

ResMed C-Series Heated Humidifier User Guide

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C-Series Heated Humidifier
User Guide



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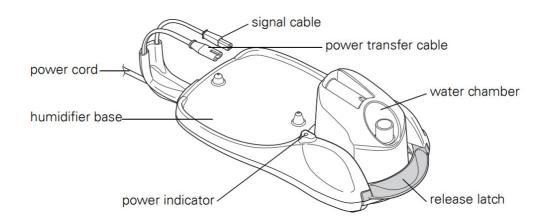
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C-Series Heated Humidifier

User Guide



Thank you for choosing the ResMed C-Series Heated Humidifier. The C-Series Heated Humidifier is designed to humidify (moisten) the air delivered to your airway during CPAP (continuous positive airway pressure) therapy. The C-Series Heated Humidifier attaches to your ResMed C-Series flow generator with a simple latch mechanism.

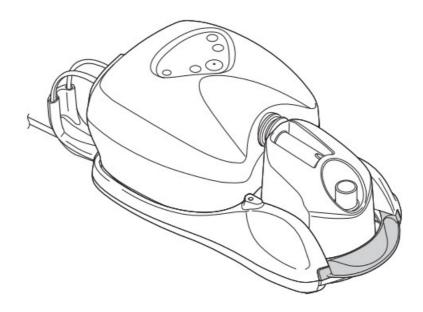
This user guide contains the information you need for the correct use of your C-Series Heated Humidifier.

Intended Use

The C-Series Heated Humidifier is indicated for humidification of the air delivered from the ResMed C-Series CPAP System.

Contraindication

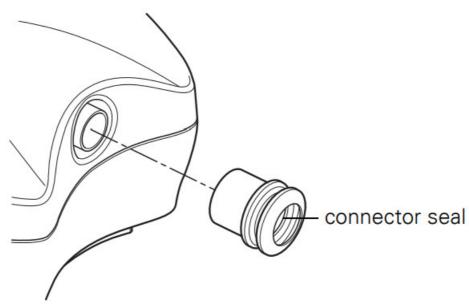
The C-Series Heated Humidifier is contraindicated for use with patients whose upper (supraglottic) airway has been bypassed. Please also refer to your C-Series flow generator user guide for contraindications associated with CPAP therapy.



Connecting the C-Series Heated Humidifier



- Make sure the flow generator is switched off and unplugged at the power outlet before connecting or disconnecting the humidifier.
- Always remove the water chamber before connecting or disconnecting the humidifier and the flow generator.
- 1. Disconnect the flow generator power cord from the socket at the rear of the flow generator.
- 2. Fit the connector seal to the air outlet on the flow generator. Ensure the connector seal is fully seated over the air outlet.



- 3. Place the humidifier base on a firm, level surface near your bed at a level lower than your sleeping position. Ensure the surface is not sensitive to heat and moisture, or use a protective mat.
- 4. Align and place the flow generator on the humidifier base.
- 5. Connect the (black) humidifier signal cable into the signal cable socket, and the (gray) power transfer cable into the power socket at the rear of the flow generator. Do not attempt to use the system unless both cables are connected to the flow generator.

- 6. Use the power cord supplied with the C-Series Tango flow generator and connect it to the humidifier power cord socket.
- 7. Plug the other end of the power cord into a power outlet. When the combined C-Series system is powered, the green indicator lights on the flow generator and humidifier turn on.

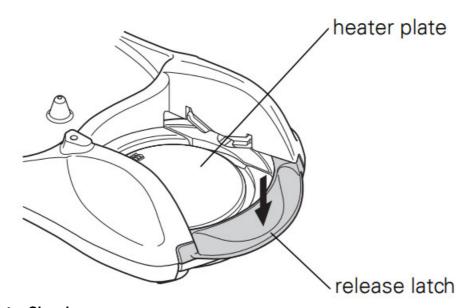
Attaching and Detaching the Water Chamber



Take care when handling your humidifier. Allow ten minutes for the heater plate and any excess water to cool.

