



Giraffe™ Carestations

Support neurodevelopmental growth
for newborns with our family-centered
care environments.

Giraffe™ Incubator Carestation and
Giraffe™ OmniBed™ Carestation

Care that can deliver clinical confidence

We designed the Giraffe Incubator Carestation and Giraffe OmniBed Carestation to nurture the close connection between babies and their caregivers. Our solutions allow parents comfortable, close access to their babies and family-friendly information about their babies' progress. The solutions also include innovative features that enable clinicians to care closely for their newborn patients while minimizing negative stimulation.

Giraffe Carestation platform highlights



Provides a neutral thermal environment



Minimizes negative touches



Manages sound and promotes normal growth and development



Manages light to help minimize stress



Provides family-centered developmental support



Enhances the user experience





Why baby's thermal environment matters

Cold stress and heat stress may have serious consequences for all newborns.^{1,2,3} In small-for-gestational-age and preterm infants (<2500 g) these consequences may be devastating and may increase mortality rates.⁴ All infants need to maintain specific thermal control and more specifically, their core body temperature within a narrow range, in order to survive.⁵ For both healthy and medically challenged babies^{4,5} careful attention must be paid to the thermal environment from the moment of birth to the time they are capable of temperature regulation.

Thermoregulation

Our Giraffe Carestation solution is designed with innovative features that help you provide a neutral thermal environment for infants.

1. **Comfort zone** provides thermal guidance for setting and activating the desired temperature.
2. **Clinical trends** help you review thermoregulation data and better detect early signs of sepsis.
3. **Uninterrupted uniform heat** provided by the Giraffe OmniBed Carestation facilitates transition from incubator to warmer.
4. **Air boost** improves open-door thermal performance.
5. **Cascade control algorithm** helps minimize baby's temperature swings.
6. **Heated internal components** during open bed mode support transition to closed bed mode.
7. **Radiant heater** in Giraffe OmniBed Carestation placed inside canopy and shielded when in incubator mode.
8. **Warm-up mode** default setting at 100% for rapid preparation of the bed.
9. **Giraffe™ Shuttle** for intra-hospital transport. One baby. One bed.
10. **Preheat mode** default setting at 25%, with silenced alarms, for admission preparation.
11. **Servo humidity system** which adds thermal support and skin protection is designed with universal precautions and sterility in mind to protect against infection⁶.
12. **In-bed scale** helps reduce time out of the heated environment.
13. **Smart alarms** enable quick alerts that help you maintain the desired thermal environment.
14. **Double wall construction** with actively heated inner walls.
15. **Skin temperature monitoring** on or off the bed.

Touch

Our Giraffe Carestation solution is designed with innovative features that help you minimize negative handling of the baby.

1. **One-touch canopy lift and foot pedal** converts the Giraffe OmniBed Carestation into a radiant warmer without disturbing the baby due to bed to bed transfer.
2. **Bi-directional mattress** brings the baby closer to promote swaddling, Skin-to-skin Care, and to assist in rotating the mattress for clinical procedures.
3. **Baby Susan mattress** with full 360° rotation for procedural ease.
4. **Pressure diffusing mattress** helps support skin management and pressure redistribution.
5. **X-ray without moving the baby**—large canopy surface, X-ray tray, radiolucent mattress and wide opening between canopy and mattress enable digital X-ray imaging.
6. **Hands-free alarm silence** allows the caregiver to quickly silence the alarms, while providing care inside the canopy with universal precautions.
7. **Smooth and continuous tilt** minimizes stimulation to the baby.
8. **Giraffe shuttle** for intra-hospital transport. The "One baby. One bed." approach helps minimize transferring and handling of the baby.
9. **In-bed scale** with reweigh helps reduce transfers in and out of the bed.

Why minimizing touch matters

Exposure to excessive handling in neonatal ICUs may have an adverse impact on neurodevelopment in medically challenged newborns.^{7,8,9} While some types of touch are needed and/or may be beneficial to the infant, most handling is considered stressful. Evidence suggests even routine procedures can cause significant physiological instability and excessive handling may exacerbate acute pain responses. The goal is to minimize stressful touches by reducing the need to move or reposition the baby for required procedures.



Sound

Our Giraffe Carestation solution is designed with unique features to help you keep noise at levels that help promote normal growth and development.

1. **Alarm speaker** is placed low, beneath the body of the bed.
2. **Adjustable alarm volume** to maximize alerts while minimizing sound.
3. **Smart alarms** are disabled during pre-heat mode.
4. **Alarm defaults** designed to minimize nuisance alarms during transitions.
5. **Hands-free alarm silence** lets you quickly silence the alarms, so you can provide care inside the canopy and maintain a quiet environment.
6. **Low-noise fan** helps reduce noise levels within the bed.
7. **Hood cover** dampens external noise.



