SYSMED

Oxygen Concentrator for Medical Use

OC Series User Manual

Reg. No.: 2010 No. 2540101

Free Sale Certificate

ISO13485: 2003

CE0123

SPECIAL NOTES

Dealer: This manual MUST be given to the end user of this product.

User: Before using this product, read this manual carefully and save for future reference.

Please have a close read of this user manual, DO NOT use this product or any available optional equipment without first completely reading and understanding these instructions and any additional instructional material such as Instruction Sheets supplied with this product or optional equipment, otherwise, injure or damage may occur.

If you are unable to understand the warnings, cautions or instructions, contact dealer before attempting to use this equipment.

- Consult with physician before using the equipment. Take oxygen treatment according to prescribed flow and period. Do not change the settings of flow and time before consult your physician to avoid insufficient oxygen supply or carbon dioxide retention.
- This equipment is not be used for life supporting or life sustaining. Only be used as an oxygen supplement. It's necessary to prepare other oxygen supply device for the persons who are in dire need of oxygen. (Such as oxygen cylinder or liquid oxygen)
- Close supervision is necessary when this product is used near children or physically-challenged individuals. Additional monitoring or attention may be required for patients using this device who are unable to hear or see alarms or communicate discomfort.
- Contact dealer or physician immediately if any untoward effect occurred.
- If the concentrator is not working properly, if water dropped into the machine, call dealer for examination and repairing. Do not dismantle it secretly.
- Patients with severe carbon monoxide poisoning are prohibited to use the equipment.

SAFETY NOTICE

⚠ **Oxygen is a combustion-supporting gas, so the machine must be far away from fire and heat. DO NOT SMOKE while using this device, for your own safe, the user must quit smoking. Keep all matches, lighted cigarettes or other sources of ignition out of the room.**

⚠ **A spontaneous and violent ignition may occur if oil, grease or greasy substances come in contact with oxygen under pressure. These substances MUST be kept away from the oxygen concentrator, tubing and connections, and all other oxygen equipments. DO NOT use any lubricants unless recommended by SysMed.**

- Avoid creation of any spark near medical oxygen equipment. This includes sparks from static electricity created by any type of friction.
- Keep power cord away from sources of ignition and heat.
- Turn off the power when nobody uses the machine.
- DO NOT put oxygen tubing under bedspread or chair cushion.
- Unplug the power cord when you clean the machine or change fuse, in order to avoid getting an electric shock.

POINTS FOR ATTENTION

Carefully review and familiarize yourself with the following important notes and warnings, these instructions Must be followed to ensure correct and safe operation:

CAUTION

- The concentrator should ALWAYS be kept in the upright position to prevent cabinet damage while being transported. Moreover it should be used in a clean environment without dust, corruption and toxicological harm gas.
- Keep unit at least 10cm away from walls, draperies, furniture, and the like.
- The Operating Environment Temperature of this concentrator is during 10-37℃, if lower 10℃, the compressor may difficult to start to work; if higher than 37℃, the compressor may work overheat, thus it will cause life reduced of the equipment.
- DO NOT move the equipment when it is running.
- DO NOT start this equipment when the flow meter is closed.
- It's normal if you heard the sound of exhaust orderly, during the equipment is working. And it's normal for the hot wind leak from the bottom of this equipment, DO NOT plug up the exhaust outlet.
- DO NOT move or relocate concentrator by pulling on the power cord.
- NEVER block the air inlet of the concentrator or place it on a soft surface, such as a bed or couch, where the air exhaust outlet may be blocked. Keep the openings free from lint, hair and the like.
- Humidifier shall adopt distilled water or cold boiled water, water shall be kept under the maximum scale line.
- For optimum performance, SysMed recommends that each concentrator be on and running for a minimum of 30 minutes at a time. Shorter periods of operation may reduce life time of the product.
- Do NOT turn the bobber in the flow meter up to the red line; otherwise, the purity of oxygen will reduce.
- Each oxygen concentrator is equipped with 1 set of oxygen tubing. The patient can also buy it as needed. Sysmed recommends that Crush - Proof oxygen tubing be used with this product and not exceed 21.2M in length.
- Oxygen tube, simple nebulizer should be used for patient personally only, and need to be cleaned regularly.

RADIO FREQUENCY INTERFERENCE

Most appliances are vulnerable to radio frequency interference, therefore the use of portable communications equipment nearby oxygen concentrator will interfere the function of the machine.

⚠ DANGER

To Reduce the Risk of Burns, Electrocution, Fire or Injury to Persons, please pay attention to the followings:

DO NOT disassemble. Refer servicing to qualified service personnel. No user serviceable parts. Avoid using while bathing. If continuous usage is required by the physician's prescription, the concentrator MUST be located in another room at least 3 meters from the bath.

DO NOT come in contact with the concentrator while wet. DO NOT place or store product where it can drop into water or other liquid.

DO NOT reach for product that has fallen into water. Unplug IMMEDIATELY and contact dealer.

Use this concentrator as the expected function in the user manual.

⚠ **DO NOT connect the concentrator in parallel or series with other oxygen concentrators or oxygen therapy devices.**

ACCESSORIES

SysMed products are specifically designed and manufactured for use in conjunction with SysMed accessories. Accessories designed by other manufacturers have not been tested by SysMed and are not recommended for use with SysMed products.
It may reduce the performance of the concentrator when use unspecified humidifier or other accessories.

IEC SYMBOLS

	ON
	OFF
	Warning
	No Smoking
	Type B Equipment
	Upright
	European CE Declaration of Conformity
	Frangibility
	Alternating Current
	Class II Equipment
	Non-ionizing radiation
	ESD
	Our medical product is labeled with this symbol in accordance with European Directive 2002/96/EG (Waste Electrical and Electronic Equipment - WEEE) to indicate that, at the end of its live, it must be disposed separately from other household waste. Please contact your local authority or waste disposal service for the return and recycling of this product.

