



LEADER Scan

LIFE SEARCH AND BREATHING DETECTION DEVICE*

The world's only patented UWB system capable of detecting and locating the slightest of chest movements produced by breathing of unconscious buried victim!



Wireless connection
or Wired connection with
5m (16.4') USB cable
(FEMA requirement)



Sensor
contained in waterproof
and shockproof case

Antenna



Sunshade
Ideal for shading the
screen in bright conditions



Hand strap
Offers an ergonomic grip
when using as hand held



Neckstrap
For easy carrying,
leaving the hands free



**Control box
2014 Version**
Rugged Tough Book
computer available

ADVANTAGES THAT MAKE THE DIFFERENCE

> CONTROL BOX

- Lightweight and compact:
 - > About 1.7 kg (3.7 lbs)
 - > W 240 x H 152 x D 51mm (9 ½" x 6" x 2")
- Extra-large full colour screen (7" – 800 x 480 px) with high luminosity
- Right or left handed operation

> CONTROL BOX POWER SUPPLY

- Lithium polymer (LiPo) rechargeable battery pack
- Standard running time of about 2.5 hours
- Recharge time of 3.5 hours
- Small rechargeable battery pack - fits easily in pockets - W 63 x D 127 x H 25mm (2 ½" x 5" x 1")
- Interchangeable with LEADER Search, LEADER Cam and LEADER Hasty
- Spare clam shell battery pack holds 10 AAA batteries (not included). Makes the device functional even when conventional battery charging is not possible!

> SENSOR

- Lightweight and compact : the world's smallest !
 - > Sensor in waterproof and shockproof case
 - > 7 kg (15.5 lbs) including battery
 - > L 430 x W 244 x D 341mm (17" x 9.6" x 13.5")
- System using UWB (Ultra Wide Band) technology
- Wi-Fi connection to control box with over 10m (33') range, eliminating cable management issues
- Waterproof USB wired connection (5m or 16.4' cable), providing back up where there is high environment interference (FEMA requirement)
- Up to 5200 m³ (183,600 ft³) of search volume
- Detects movements at a depth of a few metres through more than 200 mm (7.9") thick concrete wall and allows 30 m (98.4') search in free space!
- Accuracy: 10cm (4") in air and 1m (3.3') in rubble

> SENSOR POWER SUPPLY

- Li-Ion rechargeable battery pack
- Standard running time: 5 hours per battery (2 batteries supplied)
- Recharge time: 4 hours
- Easy access to battery for quick replacement
- Indicators of battery charge level on case

> INTERFACE AND MAIN FUNCTIONS

Control box screen indicates depth of victim and provides visual information on his/her movement, helping rescue teams locate them effectively.

- Weak and strong movement display
- Movements frequency display
- Data recording
- Adjustable brightness

2 search modes to detect movements at sub-surface:

- Variable search mode with user defined selection of search zone (minimum and maximum search distance)
- Automatic search mode for quick deployment. The device automatically scans several preset zones (0-4m, 4-8m, 8-12m or 0-13.1', 13.1'-26.2', 26.2'-39.4')

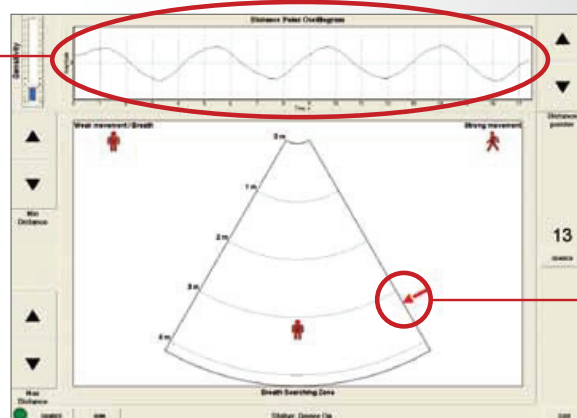
Distance Point Oscillogram function:

- Unique worldwide!
- Real time viewing concentrated on the strongest signal to confirm detected movement in the search zone

An arrow positioned on the screen where movement is indicated will check if:

1. there is a movement
2. the frequency of the movements indicate whether it is human life or not

Using the user defined selection of the search zone (minimum and maximum search distance), movement frequencies from outside the chosen zone are eliminated, giving more focussed data.



2-year guarantee



TECHNICAL SEARCH TOOLS FOR USAR RESPONSE

DESIGNED FOR TECHNICAL SEARCH SPECIALISTS BY TECHNICAL SEARCH SPECIALISTS. THESE INNOVATIVE PRODUCTS ARE **LIGHTWEIGHT, ERGONOMIC** AND **EFFICIENT** TO GIVE THE **GREATEST ADVANTAGE IN ALL PHASES OF SEARCH** (HASTY, PRIMARY AND SECONDARY) TO FIND ENTOMBED VICTIMS IN COLLAPSED STRUCTURES, LANDSLIDES, AVALANCHES... FOLLOWING DISASTERS.

