# GENERAL DESCRIPTION

EK-WL8-OS/AU is a wireless 2-in-1 device equipped with a smoke detector and a sounder.

The device analyzes physical factors associated with fire and the way these factors change through time. An alarm signal is generated when the smoke level inside the optical chamber exceeds a certain threshold. The signal travels through repeaters to the translator module, which then informs the main control about the emergency.

The advanced design of the optical chamber guarantees a very high level of dust protection, effectively increasing the time between maintenance procedures. The device can also automatically connect to different repeaters which makes the wireless connection robust and reliable.

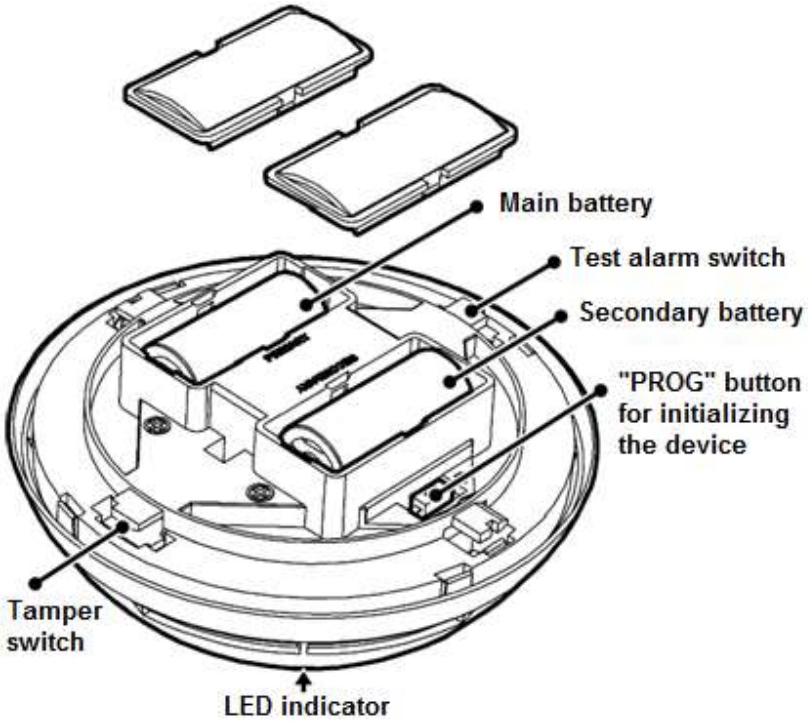
The device is supplied with a mounting kit.

The product complies with the requirements of the AS ISO 7240.7 and AS ISO 7240.25 standards.

# FEATURES

- Adjustable smoke sensitivity – low, normal or high
- Bi-directional wireless communication
- Intelligent algorithms
- Sound synchronization with other sounders in the system
- Tamper switch
- 10-year battery life
- Self-optimizing wireless frequency and amplitude algorithms
- Patented design of the smoke chamber

# GENERAL OVERVIEW




# TECHNICAL SPECIFICATIONS

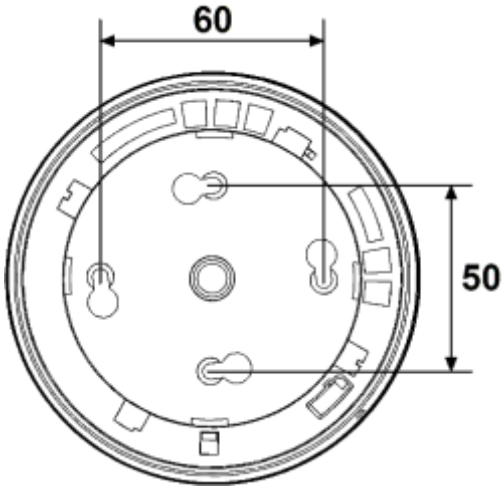
| | |
|---|---|
| Communication range with a translator or repeater | 1200 m |
| Radio frequency | 918-926 MHz |
| Modulation type | GFSK |
| Operating frequency channels | 6 |
| Radiated power | Not more than 25 mW |
| Receiver category (EN300-220-1) | 1.5 |
| Sound pressure level at 1 m | > 96 dB(A) for all modes* |
| Battery life:<br>Primary battery (type CR123A, 2.75-3.2V)<br><br><br>Secondary battery (type CR123A, 2.75-3.2V) | <br>> 8 years (Sounder activation 30 sec / week)<br>> 10 years (No sounder activation)<br>> 3 months (after primary battery low fault) |
| Dimensions (with the base) | 111 mm x 65 mm |
| Weight | 200 g |
| Max tolerated humidity | 95% RH |
| IP rating | IP21C |
| Operating temperature range | From –10 °C to +55 °C |