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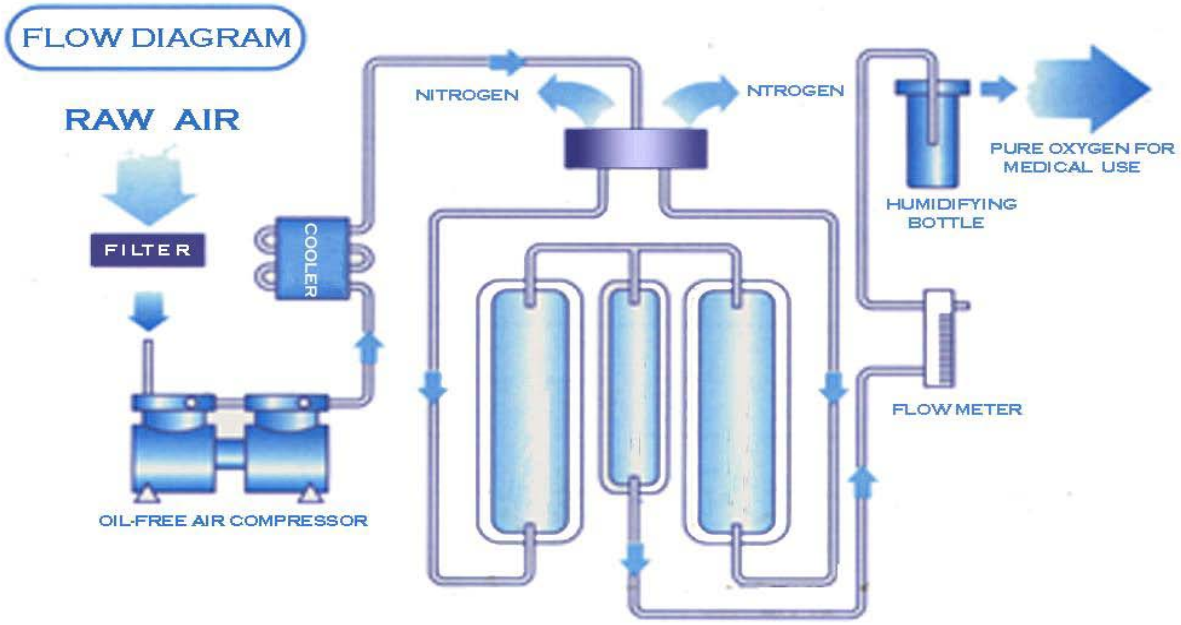
PRODUCT OVERVIEW

Working Principle

Oxygen Concentrator for Medical Use adopts the principle of the world-advanced pressure swing adsorption technology. At normal temperature, the machine can continuously separate medical oxygen with high density (93%±3% oxygen for medical use) from the air when its power is turned on. The machine is easy to operate and quick to use, its flow can be adjusted. The oxygen supplying method is unique, and is superior to liquefied and high-pressure oxygen.

Note: Using oxygen concentrator doesn't influence oxygen content in the air of the room.

Flow Diagram



Application Scope

This equipment is used to provide oxygen only for medical use and health care.

It is not be used for life supporting or life sustaining. SysMed recommends an alternate oxygen supply device in the event of power outage, alarm condition, mechanical failure, or for the persons who are in dire need of oxygen. (Such as oxygen cylinder or liquid oxygen)

Contraindication: Patients with severe carbon monoxide poisoning are prohibited to use the equipment.

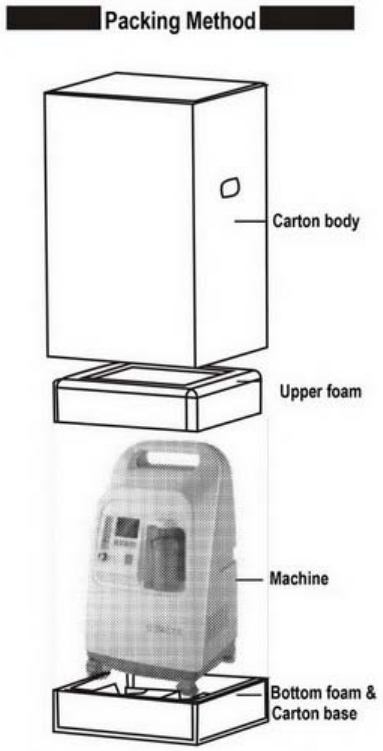
UNPACKING, TRANSPORT AND STORAGE

Unpacking

1) Check for any obvious damage to the carton or its contents. If damage is evident, notify the carrier, or your local dealer.

2) The carton is design into two parts (carton body and carton base), it can be easily unpacking by only lift the carton body up. Remove all foam filled block and loose packing from the carton.

3) Carefully take out all the components and the machine from the carton. Inspect/examine exterior of the oxygen concentrator for nicks, dents, scratches or other damages. Check all components whether as listed. If there are short of components or quality issue, please contact your local dealer.



NOTE: Please keep the carton and packing materials for storage and transport.

Transport and storage

1. Keep the machine upright placement during transport, DO NOT place horizontally or upside down.
2. The transport forwarder shall guarantee the safe of the machine, no damage during the transportation.
3. Ambient Temperature: -30℃–70℃.
4. Comparative Humidity: 15-95%RH
5. Atmospheric Pressure: 500~1060hpa

USING CONDITIONS

- Electrical Requirements：220V±22V/50Hz±1Hz
- Operating Environment Temperature：10～37℃
- Relative Humidity：20-75%RH
- Atmospheric Pressure: 700～1060hpa
- Environment: dry, well-ventilated, without dust, corruption and toxicological gas, away from sunlight and no intense electromagnetic interference.
- Keep unit at least 10cm away from walls, draperies, furniture, and the like.
- Altitude：Lower than 1828 meters, otherwise, it will reduce the oxygen purity.

NOTE: Add the voltage stabilizer if the power supply voltage fluctuates over ±10%, before start the concentrator.

TECHNICAL SPECIFICATION

1. Model and function definition

□ – □ □

Item no.: OC series include 30, 50, 60, 80, 100;
The corresponding rated flow: 3, 5, 6, 8, 10L/min

Type name: S, E, P;
S: type with timer
E: type with timer & oxygen concentration indicator bar
P: type with timer, oxygen concentration indicator bar & realtime display

