

System Overview



How the Hugs® system works

The Hugs infant protection system is designed to prevent infants from being removed from a medical facility without authorization.

Every infant wears a Hugs tag on the ankle, and every exit point of the obstetrics unit is electronically monitored to detect the tags. This means staff and family can move infants freely within the protected zone, but no one can remove an infant without the system alerting hospital staff.



Simple password procedures allow staff to sign tags out of the system, so babies can be moved from the obstetrics unit for testing or other medical procedures.

The Hugs tag contains a tiny radio transmitter. Once activated, the tag emits a special Heartbeat® signal every 10 seconds. These signals—indicating that the tag is present in the protected zone and is functioning—are picked up by reception devices throughout the monitored area and relayed to the server PC via the network.

If a tag in close proximity to an open exit is detected by the door monitors, an alarm occurs. The Hugs application software shows the tag ID number and indicates the exact location on a floor plan map of the facility. In addition, with the integrated CCTV option, the Hugs system automatically displays images from the exact CCTV camera when an alarm occurs, so that staff can respond with full knowledge of the situation. The Hugs system can also support magnetic door locks, and can be interfaced with other hospital security systems such as pagers and alarm devices.

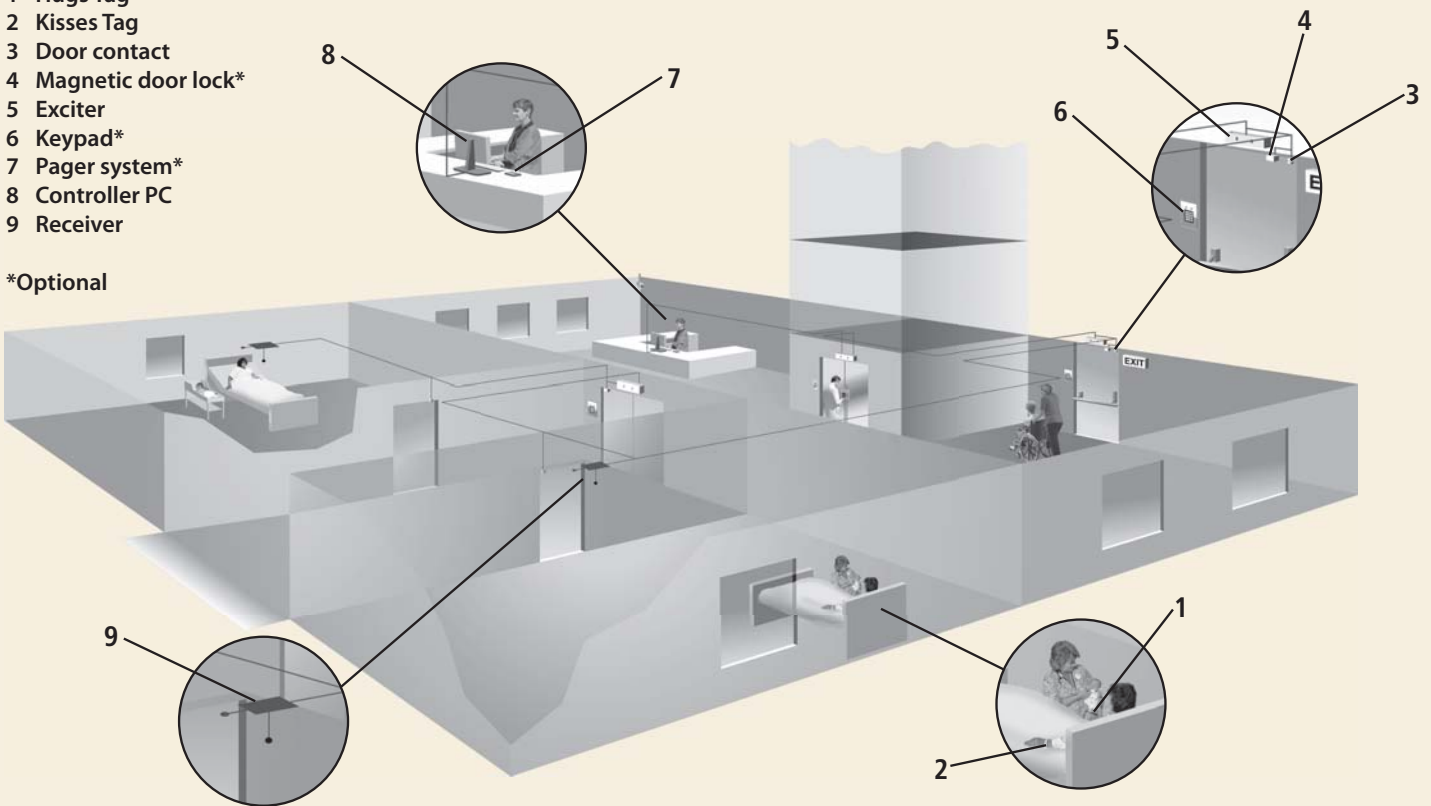
The optional Kisses® mother/infant matching component provides automatic matching of mothers and infants. Each time mother and baby are brought together, an audible signal will alert staff of a mismatch. The only additional equipment required for this application is Kisses tags for mothers.

