



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 :



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
- ▶ Run time: 2.5 hours with one battery
- ▶ 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 30 m 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 victim 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
GENERAL FUNCTIONS	
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
2 SEARCH MODES :	
AUTOMATIC search mode for rapid deployment. The apparatus automatically analyses several predefined areas and could detect up to 10 alive persons. If distance set up from 0 to 30m, it will search for 1 person (biggest movement) each 3 meters: 0-3, 3-6...27-30.	Yes
MANUAL search mode defined by user with selection of search area (Choice of minimum and maximum depth of search area)	Yes
FUNCTIONS AVAILABLE IN SEARCH MODE	
Set minimum search depth (start)	Yes
Set maximum search depth (end)	Yes
Large or small movement indicator	Yes
OSCILLOGRAM FUNCTION	
An arrow is placed at the depth where movement is detected. This enables the operator to : <ul style="list-style-type: none"> ▶ Confirm the presence of movements in the selected search area. 1 (If it detects several movements it will concentrate on the strongest movement) ▶ Display the frequency of the detected movement. 2 	Yes

TECHNICAL DATA
PAGES 40 & 41



TECHNICAL DATA LEADER Scan

UWB MOVEMENT DETECTOR

COMPOSITION OF EACH PRODUCT

CONTENTS OF CASE	1 control box + 1 UWB sensor
	Ref D11.07.023
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
Photo/video SD memory card	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
Run time	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
Run time	5 hours
Charging time	3.5 hours
Recharging cycles	500
Charging temperature	0° to +45°C
Water and dust resistance	IP54
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 H 3 cm
Weight with 10 batteries (not supplied)	300 g
Type and number of batteries required	10 x AAA-LR03 lithium batteries
Run time	Approx. 2 h depending on the standard cell batteries brand

UWB SENSOR BATTERY

Dimensions	L 9.7 x W 14.6 x H 3.8 cm
Weight	621 g
Type	Li-Ion Endura CUE - D75
Capacity	4.9A / 59W
Run time	5 hours
Charging time	4 hours
Recharging cycles	500
Charging temperature	0 to 40°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

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	IP67
Number of wheels	2

RESPONDER'S BACKPACK

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