



# Portable Oxygen Concentrator Spirit-3

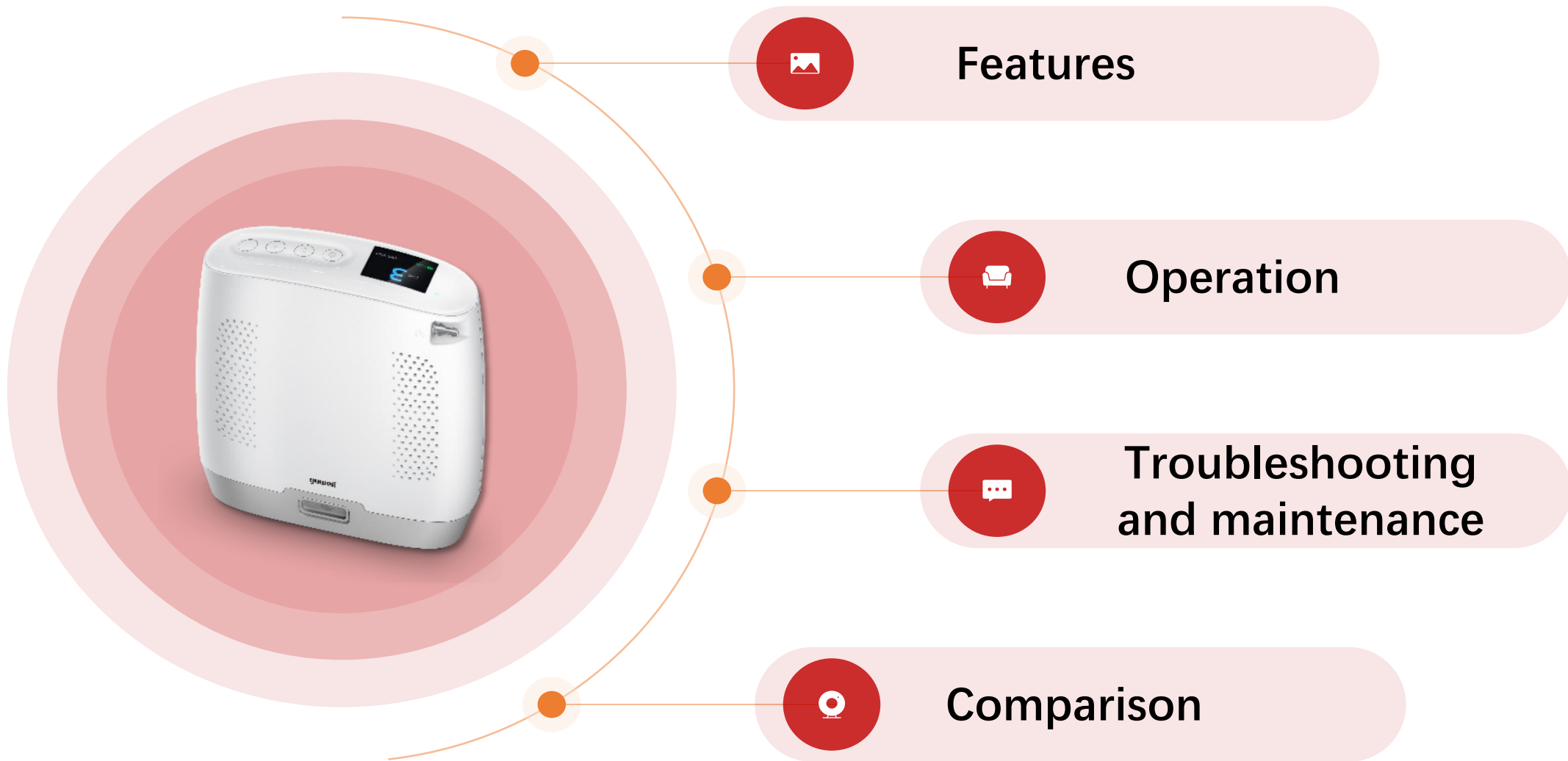
Version 1.0

Feb., 2024



# Contents

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# Introduction



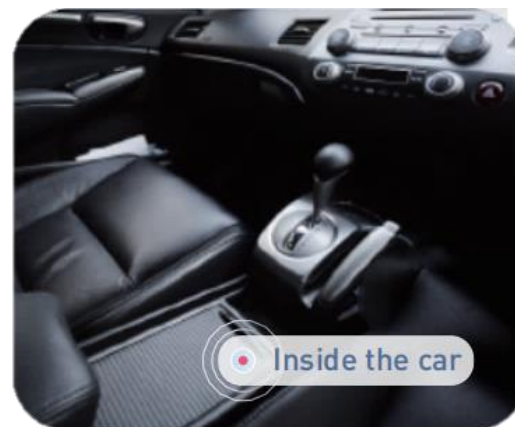
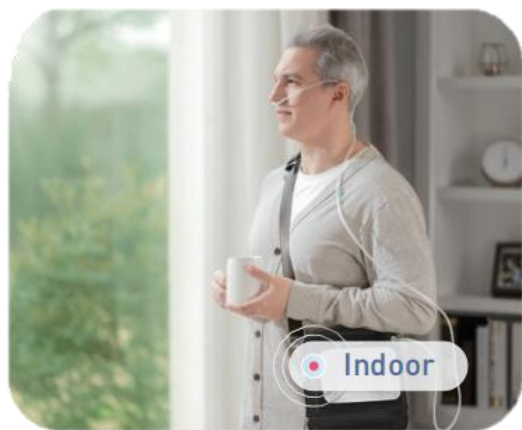
# **| Video**

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## I Intended Users

- Yuwell POC spirit-3 provides a high concentration of supplemental oxygen to **patients requiring respiratory therapy**.
- It may be used in the home, institution, vehicle, train, airplane, boats and other transport.



