

imago

Outdoor siren

Installation guide



KSI6300000.3XX - Universal
KSI6301000.3XX - for KS-BUS only

INTRODUCTION

The self-powered outdoor siren imago is an acoustic/optical professional alarm with an unique and exclusive, extremely compact and slim design (its maximum thickness is 6 cm.) together with an advanced technology to combine the best possible performance with the highest energy saving: high sound pressure, 1W LED blinker and auxiliary high-efficiency low-consumption warning LED. The siren is fully controlled by a micro-controller which verify all conditions and reports them opportunely.

imago (universal version only) has 3 inputs to activate acoustic and optical alarms, easy to match with any alarm station thanks to the input programmable polarity. During the first start-up the siren acquires all the inputs and associates them to the default status with no need to program them manually, saving the programming on a flash memory: imago relates each one of the three inputs (positive/negative missing or start with positive/negative) to the correct function. The battery is kept under constant supervision and any malfunction or out of energy is immediately signalized to the Control Panel.

imago is protected against wire-cut, opening or removal from wall (tamper protection), and, despite of its small dimension, hides a strong under-cover against smashes. The used material (high quality PC with UV protection) and the sophisticated project grant long time endurance against all atmospheric agents.

TECHNICAL DATA

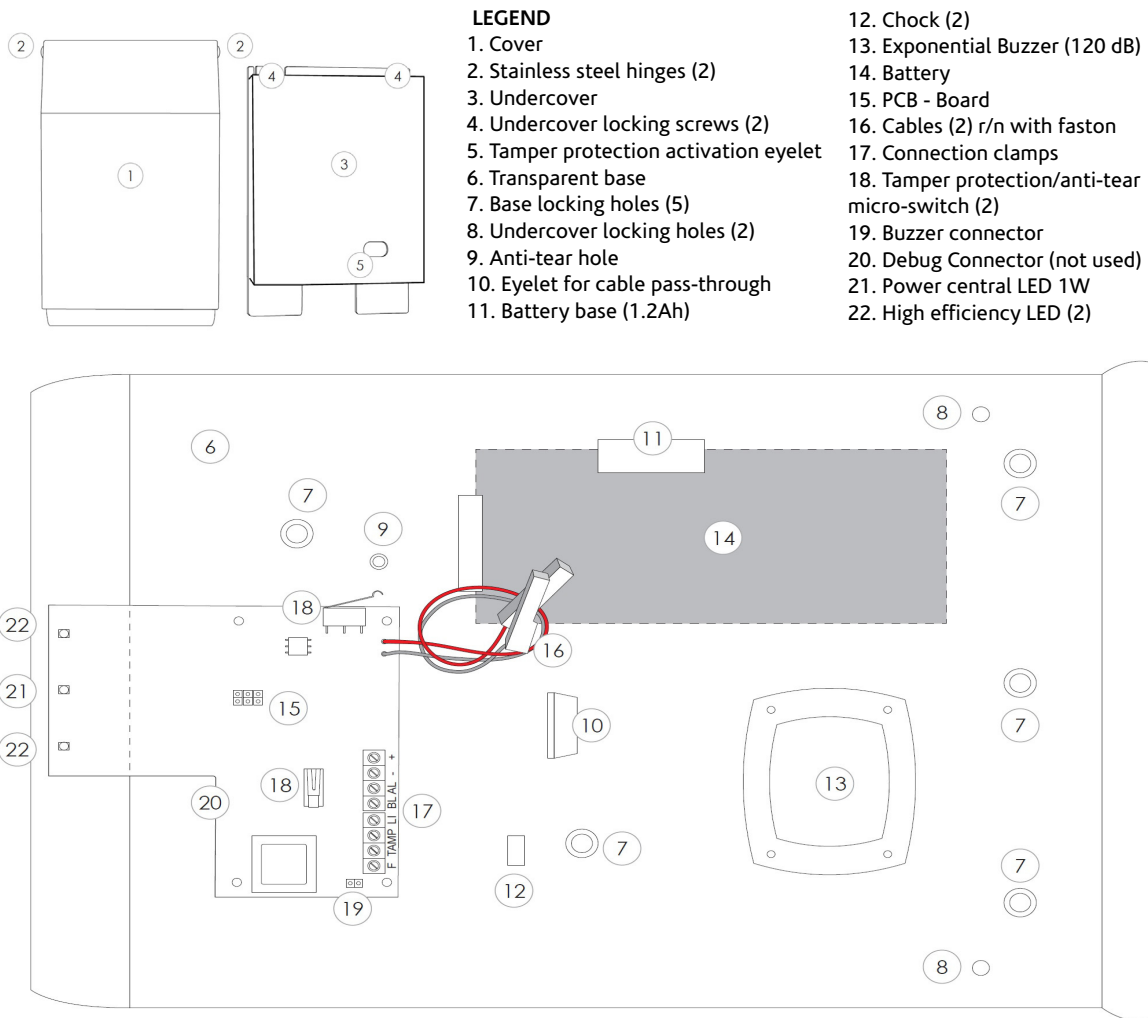
- Modern Design with original and convenient rotating opening
- Solid PC housing (minimum thickness 3 mm.) with anti-UV pigment
- Front available in different colors
- Transparent base available in different colors: orange, red and blue
- Strong metallic zinc-plated under-cover (anti-smashing)
- Acoustic and optical emission for cable cut
- High acoustic power piezoelectric Buzzer (>100dBA @ 1m)
- Protective and insulating treatment of the PCB (conformal coating)
- Power Supply: 9V(min.) - 13.8V (max)
- Consumption: 10mA stand-by / 120mAmax
- Backup battery: 6Vcc - 1.2Ah
- Operative temperature: -10° +55 °C 95% Humidity
- Protection grade: IP 43

