# Anesthesia workstation **ESV-640S**



ADULT · PEDIATRIC Friendly Powerful Reliable

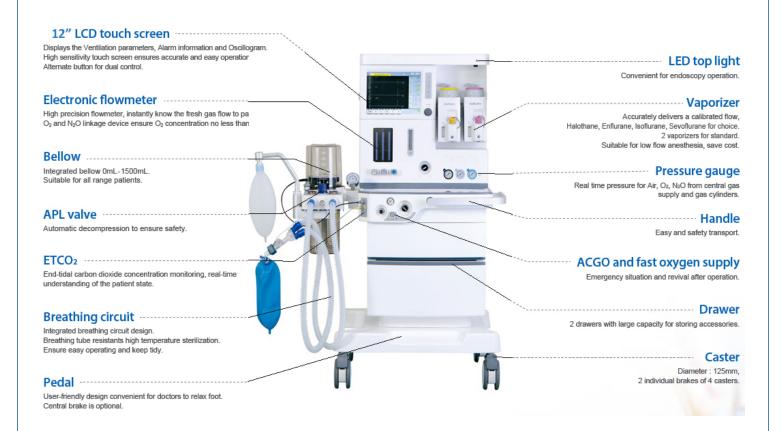
#### **Application**

The Anesthesia machine makes a good performance in Intensive Care Units (ICU), Operation room, Anesthesiology Department and other departments.

Professional design for adult, child and infant inhalation anesthesia and respiratory management, with advanced ventilation modes.

Outstanding ergonomic design, it ranks high level in safety, stability and convenience as well as user experiences.

This high-end model combine proven ventilation technology with the latest refinements in ergonomics and systems integration with an advanced, easy to use anesthesia table designed together with experienced experts to streamline your anesthesia workflow.



#### Trust point

Patient Centered Ventilation: Precision in an anesthesia ventilator, from conventional ventilation to advanced modes and adapt to wide range patient.

Safety design: Vaporizer with temperature, pressure, flow compensation and self-lock function.

Real time pressure-time, flow-time loop Oscillogram and high precision ETCO2, O2 concentration detection function included.

Alarm: Three level alarm system, visual and sound alarm information.

Power: Built-in battery ensure 2-3 hours using when power failure.

Separate design of electric circuit and gas circuit ensure long using life.

Flexible configurations able to customize your requirements.



## **Optional part 1**

Anesthetic gas monitor, Vital Signs Monitor: Real-time monitoring of anesthetic gas and patient's physiological condition.



## **Optional part 2**

AGSS: To enhance the safety of the environment in which members of staff in close proximity with waste anesthetic gases and vapors (agents) work

#### TECHNICAL SPECIFICATION

#### Ventilation mode

IPPV, A/C, PVC, PSV, SIMV, SIGH, MANUAL

#### Ventilator Parameter Range

Flow meter:	O <sub>2</sub> (0.1 ~ 10 L/min)
	N <sub>2</sub> O (0.1 ~ 10 L/min)
	AIR (0.1 ~ 10 L/min)

Rapid oxygen supply: 25 L/min ~ 75 L/min

<u>Tidal volume (Vt):</u> 0, 20 mL ~ 1500 mL

Frequence (Freq): 1 /min ~ 100 /min

<u>I:E:</u> 4: 1 ~ 1: 8

PEEP:  $0 \text{ cmH}_2\text{O} \sim 30 \text{ cmH}_2\text{O}$ 

Pressure triggering sensitivity (PTr): -20 cmH2O ~ 0 cmH2O (Based on PEEP)

Flow trigger sensitivity (FTr): 0.5 L/min ~ 30 L/min

Pressure control (PC): 5 cmH2O ~ 60 cmH2O

SIGH: 0 (off) 1/100 ~ 5/100

Apnea Ventilation: OFF, 5 s ~ 60 s

Pressure Limit: 20 cmH2O ~ 100 cmH2O

Monitoring parameter

Frequency (Freq): 0/min~100/min

Tidal volume (Vt): 0 mL ~ 2000 mL

MV: 0 L/min ~ 100 L/min

Oxygen concentration: 15 % ~ 100 %

#### Oscillogram

P-T (pressure – time)

F-T (flow - time)

V-T (volume – time )

ETCO<sub>2</sub> -T (ETCO<sub>2</sub> - time)

P-V loop (pressure - volume loop)

#### Alarm and protection

The AC power failure alarm: Power failure or no connection

Internal battery backup low voltage alarm: < 11.3 ± 0.3 V

No tidal volume:  $\leq 5$  mL within 6 s

High oxygen concentration alarm: 19% ~ 100%

Low oxygen concentration alarm: 18% ~ 99%

High Airway pressure alarm:  $20 \text{ cmH}_2\text{O} \sim 100 \text{ cmH}_2\text{O}$ 

<u>Low Airway pressure alarm: 0 cmH<sub>2</sub>O ~ 20 cmH<sub>2</sub>O</u>

High Minute Volume alarm: Adult (5 L/min ~ 20 L/min)

Low Minute Volume alarm: Paed (1 L/min ~ 15 L/min, 0 ~ 10 L/min)

Continuous Pressure alarm: (PEEP+1.5 kPa) over 16s

<u>Suffocation warning:</u> 5 s ~ 60 s no spontaneous ventilation

The maximum limited pressure: <12.5 kPa

Fan error: Show on screen

Oxygen deficit: Show on screen

## Working condition

Gas source: O<sub>2</sub>, N<sub>2</sub>O, Air

Pressure: 280 kPa ~ 600 kPa

<u>Voltage:</u> 100 ~ 240 V

Power frequency: 50/60 Hz

## Packing size

Wooden case packing size: L 870 \* W 890 \* H 1510 mm - G.W.: 195 kg

<u>CBM: 1.17 m<sup>3</sup></u>

<u>Anesthesia machine size: L 930 \* W 750 \* H 1405 mm - N.W.: 124 KGS</u>





Breathing circuit

APL valve



Flowmeter



Breathing tube



Pressure Gauge



12" touch screen display







#### ANESTHETIC MONITOR OPTIONAL AG5S

Technical Specification:

Sample Rate: 50mL/min, ±10mL/min

Operation method: Non-dispersive infrared(NDIR), no moving parts

Initialization Time: 20 sec, full speci\_cation within 60 sec

Calibration: No routine user calibration required

Compensation: Automatic for atmospheric pressure, temperature

Rise Time: Co2<200ms, N2O, AA<350ms

Respiratory Rate: Range 3~150BMP Accuracy±1BMP

Breath Detect: Adaptive threshold, minimum 1% 2 value change

Agent Threshold Agent: 0.15%

Gases Accuracy:

Co2: 0-10%  $\pm$ (0.2 vol% +2% of reading) 10-15%  $\pm$ (0.3 vol% +2% of reading) N2O: 0-100%  $\pm$ (2 vol% +2% of reading) ISO: 0-6%  $\pm$ (0.2 vol% +2% of reading) ENF: 0-6%  $\pm$ (0.2 vol% +2% of reading) SEV : 0-8%  $\pm$ (0.2 vol% +2% of reading)

Temperature & Humidity:

Operating: 0°C to 40°C, 10 to 90%RH, no-condensing

