

The OS-360A / OS-365A outdoor siren

The OS-360A / OS-365A is an outdoor siren with a rechargeable backup battery.

Model OS-360A is equipped with a piezo-electric siren mainly suitable for urban areas with a high building density. If necessary another piezo-electric siren (ACM-OS360) can be used.

Model OS-365A is equipped with a compressive magneto-dynamic horn siren mainly suitable for family houses or for buildings with more space around them.

Two tamper sensors are built into the unit. They react to removing the cover from the unit or tearing the siren off its position. The siren's housing is made of mechanically, weather and UV-resistant plastic. The circuit board is protected against air humidity by a layer of special varnish.

The built-in flashing light can be operated separately.

Installation

The siren should be fixed to a place which is not easily accessible, but which allows for free sound transmission and, preferably, which is also protected against direct rain. It is recommended to position the siren in visible places to discourage criminals. It is also an advantage if the flashing light can be seen from a distance to help the police or security guards with locating the active siren.

Avoid installation near eaves where ice could form in winter.

- Remove the plastic cover by unscrewing the two screws under plastic caps (the cover remains hanging on a cord).
- Fix the siren's rear part onto the desired place.
- Route the cable into the siren through a suitable hole in the rear part and tighten the fixing screws.
- Connect the cable to the PCB terminals, first removing the PCBs protective plastic cover by unscrewing its fixing screw.
- Push the cable under the plastic tabs left of the PCB.
- Connect the back-up battery on the PCB, check that the sounder is connected too and replace the PCB cover.
- Put the siren unit's plastic cover back on and tighten the screws.
- Insert the plastic caps onto the screws
- Connect the power supply wires from the control panel to the siren and perform a function test.

Please keep in mind the high acoustic power of the siren and protect your hearing during testing.

Terminals

+12V – supply voltage (10 to 15 V DC)

GND – common ground

Power supply voltage drops cause the siren to sound (for 5 minutes maximum) and the flashing light to flash (for a period of 30 minutes).

SIR – siren activation (the flasher is not affected)

FLA – flashing light activation (the siren is not affected)

The SIR and FLA input terminals react to a connection/disconnection to/from GND according to the NO/NC setting of the jumper located on the siren circuit board (NO = react to a connection, NC = react to a disconnection).

ARM – a terminal for additional features

TMP, TMP – NC tamper switch output

Removing the siren cover or tearing the siren off its position causes the tamper switches to disconnect. The tamper sensors are connected in series with a 68R resistor which provides magnetic contact protection against faulty wiring.

There are also NiCd backup battery and siren connectors on the board. **The NiCd backup battery comes from the factory disconnected. Only connect it during installation.**

The **ARM, FLA** and **SIR** terminals can also be used for backup battery instantaneous voltage measurement. (e.g. during security system checking). You can perform the measurement remotely without any direct access to the siren. A voltage parameter is measured using a voltmeter on the corresponding wire (see Table 1) when the wire is disconnected from GND and the NC/NO jumper is set to ON.

ARM disconnected	voltage during battery charging
FLA disconnected	voltage during flashing (battery load approx. 100mA)
SIR disconnected	voltage during siren sounding (battery load. approx. 1A)

Table 1

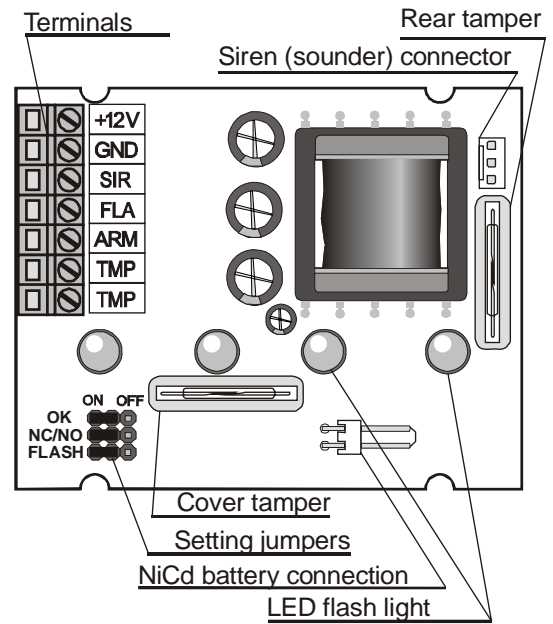


Fig. 1 : Electronic circuit board front scheme

Setting jumpers

The three jumpers allow for the following settings:

OK	●●⊖	ON	the siren flashes 1x in 45 sec (ready state indication)
	⊖●●	OFF	no ready state indication
NC/NO	●●⊖	ON	SIR and FLA inputs react to a disconnection from GND
	⊖●●	OFF	SIR and FLA inputs react to a connection to GND
FLASH	●●⊖	ON	flash for 30 minutes after a deactivation of the siren
	⊖●●	OFF	stop flashing immediately after a deactivation of the siren

Table 2

You can take the circuit board out of the housing to get easier access to the jumpers.

