



## Service mode

Service mode with advanced diagnostics via USB port, standard Ethernet connection.



## Flexible & scalable

The system is flexible and can be used with all conventional breathing circuits currently available on the market.



## Communication interface

Digital interface with hospital information systems, download settings and monitoring data.

# The New fabian Family

The new fabian generation by ACUTRONIC consists of three Gold Club members. Each one represents the benchmark in its class, either in non-invasive, conventional or sophisticated high frequency ventilation. They are configured for your specific needs and can be upgraded with further options.

## fabian HFO

Our 4-in-1 device.

This one device offers all options: advanced conventional and non-invasive therapy, High Frequency Oscillation (HFO) and oxygen therapy (HFNC) for neonatal and pediatric patients.



## fabian +nCPAP evolution

Our 3-in-1 device.

The fabian +nCPAP evolution is a therapy system encased in a small yet powerful device. Ideal for NICU, PICU and transport applications.



## fabian Therapy evolution

Our 2-in-1 device.

The fabian Therapy evolution is the smallest but not the least powerful fabian family member. A true, complete and highly advanced non-invasive ventilator featuring all classic and new NIV modes.



# Finding your Device

Non-invasive, conventional or sophisticated high frequency ventilation. No matter which product you choose, you're getting a device that features the latest technology and is ready to ventilate beyond limits.

|  | fabian Therapy evolution | fabian +nCPAP evolution | fabian HFO |
|--|--------------------------|-------------------------|------------|
| <b>MAIN FEATURES</b>                         |                          |                         |            |
| O <sub>2</sub> Monitor (FiO <sub>2</sub> )   | ●                        | ●                       | ●          |
| Electronic Gas Blender                       | ●                        | ●                       | ●          |
| Inspiratory and Expiratory Flow (Bias)       | -                        | ●                       | ●          |
| Leak Compensation                            | ●                        | ●                       | ●          |
| Integrated Battery                           | ●                        | ●                       | ●          |
| Color TFT Display                            | ●                        | ●                       | ●          |
| Touch-screen Display                         | ●                        | ●                       | ●          |
| Volume Trigger/Flow Trigger                  | -                        | ●                       | ●          |
| Curves: Pressure                             | ●                        | -                       | -          |
| Curves: Pressure/Volume/Flow                 | -                        | ●                       | ●          |
| Loops: F/P, P/V                              | -                        | ●                       | ●          |
| Advanced Monitoring                          | -                        | ●                       | ●          |
| CO <sub>2</sub> Module (Side or Main-stream) | -                        | -                       | ○          |
| SpO <sub>2</sub> Module (Masimo)             | -                        | -                       | ○          |
| <b>VENTILATION MODES</b>                     |                          |                         |            |
| CPAP   | -                        | ●                       | ●          |
| IPPV-IMV                                     | -                        | ●                       | ●          |
| SIPPV (A/C)                                  | -                        | ●                       | ●          |
| SIMV   | -                        | ●                       | ●          |
| SIMV + PSV                                   | -                        | ●                       | ●          |
| NIV (nCPAP, duoPAP)                          | ●                        | ○                       | ○          |
| HFO  | -                        | -                       | ○          |
| Volume Limit                                 | -                        | ○                       | ○          |
| Volume Guarantee                             | -                        | ○                       | ○          |
| O <sub>2</sub> High Flow Therapy             | ●                        | ○                       | ○          |
| O <sub>2</sub> Flush                         | ●                        | ●                       | ●          |
| Manual Breath                                | ●                        | ●                       | ●          |
| Manual Breath with Pedal                     | ○                        | ○                       | -          |

● = standard ○ = optional



# Technical Specifications

## Functionality

The fabian +nCPAP evolution is intended for premature infants, newborns as well as children weighing up to 30 kg.

## Intended Use

- › The fabian +nCPAP evolution is intended for “in-patient use” in hospitals, medically-used rooms and intra-hospital patient transport.
- › The fabian +nCPAP evolution is an electronically, microprocessor controlled ventilator.
- › The fabian +nCPAP evolution ventilates with excess pressure based on the continuous-flow principle. (Time-cycled, pressure-/volume-limited)
- › Oxygen is metered by the integrated air/O<sub>2</sub> blender.
- › The oxygen concentration is measured internally with a galvanic oxygen sensor.

## Ventilation modes

- › IPPV  
Intermittent Positive Pressure Ventilation
- › SIMV  
Synchronized Intermittent Mandatory Ventilation
- › SIPPV  
Synchronized Intermittent Positive Pressure Ventilation
- › CPAP (Spn-CPAP/PS)  
Continuous Positive Airway Pressure
- › PSV  
Pressure Support Ventilation
- › SIMV + PSV  
Synchronized Intermittent Mandatory Ventilation combined with PSV
- › Non-Invasive Ventilation (NIV)  
nCPAP/duoPAP with variable flow generators  
(Infant Flow®, Infant Flow LP®, Inspire™, Medijet®) optional
- › HFNC O<sub>2</sub> Therapy  
High and Low flow oxygen therapy optional

## Enhancements

- › Apnea ventilation
- › Backup ventilation
- › Combined SIMV + PSV ventilation
- › Flow trigger
- › Volume trigger
- › Adjustable PSV termination criteria
- › NIV with leak compensation
- › Volume Guarantee
- › Volume Limit
- › Demand flow in CPAP

## Special procedures

- › Manual inspiration/hold  
(Sustained Lung Inflation)
- › O<sub>2</sub> flush

## Dimension

- › (W x H x D) 24 cm x 27 cm x 35 cm
- › Approx. 10 kg
- › Diagonal screen size 5.7"
- › TFT color touch-screen with LED Backlight
- › Keypad with 14 buttons

## Input and output ports

- › 1 USB port (for SW updates)
- › 1 RS 232 (9 pin) port for PDMS/HIS
- › 1 RJ 45 Ethernet port for PDMS/HIS
- › 1 nurse call connector
- › External trigger connector



## Designed in Switzerland

The fabian +nCPAP evolution is the result of more than 30 years of experience in design, development and craftsmanship. Powerful components such as long-lasting battery packs, innovative modules like a one-piece expiratory valve and a cleverly reduced assembling concept with easily accessible parts make this device user-friendly.

Together with a customized service program, fabian helps to minimize the cost of ownership.



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