

Product overview

- 1 360°Rotatable LCD
- 2 15.6 "TFT Touch Screen(18.5"Optional)
- 3 One-hand operative valves
- 4 Stable and durable trolley (with brake)



Dual limb
Neonatal ventilation interface



Dual limb
Invasive ventilation

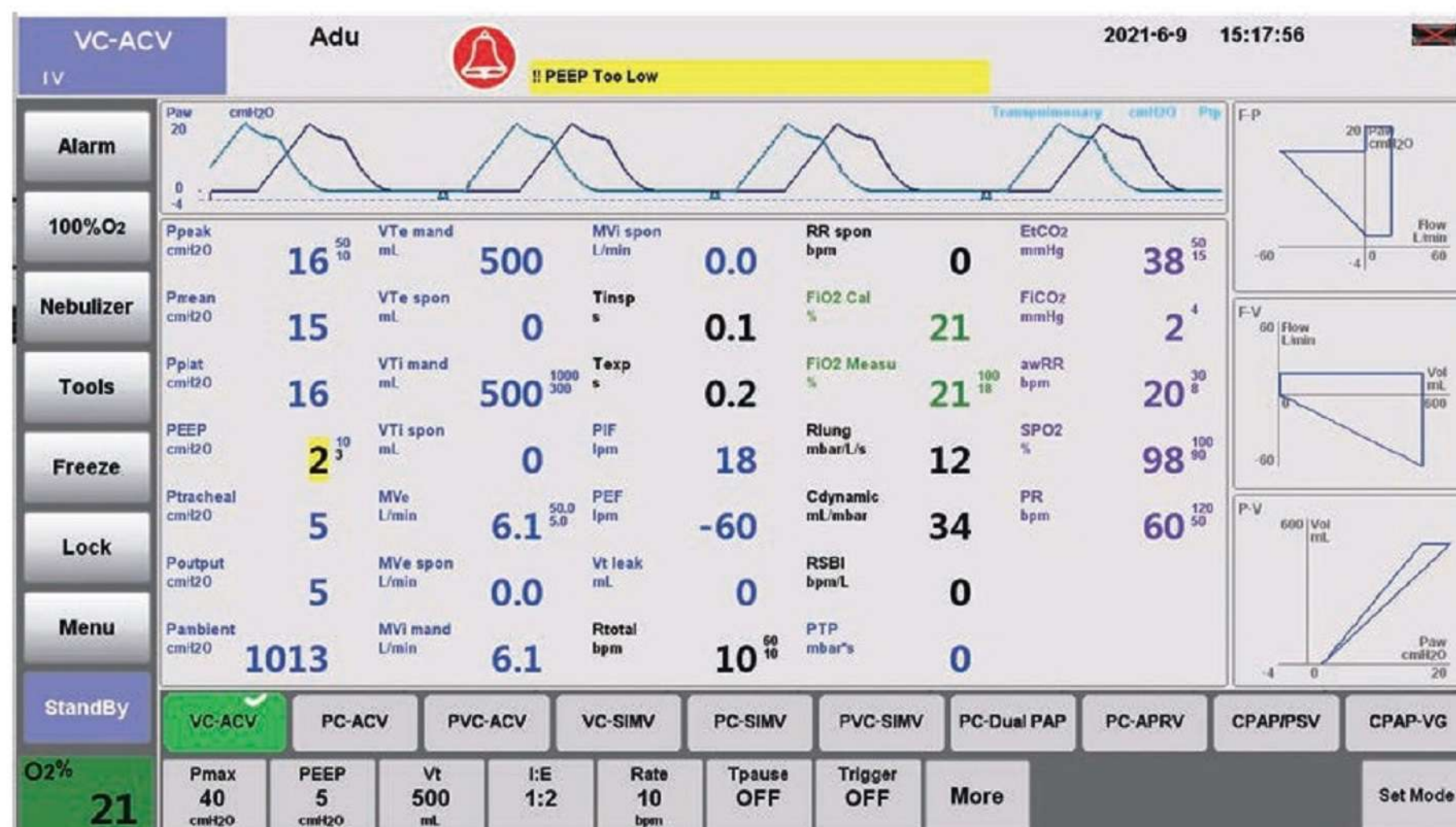
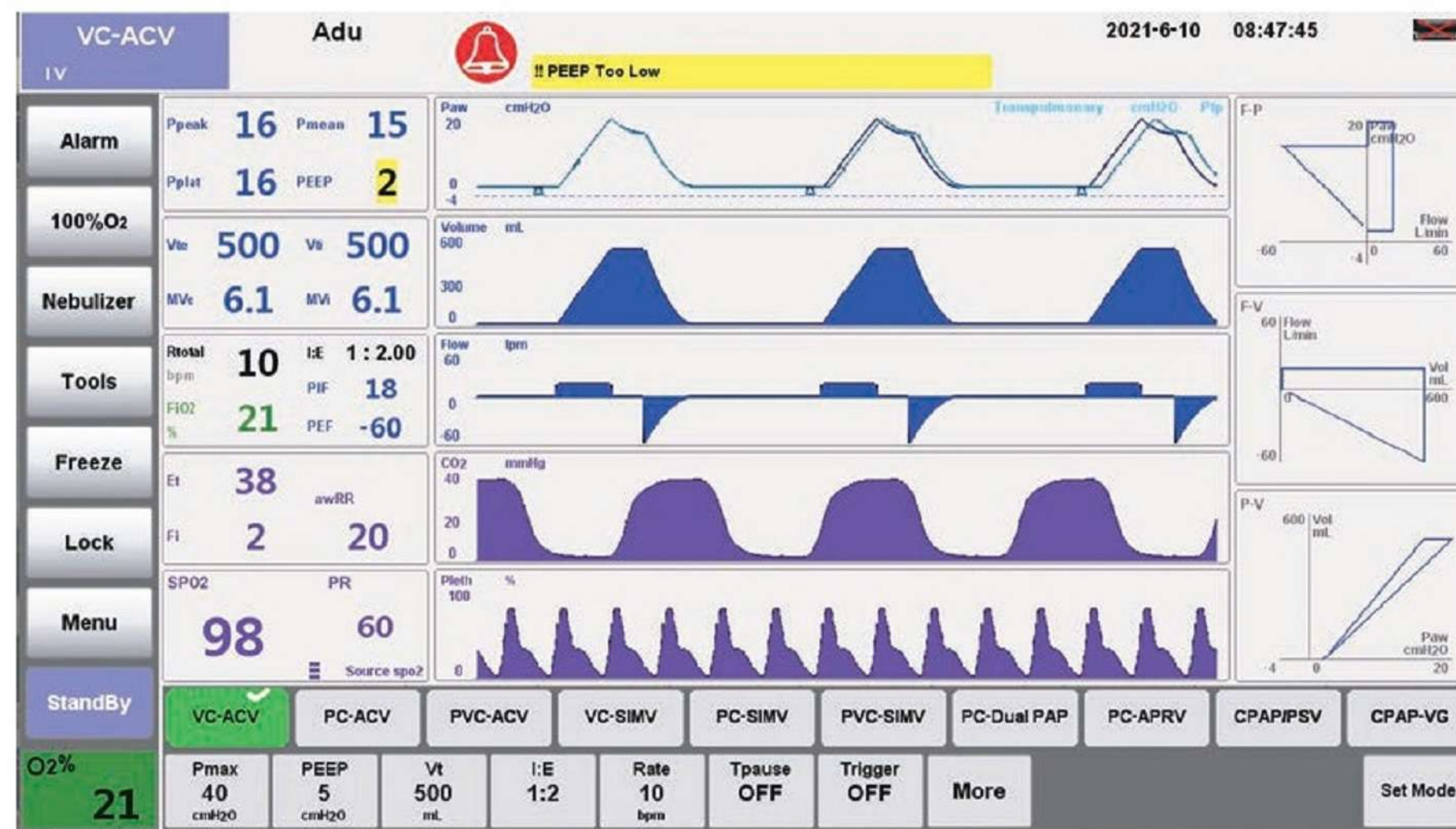