Finishing installation, siren operation

Three seconds after being powered up (via the 12V terminal) the siren briefly flashes to indicate readiness for testing. Perform siren operation tests as described below to check if siren reactions correspond to the jumper setting.

Warning: If the SIR and FLA input terminals are in an activated state (according to the settings), then when the power is connected up the siren will start the sound / light after 3 sec.

Siren operation:

Power supply disconnection. A disconnection from the mains supply activates the siren – the siren starts to sound and flash. Restoring the power supply silences the siren with a 3 sec delay. If the power supply is permanently disconnected, then the siren sounding is stopped in 5 minutes. The flashing always continues for 30 minutes from the last power supply disconnection.

SIR activation. The siren starts to sound for 5 minutes without flash indication. A deactivation of the SIR input silences the siren immediately.

FLA activation. The flashing light starts to flash. Depending on the FLASH jumper setting, flash indication is terminated either immediately or 30 minutes after a deactivation of the siren.

ARM state change. Connecting ARM to GND causes the siren to indicate arming (setting): 1 flash plus 1 short beep. Disconnecting ARM from GND causes the siren to indicate disarming (unsetting): 1 flash plus 2 short beeps.

Ready state. Normal operation is indicated by the siren flashing once in every 45 seconds. This means that SIR and FLA are deactivated, there is a proper power supply and the backup battery is charged. This indication can be enabled/disabled by setting the **OK** jumper ON/OFF.

Control panel wiring examples

If wired according to figure 2, the siren sounds and flashes during the whole period of control panel alarms. The siren also provides an acoustic confirmation of system setting/unsetting. The flashing stops simultaneously with the sound.

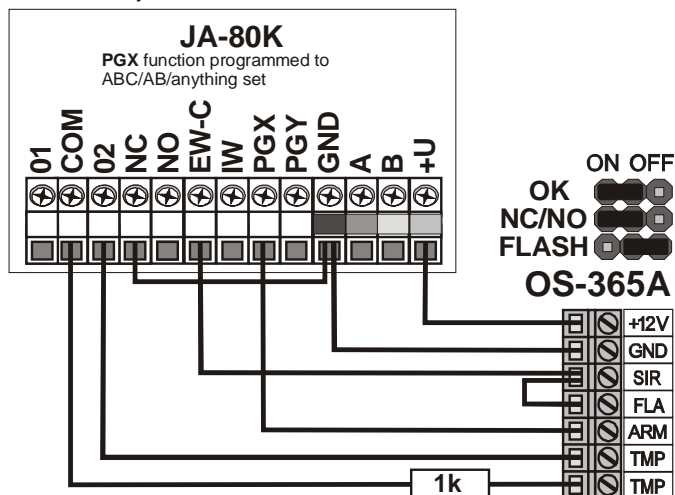


Fig. 2 Connection to the JA-80K control panel

If wired according to figure 3, the siren sounds and flashes during the whole period of control panel alarms, with the light continuing to flash for 30 minutes after alarm deactivation. No confirmation of system setting/unsetting is provided, only a ready-state indication (1x flash in every 45 sec) which is independent of the system status.

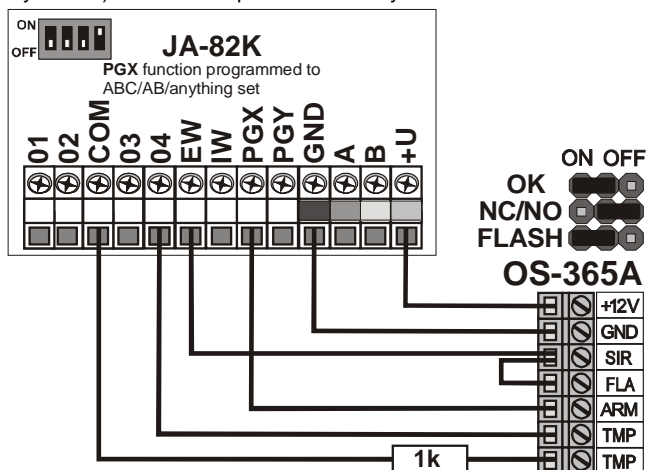


Fig. 3 Connection to the JA-82K(R,C) control panel

If wired according to figure 4, the siren sounds and flashes during the whole period of control panel alarms, with the light continuing to flash for 30 minutes after alarm deactivation. Both acoustic confirmation of system setting/unsetting and ready-state indication are provided – 1x flash in every 45 sec, independently of the system status.

