Instrument Handbook

SoundSign Noise Activated Warning Sign





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Introduction

The SoundSign from Cirrus Research is an easy-to-install noise-activated warning sign for use in environments where there is a need to clearly warn or indicate when a preset noise level has been reached and/or exceeded.

This noise-activated warning sign uses LEDs to display a message when the noise level that you select during set up has been breached.

The SoundSign is perfect for environments such as factories and workshops to serve as a visual alert of reminder for your employees to wear their hearing protection. It's also ideal for use in quiet environments, such as schools, hospitals and libraries, acting as a silent reminder for people to keep the noise levels down.

This instrument is available in four distinct designs and multiple languages. The SoundSign is also available as a data logging unit.





Master Unit Installation & Use

Installation of the SoundSign is very simple. Select the trigger level and connect the power supply to the unit. When the noise level measured by the microphone reaches this level, the sign will illuminate and show the warning.

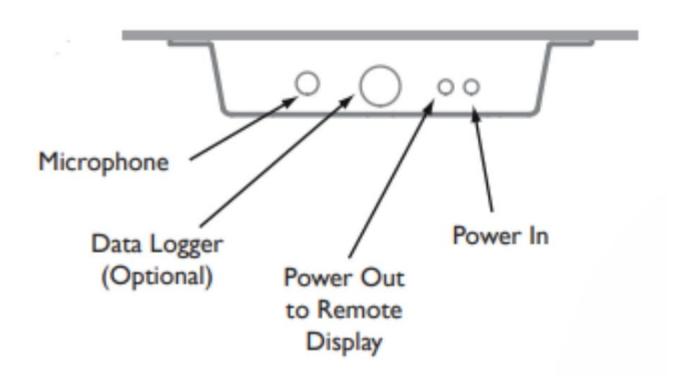
The unit can also be set to keep the warning illuminated for up to 30 seconds after the level has fallen back below the trigger level. This removes the sudden on-off indication that traditional noise warning signs often produce. The SoundSign eliminates confusion as to when hearing protection (PPE) should be worn.

Contents

The SoundSign Master consists of the following components:

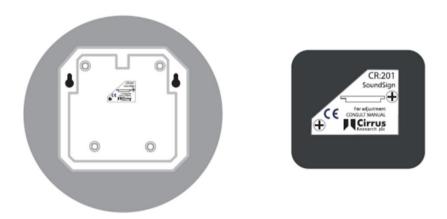
- SoundSign Noise Activated Warning Sign
- MK:113 fixed microphone
- Power supply with UK, US & EU plugs
- 5m power extension cable
- 2x wall-mounting screws & wall plugs

SoundSign layout

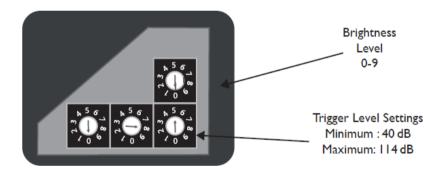


Setting the trigger level & brightness

The sound level chosen for the trigger point can be set using the dials at the back of the unit. When setting the trigger level, remember that this is the level at the microphone rather than the level that individuals are exposed to. Hence the trigger level should be set to consider any distance between the microphone and the noise surface.



To adjust the trigger level or brightness, you must first remove the cover shown above from the back of the SoundSign. This can simply be removed using a cross-headed screwdriver.



The top dial can be used to adjust the brightness of the display when it is activated. To do this, simply rotate the dial to the brightness of your choosing.

To set the trigger level you can use the bottom three dials. For example, the diagram above shows a combination of 0,8,5 and the trigger level will be 85dB.

Adding '800' to the trigger level will disable the 30 second turn-off delay. Below are a few examples of trigger levels and the settings for each.

Trigger Level	Dial 1	Dial 2	Dial 3
45dB. 30 second turn-off delay	0	4	5
45dB. No turn-off delay	8	4	5
100dB. 30 second turn-off delay	1	0	0
100dB. No turn-off delay	9	0	0

Powering on

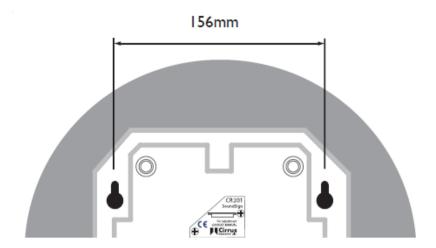
The SoundSign is provided with a mains power supply as well a selection of plugs for use with UK, EU and US mains. To power your SoundSign, connect the power cable to the rightmost 'Power In' port and plug the power supply into the mains. Your SoundSign will now illuminate based on the trigger level that has been set.