# Overview

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**Pulse oxygen supply mode**

**High oxygen concentration**

**Detachable molecular sieve**

**Lightweight and portable**

**Modular lithium battery**

**Various applicable scene**

**High altitude**

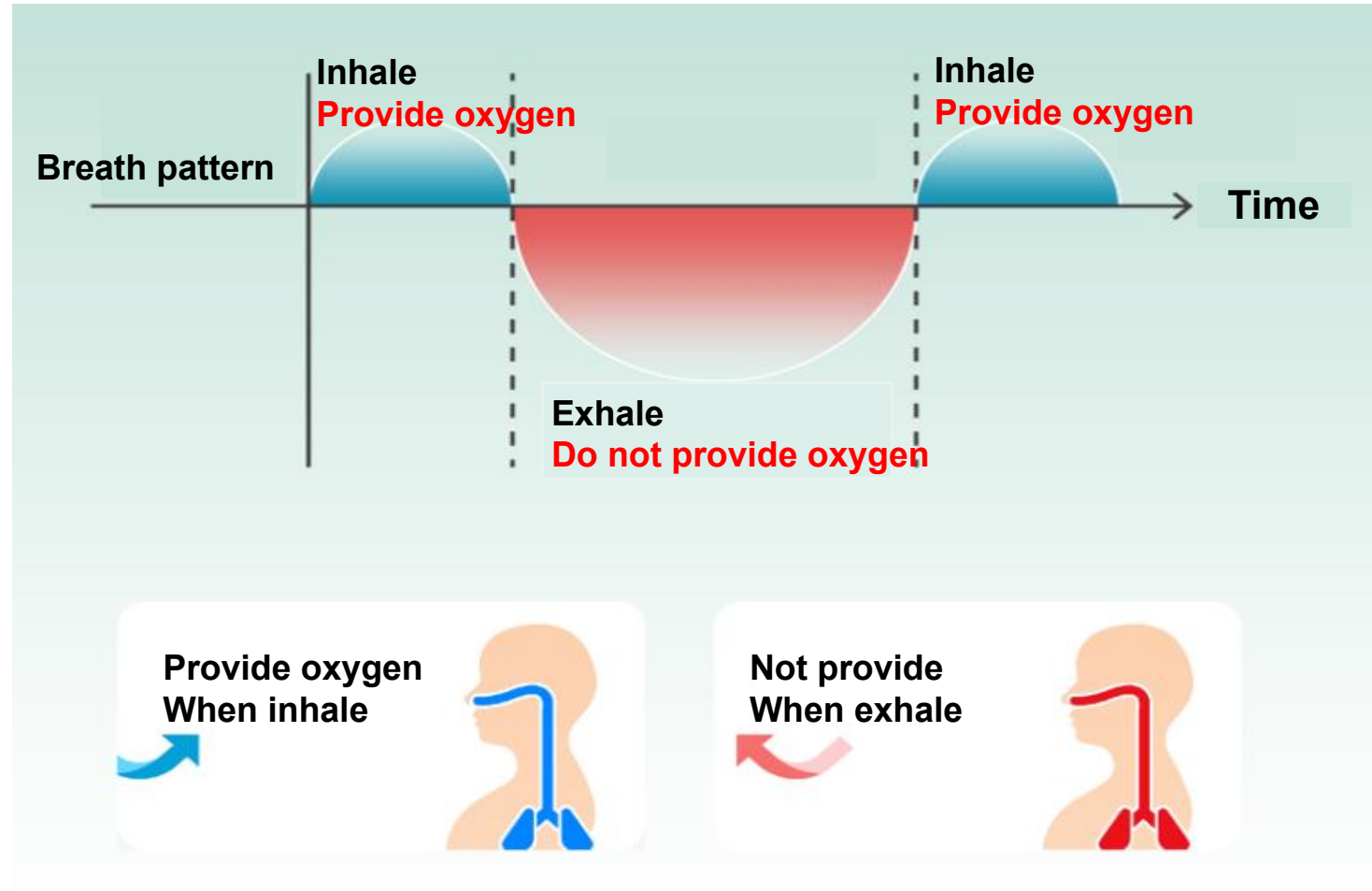
**Automatic warning system**



# Features

## Pulse oxygen supply mode

- improves the utilization rate of oxygen.
- In the process of use, it can automatically detect your breathing, according to the changes in flow and pressure during your breathing.
- oxygen is provided when you inhale, and it is turned off when you exhale to realize pulse oxygen supply.

