



LEADER Hasty

The only search device that combines casualties
detection with a search camera!
Detection technology : Seismic

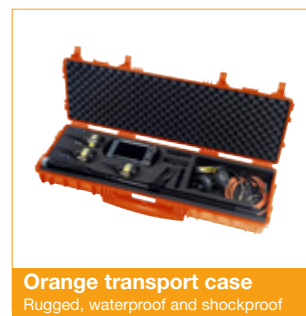
WIRELESS SEISMIC DETECTOR & SEARCH CAMERA

+ KEY POINTS

- ▶ 2-in-1 search device
- ▶ Fast deployment
- ▶ Compact and lightweight
- ▶ Ergonomic control box
- ▶ Intuitive navigation interface and menu
- ▶ Extra-wide colour screen
- ▶ Ultralightweight telescopic pole
- ▶ Up to 3 wireless seismic sensors, each with a range of 100 m
- ▶ Position of camera shown on screen



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
- ▶ Intuitive navigation interface and menu
- ▶ Autonomy : 2.5 hours
- ▶ Easily replaceable lightweight compact rechargeable battery.
- ▶ Battery compatible with LEADER Search, LEADER Cam and LEADER Scan control boxes.
- ▶ Backup pack for 10 AAA batteries (not supplied). Makes the device functional even if the battery cannot be charged during rescue operation.

A MULTIFUNCTION DEVICE :

	FUNCTIONS	IN SEARCH CAMERA MODE	IN SEISMIC SEARCH MODE
	Digital zoom x 2*	Yes	
	Headphone(s) volume adjustment*	Yes	Yes
	Microphone volume adjustment*	Yes	Yes
	Push to Talk*	Yes	
	Screen brightness adjustment*	Yes	Yes
	Left- and right-handed operation*	Yes	Yes
	Image rotation* up (0°), down (180°)	Yes	Yes
	Display of camera head position*	Yes	
	Display of illumination level of LEDs positioned on camera head*	Yes	
	Noise reduction filter adjustment (low and high)		Yes
	Mono or Stereo listening mode (selected sensors heard in one or both ears)		Yes
	Listen to each seismic sensor individually		Yes
	Display trackers to identify the strongest movement peak		Yes
	Wireless sensors' charge indicated		Yes
	Battery charge indication	Yes	Yes
	Pictures capture*	Yes	
	Video recording* (without sound)	Yes	
	Photo and video gallery to display recordings	Yes	
	Audio recording (recording of sounds from the communication pole: communication between casualty and rescuer)	Yes	

*Usable simultaneously

SEARCH CAMERA MODE :

ROBUST WATERPROOF CAMERA HEAD :

- ▶ 170° movement of camera unit and 260° total field of view
- ▶ Camera protected by scratch-resistant sapphire lens
- ▶ Flexible articulation of camera unit to absorb shocks
- ▶ Water-resistant to 2 m when camera fitted with plug
- ▶ Adjustable LED lighting with 8 intensity levels

ULTRALIGHTWEIGHT TELESCOPIC POLE :

- ▶ Telescopic from 1.1 to 2.4 m – Up to 4 m available
- ▶ Ultralightweight carbon-fibre construction
- ▶ "Articulated arm" supplied for mounting the control box on the pole



HIGH SENSITIVITY LISTENING MODE :

1, 2 OR 3 WIRELESS SEISMIC SENSORS CAN BE CONNECTED TO DETECT SOUNDS FROM CASUALTIES

- ▶ Range of about 30 m in the field (no cable management because equipment is wireless)
- ▶ Range in excess of 100 m in open field
- ▶ Sensor battery life: approx. 8 hrs

ADJUSTABLE NOISE REDUCTION FILTERS TO ELIMINATE UNWANTED LOW/HIGH NOISES FROM PNEUMATIC DRILLS, VEHICLES, THE WIND, ELECTRIC POWER CABLES, ETC.

MONO OR STEREO MODE FOR LISTENING TO THE SELECTED SENSORS IN ONE OR BOTH EARS

HIGH-PERFORMANCE NOISE-REDUCING HEADPHONES :

- ▶ Noise-reducing design to provide great listening quality without disruptions.
- ▶ Microphone with integrated noise reducer for clear communication with casualties
- ▶ 1 or 2 sets of headphones can be connected simultaneously

