

# ELK-S9930T/S9940T, S9030, 59130, 59125, 59600 NON-INVASIVE VENTILATOR







**ELK-S9030** 



**ELK-S9130** 



**ELK-S9125** 



# ELK-S9930T/S9940T

# Non-invasive Ventilator

## Application

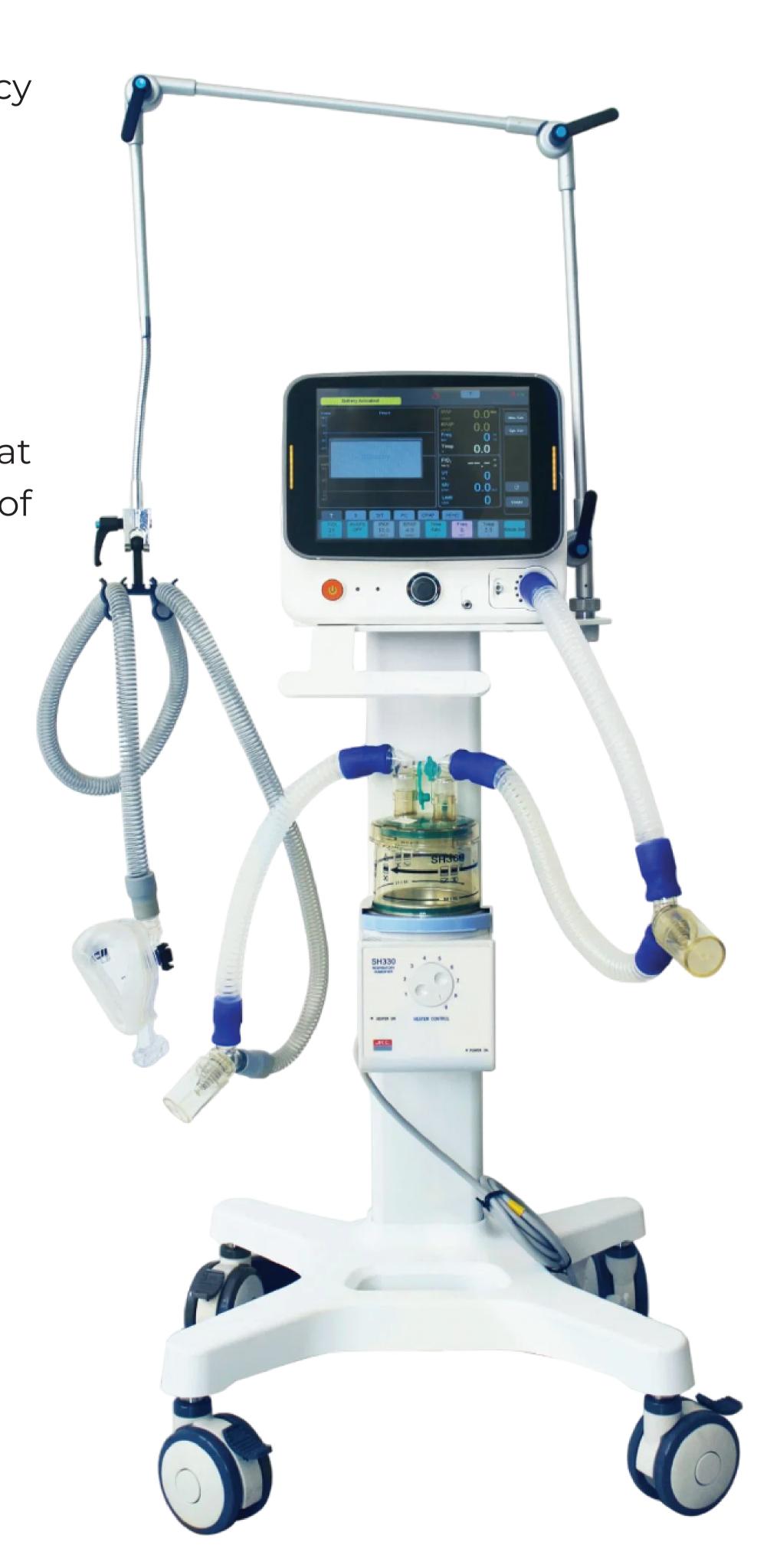
The Non-invasive ventilator is used to provide Non-invasive ventilation support to treat adult patients and pediatric patients with respiratory insufficiency. It is suitable for both home use and hospital use.





#### **Features**

- 10.4-inch TFT LCD touch screen, display breathing parameters, alarm information and waveforms.
- It is suitable for non-invasive ventilation patients with respiratory insufficiency and can be used in home and medical environments.
- High-performance in-built turbine.
- Trolley facilitates the transfer between hospital beds.
- The humidifier heats and humidifies the inhaled gas to improve comfort, and at the same time effectively prevent the complications caused by the formation of obstructions caused by airway drying.
- Lithium battery, capacity 2850mAh, can work independently for ≥3 hours.
- Low pressure oxygen can be connected externally.
- Noise ≤45dB(A) at 10cmH<sub>2</sub>O pressure level.