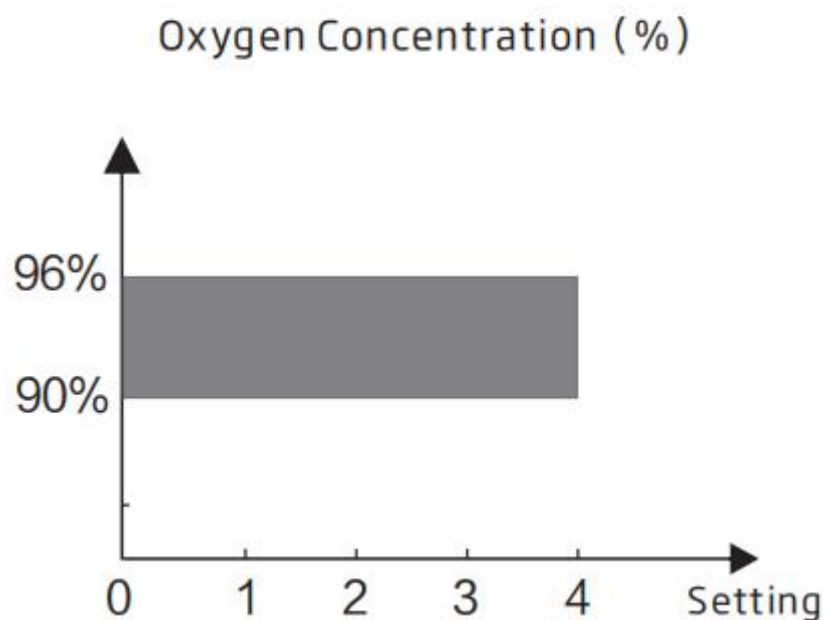




# Features

## High oxygen concentration

- Medical Standard
- $93\% \pm 3\%$  high oxygen concentration
- Adjustable flowrate from Setting 1-4





# Features

## Detachable molecular sieve

3 steps to change



Step 1: push



Step 2: pull



Step 3: change



# Features

## Lightweight and portable

- Only 22 cm high and 2.2 kg
- Wearable by either shoulder strap, or backpack (optional) .



(optional)

# Features

## Modular lithium battery

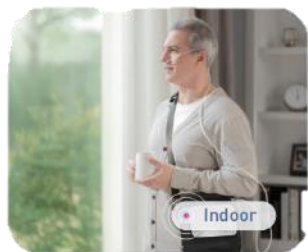
- Maximum usage time: 5 hours
- Another batteries can be added to increase the working time
  - **Charging time:** 3 hours 40 minutes
  - **Usage time:**
    - level 1 : 5 hours
    - level 2 : 3 hours 20 minutes
    - level 3 : 2 hours and 20 minutes
    - level 4 : 2 hours



# Features

## Various applicable scene

- These lightweight devices are used for portability and time away from home and can easily be carried and used anywhere, whether in a home, automobile, or plane to deliver the oxygen you need.



**AC electrical power at home**



**DC power in a vehicle**



**Battery power on the go**



# Features

## High altitude

Up to 5000 meters above sea level without decrease of concentration levels.



