

## 1. General

The SPLZ-1011 outdoor visual-acoustic siren is designed for use in burglary and assault signaling systems. The signaling function is performed in two ways: **visually** (by red color lamp blinking) and **acoustically** (by a modulated, high-volume sound signal). A xenon lamp (flash) is the source of light, while the sound signal is generated by means of a piezoelectric transducer. The design of the siren housing, as well as its inner enclosure made from galvanized sheet, ensure a high degree of tamper protection (against opening, tearing off from the base, an attempt to cover the transducer with foam). The electronics board is made in SMD technology and protected by impregnation against unfavorable effects of weather conditions, thus ensuring high reliability of the equipment. The SPLZ-1011 housing is made of the highly impact resistant PC LEXAN polycarbonate, hence it features a high mechanical strength and guarantees aesthetic appearance of the siren even after many years of operation.

## 2. Installation

The siren should be mounted on a flat base in a location as inaccessible as possible to minimize the tampering risk. The device should be attached to the base by means of screws and expansion bolts.

**Note:** *Keep a clearance of approx. 4.5cm between the upper edge of siren housing and the ceiling or other obstacle limiting the mounting position from above. The lack of such clearance can make the mounting of housing difficult.*

The tamper circuit of the siren protects the device against removal of housing or tearing the unit off the wall. For the circuit to operate correctly, the „S” element must be screwed to the base.

The siren is fitted with circuit for signaling the attempts to tamper with the transducer using the sealing foam. The circuit can operate independently or be connected in series with the device tamper circuit.

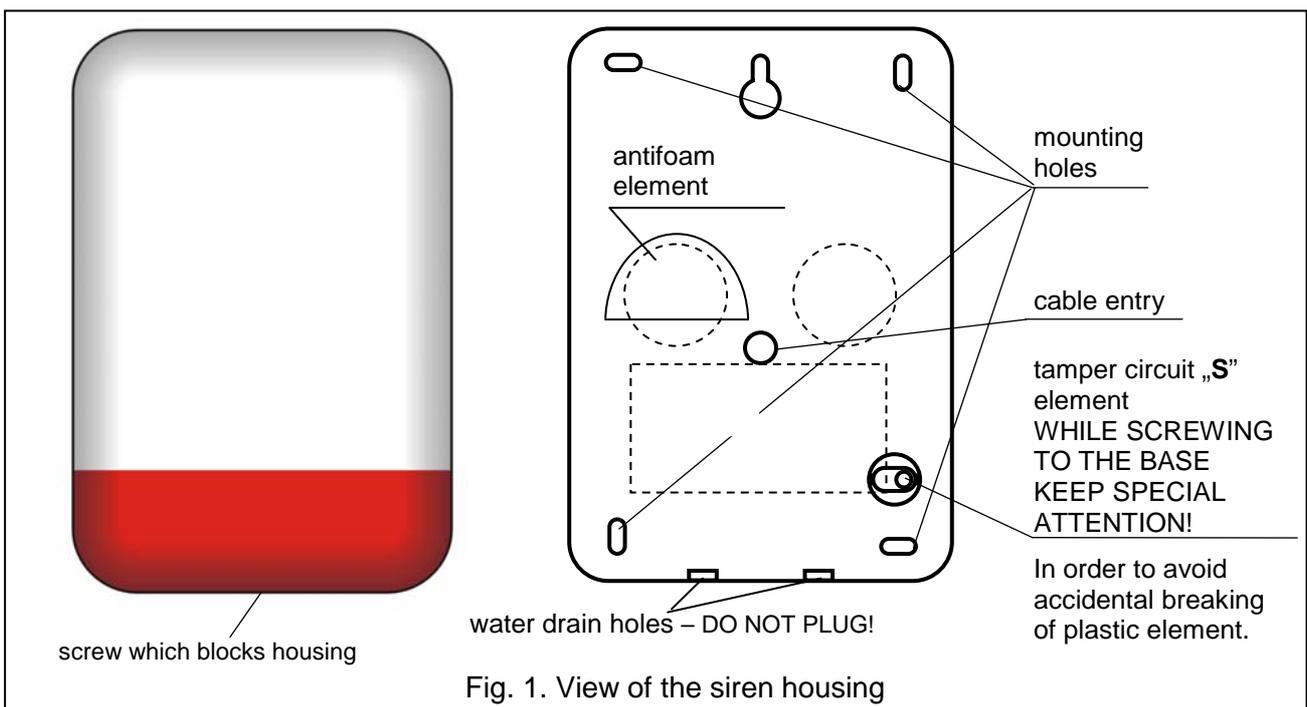


Fig. 1. View of the siren housing

After installing the siren, it is recommended to seal the mounting holes and the cable entry with silicone compound.