# TECHNICAL SPECIFICATION

#### **Ventilation Mode**

S/TTSCPAPPCHFNCAUTOAVAPS

#### Ventilator Parameter Range

**AVPAS** 

ON/OFF

Tidal Volume

200 mL~1500 mL Increment: 10 mL

Respiratory rate

3 bpm~40 bpm Increment: 1 bpm

Inspiratory time
0.0, 0.5 S~3.0 S
Increment: 0.1 S

**Inspiratory Pressure (IPAP)** 

S9940T:  $4 \text{ cmH}_2\text{O} \sim 40 \text{ cmH}_2\text{O}$ ) S9930T:  $4 \text{ cmH}_2\text{O} \sim 30 \text{ cmH}_2\text{O}$ )

Increment: 0.5 cmH<sub>2</sub>O

Maximum Inspiratory Pressure (IPAPMAX)

S9940T:  $4 \text{ cmH}_2\text{O} \sim 40 \text{ cmH}_2\text{O}$ ) S9930T:  $4 \text{ cmH}_2\text{O} \sim 30 \text{ cmH}_2\text{O}$ )

Increment: 0.5 cmH<sub>2</sub>O

Minimum Inspiratory Pressure (IPAPMAX)

S9940T:  $4 \text{ cmH}_2\text{O} \sim 39.5 \text{ cmH}_2\text{O}$ S9930T:  $4 \text{ cmH}_2\text{O} \sim 29.5 \text{ cmH}_2\text{O}$ 

Increment: 0.5 cmH<sub>2</sub>O

**Expiratory Pressure (EPAP)** 

S9940T:  $4 \text{ cmH}_2\text{O}\sim35 \text{ cmH}_2\text{O}$ ) S9930T:  $4 \text{ cmH}_2\text{O}\sim25 \text{ cmH}_2\text{O}$ )

Increment: 0.5 cmH<sub>2</sub>O

Continuous positive airway pressure (CPAP)

4cmH<sub>2</sub>O~20 cmH<sub>2</sub>O Increment: 0.5 cmH<sub>2</sub>O Pressure delay rise time

0 ~ 60 min

Increment: 1min

Pressure rise time

automatic adjustment, 0.1 S~0.6 S

Increment: 0.1 S

Oscillogram

P-T(Pressure-Time)

F-T(Flow-Time

Inspiratory sensitivity

Adjusting range: automatic adjustment, 1, 2, 3 Increment: 1

**Exhalation Sensitivity** 

Adjusting range:Auto Adjust, 1, 2, 3

Increment: 1

Comfort

Adjusting range: Off, 1, 2, 3

Increment: 1

**Auto Function** 

On/Off

**Pressure Limits** 

S9940T

S, T, S/T, PC mode:  $10 \text{ cmH}_2\text{O}\sim40 \text{ cmH}_2\text{O}$ 

Increment: 0.5 cmH<sub>2</sub>O

CPAP mode: 10 cmH<sub>2</sub>O~20 cmH<sub>2</sub>O

Increment: 0.5 cmH<sub>2</sub>O

S9930T

S, T, S/T, PC mode:  $10 \text{ cmH}_2\text{O}\sim 30 \text{ cmH}_2\text{O}$ 

Increment: 0.5 cmH<sub>2</sub>O

CPAP mode:  $10 \text{ cmH}_2\text{O}\sim20 \text{ cmH}_2\text{O}$ 

Increment: 0.5 cmH<sub>2</sub>O

### **Monitoring Parameter**

Frequency (Freq)

0 ~ 100 bpm Resolution: 1 bpm

Tidal Volume (VT)

0 ~ 2000 mL Resolution: 1 mL

Minute ventilation volume (MV)

0 to 99 L/min Resolution: 0.1L/min when ≥10 L/min; 0.1L/min when <10 L/min 0.01L/min

• • •

Inspiratory time (Time)

0.0 ~ 3.0 S Resolution: 0.1S

Respiratory pressure

0 ~ 40 cmH<sub>2</sub>O Resolution: 0.1 cmH<sub>2</sub>O

S9940T: 0 cmH<sub>2</sub>O~50 cmH<sub>2</sub>O

Increment: 0.1 cmH<sub>2</sub>O

S9930T: 0 cmH<sub>2</sub>O $\sim$ 40 cmH<sub>2</sub>O

Increment: 0.1 cmH<sub>2</sub>O

#### **Packing Size**

Main components: L 550 \* W 380 \* H 400 mm

G.W.: 11 KG N.W.: 5.7 KG

Trolley: L 900 \* W 680 \* H 300 mm

G.W.: 23 KG N.W.: 13.5 KG

#### **Alarm and Protection**

Apnea alarm

Apnea time lasts for 10s (±2s), and there is no exhalation

Breathing circuit disconnection alarm

when the breathing circuit is disconnected and lasts for 16 s (±1s)

Low ventilation volume alarm

Range: Off, 0.5 L/min~15 L/min

High Frequence Alarm

Range: Off, 2 bpm ~ 99 bpm

Low Frequence Alarm

Range: Off, 1 bpm ~ 60 bpm

Airway high pressure alarm(Range)

S9940T:S, T, S/T, PC mode:

 $10 \text{ cmH}_2\text{O} \sim 40 \text{ cmH}_2\text{O}$ 

CPAP mode: 10 cmH<sub>2</sub>O~20 cmH<sub>2</sub>O

S9930T:S, T, S/T, PC mode: 10 cmH<sub>2</sub>O ~ 30 cmH<sub>2</sub>O

CPAP mode: 10 cmH<sub>2</sub>O~20 cmH<sub>2</sub>O

Low tidal volume alarm

Under AVAPS ventilation mode

High oxygen concentration alarm

range: 19 Vol.% ~ 100 Vol.%

Low oxygen concentration alarm

range: 18 Vol.% ~ 99 Vol.%

Equipment high temperature alarm

when the fan temperature is greater than 90°C (±10°C)

