
Pet Intensive Care Unit – Product Manual

- Modular optional configuration
- Standardized Selection System
- Premium Maintenance Solutions

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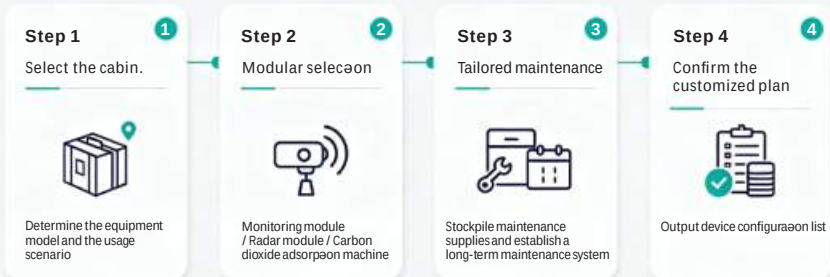
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1 Manual Instructions

ICU Configuration Workflow

From basic enclosure to full custom solution



Applicable Scenarios

- **Post-Surgical Recovery**

Provides a thermally stable, quiet, and isolated environment to reduce stress, support wound healing, and enable continuous observation.

- **Emergency Oxygen Therapy**

Compatible with external oxygen supply systems for rapid enclosed oxygen therapy in cases of dyspnea or shock.

- **Infectious Disease Isolation**

Enclosed chamber prevents cross-contamination and protects other animals from airborne pathogens.

- **Neonatal & Debilitated Care**

Precisely controlled temperature and humidity to support fragile or underdeveloped animals.

- **Chronic & Geriatric Care**

Long-term stable environment for continuous monitoring and management of chronic or elderly patients.

2 Base Enclosure Selection

2.1 Flagship Model – Critical Care · 24 High-Intensity Monitoring

- **Positioning**
Designed for intensive care units and emergency wards; highest monitoring level in the series.
- **Structure**
High-seal rounded chamber, thickened acoustic insulation, heavy-duty stabilized frame.
- **Applications**
Critical emergency care, post-major surgery monitoring, respiratory failure therapy.



LEILONG XS

2.2 Compact Model – Essential Care · Cost-Effective Monitoring

- **Positioning**
Ideal for community clinics and small practices; prioritizes affordability and basic vital sign monitoring.
- **Structure**
Lightweight chamber, silent operation, basic sealed temperature-control structure.
- **Applications**
Mild symptom observation, daily recovery, neonatal thermal care.



LEILONG SE

2.3 High-Efficiency Model – Institutional Bulk · Centralized Monitoring

- **Positioning**
Designed for large hospital chains and centralized medical centers; supports fixed multi-cabin layouts with unified management. Cabin positions are fixed and not expandable.
- **Structure**
Water-cooled long-duration heat dissipation, low-noise operation, multi-unit networking capability.
- **Applications**
Large-scale medical centers, overnight intensive monitoring, synchronized multi-patient care.



3CWC PRO

2 Base Enclosure Selection

2.4.1 Advanced Model VL Series

– Flexible Expansion · Dual-Purpose Medical & Recovery Upgrade

- Positioning

Flagship model for mid-sized clinics, community centers, and growing practices; an upgrade from the Compact Model. Features expandable compartments, multi-cabin connectivity, and size options, balancing medical monitoring and rehabilitation care.

- Structure

Balanced temperature and humidity, medical-grade sealed isolation, fully modular compatibility.

