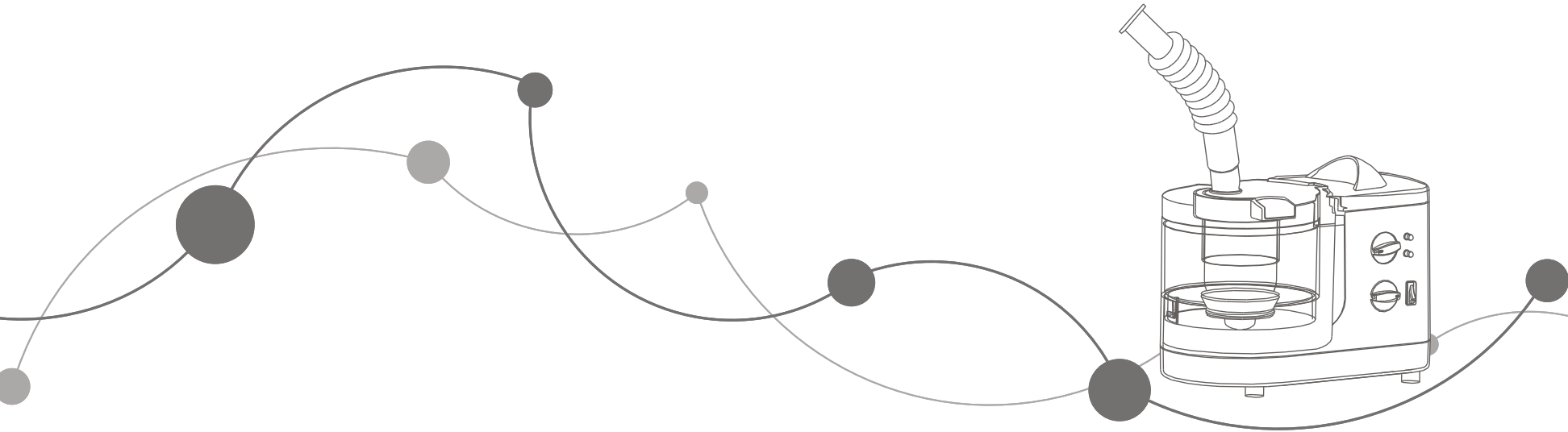


# yuwell



## 402AI Ultrasonic Nebulizer


## User's Manual

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130802-0A 

Please read the user's manual closely before using!

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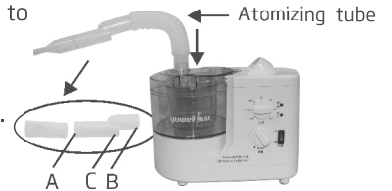
## OPERATIVE POINTS

- ▶ Continuous working hours  $\geq 4$  hours
  - Pour the water into the sink before turn on the machine. Turn off the machine before pour out the water.
  - The chips are consumer products. Replace it when the machine is not working normal.



Dry the machine everyday after use.

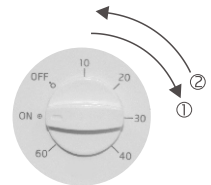
- ▶ Connect the anti-back flow connector when using nozzle II
  - To prevent the medicine liquid flow back to the machine and damage it.
  - Part A is for connecting the nozzle II.
  - Part B is for connecting the atomizing tube.
  - Part C is the atomizing outlet.



- ▶ Please use the atomizing cup with oscillation diaphragm to prevent water leakage.
  - The add in medicine liquid should not exceed 350mL in the atomizing cup(big).
  - The add in medicine liquid should not exceed 150ml in the atomizing cup(small)
  - Sealing rings and oscillation diaphragms should be used with big(small) atomizing cup. Screw tightly before use to prevent water leakage.



- ▶ Application of timing knob
  - For the timing less than 10 min, you should turn the knob over 20min first, and then turn the knob back to your wanted setting min.
  - You should use the timing knob when using the big atomizing cup when you are indoor, preventing damage to the machine.



