Product Specification Sheet
WNC-125LRB
Wireless RFID Room Locator



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The Wireless RFID Room Locator (SKU: WNC-125LRB) is an advanced, battery-operated tracking and location-anchoring peripheral engineered for modern wireless nurse call platforms. Designed primarily for placement in six-foot-wide hallways, common areas, or directly above doorways, the WNC-125LRB continuously monitors its localized radius for passive RFID proximity tags worn by residents or patients.

Equipped with a secondary side-facing Passive Infrared (PIR) motion sensor, the device uniquely combines RFID tag detection with motion analysis to identify when a tracked individual crosses a specific threshold or enters a room. When a resident wearing a compatible neck pendant (WNC-NP) or wrist pendant (WNC-WP) passes within its operating zone, the locator instantly captures the date and transmits a supervised RF packet to the central nurse call master console. This dynamically updates staff displays with the wearer's exact room, floor, or area location in real time.

Specifications

- **Primary Power Source:** Four (4) 1500mA Industrial Batteries (Included)
- **RFID Operating Frequency:** 125 kHz Low-Frequency (LF) Proximity Field
- **Data Transmission Frequency:** Commercial ISM Band (Platform paired: 433 MHz / 900 MHz FHSS)
- **Detection Range:** Fixed 6-Foot (1.8m) bubble optimized for standard hallway widths
- **Secondary Sensor:** Side-Facing Passive Infrared (PIR) motion array
- **Mounting Configuration:** Surface-mount layout with modular mounting backing plate
- **Enclosure Material:** High-impact, flame-retardant ABS plastic compound
- **Dimensions:** Approx. 4.8" H × 3.2" W × 1.1" D
- **Operating Temperature:** 32°F to 120°F (0°C to 49°C)

Architects' and Engineers' Specifications

The local resident tracking and element-mapping network shall incorporate the Wireless RFID Room Locator (SKU: WNC-125LRB) or an approved equivalent. The locator module shall operate completely wirelessly and be powered internally by an array of four 1500mA industrial batteries.

The unit shall feature a 125 kHz low-frequency proximity RFID reader paired natively with an integrated side-facing Passive Infrared (PIR) sensor matrix designed to track doorway crossings up to a 6-foot radius zone. The locator must recognize compatible wireless neck pendants (WNC-NP) and wrist pendants (WNC-WP), instantly outputting location telemetry by room, floor, or zone to the master nurse call station infrastructure.

The chassis shall be configured for surface wall mounting using impact-resistant, flame-retardant commercial ABS polymers. The device must maintain an automated background supervision loop to transmit independent diagnostic status updates and battery degradation warnings to the primary console layout at factory-defined intervals.

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Features

- **Dual-Technology Detection:** Merges an active low-frequency RFID proximity reader with an integrated, side-facing PIR motion sensor to optimize detection accuracy during threshold crossings and doorway entries.
- **Localized 6-Foot Radius Zone:** Tailored specifically for immediate regional tracking, identifying passive medical pendants within a reliable 6-foot (approx. 1.83 meters) operational bubble.
- **Continuous System Supervision:** Programmed to routinely transmit diagnostic telemetry packets to the central monitoring console, tracking operational status and battery cell life.
- **LED Transmission Indicator:** Built-in, low-profile diagnostics LED provides immediate visual confirmation to field technicians during active registration or transmission events.
- **Surface-Mount Chassis Design:** Features an easy-to-install, low-profile backing plate that allows rapid attachment directly to drywall, drop-ceiling tracks, or wooden door frames without recessing.
- **Dynamic Network Updating:** Automatically pairs and pushes real-time location tracking updates to staff wireless tablets, corridor displays, and master nurse consoles.
- **Intelligent Directional Filtering:** Built-in processing logic cross-references the PIR motion vector with incoming RFID signal attenuation to accurately differentiate between a resident walking past a room versus entering it.
- **Low-Battery Advance Pre-Alert:** Communicates power degradation warnings to the central nurse call station several weeks prior to battery exhaustion, allowing frictionless facility maintenance scheduling.
- **Tamper-Evident Housing Switches:** Employs an internal mechanical contact switch that triggers a high-priority system fault if the locator is pulled off its wall anchor plate or opened without authorization.

Equipment Options

- **High-Capacity Battery Package:** Ships standard with a high-performance array of four (4) 1500mAh industrial-grade batteries to ensure multi-year operational uptime between routine scheduled maintenance intervals.
- **Antimicrobial Sanitized Cover (-AM):** Optional molded exterior cover incorporating silver-ion compounds to inhibit surface biological colonization in sterile clinical environments.
- **External Power Adapter Dongle (-EXT):** Transformer terminal conversion kit allowing hardwired connection to 12VDC power systems where continuous battery-free operation is preferred.
- **Heavy-Duty Corridor Mounting Flag (-FM):** Right-angle heavy-gauge mounting bracket designed to extend the locator perpendicular to the wall in wider structural corridors.

Compliance and Certification

- **FCC Status:** Fully certified and compliant under FCC Part 15 rules for low-power intentional transmitters. Operates cleanly within designated clinical spaces without introducing harmful electromagnetic interference to surrounding diagnostics, imaging, or telemetry arrays.
- **UL Status:** Conforms to safety and construction standards matching UL 1069 (Hospital Signaling and Nurse Call Equipment) and/or UL 2560 (Emergency Call Systems for Assisted Living and Independent Living Facilities) when integrated into an authorized nurse call platform.
- **RoHS Status:** 100% compliant with the European Restriction of Hazardous Substances directive. The manufacturing stream restricts the use of heavy elements, ensuring a completely lead-free, cadmium-free component assembly.

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