- Applications

Post-surgical recovery, chronic care, infectious disease isolation, neonatal breeding.



one control+one cabin
(can be convert to two)

LEILONG VL



two controls+two cabins
(can be convert to one)

LEILONG VL-SS



two controls+two cabins
(can be convert to four)

LEILONG LVL



three controls+three cabins
(can be convert to two or four)

LEILONG SSVL



four controls+four cabins
(can be convert to two or three)

LEILONG FVL

2 Base Enclosure Selection

2.4.1 Advanced Model XL Series

– Flexible Expansion · Dual-Purpose Medical & Recovery Upgrade

- Positioning
Designed for mid-sized clinics and growing institutions; an upgrade from the Flagship Model. Offers expandable compartments, multi-cabin flexibility, size options, and **integrated CO₂/NH₃ adsorption purification**.
- Structure
Balanced temperature and humidity, medical-grade sealed isolation, high modular compatibility, **large internal volume**.
- Applications
Post-surgical recovery, long-term chronic care, infectious isolation, neonatal care, and **severe emergency cases**.



one control+one cabin
(can be convert to two)

LEILONG XL



two controls+two cabins
(can be convert to one)

LEILONG XL-SS



two controls+two cabins
(can be convert to four)

LEILONG LX



three controls+three cabins
(can be convert to two or four)

LEILONG SSXL



four controls+four cabins
(can be convert to two or three)

LEILONG FXL

3 ICU Specificaøon Comparison Table

Model	XS	SE	3CWC PRO	VL	VL-SS	LVL	SSVL	FVL
Control	1	1	1	1	2	2	3	4
Cabin	1	1	3	1 can be convert to 2	2 can be convert to 1	2 can be convert to 4	3 can be convert to 2 or 4	4 can be convert to 2 or 3
External Size/mm	1050 × 750 × 820	985 × 755 × 785	1420*825*1670	1200 × 921 × 1020	1200 × 921 × 1020	1200 × 921 × 1910	1200 × 921 × 1910	1200 × 921 × 1910
Internal Size/mm	700 × 470 × 500	730 × 540 × 540	600*600*700*2 600*600*600	1115 × 600 × 630	1115 × 600 × 630	1115 × 600 × 630*2	1115 × 600 × 630*2	1115 × 600 × 630*2
Screen Display	10-inch	7-inch	10-inch	7-inch	7-inch	7-inch	7-inch	7-inch
Temp. Control	15-45	15-45	15-45	15-45	15-45	15-45	15-45	15-45
O ₂ Control	21-80%	21-65%	21-65%	21-65%	21-65%	21-65%	21-65%	21-65%
Humidity Control	20-90%	20-90%	20-90%	20-90%	20-90%	20-90%	20-90%	20-90%
Negaøve Ion Purif.	○	○	○	○	○	○	○	○
UV Sterilizaøon	○	○	○	○	○	○	○	○
Warm Light & Medical Exami- naøon Light	○	○	○	○	○	○	○	○
Low-O ₂ & Fault Alarm System	○	○	○	○	○	○	○	○
Emergency Air Exchange System for Power Outages	○	○	○	○	○	○	○	○
Real-time Data Storage	○	○	○	○	○	○	○	○
Pet Informaøon Input and Storage	○	○	○	○	○	○	○	○
Quick OS Upgrade Port	○	○	○	○	○	○	○	○
External Circulaøon Activated when CO ₂ >4000 ppm	○	○	○	○	○	○	○	○
CO ₂ Adsorpaøon Tank with Auto-purge	○	X	X	X	X	X	X	X
NH ₄ Adsorpaøon Tank for Air Deodorizaøon /Purificaøon	○	X	X	X	X	X	X	X

