

ASP110S v2.0 OUTDOOR ALARM SIREN & STROBE

GENERAL DESCRIPTION

The ASP110S siren is designed for use in burglary alarm systems or other situations which require acoustic and light signaling method. The ASP110S siren utilizes piezoelectric transducer and electric light bulb. The ASP110S produce up to 110dB (@ 1m) sound level with few selectable modulation tones and pulsed (~2 Hz) alarm light. The entire siren case is manufactured from the high-impact polycarbonate (PC LEXAN). The strobe light cover can be delivered in red (standard), blue or amber color, if required light cover can be easy replaced by the installer. In order to increase the overall mechanical robustness of the siren the metal protection cover made from a 1.5mm thick

stainless metal sheet can be optionally installed inside the siren compartment. The electronic module of the siren is fully potted thus protected from a moisture and corrosion. The ASP110S siren may operate with 12V/1.2Ah battery (not supplied) which should be mounted inside siren cabinet. The ASP110S siren is equipped with TIMER circuit which may automatically terminate alarm sound generation after predefined time (3, 6 or 9 min.). The ASP110S can be triggered by external NO/NC contact or voltage signal. Optionally, it may go into alarm state automatically when tamper event occurs. Siren is dedicated for operation in outdoor environment and temperatures between -30°C..+60°C.

TRIGGERING METHODS

The ASP110S has separate inputs for sound and light alarm. Both inputs have the same electrical structure and can be configured independently. Each input can be configured to NF, NH or NF mode. The input configured to NL mode (Normally Low) must be normally shorted with supply minus, when configured to NH mode (Normally High) it must be normally shorted with supply plus. The input configured to NF (Normally Floating) mode must be normally not connected to any potential, triggering will occur when line this line is shorted with supply plus or minus. Also, the ASP110S can be triggered automatically in case when TAMPER circuit becomes active, this can be achieved by **Auto-triggering** feature.

Note: It is recommended to use NH or NL modes because in case when electrical connection with triggering device (alarm control panel) is discontinued the input will go automatically into triggering state.

AUTO-TRIGGERING

This function makes the ASP110S siren will automatically go into alarm state (both: sound and light) when TAMPER circuit becomes active. The light and sound alarm will last for the entire time when tamper circuit is activated. If the TIMER function is active the sound alarm caused by TAMPER detection circuit may be automatically terminated after predefined time.

Note: The ASP110S siren can be also automatically triggered when external power supply is lost. This feature requires both **Auto-triggering** feature set on and reserve battery installed in the siren.

TIMER

The TIMER circuit automatically switch off the sound alarm after predefined time. Using jumpers, installer may set the maximum time of sound alarm to 3, 6 or 9 minutes. If not required TIMER circuit can be deactivated.

Notes:

1. The TIMER function limits the maximum time of acoustic alarm signal only, it doesn't not affect the strobe light.
2. The TIMER function can not stop any new incoming alarm. Every new triggering signal applied to siren's input resets (clears) the TIMER so the new alarm may start immediately.

TAMPER

The ASP110S is equipped with an active tamper detection circuit based on the hermetic switch and hermetic relay, both IP67 rated. Normally, the TAMPER output contact is closed, it becomes open and stay open as long as at least one from scenarios below occur:

- when siren cover is being removed
- when siren's rear panel is being pulled off from its place of installation (wall)
- in case when external power supply is lost

Note: Without external supply the TAMPER contacts of the ASP110S are permanently open (active state).

INSTALLATION

Siren should be fixed firmly on the vertical piece of construction (wall) using 5 screws (delivered together with the siren) with strobe light directed towards a ground. Four screws are used to fix siren bottom to the wall, the fifth one is used for tamper detection in case when siren is being detached from the place of installation. Because of relatively large current consumption during alarm state (momentary current may rise up to 1A) the ASP110S should be supplied using separate pair of wires. Installer must carefully calculate the wires gauge used to supply the siren, it is recommended that total resistance of wires used to supply the siren should represent 1Ω or less. The request for low wires resistance can be omitted when siren operates with internal battery, in this case siren can be supplied using wires with up to 10Ω total resistance. After installation is completed, installer should test the siren performance and verify supply voltage at the siren's DC input terminals. It is assumed that during alarm state the voltage dropout between supply source and the DC input terminals of the ASP siren should be less that 1V.

