

# THE ADVANTAGES THAT MAKE THE DIFFERENCE



## AN ERGONOMIC CONTROL BOX :

- ▶ Compact and lightweight
- ▶ Extra-wide colour screen
- ▶ High brightness screen for viewing in full daylight
- ▶ Menu and intuitive navigation
- ▶ Autonomy : 2.5 hours
- ▶ Quickly replaceable lightweight compact rechargeable battery.
- ▶ Battery compatible with LEADER Search, LEADER Cam and LEADER Hasty control boxes.
- ▶ Back up pack for 10 AAA batteries (not supplied). Makes the device functional even if the battery cannot be charged during rescue operation.

## HIGH-SENSITIVITY UWB SENSOR :

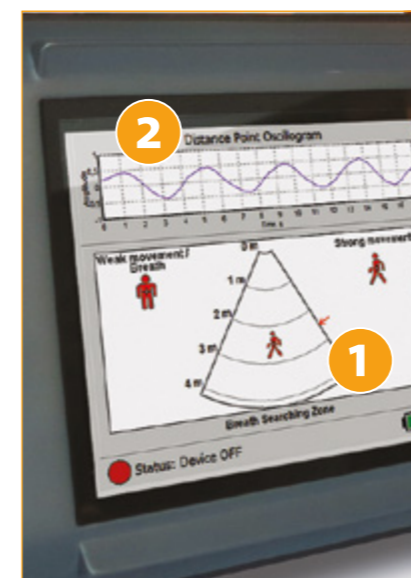
- ▶ High-sensitivity sensor using **UWB (Ultra-Wide Band) technology**
- ▶ Lightweight and compact
- ▶ Placed in a small waterproof and shockproof transport case
- ▶ Search distance : Up to 30 m in open field
- ▶ Accuracy : approx. 1 m
- ▶ Real-time movement detection
- ▶ 2 search modes : Manual and Automatic
- ▶ 2 batteries (each lasting 4 hours) supplied
- ▶ 2 types of connection to the control box :
  - Wi-Fi with 30m range (no cable management problems)
  - Waterproof wired USB (5 m of cable) : Alternative in case of nearby interference preventing use of Wi-Fi

## A MULTIFUNCTION DEVICE :

The control box screen indicates the depth at which the casualty is located and gives visual indications on his or her movements :

- ▶ Displays small or large movements (respiratory movements or movements of a finger, for example)
- ▶ Displays frequency of movement (suggesting whether human life or not)

FUNCTION	IN UWB SEARCH MODE
<b>GENERAL FUNCTIONS</b>	
Screen brightness adjustment	Yes
Left- and right-handed use	Yes
Indication of charge of control box battery	Yes
Choice of connection to the control box (USB or Wi-Fi)	Yes
Indication of status of connection of control box to sensor (starting, ready to be connected, connected, not connected, error)	Yes
Data recorded (useful for examining search history, re-examining data or during training)	Yes
<b>2 SEARCH MODES :</b>	
AUTOMATIC search mode for rapid deployment. The apparatus automatically analyses several predefined areas (0-4 m, 4-8 m, 8-12 m)	Yes
MANUAL search mode defined by user with selection of search area (Choice of minimum and maximum depth of search area)	Yes
<b>FUNCTIONS AVAILABLE IN SEARCH MODE</b>	
Set minimum search depth (start)	Yes
Set maximum search depth (end)	Yes
Large or small movement indicator	Yes
<b>OSCILLOGRAM FUNCTION</b>	
An arrow is placed at the depth where movement is detected. This enables the operator to : <ul style="list-style-type: none"> <li>▶ Confirm the presence of movements in the selected search area. <b>1</b> (If it detects several movements it will concentrate on the strongest movement)</li> <li>▶ Display the frequency of the detected movement. <b>2</b></li> </ul>	Yes



# LEADER Scan

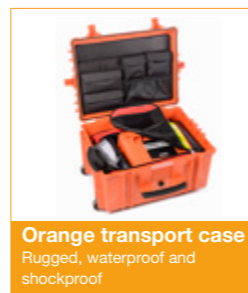
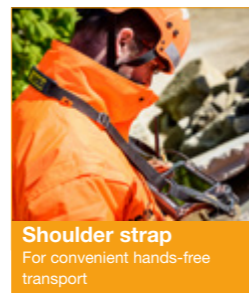
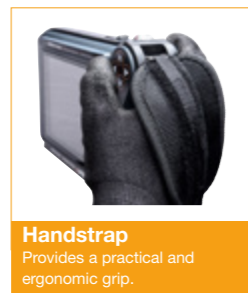
Detects the slightest respiratory movement of a conscious or unconscious buried victim under rubble!  
**Detection technology : UWB (Ultra Wide Band)**

## ULTRA-SENSITIVE UWB MOVEMENT SENSOR

### + KEY POINTS

- ▶ Compact and lightweight
- ▶ Detects movement from up to 30 m away in open field
- ▶ Detects breathing from up to 10 m away
- ▶ Real-time movement detection
- ▶ Wireless or wired connection
- ▶ Intuitive navigation interface
- ▶ Ability to save data during search
- ▶ Battery indicator visible outside of sensor
- ▶ Easily interchangeable battery