### 3. Operation of siren

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The way of activating the **SPLZ-1011** is different from that of the SPLZ1010B siren (read carefully the text below).

The SPLZ-1011 can operate with any source of alarm signal. The circuits for acoustic and visual signaling have separate control inputs. The acoustic signaling is controlled by the **STA** input, while the visual signaling – by the **STO** input. Signaling is triggered after a change of voltage polarity from 0V to 12V or from 12V to 0V.

**Note:** Alarm will be triggered also in case of stable signal loss at control input, e.g. after cutting off the cable.

The way of changing voltage polarity for the purpose of triggering the alarm is set by means of the jumpers **PLA** and **PLO**.

The siren has been designed so as to be **inactive on connecting power supply to it**, irrespective of the status of inputs STA and STO. Only after elapse of **20 seconds in the stable, inactive state** (constant power supply from the control panel and voltage on inputs which does not trigger alarm) it is possible to trigger the signaling. After each switching the power supply off and on, the time is counted over again. This function allows an accidental activation of the device to be avoided during installation of the system.

**The test mode** makes it possible to activate signaling without the need to wait for 20 seconds. In order to do so, remove the jumper **O+A**, switch the siren on and, within 5 seconds, put the jumper on again.

**The SAB terminals** are used for connecting the siren to the tamper circuit of the alarm system. When the siren is correctly mounted and the contacts of onboard switches are closed, the **SAB** terminals are shorted, too.

The siren is adapted for operation with a 6 V battery installed (back-up power supply).

The external power supply should be connected to the terminals **+12V** and **GND**. The loss of voltage on these terminals will trigger a tamper alarm, the duration of which depends on the settings of jumpers **TM0** and **TM1**. The kind of signaling is set with the jumper **O+A**. Restoration of the supply voltage will cancel the tamper alarm. Having mounted the siren, check the performance of this function by disconnecting and reconnecting the power supply voltage.

**Note:** The jumpers **TM0**, **TM1** determine the maximum active time of acoustic signaling. Afterwards, irrespective of the value set on the control panel, the siren will go silent. Signaling can only be triggered again after the STA input voltage returns to the state corresponding to the **PLA** jumper "no alarm" setting.

**The LED** placed on electronics board blinks when the +12V input power voltage is applied. The LED can be switched off by removing the JP8 jumper.

### 4. Connection

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There are two types of alarm outputs which are used in alarm control systems: common ground outputs and common supply outputs. The siren can be activated by any type of output, provided that suitable connections are made. If the control panel alarm outputs have no resistors which induced polarization, then, in order to ensure proper operation of the device, it is necessary to connect 2,2kΩ resistors as shown on figure 2, 3 or 4 (depending on the output type). They can be connected in the control panel or in the siren.

Such resistors must also be connected for outputs with load control.