The Hugs system will generate an alarm if:

- 1 Someone tries to exit through a protected door or elevator with a monitored infant, without authorization.
- 2 The tag's signal has not been detected by the system for a specified time period.
- 3 The strap has been cut or tampered with.
- 4 The tag's battery power is low.
- 5 An authorized exit has occurred but someone tries to "piggyback" through with another infant.
- 6 An authorized exit has occurred but the infant has not been returned to the safe area in the specified time.

- 1 Hugs Tag
- 2 Kisses Tag
- 3 Door contact
- 4 Magnetic door lock*
- 5 Exciter
- 6 Keypad*
- 7 Pager system*
- 8 Controller PC
- 9 Receiver

*Optional



The Hugs Tag



At the heart of the Hugs system is the Hugs tag. This small radio transmitter incorporates an anti-tamper mechanism that is enabled as soon as the tag is attached to the infant with the tamper-proof strap: the tag is automatically enrolled into the system software and protected. From this time forward, the tag emits a signal every 10 seconds to indicate it is present and functioning. The BabySense™ feature of the system also notifies you if the Hugs tag is not securely on the infant, either because it was attached too loosely or due to weight loss. You are given timely notice to snug up the tag so that it is securely attached.

The Hugs tag is waterproof, hypoallergenic, reusable and carries a one-year warranty.

Receivers

Receivers are radio frequency reception devices installed at regular intervals throughout the monitored area of the facility. Receivers receive the Pedz tag transmissions, time stamp them, and relay them to the server software. They are installed in ceilings, usually out of view.

The server software monitors the operation of each Receiver to ensure a high level of operational confidence. If the Receiver fails to operate for any reason, an alarm occurs.

Exciters

Exciters monitor the exits from the safe area (usually the pediatric department). Installed above or beside the doorway, the Exciter emits a detection field that covers the opening. When a tag enters the field, it immediately transmits a special message to the server software via the Receivers. In a typical installation (with door contacts connected to the Exciter), an alarm will only occur if the door is open, as the patient is then at immediate risk of leaving without authorization.

Each Exciter also includes two relays, which can be used to control a variety of devices, including magnetic door locks or audio and visual alarm devices. Optional keypads or card swipes may be connected to the Exciter to enable staff to bypass an exit with a patient.

Like the Receivers, Exciters are continually monitored by the server software, and a warning message is automatically displayed if there is a problem.

Patient Security Server software

The Hugs system uses a client/server architecture. The Patient Security Server software is installed on a server PC that is connected to the device network (Receivers, Exciters and optional Input/Output Modules), either directly via a LonWorks® interface card installed in the PC, or over an Ethernet connection via one or more i.LON® SmartServers.

The server PC monitors the operation of all devices, processes messages received from tags via the Receivers, and houses the database of system activity. It also supplies data to the client applications over a local area network (LAN).

Depending on IT policies, the server PC can be housed in a secure location, or can run the Hugs application software so that it can be used for day-to-day tasks.