TECHNICAL DATA
PAGES 44 & 45



TECHNICAL DATA LEADER Hasty

WIRELESS SEISMIC DETECTOR & SEARCH CAMERA

AVAILABLE VERSIONS

Contents of case	1 control box + +1 sensor + 1 pole (2.4m)	1 control box + 2 sensors + 1 pole (2.4m)	1 control box + 3 sensors + 1 pole (2.4m)	1 control box + +1 sensor + 1 pole (4m)	1 control box + 2 sensors + 1 pole (4m)	1 control box + 3 sensors + 1 pole (4m)
Ref	D11.04.349	D11.04.351	D11.04.359	D11.04.350	D11.04.352	D11.04.360
Control box	1	1	1	1	1	1
Antenna	1	1	1	1	1	1
Pair of noise-reducing earphones	1	1	1	1	1	1
Sunshade	1	1	1	1	1	1
Camera on 2.4m telescopic pole	1	1	1	-	-	-
Camera on 4m telescopic pole	-	-	-	1	1	1
Removable articulated arm (pole/control box mounting)	1	1	1	1	1	1
Shoulder strap	1	1	1	1	1	1
Hand strap	1	1	1	1	1	1
Water-resisting plugs (camera water-resistance accessory)	3	3	3	3	3	3
Wireless seismic sensors	1	2	3	1	2	3
Spikes for sensors	1	2	3	1	2	3
Magnets for sensors	1	2	3	1	2	3
Battery	1	1	1	1	1	1
Charger	1	1	1	1	1	1
International connection adaptor kits	1	1	1	1	1	1
Spare battery pack (without batteries)	1	1	1	1	1	1
Photo/video SD memory card	1	1	1	1	1	1
Waterproof transport case	1	1	1	1	1	1
User manual	1	1	1	1	1	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	3 metal ports for connecting earphones, camera and antenna
Memory card	Slot for micro SD card for recording photos and videos
Software updating	By specific LEADER USB stick
Operating temperatures	From -10° to +60°C
Storage temperature	From -40° to +70°C
Antenna for interconnection of seismic sensors	Removable and articulated for a range of up to 100m in with seismic sensors in unobstructed space
Control unit/pole mounting system	Yes, intended position on back of control box for attaching the supplied articulated arm to connect control unit to pole

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
Digital zoom	x2

TRANSPORT CASE

TRANSPORT CASE	
Material	Rigid impact-resistant polypropylene shell
Suitable for air transport	Integral pressure equalising valve
Dimensions	H18 x D43 x L121 cm
Empty weight	7.80 kg
Loaded case weight	16 kg
Water and dust resistance	IP67
Number of wheels	2
Colour	Orange

SEARCH CAMERA CHARACTERISTICS

POLE		
	2.4 m version	4 m version
Material	Carbon fibre	
Dimensions	Retracted: 1.10 m Extended: 2.40 m	Retracted: 1.10 m Extended: 4 m
Weight	1.4 kg	2 kg
Detachable grip	Yes	
Pole/control box mounting system	Yes, intended position on top of pole for attaching the supplied articulated arm to connect the control unit and pole together	

CAMERA	
Type of optics	Lens
Lens	Scratch-proof sapphire
Focal length	F = 3mm fixed
Opening	90°

CAMERA UNIT	
Diameter	47 mm for entering standard 51 mm core holes
Camera articulation	170° (85° to right and 85° to left)
Field of view	260° in total
Type of articulation	Rotation by electric motor
Camera articulation control	From control box
Water resistance	Yes, to 2 m when plug fitted to camera unit (Waterproof mode)
Lighting type	8 LEDs with 8 levels of illumination.
Microphone/loudspeaker	Integrated into camera for half-duplex communication with casualty
Response frequency	300 Hz to 3500 Hz

SEISMIC SEARCH EQUIPMENT CHARACTERISTICS

WIRELESS SEISMIC SENSORS	
Type of connection to control unit	Wireless
Wireless seismic sensors	Up to 3 sensors with 100 m range each in open field
Dimensions with antenna	Height 212 mm x Diameter 90 mm
Weight (with standard cell batteries)	690 g
Sensor/control box communication frequency	2.4 GHz
Water and dust resistance	IP67
Shock resistance	Yes
Audio response frequency	1 Hz to 3000 Hz
Individual control of each sensor from control box	Each sensor can be listened to alone or simultaneously with the second sensor.
Noise-reducing filters adjustable from control box	Low-pass filter: Removes high sounds. Adjustable from 600 to 3000 Hz High-pass filter: Removes deep sounds. Adjustable from 20 to 300 Hz
Mono or Stereo listening mode	For listening to the selected sensors in both ears, right ear only or left ear only
On-screen display trackers	Yellow trackers above each bar graph for clear reading of peaks. Red tracker identifies the highest seismic peak, staying on screen for an additional brief period.

NOISE-REDUCING HEADPHONES	
Weight	Approx. 430 g
Mono or Stereo	Stereo
Built-in microphone	Yes, to communicate with casualties in search camera mode
NRN (Noise Reduction Rating) hearing protection	23 dB
Number of simultaneously connectable pairs of earphones	2 pairs simultaneously connectable, one being optional (supplied with a Y connector for connecting 2 pairs of earphones to the same control box)

POWER SUPPLY

CONTROL BOX BATTERY	
Dimensions	L 6.5 x H 13 x W 3 cm
Weight	280 g
Type	4 Lithium Ion Polymer cells. 37 Wh
Capacity	2500 mA/hour
Autonomy	2 hours 30 min
Charging time	3 hours 30 min
Recharging cycles	500
Charging temperature	0° to +45°C
Water and dust resistance	IP67
Battery compatible and inter-changeable	Yes with LEADER Search, LEADER Cam and LEADER Scan
Charge level indication	Displayed on control box screen

CHARGER + TRANSFORMER	
Charger dimensions	H 10.5 x W 4.5 x L3.5 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	
Dimensions	L 6.5 x H 13 x W 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 standard cell batteries brand