

RESMED

H5i™

HEATED HUMIDIFIER

ClimateLine™ / ClimateLineMAX™

HEATED AIR TUBING

Information Guide

English

Indications for use

The H5i is indicated for the humidification of the air delivered from a CPAP or bilevel device. The H5i is for use only as recommended by a physician. The H5i is intended for single patient re-use in the home environment and re-use in a hospital/institutional environment.

Contraindications

The H5i is contraindicated for use with patients whose upper (supraglottic) airway has been bypassed. Please refer to the S9 Series Information Guide for contraindications associated with CPAP or bilevel therapy.

Troubleshooting

If there is a problem, try the following suggestions. If the problem cannot be solved, contact your equipment supplier or ResMed. Do not attempt to open these devices.

Problem/possible cause	Solution
No display	
Power is not connected.	Ensure the power cable is connected and the power outlet (if available) is on.
The DC plug is partially inserted into the back of the device.	Fully insert the DC plug.
The S9 and H5i are not connected correctly.	Ensure that the S9 and H5i are securely attached.
Insufficient air delivered from the device	
The S9 is not working correctly.	See the Troubleshooting section of the S9 Series Information Guide.

Problem/possible cause	Solution
Air tubing is not connected properly.	Check air tubing.
Air tubing is blocked, pinched or punctured.	Unblock or free the air tubing. Check the air tubing for punctures.
The H5i flip lid is not latched correctly.	Close the flip lid ensuring that it clicks into place.
The H5i flip lid seal is not fitted correctly.	Make sure the flip lid seal is facing the right way up and fitted securely.
Incorrect air tubing selected.	If you are using the SlimLine or Standard air tubing ensure that you have the correct air tubing selected via the menu.
Displays error message: Heated tube fault, replace tube	
Device has been left in a hot environment.	Allow to cool before re-use. Disconnect the power cord and then reconnect it to restart the device.
There is a fault in your ClimateLine or ClimateLine ^{MAX} air tubing.	Discontinue using your ClimateLine or ClimateLine ^{MAX} air tubing and contact your clinician/service provider. Use Standard or SlimLine tubing in the interim.
Displays error message: Humidifier fault, replace humidifier	
There is a fault in your H5i heated humidifier.	Discontinue using your H5i and contact your clinician/service provider.
Device has been left in a hot environment.	Allow to cool before re-use. Disconnect the power cord and then reconnect it to restart the device.
Refilling the humidifier with cold water while humidifier is still hot after therapy.	Allow the humidifier to cool before re-filling.
Filling the humidifier with ice cold water on a warm day or with hot water.	Use room temperature water.
Displays error message: Tube blocked, please check your tube	
Air tubing is blocked.	Check your air tubing and remove any blockages.
Displays error message: High leak, please check system setup and all connections	
There is excessive leak.	Adjust position of mask and headgear. Air tubing is not connected properly. Connect firmly at both ends.
The H5i flip lid is not latched correctly.	Close the flip lid ensuring that it clicks into place.

Problem/possible cause	Solution
Displays error message: Please close H5i flip lid, attach tube and press any key	
H5i flip lid is not closed.	Close the flip lid ensuring that it clicks into place.
Air tubing is not connected properly.	Connect firmly at both ends.
Water splashing on your face from the H5i	
The water tub is overfilled.	Check that the water level is below the maximum water level mark.
Condensation is forming in the air tube and mask.	Turn the H5i or relative humidity setting down via the menu.
Leaking water tub	
The water tub may be damaged or cracked.	Contact your service provider for a replacement.
The cleanable water tub is not assembled correctly.	Check for damage and reassemble the cleanable water tub correctly.
Air feels too warm/cold in the mask	
The temperature of the ClimateLine or ClimateLine ^{MAX} air tubing is set too high/low.	Turn up/down the heated tubing temperature via the menu.
Technical specifications	
Maximum heater plate temperature	65°C
Temperature cut-out	74°C
Maximum gas temperature	≤ 41°C
Nominal dimensions (L x W x H)	Docking station and water tub: 153 mm x 145 mm x 86 mm
Weight (Water tub)	Docking station and unfilled water tub 0.67 kg
Weight (Cleanable water tub)	Docking station and unfilled water tub 0.77 kg
Water capacity	To maximum fill line 380 mL
Docking station	Flame retardant engineering thermoplastic, aluminium
Cleanable water tub	Injection molded plastic, stainless steel and silicone seal
Water tub	Injection molded plastic, aluminium and thermoplastic elastomer
Operating temperature	+5°C to +35°C
Operating humidity	10–95% non-condensing

Storage and transport temperature	-20°C to +60°C
Storage and transport humidity	10–95% non-condensing
ClimateLine air tubing	Flexible plastic and electrical components, 1.98 m, 15 mm inner diameter
ClimateLine ^{MAX} air tubing	Flexible plastic and electrical components, 1.91 m, 19 mm inner diameter
Heated tubing temperature cut-out	≤ 41°C
IEC 60601-1 classification	Class II (double insulation), Type BF
Electromagnetic compatibility	Please refer to the S9 Series Information Guide for details

Notes:

- The manufacturer reserves the right to change these specifications without notice.
- The temperature and relative humidity settings displayed for ClimateLine or ClimateLine^{MAX} are not measured values.
- Check with your clinician/service provider before using the SlimLine air tubing with devices other than the S9 or H5i.

Humidifier performance

The following settings have been tested at 22°C ambient temperature:










CPAP mask pressure, cm H ₂ O	RH output %		Nominal system output AH ^a , BTPS ^b	
	Setting 3	Setting 6	Setting 3	Setting 6
4	90	100	10	18
10	95	100	11.5	21
20	95	100	11	18
25	100	100	12	13.5












a. AH - Absolute Humidity in mg/L.

b. BTPS - Body Temperature Pressure Saturated.