Series: OC

Form 1 function and parameters

Parameters model no.	rating		temper		Sound level (dB (A))	Function and setting
	Flow (L/min)	purity （%）	flow （L/min）	purity （%）		
OC-S30	3	93±3%	0-3	93±3%	≤42	Standard function: LCD display, temperature alarm, high/low pressure alarm, power failure alarm, timed setting, intelligent fault diagnosis, repair reminder alarm. Additional optional function: □ Positive pressure outlet
OC-S50	5	93±3%	0-5	93±3%	≤42	
OC-S60	6	93±3%	0-6	93±3%	≤46	
OC-S80	8	93±3%	0-8	93±3%	≤50	
OC-S100	10	≥90%	10	93±3%	≤50	
OC-E30	3	93±3%	0-3	93±3%	≤42	Standard function: LCD display, oxygen concentration indicator (Red, green, yellow bar on the LCD), temperature alarm, high/low pressure alarm, low oxygen concentration alarm, power failure alarm, timed setting, intelligent fault diagnosis, repair reminder alarm. Additional optional function: □ Positive pressure outlet
OC-E50	5	93±3%	0-5	93±3%	≤42	
OC-E60	6	93±3%	0-6	93±3%	≤46	
OC-E80	8	93±3%	0-8	93±3%	≤50	
OC-E100	10	93±3%	10	93±3%	≤50	
OC-P30	3	93±3%	0-3	93±3%	≤42	Standard function: LCD display, oxygen concentration indicator (Red, green, yellow bar & realtime concentration display on the LCD), temperature alarm, high/low pressure alarm, low oxygen concentration alarm, power failure alarm, timed setting, intelligent fault diagnosis, repair reminder alarm. Additional optional function: □ Positive pressure outlet
OC-P50	5	93±3%	0-5	93±3%	≤42	
OC-P60	6	93±3%	0-6	93±3%	≤46	
OC-P80	8	93±3%	0-8	93±3%	≤50	
OC-P100	10	93±3%	10	93±3%	≤50	

Parameter setting comparison form

Model no.	OC-S30	OC-E30	OC-P30	OC-S50	OC-E50	OC-P50
Power Consumption (W)	350			350		
Rating current (A)	1.59			1.59		
Electrical Requirements	220V±22V 50HZ±1HZ			220V±22V 50HZ±1HZ		
Flow rate (L/min)	0-3			0-5		
Purity (3L/min)	93±3%			93±3%		
Purity (4L/min)	——			93±3%		
Purity (5L/min)	——			93±3%		
Outlet pressure (Mpa)	0.05±0.005			0.05±0.005		
Sound level dB(A)	≤42			≤42		
Equipment Class and Type	Class II Type B			Class II Type B		
Nebulized Particle (optional)	Median Diameter≤5μ, Percent: 90%			Median Diameter≤5μ, Percent: 90%		
Net weight (kg)	25kg			25kg		
Dimension (mm)	381x347x689			381x347x689		

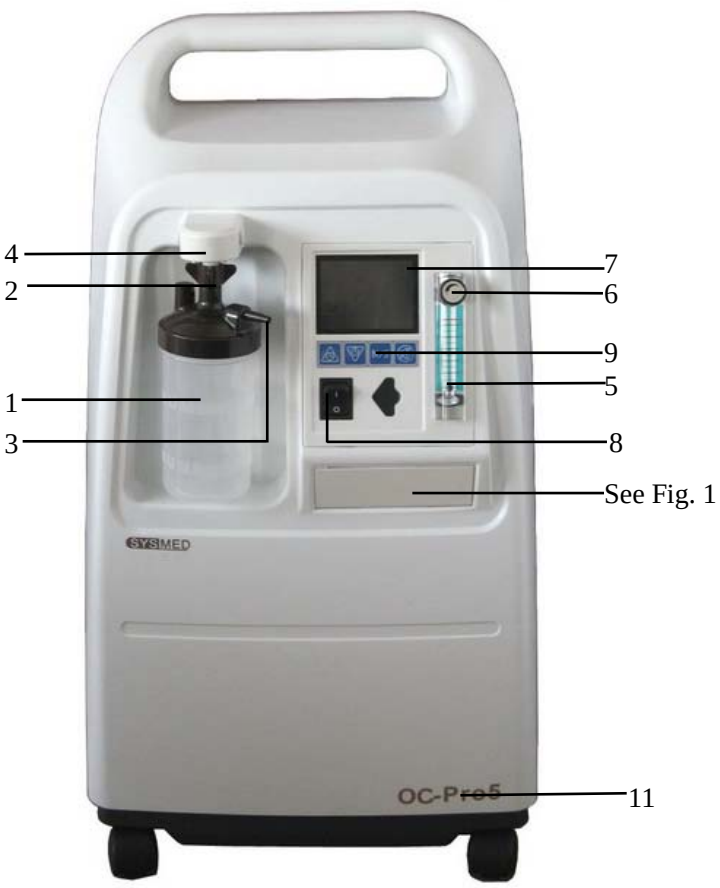
Model no.	OC-S60	OC-E60	OC-P60	OC-S80	OC-E80	OC-P80	OC-S100	OC-E100	OC-P100
Power Consumption (W)	370			480			480		
Rating current（A）	1.75			2.25			2.25		
Electrical Requirements	220V±22V 50HZ±1HZ			220V±22V 50HZ±1HZ			220V±22V 50HZ±1HZ		
Flow rate（L/min）	0-6			0-8			0-10		
purity（6L/min）	93±3%			93±3%			93±3%		
purity（8L/min）	——			93±3%			93±3%		
purity（10L/min）	——			——			93±3%		
Outlet pressure（Mpa）	0.05±0.005			0.05±0.005			0.05±0.005		
Sound level dB(A)	≤46			≤50			≤50		
Equipment Class and Type	Class II Type B			Class II Type B			Class II Type B		
Nebulized Particle (optional)	Median Diameter≤5μ, Percent: 90%,			Median Diameter≤5μ, Percent: 90%			Median Diameter≤5μ, Percent: 90%		
Net weight（kg）	26kg			27kg			27kg		
Dimension （mm）	381x347x689			381x347x689			381x347x689		

Notice: The information contained in this manual is subject to change without notice.

PART NAME & FUNCTION

Components:

Main components of the concentrator include: compressor, filter, molecular sieve set, controlling panel, flow meter and humidifier. Additional optional parts: positive pressure outlet. Accessories are not shown.



Front View

Fig.1

1. Humidifying Bottle

It is also called Oxygen humidifier, and is used to humidify the Oxygen in order that the dry Oxygen doesn't irritate the throat and nasal mucosa, and prevent phlegm from drying. (Spec. Salter Labs 7100)

2. Connecting Nut

3. Oxygen Outlet

4. Humidifier Connector

5. Oxygen Flow-meter

The bobber in side is a sign to show the flow rate outlet from this concentrator

6. Knob of the Flow-meter

It is also called flow-regulating valve and used to adjust and control Oxygen flow rate. Please do not turn the button abruptly, or the value spool may be broken. Turn on the valve anticlockwise and turn out it clockwise.

