



# **LEADER SENTRY WIRELESS : STRUCTURE STABILITY MONITORING TELEMETER**

## EARLY DETECTION AND ALERT OF MOVEMENT FROM THE STRUCTURE IT IS POINTED TO

LEADER SENTRY is a safety monitoring device which is portable and autonomous. It continuously detects slight movements at distance of any unstable structure or object. The structure is targeted by a harmless laser. In case of movement, The LEADER SENTRY immediately triggers a powerful siren for alerting the team working around about dangerous moves or imminent collapse.

It creates safe zones and secured working conditions for responders engaged on the rescue scene.

LEADER SENTRY can be positioned up to 50m distance from unstable structures. It will trigger a 105dB alarm in case of weak movement detected (from 2 to 100mm). It provides a 6h running time using dry cell batteries. Compact and lightweight: 3.8kg (laser + tripod). IP55 Ingress Protection will keep it

reliable in any weather condition.

Mainly used for outdoor large areas LEADER SENTRY can connect 2 wireless lasers together up to a 100m distance.

They can be supplied with an optional wireless remote control box with integrated siren. The siren can also be voluntarily activated to ask for evacuation. Being held by a supervisor it allows better management of the LEADER SENTRY lasers at distance.

Applications:

- Structural fires
- Road traffic collisions
- Collapsed structures
- Trench rescues
- Shoring systems movement
- Fragile structures during or after fire / flood incidents



# FEATURES AND BENEFITS



## Intuitive control board

Device offers 7 thresholds : 2, 5, 10, 20, 40, 70 and 100mm with 1mm accuracy. Information is displayed on an OLED screen with excellent clarity even in bright sunlight. Software is intuitive and buttons are easy to operate with gloves.



## 50m laser beam range

In addition to the 50m range, the harmless laser filters out any quick interruption of the laser beam by a bird or person passing through. This prevents from false alarms.



## Telescopic sight

Associated telescopic sight to pinpoint precisely target that needs monitoring. It is equipped with a 2.5x/10x focus and a Ø40mm objective lens.



## Audio and Visual alarms

In case the structure moves over the selected threshold, a 105dB audible alarm is triggered together with 3 powerful white flash blinking beacons to ensure working crew to hear and see the alert.



## Wireless connection

- 2 lasers can be wireless connected up to 100m from each other. This allows managing both lasers from one of them.
- An optional wireless remote control can be supplied to even better ease management at distance.



## Various power supplies

- 12 AAA alkaline supplied cell batteries provide 6h run time (9h with Lithium dry cells). Easy to find on the field and no transportation constraints compared to Lithium batteries.
- 110/240V 50/60Hz mains power supply that can also be plugged to 12/24V cigar lighter plug via an integrated adaptor.

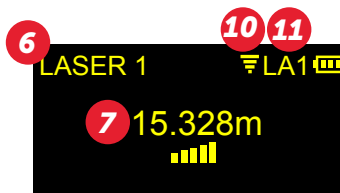
# LEADER SENTRY FUNCTIONS



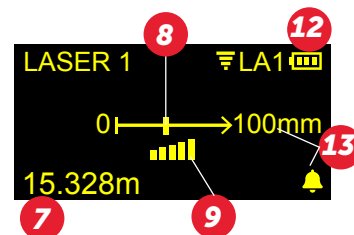
- 1 | OLED display
- 2 | Power On-Off
- 3 | Measurement units: mm or inches
- 4 | Display of the main parameters of both lasers beams at the same time.  
Also allows to deactivate the audible alarm for silent operations (the flashes remain active).
- 5 | Allows switching from one laser to another and thus making the settings on the manipulated laser or the remote one.
- 6 | Name of the laser being configured.

**Note:** An optional wireless remote control (RC) can be connected for better

## Non-engaged monitoring



## Monitoring engaged with 100mm threshold



- management.
- 7 | Distance between the laser and target (m or ft).
- 8 | Movable cursor representing the movement of the target.
- 9 | Laser quality measure permanently displayed
- 10 | Wireless connection quality level between lasers
- 11 | Reminder of the name of the laser physically handled. (LA1 or LA2)
- 12 | Battery level
- 13 | Bell indicating that monitoring is activated and that the alarm is ready to alert if the selected threshold is exceeded.