Cleo S Ventilator Turbine Based

Languages: English, Turkish, Hungarian, French, Italian, German, Spanish.

Turbine base Ventilator

15.6/18.5 inch TFT Touch Screen



- Advanced automated adaptive assisted wide-range ventilation system with electronic microprocessor controlled by volume and pressure to fit for all types of patients from Neonates , Pediatrics to Adults.
- Both invasive and non-invasive modes make the unit wide applications.
- Integrated self-check system with leak check and system tightness to secure the ventilation result (POST: Power On self test).
- Automatic leakage compensation by the unit provides is giving to optimize respirator settings
- Two Lithium batteries guarantee the unit usage up to 6 hours.
- Manual settable Inspiratory pause from 0.1-6seconds.
- The unit is with automatic triggers adjustment both on flow trigger and pressure trigger.
- The unit is with measurement of volumetric capnography of CO₂ (ETCO₂ measurement function)
- AMV mode can minimize the work of breathing under the target minute ventilation.

Neonatal sensor (optional accessories)

The minimum tidal volume is 2ml. It is suitable for newborns and even premature infants to avoid barotrauma;

Meet the needs of patients of different ages, provide individualized treatment, more accurate and safer.

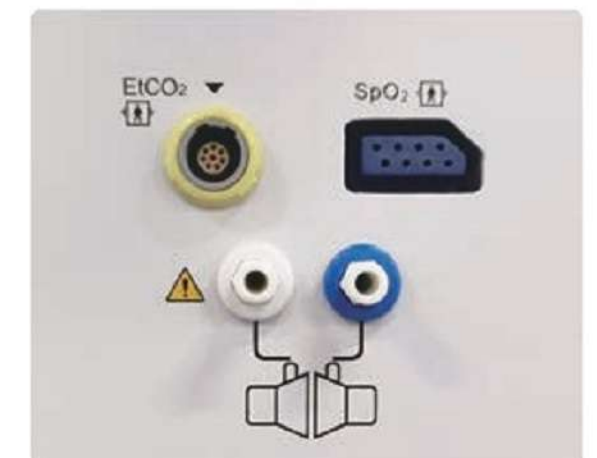


Standard ETCO2 and SpO2 interfaces

ETCO2 showed the concentration of CO₂ in blood during ventilation, reflecting the effect of ventilation; It is an important index to judge hyperventilation or hypoventilation.

SpO2 can directly Visual display the concentration of blood oxygen; It is an important index to judge the function of ventilation and air change.

Double index real-time monitoring at the same time, more convenient, more intuitive, more secure.



High and low pressure oxygen interface

The low pressure oxygen interface can be connected to the hyperbaric oxygen cylinder or the central oxygen supply, so that the ventilator can provide sufficient oxygen for patients when ensuring the breathing of mild and severe patients, so as to improve the oxygenation of patients.

The independent low-pressure oxygen interface can be connected to the oxygen pillow or small oxygen bottle to facilitate the hospital transportation and ensure the safety of patients.



Cleo S Ventilator

DATASHEET

Physical Specifications

Specifications	
Dimensions(L*W*H)	404mm * 297mm* 576mm (mainunit) 538mm * 495mm * 1391mm (with trolley)
Weight	Approximately 21.0kg (main unit) , Approximately < 45.3 kg (with trolley)

Ventilation Specifications

Specifications	
Patient Type	Adult, Pediatric, Neonatal
Invasive Ventilation Mode	• VC-ACV (Volume Controlled – Assist Control Ventilation) • PC-ACV (Pressure Controlled – Assist Control Ventilation) • PVC-ACV (Pressure Volume Controlled-Assist Control Ventilation) • VC-SIMV (Volume Controlled – Synchronized Intermittent Mandatory Ventilation) • PC-SIMV (Pressure Controlled – Synchronized Intermittent Mandatory Ventilation) • PVC-SIMV (Pressure Volume Controlled – Synchronized Intermittent Mandatory Ventilation) • PC-Dual PAP (Pressure Controlled-Duo Positive Airway Pressure) • PC-APRY (Pressure Controlled – Airway Pressure Release Ventilation) • CPAP/PSV (Continuous Positive Airway Pressure/Pressure support ventilation) • CPAP-VG (Continuous Positive Airway Pressure-Volume Guarantee) • Apnea Ventilation
Non-invasive Ventilation Mode	• PC-ACV (Pressure Controlled – Assist Control Ventilation) • PVC-ACV (Pressure Volume Controlled-Assist Control Ventilation) • PC-SIMV (Pressure Controlled – Synchronized Intermittent Mandatory Ventilation) • PVC-SIMV (Pressure Volume Controlled – Synchronized Intermittent Mandatory Ventilation) • PC-Dual PAP (Pressure Controlled-Duo Positive Airway Pressure) • PC-APRY (Pressure Controlled – Airway Pressure Release Ventilation) • CPAP/PSV (Continuous Positive Airway Pressure/Pressure support ventilation) • CPAP-VG (Continuous Positive Airway Pressure-Volume Guarantee) • Apnea Ventilation

Controlled Parameters

Parameter	Range	Unit
FiO2	21-100	%
VT (Tidal Volume)	100-2000 (Adult) , 20-400 (Pediatric) 2 -200 (Neonatal)	mL
Pinsp	(PEEP+5) to 90	cmH2O
Phigh	(Plow+5) ~ 80	cmH2O
Plow	0 ~ 40	cmH2O
Psupp	0 ~ 80	cmH2O
PEEP	0 ~ 50	cmH2O
FiO2	21 ~ 100	%
Rate	1 ~ 100	bpm
I:E	4:1 ~ 1:10	/
Tinsp	0.3 ~ 12.0	s
Texp	0.3 ~ 12.0	s
Tpause	OFF , 5 ~ 60	%
Thigh	0.3 ~ 30.0	s
Tlow	0.3 ~ 30.0	s
Trigger	Pressure: OFF , -1 ~ -10 Flow: OFF , 1 ~ 15	cmH2O L/min
Tslope	0.00 ~ 2.00	s
Exp%	OFF , 5 ~ 95	%

Controlled Parameters(O2 Therapy)