Attaching the Water Chamber

Press down the release latch on the humidifier and carefully slide the filled water chamber onto the heater plate. The release latch springs back to hold the water chamber in place.



Detaching the Water Chamber

- 1. Unplug the power cord from the power outlet and allow ten minutes for the heater plate and any excess water to cool.
- 2. Detach the air tubing from the water chamber.
- 3. Press down the release latch on the humidifier and carefully slide the water chamber from the humidifier base.
- 4. Discard any excess water.

Filling the Water Chamber



- Do not overfill the water chamber, as water may enter the flow generator and air tubing.
- Remove the water chamber from the humidifier before filling it with water.



Do not use any additives (eg, scented oils and perfumes). They may reduce the humidification output of the humidifier and/or cause deterioration of the water chamber materials.

Carefully fill the water chamber to the maximum water level mark with distilled water only.



Fill with distilled water only. Using distilled water will prolong the life of your water chamber. Water from the faucet typically contains minerals that may damage the base of your water chamber.

Setting the Humidity Level

The aim of humidification is to deliver moist air to your mask but to avoid having condensation form in the air tubing. The temperature and humidity of the surrounding air will affect the setting you need.

You can adjust the humidity setting at any time before or during therapy, to find the most comfortable and effective setting.

To set the humidity level press or on the flow generator; notice that the screen displays "H" and the selected humidity level (eg, H. 3).

The OFF setting switches heated humidification off and delivers minimum humidification. A setting of 6 delivers maximum humidification.

The humidification setting remains displayed on the screen for five seconds.

Starting Therapy

- 1. Connect one end of the air tubing firmly onto the air outlet of the water chamber and the other end to your mask.
- 2. Fit your mask as described in your mask user instructions.
- 3. If necessary, set the humidity level as described in the section "Setting the Humidity Level".
- 4. Press on the flow generator to start therapy. Therapy starts straight away. The heating indicator on the flow generator lights when the humidifier is on.
- 5. Lie down and arrange the air tubing so that it is free to move if you turn in your sleep.



WARNING

Do not leave a long length of air tubing around the top of your bed. It could twist around your head or neck while you are sleeping.

Stopping Therapy

To stop your therapy at any time, remove your mask and press on the flow generator.

Cleaning and Maintenance



WARNING

Beware of electrocution. Do not immerse the flow generator, humidifier or power cord in water. Always unplug the device before cleaning and be sure that it is dry before plugging it back in.



CAUTION

• Do not use any of the following to clean any part of the humidifier. These solutions may cause damage and

reduce the life of the product:

- bleach, chlorine, alcohol- or ammonia-based solutions
- moisturizing, antibacterial or glycerine-based soaps
- water softening and unapproved descaling agents.
- Do not wash the water chamber in a dishwasher.

Daily

Wash the water chamber and connector seal in warm water, using a mild detergent (see the previous caution). Rinse them thoroughly with clean water and allow them to dry away from direct sunlight.

Weekly

Inspect the water chamber for wear and deterioration. Replace the water chamber if any component has cracked, become cloudy or pitted. Replace immediately if there is any leakage from the water chamber. If you notice white powder or deposits in the water chamber:

- 1. Fill the water chamber to the maximum water level mark with a solution of one part vinegar to ten parts water.
- 2. Let the solution soak for ten minutes.
- 3. Discard the solution and rinse the water chamber thoroughly with clean water.

Periodically

Wipe the humidifier base with a clean cloth.

