



ASS



LABexon
Alarm Beacon
AB-001

User Manual

Version 1.3



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Document information


<i>Document information</i>	Manual version	Firmware version	Revision date	Changes
	V1.0	V1.0	Feb. 2018	Initial Version
	V1.1	V1.0	May 2019	Chapter "Adaption to the target system" expanded Chapter "System specifications" expanded
	V1.2	V1.0	Jan. 2021	Updated EC-Declaration of Conformity attached (page 10)
	V1.3	V1.0	Jan. 2023	UKCA-Declaration of Conformity added (page 11)

Important notes This document summarizes how to install and use the LABexon Alarm Beacon AB-001. Every effort has been made to ensure that the information contained in this document is correct at the time of printing. However, ASS Elektronik GmbH reserves the right to make any changes necessary without notice as part of ongoing product development.

Intended use The LABexon Alarm Beacon AB-001 is designed for visualization of alarms and warnings of target systems that only support acoustic signals as alarms.

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Trademarks LABexon is a registered trademark of the ASS Elektronik GmbH. All other trademarks are the property of their respective owners.

Instrument approvals  This product complies with the requirements of the Council Directives 2014/30/EC (EMC) and 2011/65/EU (RoHS), as amended where applicable, on the approximation of the laws of the member states relating to Electromagnetic Compatibility and Restriction on the use of certain Hazardous Substances in electrical and electronic equipment. EMC standard compliant with EN 55011, Group 2, Class B, EN 55011, Group 2, Class B, EN 61000-3-2, Class A, EN 61000-3-3, Pst, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-11. The product might be marketed at the US in accordance with FCC Rule based on the standard CFR47, FCC part 15, Class B.

Manufacturer



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Overview



The **LABexon Alarm Beacon AB-001** is a signal lamp designed for visualization of alarms and warnings of target systems that only support acoustic signals as alarms. The user is reliably informed of malfunctions even in noisy environments and over longer distances. This allows the user to react quickly to alarms and minimize system downtimes.

The LABexon Alarm Beacon AB-001 can be configured to recognize and differentiate different sounds to display alarms (red light signal), warnings (yellow light signal) and normal operating conditions (green light signal).

A microphone module as well as a stereo jack cable can be used as signal source for the LABexon Alarm Beacon AB-001, which allows a wide range of applications.

Attention!

This system may only be used in addition to existing alarm signals or systems.

The system is not suitable for safety-critical applications where malfunction or total failure may cause danger for people or target systems.

This document describes the installation of the Alarm Beacon AB-001 in general. To install this product on a specific target system, please ask the supplier for a technical installation guide.



Figure 1 *Lamp unit and included accessories*

Partlist:

1. Lamp unit with integrated microcontroller and loudspeaker
2. 3.5 mm stereo jack plug cable
3. 3.5 mm stereo jack plug Y-cable
4. Bar clamp
5. Power supply (24 V, 750 mA)
6. This manual
7. Microphone module

Caution!

For reliable and safe operation, the lamp unit must be fixed with the supplied bar clamp (see Figure 2).



Figure 2 *Secure fixing of the lamp unit with bar clamp*

Note

This product may only be installed and connected by qualified and trained personnel. Please read this manual carefully before use and keep it in a safe place for future reference.

Adaptation to the target system

Note

Correct operation is only possible if the Alarm Beacon and the target system are configured according to the installation guide provided by your supplier.

The control panel is located on the bottom of the Alarm Beacon and enables customization. To do that, turn the three rotary switches located in the control panel according to the installation guide provided by your supplier.

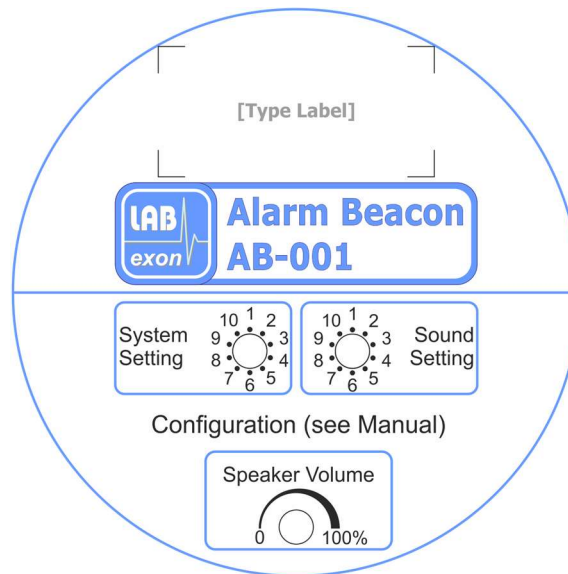


Figure 3 Lamp unit: Bottom view

The function of the rotary switches is as follows:

- 1 **System Setting** – This setting selects the detection mode for the corresponding target system. Connect the appropriate module to the lamp unit.
- 2 **Sound Setting** – This setting sets the lamp unit to a specific combination of sounds. These sounds are to be set according to the corresponding table for the target system.
- 3 **Speaker Volume** – Use this control to adjust volume of the built-in loudspeaker of the lamp unit. If the microphone module is used, the volume should be set to zero.

Note

Please note that changed System Settings and Sound Settings are only applied, when the Alarm Beacon is powered on.

The loudspeaker of the target system is usually disabled when the jack plug cable is plugged in!

If an audible alarm is desired, use the Speaker Volume control to adjust the volume of the integrated loudspeaker of the Alarm Beacon.

Installation of lamp unit

- 1 Select the correct settings for *System Setting* and *Sound Setting* as described above.
- 2 Choose the appropriate module – either the jack plug cable or the microphone module – and connect it to the signal input of the lamp unit.