Low Oxygen supply pressure Alarm

when O₂ input pressure ≤ 280kPa

High Oxygen supply pressure Alarm

when O2 input pressure > 600kPa

## **Working Condition**

Power supply

100 V - 240 V, 50/60 HZ, 2.5 A MAX

DC power supply

24 V (-15 % ~ +25 %), 3.33A (adapter) (not provided)

Internal power supply

18.5V, 2850MAH

Environment temperature range

+5°C+40°C

Humidity range

10 to 95 %

Pressure Range

60kPa ∼ 110kPa

# ELK-S9030 Duo-level

# Non-invasive Ventilator

3.5 TFT LCD screen displays the Ventilation parameters and alarming information.

How to Fight COVID-19 with S9030 Portable Ventilator High-flow nasal catheter oxygen therapy or non-invasive mechanical ventilation:

When the patients have the problem of respiratory distress and or hypoxemia can't believed after receiving standard oxygen therapy, then the high-flow nasal catheter oxygen therapy or non-invasive ventilation can be considered. If the condition can't be improved or worsened within the short time (1-2 hours), the tracheal intubation and invasive mechanical ventilation should be performed in time.

#### **Feature and Trust Point**

- 3.5 inch LCD screen displays the ventilation parameters and alarm information.
- Multiple working modes:CPAP, S, S/T, T, PC adapt to wide range patient.
- Integration breathing circuit design ensures easy operating and keeps tidy.
- Shutting down machine is not required while refilling water into humidifier
- Over 10000 units are installed in the world every year.
- 23 years of professional production experience to ensure product quality.
- Easy to move, carry and use





# SPECIFICATION

#### Ventilation Mode

CPAP, S, T, S/T PC AVAPS AUTO		
Frequence	Adjusting range: 3-40bpm	
	Increment: 1/min	
Tidal Volume	200ml-1500ml	
Inspiration time	Adjusting range: 0-3s	
	Increment: 0.1s	
IPAP	Adjusting range: 4cmH <sub>2</sub> O-30cmH <sub>2</sub> O	
	Increment: 0.5cmH2O	
EPAP	Adjusting range: 4cmH <sub>2</sub> O-25cmH <sub>2</sub> O	
	Increment: 0.5cmH2O	
CPAP	Adjusting range: 4cmH2O-20cmH2O	
	Increment: 0.5cmH <sub>2</sub> O	
Ramp time	Adjusting range: 0-60min	
	Increment: 1min	
Rise time	Adjusting range: 0.1s-0.5s	
	Increment: 0.1s	
Inspiration trigger	Adjusting range: auto adjusting, 1-3	
	Increment: 1	
Expiration trigger	Adjusting range: auto adjusting, 1-3	
	Increment: 1	
Flex	Adjusting range: OFF, 1-3	
	Increment: 1	
Humidifier	Adjusting range: 0-5	
	Increment: 1	
Pressure limit	20cmH <sub>2</sub> 0-35cmH <sub>2</sub> O	

## **Using Condition**

Storage conditions	20°C - +60°C
Relative humidity	15%-95%
Atmosphere pressure	500hPa-1060hPa

# Oscillogram

Airway pressure histogram

# **Monitoring Parameter**

Frequence	$0 \text{ bpm} \sim 100 \text{ bpm}$
Tidal volume	$0  \text{mL} \sim 2000  \text{mL}$
Minute Volume	0 L/min ~ 99 L/min
Inspiration Time	$0.0 s \sim 3.0 s$
IPAP	$0 \text{ cmH}_2\text{O} \sim 40 \text{ cmH}_2\text{O}$
EPAP	$0 \text{ cmH}_2\text{O} \sim 40 \text{ cmH}_2\text{O}$
CPAP	$0 \text{ cmH}_2\text{O} \sim 40 \text{ cmH}_2\text{O}$

#### **Alarm and Protection**

Low ventilation	0-15L/min
High airway pressure	20cmH <sub>2</sub> O-30cmH <sub>2</sub> O
High frequency	1/min-99/min
Low frequency	1/min-60/min
Suffocation warning	8s-12s no spontaneous
	ventilation
The maximum limited pressure	<12.5 kPa
Pipe detached	Pipe detached 16s

# **Working Condition**

Environmental temperature	5°C-35°C
Relative humidity	15%-95%
Atmosphere pressure	830hPa-1060hPa

# **Carton Packing Size**

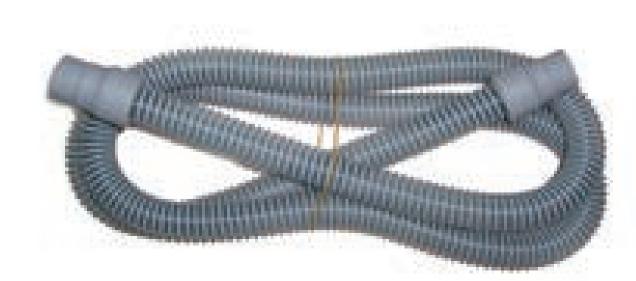
Main engine	L 345*W 300*H 295mm
G.W.:4.34KG	N.W.:1.96KG
Humidifier	L 205*W 200*H 335mm
G.W.:2.5KG	N.W.:2.25KG
Trolley	L 700*W 515*H 165mm
G.W.:8.7KG	N.W.:7.32KG







Humidifier



Breathing tube



Mask



# ELK-S9130 Non-invasive Ventilator

# Portable Ventilator Expert for COVID-19

# Feature and trust point

- 3.5 inch LCD screen displays the ventilation parameters and alarm information.
- Multiple working modes: CPAP, S, S/T, T adapt to wide range patient.
- Integration breathing circuit design ensures easy operating and keeps tidy.
- Shuting down is not required while refilling water.
- Over 10000 units are installed in the world every year.
- Simplicity: Portable and friendly use.