## CHARACTERISTICS

<b>Fire and Rescue applications</b>	■ Designed for use in large indoor and outdoor areas	<b>Monitoring technology</b>	■ Telemeter laser beam
<b>Design concept</b>	■ Laser head on tripod + warning alarm	<b>Accurate</b>	■ Accuracy: +/-1mm
<b>Monitoring method</b>	■ Detects distance difference	<b>Lightweight</b>	■ Laser: 2kg and Tripod: 1.8kg
<b>Positioning</b>	■ Placed at distance up to 50m from structure		● Remote control : 550g
<b>Safe zone to create</b>	■ Safe and easy implementation at distance from the dangerous structure		● External rechargeable battery : 640g
<b>7 thresholds</b>	■ 2, 5, 10, 20, 40, 70, 100 mm (or inches)	<b>Compact</b>	● Suction pad : 300g
<b>See live monitoring</b>	■ Distance displayed at all time		■ Laser: H182 x D165 x W241 mm Tripod: H1785 mm unfolded / H190 mm folded
<b>Visual alarm</b>	■ 3x 100 Lumens white flash lights for 360° visibility		● Remote control : H33 x D128 x L192 mm
<b>Audible alarm</b>	■ 105dB alarm or Mute	<b>Strong material</b>	● External rechargeable battery : H70 x D95 x L175 mm
<b>Wireless connection</b>	■ 2.4GHz Zigbee technology / 100m range / 2 lasers + 1 optional remote control		● Suction pad : H120 x Ø98 mm
<b>Alarm relay</b>	■ Optional remote control integrating 80dB alarm. Output connection for more powerful remote loud speaker (not supplied).		■ High impact resistant thermoplastic elastomer
<b>Robust</b>	■ 2m drop test onto concrete	<b>Run time with dry cell batteries</b>	■ Alkaline (supplied): >6h Lithium (not supplied): >9h Rechargeable NiMH (not supplied): >7h
<b>Water resistant</b>	■ IP 55	<b>Remote control run time</b>	● 55h
<b>Dry battery cells power supply</b>	■ 12x 1.5V AAA type cells	<b>External battery run time</b>	● 45h (charging time 5.5h)
<b>Main power supply</b>	■ 110/240V transformer for use with mains plug, combined with 12-24V cable for use in cigar light plug (as standard).	<b>Wide operating t°C range</b>	■ Laser: -10°C to +50°C. Remote control: -20°C to +50°C
<b>Battery power supply</b>	● External NiMH rechargeable battery (up to 45h run time)	<b>Wide storage t°C range</b>	■ Laser and Remote control: -20°C to +50°C
<b>Sentry single</b>	■ 1 SENTRY in transport bag with standard accessories	<b>Protection for carriage</b>	■ <b>Single:</b> Padded bag / H170 x D200 x L360 mm Empty: 1.3kg / Full: 6kg. No hard case. <b>Double:</b> Back pack / H225 x D440 x L575 mm Empty: 3.2kg / Full: 12.4kg Optional IP67 hard case: Empty: 7.3kg / Full: 19.7kg
<b>Sentry double</b>	■ 2 SENTRY in back pack with standard accessories		■ <b>Single Full:</b> Padded bag / H170 x D200 x L360 mm Empty: 1.3kg / Full: 8kg. No hard case. <b>Double Full:</b> IP67 hard case / H245 x D525 x L655 mm Empty: 7.3kg / Full: 22.5kg
<b>Safety dual pack</b>	■ 1 WASP + 1 SENTRY in back pack with standard accessories		■ <b>Dual:</b> Back pack / H225 x D440 x L575 mm Empty: 3.2kg / Full: 17.3kg Optional IP67 hard case: Empty: 7.3kg / Full: 24.6kg
<b>LEGEND</b>		<b>Warranty</b>	■ 24 months
■ As standard		<b>Made in France</b>	■ Designed and manufactured in France
● Option adaptable afterward			