Wall mounting

The SoundSign is also provided with 2 wall plugs and screws which are suitable for fixing the SoundSign to solid surfaces. Simply use the guide below to position the two screws and drill them into the wall.



The SoundSign can then be slotted over the screws by lining them up with the holes indicated overleaf.



Setting up the Data Logger

The SoundSign can be upgraded to become a data logging unit by adding the SoundSign Data Logger and USB Software. The Data Logger simply plugs into the SoundSign and can record noise levels over long periods of time. The Data Logger can be programmed to start recording at a specific time and date and run, for example, over an 8 hour shift.

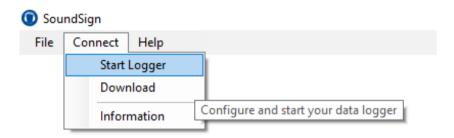
When the Data Logger is plugged into a PC the software will display a graph of the recorded noise levels and allow the data to be printed, exported and annotated for reference.

To begin using the SoundSign Data Logger you will need to install the SoundSign Software and USB drivers. This software can be downloaded from Cirrus Research's website at https://cirrusresearch.com/product/ soundsign-data-logger/#software.

Upon launching the SoundSign Software, you will be presented with the screen shown below.



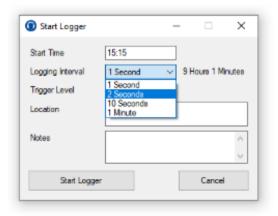
With the Data Logger connected to the PC, navigate to Connect > Start Logger at the top of the page or click on the button in the centre of the screen.

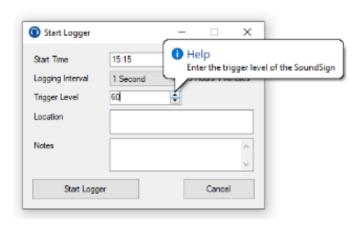


You will then be presented with the pop-up window shown below, which allows you to configure the Data Logger.

Here you can set the Logging Interval, to determine how frequently a measurement is taken. The maximum measurement duration is also indicated to the right of the Logging Interval dropdown, as the Logging Interval is increased, the maximum measurement duration also increases.

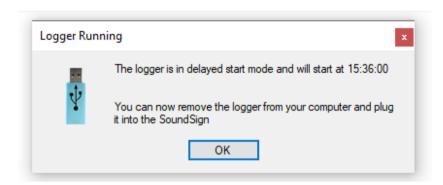
You can also use this window to set the Trigger Level, which sets the noise level at which the Data Logger will begin to take readings.





The 'Location' and 'Notes' section can also be used to keep a record of where your readings were taken and for what purpose. This information will then appear once readings are downloaded from the Data Logger and will appear on any export data.

Clicking on 'Start Logger' will then set the Data Logger to delayed start mode and indicate the time at which measurements will begin to be taken as shown below.



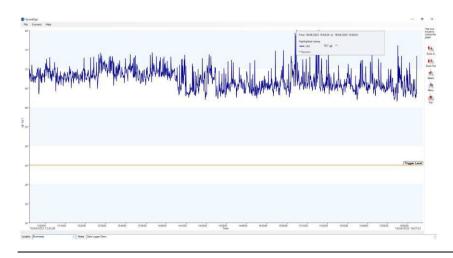
At this point the Data Logger can be installed in the port at the base of the SoundSign and readings will be taken based on the criteria set in the previous stages.

Downloading readings from the Data Logger

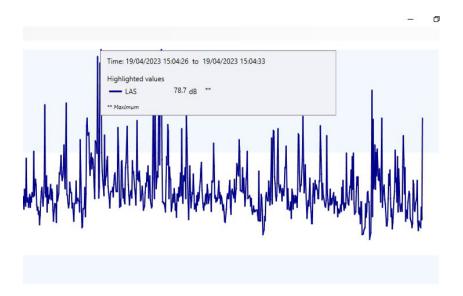
Once you have finished taking readings, simply remove the Data Logger from the SoundSign and connect it to your PC. Within the SoundSign Software, navigate to Connect > Download. Data will then be downloaded from the Data Logger and presented in graphical format.



