



LEISTUNG

PR4-g *Touch*

Lung Ventilator for Transport and Emergency Care
Neonatal, Pediatric and Adult



Our Commitment to life

Leistung is more than a manufacturer of lung ventilators for ICU and Emergency. Leistung's lung ventilators, besides being products of technological excellence and performance, they also carry the values of all the professionals involved in the process, from its conception to its commercialization, who are aware about the importance of a life-supporting device.

Therefore, we are proud to say that, while we are an industry, our essence lies in the trust that professionals and patients place in us. It is our commitment to life that makes us go further!



www.leistungbrasil.com

+55 47 3371 2741

PR4-g *Touch*

INNOVATION associated with
TECHNOLOGY and CONVENIENCE





PR4-g Touch

Lung Ventilator for Transport and Emergency

Adult | Pediatric | Neonatal

The lung ventilator PR4-g Touch is among the most complete lung ventilators in the market, providing all the necessary ventilatory modes for medical care in adult, pediatric and neonatal patients, besides offering a menu of lung mechanics for several diagnosis.

It offers high ventilatory quality adapted to each patient with quick and safe adjustments for every ventilatory parameter, delivering to the professional a pleasant work which allows more attention towards the patient.

VENTILATORY MODES

ADULT / PEDIATRIC

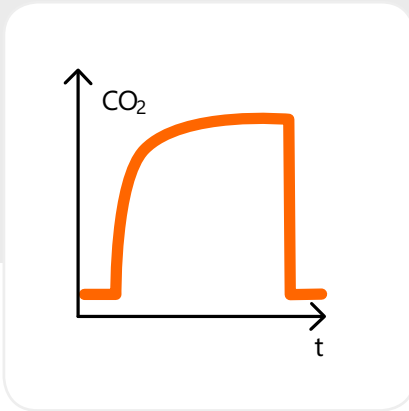
- VCV assisted / controlled
- PCV assisted / controlled
- PSV/CPAP
- PRVC assisted / controlled
- SIMV(VCV) + PSV
- SIMV(PCV) + PSV
- MMV + PSV
- PSV + assured tidal volume
- Biphasic pressure (APRV)
- NIV
- HFNC

NEONATAL

- PCV assisted / controlled
- PSV/CPAP
- SIMV(PCV) + PSV
- Continuous flow assisted / controlled
- Nasal CPAP
- HFNC

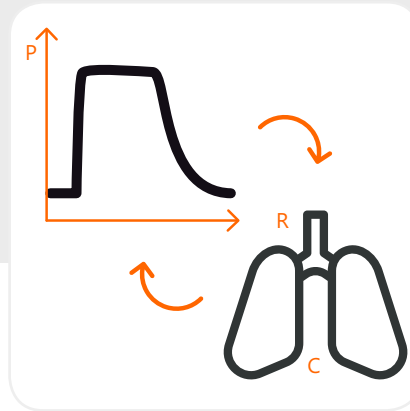
Backup ventilation is available in all ventilatory modes.

FUNCTIONALITY AND PERFORMANCE



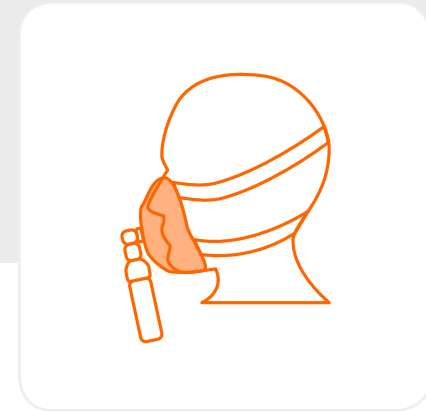
CAPNOGRAPHY

It is a way to estimate in real time the values of CO₂. These real values are presented numerically through the ET-CO₂ and inspired CO₂ and through the CO₂ x Time graphic. This mechanism is given by Main Stream technology, which makes the ventilatory assistance safer by estimating the heterogeneity of the lung ventilation distribution resulting from functional and structural alterations of the respiratory system.



PRVC

It associates the best of the conventional controlled modes of volume and pressure, delivering the volume adjusted by the operator with the lowest pressure possible. The function uses free flow waveform and control with the feedback of the patient's compliance and resistance.



LEAK COMPENSATION

The PR4-g Touch constantly monitors the pressure drop on the airway. This technology, available in all the pressure ventilation modes, identifies the leak of air and automatically adjusts the airway pressures. It may compensate up to 50 l/min, making the NIV comfortable and safe.

