USER MANUAL

Animal Intensive Medical Care Unit ICU

Foreword

First of all, thank you for purchasing the product of TOOTOO MEDITECH CO.,LTD. Before using this equipment,please read this manual carefully to guide you in the correct use it. This manual is a document that comes with the equipment. Please keep it and check the operating procedures and safety requirements in the manual regularly.

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- Equipment failure or personal injury caused by untrained or unqualified operators using the equipment.TOOTOO MEDITECH has the final right to interpret this manual.

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Chapter One: Product Description

1.1 Features

Expand more space to meet the special needs of large animals.

The upper and lower floors are designed with partitions to easily divide the space into 1, 2, 3, and 4 cabinets.

Suitable for temperature resuscitation, infusion and oxygen delivery, blue light atomization treatment, rescue, hospitalization observation, etc. of sick, critically ill and weak animals. It can also be used for sterile and constant temperature cultivation of young pets, greatly improving the cure rate of small animals.

Main Features

Stackable Installation

Convenient and Flexible Combination

Quiet Air Compressor

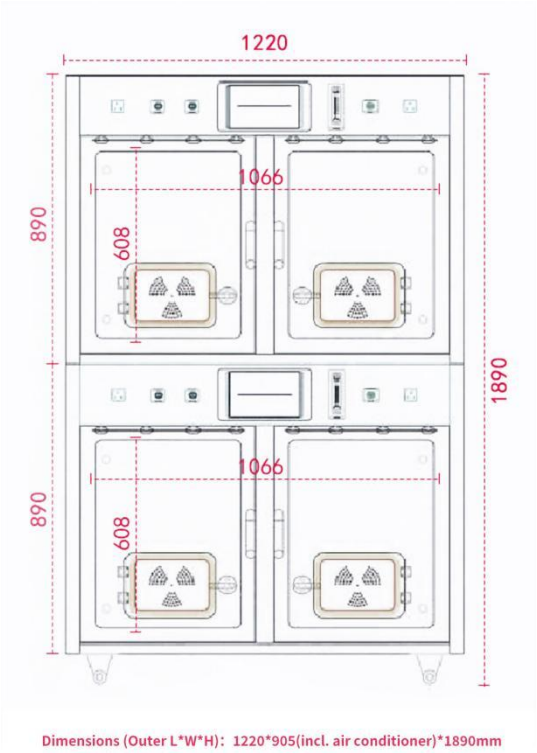
Ventilation and Internal Circulation

Oxygen Enrichment and Comfortable Environment

Purification and Disinfection

Picture 1: Structure diagram (Front TT-ICU4V)

1. power button 2. Atomization port 3. USB port 4. power sockets supply power to infusion pumps 5. control panel 6. oxygen flowmeter 7. Care window open it to care pets



Picture 2: Dimension of ICU

1.2 ICU Series

TT-ICU4V

TT-ICU4V2

TT-ICU4V

1.3 Scope of application and contraindications

The For small and large animals by convenient combination for 2 to 4 cabinets.

