

# CPAP Washbasin Manual

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**MEDICAL TECHNOLOGY TRANSFER AND SERVICES CO., LTD**

No. 26, Lane 41, An Duong Vuong street, Tay Ho district, Hanoi, Vietnam  
Tel: +84 243766 6521 Fax: +84 243718 8050  
Email: [assistance@mtts-asia.com](mailto:assistance@mtts-asia.com)  
[www.mtts-asia.com](http://www.mtts-asia.com)

## Equipment needed

CPAP Washbasin

Disinfectant (*Presept preferred, bleach acceptable*)

Filtered or distilled water

Sterile Water (*see instructions for how to prepare sterile water on page 18*)

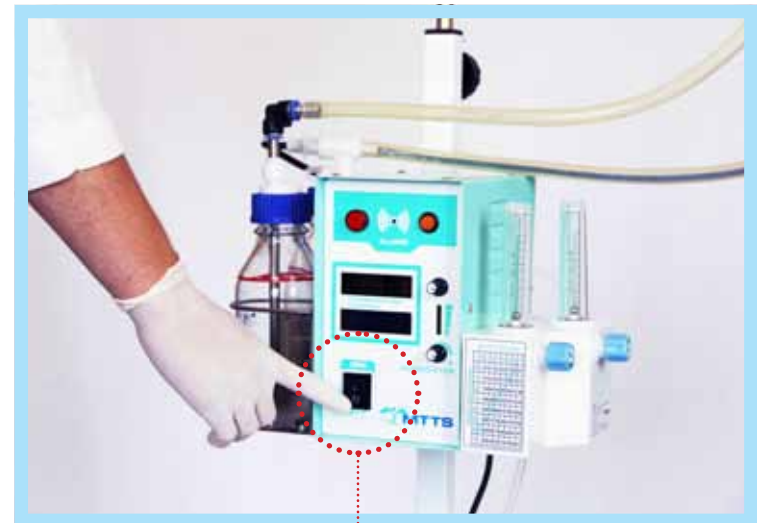
Personal Protective Equipment (*gloves, eye protection, surgical mask, and gown or impermeable apron*)

## Step 1

Wash hands and put on personal protective equipment (PPE). At a minimum, this should include gloves and a gown or impermeable apron. Eye protection and a surgical mask should be worn when working with disinfectant solution.

## Step 2

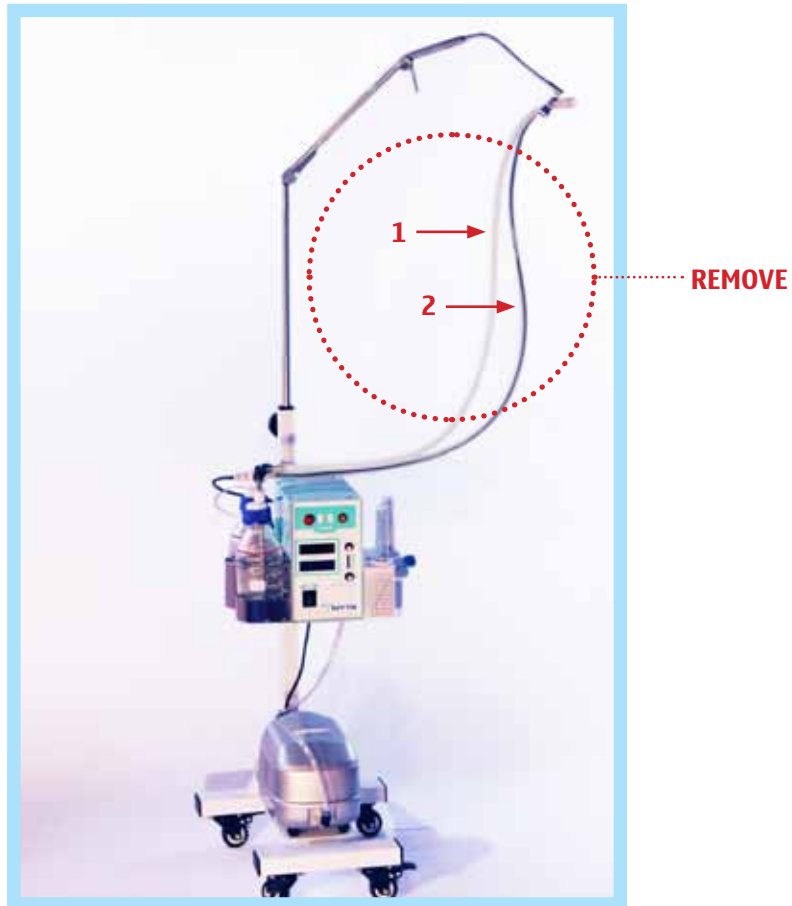
Make sure the CPAP machine is switched off and the power cord has been disconnected from the electricity supply.



