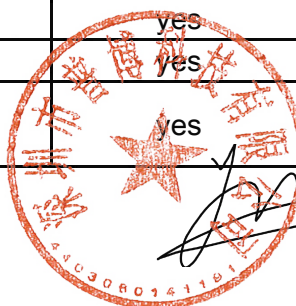


Adult, pediatric pulmonary ventilator				
Description	Complex system with fan and vital functions monitor. Functional vitality monitoring function integrated in the fan		Prunus Boaray 5000D	
Parametrul	Specificația		Specification	
Type	Mobile, on wheels		yes	
Patient type	adult, pediatric		yes	
Control / settings range	Total volume		20-2,000 mL	20-3000ml
	Inspirational flow		3-180 L/min	180 L/min
	Inspir. pressure		0-80 cm H ₂ O	1-100 cmH ₂ O
	Respiratory rate		0-100 rpm	4-100bpm
	Inspired time		0.1 - 8 s.	0.1-10 sec
	I:E rate		1:8 to 4:1	1:10-4:1
	FiO ₂ , %		21-100	21-100%
	Button for manual breathing		yes	yes
	PEEP/CPAP		0-45 cm H ₂ O	0-50 cmH ₂ O
	Pressure support		0-45 cm H ₂ O	0-100 cmH ₂ O
	Trigger mechanism		Pressure	Pressure and flow
	Slope / ramp pressure adjustment		yes	Yes
	Flow for HFNC therapy		min 60 l/min	2-100L/min
	Button 100% O ₂		yes	yes
	Button 100% O ₂		2 min	yes
	Control panel lock		yes	yes
Operating modes	Modul A/C	A/C Volum	yes	yes
		A/C pressure	yes	yes
	Modul SIMV	SIMV volum	yes	yes
		SIMV pressure	yes	yes
	Modul CPAP	CPAP, CPAP/(PS)	yes	yes
		Apnea-backup	yes	yes
	NIV		yes	yes
	NIV with high flow (HFNV)		yes	yes
	Bilevel/APRV		yes	yes
Monitored / displayed parameters	Maximum inspiratory pressure		yes	yes
	Average airway pressure		yes	yes
	PEEP pressure		yes	yes
	Total volume		yes	yes
	FiO ₂ monitoring		yes	yes
	Respiratory rate		yes	yes
	Inspired time		yes	yes
	Rate I: E		yes	yes
	Spontaneous minute volume		yes	yes
	FiO ₂ large / small		yes	yes
	High / low minute volume		yes	yes
	High / low inhalation pressure		yes	yes

Patient alarms	Big PIP		yes	yes
	PEEP large		yes	yes
	Lack of PEEP		yes	yes
	Apnea		yes	yes
	High continuous pressure / occlusion		yes	yes
	Reverse IE		yes	yes
	Respiratory circuit disconnected		yes	yes
Equipment alarms	Lack of gas supply		yes	yes
	Lack of power supply		yes	yes
	Discharged battery		yes	yes
	System error		Decalibrated sensor, valve leak	yes
	Self-diagnosis		yes	yes
Interface	Interface with external devices		yes	yes
	Ports for data output		yes	yes
	Remote alarm port		yes	applicable to Patient monitor
	Analog output		yes	applicable to Patient monitor
	Alarm reporting and patient status	display	yes	applicable to Patient monitor
		Transmission of reports to print	yes	applicable to Patient monitor
		Possibility of centralized network connection	yes	applicable to Patient monitor
Display	LCD TFT		yes	TFT
	Size		≥ 12 inch	15 inch
	Touchscreen		yes	yes
Air source	Integrated in the device, turbine type		yes	central supply system, cylinder, compressor
Power	Air	Compressed gases	air, O2	air, O3
		Compressed gases Network pressure	3-6 bar	2,8-6bar
	Electric	220 V mains, 50 Hz	yes	yes
		Internal rechargeable battery	yes	yes

		Battery operation time	≥ 1 h	2h
Accesories				
Respiratory circuits	adult	reusable type	2 set.	
	adult	reusable type	25 set.	
Respiratory mask	adult	reusable type	1 set.	
	adult , CPAP	reusable type	1 set.	
Humedifer	Humidifier with maintaining temperatures and humidifying the air		yes	yes
Trolly	Min. 4 wheels		yes	yes
	Min. 2 wheels with brake		yes	yes
	Articulated arm for fixing breathing		yes	yes
	Support for fixing / attaching		yes	yes
	Patient monitor support		yes	applicable to Patient monitor



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Boaray 5000D Ventilator

Datasheet



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Technical Specification

Physical Specification		
Dimensions and weight		
Dimensions (HxWxD)	Main Unit: 489×443×541 mm	
Weight	23.2 kg	
Display		
Screen	15” TFT display	
Display Resolution	1280*768	
Trolley		
Dimensions (HxWxL)	707×512×956 mm	
Weight	18.7 kg	
Communication interface		
Communication interface	RS232	
Ventilation Specifications		
Patient Type	Adult, pediatric	
Ventilation Mode	Invasive modes	VCV PCV PRVC SIMV+VCV SIMV+PCV SIMV+PRVC CPAP PSV DualPAP APRV
	Non-invasive modes	PCV SIMV-PCV NPPV APRV CPAP PSV HFNC
Controlled Parameters		
O ₂ %	21 ~ 100%	
TV (Tidal Volume)	20 ~ 3000 mL	
f (Ventilation frequency)	4 ~ 100 bpm	
fsimv (Ventilation frequency in SIMV mode)	1 ~ 40 bpm	