Troubleshooting

Problem	Possible Cause	Solution
Device not working (no d isplay on the LCD scree n and/or indicator light n ot lighting up)	Power cord is not plugged in properly.	Check that the power cord is plugged firmly into the power outlet and the switch (if available) is o n at the outlet. Check that the flow generator power cord is plu gged firmly into the humidifier power cord socket. Try another power outlet.
Leaking water chamber	The water chamber may be dama ged or cracked.	Contact your supplier for a replacement.
No/low airflow	The air tubing is not connected pr operly. The air tubing is blocked, pinched, or punctured. The water chamber is overfilled. Condensation is forming in the air tube. Flow generator operation.	Adjust the air tubing connection. Unblock or free the air tubing. Check the air tubing for punctures. Make sure that the water level is not above the maximum water level mark. Press to decrease the humidity setting. See the Troubleshooting section in the flow generator guide.
Water splashing on your face	The water chamber is overfilled. Condensation is forming in the air tube and mask.	Empty some water from the water chamber. Press to decrease the humidity setting.
Air does not feel moist	The humidity setting is set too low. The Humidifier heating el ement is not working.	Press to increase the humidity setting. Cont act your equipment supplier.
Air too moist	The humidity setting is set too hig h. High relative humidity in your r oom.	Press to decrease the humidity setting. Adjust your humidity setting.
White powder or deposit s in the water chamber	The water leaves scaly mineral d eposits.	Refer to the weekly cleaning instructions. Use distilled water.

Symbols that appear on the C-Series Heated Humidifier

\triangle	Attention, consult accompanying documents
	Type CF equipment
	Class II equipment
<u>sss</u>	Hot surface
	Do not touch
▼ MAX	Maximum water level
IPX1	Drip-proof
EC REP	European Authorised Representative
c Us	Canadian Standards Association
***	Manufacturer

Environmental information



WEEE 2002/96/EC is a European Directive that requires the proper disposal of electrical and electronic equipment. This device should be disposed of separately, not as unsorted municipal waste. To dispose of your device, you should use appropriate collection, reuse and recycling systems available in your region. The use of this collection, reuse, and recycling system is designed to reduce pressure on natural resources and prevent hazardous substances from damaging the environment.

If you need information on these disposal systems, please contact your local waste administration. The crossed-bin symbol invites you to use these disposal systems. If you require information on the collection and disposal of your ResMed device please contact your ResMed office, local distributor or go to www.resmed.com/environment.

General Warnings and Cautions

A warning alerts you to possible injury.

• The humidifier, including the associated tubing, is for single-patient use and must not be re-used on another

person. This is to avoid the risk of cross-infection.

- Always place the humidifier device lower than the level of the patient. If it is placed at or above the level of the patient, heated water may flow down the air tubing and into the mask.
- There exists the possibility that if the device is placed above the level of the patient and is tipped over, or if the tubing is filled with condensate, the mask might fill with water. The device should be placed below the level of the patient so that in the event of the device being tipped over, the tubing and mask do not fill with water.
- The humidifier should only be used with delivery tubes or accessories recommended by ResMed. Connection of other delivery tubes or accessories could result in injury or damage to the device.
- If liquids are inadvertently spilled into or on the humidifier, unplug the device from the power outlet. Disconnect the humidifier from the flow generator and allow it to drain and dry before using.
- Do not operate the humidifier if the device has a damaged power cord.
- Do not operate the humidifier if it is not working properly or if any part of it has been dropped or damaged.
- Keep the power cord away from heated surfaces.
- No perceptible heating effect may be felt at low heat settings, depending on the ambient temperature.
- Do not attempt to dismantle the humidifier. There are no user-serviceable parts inside. Repairs and internal servicing should only be performed by an authorized service agent.
- Do not drop or insert any object into any opening or tubes.

A caution explains special measures for safe and effective use of the device.

- Only use distilled water with the C-Series Heated Humidifier.
- Use the humidifier only for its intended use as described in this guide.
- Make sure that the water chamber is empty before transporting the humidifier.
- The water chamber should not be attached when transporting the humidifier in the carry bag. Place the water chamber in a separate compartment in the carry bag.
- The C-Series Heated Humidifier is designed only for use with the ResMed C-Series system. Do not use the humidifier with any other CPAP device.
- If you put the device on the floor, make sure the area is free from dust and clear of bedding, clothes or other
 objects that could block the air inlet.
- Be careful not to place the device where it can be bumped and knocked over.
- Blocking the air inlet or tubing while the device is operating could cause it to overheat.