- Dimensions: 195 x 330 x 60 mm
- Weight (without battery): Kg.1.2 - Kg.1.5 (with battery)

UNIVERSAL VERSION ONLY

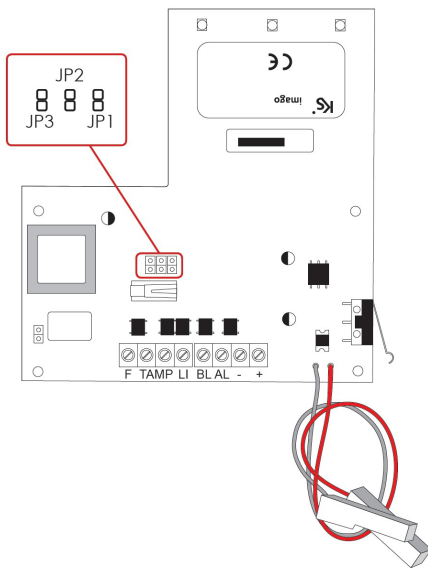
- 1 auxiliary alarm input
- 1 input for the activation of the only luminous alarm (LED 1W)
- 1 input for the activation of the high-efficiency LEDs
- Self-learning of the input polarity
- Alarm maximum duration programming (3 or 10 minutes)
- Programmable exclusion of tamper
- Battery efficiency control and warning through OC output -500mA

DESCRIPTION OF THE PRODUCT



CONNECTION DESCRIPTION

The PCB board is the main component of the imago siren and allows its proper functioning, the interface with the alarm station, the control of the related device (i.e. the battery) are in conformity with the applicable normative. Figure shows the PCB board and its relevant parts for which the installer has to set and program the available function in accordance with the user needs.



UNIVERSAL VERSION IMAGO JUMPERS

JP1 = Tamper

Jumper inserted: Tamper ON
Jumper removed: Tamper OFF

JP2 = Alarm Time setting

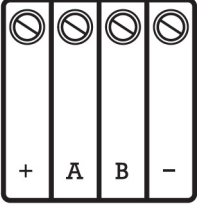
Jumper inserted: Alarm time 3 min.
Jumper removed: Alarm time 10 min.

JP3 = Inputs configuration

Jumper inserted: polarity erasure.
Jumper removed: polarity recording.

