

HAMILTON-H900 Quick Guide Overview

Applies to software version 1.10x and later

Temperature monitoring window button

- 1 Press to show temperature
 - At Y-piece
 - At chamber exit
 - Difference between the two above
- 2 Press for 5 s to enable Night display

Auto mode button

- ▶ Press for default settings*
 - Invasive mode: 37°C
 - Noninvasive mode: 31°C
 - HiFlow: 35°C
 - Temperature gradient: + 2°C (+ 3°C for infant breathing set)

* Factory default settings listed here

Power/Standby key

- 1 ON: Long-press > 3 s
 - Device starts in Invasive mode
 - Briefly press to (de)activate Standby
- 2 OFF: Long-press > 3 s



Limb connection status indicators

- Green:** The limb is inserted correctly
- Orange:** The humidifier is testing the connection
- Red:** The connection is either faulty or nonexistent

Exp. temp increase button*

- ▶ ON by default
- ▶ Increases the temperature in the WHITE expiratory limb to reduce condensation
- ▶ Press to stop extra heating

*Dual limb, single use breathing circuits only

INV/NIV/HiFlow mode button

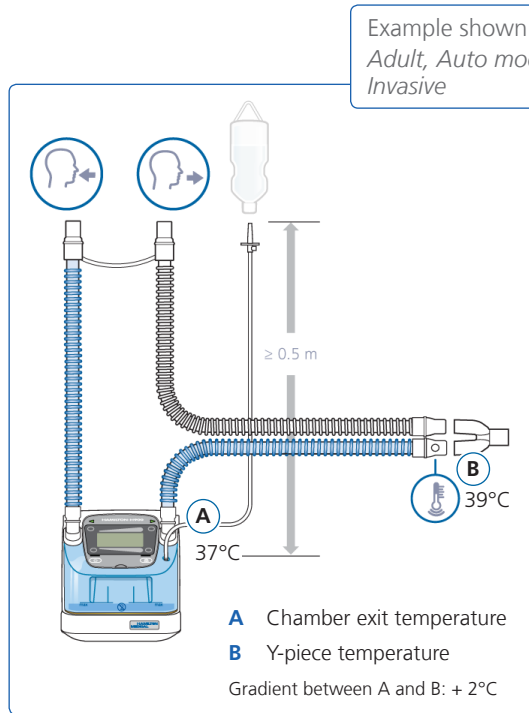
- ▶ Press to switch between Invasive, Noninvasive, and HiFlow modes

Audio pause key

- ▶ Press (if appropriate for alarm)
 - Audible alarm paused for 2 min

See the *HAMILTON-H900 Instructions for use* for detailed information.

Display and circuit overview



Humidifier display

- 1 Current chamber exit temperature
- 2 Chamber exit temperature slider
- 3 Temperature gradient slider
- 4 Ventilator connection enabled
- 5 Mode symbols

Adjust the temperature gradient

Temperature difference between water chamber and Y-piece

- ▶ Touch the temperature gradient slider at the current setting*. Auto mode is deactivated.
- ▶ Drag right to decrease the temperature gradient
- ▶ Drag left to increase the temperature gradient
- ▶ Release to apply setting