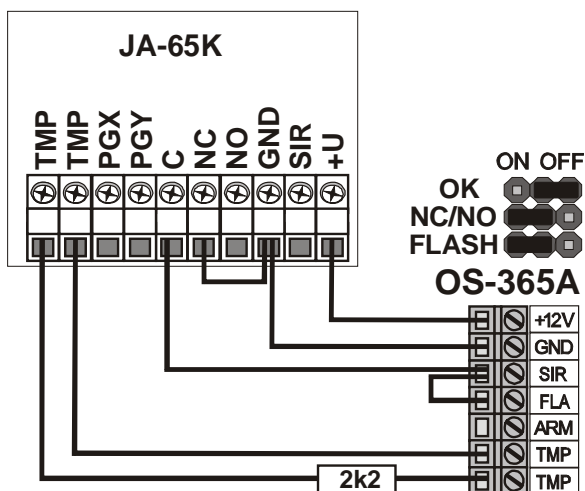


Fig. 4 Connection to the JA-65K control panel

If wired according to figure 5, the siren sounds and flashes during power supply faults, with the sound continuing for just 3 more seconds from the moment the power supply is restored. The flashing continues for 30 minutes. No confirmation of system setting/unsetting and no ready-state indication is provided.

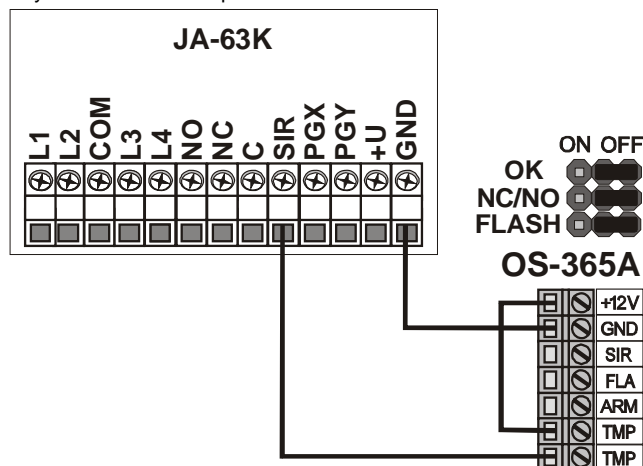


Fig. 5 A simplified two-wired siren-connection

Maintenance

The siren does not need any special maintenance. The NiCd battery lifetime is about 3 years, depending on the working conditions. Specialized auto-recharge mode keeps the battery in optimum state. If the power supply (+12V and GND) is disconnected for a significantly long period of time, then also disconnect the battery. It is recommended to perform siren battery checking within general security system testing – you can check the battery remotely without any direct access to the siren.

Note: Whenever you handle any of the terminals (e.g. 12V disconnection) disconnect the battery to avoid siren activation.

Important: An activation of the siren with a disconnected sounder (see Fig. 1) does not cause any damage to the electronic circuits. Instead, a high voltage is produced on the sounder connector.

Specification

Power supply	10 to 15 V DC
Standby consumption	< 50 mA / 12 V
Maximum load consumption	< 800 mA / 12 V
Backup battery	NiCd pack 4.8 V / 1800 mAh Lifetime approx. 3 years
Piezoelectric siren (OS-360) sound level	113 dB / 1 m
With second piezo-electric siren (ACM-OS360)	118 dB / 1 m
Electro-acoustic siren (OS-365) sound level	110 dB / 1 m
Siren timer	max. 5 minutes
Flasher time	alarm duration + 15 minutes / 0
Resistance of the tamper loop	< 70 Ω
Enclosure	IP 34D
Security grade 2	EN 50131-1, CLC/TS 50131-4
Working environment	class IV, outdoor general
Operational temperature	-25 to +60°C
EMC	EN 50130-4, EN 55022
Safety	EN 60950-1
Dimensions	230 x 158 x 75 mm



Jablotron Ltd. hereby declares that the OS-360A/365A is in compliance with the essential requirements and other relevant provisions of Directives 2004/108/EC and 2006/95/EC. The original of the conformity assessment can be found on the web site www.jablotron.com, Technical Support section.



Note: The NiCd backup battery contains cadmium (Cd). Dispose of batteries safely depending on battery type and local regulations. Although this product does not contain any harmful materials we suggest you return the product to the dealer or directly to the manufacturer after use.



Jablotron Ltd., Pod Skalkou 33
466 01 Jablonec nad Nisou
Czech Republic
Tel.: +420 483 559 911
fax: +420 483 559 993
Internet: www.jablotron.com