

ANESTHESIA MACHINE HARMONY



Model No. HARMONY ELK-832 T

Use:

Designed for, and suitable for, use in hospital settings with limited resources or in any field or outreach location and is suitable for adult and pediatric patients.

A very thought fully designed machine which is designed and custom-made solution to provide the Doctor confidence and ability to Administer Anesthesia in most Difficult situation with limited Resources of:

- Oxygen
- Electricity
- Long ventilation
- Patient Monitoring system
- Integrated Manual Ventilation all in one in the same machine.

Elektro Harmony has been the most sought-after machine for places away from the easily available Utilites, Medical Camps, Medical Aid, Emergency medical situations

Physical Specification	
Dimensions and Weight	
<i>Height</i>	1336mm
<i>Width</i>	974mm
<i>Depth</i>	6344mm
<i>Weight</i>	130kg
Top Shelf	
<i>Weight Limit</i>	30kg
<i>Width</i>	585mm
<i>Depth</i>	340mm
<i>Brake System</i>	
<i>Caster with brake</i>	4 anti-static Caster with 2 brakes
<i>Screen</i>	
<i>Display Type</i>	10.4 inch TFT LCD
<i>Timer</i>	Display on screen timer
<i>Spirometry Loops</i>	Pressure vs Volume, Flow vs Volume, Flow vs Pressure
<i>Screen Control</i>	Touch screen/mouse control

LED Indication	
<i>AC Power LED</i>	One (green; lit when connected to the power source)
<i>Battery LED</i>	One (yellow; lit when charging the battery, turns off when fully charged)
<i>Alarm Lamp</i>	One (red for high priority alarm, yellow for medium priority alarm, and blue for low priority alarm)
Audio Indication	
<i>Alarm</i>	Alarm sound and key prompt sound support multi-level volume functions; the alarm sound meets the requirements of the IEC 60601-1-8 standard
Interface	
<i>Power supply</i>	One AC main inlet, 3 auxiliary electrical outlets
<i>Communicate</i>	One RS232 interface
Ventilator Specifications	
<i>I:E</i>	10:1 to 1:10
Monitoring Accuracy	
<i>Tidal Volume (Vt)</i>	± (10mL + 10% of the reading)
<i>PEEP</i>	± (2cmH ₂ O or ± 4% of the reading)
<i>Rate</i>	± 1 time/minute, or ± 10% of the monitoring value, whichever is greater
<i>MV</i>	± (1L/min + 15% of the monitoring value)
<i>I:E</i>	The inspiratory/expiratory ratio is expressed as I: E, within the range of 10.0:1 to 1.5:1, the error is ± 15% of I; Within the range of 1:1 to 1:10, the error is ± 15% of E.
Alarm Setting	
<i>FiO₂ high</i>	21%-100%
<i>FiO₂ low</i>	18%-99%

<i>Paw high</i>	2-97 cmH2O
<i>Paw low</i>	1-96 cmH2O
<i>Vte high</i>	20-1500 ml
<i>Vte low</i>	OFF,(10-1490) ml
<i>MV high</i>	0.5-30L/min
<i>MV low</i>	0~10 L/min
<i>Rate high</i>	4-99 /min
<i>Rate low</i>	2-98 /min
<i>Apnea alarm</i>	Adjustment range is 15s to 40s, and the error is \pm 2s
Modes of Ventilation	
<i>Manual/Spontaneous Ventilation/Bypass VCV 、 PCV.MAN</i>	
Ventilation Parameters Range	
<i>Patient type</i>	Adult, Pediatric
<i>Tidal volume</i>	10-1500mL(increments of 10 mL)
<i>Pinsp</i>	5-70cmH2O (increments of 1 cmH2O)
<i>Plimit</i>	10-100cmH2O (increments of 1 cmH2O)
<i>Respiration Rate</i>	4-100bpm(increments of 1 bpm)
<i>I:E</i>	10:1-1:10 (increments of 0.5)
<i>Tpause</i>	0% - 60% (increments of 1%)
<i>Tslope</i>	0.0 - 2.0 s (increments of 0.1 s)
Ventilator Performance	
<i>Driving pressure</i>	280 kPa to 600 kPa
<i>Flow valve range</i>	V'max. 100 L/min
Monitoring Parameters	
<i>Minute volume</i>	0-30L/min
<i>Tidal volume</i>	0-2000mL
<i>Inspired oxygen (FiO2)</i>	18% to100%
<i>Rate</i>	0-100bpm
<i>PEEP</i>	0-60cmH2O
<i>I:E</i>	10:1-1:10