Symbols

The following symbols may appear on your H5i, ClimateLine or packaging.

 Caution;  Follow instructions for use;  Manufacturer;  IP21 Protection against insertion of fingers and against vertically dripping water;  IP20 Not drip proof;  European Authorised Representative;  European RoHS;  Batch code;  Catalogue number;

 Serial number;  Not for use on more than one patient;  Keep dry; MAX Maximum water level;  Disinfectable up to 93°C;  China pollution control logo 1;   China pollution control logo 2;   Lock/unlock;   Remove tub to fill;



Environmental information

WEEE 2002/96/EC is a European Directive that requires the proper disposal of electrical and electronic equipment. These devices 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 these collection, reuse and recycling systems 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 collection and disposal of your ResMed device please contact your ResMed office, local distributor or go to www.resmed.com/environment.

Servicing

The H5i device is intended to provide safe and reliable operation when operated in accordance with the instructions provided by ResMed. ResMed recommends that the H5i be inspected and serviced by an authorised ResMed Service Centre if there is any sign of wear or concern with device function. Otherwise, service and inspection of the devices generally should not be required during the five year design life of the device.

Limited warranty

ResMed Ltd (hereafter 'ResMed') warrants that your ResMed product shall be free from defects in material and workmanship from the date of purchase for the period specified below.

Product	Warranty period
<ul style="list-style-type: none">Mask systems (including mask frame, cushion, headgear and tubing)—excluding single-use devicesAccessories—excluding single-use devicesFlex-type finger pulse sensorsHumidifier water tubs	90 days
<ul style="list-style-type: none">Batteries for use in ResMed internal and external battery systems	6 months

Product	Warranty period
<ul style="list-style-type: none"> • Clip-type finger pulse sensors • CPAP and bilevel device data modules • Oximeters and CPAP and bilevel device oximeter adapters • Humidifiers and humidifier cleanable water tubs • Titration control devices 	1 year
<ul style="list-style-type: none"> • CPAP, bilevel and ventilation devices (including power supply units) • Battery accessories • Portable diagnostic/screening devices 	2 years

This warranty is only available to the initial consumer. It is not transferable.

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 organisation that has not been expressly authorised by ResMed to perform such repairs; c) any damage or contamination due to cigarette, pipe, cigar or other smoke; and d) any damage caused by water being spilled on or into an electronic device.

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

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

This warranty replaces all other expressed 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 resulted from 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.



WARNINGS

- Read the entire manual before using the device.
- Use the device only as directed by your physician or healthcare provider.
- Use the device only for the intended use as described in this manual. Advice contained in this manual should not supersede instructions given by the prescribing physician.



- If you notice any unexplained changes in the performance of the device, if it is making unusual or harsh sounds, if the device or the power supply are dropped or mishandled, if water is spilled into the enclosure, or if the enclosure is broken, discontinue use and contact your ResMed Service Center.
- Beware of electrocution. Do not immerse the device, humidifier, power supply or power cord in water. In the event of a spill, disconnect the device from the power supply and let the parts dry. Always unplug the device before cleaning and make sure that all parts are dry before plugging in the device.
- Explosion hazard—do not use in the vicinity of flammable anesthetics.
- Make sure the power cord and plug are in good condition and the equipment is not damaged.
- Keep the power cord away from hot surfaces.
- Do not operate the H5i if it is not working properly or if any part of the device or H5i has been dropped or damaged.
- Do not leave long lengths of air tubing around the top of your bed. It could twist around your head or neck while you are sleeping.
- Only ResMed air tubing and accessories should be used with the device. A different type of air tubing or accessory may alter the pressure you actually receive, reducing the effectiveness of the treatment.
- Only use the ResMed 90W power supply units.



CAUTIONS

- Do not open the device enclosure. There are no user serviceable parts inside. Repairs and servicing should only be performed by an authorised ResMed service agent.
- Do not use bleach, chlorine, alcohol, or aromatic-based solutions, moisturising or antibacterial soaps or scented oils to clean the device, humidifier or air tubing. These solutions may cause damage and reduce the life of these products.
- The H5i should only be used with tubing or accessories recommended by ResMed. Connection of other delivery tubes or accessories could result in injury, or damage to the device.
- Do not open the H5i enclosure. There are no user serviceable parts inside. Repairs and servicing should only be performed by an authorised ResMed service agent.
- Do not overfill the water tub as water may enter the device and air tubing.
- Do not use any additives (eg, scented oils and perfumes). These may reduce the humidification output of the H5i and/or cause deterioration of the water tub materials.
- Take care when handling the H5i as the water/water tub may be hot. Allow 10 minutes for the heater plate and any excess water to cool.
- The H5i should only be connected or disconnected when the water tub is empty.
- Make sure that the water tub is empty before transporting the H5i.
- Do not operate the H5i on an aircraft as water may enter the device and air tubing during turbulence.

- Always place the H5i on a level surface below the level of the user to prevent the mask and tubing from filling with water.
- If liquids are inadvertently spilled into or on the H5i, unplug the device from the power outlet. Disconnect the H5i from the device and allow it to drain and dry before re-using.

 **Manufacturer:** ResMed Ltd 1 Elizabeth Macarthur Drive Bella Vista NSW 2153 Australia. **Distributed by:** ResMed Corp 9001 Spectrum Center Boulevard San Diego CA 92123 USA.  ResMed (UK) Ltd 96 Jubilee Ave Milton Park Abingdon Oxfordshire OX14 4RW UK. See www.resmed.com for other ResMed locations worldwide.

For patent information, see www.resmed.com/ip
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