A) Connection of the jack plug cable

The jack plug cable connects to the sound output of the target system (light green socket).

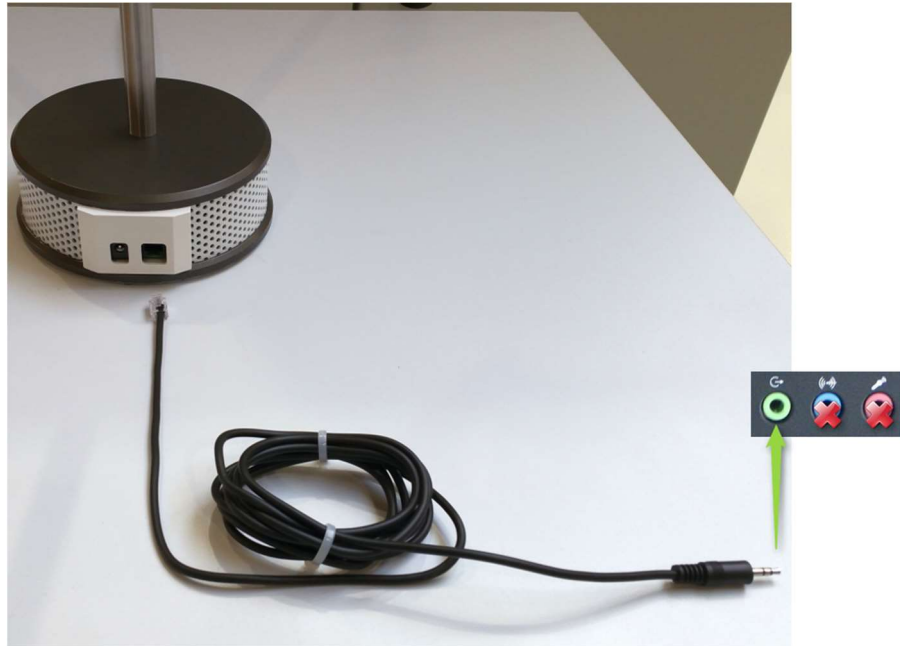


Figure 4 Jack plug cable

B) Connection of the microphone module

The microphone module must be installed close to the loudspeaker of the target system as described in the installation guide.



Figure 5 Microphone module

- 3 Connect the lamp unit with the supplied power supply. Make sure that all three lamps are activated in sequence green-red-yellow-green at system startup.

Caution!

For reliable and safe operation, the lamp unit must be fixed with the supplied bar clamp (see Figure 2).

System specifications

<i>Physical dimension</i>	Width	160 mm
	Depth	160 mm
	Height	1000 mm
	Weight	1.60 kg
<i>Power requirements</i>	Line voltage	100 - 240 V (± 10%)
	Line frequency	50 Hz (± 5%) and 60 Hz (± 5%)
	Power consumption	< 10 VA
	Insulation coordination	Installation category II (IEC 61010-1)
<i>Environmental conditions</i>	Temperature	Operation: +5 °C to +32 °C Transport and storage: -15 °C to +55 °C
	Humidity	30-80% non-condensing
	Pollution	Degree 2
	Altitude	max. 2000 m above sea level
<i>Interfaces of lamp unit</i>	Sound input	3.5 mm stereo jack cable or Microphone module
	Power supply	Barrel plug (2.05 mm inner Ø, 5.5 mm outer Ø)
<i>Performance features</i>	Sampling frequency	8 kHz
	Response time	max. 5 seconds

Maintenance and cleaning

Maintenance: Apart from periodic functional tests, no maintenance is required. The LABexon Alarm Beacon AB-001 contains no user serviceable parts inside the lamp unit.

Cleaning: Use only a damp (not wet) cloth to clean the equipment.

Caution!

Do not allow liquids to enter the unit housing during cleaning!

Disposal recommendation

Electrical and electronic equipment marked with this symbol are covered by the European directive on waste electrical and electronic equipment (WEEE II) 2012/19/EU.



The symbol denotes that the equipment must not be disposed of in the municipal waste system.

Troubleshooting

If the Alarm Beacon does not behave as expected, perform the following steps:

- 1 Check power supply
 - Unplug power supply
 - Wait 10 seconds
 - Reconnect the power supply
 - At system startup, all three lamps are activated in sequence green-red-yellow-green
- 2 Check signal input
 - Check if all plugs are connected correctly
 - Play the desired alarm sound and make sure the correct lamp lights up
 - Ensure that the volume levels are high enough to trigger sound recognition
 - In case of using the microphone module:
 - Check if the microphone is still installed as described in the installation guide
 - Avoid other similar noises a near the microphone module
- 3 Check if the sound settings of the target system match those in the installation guide

UKCA-Declaration of Conformity

	Declaration of Conformity	
Manufacturer:	ASS Elektronik GmbH	
Address:	ASS Elektronik GmbH Maybachstraße 14 D-67269 Grünstadt	
ASS Elektronik GmbH declares that the products:		
LABexon Alarm Beacon AB-001		
to which this declaration of conformity refers, are in conformity with relevant statutory requirements:		
The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 (as amended)		
Electromagnetic Compatibility Regulations 2016		
This declaration of conformity is issued under the sole responsibility of the manufacturer.		
Responsible for technical documentation: Marco Sprengart, ASS Elektronik GmbH		
Grünstadt, 24-01-2023	Signature on the original	
	<hr/> Sven Seidenspinner ASS Elektronik GmbH (Managing Director)	