#### Suitable patient

respiratory tract stenosis.

The Non-invasive Ventilator makes a good performance in sleep center, home and altheradepartments the fire departments and the fire departments are the fire departments are the fire departments and the fire departments are the fire departments are the fire departments are the fire departments are the fire departments and the fire departments are the fired departments are the high to low acuity, simple to complex cases, adult to geriatric patients. Our Non-invasive Ventilator offer you the choices you need in ventilation, monitoring and technique. What 's more, outsiexpertiser, inulveration his has been sed on rich 23-year history of developing anesthesia solutions that meet your needs. Congenital short jaw snorers (small chin) lead to the upper

- All snoring (snoring) accompanied by sleep apnea, suffocation, stopped breathing, low ventilation, oxygen, and low blood oxygen
- All patients who get medical monitoring and diagnosis that suffering from slight to severe obstructive sleep apnea syndrome.



Main Body

associated with a decrease in blood oxy oxygen desaturation gives an overall sl evaluates both the number of sleep of oxygen desaturation (low oxygen level i The AHI is calculated by dividing the ne number of hours of sleep.

index used to indicate the severity of sle

the number of apnea and hypopnea e

apneas (pauses in breathing) must last

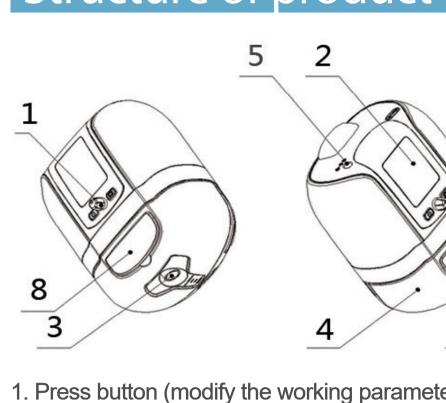
Normal: AHI<5 Mild sleep apnea: 5≤AHI<15 Moderate sleep apnea: 15≤AHI<30

Severe sleep apnea: AHI≥30

1 is considered abnormal.

## Structure of product

For children, because of their different p



- 2. Display screen (display system setting, 3. Inspiratory port (connect 1.8m breathing
- humidifier
- 5. DC power port (connect 24V DC power) 6. Filter control and air inlet
- 7. Label of equipment
- 8. Cap of the humidifier



- 4.3 inch color LCD screen displays the Ventilation parameters and alarming information. 15.6 inch 90 degrees rotates screen is optional.
- Integrate breathing circuit design, ensure easy operating and keep tidy.
- Multiple working modes such as volume control and pressure limitation, adapt to wide range patient.
- Multiple parameters monitoring interface, make every parameter clear, let users know the patient conditions in all aspects.
- Optimized design and fine manufacture, cooperating sound absorption composite, unique super mute design.
- Unique shuttle knob design, easy to operate and use in house.
- No need to add water by stopping the machine, very easy to use.
- With battery support at least one hour.
- With trolley for flexible moving.
- With medical humidifier for more accurate temperature control and comfortable breathing.

# TECHNICAL SPECIFICATION

#### **Ventilation Mode**

CPAP, S, T, S/T, PC, AVAPS, AUTO

#### Parameter

Frequence	Adjusting range: 3/min ~ 40/min
	Increment: 1/min
Tidal Volume	200 ~ 1500 ml
Inspiration time	Adjusting range: 0 ~ 3 s
	Increment: 0.1 s
IPAP	Adjusting range: 4 cmH <sub>2</sub> O ~ 30 cmH <sub>2</sub> O
	Increment: 0.5 cmH <sub>2</sub> O
EPAP	Adjusting range: 4 cmH <sub>2</sub> O ~ 25 cmH <sub>2</sub> O
	Increment: 0.5 cmH <sub>2</sub> O
CPAP	Adjusting range: 4 cmH <sub>2</sub> O ~ 20 cmH <sub>2</sub> O
	Increment: 0.5 cmH <sub>2</sub> O
Ramp time	Adjusting range: 0 ~ 60 min
	Increment: 1 min
Rise time	Adjusting range: 0.1 s ~ 0.6 s
	Increment: 0.1 s
Inspiration trigger	Adjusting range: auto adjusting, 1 ~ 3
	Increment: 1
Expiration trigger	Adjusting range: auto adjusting, 1 ~ 3
	Increment: 1
Flex	Adjusting range: OFF, 1 ~ 3
	Increment: 1
Humidifier	Adjusting range: 0 ~ 5
	Increment: 1
Pressure limit	20 ~ 35 cmH <sub>2</sub> O

# **Using Condition**

Storage conditions	-20°C - +60°C
Relative humidity	15%-95%
Atmosphere pressure	500hPa-1060hPa