7. LCD Display

It shows the accumulated operating time and the present working time, oxygen concentrator (type-E), and realtime oxygen purity display (type-P), trouble code of high/low pressure alarm, temperature alarm and other troubles alarm etc. maintenance reminder alarm. Guiding the users use the machine in a more scientific and safer way. (See Fig. 2)

8. Power Switch

9. Adjusting Panel and Buttons.

10. Positive Pressure Outlet (See Fig. 1)

11. Model label

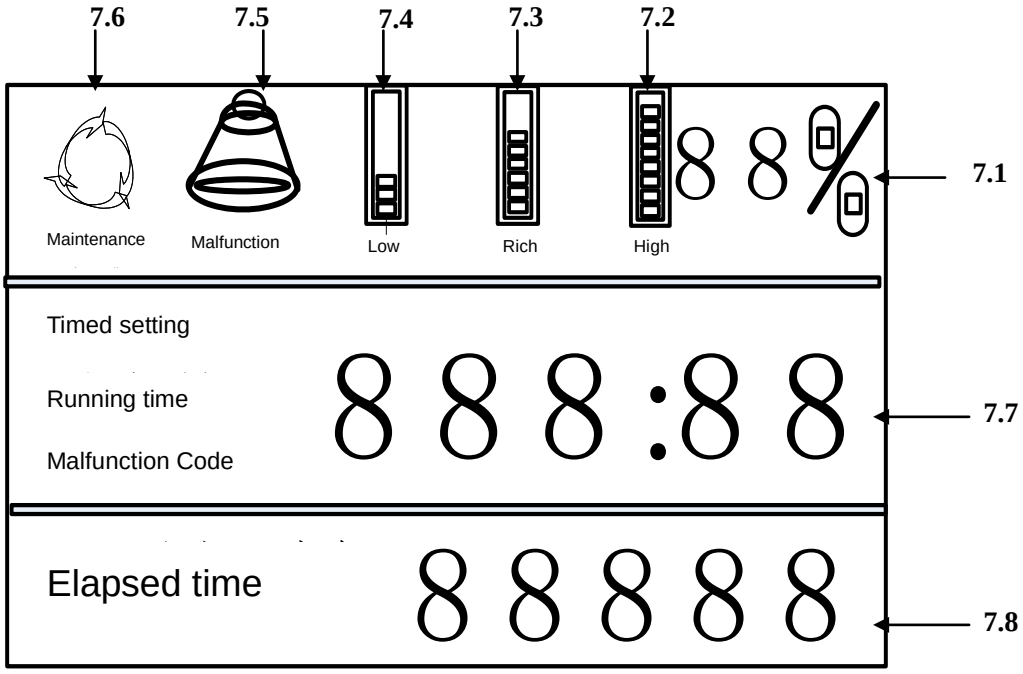


Fig.2

7.1 Oxygen purity percentage (type OC-P)

7.2 High purity indicator

7.3 Rich purity indicator

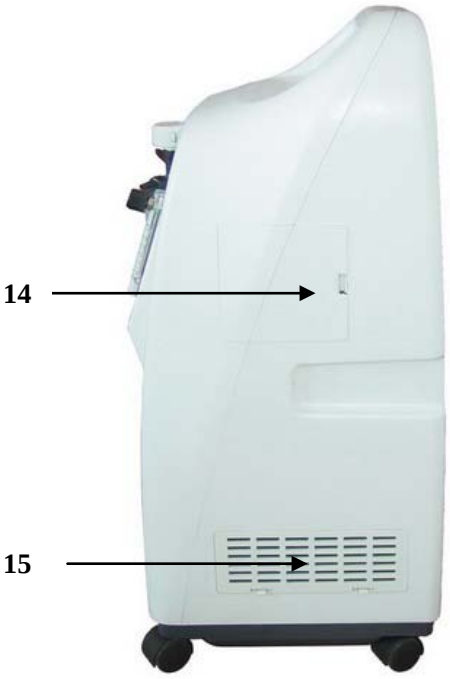
7.4 Low purity indicator

7.5 Malfunction alarm

7.6 Maintenance alarm

7.7 Timed setting, Running time and Malfunction code display

7.8 Elapsed time



12. Over current protector

13. Power cord socket

14. Inlet filter access panel

15. Cabinet Air intake filters（two sides）

OPERATION INSTRUCTIONS

1. The oxygen concentrator should be placed on flat ground with clear, ventilated environment to avoid smoke, corruption and toxicological gas, away from sunlight, heaters; Keep the unit all sides at least 10cm away from walls, draperies, furniture, and the like.

NOTE:

- **DO NOT put sundries, water or oil container and other coverings on the top of this concentrator.**
- **DO NOT place anything at bottom of this concentrator. Ensure the bottom exhaustion smooth during operating, otherwise the machine will be over-heated and cannot work normally.**
- **DO NOT place the unit in a narrow area or in a closet.**

2. Install the inlet filter into the concentrator as steps below:

a. Remove the filter access panel,

b. Insert the inlet filter,

c. Reinstall the access panel.

3. Press the button of humidifier connector to remove all set of the humidifier. Turn the humidifying bottle clockwise to remove cap from bottle, pour some distilled water to the scale mark, and replace the humidifier cap on the bottle, and then securely tighten.

NOTE:

- **The water filled in humidifier should be distilled water or cold boiled water, and need refresh everyday.**
- **Water level is better to be in the middle of max and min line.**
- **To unload, just turn the bottle clockwise, it can be easily take out.**
- **To install, put the bottle aim to the cap, turn the bottle anticlockwise tightly to avoid leakage.**

3. Insert the humidifier connector to re-connect the humidifier to the machine. Turn the knob of the flow meter anticlockwise to ensure that it is unblocked.

4. Connect the power, insert the plug of power line into the power socket of the machine, and the other end of the plug connects with indoor power socket, turn on the power switch.

NOTE:
- **Be sure using safe and qualified socket, the plug should be insert into the socket tightly, if extend power strip is needed, please choose the product with electrical safety certification**

5. The way to check whether the humidifier bottle is tight or not, using your forefinger to gently block the outlet of humidifier about 20 seconds, if the black ball in the flow meter falls to the bottom, take the hand away, stop block, and listen there is Chu' sound from bottle. If so, it indicates that the humidifier is tight, if not, it indicates the humidifier leaks. Take off the humidifier, replace and tighten the cap again. If there is still no sound after adjustment, please contact your local dealer.