UNIVERSAL VERSION - TERMINALS DESCRIPTION		
F	output	Failure warning (faulty battery or internal electronic check)
TAMP	output	Normally closed Link (NC) to warn about the opening of the siren
LI	input	Activation of the two auxiliary warning LEDs (operable from an output OC or with a positive)
BL	input	Activation of the only power LED (blinking) (operable from an output OC or with a positive)
AL	input	Activation of the acoustic and optical warning (operable from an output OC or with a positive)
- +	power supply	Power supply clamps 13.8V

The inputs are controller with OC outputs normally open or closed (Start with negative/ negative missing), or with a power relay that give or cut a 12V voltage (Start with negative/ positive missing). During the start up, an auto-learning stage has to be set to establish the default values.

	KS-BUS VERSION - TERMINALS DESCRIPTION		
	AB	KS-BUS	Ksenia BUS terminals
	- +	power supply	Power supply clamps 13.8V

START UP PROCEDURE

The correct powering procedure of imago siren must initially to be done through the battery (6V 1.2Ah Dimensions: 98x50x22 mm - not included) and then giving power (13.8 Vdc typical) coming from the Control Panel. It is fundamental to respect this order.

Once powered, the siren will give just a single flash from its main power LED and the buzzer will sound for a second to verify the correct functioning of all parts ; moreover the red signaling LEDs will keep flashing (slow at 1 Hz) until the siren will remain open (tamper switches open).

After closing the cover, the LEDs will flash faster (2 Hz) for 20 sec. If the siren has been powered also from the Control Panel, then the power LED will start to flash (period 300/700ms) for 20 sec.; the siren will acquire the inputs stand-by condition and start its full functioning. In case you still need to connect the power to the Control Panel, the siren will go in “low consumption mode” waiting for the external power. If the siren will be opened again, the red LEDs will turn on, getting back to the previous mode. Once the external power will be detected, the siren will let the power LED flash for 20 sec. and after that, the siren will acquire the input stand-by condition and will start its full functioning. The imago siren will sound and the power LED will be flashing (300ms ON / 700ms OFF) when:

- 1 External power is missing (wire cutting or voltage below 7.6Vdc).
- 2 The input [AL] goes in alarm (Universal version imago only).
- 3 The siren is being opened and JP1 is inserted (Tamper ON) (Universal version imago only).
- 4 The siren is being opened (KS-BUS version imago only).

In the case 1 e 2 the alarm condition will last until all power missing or alarm input active will last; in any case for the maximum alarm time programmed by JP2, at the end of which even if the alarm conditions still exist, only the power LED will keep flashing with setting 300ms ON / 1700ms OFF. To re-activate the acoustic signal it is necessary to reestablish the alarm condition. In the case 3 the siren activates the alarm acoustic/flashing for the programmed time, regardless from the restoring of the tamper condition.

PROGRAMMING - UNIVERSAL VERSION ONLY

imago is available with the following functions, programmable through Jumpers:

- 1 Tamper signal on/off (JP1)
- 2 Buzzer timing set-up (3 or 10 minutes) (JP2)
- 3 Inputs configuration (JP3)

PROGRAMMABLE INPUTS - UNIVERSAL VERSION ONLY

During the start-up, if JP3 is inserted, the siren will delete the settings of the inputs polarity, and will wait for its removal. When the start-up procedure ends, the input status will be stored in the flash memory. imago siren has two types of protection, one against the cover opening and another one against the removal from the wall (two switches in series). The siren will check the status of these switches and will activate the acoustic/optical warning when they are open. For imago universal version, when a tampering is detected the siren will open two terminal to warn the Control Panel. The clamps relay [TAMP] reports the status of the tamper protection switches regardless from the JP1 status. (Relay 100mA 24V max)