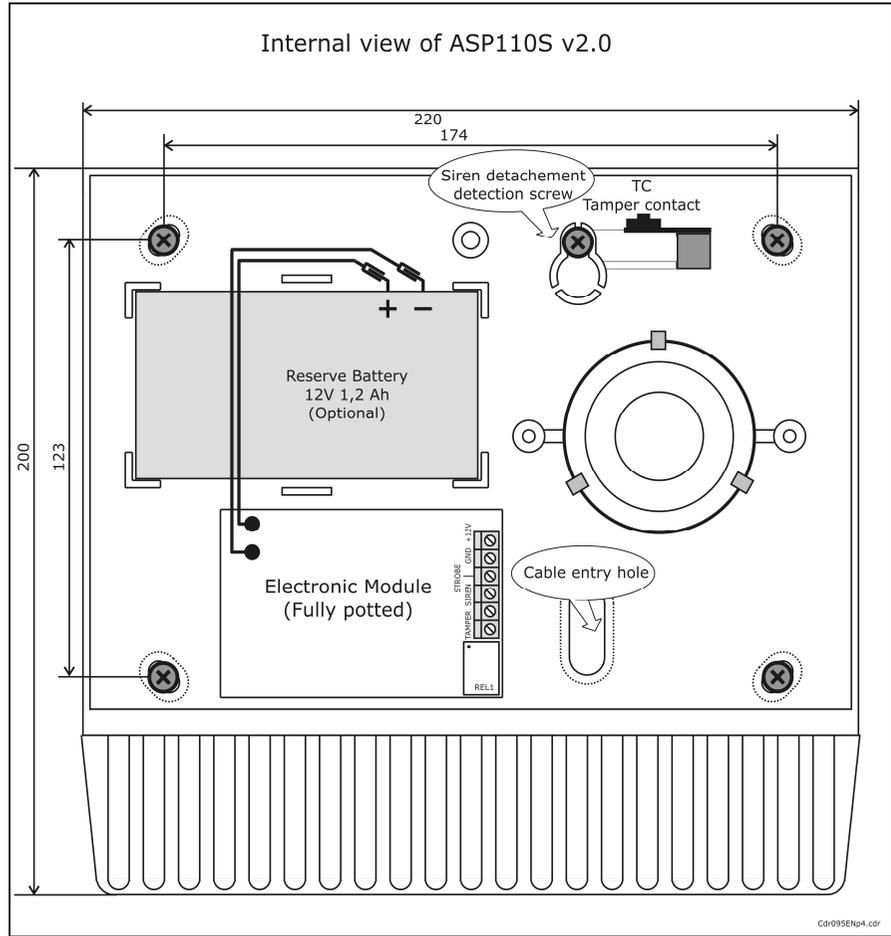
Note: For proper battery charging the 13.0-15.0 VDC supply voltage is required.

Note: Always provide adequate wires gauge for siren DC supply. This note is especially important when siren is not equipped with reserve battery.

TECHNICAL SPECIFICATIONS

| | |
|----------------------------------|--|
| Supply voltage (without battery) | 10.0 - 15V DC, nominal 13.8VDC |
| Supply voltage (with battery) | 13.0 - 15V DC, nominal 13.8VDC |
| Current consumption: | |
| ▪ standby | 60mA (without battery charging current) |
| ▪ strobe light average current | app. 250mA |
| ▪ strobe light momentary current | app. 500mA |
| ▪ siren average current | app. 200mA |
| ▪ battery charging current | up to 200mA (depends on battery level) |
| Tamper output | Normally closed contacts, 24V/50mA |
| Alarm signal frequency | 1500-4000Hz (modulated) |
| Sound level | 110dB at 1 meter @ 13.8V DC |
| Light indication | 5W (pulsed ~2Hz) |
| Operating temperature | -35°C - +60°C |
| Relative Humidity | 0 - 95% |
| Dimensions | 220 X 205 X 80 |
| Weight | 0.66kG (without metal cover and battery) |
| Metal cover | 0.56 kG |

| Ordering codes | |
|---|--|
| ASP110S | White color polycarbonate plastic case, red light, without internal metal cover and battery. |
| ASP110S-OM | Same as above plus internal metal cover. |
| AS-OM | Internal, metal cover for ASP siren. |
| Other colors (body and light) for individual request. | |



ASP110S v2.0 Configuration

Cdr095ENp3.cdr

Reserve Battery 12V/1.2Ah

ACC+ ACC-

Sound Alarm Time Limit

JP9 JP10 JP11

Strobe and Siren Triggering

JP1 JP2 JP3 JP4

Sound Modulation

JP5 JP6 JP7 JP8

Auto-triggering

JP12

REL1

Terminal Block Legend:

- SO: DC supply input
- SA: Strobe input
- SO: Siren input
- SA: Tamper output

| Siren and Strobe triggering methods | | Sound Alarm Modulation | |
|-------------------------------------|---------|--|----------------------------------|
| Strobe Triggering | JP1 JP2 | Normally Low (NL) input. Normally, input must be shorted with supply minus, strobe is activated when connection with supply minus is discontinued. | [Waveform: Square wave] |
| | JP1 JP2 | Normally High (NH) input. Normally, input must be shorted with supply plus, strobe is activated when connection with supply plus is discontinued. | [Waveform: Inverted square wave] |
| | JP1 JP2 | Normally Floating (NF) input. Normally, input must be disconnected from any potential. Strobe is activated when line is connected to supply plus or minus. | [Waveform: Triangular wave] |
| Siren Triggering | JP3 JP4 | Normally Low (NL) input. Normally, input must be shorted with supply minus, siren is activated when connection with supply minus is discontinued. | [Waveform: Square wave] |
| | JP3 JP4 | Normally High (NH) input. Normally, input must be shorted with supply plus, siren is activated when connection with supply plus is discontinued. | [Waveform: Inverted square wave] |
| | JP3 JP4 | Normally Floating (NF) input. Normally, input must be disconnected from any potential. Siren is activated when line is connected to supply plus or minus. | [Waveform: Triangular wave] |
| Auto-triggering | | Sound Alarm Time Limit | |
| JP12 | Off | JP9 JP10 JP11 | No limit |
| JP12 | On | JP9 JP10 JP11 | Sound alarm limited to 3 min. |
| | | JP9 JP10 JP11 | Sound alarm limited to 6 min. |
| | | JP9 JP10 JP11 | Sound alarm limited to 9 min. |