6. Regulate the output flow rate, make the center of bobber and flow mark at the same level.

NOTE:
- **Adjust the knob of the flow meter, clockwise to decrease, anticlockwise to increase.**
- **For health care, the flow rate is better to be set at 1-2L/min, Inhale oxygen time should be 45-60 min per day.**
- **For LTOT, it is very important for the patient to strictly follow physician's advice, takes oxygen treatment according to the flow rate and time set by physician. Do not adjust flow rate and time at will.**
- **Do NOT turn the ball in the flow meter up to the red line, otherwise, the purity of oxygen will reduce.**

7. Connect the intake end of oxygen tube onto the outlet of humidifier, then set the nasal cannula over patient's ears, insert the nasal tube into patient's nostrils for starting the oxygen treatment. If longer tube needed, connect the extension tube with outlet of humidifier and oxygen tube.

8. Turn off the power, when the oxygen therapy is finished.

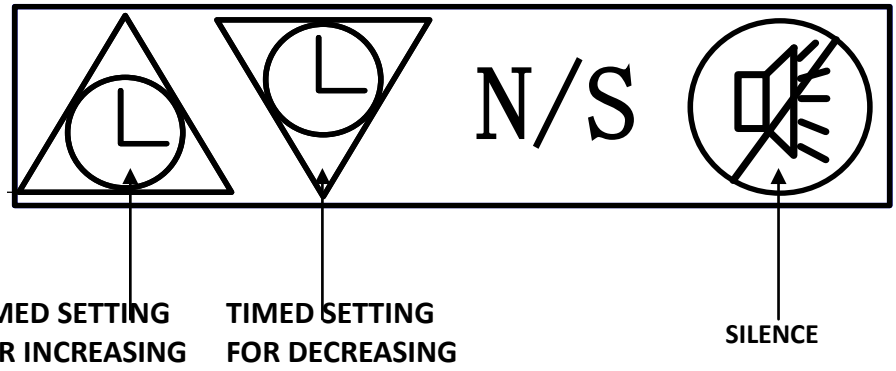
NOTE:
- **Unplug the power plug, if continuous use is not needed.**

9. OC series oxygen concentrator has the function of timing, please refer to the Timed setting operation introduction.

10. OC series oxygen concentrator has the optional function of nebulizer, please refer to the introduction of nebulizer function.

11. OC series oxygen concentrator has the function of oxygen concentration monitoring, when the machine starts working, three indicator bars of oxygen concentration on the LCD will light at the same time for 3 seconds and then will go out at the same time. After 6 to 7 minutes, the LCD indicates the normal concentration.

Button board Definition



1. Timed Setting Button for Increasing
Press the button one time for 10min up

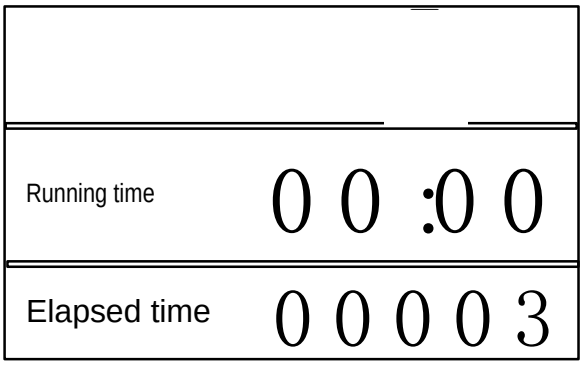
2. Timed Setting Button for Decreasing
Press the button one time for 10min down
(20 seconds after time setting, it will star to counting mode automatically.)

3. Alarm Silence Button
Press this button to stop the alarm sound when some trouble occurs.

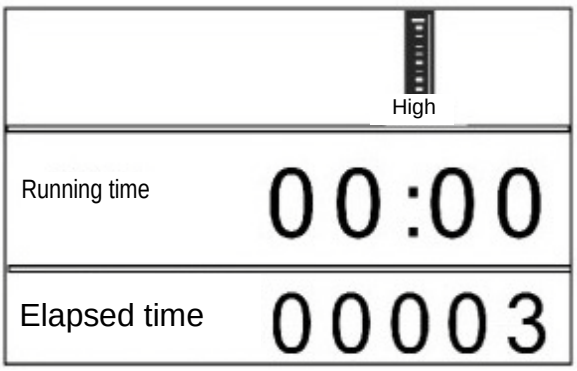
Display Introduction

1. <u>Start within 5min display status</u>

The oxygen purity bar, hour, minute and separator flicker at the same time.
The LCD displaying as below:



Model OC-S has no oxygen indicator



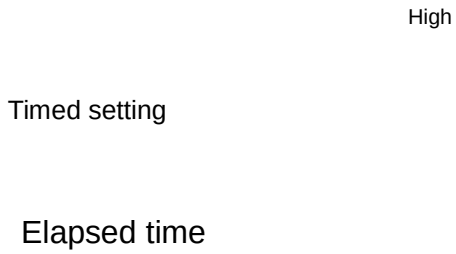
Model OC-E &OC-P w/oxygen indicator

2. <u>Continuous operation mode</u>

Under this mode, the LCD indicates elapsed time and current running time as display below:

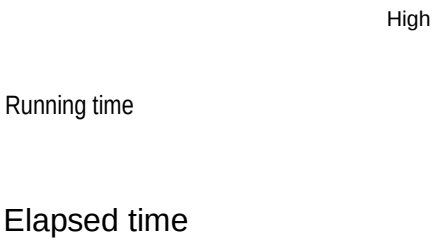
3. Timed Setting mode:

To set the time by press the increase or decrease button, one time for 10min up or down. When setting finished, wait for 20seconds it will start to count the time automatically. The concentrator will stop working, till the time runs out.

