



INDIGENOUS LEADING ICU VENTILATOR

 **SynerTek**

LEOS Technology Zone, Nilore, Islamabad

Life Saving System with multiple modes

The ILIVE ventilator has been developed with a strong focus on patient safety and recovery at the core of its design. Its 15.6" full HD capacitive touch screen display has been designed in close collaboration with various medical experts and ventilator practitioners, making it easy to operate. With 7 major modes of operation and advanced synchronization algorithm, ILIVE removes patient-machine asynchrony and enhances patient comfort. ILIVE comes with a 4 hours' battery backup and is Pakistan's first ventilator, approved by the Drug Regulatory Authority of Pakistan (DRAP). Its low cost and local service and maintenance makes it ideal for deployment in Pakistani hospitals. Through its hardware self-test and comprehensive alarm system, the ventilator mitigates risks that can otherwise compromise patient safety.

- **Multi Ventilation Mode**
- **Ease of Use**
- **Touch Screen**
- **Safe & Reliable**
- **Alarms & Alerts**
- **Standard Compliance**
- **Local Services and Support**



No Hypercapnia
No patient discomfort

Ventilation Modes

Continuous Mandatory

PC-MV

VC-MV

Assist Control

PC-AC

VC-AC

Synchronous Intermittent

P-SIMV

V-SIMV

Weaning Mode

Spn-CPAP/PS



Technical Specification

Ventilation Modes:	PC-MV, VC-MV, PC-AC, VC-AC P-SIMV, V-SIMV, Spn-CPAP/PS
Breath rate:	05-35 bpm
Inhale: Exhale:	1:1, 1:2, 1:3 1:7, 2:1, 3:1, 4:1
Pressure range:	05-60 cmH2O
Inspiratory Rise Time:	0-500 ms
Tidal volume:	100 - 1500 ml
FiO2:	21% -100%
PEEP:	0-20 cmH2O
Cycling:	Time, Pressure
Patient Breath Trigger:	Pressure
Apnea Time:	05-60 s
Pressure Support:	0-40 cmH2O
Trigger Sensitivity:	0.5-15 l/min step size of 0.5
Parameters monitoring:	Yes
Alarms:	Audio, Visual
Safety valve:	80 cmH2O
Patient type:	Adult
Setting:	Touch key
Display:	15.6" Full HD Capacitive Touch Screen
Power Input:	220V AC, 50Hz
Battery backup:	Up to 4 Hours
Microbes Filter:	Yes
Self Diagnostic:	Yes

Display parameters

Set Parameters

Ventilation mode, Inhale pressure, Breath rate, Tidal volume, PEEP, FiO2, I:E ratio, Trigger: flow, Cycling, Apnea tidal volume, Apnea breath rate, Apnea time, Flow pattern, Pause time, Rise time, Expiratory trigger, Pressure support.

Achieved Parameters

Plateau Pressure, Peak Pressure, Mean Pressure, PEEP Value, Breath Rate(Total) , Spont. %age, FiO2, Static Compliance, Inspiratory Resistance, Expiratory Resistance, Error Code, Exhale Tidal Volume, Tidal Volume Max, Minute Volume, Leakage Volume, Inhale Flow, Exhale Flow, Exp. Time Const (Rcexp), Occlusion Pressure, Work of Breathing, Battery Level

Trends/Graphs (Real Time)

Pressure vs time
Volume vs time
Flow vs time

Physical Dimension

Height:	1300 mm
Width :	550 mm
Depth :	550 mm
Weight:	60 kg

Alarms

- Airway Pressure High
- Airway Pressure Low
- Tidal Volume High
- Tidal Volume Low
- Main Failure
- Apnea Alarm
- Occlusion Alarm
- Breath Rate High
- Breath Rate Low
- Peep High
- Peep Low
- Hardware Failure
- Gas Supply Disconnection
- FIO2 High
- FIO2 Low
- Minute Volume High
- Minute Volume Low
- Battery Alarm
- Breathing Circuit Disconnection

Special Features

- Excellent Patient synchronization
- Endorsed by medical practitioners
- Expiratory hold maneuver
- Auto-PEEP calculation
- Flow patterns: Square, Decelerating
- Insp. Trigger: Flow, off
- Exp. Trigger: Volume, Pressure, Time, Flow
- Alarm Log: Up to 2000 Alarms
- Leakage compensation
- Volume calculation standard: BTPS
- Calibration: Exhale valve, Circuit calibration
- Redundant sensors
- Fail Safe ambient mode
- Comply with International Ventilator

