

Specifications: ARK7

The logo features the word "COMEN" in large, bold, white, 3D-style capital letters. The letters are set against a blue background that has a subtle gradient and a faint, repeating pattern of the word "COMEN" in a lighter shade. The letters appear to be resting on a blue, curved surface that resembles a globe or a lens.

COMEN Share with the world

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Anesthesia Machine

ARK7

Physical Characteristics

Complete Machine

Dimensions 780mm*676mm*1390mm

Top Plate

Dimensions 535mm*235mm

Maximum load bearing 20kg

Caster Wheels

Size 4 inch

LED Indication

AC indicator lamp Green LED

Battery indicator lamp Green LED

Alarm indicator lamp Yellow/Red LED

Audible Indication

Speaker Alarm tone, key-stroke tones

Buzzer Fault alarm tone

Interface

Power supply 1 AC power interface

Communication connectors 1 RJ45 interface
1 USB 2.0 interface
1 DB9 interface

Display Screen

Size 8" TFT touch screen

Resolution 800*600 pixels

Brightness Adjustable (1~8)

Waveforms Pressure-time
Flow rate-time
Volume-time

EtCO₂
EEG

Loops (optional) Pressure-volume Loops
Flow-volume Loops
Pressure-flow Loops

Operation Environment

Working Temp 10~40°C

Relative humidity ≤93%

Atmospheric pressure 70~106 kPa

Power Supply

External AC Power Supply

Input voltage 100~240V

Input frequency 50/60Hz

Input current 3.5~7.0A

Fuse T10 AL 250V

Power Cord 5m

Internal Battery

Type Li-ion battery

Rated battery voltage 11.1VDC

Capacity 4400mAh

Minimum power-on time ≥120min

Gas Supply

Pipeline gasses Standard: O₂
Optional: O₂-AIR

Pipeline gas connection NIST/DISS

Inlet pressure range 280~600kPa

Low pressure oxygen inlet pressure Oxygenerator: ≤50kPa, ≤10L/min

Flowmeter

Type Mechanical flowmeter

Range 0~4L/min, the flow can be adjusted to 50ml/min

Accuracy 0~4L/min: ±10%
Other: not defined

ACGO (optional)

Connector Outside: 22 mm taper coaxial fitting

	Inside: 15 mm taper coaxial fitting	Plimit (Pressure limit)	10~55cmH2O
Flush O2		Pinsp (Inspiratory pressure)	5~50cmH2O
Range	10~30L/min	ΔPps (Support Pressure)	3~50cmH2O, OFF
Breathing Circuit		Apnea Pressure	3~50cmH2O
Leakage and Compliance		PEEP	3~30cmH2O, OFF
Leak in breathing system and its cycle absorption assembly	≤99ml/min (3kPa)	VT	10~1500ml In the VS mode, tidal volume can be detected to 5ml
Compliance of breathing system and its cycle absorption assembly	Big animal mode: ≤4ml/100Pa Small animal model: ≤3ml/100Pa	Rate (Respiratory Rate)	4~100bpm
Leak in CO2 canister	≤50ml/min (3kPa)	Min Rate	2~60bpm
APL valve leak	≤50ml/min (3kPa)	I:E	4:1~1:10
CO2 Canister		Apnea.IE	4:1~1:8
Volume	2000ml	Tpause (Inspiratory Pause)	5%~60% of inspiratory time, OFF,
Ports and Connectors		Trig window(Trigger window)	5%~90%
Expiratory end	Outside: 22 mm taper coaxial fitting Inside: 15 mm taper coaxial fitting	Rate (SIMV Frequency)	4~60bpm
Inspiratory end	Outside: 22 mm taper coaxial fitting Inside: 15 mm taper coaxial fitting	Apnea Time	10~30s
manual bag end	Outside: 22 mm taper coaxial fitting Inside: 15 mm taper coaxial fitting	Exp% (Inspiratory stop level)	5%~80%
Exhaust end	Outside: 30 mm taper coaxial fitting	Minrate	2~60bpm
Airway Pressure Gauge		Tinsp (Inspiratory time)	0.2~10.0s
Range	-20~100cmH2O	Trigger (Inspiratory triggering)	Pressure triggering: -20~-1cmH2O Flow rate triggering: 0.2~15L/min
Accuracy	±(4% of full scale reading + 4% of actual reading)	Tslope (Pressure slope)	0~2.0s
APL Valve		Monitoring Parameters	
Range	1~75cmH2O	MV (Per-minute ventilation amount)	0~100L/min
Accuracy	±10cmH2O or ±4% of setting value, whichever is greater	VT (Inspiratory and expiratory tidal volume)	0~1500ml
Touch indication	≥30cmH2O	Paw (Airway pressure)	-20~120cmH2O
Minimum opening pressure	Dry: 0.3cmH2O	PEEP	0~70cmH2O
APL fast row	APL valve can be equipped with quick discharge function	Pmean (Mean pressure)	-20~120cmH2O
Ventilation Modes		Pplat (Platform pressure)	0~120cmH2O
Standard	Manual/Spont (optional:CPB) VCV, PCV	I:E	4:1~1:10
Optional	V S , PRVC SIMV-VC, SIMV-PC, SIMV-PRVC CPAP/PSV, PSVPro	Freq (Respiratory frequency)	0~120bpm
Ventilator Parameters Range			
Setting Parameters			