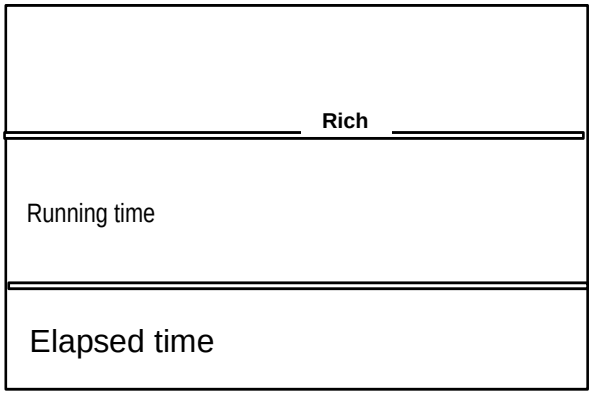


4. Oxygen Parameters Display

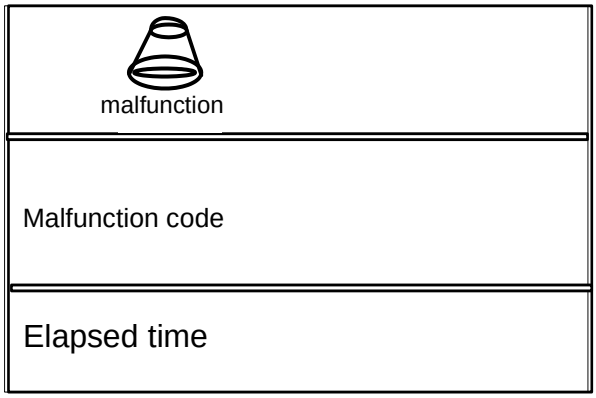
At rated flow, stated concentration should be achieved after initial warm-up period (less than 30 minutes). High O2 purity, Rich O2 purity, Low O2 purity, display as below:



Oxygen purity is higher than 85%，the high O2 purity bar is lighting，and the real figure shown behind the sign.(Realtime concentration display only for type OC-P)



Oxygen purity is higher than 73%，the Rich O2 purity is lighting，and the real figure shown behind the sign. (Realtime purity display only for type OC-P) The concentrator buzzer will remind you as alarm.

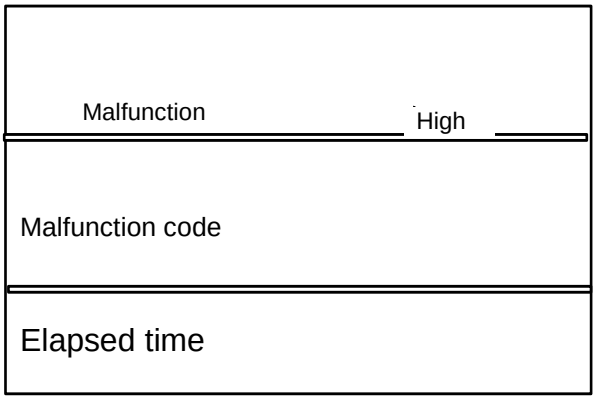


Oxygen purity is lower than 73%, the Low O2 purity is lighting, and the real figure shown behind the sign. (Realtime concentration display only for type OC-P) The trouble code is H:04. The concentrator will stop.

5. Malfunction state display

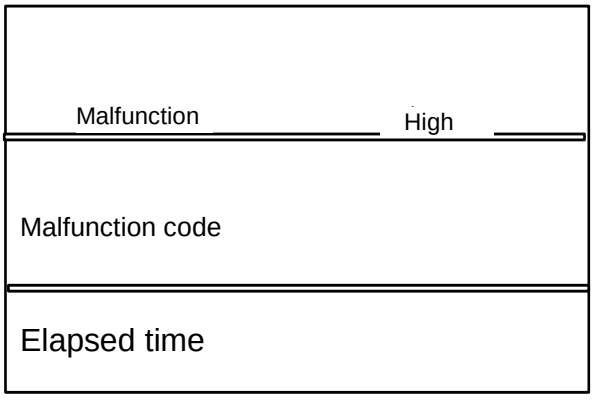
1) High Pressure Alarm

While the working pressure is higher than setting figure, the equipment will alarm. The malfunction code is H:07，and the concentrator will stop. LCD display as below:



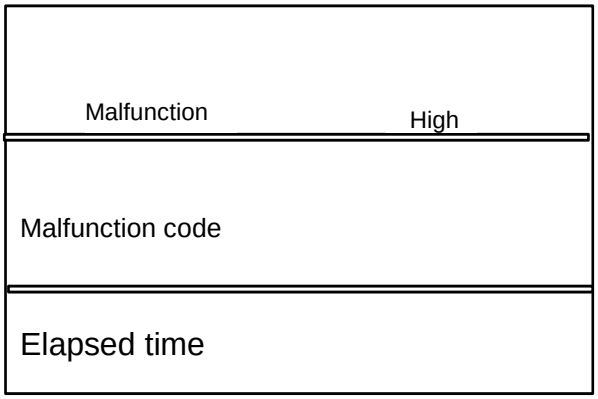
2）Low Pressure Alarm

While the working pressure is lower than setting figure, the equipment will alarm. The malfunction code is H:06，and the concentrator will stop. LCD display as below:



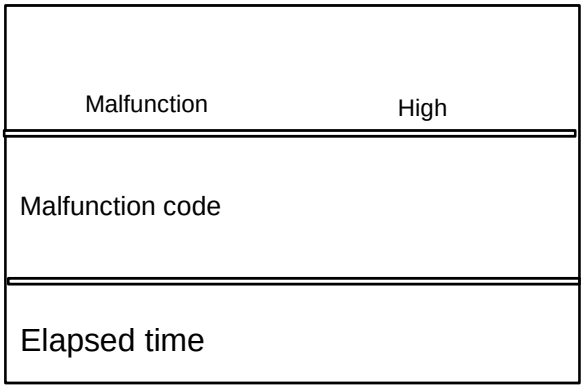
3）High Temperature Alarm

If the temperature of compressor is higher than setting, the concentrator will stop, and the malfunction code is H:05. LCD display as below



4）The fault of OSD Sensor circuit

The malfunction code is E:03, the concentrator is still working. LCD display as below:



5) Routine Maintenance Reminder:

When the machine's working time reach to the maintenance time, this concentrator can remind users to do routine maintenance, display as below：

After serviced by professional, the reminder alarm will stop.

6) Power Failure Alarm

It will alarm if the power failure while the concentrator is working.

Additional Optional Function

Positive pressure outlet

Oxygen concentrator provides nebulizer joint, with optional simple nebulizer, it can realize the function of aerosol therapy. The inner diameter of the connect tube for nebulizer and the joint is Φ5-5.5mm. Nebulizer specification: NebEasy 3558-C02.

Operating steps as below:

1) As Fig.3, connect the tube with tube joint, insert tube joint to the nebulization outlet connector of oxygen concentrator.

Fig.3

tube joint

2) As Fig.4 & Fig.5, turn on the power switch, close the flow meter and connect the other side of the connection tube with the joint of medicine filled nebulization nozzle, and then nebulization treatment can begin.

Fig.4

Fig.5

3) As Fig.6, when the therapy is finished, take off the tube. Press down the external fixation steel rim with left hand, and take out the tube joint with right hand. And then loosen left hand.