***see full table at the end of the document**

## PROGRAMMING

The “Prog.” button on the device is used for initializing the device in the system. Please refer to the translator manual for full instructions on how to add a child device to the system. The device can also be initialized using the “Streletz-Wizard” software.

## INSTALLATION




In order to install the device on the ceiling, you need to mount the base and then screw the device into it.

Preferably, the device should be installed at a certain distance from metallic objects, doors, and power lines, as they can cause the communication distance to drop. It is also important to avoid installing the device near electronics and computer equipment in order to protect it from potential electromagnetic interference.

## INDICATION

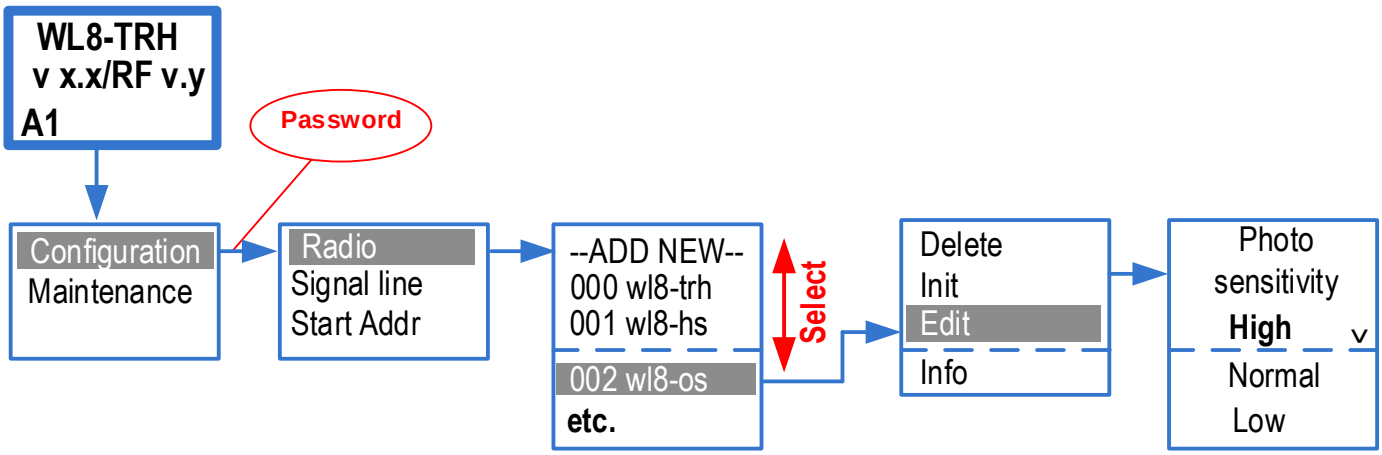
The device has an LED which indicates its state according to the following rules.

| LED indication | Device’s state |
|---|---|
| No indication or rare green flashes | Standby mode |
| Yellow flashes every 4 seconds | Fault state – low battery or malfunctioning smoke sensor |
| Red flashes every 2 seconds | Fire alarm |
| Frequent red flickering | Siren is activated |

When the device turns on, it begins an automatic calibration process, which lasts about a minute or less. This state is indicated with rare flashes of red LED.

## SMOKE SENSITIVITY

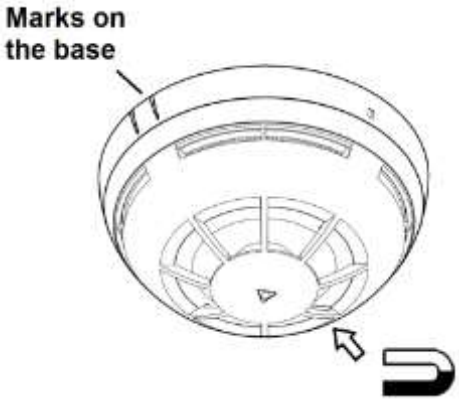
In order to set smoke sensitivity level, you should do it in translator menu.