Compl (Compliance) 0~100ml/cmH₂O
Resistance 0~500cmH₂O/(s/L)

Ventilator Parameters Accuracy

Setting Parameters

VT 5~75ml: ±15ml
75~1500ml: ±20ml or ±10% of set value

Pinsp (Inspiratory pressure) ±3cmH₂O or ±8% of setting value, whichever is greater

Plimit (Pressure limit) ±3cmH₂O or ±10% of setting value, whichever is greater

PEEP 3~30 cmH₂O: ±2.0cmH₂O or ±10% of setting value, whichever is greater

ΔPps (Support Pressure) ±3cmH₂O or ± 8% of setting value, whichever is greater

Apnea Pressure ±3cmH₂O or ± 8% of setting value, whichever is greater

Trigger pressure ±2cmH₂O

Rate (Respiratory Rate) ±1bpm or ±5% of the setting value, whichever is greater

I:E and Apnea.IE 2:1~1:4: ±10% of actual reading
Other: ±25% of actual reading

Tpause (Inspiratory Pause) 20%~60%: ±15% of the set value or ±0.1s
Other: not defined

Trigger window ±10%

Trigger flow rate ±1L/min

Inspiratory stop level ±10%

Flow control system 10%~100%: ±10% of the indicated value
Other: not defined

Monitoring Parameters

V_{Textp} (expiratory tidal volume) <75ml: ±15ml
75ml~1500ml: ±20ml or ±10% of the actual reading, whichever is greater
Other: not defined

V_{Tins}(Inspiratory tidal volume) <75ml: ±15ml
75ml~1500ml: ±20ml or ±10% of the actual reading, whichever is greater
Other: not defined

Paw (Airway pressure) ±3.0cmH₂O or ±8% of setting value, whichever is greater

PEEP ±3.0cmH₂O or ±10% of setting value, whichever is greater

Rate (Respiratory Rate) ±1bpm or ±5% of the setting value, whichever is greater

I:E 4:1~2:1: ±25% of actual reading
2:1~1:4: ±10% of actual reading

1:4~1:10: ±25% of actual reading
Other: not defined.

MV (Per-minute ventilation amount) 0~30L/min: ±1L/min or ±15% of the setting value, whichever is greater
>30 L/min: not defined

Oxygen Sensors

FiO₂ 18%~100% (±5%)
Accuracy ±5%

CO₂ (optional)

Masimo (Mainstream and Sidestream)

Range 0~150 mmHg, 0~19.7% (at 760 mmHg),
Resolution 1mmHg or 0.1kPa or 0.1%
Accuracy ± (0.3%+4% of reading)

COMEN (Mainstream)

Range 0~99mmHg, 0%~13.0%, 0~13.2kPa (at760 mmHg)
Resolution 1mmHg or 0.1kPa or 0.1%
Accuracy 0~40mmHg: ±2mmHg
41~70mmHg: ±5mmHg
71~99mmHg: ±8mmHg

Total system response time Mainstream: <1s
Sidestream: <4s

AGSS

Applicable laws ISO 80601-2-13 and YY 0635-2
Dimension 535mm*120mm*155mm
Weight 2.2kg
Applies ISO 80601-2-13 and YY 0635-2
Connector ISO9170-2 or BS6834 standard connector

Pressure relief device Atmospheric pressure compensation port
Filter Stainless steel mesh, with pore size of 60~100 μm
Suction flow AGSS-L: 25~50L/min
AGSS-H: 50~80L/min,

Vaporizer

Quantity One
Brand COMEN
Core drying volume 360ml (±60ml)
Core wetting volume 300ml (±60ml)
Maximum and minimum tick mark distance 260ml (±60ml)
Range Isoflurane: 0%~6%
Sevoflurane: 0~8%

***Notice: Specifications subject to changes without prior notice. All rights reserved by Comen**