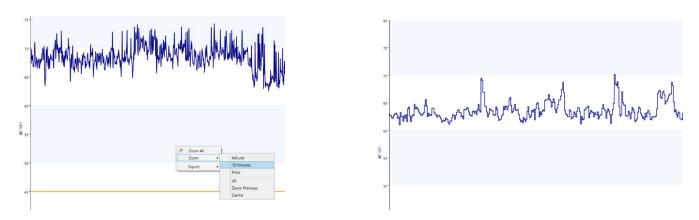
On the right of the screen



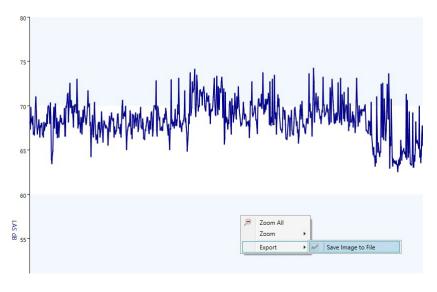
To view more information about a certain point on the graph, simply hover your mouse over the point you would like to investigate. A pop-up will then appear showing the noise level for the selected point as well as the exact date and time that the reading was made.



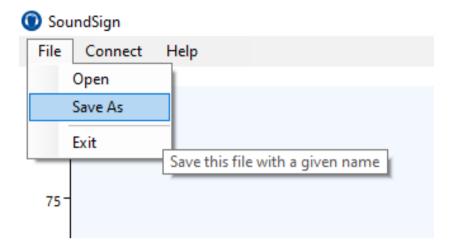
Right clicking anywhere on the screen will open the menu shown below, allowing you to change the zoom or export data from the SoundSign Software. Clicking on 'Zoom' will allow you to change the time period of the graph, for example the graph below shows the data over a 10 minute period.



From this menu it is also possible to export the graph in image format and save it as a png. To do this, simply click on 'Export' and select the location that you would like to save the graph.



It is also possible to export downloaded data as a spreadsheet. To do this, navigate to File > Save As and select the location that you would like to save your spreadsheet.



Any location or notes that were input within the SoundSign Software will appear on the exported spreadsheet as well as the configuration of the Data Logger for the exported data. This data can then be used to produce custom graphs based on your needs.

Name	Serial Number	Start Time	Interval	Trigger Level
CR:203	20029129	19/04/2023 12:52	1	45
Location				
Hunmanby				
Notes				
Data Logger Demo				
Time	Value			
19/04/2023 12:52	67.1			
19/04/2023 12:52	67			
19/04/2023 12:52	67.4			

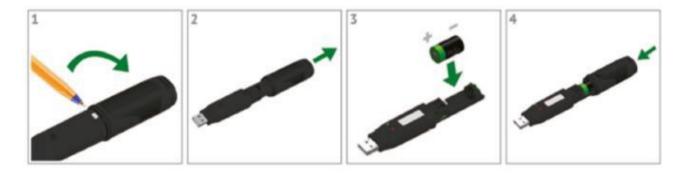
Replacing the battery in the Data Logger

The SoundSign Data Logger is powered by a ½ AA 3.6v Lithium Primary (CR14250) Battery which typically

provides ... of charge. When the battery is low on charge, the Data Logger will indicate this using the LEDs as shown in the graphic below.



To replace the battery, press the metal ... as shown below, we suggest using a pair of tweezers or pen to do this, and simply pull the two sides of the Data Logger in opposite directions. The battery can then be replaced with another $\frac{1}{2}$ AA 3.6v Lithium Primary (CR14250) Battery and the cover can be replaced.