Fig.6

Note: Nebulizer must be cleaned after each use. Clean nebulizer and connection tube with detergent and clean water; as to nebulization nozzle and mask use clean water to clean first, then carry on disinfecting and sterilization by dipping then into medical alcohol for 5min, again wash them clean with clean water, and finally put them in the packet after dry up. (Detailed clean method please read the simple nebulizer user manual)

MAINTENANCE

Routine Maintenance

1. In the condition of power off, make a clean for the outside case by soft wet towel with little detergent, and then wipe it up with dry towel, once or twice per month.
2. Air intake filter is used to prevent dust, and need to be cleaned regularly. It is a critical step for ordinary maintenance to clean the filter, at least once a week depending on environmental conditions. Operation steps as below：

1) Take off the two filter nets on both sides of the case, take out the sponge mesh.
2) Rinse the sponge mesh with clean water. Get ride of extra water and dry up naturally.
3) Set back after dry up for future use.
4) Or use the back up one

NOTE:
- **If replacement is needed, please use the same accessories with the one brought with the machine. Accessories designed by other manufacturers have not been tested by Sysmed and are not recommended for use with Sysmed products.**
- **Do not operate the unit without the air intake filter in place.**

3. Over-load protector

- Over-load is caused by over heated, after check and trouble shooting, press “reset” to comeback.

4. Cleaning the Humidifier and cannula

1) Clean the cannula every day. First clean with detergent and then rinse with clean water completely, and dry up naturally. Changing a new cannula once a month is recommended.
2) The distilled water or cold boiled water in humidifier should be refreshed every day.
The humidifier should be cleaned and disinfected every 3 weeks, clean the humidifier with detergent and then rinse with warm or hot water, dip it in household disinfectant for 20-30 minutes, clean again with warm or hot water, and then dry up naturally. If not use, put it in a clean bag.
3) If oxygen tube or cannula is needed, please contact your local home care provider or dealer for recommendations. They should also give you instruction on the proper usage, maintenance, and cleaning.

Professional Maintenance Sevice

When use the oxygen concentrator, be sure oxygen purity is ≥90% at set flow rate, thus ensure the safe and efficient of oxygen treatment.
It should ask for professional maintenance from appointed provider or dealer when the equipment works to every 4000 hours.

NOTE: **Only the professional or dealer who trained and authorized by the manufacturer can do the repairs or adjustment.**

TROUBLE SHOOTING GUIDE

SYMPTOM	PROBABLE CAUSE	SOLUTION
Power on, the equipment is not working but LCD display well	Start capacity of compressor is broken or compressor is not working	Call service provider or dealer.
Power on, the equipment is not working, LCD not display, or works un-continuously	Power cord not plug well or bad contact	* Check whether the power cord is damaged or not. * check whether the power cord is plug well. If no above question, call service provider
Exhaust sound too loud	* Outlet muffler taken off * Outlet muffler broken	Call service provider
No exhaust sound but safety valve has air out	* Pneumatic valve broken * controlling panel broken	Call service provider
No oxygen outlet or the outlet flow is too small	* oxygen cannula kinked or blocked * humidifier bottle not tighten	* unknit the cannula * re-install the humidifier cap Call service provider, if still cannot solve the trouble.
The ball in flow meter is uncontrolled by the knob	* the flow knob is not tighten * turn the knob abruptly or too fast	* to tight the knob * turn the knob slowly and softly Call service provider, if still cannot solve the trouble.
Water back to cannula	* temperature difference caused by the weather, too near to the wall ,draperies or furniture, and the location of the equipment and cannula is different.	* dry the inside of humidifier cap * Do NOT use hot water * Do NOT over-filled humidifier * keep the same temperature of equipment and cannula (at same room)
Over-heating	* cooling fan is not working * compressor is broken	* put your hand on the side of inlet, to feel whether has cooling wind enter, yes means cooling fan is well, no means it's broken * if fan is well, to check how long time it became overheating after start, if it will be hotter and hotter * Call service provider and inform the details.
Alarm continuous concentrator not operating, power switch on. Beeeeeeeeeeep…	* Unit overheating due to blocked air intake *Safety valve of compressor start self-protect system	Turn off the power switch, to re-open till the ball of flow meter fall down to the bottom If the trouble repeat, call service provider
Power switch on, the equipment works well, but no oxygen out and ball of flow meter at the bottom not rising up.	* the flow knob is too tight or broken * the equipment is leaking badly	* power switch on, turn the flow knob anticlockwise, to check the adapter whether move with the knob together, if not, means the flow meter is broken. Otherwise, check the leaking of this product. * Call service provider and inform the details.
Nebulizing too slow	* not assembled well or broken * outlet is not tighten * flow meter not turn to "0"	* re-assemble or change a new nebulizer * surely tight the outlet * adjust the flow meter to "0"
All other problems		Call service provider

QUALITY WARRANTY

Model	Warranty Period
OC-S 30	12 Months
OC-S 50	12 Months
OC-S 60	12 Months
OC-S 80	12 Months
OC-S 100	12 Months
OC-E 30	12 Months
OC-E 50	12 Months
OC-E 60	12 Months
OC-E 80	12 Months
OC-E 100	12 Months
OC-P 30	12 Months
OC-P 50	12 Months
OC-P 60	12 Months
OC-P 80	12 Months
OC-P 100	12 Months

All after-sale service commitment shall be fulfilled by the supplier, dealer or the appointed maintenance company.

During the warranty period, if the product fails under conditions of normal use, the damages to the equipments are not caused by man-made reasons, the supplier, dealer or the appointed maintenance company is responsible to the maintenance or replacement free of charge.