- ▶ Never stack oscillation diaphragms
  - Never stack the oscillation diaphragms (0.05mm), this will cause the atomizing particles device disfunction.
  - Never forget to turn off the machine incase of breaking the oscillation diaphragm.
- ① Replace a new one if it becomes coarse.



It may cause damage to the diaphragm if there is no medicine in the cup.

- ▶ Main points of the big atomizing cup and the top cover

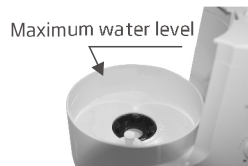
- Install the big atomizing cup clockwise, make the ↓ align with ↑.

Install the top cover on the cup. Make the air inlet at a proper position.



- ▶ Water volume control

- Add 300ml water before turning on the machine, not to exceed the maximum water level by visual inspection.



- ▶ Insert the atomizing tube firmly

- Insert the atomizing tube firmly to the fog outlet to prevent oozing of water.



## SUMMARY

- ▶ This product is used to atomize the medicinal liquid into the finest particles, for easily inhaling into the lungs by patients. It is widely used for internal medicine, surgery, pediatrics, and department of dermatology of hospital and nursing homes, especially suitable for respiratory disease such as asthma.

## TECHNICAL PARAMETERS

1. Power supply: ☐ AC120V ± 10% ☐ AC220V ± 10% ☐ AC230V ± 10%

☐ 50Hz ☐ 60Hz

2. Input power: 50VA

3. Ultrasonic frequency: 1.7MHz ± 10%

4. Max nebulizing rate: ≥ 3mL/min

5. Timing range: 0-60min

6. Volume of sink: 300mL

7. Max volume of the little atomizing cup: 150mL

8. Max volume of the big atomizing cup: 350mL

9. Fuse tube: ① F0.5AL250V, Φ5 × 20 ② F1.5AL250V, Φ5 × 20

10. Weight: 1.8kg

11. Dimension: 247 × 140 × 201(mm)

12. Noise ≤ 50dB(A)

13. Continuous working hours: ≥ 4 hours

14. Mass median diameter(MMD): 3.9 μm Percent of MMD < 5 μm: > 65%※

※ Test Condition: Temperature: 20°C, Relative humidity: 53%, Test distance: 10cm away from atomizing outlet, Test solution: 0.9% physiological saline.(Test result changes with different condition and solution.)

⊙ Never operate the machine in flammable, explosive gas environment.

▶ Electric classification: Class II, type B application

▶ Work system: work continuously.( Continuous working hours ≥ 4 hours with enough water in the sink.

## NORMAL OPERATION CONDITIONS

Temperature range: +5°C ~ +40°C

Relative humidity: 30% ~ 80%

Atmosphere pressure: 860hPa ~ 1060hPa

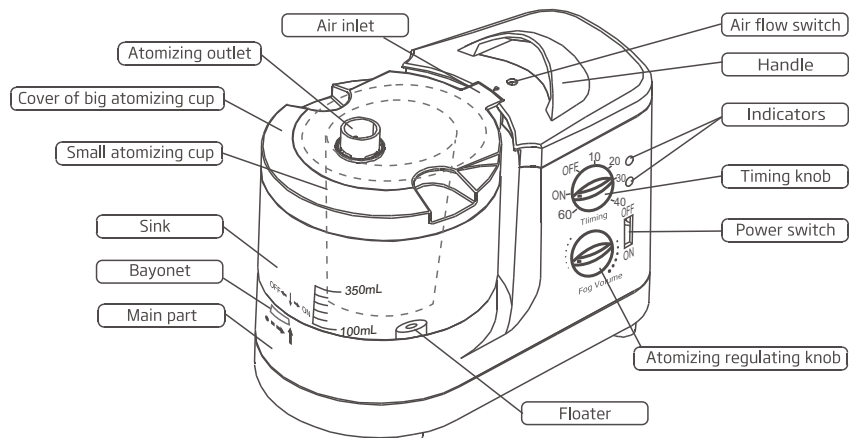


Figure 1: Structural representation

⚠ NOTE: Do not place other things under the machine and keep dry to ensure clear air flow.