Accessories

Part Number	Item
34901	C-Series Heated Humidifier Water Chamber

Servicing

This product (C-Series Heated Humidifier) should be inspected by an authorized ResMed Service Center 5 years from the date of manufacture. Prior to this, the device is intended to provide safe and reliable operation provided that it is operated and maintained in accordance with the instructions provided by ResMed. Applicable ResMed warranty details are provided with the device at the time of original supply. Of course, as with all electrical devices, if any irregularity becomes apparent, you should exercise caution and have the device inspected by an authorized ResMed Service.

Technical Specifications

Maximum heater plate temperature	85°C (185°F)	
Temperature cut-out	93°C (199°F)	
Maximum output humidity	95% relative humidity (control dial set to maximum the setting, flow rate 50 L/min, the ambient temperature of 20°C (68°F), ambient r elative humidity of 40%)	
Maximum gas temperature	41°C (106°F) at 35°C (95°F) ambient temperature.	
Dimensions (H x W x D)	87 mm x 189 mm x 409 mm (3.4" x 7.5" x 16")	
Water chamber capacity to the maximum fill line	375 mL	
Weight (Humidifier and unfilled Water chamber)	920 g (2 lb)	
Power supply. Input range for Tango™ flo w generator with humidifier	100-120V/220-240V, 50/60Hz; <90 VA (80 W) (maximum power consumption) *	
Instantaneous peak power consumption	<340 VA	
Maximum heater element power	120 VA (100 W)	
Operating temperature	+5°C to +40°C (+41°F to +104°F)	
Operating humidity	10–95% non-condensing	
Storage and transport temperature	-20°C to +60°C (-4°F to +140°F)	
Storage and transport humidity	10–95% non-condensing	

Atmospheric pressure range	1060 hPa (sea level) to 680 hPa 2591 m (8500 ft)
IEC 60601-1 Classification	Class II (double insulation), Type CF The C-Series Heated Humidif ier is rated to IPX1 (The the power cord is excluded from this class ification)
Electromagnetic Compatibility	Refer to your flow generator user guide for details.

^{*} Actual average power consumption will vary, depending on factors such as temperature setting, set pressure, the use of accessories, height above sea level, and ambient temperature. The manufacturer reserves the right to change these specifications without notice.

Limited Warranty

ResMed warrants that your ResMed product shall be free from defects in material and workmanship for the period specified below from the date of purchase by the initial consumer. This warranty is not transferable.

Product	Warranty Period
ResMed humidifiers, ResControlTM, ResLinkIM, ResTraxxTM	1 Year
ResMed flow generators	2 Years
Accessories, water chamber, and mask systems (including mask frame, cushion, headgear, and tubing). Excludes single-use devices.	90 Days

Note: Some models are not available in all regions.

If the product fails under conditions of normal use, ResMed will repair or replace, at its option, the defective product or any of its components. This Limited Warranty does not cover:

- a) any damage caused as a result of improper use, abuse, modification or alteration of the product;
- b) repairs carried out by any service organization that has not been expressly authorized by ResMed to perform such repairs;
- c) any damage or contamination due to cigarette, pipe, cigar or other smoke;
- d) any damage caused by water being spilled on or into a flow generator.

Warranty is void on products sold, or resold, outside the region of original purchase.

Warranty claims on defective products must be made by the initial consumer at the point of purchase.

This warranty is in lieu of all other express or implied warranties, including any implied warranty of merchantability or fitness for a particular purpose. Some regions or states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

ResMed shall not be responsible for any incidental or consequential damages claimed to have occurred as a result of the sale, installation or use of any ResMed product.

Some regions or states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from region to region.

For further information on your warranty rights, contact your local ResMed dealer or ResMed office.

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Documents / Resources



References

• B Sleep apnea and COPD - learn about symptoms and treatment | ResMed

Manuals+,