Remote Unit Installation & Use

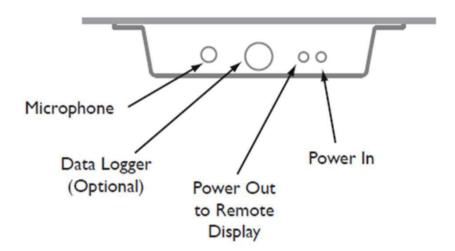
The SoundSign is also available as a Remote Display Unit which is controlled by a Master SoundSign Unit. A simple cable from the Master to up to 3 remote units can be daisy-chained together so that an area of up to 30 metres can be covered.

Contents

The SoundSign Remote consists of the following components:

- SoundSign Noise Activated Warning Sign
- 10m power extension cable
- 2x wall-mounting screws & wall plugs

Connecting additional remote units



Remote Display Units can be connected to the SoundSign Master using the ports on the base of the device. The port third from the left, as indicated by the diagram above, can be used to connect a Remote Display.

Remote Display Units use the same trigger level as the connected SoundSign Master and hence individual trigger levels do not need to be set.

Options & Accessories

A range of options and accessories are available to enhance or extend the capabilities of the SoundSign Noise Activated Warning Sign.

SoundSign Master Variations

Code	Description
CR:201/1	Sound Sign "Hearing Protection Must Be Worn"
CR:201/2	Sound Sign "Warning High Noise Levels"
CR:201/3	Sound Sign "Caution! High Sound Levels"
CR:201/4	Sound Sign "SHHH! Quiet Zone"

SoundSign Remote Variations

Code	Description
CR:202/1	Sound Sign Remote Unit "Hearing Protection Must Be Worn"
CR:202/2	Sound Sign Remote Unit with "Warning High Noise Levels"
CR:202/3	Sound Sign Remote Unit with "Caution High Sound Levels"
CR:202/4	Sound Sign Remote Unit with "SHH! Quiet Zone"

Accessories

Code	Description
CR:203	Data Logger for SoundSign including SoundSign Software USB
CR:204/1	Red Xenon Beacon for SoundSign with 10Mtr Cable
CR:204/2	Blue Xenon Beacon for SoundSign with 10Mtr Cable
CR:204/3	Green Xenon Beacon for SoundSign with 10Mtr Cable
CR:204/4	Amber Xenon Beacon for SoundSign with 10Mtr Cable
ZL:208	50m extension cable for Remote Unit
ZL:272	10 Meter Power Cable Extension for SoundSign
ZL:207	10 Meter Cable Extension for Remote Unit

Declarations

EU Declaration of Conformity



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United Kingdom



Equipment Description

The following equipment manufactured after 1st June 2019:

CR:201 SoundSign Noise-activated Warning Sign CR:202 SoundSign Remote Display Unit

According to:

EMC Directive 2014/30/EU Low Voltage Directive 2014/35/EU RoHS Directive 2011/65/EU

meet the following standards

EN 61000-6-3:2020

Electromagnetic compatibility (EMC). Generic standards. Emission standard for residential, commercial and light-industrial environments.

EN 61000-6-1:2016

Electromagnetic compatibility (EMC). Generic standards. Immunity for residential, commercial and light-industrial environments.

Signed

Martin Williams, Chief Engineer

Dated 2nd April 2025

Product Guarantee & Extended Warranty

- 1. Every new product is provided with a 12-month no-quibble warranty. This covers everything we provide against failure, poor workmanship and accidental damage.

 NB European Union law states a product has to be fit for purpose for 24 months after purchase. This two-year period covers failure and poor workmanship only.
- 2. If the product is calibrated by Cirrus Research or an authorised calibration and service centre, then the initial 12-month warranty is extended by a further 12 months, with the same conditions, for up to 15 years in total.
- 3. If a product has not been calibrated annually by Cirrus Research or an authorised calibration and service centre, then you may buy back into the warranty scheme for a small fee, plus the cost of calibration. This can only be done once during the life of the product.
- 4. If a microphone capsule fails under warranty and is physically damaged, we will replace it with a refurbished capsule.
- 5. If you don't wish to have a refurbished capsule, then you can trade in your damaged capsule for a new one, which will incur a fee.

Cirrus Research Offices

The addresses given below are the Cirrus Research plc offices. Cirrus Research plc also have approved distributors and agents is many countries worldwide. For details of your local representative, please contact Cirrus Research plc at the address below. Contact details for Cirrus Research authorised distributors and agents are also available from the Internet Web site at the address shown below.

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