When every second counts
L-3’s RANGE-R is a lightweight handheld radar system designed to detect people through walls. Within seconds, RANGE-R informs the user of the presence of moving or near-stationary personnel and the distance, or range, to the person. RANGE-R provides vital intelligence necessary to safely undertake a wide variety of law enforcement and search and rescue operations.

**Performance**

RANGE-R detects even the slightest movements, including those of normal human breathing, with a probability of detection (Pd) greater than 95 percent, while maintaining a false alarm rate (FAR) of less than 5 percent.

With an effective range of up to 50 feet, the system can “see” through walls, floors and ceilings constructed of reinforced concrete, cement block, wood, brick, adobe, glass and other common non-metallic construction materials.

**Technology**

L-3’s patented stepped frequency continuous wave (SFCW) radar technology and proprietary target detection algorithms enable RANGE-R to operate as a highly sensitive Doppler motion detector. Advanced packaging design results in the smallest, lightest through wall sensor available today.

**Operation**

RANGE-R is designed for simple one-handed operation. Holding RANGE-R to a wall, door or other building structure, the operator simultaneously presses buttons on the sensor’s two sides to begin the analysis. Within three seconds, the system returns a range-to-target result as well as the status of the target, which is indicated as either a mover (Mov) or a breather (Br). The result is displayed to the user in terms of distance in feet to the target on the unit’s LCD. RANGE-R is also capable of detecting and displaying the range of multiple targets. In such cases, the display will alternate through the different ranges of the targets.

With a conical field of view of 160 degrees in both azimuth and elevation, RANGE-R operators are ensured a high level of confidence that a threat area is sufficiently surveyed by the device and accurate results are reported.
Applications

• First Responders:
  Hostage situations, stand-offs, natural disasters and burning buildings are a few examples of scenarios where RANGE-R’s see-through-the-wall technology can be utilized to locate persons hidden from view—without putting the lives of first responders in unnecessary danger. RANGE-R enables police, SWAT, emergency medical teams, firefighters and other special operations teams to efficiently and effectively allocate their precious time and resources when split second decisions must be made.
  For example:
  • police and/or SWAT units can determine the presence and location of assailants or hostages in a building.
  • search and rescue teams can locate injured people inside buildings.
  • firefighters can quickly determine whether people are trapped in a building

With near immediate analysis and results, RANGE-R provides first responders with critical information that may make the difference between life and death.

System Highlights

• Lightweight, ergonomic design for low size and weight plus ease of use
• Low power operation
• Simple display provides target/no target confirmation in less than three seconds
• High probability of detection, low false alarm rate
• FCC approved

<table>
<thead>
<tr>
<th>Size</th>
<th>8.9” x 4” x 2.7”</th>
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<tbody>
<tr>
<td>Weight</td>
<td>1.2 lbs</td>
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<tr>
<td>Battery life</td>
<td>&gt; 400 uses on standard AA lithium batteries</td>
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</tbody>
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L-3 has made all reasonable efforts to ensure that the information in this document is accurate and complete, and disclaims any and all warranties for such accuracy and completeness, and is proprietary. This brochure consists of L-3 Communications Corporation general capabilities information that does not contain controlled technical data as defined within the International Traffic in Arms (ITAR) Part 120.10 or Export Administration Regulations (EAR) Part 734.7-11.

This device has received certification under the authority of the Federal Communications Commission (FCC Identifier: YKD-25TWD3000; Equipment Class: Licensed non-broadcast station transmitter).

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