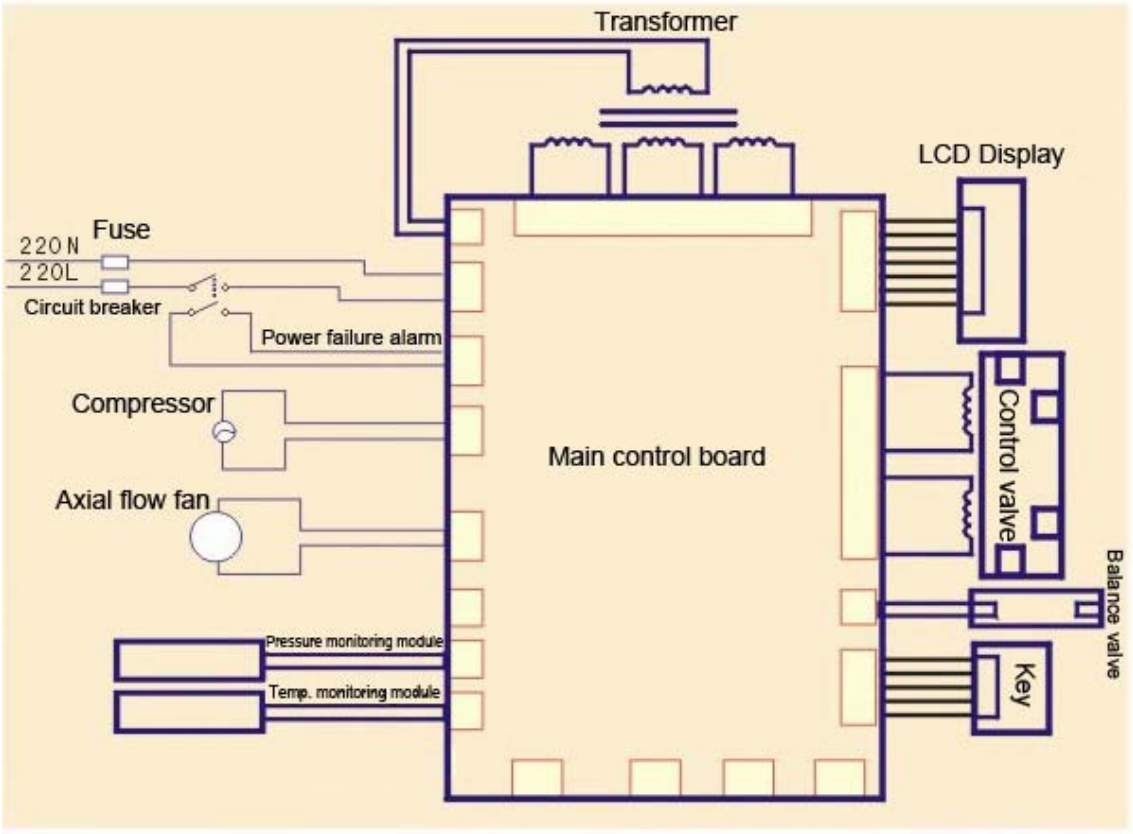
The warranty does not include consumables like oxygen tubing, filters etc. The warranty does not cover the breakdown or damages caused by improper operation, abuse of the product, accident, or to products damaged by reason of repairs made to any components without the specific consent of the supplier. The users should not dismantle the equipment by themselves in the warranty period.

This warranty does not include normal wear and tear or shipping charges. SysMed and the dealer's sole obligation and your exclusive remedy under this warranty shall be limited to such repair or replacement. SysMed shall not be liable for any consequential or incidental damages whatsoever.

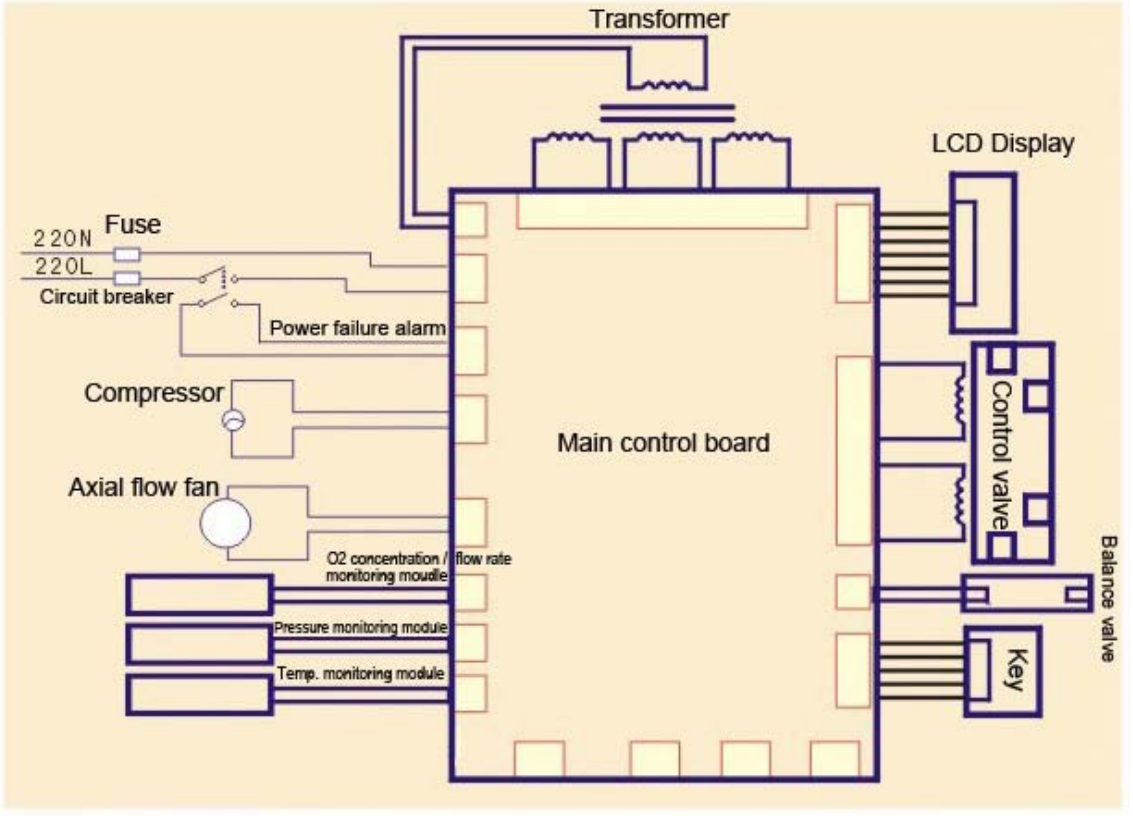
After the guarantee period, or damages excluded in the warranty, the supplier, dealer or the appointed maintenance company will supply customers the paid service.

Attachment I Circuit Diagram

OC-S30



OC-E30 \ OC-P30



Attachment II Packing list

NO.	NAME	QTY
1	Oxygen Concentrator	1
2	Power Cord	1
3	Cannula	1
4	Inlet Sponge Mesh	2
5	Inlet Filter	1
6	User Manual	1
7	Seal Ring for Humidifier Connector	1
8	Passing Paper	1
9	Nebulizer (optional)	1
10	Nebulizer Joint (optional)	1
Remark	Nebulizer and Nebulizer joint are not standard configuration, shall provided upon special orders.	

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