## USING METHOD

### PREPARE WORK

#### ► UNPACKING

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

#### ► Place the switch and knob to proper position:

Turn atomizing regulating knob anticlockwise to the ● (minimum), and the timing knob to ON, and air volume knob to smaller position (close position). Turn vent knob to observe the rotation of vent from the side.

#### ► Fill 300 ml clean water into the sink until the floater floating at below the maximum water level by visual inspection).

① Take out the cover and the small atomizing cup. Take out the cover of the big atomizing cup, then take out the small atomizing cup.(Figure 3)

② Take out of the big atomizing cup. Lift up the big atomizing cup as Figure 4.



Figure 3: Lift up the top cover



Figure 4: Take out the big atomizing cup

## ELECTRICAL RATIONALE

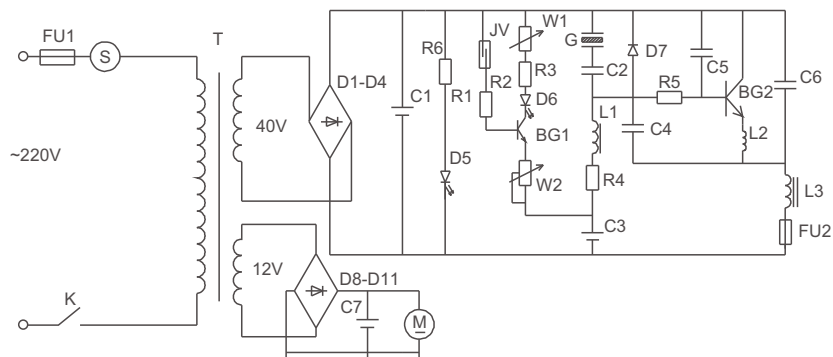


Figure 2: Electrical rationale

Electrical maintenance should be operated by specialist.

③ Fill 300 ml clean water into the sink until the floater floating (not to exceed the maximum water level by visual inspection).



Figure 5: Fill water into the sink (with power off)

- Fill medicine liquid into the atomizing cup, turn anticlockwise and assemble the transparent plastic parts.

① First install the big atomizing cup. Then put the small atomizing cup within medicine liquid into the big atomizing cup. The big atomizing cup also can be used for holding medicine liquid once the volume is over 150 ml. However it is necessary to unscrew large internally threaded cover of the big atomizing cup to add a large oscillating diaphragm, Put the sealing ring upon the oscillating diaphragm and screw tightly before use to prevent water leakage. Install the big atomizing cup within medicine liquid .And put the top cover on the cup. Make the air inlet in proper position. Then connect the atomizing feeding tube, nozzle II or mask.

② Add anti-backflow connector while using the nozzle or mask to avoid the medicinal atomizing fog flowing back and cause damage to the machine.












## TURN ON

- Turn on the power, the indicate illuminate and the fan starts to work.(If there is no water in the sink or water is not enough, the indicate will not illuminate. Please turn off and add enough water).
- Regulating: turn the atomization knob to the max and the flowrate knob to the middle, this position is the best utilization. If liquid medicine is little, please turn the two knobs to low.
- After atomization of liquid medicine, take out the big atomization cup gently to prevent dripping.
- Turn off the machine if there is no liquid medicine or water. Change the water every 4 constant hours.

## AFTER USE

- Pour out the water after turn off the machine when finish using the machine, then dry the sink and the chips to prevent oxidation , effect the life of the chips.
- Disinfect the mask, bellow , atomizing cup as follows: Clean with water first and soak into the disinfection solution with chlorine 250mg/L~500mg/L, take out after 30 minutes and rinse with water, air- dry them before storing.