PR4-g Touch

Lung ventilator for transport and emergency

SPECIAL FEATURES

- Neonatal Ventilation
- Patient Setup
- Lung Mechanics
- FIO₂ 40% to 100%
- Altitude Compensation
- Volume Adjustment
- Alarms Log
- Automatic rise time
- Non-invasive Ventilation
- Leak Compensation
- Proximal Flow Reading
- O₂ 100% Function
- Tendencies of 24h
- Inspiratory or Pressure Flow Sensibility
- Battery for 15 hours
- Automatic Calculation of Theoretical Weight
- Intuitive Interface
- Customizable interface with Memory



PR4-g Touch

Lung ventilator for transport and emergency



APPLICATIONS

The PR4-g Touch is versatile and practical. In options with trolley or carrying bag, this portable lung ventilator may be used in several places.

Perform procedures such as: capnography, PRVC, NIV, PCV, PSV and CPAP in adult, pediatric and neonatal patients.

It is Leistung technology for your daily treatments.

GENERAL

SPECIAL CHARACTERISTICS

- Current time and date
- Time and date when the equipment was turned on
- Touch screen function lock
- Graphical indicator of external power supply and battery
- Indicator of battery charge level
- Indicator bar of the parameters adjustment range
- Graphical bar of the ventilatory pressure with indicator of alarms level
- FiO₂ reading through Galvanic Cell or Pneumotachograph
- Standby symbol
- Alarms log symbol

COMPLEMENTARY MESSAGES

- Without exhalation sensor
- Without proximal sensor
- Active oxygen cell

OTHER SAFETY CHARACTERISTICS OF THE VENTILATOR

- Warning of maintenance need per hours of use
- Possibility of operation without proximal flow sensor
- Possibility of operation without oxygen cell
- Leak compensation in all ventilatory modes (NIV)

PROGRAMMABLE ALARMS

- Maximum pressure
- Minimum pressure
- Maximum tidal volume
- Minimum tidal volume
- Maximum minute volume
- Minimum minute volume
- Maximum frequency
- Minimum frequency
- FiO₂
- PEEP
- Apnea

AUTOMATIC ALARMS

- Power failure
- Interrupted cycle
- O₂ failure
- Low battery
- Microprocessor (Inoperative ventilator)
- Inverted I:E Ratio
- Patient disconnection
- Proximal sensor disconnection

GENERAL**MONITORING**

Airway pressure: peak	0 to 120 cm H ₂ O
Airway pressure: plateau	0 to 120 cm H ₂ O
Airway pressure: mean	0 to 120 cm H ₂ O
Airway pressure: base (PEEP)	0 to 50 cm H ₂ O
Inspiratory time	0 to 30s
Expiratory time	0 to 30s
I:E Ratio	49:1 to 1:99
Inspiratory pause	0 to 5s
Inspired/exhaled tidal volume (distal and proximal)	0 to 2,5 l
Peak inspiratory flow (distal and proximal)	999 l/min
Peak expiratory flow (distal and proximal)	999 l/min
Dynamic compliance	999 ml/cm H ₂ O
Total and spontaneous frequency	250 rpm
Graphical indicator of spontaneous and mechanical cycles	Symbols and graphics
Minute volume (distal and proximal)	0,01 to 25 l/min.
FiO ₂ concentration	21 to 100%
TI/TTOT ratio	98,0%
ETCO ₂ (optional)	99,9 mmHg
Inspired CO ₂ (optional)	99,9 mmHg
Total leakage	50 l/min.
Ventilation level (mL/kg)	99,0 ml/kg
Battery charge level	Proportional bar
Patient circuit compliance	4,0 ml/cm H ₂ O
SpO ₂ (optional)	100%
Pulse frequency (optional)	250 bpm
SpO ₂ /FiO ₂ (optional)	476

PR4-g Touch

Lung ventilator for transport and emergency

GRAPHICS

LUNG MECHANICS

Auto PEEP
Dynamic Compliance
Static Compliance
Static Inspiratory resistance
Static expiratory resistance
Slow vital capacity
P0.1 (Airway occlusion pressure)
Tobin Index

NUMERICAL TENDENCIES

Auto PEEP
Dynamic Compliance
Static Compliance
Inspiratory resistance
Expiratory resistance

GRAPHICAL TENDENCIES

Tidal volume
Minute volume
Frequency
Dynamic compliance
Peak and base pressure
Flows

(Graphical tendencies up to 24 h with the aid of grids for analysis)

ADULT/ PEDIATRIC UP TO 5 SIMULTANEOUS CURVES

Pressure – time
Flow – time
Volume – time
CO₂ – time (optional)
Volume - pressure loop
Flow - volume loop
Pressure - flow loop
CO₂ – volume loop (optional)
Plethysmography