Adjust the chamber exit temperature

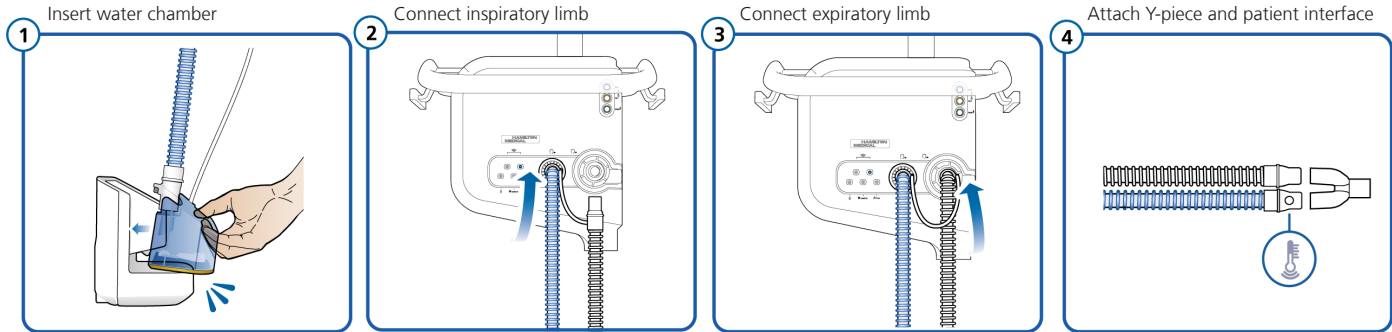
Water chamber exit temperature

- ▶ Touch the chamber exit temperature slider at the current setting*. Auto mode is deactivated.
- ▶ Drag left to decrease the chamber exit temperature
- ▶ Drag right to increase the chamber exit temperature
- ▶ Release to apply setting

See the *HAMILTON-H900 Instructions for use* for detailed information.

* For illustration purposes, shown as the green zone above/below the associated setting

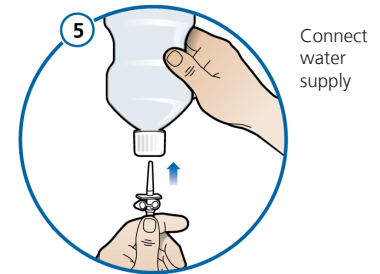
System setup



Optimize settings

Depending on your settings and ambient conditions, condensation can occur. Follow these steps to reduce condensation.

- 1 Start with lower humidity settings
 - ▶ First remove any water from the circuit
 - ▶ Use the lowest Chamber exit temperature setting (slider all the way left)
 - ▶ Set Temperature gradient to 1°C
 - ▶ Check that no condensation is present after 2 hours
- 2 Optimum
 - ▶ Humidity is optimal when fine, breath-dependent fogging forms in limbs, tubing, or flow sensor
 - ▶ If humidity is not optimal, increase chamber temp. by 0.5 °C, recheck in 1 hour
- 3 Save optimum settings
 - ▶ Save these settings as new defaults. See the *Instructions for use* for details.



NOTE

Position of humidifier

- ▶ Avoid direct sunlight or flow of air conditioning (AC) onto the humidifier and the breathing circuit to avoid unnecessary condensation.

Alarms and troubleshooting

See the *HAMILTON-H900 Instructions for use* for detailed information.

High-priority alarms

Indicated by an audible, repeating alarm sound and a flashing visual red alarm indicator



Temperature high

- ▶ Check if the breathing circuit is covered by the patient's bed covers
- ▶ Check if the breathing circuit or the humidifier chamber is directly exposed to sunlight
- ▶ Replace the breathing circuit



Water level high

- ▶ Empty humidifier chamber to reduce the water level
- ▶ Replace humidifier chamber
- ▶ Operate humidifier at an angle < 10° relative to the floor



Humidifier tilt

- ▶ Check the mounting of the humidifier
- ▶ Check the ventilator trolley
- ▶ Operate humidifier at an angle < 10° relative to the floor

Medium-priority alarms

Indicated by an audible, repeating alarm sound and a flashing visual yellow alarm indicator



Temperature low

- ▶ Wait until system heats up completely (approx. 30 min)
- ▶ Verify that all settings are correct
- ▶ Avoid direct air flow from air conditioner and the like to the humidifier and breathing circuit



Water level low

- ▶ Check water bottle and refill tubing
- ▶ If the water bottle is empty, connect a new water bottle
- ▶ Refill or exchange empty humidifier chamber
- ▶ Operate humidifier at an angle < 10° relative to the floor



Check left or right limb

- ▶ Insert or reseat breathing circuits correctly
- ▶ Replace breathing circuit set
- ▶ Connect the BLUE humidifier inspiratory limb to the ventilator *To patient* inspiratory port



Check water chamber

- ▶ Insert a new humidifier chamber and connect the breathing circuit