## AVAILABLE MODELS

<b>LEADER SENTRY SINGLE</b>	D11.06.020	1 telemeter with telescope, tripod, ball-joint mount, 4 battery packs to receive 12 AAA supplied alkaline batt., 110/220V mains power supply with international adaptors, 12/24V cable cigar lighter adaptor, straps with hooks, padded transport bag, user manual, quick start guide
<b>LEADER SENTRY SINGLE FULL KIT</b>	D11.06.020F	1 telemeter with telescope, tripod, ball-joint mount, 4 battery packs to receive 12 AAA supplied alkaline batt., 110/220V mains power supply with international adaptors, 12/24V cable cigar lighter adaptor, straps with hooks, padded transport bag, user manual, quick start guide, 1 remote control, 1 external rechargeable battery and charger
<b>LEADER SENTRY DOUBLE</b>	D11.06.022	2 telemeters with telescope, tripod, ball-joint mount, 8 battery packs to receive 24 AAA supplied alkaline batt., 2x 110/220V mains power supply with international adaptors, 2x 12/24V cable cigar lighter adaptor, 2 straps with hooks, 1 back pack, user manual, quick start guide
<b>LEADER SENTRY DOUBLE FULL KIT</b>	D11.06.022F	2 telemeters with telescope, tripod, ball-joint mount, 8 battery packs to receive 24 AAA supplied alkaline batt., 2x 110/220V mains power supply with international adaptors, 2x 12/24V cable cigar lighter adaptor, 2x straps with hooks, 1 back pack stowed into IP67 hard case, user manual, 1 quick start guide, 1 remote control, 2 external rechargeable batteries and 2 chargers
<b>SAFETY DUAL KIT WASP + SENTRY</b>	D11.06.032	1 WASP unit, 4x C supplied alkaline batteries, Attachment accessories (1 Clamp, 1 Sucking pad, 1 Strut bracket, 1 Multi-purpose plate, 1 String with carabiners), user manual. + 1 SENTRY telemeter with telescope, tripod, ball-joint mount, 4 battery packs to receive 12 AAA supplied alkaline batt., 110/220V mains power supply with international adaptors, 12/24V cable cigar lighter adaptor, straps with hooks, user manual. ALL stowed into a back pack (hard case in option).
<b>Option</b>	D11.06.023	External rechargeable NiMH battery (1 per laser). IP67. Comes with its cable
<b>Option</b>	D11.06.025	Charger for external rechargeable NiMH battery
<b>Option</b>	D11.06.021	Wireless remote control with integrated audio alarm (6AA alkaline cell batteries supplied)
<b>Option</b>	D11.06.026	Clutch bag for wireless remote control
<b>Option</b>	D11.06.024	Hard case. IP67. Sized for SENTRY Wireless DOUBLE models and Safety Dual Pack

## ACCESSORIES



**Telescopic tripod** (comes as standard)  
Extended height up to 1.8m and comes with 3D attachment piece to orientate laser head in any direction. It integrates a hook underneath tripod top for hanging a ballast to ensure better stability.



**Adjustable strap** (comes as standard)  
Strap with hooks for attaching load or fixing the tripod to objects on ground to secure the stability.



**External rechargeable battery** (optional). This battery is NiMH type (no lithium, no transportation constraint!) and provides 45h run time. IP55. The 110/240V charger comes with international adaptors and must be ordered together with it.



**Remote control** (optional)  
Allows setting and stopping lasers at distance. Relays the audio triggered alarm of the lasers via the integrated speaker (80dB). Powered by 6 AA dry cell batteries providing 55h run time.



**Clutch bag** (optional)  
It allows to easily carry the remote control.



**Transport**  
1/ SENTRY SINGLE comes with a classic padded transportation bag.  
2/ SENTRY DOUBLE comes with a back pack to allow easy walking transportation on the field.  
3/ An optional hard case is available (shockproof, IP67) for SENTRY DOUBLE and SAFETY DUAL PACK.



# **LEADER SAFETY MONITORING DEVICES**

## SENTRY AND WASP COMPARISON

### **TWO TECHNOLOGIES BUT SO COMPLEMENTARY FOR VARIOUS EMERGENCY SCENARIOS**

These two devices will complement each other in many situations where safety monitoring will be required. LEADER WASP being attached to the nearby structure and LEADER SENTRY monitoring at distance. Thanks to these systems, fire and rescue crews can concentrate on the task working far safer in areas of extreme pressure.