NEONATAL (UP TO 2 SIMULTANEOUS CURVES)

Pressure – time
Flow – time
Volume – time
CO₂ – time (optional)
Plethysmography

ALARMS LOG OR EVENTS

1000 events with date, time and alarm

PARAMETERS**CONTROLS**

FiO ₂	40 to 100%
Inspiratory time	0,1 to 30s
I:E Ratio	5:1 - 1:99
Ventilatory frequency	1 - 180 rpm
Tidal volume	5,0 to 2.500 ml (2,0 ml in continuous flow)
Minute volume	0,01 to 25,0 L/min
Sensibility	By Flow: 0,2 to 15 l/min. By pressure: -0,5 to -15,0 cmH ₂ O (compensated PEEP)
Controlled pressure (PCV)	1 to 80 cm H ₂ O over PEEP
Support pressure (PSV)	0 to 80 cm H ₂ O over PEEP
Inspiratory pressure	-10 to 120 cm H ₂ O
Rise time	6 levels
Expiratory sensibility	5 to 80%
Apnea time	5 to 60s
PEEP / CPAP	0 to 50 cm H ₂ O
Inspiratory flow	0 to 160 l/min.
Base flow	Off up to 50 l/min.
Expiratory flow	0 to 120 l/min.
Automatic inspiratory pause (VCV mode)	0,1 - 5,0s with plateau value
O ₂ 100%	1 to 20 min.
Flow waveform	Square / Descending 100% / Descending 50% / Sinusoidal / Ascending
Inspiratory pressure inner safety valve	Adjusted in 120 cmH ₂ O
Pressure regulation valve for O ₂ Input	Built into the equipment
Rs232 Signal connector	For external communication with the software and signals input
Sigh (VCV Mode)	Cycles per hour, quantity, maximum tidal volume
Automatic scales	Automatic for amplitude and adjustable per time
Freeze graphics	With grid for easy interpretation of the values
Standby	Keeps the ventilator in standby without changing the parameters
Backup ventilation	Available in all ventilatory modes
Altitude compensation	Automatic altitude compensation
Alarm sound level	20 to 100%
Alarm silence	Up to 120 seconds

PR4-g Touch

Lung ventilator for transport and emergency

PARAMETERS**EXTERNAL CONVERTOR (AC/DC ADAPTER, OPTIONAL)**

Output voltage	15 V
Power	35,0 W (max.)
Input voltage	9-36 V

EXTERNAL POWER SUPPLY (AC/DC ADAPTER, OPTIONAL)

Voltage-Current	100V – 240 V ~ 0,6 A – 0,29 A
Nominal capacity	63 VA
Power factor	0,7
Output voltage	15 V
Maximum output current	4,2 A

INTERNAL POWER SUPPLY

Nominal voltage	12 V
Nominal capacity	13,2 Ah
Type	Lithium battery (Li+)
Battery	900 mim. Autonomy

PNEUMATIC INPUT

Oxygen (O ₂)	Input DISS 9/16" – 18
Pressure	250 – 700 kPa (2,5 - 7 bar)
Maximum flow consumption	Up to160 l/min.

PHYSICAL CHARACTERISTICS

Height	150 mm
Width	270 mm
Depth	230 mm
Equipment weight	4,9 Kg
Trolley weight	12,6 Kg
Touch Screen	10,4 inches
Trolley (optional)	With anticorrosive painting
Castors	4, being 2 with locks

POWER SUPPLY

Power	15 V (-20%)
Nominal current	2,33 A
Nominal Power	35,0 W (Max.)
Fuse	3,0 A / 250 V 20 mm SB (Slow)

GENERALITIES

Medical product classification	Class III
Operation mode	Continuous operation
Classification against electric shock (Isolation)	Class II - internally powered equipment
Classification of protection against electric shock Type B	Type B
Protection level against nocive penetration of water	IP24




LEISTUNG



Leistung Equipamentos Ltda.

202, João Ropelatto St.
Nereu Ramos - 89265-520
Jaraguá do Sul - SC - Brazil

Phone: +55 47 3371 2741

 **+55 47 99985-2793**

E-mail: leistung@leistungbrasil.com

Site: www.leistungbrasil.com



Technical Support

+55 47 99985-6173 

ANVISA Registration No: 80203470013

Op. Auth. ANVISA: GHL3983MX9H2

Certification EN ISO 13485:2016

Certification GMP ANVISA RDC 16