TI (Inspiratory time)	0.1 ~ 10.0 s(Equivalent to I:E : 4:1 ~ 1:10)
Prate(Rate of pressure rising)	1 ~ 5 gears
Tpause	0 ~ 4.0s
Pinsp	1 ~ 100 cmH ₂ O
Psupp	0 ~ 100 cmH ₂ O
Phigh	0 ~ 100 cmH ₂ O
Plow	0 ~ 50 cmH ₂ O
PEEP	0 ~ 50 cmH ₂ O
Flow trigger	0.5 ~ 20 L/min
Pressure trigger	-20 ~ -1 cmH ₂ O
ETS	10% ~ 85%
Apnea Ventilation	
Tapnea	10-60
Pinsp	1-100cmH ₂ O
Freq backup	4 - 100 bpm
TI backup	0.1~10.0 sec
Sigh	
Sigh Switch	Disable, enable
Automatic Tube Resistance Compliance	
Tube I.D.	OFF, 5.0~12.0
Compensate percentage	0~100%
HFNC	
O ₂ %	21% ~ 100%
Flow	2 ~ 100L/min
Monitoring parameters	
Ppeak	-20 ~ 120 cmH ₂ O
Pplat	-20 ~ 120 cmH ₂ O
Pmean	-20 ~ 120 cmH ₂ O
PEEP	0 ~ 120 cmH ₂ O
VTi	0 ~ 4000 mL
VT _e	0 ~ 4000 mL
VT _{espn}	0 ~ 4000 mL
MV	0 ~ 100 L
MVleak	0 ~ 100 L
MV _{spn}	0 ~ 100 L
RR _{total}	0 ~ 100 bpm
RR _{mand}	0 ~ 200 bpm
RR _{spn}	0 ~ 200 bpm
Resistance	0 ~ 600 cmH ₂ O/(L/s)
Compliance	0 ~ 300 mL/cmH ₂ O
Inspired Oxygen (FiO ₂)	15 ~100%

RSBI	0.0 ~ 1000.0 bpm/L	
WOB	0 ~ 100 J/min	
P0.1	0 ~ 30 cmH ₂ O	
NIF	-40 ~ 0 cmH ₂ O	
RCexp	0 ~ 10s	
TVe/IBW	0 ~ 50 ml/kg	
I:E	100:1 ~ 1:150	
Tinsp	0 ~ 60s	
Waveforms	Pressure-time, flow-time, volume-time	
Loops	Pressure-volume, flow-volume, flow-pressure	
Alarm settings		
Tidal Volume	High	100 ~ 2000 mL, OFF
	Low	OFF, 20 ~ 2000 mL
Minute Volume	High	0 ~ 40 L
	Low	OFF, 0 ~ 39 L
Airway pressure	High	6 ~ 100 cmH ₂ O
	Low	0 ~ 99 cmH ₂ O
Frequency	High	1 ~ 100 bpm
	Low	0 ~ 99 bpm
Inspired Oxygen (FiO ₂)	High	21 ~ 100%
	Low	OFF, 21 ~ 99%
Apnea alarm time	10 ~ 60 s	
Other Alarms	O ₂ supply pressure Air supply pressure High Continues Pressure AC failure Low battery capacity Battery exhausted EtCO ₂ (optional) SPO ₂ (optional)	
Log		
Type	Alarm and setting	
Max number	500	
Ventilator components		
O ₂ sensor		
Type	Calvanic fuel cell	
Response time	< 15sec	
MainStream CO ₂ Module		
Displayed numerics	0 ~ 114 mmHg	
Resolution	0.1mmHg	
System response time	<1 s	
EtCO ₂ High alarm limits	1 ~ 99 mmHg	

EtCO ₂ Low alarm limits	OFF, 0 ~ 98 mmHg	
SpO ₂ module		
Displayed numeric	SPO2、PR	
SpO ₂ measurement range	70%-100%	
PR measurement range	20-250	
SpO ₂ Low alarm limits	80%-100%	
Operation Data		
Environmental specifications		
Temperature	Operation	+10°C ~ 50°C
	Storage and transport	-20°C ~ 55°C
Relative humidity (non-condensing)	Operation	Operation
	≤95%	≤95%
Barometric Pressure (storage)	Operation	Operation
	50 ~ 106 kPa	50 ~ 106 kPa
Gas supply		
Gas type	Air, O ₂	
Pipe Connector	NIST	
Gas supply pressure	280 ~ 600 kPa	
Peak flow in case of single supply gas	180L/min	
Power and Battery Backup		
Power input voltage	100 ~ 240 V	
Power input frequency	50/60 Hz	
Power input current	1.5 A (Max.)	
Fuse	T2AL/250 V	
Number of batteries	1	
Rated battery voltage	11.1 VDC	
Battery type	Lithium battery	
Battery capacity	7800 mAh	
Battery run time	120 min	
Battery charging time	New battery: more than 10 h for the first time In the future: 5 h	
Air Compressor		
Power input	AC 220~240 V, 50/60 Hz, 3A	
Rated output pressure	400±20 kPa	
Noise	≤52 dB (A) in normal operating condition	
Output flow	≥40 L/min (350 kPa)	
Life time of Thomas pump	100,000 hours	

Special Functions and procedures
Inspiratory hold
Expiratory hold
100% O ₂ 2 min
Manual inspiration
Freeze
Suction
P-V tool