Monitor Accuracy

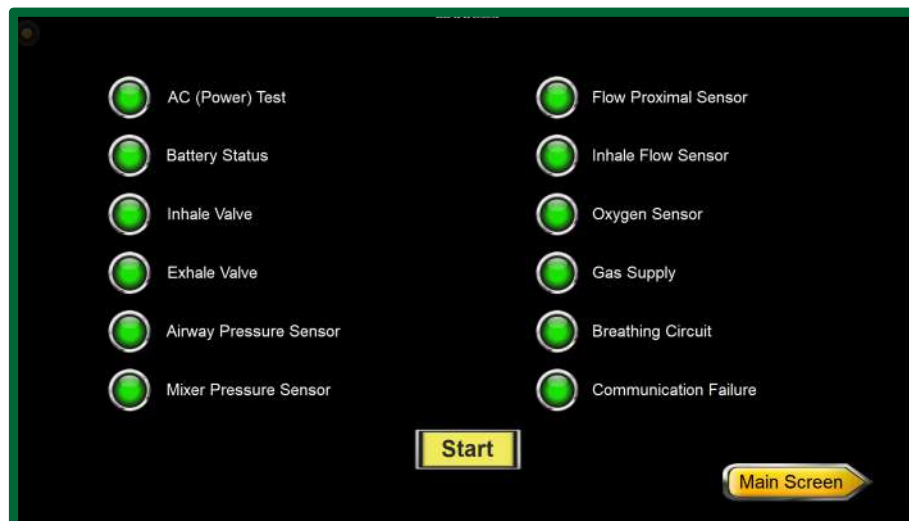
Airway Pressure Range:	$\pm(2.0 \text{ cmH}_2\text{O} + 4\% \text{ of the actual reading})$
Tidal Volume Range:	$\pm 15 \text{ ml}$ or $\pm 8\%$ of reading, whichever is greater
Minute Volume Range:	$\pm 0.3 \text{ L/min}$ or $\pm 8\%$ of reading, whichever is greater
Inspired Oxygen (FiO ₂):	21 % - 100%: $\pm 3\%$

Standards REFERRED

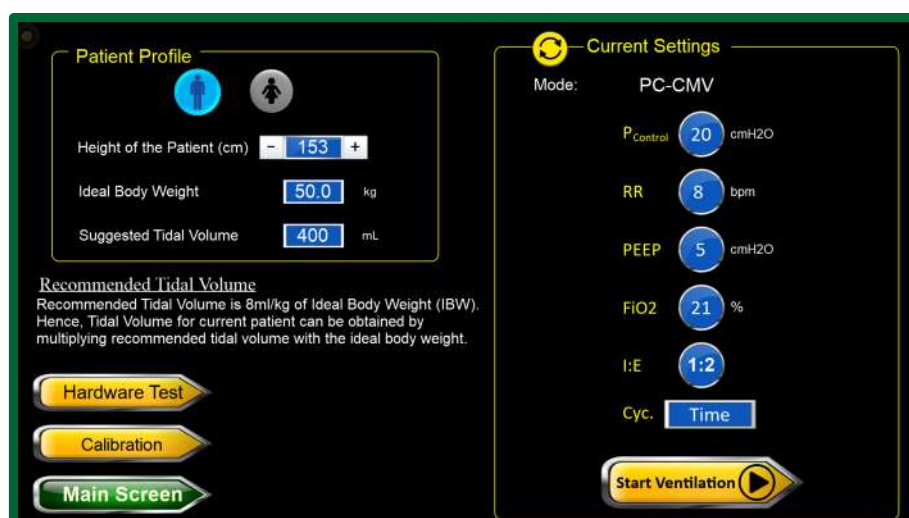
- ▶ PEC-ATP-EM-PMVS 001:2020
- ▶ IEC 61508: Functional safety of programmable electronic safety-related systems
- ▶ IEC 62304: Medical device software- software life cycle processes
- ▶ IEC 60601-1-8/ISO 80601 Medical electrical equipment
- ▶ ISO 14971 Application of risk management to medical devices
- ▶ ISO 13485 QMS for medical devices



Power ON Self Test



System Diagnostic



Life Saving System with multiple modes



Monitoring Screen



Monitoring Screen



Alarm Screen



StartUp