### INCLUDED ACCESSORIES :



TECHNICAL DATA  
 PAGES 40 & 41



### COMPOSITION OF EACH PRODUCT

CONTENTS OF CASE	1 control box + 1 UWB sensor	
	Ref D11.07.018	
Control box	1	
Antenna for control box	1	
Battery for control box	1	
Charger for control box	1	
Spare battery pack (without batteries) for control box	1	
Sunshade	1	
Shoulder strap	1	
Hand strap	1	
UWB sensors	1	
Antenna for UWB sensor	1	
5-m USB cable for connecting control box to sensor	1	
Battery for UWB sensor	2	
Charger for UWB sensor	1	
International connection adaptor kits	1	
Transport backpack	1	
Waterproof and shockproof transport case	1	
User manual	1	

### CONTROL BOX CHARACTERISTICS

CONTROL BOX	
Dimensions	L 24 x W 15.2 x H 5.1 cm
Control box weight without battery	1.1 kg
Control box weight with battery	1.38 kg
Control box material	Polypropylene
Anti-shock bumper	Rubber belt around the thickness
Shock resistance	Drop test performed up to 2 m.
Water and dust resistance	IP54
Autonomy	2.5 hours
Startup time	< 1 minute
Keyboard	Phosphorescent
Connections	2 metal ports for connecting UWB sensor and antenna
Operating temperatures	From -10° to +60°C
Storage temperature	From -40° to +70°C
Antenna for UWB sensor connection	Removable and articulated for a range of up to 30m in open field

SCREEN	
Type	TFT LCD
Resolution	7" - 800 x 480 px WVGA
Brightness	1000 candela/m2
Backlighting	LED
Colours	16-bit RGB
Protection	Transparent thermoplastic: 3 mm colourless scratch-resistant PMMA

### UWB SEARCH EQUIPMENT CHARACTERISTICS

UWB SENSOR	
Material	Sensor contained in a waterproof and shockproof orange ABS case
Technology	UWB: Ultra Wide Band
Search distance	Up to 30 m in open air
Accuracy	Approx. 1 m
Type of connection to control unit	- Wi-Fi connection to control unit with more than 30 m range. Eliminates cable management problems - Waterproof USB connection with 5 m of cable: Alternative in case of nearby interference preventing Wi-Fi use
Dimensions with antenna	L 43 x W 24.4 x H 34.1 cm
Weight (including battery)	6.7 kg

### POWER SUPPLY

CONTROL BOX BATTERY	
Dimensions	L 6.5 x W 13 x H 3 cm
Weight	280 g
Type	4 Lithium Ion Polymer cells (Wh)
Capacity	2500 mA.h
Autonomy	2.5 hours
Charging time	3.5 hours
Recharging cycles	500
Charging temperature	0° to +45°C
Water and dust resistance	IP67
Battery compatible and interchangeable	Yes with LEADER Search, LEADER Cam and LEADER Hasty
Charge level indication	Displayed on control box screen

CHARGER + TRANSFORMER FOR CONTROL BOX	
Charger dimensions	H 10.5 x D 4.5 x L 3.5 cm
Charger weight	200 g
Charger input voltage	100 = 240 VAC / 50-60 Hz
International connection adaptors	Yes: UK, EU, AUS, USA

SPARE BATTERY PACK FOR CONTROL BOX	
Dimensions	L 6.5 x W 13 x D 3 cm
Weight with 10 batteries (not supplied)	300 g
Type and number of batteries required	10 x AAA-LR03 alkaline batteries
Autonomy	Approx. 1 h 30 m depending on the standard cell batteries brand

### TRANSPORT CASE AND BACKPACK

TRANSPORT CASE	
Material	Rigid impact-resistant polypropylene shell
Suitable for air transport	Integral pressure equalising valve
Dimensions	H 37 x W 51 x L 67 cm
Empty weight	Approx. 13 kg
Loaded case weight	25.95 kg
Water and dust protection	IP65
Number of wheels	2
Colour	Orange

UWB SENSOR BATTERY	
Dimensions	L 8.5 x W 14.2 x H 3.3 cm
Weight	520 g
Type	Li-Ion Endura 7S
Capacity	4.6Ah / 50W
Autonomy	4 hours
Charging time	4 hours
Recharging cycles	500
Charging temperature	0 to 45°C
Charge level indication	Visible on outside of sensor

CHARGER + TRANSFORMER FOR UWB SENSOR	
Charger dimensions	H 8.3 x D 14.2 x L 2.8 cm
Charger weight	360 g
Charger input voltage	100 = 240 VAC / 50-60 Hz
International connection adaptors	Yes: UK, EU, AUS, USA

RESPONDER'S BACKPACK	
Material	Polyester 1200
Dimensions	L 57 x W 47 x D 20 cm
Empty weight	2.5 kg
Colour	Red