

◆ Specifications

Items	Settings · Details
Population	~20 kg
Basic modes	CPAP, CMV, SIMV, PTV, PSV
PEEP resolution	1
PEEP · PIP display	Set · Measured values
Measurement display	Digital
PIP setting	Absolute value
Inspiratory Time resolution (sec)	0.01
Respiratory Rate setting	RR & TI
Individual settings of SIMV and PSV pressures	Available
SIMV type	Fixed
SIMV trigger window	100%
Minimum tidal volume setting	2.0mL

◆ Trigger

Items	Settings · Details
Trigger method	Flow & Pressure
Flow sensor position	At mouth
Leak compensation	Available, compensable range : 0~20%
PSV termination sensitivity control	Available
Trigger sensitivity minimum pressure (cmH ₂ O)	Relative value
Trigger sensitivity minimum flow (mL/min)	0.2

◆ Settings

Items	Settings · Details
CPAP	PEEP is applied and allows a patient to breathe spontaneously.
CMV	Mandatory breaths are delivered based on a set respiratory rate and inspiratory time.
PTV	Mandatory breath is delivered synchronously with every spontaneous breath. During apnoea, mandatory breaths are delivered based on a pre-set respiratory rate. Inspiratory time follows an inspiratory time setting.
SIMV	Mandatory breaths are delivered synchronously with spontaneous breaths but the respiratory rate is set as in the CMV mode.
HFO	Based on the constant airway pressure, a small volume of gas is

	exchanged at a frequent rate. Frequency, MAP and dP are to be determined.
HFO+CMV	Respiratory rate, inspiratory time and PIP are determined and CMV is added to HFO.
Respiratory Rate	0~150 bpm
Inspiratory Time	0.1~3.0sec, resolution: 0.1 sec
Expiratory Time	Not applicable
Constant Flow	Flow through the inspiratory limb @8L/min
Tidal Volume Setting	3.0mL~200mL, resolutions: 0.2L(3.0~6.0mL), 1mL(6.0mL~)
PEEP/CPAP	0~20cmH ₂ O, resolution: 1cmH ₂ O
Peak Inspiratory Pressure	0~65cmH ₂ O or higher
Manual Inflation	Press button
Trigger Sensitivity	2~200(Flow trigger: 0.2~20L/sec)
Oxygen Concentration	21~100%
Alarm Silence	60 sec

◆Backup ventilation during apnoea

Item	Settings · Details
Detection of apnoea and trigger sensitivity	Common
PIP setting for backup ventilation	Not available
PEEP setting for backup ventilation	Not available
FiO ₂ setting for backup ventilation	Not available
Minimum apnoea time setting	None
Backup ventilation time setting	None

◆Display functions

Item	Settings · Details
Volume measurement	Available
Graphic display	Available
Items to be displayed	Airway pressure, flow, volume, PV loop, FV loop, FP loop and Trend

◆ Additional functions

Item	Settings · Details
HFO	Available
Other mode/function	TTV _{plus}
Battery operation time	45~60 min

◆ Alarms

Alarms	Settings · Details
High Baseline Pressure	Airway pressure>PEEP+5mbar for 10 sec or longer
High Paw	High Paw goes off if a proximal airway pressure exceeds a set alarm threshold (setting: 10~145mbar).
Low Baseline Pressure	The alarm goes off if a proximal airway pressure drops below a set alarm threshold (setting: -70~+100mbar).
Pressure Change Detection	Actual measurement results of PEEP and PIP are saved when pressure related parameters are adjusted. The alarm goes off if PIP setting is changed by 2mbar or more than the saved PIP value.
HFO MAP High	The alarm goes off if a measurement goes beyond an alarm threshold which is automatically set 5mbar higher than the mean airway pressure.
HFOMAP Low	The alarm goes off if a measurement drops below an alarm threshold which is automatically set 5mbar lower than the mean airway pressure.
HFO Max Pressure High	The alarm goes off if a measurement goes beyond an alarm threshold which is automatically set 5mbar higher than HFO Max Pressure.
HFO Max Pressure Low	The alarm goes off if a measurement drops below an alarm threshold which is automatically set 5mbar lower than HFO Max Pressure.
HFO Min Pressure High	The alarm goes off if a measurement goes beyond an alarm threshold which is automatically set 5mbar higher than HFO Min Pressure.
HFO Min Pressure Low	The alarm goes off if a measurement drops below an alarm threshold which is automatically set 5mbar lower than HFO Min Pressure.
Flow Sensor Defective	One of the flow sensor wires is broken.
Flow Sensor Cleaning	A flow measurement is beyond 15L/min for 3.5 sec.
Flow Sensor Connection	The alarm goes off when a flow sensor is disconnected, or

	both of the wires are defective.
Flow Sensor Calibration	When a flow sensor is used, the alarm goes off every time the unit is powered on.
High MVE	The alarm operates if an MVE measurement goes beyond a set threshold (setting range: 0.02~18L).
Low MVE	The alarm operates if an MVE measurement drops below a set threshold (setting range: 0~High MVE threshold -0.2L).
High Tidal Volume	The alarm operates if a measured tidal volume is beyond a user-set alarm threshold (setting range: 3~200mL).
Low Tidal Volume	The alarm operates if a measured tidal volume is below a user-set alarm threshold (setting range: 0~200mL).
Leak Alarm	The alarm operates if a calculated airway leak exceeds a set alarm threshold (setting range: 10~50%).
Apnoea	The alarm operates if a breath is not detected during a set apnoea detection time (setting range: 5~60sec).
High O2	The alarm operates if a measured O2 concentration is 5% higher than a set O2 concentration.
Low O2	The alarm operates if a measured O2 concentration is 5% lower than a set O2 concentration.
Cycle Fail Alarm	The alarm operates if a proximal pressure measurement fails to go above and then below a selected cycle fail alarm threshold (setting range: 0mbar/Low Baseline Pressure alarm threshold+5mbar (whichever smaller) ~ High Pressure alarm threshold - 5mbar). The alarm is also generated if the proximal airway tube is disconnected and PIP measurements come close to PEEP measurements (PIP-PEEP=0~3mbar).

◆Monitoring Parameters

Parameters	Settings · Details
Peak Airway Pressure	○
Respiratory Rate	○ (Regardless a set RR, a detected number of spontaneous breaths is indicated.)
Trigger Count	Measured trigger count is displayed.
Minute Tidal Volume	○
Expiratory Tidal Volume	○
Leak Percentage	○
Inspiratory Time	○
Expiratory Time	○
I:E Ratio	○
Inspiratory Resistance	Inspiratory resistance is displayed in a measured value.
Compl. (compliance)	A calculated dynamic compliance is displayed.
C20/C	The ratio of compliance during the last 20% of a respiratory cycle is displayed compared to a whole cycle. Displayed is a calculated value.
DCO2	A calculated gas diffusional efficiency is calculated.
Mean Airway Pressure	○
PEEP	○
Oxygen Concentration	21~100%

Default Values of Parameters

Parameters	Settings · Details
Respiratory Rate (Backup Breath Rate)	30 BPM
Inspiratory Time (Max. Inspiratory Time)	0.4 sec
PEEP	2 cm H2O
PIP	10 cm H2O
FiO2	0.21
HFO Rate (Frequency)	10Hz)
dP	4cmH2O
Leak Alarm	25%
Flow Trigger Sensitivity	2.0L/min
PSV Cycle Off	5%