Why sound matters in the NICU

Responses to loud noises (> recommended 45 dB) in the NICU have been linked to physiological response (hypoxemia) in infants.^{10,11,12} In addition, exposure to noise and other environmental factors in the NICU may disrupt the normal growth and development of medically challenged (and preterm) infants.¹³ The AAP publishes guidelines for NICU acoustical design outlining the suggested sound levels for equipment, voice and background noises.¹³

Light

Our Giraffe Carestation solution is designed with innovative features that help you easily manage light levels to help minimize infant stress.

1. **Visual device indicator** is placed out of baby's field of vision.
2. **Giraffe exam light** is adjustable for appropriate lighting.
3. **Hood cover** helps minimize impact of overhead lighting, even in open mode, with flexible viewing arrangements.
4. **Screen brightness control** gives you the option of changing viewing settings at low, medium or high.

Why light levels matter for baby

Evidence suggests that light levels should be dimmed for at least part of the day for some infants to facilitate diurnal cycle development in mature infants.^{14,15} Continuous bright light has been related to infant stress, indicated by increased activity levels, decreased sleep, and bradycardia.¹⁶ Cycled light has the potential to promote circadian rhythm, with benefits that include hormonal regulation, activity-rest cyclicality and vital sign regulation.¹⁷ Light reduction is optimal in reducing stress, retinal protection and promoting sleep.



Skin-to-skin care

Our Giraffe Carestation solution is designed with innovative features that promote family-centered developmental support and facilitate skin-to-skin care.

1. **Adjustable height** accommodates seated access.
2. **Pass-through drawer** allows parents seated access even in a wheelchair.
3. **Family-centric away screen and themes** allow parents and family members to understand their babies' care status.
4. **All-view display** makes it easy to see patient data and alarms.
5. **Side panels** can be completely removed to aid in transition to parent for skin-to-skin care.
6. **Bi-directional translating mattress** helps bring the baby closer and promotes swaddling for skin-to-skin care ease.
7. **Baby Susan mattress** with full 360° rotation offers gentle transfer.
8. **Air boost** improves open-door thermal performance with friendly reminders/prompts to activate (example weighing screen).
9. **Air mode and manual mode** help maintain bed temperature while baby is being held.
10. **Skin temperature monitoring** ability during skin-to-skin care.



Why skin-to-skin care is important to baby and mother

The skin-to-skin care method is defined as: 'Early, prolonged, and continuous skin-to-skin contact between a mother and her newborn, low birth-weight infant (<2500 g, viz. preterm and/or low birth-weight infant), both in hospital and after early discharge, with (ideally) exclusive breastfeeding, and proper follow-up'.¹⁸ Skin-to-skin care has been shown to improve physiological response and decrease pain response in preterm and very preterm infants.¹⁹ Additional observed benefits for mothers include reductions in stress and increased mother-baby bonding.²⁰

Caregiver experience

Our Giraffe Carestation solution is designed with intuitive features that help lighten the caregiver's load, allowing them to focus on the patient and the family.

1. **10.4" color display** with touch-screen user interface and all-view display offers high visibility to vital signs and alarms.
2. **Hands-free alarm silencing** lets caregivers easily quiet alarms during a procedure and avoid negatively stimulating the baby.
3. **Giraffe Shuttle** supports one-bed, one-baby care and easily docks to the Giraffe Carestation for intra-hospital transport.
4. **One-button** comfort zone activation.
5. **Easy-view trending** helps caregivers quickly follow changes in thermoregulation, humidity, servo oxygen and weights.
6. **Connectivity capabilities** allow communication with electronic healthcare records and hospital information systems and simplify future updates and upgrades.
7. **Ergonomic design** includes an elevating base, removable doors, and a pass-through drawer.
8. **Servo oxygen** features calibration notification and a simple calibration process (if servo oxygen system installed in purchased device).

Why the caregiver experience matters in the NICU

As medical device technology continues to advance, it becomes increasingly important to design devices, interfaces, and interactions in a way that supports caregivers' skills. By supporting an intuitive workflow that emphasizes family interaction and by providing trusted, reliable performance, the Giraffe Carestation solution empowers clinicians to send babies home safe, healthy, and as quickly as possible.



Knowledge is power

Watch, listen, and learn about current topics in perinatal care from experts by visiting our educational website, Clinical View — a resource by clinicians for clinicians. Visit clinicalview.gehealthcare.com.



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February 2024
JB12259XX



GE HealthCare