LEADER WASP

LEADER SENTRY on tripod

# LEADER SENTRY AND LEADER WASP TECHNICAL COMPARISON



BENEFITS		SENTRY WIRELESS		WASP	
Fire and Rescue applications	■	Designed for large indoor and outdoor areas	■	For use in the nearby of crews at work in confined space and outdoor situations	
Design concept	■	Laser head on tripod + warning alarm	■	Portable sensor + warning alarm with integral magnet for quick fixing on metal	
Monitoring method	■	Detects distance difference	■	Detects rotational movement and / or vibration	
Implementation	■	Placed at distance up to 50m from structure	■	Attached to structure	
Positioning	■	Safe and easy implementation because at distance from the structure	■	Rescuers get protection during operation close to structure	
Alert thresholds	■	7 thresholds: 2, 5, 10, 20, 40, 70, 100 mm (or inches)	■	Angle from 0.1° to 2.6° (360° in 3 directions) and / or vibration from 0.5hz to 100hz	
See live monitoring	■	Distance displayed at all time	-	No screen	
Visual alarm	■	3x 100 Lumens white flash lights for 360° visibility	■	8 blinking red flash lights for 360 visibility	
Audible alarm	■	105dB alarm or Mute	■	78.5 dB alarm, choose volume levels, or Mute	
Wireless connection	■	2.4GHz Zigbee technology / 100m range / 2 lasers + 1 optional remote control	-	-	
Alarm relay	■	Optional remote control integrating 80dB alarm. Output connection for remote loud speaker (not supplied).	-	-	
Calibration	-	No calibration required	■	Need about 20 sec to calibrate VS environment	
CHARACTERISTICS		SENTRY WIRELESS		WASP	
Monitoring technology	■	Telemeter laser beam	■	Accelerometers and Seismic sensor	
Accuracy	■	Accuracy: +/-1mm	■	Accuracy: +/-0.1mm - Resolution: +/-0.01mm	
Lightweight	■	Laser: 2kg and Tripod: 1.8kg	■	Unit: 3.1kg	
	●	Remote control : 550g	-	-	
	●	External rechargeable battery : 850g	-	-	
	●	Suction pad : 300g	-	-	
Robust	■	2m drop test onto concrete	■	2m drop test onto gravels	
Water resistant	■	IP 55	■	IP66	
Dry cell batteries power supply	■	12x 1.5V AAA type cells	■	4 x 1.5V C type cells	
Main power supply	■	110/240V transformer for use with mains plug, combined with 12-24V cable for use in cigar light plug (as standard).	-	-	
Battery power supply	●	External NiMH rechargeable battery (up to 45h run time)	-	-	
Compact	■	Laser: H182 x D165 x W241 mm Tripod: H1785 mm unfolded / H190 mm folded*	■	Unit: H140 x D150 x W170 mm	
	●	Remote control : H33 x D128 x L192 mm	-	-	
	●	External rechargeable battery : H70 x D95 x L175 mm	-	-	
	●	Suction pad : H120 x Ø98 mm	-	-	
Strong material	■	High impact resistant composite	■	High impact resistant composite with integral transparent lid and magnetic contact pad	
Run time with Cell Batteries	■	Alkaline (supplied): >6h Lithium (not supplied): >9h Rechargeable NiMH (not supplied): >7h	■	Alkaline (supplied): 1 week Lithium (not supplied): >1 week Rechargeable NiMH (not supplied): >1 week	
Remote control long run time	●	55h	-	-	
External battery run time	●	45h (charging time 5.5h)	-	-	
Operating t°C range	■	Laser: -10°C to +50°C. Remote control: -20°C to +50°C	■	-	
Storage t°C range	■	Laser and Remote control: -20°C to +50°C	■	-	
Protection for carriage	■	Single: Padded bag / H170 x D200 x L360 mm Empty: 1.3kg / Full: 6kg. No hard case. Double: Back pack / H225 x D440 x L575 mm Empty: 3.2kg / Full: 12.4kg Optional IP67 hard case: Empty: 7.3kg / Full: 19.7kg Single Full: Padded bag / H170 x D200 x L360 mm Empty: 1.3kg / Full: 8kg. No hard case. Double Full: IP67 hard case / H245 x D525 x L655 mm Empty: 7.3kg / Full: 22.5kg	■	Single: IP67 hard case / H216 x D429 x L557mm Full: 11.9kg Double: IP67 hard case / H224 x D505 x L638 mm Full: 19.1kg	
	■	Dual: Back pack / H225 x D440 x L575 mm / Empty: 3.2kg / Full: 17.3kg Optional IP67 hard case: Empty: 7.3kg / Full: 24.6kg			
Warranty	■	24 months	■	24 months	
Made in France	■	Designed and manufactured in France	■	Designed in the UK, manufactured in France	

## LEGEND

■ As standard

● Option adaptable afterward

- Not applicable

## AVAILABLE MODELS



MODELS	REF	SENTRY WIRELESS	REF	WASP
Single model	D11.06.020	1 SENTRY in transport bag with standard accessories	D11.06.030	1 WASP in case with standard accessories
Single model Full kit	D11.06.020F	1 SENTRY in transport bag with standard accessories + Remote control + External battery & charger	-	-
Double model	D11.06.022	2 SENTRY in back pack with standard accessories	D11.06.031	2 WASP in case with standard accessories
Double model Full kit	D11.06.022F	2 SENTRY in back pack with standard accessories + 1 Remote control + 2 External batteries & chargers + Hard transportation case	-	-
Safety Dual pack	D11.06.032	1 WASP + 1 SENTRY in back pack with standard accessories		
Option	D11.06.014	Suction pad mount with ball joint	-	-
Option	D11.06.023	External rechargeable NiMH battery (1 per laser). IP67. Supplied with cable	-	-
Option	D11.06.025	Charger of external rechargeable NiMH battery	-	-
Option	D11.06.021	Wireless remote control with integrated audio alarm (6AA alkaline cell batteries supplied)	-	-
Option	D11.06.026	Clutch bag for wireless remote control	-	-
Option	D11.06.024	Hard case. IP67. Designed for SENTRY Wireless DOUBLE models and Safety Dual Pack.	-	-