# Features

## Automatic warning system

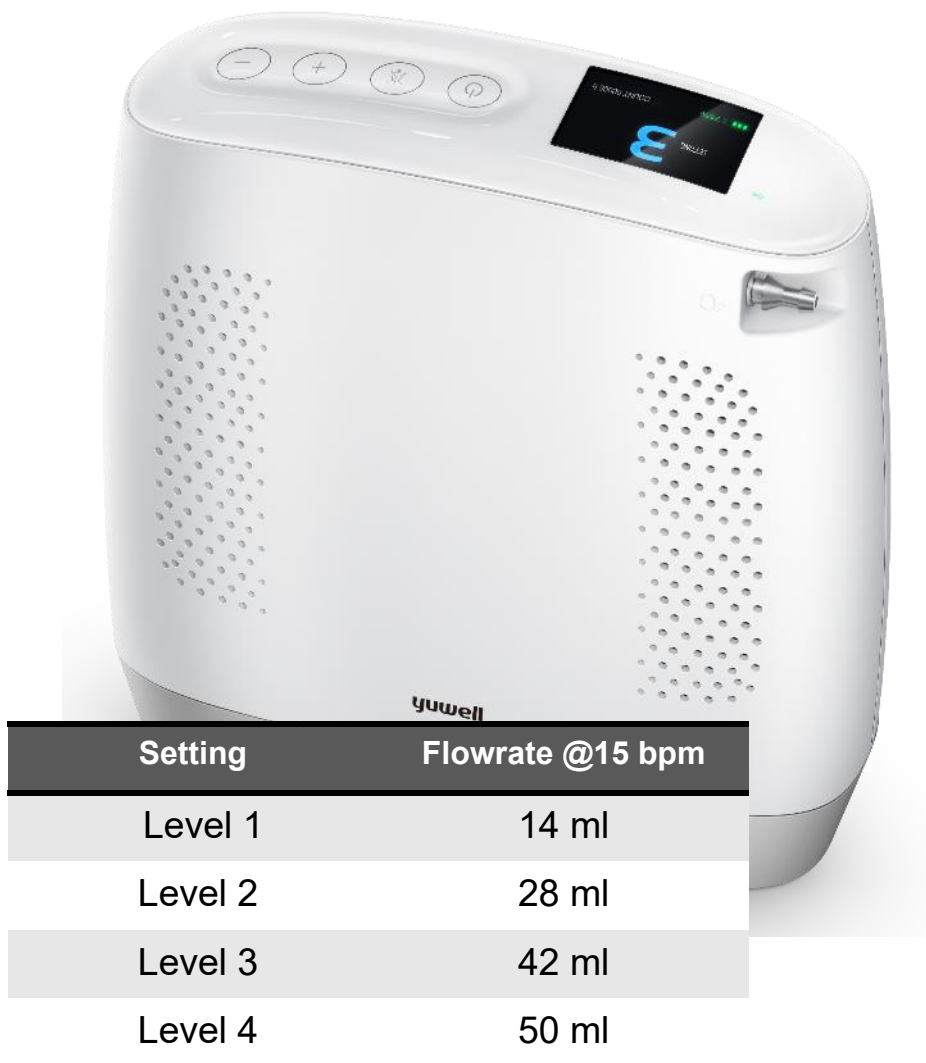
- **System Over Hot:** Alarming and Shut Down
- **Pressure Failure:** Alarming and Shut Down
- **Compressor Failure:** Alarming and Shut Down
- **Battery Over Hot:** Alarming and Shut Down

- **Low Oxygen Concentration:** Alarming
- **No Breath Detected:** Alarming
- **No Flow:** Alarming
- **Low Battery:** Alarming





## Technical data



### Spirit-3

**Small, Portable, Battery Inside, Medical grade**

- Flow Range:3.75L/min
- Oxygen Concentration:96%~90%
- Maximum Outlet Pressure:150kPa
- Sound Level:≤55dB(A)
- Net weight: 1.7kg (without battery);  
2.2kg(with battery)
- Dimensions:22\*8\*22(cm)