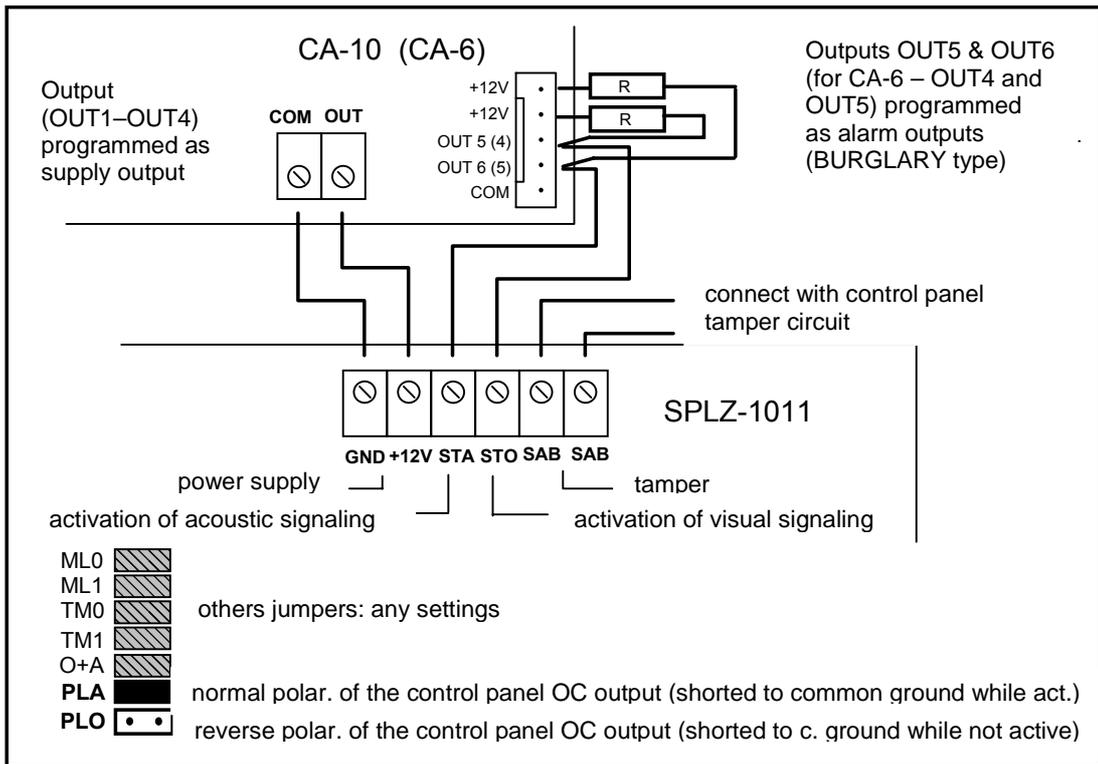


Figure 2. Connection of siren to CA-10 control panel manufacture by SATEL with the use of low voltage OUT5 and OUT6 outputs or to CA-5 with OUT4 and OUT5.

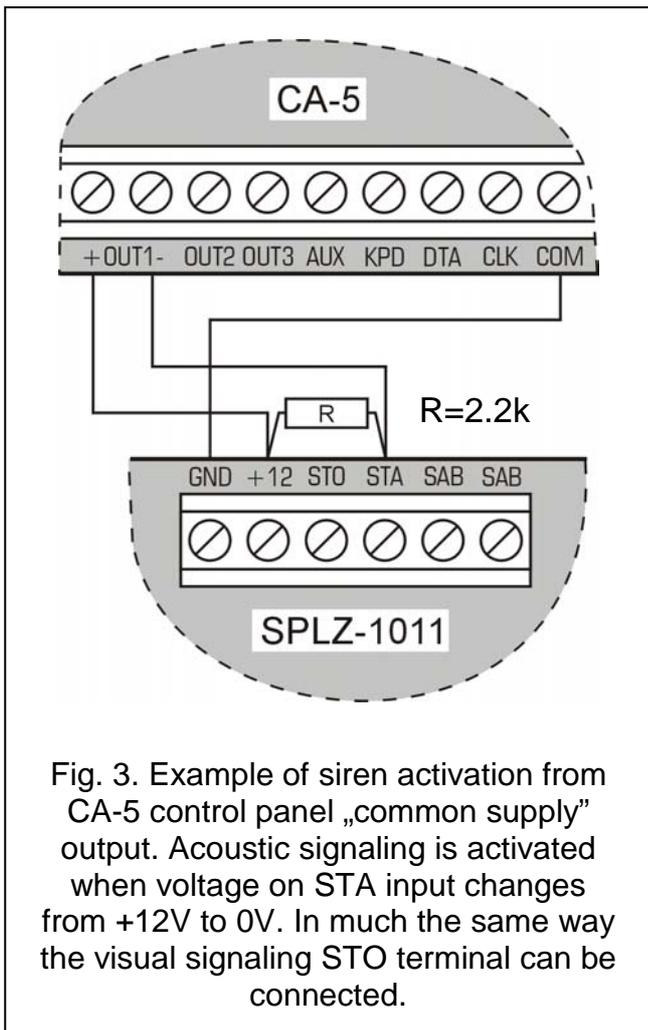


Fig. 3. Example of siren activation from CA-5 control panel „common supply” output. Acoustic signaling is activated when voltage on STA input changes from +12V to 0V. In much the same way the visual signaling STO terminal can be connected.