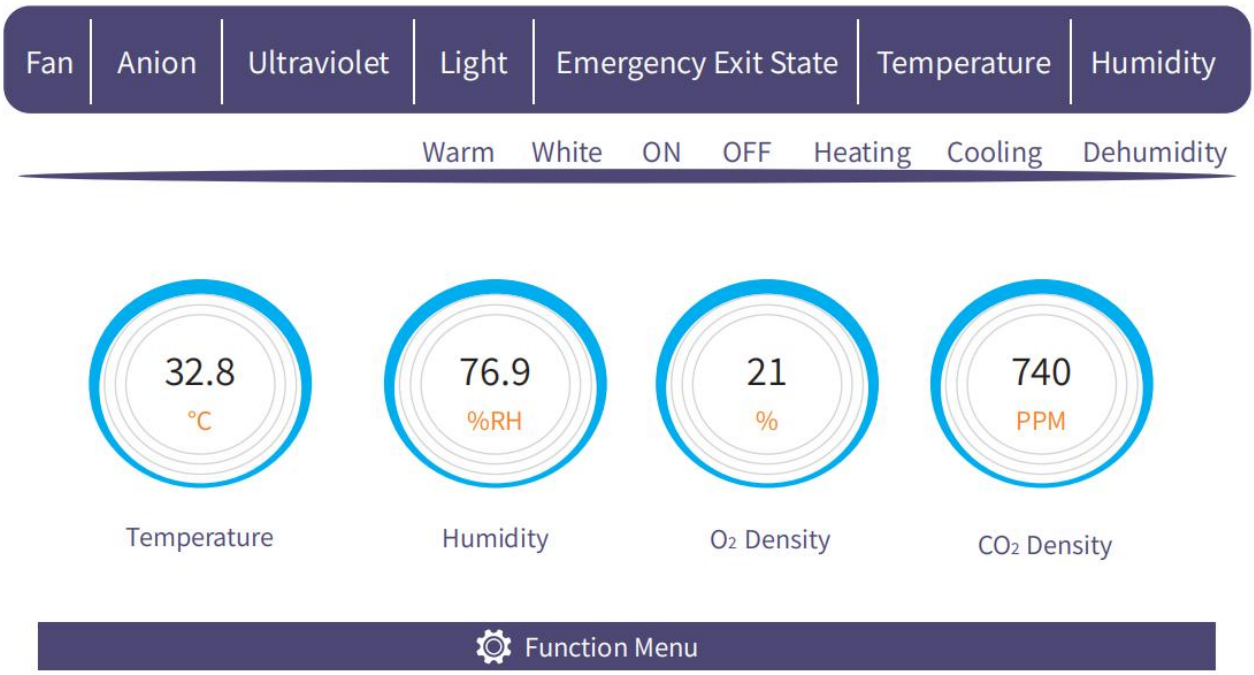
1.4 Basic Parameters

Max Power	1.4 kW
Display	10 inch HD Touch Screen
Medical Atomizer	Max Atomization Rate: 0.2ml/min Fog Particles: 0.5-2um Noise:≤40dB(A)
Temperature Setting	15-36°C ±0.5°C
Plasma Generator	≥1000*104PCS/cm³x4

Chapter Two: Functions

2.1 Real-time Display

Real-time display of all functions of cabinets with professional interface.



2.2 10” HD Touch Screen

Real-time display of all cabins with professional interface

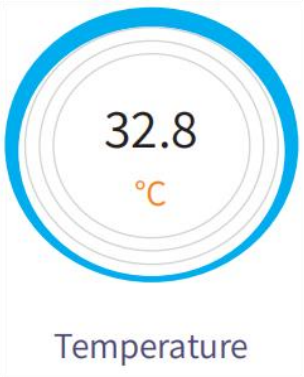
2.3 Temperature Management

15-45℃ adjustable

Independent system control

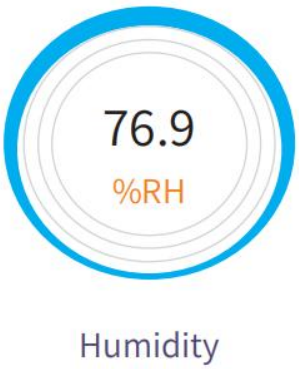
Efficient in cooling and heating

Provide a comfortable environment for animals



2.4 Real time Humidity Display

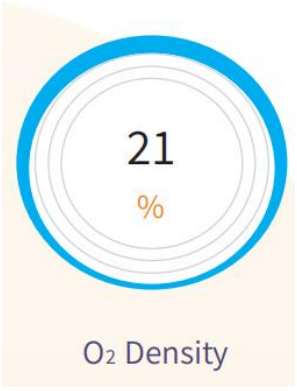
20-90%RH adjustable



2.5 Real-time Control Oxygen Level

21~65% adjustable

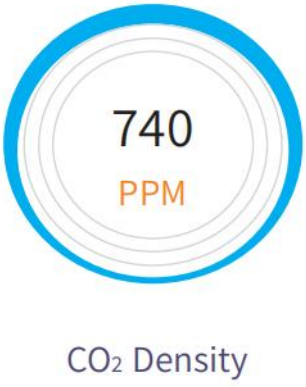
It will automatically stop operating, when reaching the setting oxygen concentration



2.6 CO2 Real-time Display

300-5000ppm adjustable

Independent CO2 filtration system, can greatly avoid potential respiratory acidosis



2.7 Light Management

Warm Lamp For Illumination

Time: 0-300mins

Brightness: 0-10 levels

White Lamp For Examination

Time: 0-360mins

2.8 Medical Purification Function with Negative ion

Time: 0-72h

plasma generator (≥1000*104PCS/cm³x4)

2.9 Atomization Therapy by Built-in Atomizer

Time: 0-360mins

Maximum atomization rate: ≥ 0.2ml/min

Mist Particles: (0.5-2um)

Noise: ≤ 40dB(A)

2.10 UVC Sterilization

Time: 0-90mins

253nm high efficiency ultraviolet sterilization system

Chapter Three: Safety

This manual is intended to guide users to use Veterinary ICU equipment. Operation of the equipment must be strictly follow the safety instructions in this manual and the equipment should not be used for applications other than those for which it was designed. During the installation and use of this equipment, the user is responsible for complying with relevant laws and regulations. All assembly operations, extensions, adjustments, modifications.