# Oscillogram

Airway pressure - time Flow - time

# **Monitoring Parameter**

Frequence	$0 \text{ bpm} \sim 100 \text{ bpm}$
Tidal volume	$0  \text{mL} \sim 2000  \text{mL}$
Minute Volume	0 L/min ~ 99 L/min
Inspiration Time	$0.0 s \sim 3.0 s$
IPAP	$0 \sim 40 \text{ cmH}_2\text{O}$
EPAP	$0 \sim 40 \text{ cmH}_2\text{O}$
CPAP	$4 \sim 20 \text{ cmH}_2\text{O}$

#### **Alarm and Protection**

Low ventilation	0-15L/min
High airway pressure	20cmH <sub>2</sub> O-30cmH <sub>2</sub> O
High frequency	1/min-99/min
Low frequency	1/min-60/min
Suffocation warning	8s-12s no spontaneous
	ventilation
The maximum limited pressure	<12.5 kPa
Pipe detached	Pipe detached 16s
Pipe detached  Power failure alarm	Pipe detached 16s Low tidal volume

# **Working Condition**

Environmental temperature	5°C-35°C
Relative humidity	15%-95%
Atmosphere pressure	830hPa-1060hPa

# ELK-S9125 Non-invasive Ventilator

# Portable Ventilator Expert for COVID-19

The Non-invasive Ventilator makes a good performance in sleep center, home and other departments. From high to low acuity, simple to complex cases, adult to geriatric patients. Our Non-invasive Ventilator offer you the choices you need in ventilation, monitoring and technique. What 's more, our expertise in ventilation is based on anesthesia solutions that meet your needs.





Main Body

#### **Feature**

- 4.3 inch color LCD screen displays the Ventilation parameters and alarming information. 15.6 inch 90 degrees rotates screen is optional.
- Integrate breathing circuit design, ensure easy operating and keep tidy.
- Multiple working modes such as volume control and pressure limitation, adapt to wide range patient.
- Multiple parameters monitoring interface, make every parameter clear, let users know the patient conditions in all aspects.
- Optimized design and fine manufacture, cooperating sound absorption composite, unique super mute design.
- Unique shuttle knob design, easy to operate and use in house.
- No need to add water by stopping the machine, very easy to use.
- With battery support at least one hour.
- With trolley for flexible moving.
- With medical humidifier for more accurate temperature control and comfortable breathing.

# TECHNICAL SPECIFICATION

#### Ventilation Mode

CPAP, S, T, S/T, PC, AVAPS, AUTO

#### Parameter

Frequence	Adjusting range: 3/min ~ 40/min
	Increment: 1/min
Tidal Volume	200 ~ 1500 ml
Inspiration time	Adjusting range: 0 ~ 3 s
	Increment: 0.1 s
IPAP	Adjusting range: 4 cmH <sub>2</sub> O ~ 25 cmH <sub>2</sub> O
	Increment: 0.5 cmH <sub>2</sub> O
EPAP	Adjusting range: 4 cmH <sub>2</sub> O ~ 25 cmH <sub>2</sub> O
	Increment: 0.5 cmH <sub>2</sub> O
CPAP	Adjusting range: 4 cmH <sub>2</sub> O ~ 20 cmH <sub>2</sub> O
	Increment: 0.5 cmH <sub>2</sub> O
Ramp time	Adjusting range: 0 ~ 60 min
	Increment: 1 min
Rise time	Adjusting range: 0.1 s ~ 0.6 s
	Increment: 0.1 s
Inspiration trigger	Adjusting range: auto adjusting, 1 ~ 3
	Increment: 1
Expiration trigger	Adjusting range: auto adjusting, 1 ~ 3
	Increment: 1
Flex	Adjusting range: OFF, 1 ~ 3
	Increment: 1
Humidifier	Adjusting range: 0 ~ 5
	Increment: 1
Pressure limit	20 ~ 35 cmH <sub>2</sub> O

# **Using Condition**

Storage conditions	-20°C - +60°C
Relative humidity	15%-95%
Atmosphere pressure	500hPa-1060hPa

# Oscillogram

Airway pressure - time

Flow - time

# **Monitoring Parameter**

Frequence	$0 \text{ bpm} \sim 100 \text{ bpm}$
Tidal volume	$0  \text{mL} \sim 2000  \text{mL}$
Minute Volume	0 L/min ~ 99 L/min
Inspiration Time	$0.0 s \sim 3.0 s$
IPAP	$0 \sim 40 \text{ cmH}_20$
EPAP	$0 \sim 40 \text{ cmH}_2\text{O}$
CPAP	$4 \sim 20 \text{ cmH}_2\text{O}$

#### **Alarm and Protection**

Low ventilation	0-15L/min
High airway pressure	20cmH <sub>2</sub> O-30cmH <sub>2</sub> O
High frequency	1/min-99/min
Low frequency	1/min-60/min
Suffocation warning	8s-12s no spontaneous
	ventilation
The maximum limited pressure	
The maximum limited pressure Pipe detached	
	<12.5 kPa

# **Working Condition**

Environmental temperature	5°C-35°C
Relative humidity	15%-95%
Atmosphere pressure	830hPa-1060hPa

# ELK-S9600 Sleep Therapy System

# Non-invasive Ventilator

## **Application**

The Bipap System makes a good performance in sleep center, home and other departments. From high to low acuity, simple to complex cases, adult to geriatric patients, Superstar Medical Bipap System offers you the choices you need in ventilation, monitoring and technique.

#### **Features and Trust Point**

- 3.5 inch LCD screen displays the ventilation parameters and alarm information.
- Multiple working modes: CPAP, S, S/T, T adapt to wide range patient.
- Integration breathing circuit design ensures easy operating and keeps tidy.
- Shuting down is not required while refilling water.
- Over 10000 units are installed in the world every year. Simplicity: Portable and friendly use.

