

Baby Leo Hybrid Incuwarmer - User guide

The Baby Leo incuwarmer is available for use on Butterfly Unit, predominantly for the premature patient population requiring surgery or advanced ventilation strategies. The aim of this document is to provide users with a guide to effectively utilize the device and its functions, optimising care for this vulnerable population.

The Baby Leo requires connection to a powerpoint to function. Once connected to power, complete the following:

- Switch device on at the rear of the main column. This will commence the start process, which will take approximately 7 seconds. When ready, the Baby Leo will beep.
- Following the beep, turn the machine on the display unit, pressing the Start/standby key.
- This will display the main screen.
- If the device has been switched off for less than 2 hours, you will be prompted to select 'New patient' or 'Current patient', as data of each patient is stored. After shutting down the Baby Leo, patient data is deleted after 2 hours.
- Skin mode, manual mode and kangaroo mode are available options for the Baby Leo in radiant warmer or incubator mode. Manual mode is recommended for short term use, such as for admissions or procedures. Refer to assisted thermoregulation guideline.
- Tolerate cooling may be used for a patient undergoing therapeutic hypothermia treatment. This will set to manual mode with no heat output, still allowing use of the other functions of the bed such as temperature monitoring, weighing and humidification.
- There is a sound monitoring function for the Baby Leo, which measures the dB levels within the bed space. The Baby Leo has a background noise level of 40dB in incubator mode which is within the recommended noise levels for neurodevelopment. Alarms will sound to alert to increased noise levels (greater than 55dB is above the recommended range).
- There are built-in scales on the Baby Leo. To weigh baby, select scale on the touch screen, and follow prompts to lift baby, wait for tare and then replace baby. You can store the weight to the Baby Leo memory.
- The observation light can be turned on from the blue key below the touch screen.
- In special procedures, you can select warm-up and weaning modes, to gradual increase or decrease thermoregulatory support in achieving desired temperature for infant.
- Use foot pedals beneath cot to adjust height of the Baby Leo.
- Use mattress tilt keys at the back of mattress base to tilt or elevate mattress.

Using the Baby Leo in radiant warmer mode:

- When the hood is raised, the radiant warmer takes effect, with dual heating to ensure even heat distribution, even with a tilted mattress.
- If the radiant warmer is set above 30% for a prolonged period, a 'check patient's condition' alarm will be displayed at 14 minutes and at 15 minutes the warmer will be turned off with a 'check patient condition alarm'. Check the probe placement and conduct a PA assessment of the patient. Patient may benefit from heated mattress being turned on.
- Heater output is displayed as a percentage. This will adjust according to ambient temperature.

Using the Baby Leo in incubator mode:

- With the hood down, the Baby Leo operates in incubator mode, which is compatible with humidity and provides a more consistent environmental temperature

- The lowest possible air temperature for the incubator is determined by the ambient temperature of the room. The Baby Leo must be set to a few °C higher than the ambient room temperature.
 - Touch-time activates increased fan speed to create an air curtain, minimizing the heat loss through open portholes, and further increasing fan speed if side doors are lowered. This will be activated for 20 minutes, and can be reactivated after the time has elapsed.
 - Humidity will generate some condensation, generally the lower the temperature with higher humidity, the greater the condensation. Cold air cannot hold as much water vapour as warm air, thus a decrease in temperature will result in the conversion of gas to liquid.
 - If clearview is activated whilst in incubator mode, the radiant warmer will turn on at low power to warm the hood, reducing fogging.
- The heated mattress may be utilised in patients who are requiring extra thermoregulation support or who are enduring a procedure that exacerbates the risk of heat loss. The mattress can be set from 35-39°C in increments of 0.5°C.
 - Before turning the Baby Leo OFF it is important to follow these instructions:
 - Adjust the height of the bed, ensuring that the red hatched label on the lifting column is completely covered. This is to ensure the Baby Leo can fit under the doorways.
 - Switch the device off on the display unit, pressing the start/standby key and selecting shut down on the touch screen.
 - Switch off the device at the rear of the main column before disconnecting from power. Failure to do this will result in a power fail alarm several minutes.