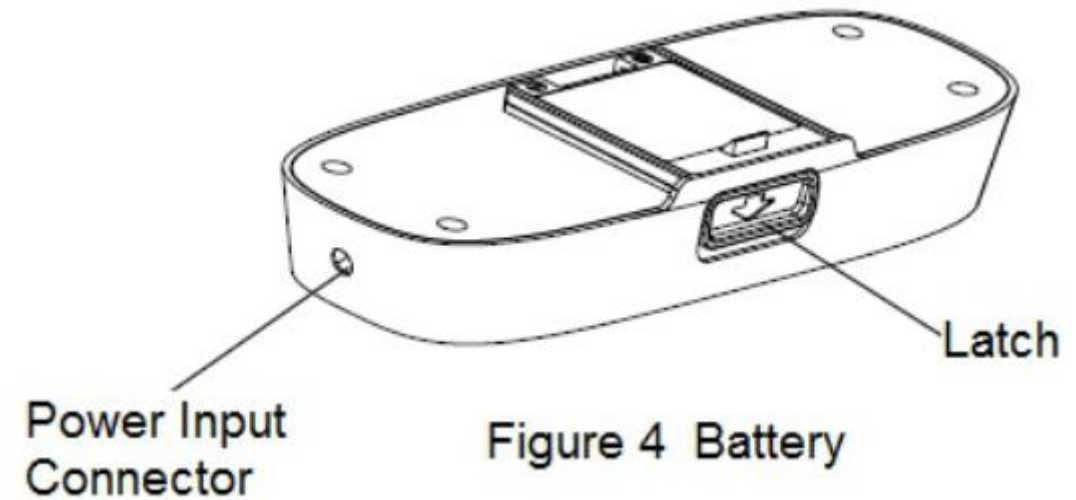
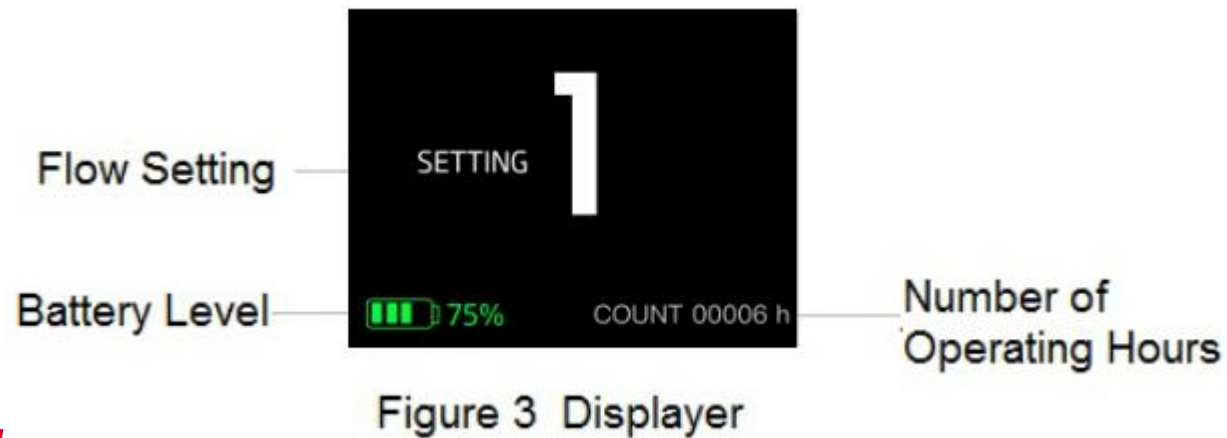
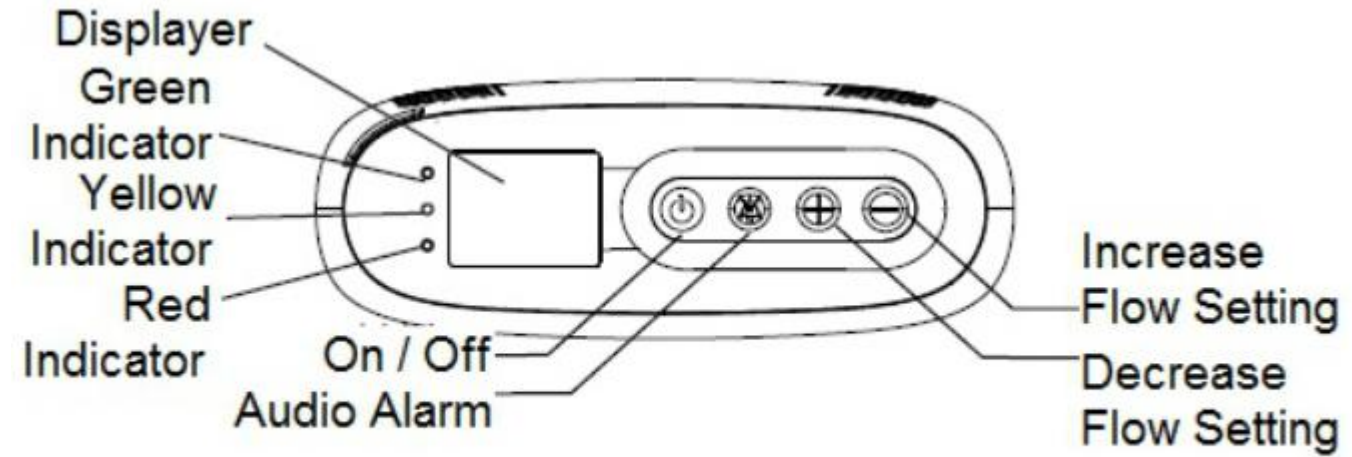
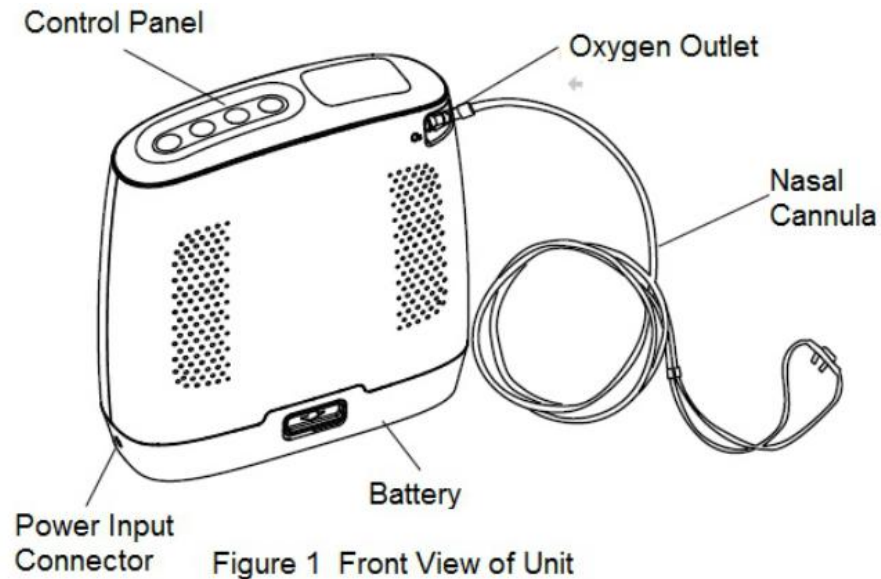