There are three sensitivity levels (High, Normal, Low) in depend on transparent air inside of room (e.g. dust, vapor). It may help to reduce probability of false alarm.

## TESTING

A test alarm can be activated with a magnet, by holding it for 1 second near the area on the opposite side of the marks on the detector's base.




## ANALOG DATA

The device provides the translator module with analog data about the current smoke level, air temperature, dust in the chamber as well as voltage levels on its batteries. This information can be viewed in the "Streletz-Wizard" software.

| Sensor | Partition | Primary supply | Standby supply | Temperature | Analog. type 1 | An. value 1 |
|---|---|---|---|---|---|---|
| 3 WL8-OS | 003: Partition | 3,1 V | 3,3 V | 25 °C | Smoke | 31 |

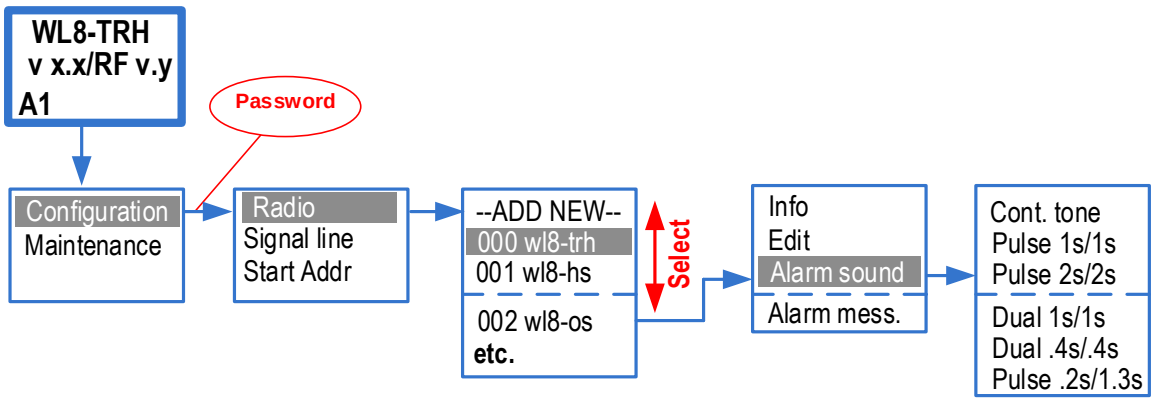
By analyzing the voltage or dust levels, you can manage your maintenance procedures and predict when you will have to replace the batteries or clean the smoke detectors. Please refer to the software manual for full instructions on how to use the program for system maintenance.

# SOUNDER

The **EK-WL8-OS** sounder may generate two tones.

| Tone Mode | Frequency |
|---|---|
| Tone1 | 3500 Hz |
| Tone2 | 2150 Hz |

Device has six sound alert modes. It should be selected in EK-WL8-TRH menu.




| Sound Alert Mode | Tone | Duty cycle |
|---|---|---|
| One-tone Steady | Tone1 | Continuous tone |
| One-tone Meander | Tone1 | 1s On / 1s Off |
| One-tone Meander | Tone1 | 2s On / 2s Off |
| Two-tone | Tone1 & Tone2 | 1s / 1s |
| Two-tone | Tone1 & Tone2 | 0,4s / 0,4s |
| One-tone intermittent | Tone1 | 0,2s On / 1,3s Off |

Sound synchronization with other sounders in the system is not worse than 50ms.

# WARNINGS & LIMITATIONS

Devices use high quality electronic components and plastic materials that are highly resistant to environmental deterioration. However, after 10 years continuous operation it is advisable to replace them to reduce the risk of reduced performance caused by external factors. Ensure the devices are only used with compatible control panels. Detection systems must be checked, serviced and maintained on a regular basis to confirm correct operation.

Refer to and follow National Codes of Practice and other internationally recognized fire engineering standards. Appropriate Risk Assessment should be carried out initially to determine correct design criteria and updated periodically.