Incubator
Mode



Radiant warmer
mode (open hood)



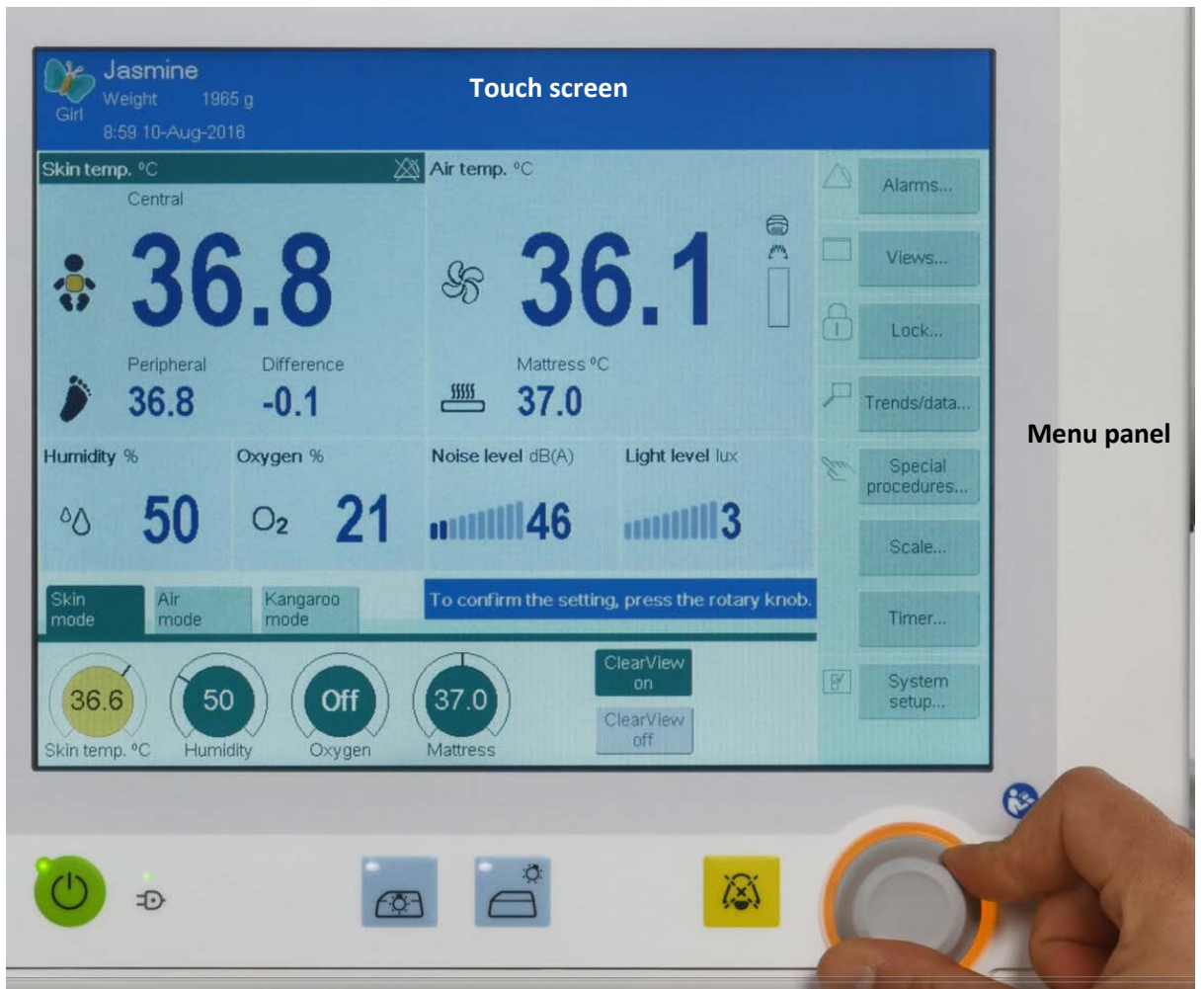
Mattress
connection at rear
(Disconnect for
surgery)



Temperature probe
connections at rear
(yellow for central
monitoring
required for servo-
control)



Mattress
elevation and
tilt keys



Menu panel

**On/Standby
Key**

**Night
Light**

**Observation
Light**

**Alarm
silence**

**Rotary knob and selection
confirmation (turn and push
to select)**

For more information on the Baby Leo and special features, please utilize the Baby Leo folder on the Butterfly Education Drive, with a library of videos and features available to ensure optimal usage.