# Operation

A hiker in a blue jacket and khaki pants is ascending a forest trail. He is using a trekking pole and carrying a backpack and a red hydration bladder. The word "Operation" is overlaid in white text on a red background.

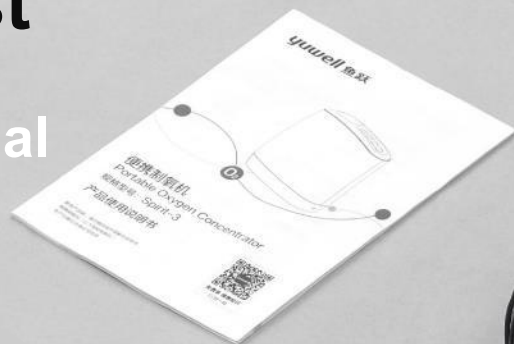


# Overview



# Packing List

User Manual



Oxygen Concentrator



Carry Bag



Nasal Cannula



Storage Bag



DC Power Supply



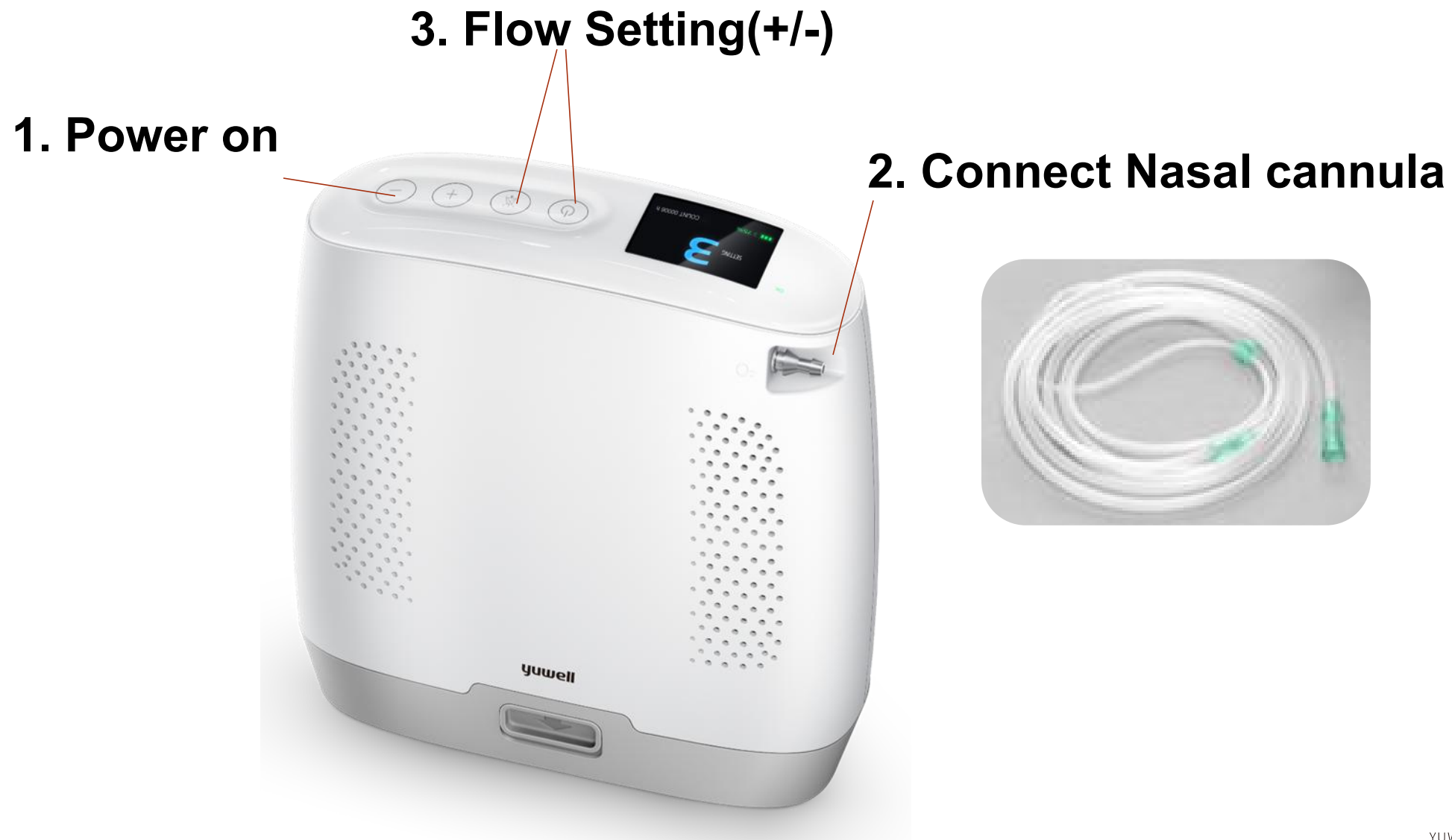
AC Power Supply



Filter Felt



# Operation



# Video

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## Fast charge pack (Optional)



Charging time:

From **3 hours 40 minutes**  
(Standard battery)



to **2 hours**  
(Fast charge battery)

# Troubleshooting and Maintenance





# Alarms & solutions

## Compressor Failure

Use backup O<sub>2</sub> source  
Contact equipment provider

 COUNT 00006 h

(e.g.: check compressor) (change the battery)

## Hot Battery

Use backup O<sub>2</sub> source  
Contact equipment provider

 COUNT 00006 h

## Hot System

Use backup O<sub>2</sub> source  
Contact equipment provider

(e.g.: check fan)

## Technical Fault

Use backup O<sub>2</sub> source  
Contact equipment provider

 COUNT 00006 h

(pressure high/low)  
(e.g.: check the rubber rings)

## No Flow

Use backup O<sub>2</sub> source  
Contact equipment provider

 75%  COUNT 00006 h

(pipeline is blocked)

## No Breath Detected

Check cannula:  