## SYMBOLS

Symbol	Description	Symbol	Description
	Alternating current		Consult the manual
	Class II Equipment		B application part
	OFF(power, disconnection from the mains)		ON(power, connection to the mains)
	OFF(Timer)		ON(Timer)
IPX1	DRIP PROOF		KEEP UP
	FRAGILE		KEEP DRY

## MAINTANENCE

- ⚠ The temperature of the water shouldn't be below 15°C nor exceeding over 40°C.
- Fill the sink with pure water (or distilled water) for better operation.
- ⊘ Never add liquid medicine directly into the sink, or may cause damage to the machine.
- ⚠ Please replace the chip when the splashed water of the sink decreases obvious.
- The floater in the sink is the sensor alarm for water level. The machine will automatically shut down when the water level is too low, and the indication light will go off.
- REPLACE THE FILTER: Shut down the power first. Unscrew the fuse cover anti-clockwise with a screwdriver to take out the fuse and replace it. (Fuse type: ① F0.5AL250V, Φ5 × 20 ② F1.5AL250V, Φ5 × 20)
- REPLACE THE CHIP: Shut down the power first. Unplug the power plug, pour out the water in the sink, turn upside down the machine, open the circle cover from the bottom. Pull out the connection lines and unscrew the two screws to take out the chip, then insert a new one.
- Disassembled by specilists: Please shut off the power first and unscrew the four screws under the machine.
- ⊘ Do not touch the splashed water or put hands into the sink when machine is working.

#### ► TRANSPORTATION AND STORAGE CONDITIONS

temperature range: -40°C ~ +55°C      Relative humidity: 10% ~ 93%

Atmosphere pressure: 700hPa ~ 1060hPa

⚠ Note: Packaged products should be stored in well ventilated rooms without corrosive gases.

#### ► RADIO FREQUENCY INTERFERENCE:

This product is suitable for using in hospitals, at home and in other buildings directly connected with low power supply.

The frequency of the machines only works internally, it will not cause effect to other electronic devices or machine.

Large numbers of other radio frequency devices in hospitals may interference the machine.

You can: check and find out the interference source, and do as the followings: (1) Turn off the nearby interference source and turn on the nebulizer again. (2) Change direction or position of the interference source. (2) Keep the interference source away from the nebulizer.

Fuse broken	New fuse broken again	Over higher voltage or short circuit inside	Change a new fuse after trouble shoot	Repairs by qualified personnel
No fog	No flow in air duct port blockage	Vane blocked	Repair the fan	Repairs by qualified personnel
	Air duct port blockage	Too much medicine liquid in the cup	Reduce the medicine liquid	

### ACCESSORIES LIST

Nebulizer	1pc	Mask	1pc
Nozzle II	2pcs	Chip	1pc
Bellows	3pcs	Rhinitis tube	1pc
Bellow connector	2pcs	Anti-back flow connector	2pcs
Nozzle I	1pc	User's manual	1pc
Fuse tube (F0.5AL250V, $\Phi 5 \times 20$ )		1pc	
(F1.5AL250V, $\Phi 5 \times 20$ for main circuit board)		1pc	
Oscillating diaphragm (large and small) 3pcs respectively			
(each 0.05mm thick, do not stack the diaphragms)			

All specifications and product configurations are subject to change without notification.

### TROUBLE SHOOTING GUIDE

Symptom	Probable reasons	Solution	Remark
Nothing coming out	Power indicator illuminates	Several oscillating diaphragms found stacking	Install one piece of diaphragm
		Inappropriate attachment of chip or damaged	Re-install or change a chip
	Water level indicator doesn't work	No water in the sink or not enough	Fill water into the sink to make the floater floating
Atomizing volume decrease	Less atomizing Fog	The ageing chips or water marks.	Change chip or clean the surface
		Diaphragm becomes coarse or installed improperly	Change or re-install the oscillating diaphragm
	Coming out intermittent	Plating surface peel off	Change chip after shut down