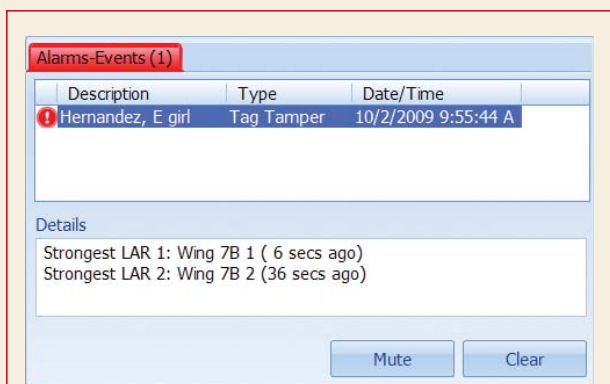
System Manager software

The System Manager is used for configuration of the system by Stanley Healthcare Solutions or its dealer. It is automatically installed on the server and all client PCs, and can be installed on any other computer with an Ethernet connection to the server PC.

Hugs application software

The Hugs application software is the main interface for users. The software presents only task-critical information in an intuitive, visual format. Different levels of password access ensure security while allowing staff members to perform their jobs efficiently.

The Hugs software also enables administrators to manage user accounts, write custom procedures to guide staff during an alarm, and make other basic settings. A variety of reports of system activity can be viewed on-screen and printed.



The alarm window gives detailed information about the alarm event.

The Network

The Hugs system uses Echelon's LonWorks protocol, one of the most widely used network technologies for mission-critical applications.

Each Receiver and Exciter (and Input/Output Module, if used) is connected to the server PC either directly via a LonWorks interface card, or one or more i.LON SmartServers. This LonWorks-to-Ethernet device provides increased installation flexibility, since it can piggyback on an existing LAN.

Each device on the network is continually monitored by the system, and a warning message will automatically appear in the Pedz software if a problem is detected.

All network devices receive power from a central 12/24 V power supply. The wiring for the network uses 16 AWG twisted-pair cable.

Add the Kisses component for mother/infant matching

The Kisses component is an optional feature of the Hugs system that ensures that babies are correctly matched with their mothers. Each mother wears a small, comfortable Kisses tag. It is bonded with her infant's Hugs tag at birth and for the duration of their hospital stay. Every time the two are brought together, an audible signal from the infant's tag automatically alerts staff of a mismatch—even if there are other infants in the room.



- Works anywhere in the protected area.
- Patient-friendly mother tag attaches with standard hospital band.
- Use and reuse any Hugs tag with any Kisses tag for simple tag management.
- Supports multiple births.

Three Simple Procedures

Admitting an Infant

Soon after an infant is born, the nursing staff attaches a Hugs tag to the infant's ankle. The tag immediately activates, and is automatically enrolled into the system. A message appears (optional) in the software, and the user can enter the infant's name or other pertinent information. The infant is continually monitored from the moment the tag is attached.

Signing Out an Infant

When infants need to be moved for tests or other legitimate purposes, they are "signed out" of the system. Sign-outs can be initiated at one of the system's PCs, or locally using optional keypads. At the computer, the staff member enters his or her password, selects the tag to be signed out, and enters the duration. At a keypad, he or she punches in a code, and passes through the doorway. In either case, the system knows exactly which infant has been removed, and can be configured to record the staff member performing the sign-out. This activity is logged into the database.

About us

Stanley Healthcare Solutions is a leading provider of safety, security, and supply chain management solutions for healthcare. Every day, thousands of hospitals and senior care facilities worldwide rely on Stanley products to deliver better care and improve efficiency.

Our smart storage solutions include supply/procedure carts, cabinets and casework, small carts, open storage, heavy-duty storage, and inventory management systems.

In the senior care market, Stanley Healthcare offers a full range of resident safety and security applications, including wander management, fall management and emergency call.

Our suite of patient security products provides individual protection to patients in multiple departments, from newborns in obstetrics to adults in the emergency department.

Stanley Healthcare Solutions will continue to expand its range of healthcare products and solutions for institutions and individuals, building on our years of experience in healthcare, and the Stanley legacy of quality and innovation.

Discharging an Infant

Discharging the infant is just as simple. The nurse or other staff member selects the tag in the software, and chooses the Discharge command. As usual, this procedure is password controlled. The strap can then be cut and the tag removed without generating an alarm.

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