- connect to the device  
- position on the face  
- not kinked  
Breath through your nose

 75% COUNT 00006 h

## Low O<sub>2</sub> Concentration

- Clean the filter
- Use backup O<sub>2</sub> source
- Contact equipment provider

 75% COUNT 00006 h

## 1

SETTING

### Low Battery

Replace/charge battery

 10% COUNT 00006 h

## 3

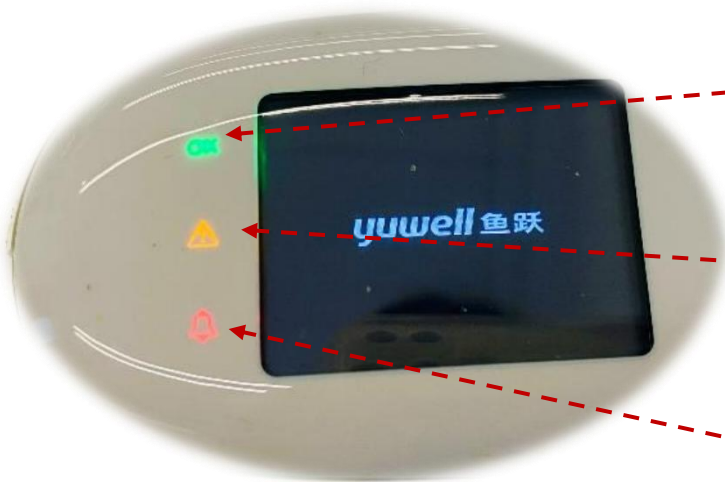
SETTING

### Empty Battery

Replace/charge battery

 5% COUNT 00006 h

# Alarm Signals



Symbol	Status	Indicators
OK	1) SYSTEM OKAY: O2 concentration $\geq$ 82% (+3%) 2) Detected breath signal	Green
⚠	1) O2 concentration < 82% (+3%) 2) No breath detected 3) No flow 4) Low battery	Yellow
🔔	1) Pressure failure 2) Compressor failure 3) System over heat 4) battery over heat	Red

Light color	Buzzer	Machine status	Solution
Green	/	Ok	/
Yellow	Alarm	Keep working	1.contact the supplier immediately 2.Can continue to use the device 3.Have alternate oxygen source nearby
Red	Alarm	Shutdown	1.Turn off the device immediately 2.Use the alternate oxygen source 3.contact the supplier

# Maintenance - Cabinet and Nasal cannula

## Cabinet:

- Clean at least **once a month**
- With clean and soft cotton cloth

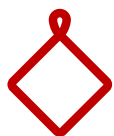


## Nasal cannula:

- can only be reused by individuals
- **Change:** replace **every 2 weeks**
- **Wash:** put into 70-80% medical alcohol, cover and soak for 30 minutes for disinfection.