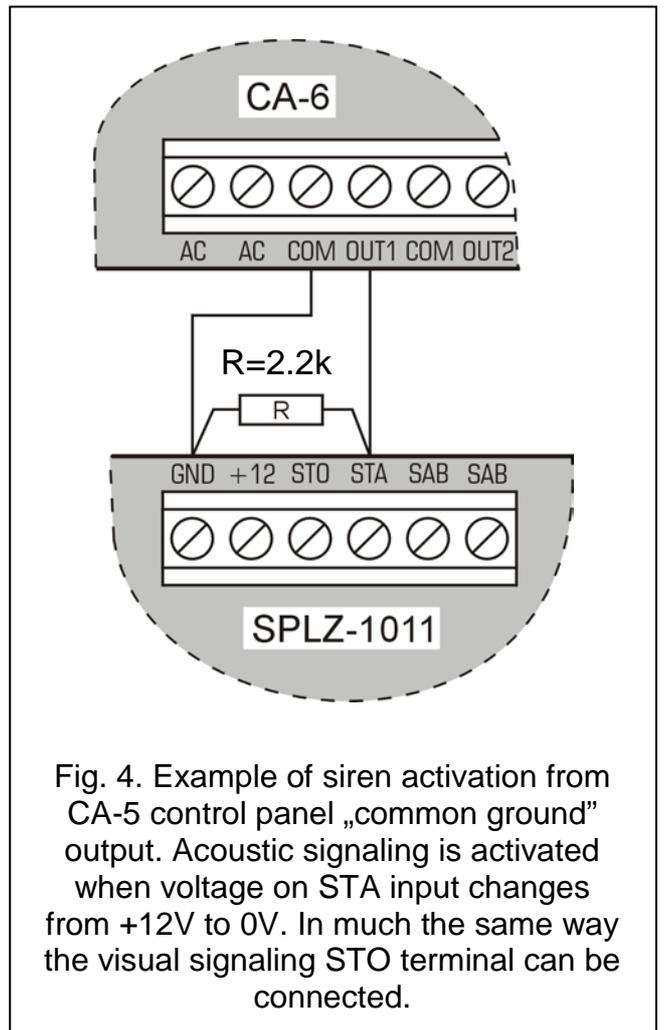


Fig. 4. Example of siren activation from CA-5 control panel „common ground” output. Acoustic signaling is activated when voltage on STA input changes from +12V to 0V. In much the same way the visual signaling STO terminal can be connected.

## 5. Jumper settings

ACOUSTIC SIGNAL TYPE SELECTION		
ML0 ML1		Two-tone signal, step modulated 
		Smooth modulated signal 
		Smooth modulated signal 
		Smooth modulated signal 
LIMITATION OF ACOUSTIC ALARM DURATION TO:		
TM0 TM1		Approx. 1 minute
		Approx. 5 minutes
		Approx. 10 minutes
		Approx. 15 minutes
SIGNALING MODE AFTER POWER SUPPLY LOSS		
O+A		Acoustic alarm only
		Acoustic and visual alarm
STA INPUT POLARITY (acoustic)		
PLA		Alarm if voltage changes from 0V to 12V
		Alarm if voltage changes from +12V to 0V
STO INPUT POLARITY (visual)		
PLO		Alarm if voltage changes from 0V to 12V
		Alarm if voltage changes from +12V to 0V



The converter powering the optical signaling circuit generates high voltage, which can result in electric shock. Therefore, all connections have to be made while the battery is disconnected, and the +12V wire is to be connected last.

## 6. Technical data

Power supply voltage .....	DC 12V $\pm$ 20%
Average current consumption: acoustic signaling .....	270 mA
Average current consumption: visual signaling .....	270 mA
Average current consumption: signaling + charging .....	up to 650 mA
Battery .....	6V/1.3 Ah
Battery protection .....	fuse T 3.15A
Sound intensity level .....	min. 120 dB
Operating temperature .....	-35°C...+60°C
Dimensions .....	300 x 200 x 90mm
Weight .....	1.6 kg

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