LEADER SENTRY WIRELESS (SINGLE or DOUBLE)
JDL – 26-02-2020

QUICK INTRODUCTION TO LEADER SENTRY WIRELESS STABILITY MONITORING SYSTEM

⇨ **For <u>FIREFIGHTING</u> and <u>USAR</u> applications!**

› Detects **the weakest movements of unstable structures** to alert rescuers **of potential collapse**.
› Create safe zones.
› **1** or **2 lasers** can be acquired
› The **2 lasers are connected** wirelessly to monitor **2 targets simultaneously**
› **Management at distance:** Settings and the alarm stop of one laser (LA1) can be managed at distance from the other laser (LA2) and vice versa.
› **Optional wireless remote control** allows managing set up and alarm stop of both lasers. Remote control integrates a speaker to relay triggered audio alarm.

› Laser head **2kg (4.4lbs)** => 3.8kg (8.4lbs) for laser with tripod
› **50m (165ft)** range
› Accuracy **up to 1mm (0.04 in)**
› Alarm: **Powerful siren** + **Powerful white flashes**
› Running time : **8h** with cell batteries or **45h** with optional external rechargeable battery
› Wireless **connection range is 100m (330ft)** open field.
› IP55 lasers
› Water resistant optional wireless remote control

It is a portable and autonomous device which continuously detects at distance slight movements of any unstable structures or buildings. Structure is targeted by a harmless laser that immediately triggers a powerful siren for alerting of collapse danger because of detected movement.
It creates safety zones for secured working conditions of Firefighters and Search & Rescue responders engaged on catastrophe scene, day and night.

The stability controller is well known for USAR applications and is also useful in FIRE situations:
• **At arrival** of command vehicle on fire/rescue scene. Sentry can be implemented for creating a safe zone and make sure structure is not moving before crew enters the building.
• **During fire attack** to alert in case of ongoing movement
• **After having extinguished fire** to look after new crew (Clearing, Police, Investigators,…) because building has been weakened by fire

The device itself is mainly composed of:
Laser head + Tripod + Bag and accessories.

Wireless connection:
- 2 lasers are wireless connected.
- They are paired as laser 1 (LA1) and laser 2 (LA2).
- Lasers can be unpaired to be used in an autonomous way
- Wireless connection allows displaying and managing lasers at distance from each other.
- An optional wireless remote control can be connected to 1 or 2 lasers for managing them at distance. Remote control integrates a speaker to relay triggered audio alarm.

Functions:
- Available thresholds: 2, 5, 10, 20, 40, 70 and 100mm (0.1'', 0.2'', 0.4'', 0.8'', 1.6'', 2.8'' and 4'')
- Distance to target permanently displayed
- Monitored movement permanently displayed (live distance between laser source and target)
- View of selected laser set up (LA1 and LA2)
- View all laser beams at one screen (LA1 and LA2)
- Set up:
  - On laser,
  - Or at distance from other laser connected,
  - Or at distance from remote control.
- Alarm control:
  - On laser,
  - Or at distance from other laser connected,
  - Or at distance from remote control.
- Mute mode: Deactivate siren of chosen laser(s) for quiet work. Flash lights alarm remains active.
- Connection quality level between lasers permanently displayed
- Laser quality measurement permanently displayed
- Filtering out quick laser beam interruption of bird or rescuer passing through laser
- Distance in metres or feet

Laser head:
- Harmless laser (Class 2): Visible red color point on targeted surface
- Associated telescopic sight for precise pinpoint of target
- Associated laser pointer to help pinpointing target together with telescopic sight
- Measuring range of up to 50m (165ft) in favourable conditions
- In case unstable structure moves greater than selected threshold => Alarm is triggered => 3 powerful white beacons flash/blink (3x100 Lumens) + powerful siren (105dB)
- Intuitive control board with buttons for easy management of all functions. Buttons are compatible with user's gloved hands in accordance with EN659
- OLED screen for excellent clarity even in bright sunlight
- IP55

(1)

(2)

(3)

Tripod:
- Extended height: 1,8m (6 ft)
- 1 tripod per laser head
- Attachment piece (1) for directing laser head in any direction, any orientation and lockable
- 1 hook below tripod top (2) for hanging a ballast to make tripod more stable
- Adjustable strap with hooks (3) for attaching load or for fixing tripod to objects on ground
- Optional sucker pad as alternative for flat surface fixing

4 possible power supplies:

- 12 AAA cells batteries using 4 packs to be inserted in laser compartments (Alkaline included but Lithium preferred for longer last)
  Running time: 8 hours

- 110/220V 50/60Hz Mains power supply with international adaptors

- 12/24V cable with cigar lighter adaptor

- Optional external rechargeable NiMH battery to provide 45h run time (comes with charger and power cable)

Remote control:

- Shockproof and water resistant
- Allows to set and stop lasers at distance.
- Relays the triggered alarm of lasers via integrated speaker
- Power supply: 6 AA cell batteries (Alkaline included but Lithium preferred for longer last)
- Run time: approx. 55 hours (with siren activated)

Transport:

- Sentry Wireless SINGLE: Comes with a classic padded transportation bag
- Sentry Wireless DOUBLE: Comes with a back pack for making easy walking transportation on the field. Optional hard case available (shockproof, IP67) for Sentry Wireless DOUBLE only

Leader SENTRY Wireless SINGLE in its transport bag

Leader SENTRY Wireless DOUBLE in its back pack and optional hard case

Product references:

	Ref.	Product
	D11.06.020	**Leader SENTRY Wireless SINGLE (1 Laser)** laser with mounted 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, strap with hooks, padded transport bag, manual, quick start guide
	D11.06.022	**Leader SENTRY Wireless DOUBLE (2 Lasers)** 2 lasers with mounted telescope, 2 tripods, 2 ball-joint mounts, 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, 1 manual, 1 quick start guide
OPTION	**D11.06.014**	**Suction cup mount with ball joint**
	D11.06.023	**External rechargeable NiMH battery** (1 per laser). IP67. Comes with its cable
	D11.06.025	**External rechargeable NiMH battery charger**
	D11.06.021	**Wireless remote control with integarted audio alarm** (6AA alkaline cell batteries supplied)
	D11.06.024	**Hard case.** IP67. Only for SENTRY Wireless DOUBLE version.