Control Accuracy	
<i>Tidal volume(Vt)</i>	20-1500: $\pm(10\text{mL} + 10\%$ of the set value)
<i>Pinsp</i>	$\pm (2\text{cmH}_2\text{O}$ or $\pm 4\%$ of the set value)
<i>Plimit</i>	$\pm (2\text{cmH}_2\text{O}$ or $\pm 4\%$ of the set value)
<i>PEEP</i>	$\pm (2\text{cmH}_2\text{O}$ or $\pm 4\%$ of the set value)
<i>Rate</i>	± 1 time/minute, or $\pm 10\%$ of the set value, whichever is greater.
Pipeline Supply	
<i>Gas type</i>	O ₂ , N ₂ O and Air
<i>Pipeline input range</i>	280 to 600 kPa (40 to 87 psi)
<i>Pipeline connections</i>	DISS/NIST
Main Electrical Power	
<i>Power input</i>	AC100-240V,Frequency 50/60Hz,6A
Battery Power	
<i>Type</i>	Built-in Li-ion cel 14.4 VDC 6600mAh (Single)
<i>Serving Time</i>	1 cells 120 minutes (new and fully charged)
<i>Charging Time</i>	Less than 8 hours
<i>Backup</i>	Up to 2 hours
Environmental Specifications	
<i>O₂ concentration</i>	Up to 90% O ₂ at 5L/min
<i>Range</i>	18% to 100%
<i>Accuracy</i>	$\pm (2.5\%$ volume percentage+2.5%of gas concentration)
<i>Volume</i>	0.5L to 10L / min
Breathing system connectors	
<i>Operating</i>	
<i>Temperature</i>	10°C~40°C
<i>Relative Humidity</i>	15%-95%, non-condensing
<i>Barometric (Kpa)</i>	70kPa-106.7kPa
Storage	
<i>Temperature</i>	-20°C~55°C

<i>Relative Humidity</i>	10%-95%, non-condensing
<i>Barometric (Kpa)</i>	50kPa-106.7kPa
Interface	
<i>Communication Port</i>	
<i>Power supply</i>	One AC main inlet, 3 auxiliary electrical outlets
<i>Communicate</i>	One RS232 interface
Data Storage	
<i>Patient types</i>	Adult, Child and Infant for each Configuration
<i>Log Storage</i>	1000 sets
<i>Total flow range</i>	0L/min ~ 15L/min

Features

- 1 complete anesthesia trolley with 1 O2 supply tubing
- 1 Support Selecta Tec type
- 1 Halothane Vaporizer
- 1 3-way valve
- 1 supporting arm
- 1 Glass flow rotameters accurate to +/- 2.5%
- 1 set of connections for cylinder, pipeline, and portable oxygen sources
- 1 O2 monitor
- 1 monitor for respiratory parameters
- 1 ventilator
- 1 Oxygen concentrator
- 2 medium oxygen cylinders, mounted on anesthesia trolley
- 1 integrated UPS
- 1 instrument tray
- 1 monitor tray

Alarms

Volume, pressure, breathing, circuit disconnect

Accessories

Adult patient circuits autoclavable, Child patient circuits autoclavable, Anesthesia masks (S,M,L) autoclavable

Consumables

50 air filters (patient circuit)