#### **Suitable Patient**

- Simple obesity causes respiratory tract (nose and throat) stenosis snorers.
- Chronic rhinitis, pharyngitis, turbinate hypertrophy, septum bends, tongue root hypertrophy, uvula hypertrophy, tonsil hypertrophy, pharynx hypertrophy cause upper respiratory tract stenosis snorers.
- Congenital short jaw snorers (small chin) lead to the upper respiratory tract stenosis.
- All snoring (snoring) accompanied by sleep apnea, suffocation, stopped breathing, low ventilation, oxygen, and low blood oxygen content.
- All patients who get medical monitoring and diagnosis that suffering from slight to severe obstructive sleep apnea syndrome.



### **Health Tip**

The Apnea-Hypopnea Index or Apnoea-Hypopnoea Index (AHI) is an index used to indicate the severity of sleep apnea. It is represented by the number of apnea and hypopnea events per hour of sleep. The apneas (pauses in breathing) must last for at least 10 seconds and be associated with a decrease in blood oxygenation. Combining AHI and oxygen desaturation gives an overall sleep apnea severity score that evaluates both the number of sleep disruptions and the degree of oxygen desaturation (low oxygen level in the blood).

The AHI is calculated by dividing the number of apnea events by the number of hours of sleep.

Normal: AHI<5

Mild sleep apnea: 5≤AHI<15

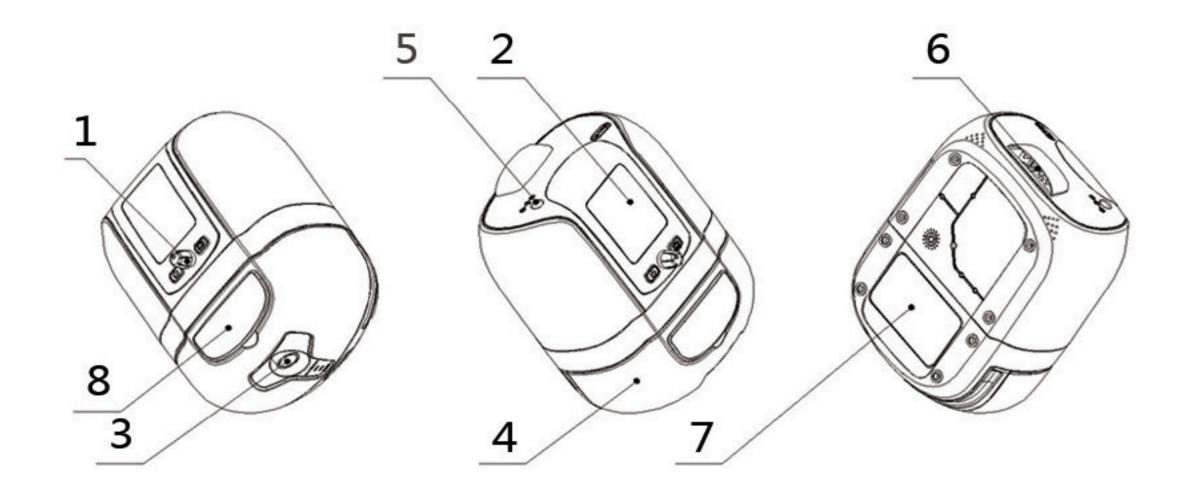
Moderate sleep apnea: 15≤AHI<30

Severe sleep apnea: AHI≥30

For children, because of their different physiology, an AHI in

excess of 1 is considered abnormal.

#### **Structure of Product**



- 1. Press button (modify the working parameter ang control the working status)
- 2. Display screen (display system setting, monitoring parameter, waveform,

alarm an etc.)

- 3. Inspiratory port (connect 1.8m breathing pipe), display the water level of humidifier
- 4. Humidifier
- 5. DC power port (connect 24V DC power)
- 6. Filter control and air inlet
- 7. Label of equipment
- 8. Cap of the humidifier