3 ICU Specification Comparison Table

Model	XL	XL-SS	LXL	SSXL	FXL
Control	1	2	2	3	4
Cabin	1 can be convert to 2	2 can be convert to 1	2 can be convert to 4	3 can be convert to 2 or 4	4 can be convert to 2 or 3
External Size/mm	1505 × 920 × 1100	1505 × 920 × 1100	1505 × 920 × 1800	1505 × 920 × 1800	1505 × 920 × 2020
Internal Size/mm	1260 × 600 × 650	1260 × 600 × 650	1260 × 600 × 650*2	1260 × 600 × 650*2	1260 × 600 × 650*2
Screen Display	7-inch	7-inch	7-inch	7-inch	7-inch
Temp. Control	15-45	15-45	15-45	15-45	15-45
O ₂ Control	21-65%	21-65%	21-65%	21-65%	21-65%
Humidity Control	20-90%	20-90%	20-90%	20-90%	20-90%
Negative Ion Purif.	○	○	○	○	○
UV Sterilization	○	○	○	○	○
Warm Light & Medical Examination Light	○	○	○	○	○
Low-O ₂ & Fault Alarm System	○	○	○	○	○
Emergency Air Exchange System for Power Outages	○	○	○	○	○
Real-time Data Storage	○	○	○	○	○
Patient Information Input and Storage	○	○	○	○	○
Quick OS Upgrade Port	○	○	○	○	○
External Circulation Activated when CO ₂ >4000 ppm	○	○	○	○	○
CO ₂ Adsorption Tank with Auto-purge	○	○	○	○	○
NH ₃ Adsorption Tank for Air Deodorization / Purification	○	○	○	○	○

4 Functional Configuration (Standard / Optional)

4.1 Standard Features (All Models)

- Temperature Monitoring: Accuracy $\pm 0.1^{\circ}\text{C}$; real-time measurement, high/low temperature intelligent alerts, adaptive compensation
- Humidity Monitoring: Accuracy $\pm 3\%$ RH; real-time tracking, dry/wet anomaly alerts
- Oxygen Monitoring: Continuous O_2 concentration display; suitable for emergency oxygen therapy and post-op recovery
- CO_2 Monitoring: Continuous CO_2 concentration tracking to prevent exhaust gas accumulation and ensure respiratory safety

4.2 Optional Add-On Modules

4.2.1 HD Remote Monitoring Module (Optional)



- Hardware: 1080P internal camera with infrared night vision
- Functions: Real-time video streaming, remote observation, event-based recording
- Value: Minimizes physical disturbance, enables unattended visual monitoring, enhances clinical professionalism

4.2.2 Millimeter-Wave Radar Sensing Module (Optional)



- Technology: Non-contact motion detection, unaffected by humidity or enclosure environment
- Functions: Accurately tracks respiration, heart rate, and posture
- Value: Enables 24/7 unobtrusive activity monitoring, early anomaly detection, reduces manual supervision workload

4.2.3 CO_2 Adsorption Machine Module (Optional)



Note: External unit with increased processing capacity; supports multi-cabin joint operation

- Technology: Recirculating air purification + physical adsorption
- Functions: Automatically removes CO_2 , odors, and trace harmful gases
- Value: Resolves gas accumulation in long-term enclosed care, continuously improves air quality

5 Parts & Maintenance System

- Regular replacement of consumable parts ensures chamber sealing, measurement accuracy, and extends overall service life.

Name	Primary Function	Deterioration Factors	Recommended Cycle
Atomization / Sterilization / CO ₂ Pump	Delivers disinfection and CO ₂ removal	Corrosion, frequent cycling, pump wear	Replace every 6–12 months
Temperature Sensor	Collects real-time temperature data for accurate control	High humidity, chemical residue, dust drip	Calibrate every 6–12 months; replace on failure
Humidity Sensor	Collects humidity data and outputs signals	Condensation, aerosol contamination	Calibrate every 6–12 months; replace on failure
Oxygen Sensor	Monitors O ₂ concentration for therapy safety	Gas depletion, dust, chemical exposure	Calibrate at 12 months; replace at end of life
CO ₂ Sensor	Monitors CO ₂ concentration to prevent accumulation	High humidity, aerosol exposure, gas wear	Calibrate at 12 months; replace at end of life
Sterilization Tube	Transmits disinfectant medium from unit to chamber	Corrosion, hardening, cracking, residue	Replace every 3–6 months
Nebulizer Cup	Holds liquid medication and generates aerosol	Residue scaling, corrosion, clogging	Clean after each use; replace every 3–6 months
Fuse	Protects against electrical overload and faults	Voltage fluctuation, surge impact	Replace immediately upon failure; inspect every 6 months