# WARRANTY

All devices are covered by a 5-year limited warranty (does not apply to batteries). The warranty is voided by mechanical or electrical damage caused by incorrect handling or usage. Product must be returned via an authorized supplier for repair or replacement along with full information on the identified problem.

# BATTERY REPLACEMENT

**When a battery requires replacement, both batteries must be changed together.**

a. Remove the detector from the base.
b. Clip off the battery cover and remove the batteries.
c. Insert the new batteries as detailed in the installation manual above – take care to observe + / - polarity.
d. Re-fit the battery covers and re-insert the detector into the base.
e. Test the detector in accordance with the manufacturer's instructions.

It is recommended to change both batteries after 10 years of operation despite of their indicated discharge level.

To replace the batteries, use Panasonic CR123A (primary and secondary batteries) or other with similar characteristics. The batteries must meet the following standards: UL 1642 lithium batteries, UL certified at www.ul.com or IEC 60086-4 Primary batteries, Part 4: Safety of lithium batteries. The remaining shelf time of the new batteries must be not less than 8 years.

Failure to observe these instructions will void the device warranty and any liabilities.

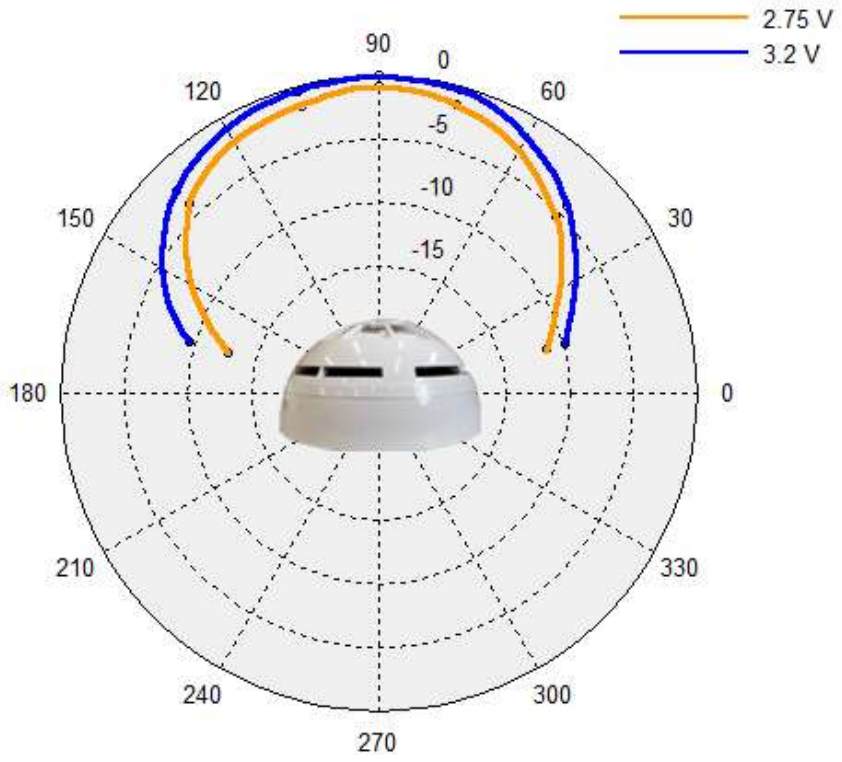
**CAUTION**

- Replacement of a battery with an incorrect type can defeat a safeguard (for example, in the case of some lithium battery types).
- Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery can result in an explosion.
- Leaving a battery in an extremely high temperature surrounding environment can result in an explosion or the leakage of flammable liquid or gas.
- A battery subjected to extremely low air pressure may result in an explosion or the leakage of flammable liquid or gas.

## DISPOSAL

- Follow local regulations regarding disposal of the batteries

| Angle | Minimal sound pressure level, dB(A) for all supply voltages at 1 m |
|---|---|
| | Horizontal and vertical plane |
| 15° | 88.4 |
| 45° | 93.7 |
| 75° | 97.6 |
| 105° | 97.3 |
| 135° | 93.7 |
| 165° | 87.0 |



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