\* Prepare the backup oxygen resource, like Oxygen bag, if used for long time

# Maintenance -Battery



- Wipe the battery case at least **once a month**
- With clean and soft cotton cloth or sponge



- Store the battery separately in a cool and dry place if not use for a period of time



- Avoid long-term operation at the temperature  $\leq 5\text{ }^{\circ}\text{C}$  or  $\geq 40\text{ }^{\circ}\text{C}$

\* Battery working temperature:  $5\text{ }^{\circ}\text{C}$  -  $40\text{ }^{\circ}\text{C}$





# **| Maintenance – sieve beds**

- **Detachable sieve beds**

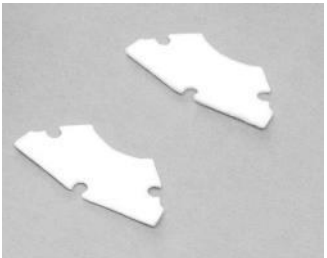


# Maintenance - Filter felt

## Disassembly

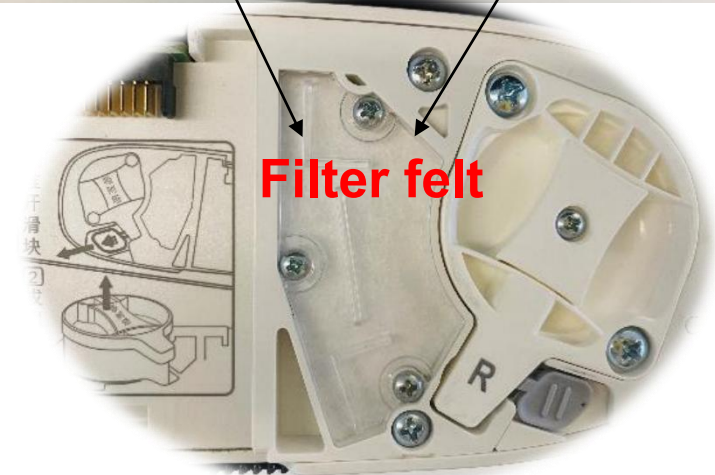
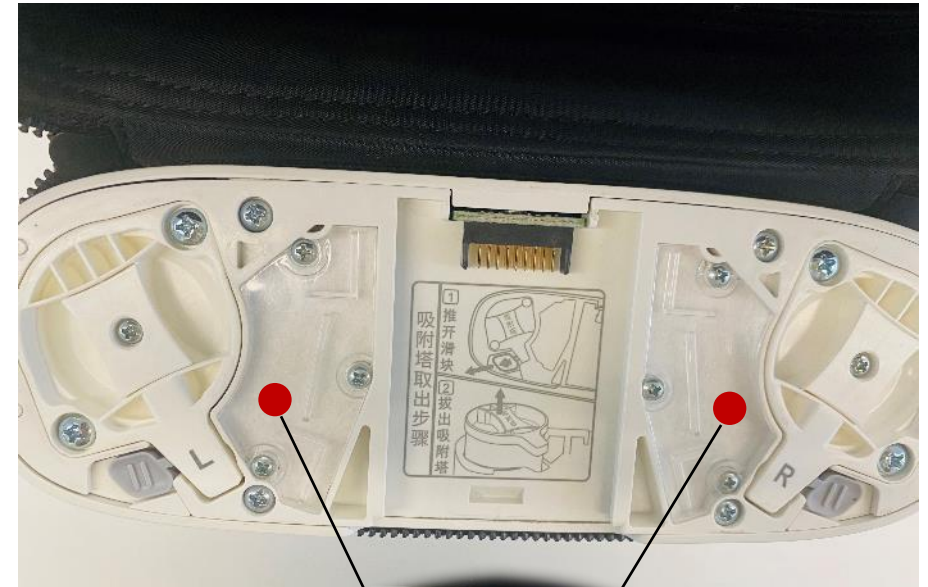


1. Remove the battery
2. Screw out the screw
3. Remove the filter felt



## Replace

- Every 100 hours
- The filter is dirty
- The actual cleaning time is not fixed



# Comparison



# Marketing



Brand	Yuwell	Inogen	Philips	Caire	Invacare	GCE
Model	Spirit-3	One G4	SimplyGo Mini	Freestyle	Platinum	Zen-O lite
Max oxygen flow(ml/min)	750	1000	1000	1050	1000	1050
Oxygen concentration	90%-96%	87%-96%	87%-96%	87%-95.5%	87% - 95.6%	87% - 96%
Sound pressure level (dB(A))	≤55 @Setting 4	40 @Setting 2	46 @ Setting 5	39.9 @ Setting 2	≤65 @ Setting 4-5	38@ Setting 2
Weight (single battery) (kg)	2.2	1.27	2.3	2.3	2.18	2.5
Dimension (cm)	22×8×22	15.01x6.8x18.2	23.9x9.1x21.1	25.4×7.9×18.5	23.9 x9.4x18.8	24.9×9.7×23.1
Battery duration (hours)	5	2.4	4.5	8	5	5
Battery charge time (hours)	3.6	3	4	3.5	2.3	-
Altitude (m)	5000	3048	3048	3048	3048	4000

**yuwell**

*Thanks*