# SPECIFICATION

#### **Ventilation Mode**

Frequence Adjusting range: 3/min-40/min Increment: 1/min  Inspiration time Adjusting range: 0-3s Increment: 0.1s  IPAP Adjusting range: 4cmH2O-25cmH2O Increment: 0.5cmH2O  EPAP Adjusting range: 4cmH2O-20cmH2O Increment: 0.5cmH2O  CPAP Adjusting range: 4cmH2O-20cmH2O Increment: 0.5cmH2O  Ramp time Adjusting range: 0-60min Increment: 1min  Rise time Adjusting range: 0.1s-0.6s Increment: 0.1s  Inspiration trigger Adjusting range: auto adjusting, 1-3 Increment: 1  Expiration trigger Adjusting range: OFF, 1-3 Increment: 1  Flex Adjusting range: 0-5 Increment: 1  Pressure Limit O-30cmH2O	CPAP, S, T, S/T	
Inspiration time  Adjusting range: 0-3s Increment: 0.1s  Adjusting range: 4cmH2O-25cmH2O Increment: 0.5cmH2O  EPAP  Adjusting range: 4cmH2O-20cmH2O Increment: 0.5cmH2O  CPAP  Adjusting range: 4cmH2O-20cmH2O Increment: 0.5cmH2O  Ramp time  Adjusting range: 0-60min Increment: 1min  Rise time  Adjusting range: 0.1s-0.6s Increment: 0.1s  Inspiration trigger  Adjusting range: auto adjusting, 1-3 Increment: 1  Expiration trigger  Adjusting range: auto adjusting, 1-3 Increment: 1  Flex  Adjusting range: OFF, 1-3 Increment: 1  Humidifier  Adjusting range: 0-5 Increment: 1	Frequence	Adjusting range: 3/min-40/min
Increment: 0.1s  IPAP  Adjusting range: 4cmH <sub>2</sub> O-25cmH <sub>2</sub> O  Increment: 0.5cmH <sub>2</sub> O  EPAP  Adjusting range: 4cmH <sub>2</sub> O-20cmH <sub>2</sub> O  Increment: 0.5cmH <sub>2</sub> O  CPAP  Adjusting range: 4cmH <sub>2</sub> O-20cmH <sub>2</sub> O  Increment: 0.5cmH <sub>2</sub> O  Ramp time  Adjusting range: 0-60min  Increment: 1min  Rise time  Adjusting range: 0.1s-0.6s  Increment: 0.1s  Inspiration trigger  Adjusting range: auto adjusting, 1-3  Increment: 1  Expiration trigger  Adjusting range: auto adjusting, 1-3  Increment: 1  Flex  Adjusting range: OFF, 1-3  Increment: 1  Humidifier  Adjusting range: 0-5  Increment: 1		Increment: 1/min
IPAP  Adjusting range: 4cmH <sub>2</sub> O-25cmH <sub>2</sub> O  Increment: 0.5cmH <sub>2</sub> O  EPAP  Adjusting range: 4cmH <sub>2</sub> O-20cmH <sub>2</sub> O  Increment: 0.5cmH <sub>2</sub> O  CPAP  Adjusting range: 4cmH <sub>2</sub> O-20cmH <sub>2</sub> O  Increment: 0.5cmH <sub>2</sub> O  Ramp time  Adjusting range: 0-60min  Increment: 1min  Rise time  Adjusting range: 0.1s-0.6s  Increment: 0.1s  Inspiration trigger  Adjusting range: auto adjusting, 1-3  Increment: 1  Expiration trigger  Adjusting range: auto adjusting, 1-3  Increment: 1  Flex  Adjusting range: OFF, 1-3  Increment: 1  Humidifier  Adjusting range: 0-5  Increment: 1	Inspiration time	Adjusting range: 0-3s
Increment: 0.5cmH2O  EPAP Adjusting range: 4cmH2O-20cmH2O Increment: 0.5cmH2O  CPAP Adjusting range: 4cmH2O-20cmH2O Increment: 0.5cmH2O  Ramp time Adjusting range: 0-60min Increment: 1min  Rise time Adjusting range: 0.1s-0.6s Increment: 0.1s  Inspiration trigger Adjusting range: auto adjusting, 1-3 Increment: 1  Expiration trigger Adjusting range: auto adjusting, 1-3 Increment: 1  Flex Adjusting range: OFF, 1-3 Increment: 1  Humidifier Adjusting range: 0-5 Increment: 1		Increment: 0.1s
EPAP  Adjusting range: 4cmH <sub>2</sub> O-20cmH <sub>2</sub> O  Increment: 0.5cmH <sub>2</sub> O  CPAP  Adjusting range: 4cmH <sub>2</sub> O-20cmH <sub>2</sub> O  Increment: 0.5cmH <sub>2</sub> O  Ramp time  Adjusting range: 0-60min  Increment: 1min  Rise time  Adjusting range: 0.1s-0.6s  Increment: 0.1s  Inspiration trigger  Adjusting range: auto adjusting, 1-3  Increment: 1  Expiration trigger  Adjusting range: auto adjusting, 1-3  Increment: 1  Flex  Adjusting range: OFF, 1-3  Increment: 1  Humidifier  Adjusting range: 0-5  Increment: 1	IPAP	Adjusting range: 4cmH <sub>2</sub> O-25cmH <sub>2</sub> O
Increment: 0.5cmH <sub>2</sub> O  CPAP  Adjusting range: 4cmH <sub>2</sub> O-20cmH <sub>2</sub> O  Increment: 0.5cmH <sub>2</sub> O  Ramp time  Adjusting range: 0-60min  Increment: 1min  Rise time  Adjusting range: 0.1s-0.6s  Increment: 0.1s  Inspiration trigger  Adjusting range: auto adjusting, 1-3  Increment: 1  Expiration trigger  Adjusting range: auto adjusting, 1-3  Increment: 1  Flex  Adjusting range: OFF, 1-3  Increment: 1  Humidifier  Adjusting range: 0-5  Increment: 1		Increment: 0.5cmH <sub>2</sub> O
CPAP  Adjusting range: 4cmH <sub>2</sub> O-20cmH <sub>2</sub> O Increment: 0.5cmH <sub>2</sub> O  Ramp time  Adjusting range: 0-60min Increment: 1min  Rise time  Adjusting range: 0.1s-0.6s Increment: 0.1s  Inspiration trigger  Adjusting range: auto adjusting, 1-3 Increment: 1  Expiration trigger  Adjusting range: auto adjusting, 1-3 Increment: 1  Flex  Adjusting range: OFF, 1-3 Increment: 1  Humidifier  Adjusting range: 0-5 Increment: 1	EPAP	Adjusting range: 4cmH <sub>2</sub> O-20cmH <sub>2</sub> O
Increment: 0.5cmH <sub>2</sub> O  Ramp time  Adjusting range: 0-60min Increment: 1min  Rise time  Adjusting range: 0.1s-0.6s Increment: 0.1s  Inspiration trigger  Adjusting range: auto adjusting, 1-3 Increment: 1  Expiration trigger  Adjusting range: auto adjusting, 1-3 Increment: 1  Flex  Adjusting range: OFF, 1-3 Increment: 1  Humidifier  Adjusting range: 0-5 Increment: 1		Increment: 0.5cmH <sub>2</sub> O
Ramp time Adjusting range: 0-60min Increment: 1min  Rise time Adjusting range: 0.1s-0.6s Increment: 0.1s  Inspiration trigger Adjusting range: auto adjusting, 1-3 Increment: 1  Expiration trigger Adjusting range: auto adjusting, 1-3 Increment: 1  Flex Adjusting range: OFF, 1-3 Increment: 1  Humidifier Adjusting range: 0-5 Increment: 1	CPAP	Adjusting range: 4cmH <sub>2</sub> O-20cmH <sub>2</sub> O
Increment: Imin  Rise time  Adjusting range: 0.1s-0.6s Increment: 0.1s  Inspiration trigger  Adjusting range: auto adjusting, 1-3 Increment: 1  Expiration trigger  Adjusting range: auto adjusting, 1-3 Increment: 1  Flex  Adjusting range: OFF, 1-3 Increment: 1  Humidifier  Adjusting range: 0-5 Increment: 1		Increment: 0.5cmH <sub>2</sub> O
Rise time  Adjusting range: 0.1s-0.6s Increment: 0.1s  Inspiration trigger  Adjusting range: auto adjusting, 1-3 Increment: 1  Expiration trigger  Adjusting range: auto adjusting, 1-3 Increment: 1  Flex  Adjusting range: OFF, 1-3 Increment: 1  Humidifier  Adjusting range: 0-5 Increment: 1	Ramp time	Adjusting range: 0-60min
Increment: 0.1s  Inspiration trigger  Adjusting range: auto adjusting, 1-3 Increment: 1  Expiration trigger  Adjusting range: auto adjusting, 1-3 Increment: 1  Flex  Adjusting range: OFF, 1-3 Increment: 1  Humidifier  Adjusting range: 0-5 Increment: 1		Increment: 1min
Inspiration trigger  Adjusting range: auto adjusting, 1-3 Increment: 1  Expiration trigger  Adjusting range: auto adjusting, 1-3 Increment: 1  Flex  Adjusting range: OFF, 1-3 Increment: 1  Humidifier  Adjusting range: 0-5 Increment: 1	Rise time	Adjusting range: 0.1s-0.6s
Increment: 1  Expiration trigger Adjusting range: auto adjusting, 1-3 Increment: 1  Flex Adjusting range: OFF, 1-3 Increment: 1  Humidifier Adjusting range: 0-5 Increment: 1		Increment: 0.1s
Expiration trigger  Adjusting range: auto adjusting, 1-3 Increment: 1  Adjusting range: OFF, 1-3 Increment: 1  Humidifier  Adjusting range: 0-5 Increment: 1	Inspiration trigger	Adjusting range: auto adjusting, 1-3
Increment: 1  Flex Adjusting range: OFF, 1-3  Increment: 1  Humidifier Adjusting range: 0-5  Increment: 1		Increment: 1
Flex  Adjusting range: OFF, 1-3  Increment: 1  Humidifier  Adjusting range: 0-5  Increment: 1	Expiration trigger	Adjusting range: auto adjusting, 1-3
Increment: 1  Humidifier  Adjusting range: 0-5  Increment: 1		Increment: 1
Humidifier Adjusting range: 0-5 Increment: 1	Flex	Adjusting range: OFF, 1-3
Increment: 1		Increment: 1
	Humidifier	Adjusting range: 0-5
Pressure Limit 0-30cmH <sub>2</sub> O		Increment: 1
	Pressure Limit	0-30cmH <sub>2</sub> O