**SWITCH OFF**

### Step 3

Remove the silicone tubing from the CPAP machine.



### Step 4

Disconnect the heating element at the back of the device (1).  
Detach the tubing from the bottle (2), and gently remove the heating element from the silicone tubing (3).



## Step 5

Wipe the heating element completely with alcohol to disinfect it.  
Afterward, hang the heating element somewhere clean to dry.



## Step 6

Gently pull out the tube that is connected to the air.



## Step 7

Remove the bottles and wash them with dishwashing detergent and filtered or distilled water. Then rinse off the detergent with sterile water.

## Step 8

Prepare the washbasin that has been supplied with the CPAP machine. Prepare disinfecting solution by adding appropriate disinfecting chemical to filtered or distilled water. Presept (from Johnson and Johnson) is highly recommended, as it does not leave any white calcium deposit on the bottles. Other disinfecting agents such as concentrated chlorine solution (bleach) are also acceptable. See APPENDIX page 16-17 for the proper dilution of disinfecting chemical.



## Step 9

Add the disinfecting solution to the basin (1). Place the bottle set and the silicone tube inside the basin (2). Connect the small clear tube with the bottle (3) - the same place you disconnected in Step 6.



## Step 10

Use one of the small white plugs that are hanging inside the basin to seal the opening to the bottle where you pulled out the heating element before (1). Then use another plug to seal the canula (2). The plugs will seal the bottles and tubing together so that the disinfecting solution will reach all inner surfaces.



**CLOSE THE OPENING  
WITH PLUG**



**CLOSE THE OPENING  
WITH CANULA PLUG**

## Step 11

Turn the pump's power switch on to run the pump. Now you can see the disinfecting solution is running through the bottles and the tubes. It is normal for a small amount of water to flow out of the top of one of the bottles. Turn this bottle as needed so the water flows back into the basin. Keep the pump running for 1 hour.

## Step 12

Turn off the pump. Disconnect all of the tubing, remove all of the caps, disconnect all of the connectors, and turn the bottles upside down. Fully submerge all of the parts in the disinfectant solution to disinfect the parts that were not constantly contacting the solution previously. Let sit for 1 hour.



## Step 13

Carefully remove all of the pieces from the washbasin and discard the disinfectant solution. Rinse all of the bottles, tubing, and connectors inside and out with sterile water.

## Step 14

Allow all of the CPAP pieces to dry. Some hospitals have the air spray system. If you have the air spray system, use the air gun to dry the bottle and other parts of the CPAP. If you don't have this system, just place the bottles on the shelf and let them dry themselves.

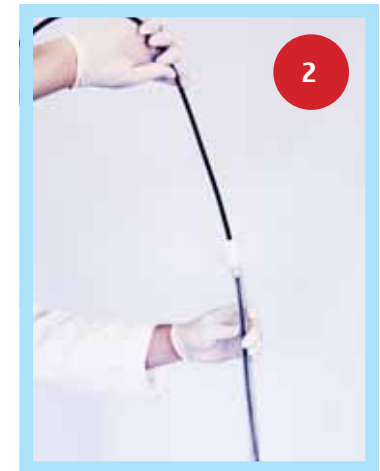
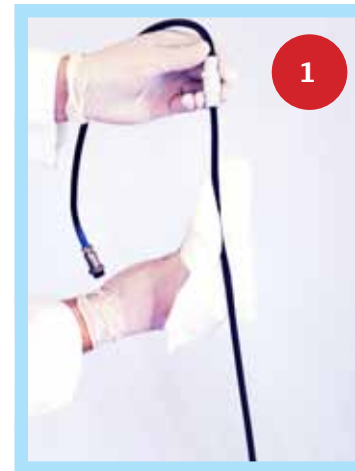


### NOTICE:

After prolonged use you may see white calcium appearing inside the bottle and tube. To get rid of it you should use 3 liters of vinegar and 3 liters of hot water mixed together. Soak the bottle set and silicone tube inside the basin. There is no need to run the water pump in this case. Leave the bottle set and silicone tube to soak overnight. Next day the calcium will have disappeared.