Parameter	Range	Unit
Continuous Flow	2.0 to 50.0	L/min
O2 Concentration	21 to 100	%
Pmax	10 to 95	cmH2O

Parameter monitoring accuracy

Parameter	Range	Unit
Ppeak	-5 to +105	cmH2O
Pmean	-5 to +105	cmH2O
Pplat	-5 to +105	cmH2O
PEEP	0 to 40	cmH2O
Ptracheal	-10 to 110	cmH2O
Poutput	-10 to 110	cmH2O
Pambient	0 to 3000	cmH2O
P0.1	-105 to 5	cmH2O
VTe mand	0 to 2500	mL
VTe spon	0 to 2500	mL
VTi mand	0 to 2500	mL
VTi spon	0 to 2500	mL
MVe	0 to 100	L/min
MVe spon	0 to 100	L/min
MVi mand	0 to 100	L/min
MVi spon	0 to 100	L/min
Tinsp	0 to 100	s
Texp	0 to 100	s
PIF	0 to 200	L/min
PEF	-200 to 0	L/min
Vt Leak	0 to 5000	mL
Rtotal	0 to 250	bpm

RR spon	0 to 250	bpm
FiO2 Cal	21 to 100	Vol.%
FiO2 Measu	21 to 100	Vol.%
Rlung	5 to 300	cmH2O/L/s
Cdynamic	0.5 to 100	mL/cmH2O
RSBI	0 to 10000	bpm/min/L
PTP	0 to 10	cmH2O-s

Monitored Parameters

Numeric		
Paw	MVi spon	FiO2
P-peak	VTe	Rlung
P-plat	VTe spon	Cdynamic
P-mean	VTi	PTP
PEEP	VTi spon	EtCO2
PIF	Rtotal	FICO2
PEF	RR spon	awRR
MVe	I:E	SPO2
MVe spon	Tinsp	PR
MVi	Texp	

Real Time Graphics

Pressure-time Waveform	Flow-Pressure Loop
Flow-time Waveform	Flow-Volume Loop
Volume-time Waveform	Pressure-Volume Loop
EtCO2-time Waveform	
SPO2-time Waveform	

Alarm Settings

Specifications	Type	Adult	Pediatric	Neonatal
Tidal Volume	High	5-5000mL	5-1000mL	5-500mL
	Low	0-4999ml	0-999mL	0-499mL
Minute Volume	High	0.2-100.0L/min	0.2-60.0L/min	0.2-40.0L/min
	Low	0.1-99.9L/min	0.1-59.9L/min	0.1-39.9L/min
Paw	High	0-98cmH2O	0-98cmH2O	0-98cmH2O
	Low	-4-97cmH2O	-4-97cmH2O	-4-97cmH2O
Frequency	High	1- 150bpm	1- 150bpm	1- 150bpm
	Low	0- 149bpm	0- 149bpm	0- 149bpm
FiO2	High	19-100%	19-100%	19-100%
	Low	18-99%	18-99%	18-99%
Tapnea	High	15-60s	15-60s	15-60s

O2 Therapy

Specifications	O %	Flow
Controlled Parameters	21-100% (Increments of 1%)	0-50L/min
Controlled Accuracy	± (3vol.% +1% of Setting)	±(2L/min+10% of Setting) (BTPS)

Trend & Record

Specifications	
Type	Tabular, Graphic
Length	24 hours
Content	Monitor Parameters
Event Log	5000

Environmental Specifications

Specifications	Operating	Storage and transport
Temperature	5-40°C	-20 to +60°C(O2 Sensor: -20 to +50°C)
Relative Humidity	10-95%	10-95%
Barometric Pressure	62-106kPa	50-106kPa

Gas Supply

Specifications	
Gas Supply	Medical-grade Oxygen
Pipe Connector	NIST or DISS
Gas Supply Pressure	280-600kPa

Low-pressure oxygen inlet

Specifications	
Pressure range	Less than 100 kPa
Maximum flow	15 L/min (STPD)
Connector	CPC quick connector

Power & Battery Backup

Specifications	
External AC Power Supply Input Voltage	100-240V
Input Frequency	50/60Hz
Overcurrent protection	10 ± 5 %A
Fuse	T10AH/250 V
Number of Batteries	Two
Battery Type	Build-in Lithium-ion Battery, 14.8VDC, 5200mAh
Battery Running Time	6 hours (2 Qty Battery)

Communication interface

Specifications	
Communication Interface	RJ45, RS232, USB,Nurse call, CO2 Module Connector,SPO2 Module Connector

Communication interface

Specifications	
O2 therapy	Screen-lock
Nebulization	Sigh
Manual Breath	SPO2
Inspiratory Hold	CO2
Expiratory Hold	RSB
PEEPi	Compliance
P0.1	Calibrate
ATC	O2 suction