## Packing Size

Carton packing size	L 285*W 350*H 290mm
G.W.	4.34KG
N.W.	1.96KG

## Oscillogram

Airway pressure histogram

## **Monitoring Parameter**

Frequence	$0 \text{ bpm} \sim 100 \text{ bpm}$
Tidal volume	$0  \text{mL} \sim 3000  \text{mL}$
Minute Volume	0 L/min ~ 99 L/min
Inspiration Time	$0.0 s \sim 3.0 s$
IPAP	$0 \text{ cmH}_2\text{O} \sim 40 \text{ cmH}_2\text{O}$
EPAP	$0 \text{ cmH}_2\text{O} \sim 40 \text{ cmH}_2\text{O}$
CPAP	$0 \text{ cmH}_2\text{O} \sim 40 \text{ cmH}_2\text{O}$

#### **Alarm and Protection**

Low ventilation	0-15L/min
High airway pressure	20cmH <sub>2</sub> O-30cmH <sub>2</sub> O
High frequency	1/min-99/min
Low frequency	1/min-60/min
Suffocation warning	8s-12s no spontaneous
	ventilation
The maximum limited pressure	<12.5 kPa
Pipe detached	Pipe detached 16s

## **Working Condition**

Environmental temperature	5°C-35°C
Relative humidity	15%-95%
Atmosphere pressure	830hPa-1060hPa

## **Using Condition**

Storage conditions	-20°C - +35°C
Relative humidity	15%-95%
Atmosphere pressure	500hPa-1060hPa