## Step 15

After all of the pieces are dry, wash your hands or put on sterile gloves again. Wipe the heating element with alcohol a second time (1). Then, hold the tube-set vertically and ease the heating element back in (2). **DO NOT under any circumstances forcibly push the heating element into the tube as this can easily cause permanent damage to the heating element.** If the heating element is difficult to insert - withdraw the element a little, make sure that the tube is held completely vertically along its length and that there are no obstructions or kinks in the tube, then try to insert the element again.



## Step 16

Place the dried equipment in a clean plastic bag for storage or assemble the CPAP for the next patient.



**Option 1 (RECOMMENDED)****Materials needed**

Presept (2.5g tablets)  
Filtered or distilled water

**Procedure**

Dissolve 4 tablets of Presept in every 10L of water.

**Option 2****Materials needed**

Bleach  
Filtered or distilled water

**Procedure**

1. Determine the concentration (% Concentrate) of your bleach.
2. Determine total parts water needed using the following formula:

$$\text{Total parts water} = \frac{(\% \text{ concentrate})}{0.05} - 1$$

3. Mix 1 part bleach with Total Parts water required.

**Example**

If your bleach is 5% concentrated, proceed as follows:

1. Calculate Total Parts water needed.

$$\text{Total parts water} = \frac{5}{0.05} - 1 = 100 - 1 = 99$$

2. Take 1 part concentrated solution and add to 99 parts water.
3. So if you want 10L of disinfection solution, add 10mL of bleach to 9.9L of water.

**Option 3****Materials needed**

Bleach  
Tap water

**Procedure**

1. Determine the concentration (% Concentrate) of your bleach.
2. Determine total parts water needed using the following formula:

$$\text{Total parts water} = \frac{(\% \text{ concentrate})}{0.5} - 1$$

3. Mix 1 part bleach with Total Parts water required.

**Example**

If your bleach is 5% concentrated, proceed as follows:

1. Calculate Total Parts water needed.

$$\text{Total parts water} = \frac{5}{0.5} - 1 = 10 - 1 = 9$$

2. Take 1 part concentrated solution and add to 9 parts water.
3. So if you want to 10L of disinfection solution, add 1L of bleach to 9L of water.

## Instructions for Preparing Sterile Water

Courtesy of Respiratory Care Solutions

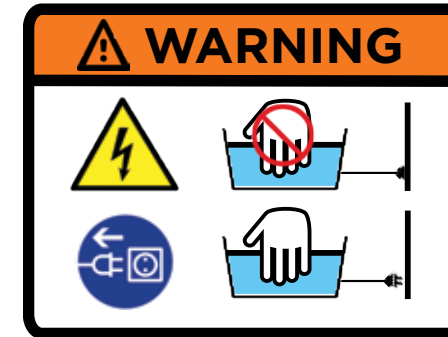
### Equipment needed:

- Saucepan
- Tongs
- Canning jar with a lid
- Filtered or distilled water

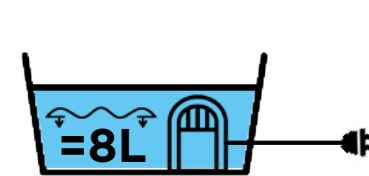
### Instructions:

1. Remove lid from the jar.
2. Place the jar, tongs, and lid in a saucepan. Let the handle of the tongs protrude from the saucepan and the jar to lie on its side.
3. Fill the saucepan with water, deep enough to cover the jar and lid.
4. Place on the stove. Bring water to a boil and let it continue to boil for 30 minutes.
5. Using an oven mitt, pick up the jar with the tongs, allowing the boiled water to flow back out of the jar, and place it on a table. Make sure the tongs do not touch anything.
6. Use the tongs to lift the lid from the saucepan. Do not contaminate the inside of the lid.
7. Pour the boiled water into the sterile jar.
8. Place lid on the jar and seal tightly.
9. Discard unused sterile water after 3 days. Sterile water kept longer than 3 days may contain bacteria.

## Explanation of Symbols



Do not touch water if pump is plugged in. If you need to touch the water, unplug the pump first.



Use 8 liters of water to fill the washbasin.





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