3.1 Operation Security

WARNING: It needs to be turned on regularly to charge the battery for long time no use of equipment, otherwise the ICU screen will flash when the battery is low.

WARNING: Customers are reminded to check the air conditioner drainage container every 2-3 days and dump it in time to avoid overflow of waste water. Every time you pour air conditioner condensate water, check the amount of water in the container. If you find that there is no condensate water in the container after use, the drain pipe may be blocked. Clear the pipe in time to allow the condensate water to drain smoothly to prevent damage to the machine.

WARNING: After each use, turn off the oxygen generator, open the external circulation, open the hatch, discharge the oxygen concentration to about 20-21%, and then shut it down. This can extend the service life of the oxygen sensor.

3.2 Machinery Safety

WARNING: When the oxygen sensor is lower than 20%, it automatically switches to external circulation to prevent animals from suffocating due to lack of chlorine.

WARNING: When works in internal circulation(turn off the buttons: Emergency Vent Switch and automatic emergency ventilation control), the software automatically reminds the doctor to confirm whether oxygen delivery is turned on to prevent human misoperation, which may cause treatment failure or safety risks.

WARNING: When carbon dioxide exceeds the limit, it automatically switches to external circulation for emission. When it reaches a safe value, it automatically switches to internal circulation to continue oxygen inhalation.

WARNING: When there is a power outage, it automatically switches to the backup battery power supply, automatically switches to the external circulation, and sounds an alarm to remind doctors to deal with it in time.

WARNING: Shut down and restart to automatically restore security settings without retaining the last set parameters.

Chapter Four: System Operation

NOTE: For detailed operating instructions of each function, please refer to the content of each relevant component.

4.1 Preparation

1.Whether the room temperature and humidity are within the allowed range, otherwise the equipment cannot be turned on.

2.Check whether the power supply voltage and frequency changes are within the allowed range.

3.Check whether the ground wire of each part is properly connected.

4.Check all cables for any unsafe.

4.2 Start Up

1.Plug into the Power Socket and turn on the Main Gate of the ICU.

2.Turn on the Power Switch on the operation panel to light up the controller.

4.3 Temperature Adjustment

1. Click the Temperature icon, and input the exact number to set the required temperature value.

2. After setting the parameters, click "OK".

4.4 Humidity Adjustment

1. Click the Humidity icon, and input the exact number to set the required humidity value from 20-90%RH.

2. After setting the parameters, click "OK".

4.5 Oxygen Concentration Adjustment

1. Click the Pure Oxygen icon, and on the pop-up interface, input exact number to set the required oxygen concentration value.

2. After setting the parameters, click "OK".

4.6 CO2 Concentration Adjustment

1. Click the CO2 icon, and on the pop-up interface, input exact number to set the required CO2 concentration value from 300-5000PPM.

2. After setting the parameters, click "OK".

4.7 Cool Light Adjustment for Checking

1. Click the Checking icon, and on the pop-up interface, input exact number to set the illuminating time of checking light through 0-360 minutes.

2. After setting the parameters, click "OK" to execute and save the parameters setting.

4.8 Warm Light Adjustment for Illumination

1. Click the Illumination icon, and on the pop-up interface, input the number to choose the different levels of illumination through 0-10.

2. After setting the parameters, click "OK" to execute and save the parameters setting.

4.9 Time Setting for Warm Light

1. Click the Lamp Time icon, and on the pop-up interface, input exact number to set the illuminating time through 0-300 minutes.

2. After setting the parameters, click "OK" to execute and save the parameters setting.

4.10 Atomization Connection and Adjustment

1. Connect one end of the atomization tube to the atomization interface of the ICU, the other end to the atomization cup, and put the atomization cup into the atomization port of the ICU (as shown in the picture)
2. Click the atomization icon, and on the pop-up interface, input exact number to set the atomization time from 0-360min.
3. After setting the time parameters, click "OK" to execute and save this parameter setting.

4.11 Sterilization Adjustment

1. Click the sterilization icon, and on the pop-up interface, input exact number to set the sterilization time from 0-90min.