LEADER Search - Wireless and/or wired Life Detector



LEADER Search is used in rescue operations to **detect** and then **locate the position of entombed victims**. LEADER Search will **pinpoint and detect the slightest of vibrations** by effectively turning the entire structure into a giant microphone.

Featuring **3 wireless seismic sensors** for a general use of about 30m (98') on the field

with a range in excess of 100m (328') in open field, and the **additional option of up to 3 wired sensors**, the LEADER Search delivers unequalled flexibility, sound quality and sound propagation. **Designed for rapid deployment and mobility of use** (no cable), LEADER Search quickly identifies sound sources and then locates the precise positions of potential victims.

LEADER Cam - Search Camera with Communication



LEADER Cam is used during rescue operations to **visually locate and communicate with buried victims**.

The **lightweight control box**, linked to a **flexible telescopic camera probe**, is designed to **help in identifying with accuracy the positional location of buried victims** in difficult to enter confined spaces,

to **communicate with them, evaluate and monitor their condition**.

The telescopic probe extends between **1.1m and 2.40m** (3' 6" to 8') or a versatile 1m to 4m (3' 6" to 13') option to allow **visual inspection of inaccessible areas** either at height or sub-terrain and confined space.

LEADER Hasty - Wireless Life Detector & Search Camera



The **WORLD'S only multi-functional HASTY tool**: SEE, SEARCH and SAVE with just one tool!

LEADER Hasty combines:

- A **search camera mode for a visual and precise location of victims** with an ultra-lightweight camera probe.
- A **listening seismic detection mode** for use with up to **two wireless sensors** for detecting signs of life.

The ability to **switch instantly between "visual search mode" and "wireless audible search mode"** in one deployment vastly improves the effectiveness and mobility of the rescuer and greatly reduces the time taken to find victims while increasing their chance of survival.

LEADER Scan - Life search & Breathing detection device



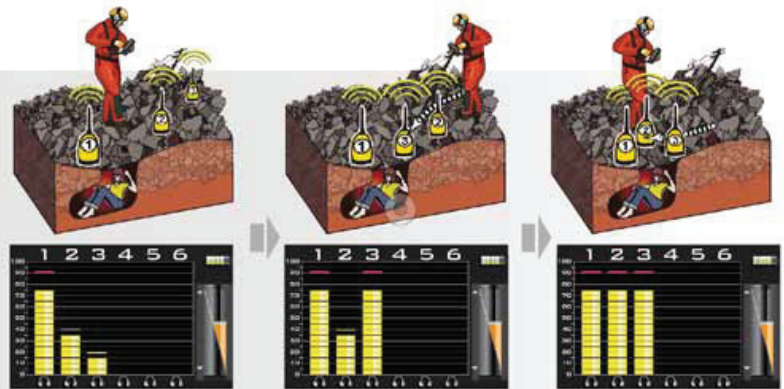
The world's only patented UWB device capable of detecting and locating the slightest of chest movements produced by breathing!

Using a stabilized **UWB** (Ultra Wide Band) technology, LEADER Scan **interrogates the**

sub-surface to identify the victim's location by detecting movements. Its superior sensitivity means the device can detect both irregular movements, such as **finger movement**, and **regular movements**, such as chest movements from breathing.

OPERATIONAL EXAMPLES

LEADER Search allows fast victim detection and then, by introducing more sensors, simple and fast triangulation to locate the victim. By systematically moving sensors within a virtual grid across the disaster area, and always leaving the highest peak sensor in place, the victim location is identified when all sensors peak at the highest equal level.



LEADER Cam cable reel versions can also be used for inspections of vessels, wells, cavities, crevices etc., to a distance of 90m or 180m (295' and 590'). A waterproof version is available for deep entry into many environments.



LEADER Hasty allows the rescuer to detect, locate and communicate with use of a single control box for maximum efficiency! Its dual function also makes it very useful on "Primary" and "Secondary Search" phases: a rescuer can now single-handedly, or with the help of search team members, accomplish a Hasty Search and/or a more detailed investigation of a catastrophe area with this unique multi-functional control box. LEADER Hasty will allow a quick conclusion for reconnaissance, size up, and triage.



LEADER Scan has a rugged plastic case containing the sensor which is moved systematically on the rubble within a virtual grid across the disaster area to map underground objects, while an operator monitors the progress from a control box. It is dedicated more realistically to Secondary search as UWB detects movement directly in the path of the sensor. The signal shape is basically an inverted cone that precisely detects reflection from moving objects or breathing characteristics into an about 5200 m³ (183,600 ft³) search volume.