2. After setting the parameters, click "OK" to execute and save the parameters setting.

4.12 Ion Therapy Adjustment

1. Click the Ion Therapy icon, and on the pop-up interface, input exact number to set the ion therapy time from 0-72h.

2. After setting the parameters, click "OK" to execute and save the parameters setting.

4.13 Emergency Vent Switch

1. Click OFF

4.14 Automatic Emergency Ventilation Control

1. Click OFF

4.15 Connections for pipes and tubes

1) Atomization Connection

Step 1: Connect the atomized blue connector to the metal head (pay attention to the direction)

Step 2: Connect one end of the atomization tube to the atomization interface of the ICU

Step 3 :Connect the other end to the atomization cup, and put the atomization cup into the atomization port of the ICU.

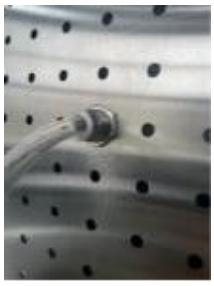
Note: The liquid in the atomization cup can't be higher than the maximum mark on the cup.

2) Oxygen Connection

Step 1: Connect the oxygen pipe to the tee-junction

Step 2: Connect the metal head to the oxygen inlet port of the ICU

Step 3: Connect the oxygen tube marked No. 2 to the other oxygen inlet port of the ICU



Step 4: Connect the oxygen tube marked No. 3 to the oxygen concentrator

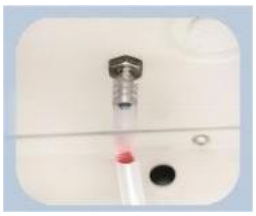
Step 5: Turn on the switch of the oxygen concentrator and adjust the flow meter to 10L/min

Step 6: Turn on the oxygen flow meter on the front panel of the ICU cabinets and adjust it to the appropriate flow value

3) Drainage Connection

Step 1: Connect the sewer pipe to the tee-junction

Step 2: Connect the sewer pipe marked NO.1 to the ICU port



Step 3: Connect the sewer pipe marked NO. 2 to another port of the ICU

Step 4: Insert the air conditioner discharge pipe marked NO. 3 into the air conditioner cooling water storage container

Note: There should be a distance about 10CM of exhaust and heat dissipation between the back of the ICU and the wall.

4) Attention for Turning On/Off

Steps of Power-on

Power on the power button. After the display lights up, the machine is in the external circulation state. The oxygen concentration should be between 20% and 21%. If the oxygen concentration is less than 20%, the system needs to be calibrated. If the oxygen concentration is normal, turn on the oxygen concentrator, and adjust the oxygen flow meter. The pet can be placed in the ICU cabin, and the cabin door and observation window can be closed. Turn on the internal circulation, and oxygen therapy can be started. The relevant system parameters can be set according to the case situation. During the treatment, the oxygen concentration and other parameter values need to be regularly observed.

Steps of Power-off

After the case treatment is completed, turn on the external circulation mode, open the observation ventilation window, turn off the oxygen concentrator, and wait for the oxygen concentration in the cabin to slowly recover from the oxygen-rich state to the standard air oxygen concentration of 20~21%, so that the pet has an adaptation process. After that, take the pet out and turn off the machine.

Chapter Five: Daily Maintenance Instructions

1) Check whether the signal display and indicator lights are normal.

2) Check whether warning and danger labels are intact.

3) Check whether all functions are normal.

4) Check whether the protective grounding of the whole machine and each component is good.

5) Clean the case with mild and warm soapy water.Check all socket, buttons,ports etc, to be operable. No any damaged and any missing parts.

6) Check that all wires and tubes are secure and not loose or damaged.

7) Check whether the system is running smoothly and whether the movement of all moving parts is reasonable.

8) Measure and adjust the power supply equipment.

9) If it is not used for a long time, it is necessary to turn on the machine regularly to charge the battery, otherwise the ICU screen will flicker when the battery is low.

10) Remind customers to check the air conditioning drainage container every 2~3 days according to the size of the container, and empty it in time to prevent water overflow. Every time you pour the air conditioning condensate, observe the amount of water in the container. If you suddenly find that there is no condensate in the container after use, it is possible that the drain pipe is blocked. Clear the pipe in time to allow the condensate to drain smoothly to prevent damage to the machine.

11) After each use, turn off the oxygen generator, turn on the external circulation, open the hatch, let the oxygen concentration be discharged to about 20~21%, and then turn off the machine. This can extend the service life of the oxygen sensor.

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