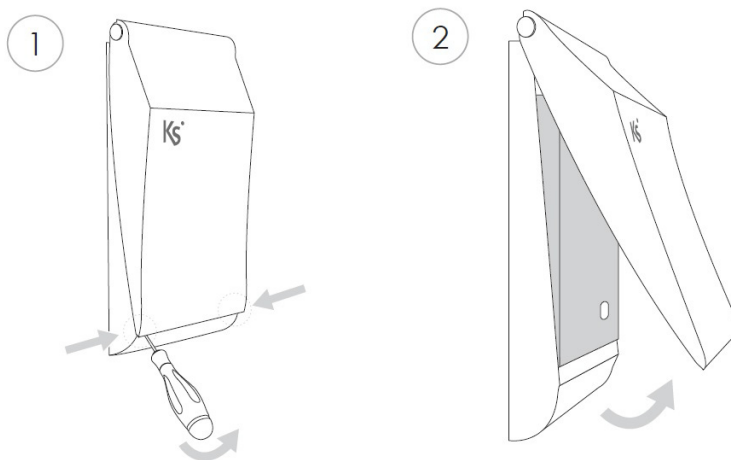
PROTECTION AND BATTERY TEST

When the battery voltage is lower than 5V the imago siren sets the low energy consumption mode and it activates the "failure" [F] output. The siren check the battery efficiency each 10 hours to report a possible failure opening the "Open collector" output [F] (universal version imago only) (normally closed 500 mA max).

SOFT-STOP FUNCTION

When the power supply voltage slowly decreases (slow rate < 100 mV/minute) the imago siren will not emit any acoustic alarm due to loss of power supply. This slew rate is effective if detected starting from the initial voltage (higher than 12V) to 10,5V, then the alarm activation will be prevented even in case of a sudden loss of voltage. This peculiar function allows to avoid the acoustic warning and to compromise the efficiency and life-time of the battery in case of protracted loss of power supply.

OPENING imago SIREN



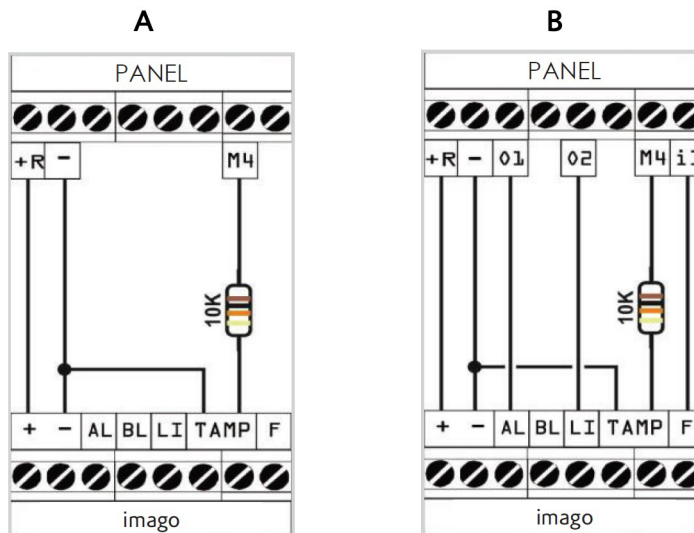
INSTALLATION

The siren has to be installed in a hardly accessible location to deter tamper attempts. The wall chosen must not have any depression or protrusion in order to avoid compromising the tamper protection function. To ensure a correct installation refer to the paragraph "Description of the product" and comply the following steps:

1. Insert stainless steel hinges and screw the nuts inside avoiding to tighten
2. Open the PC cover forcing the corners with a screwdriver
3. Remove the docking screw of the metallic undercover
4. Remove the undercover pulling it from above, taking care not to damage the electronic circuit
5. Drill the fixing bottom holes
6. Pass-through the cable coming from the Control Panel in the eyelet
7. Lock with Fischer plug the PC Base on the wall
8. Set programming jumpers (universal version imago only)
9. Insert a 6V lead battery (not supplied) and link terminals accordingly with the polarity
10. Connect cables to connection terminals
11. Verify the start up procedure
12. Close the undercover and screw on
13. Close the cover

CONNECTION TO THE CENTRAL PANEL - UNIVERSAL VERSION ONLY

Always use a shielded cable with an end of the shield connected to the ground of the alarm station and the other one kept free. In the following figures two connection examples are shown, the first one (a), the simplest, with the external power supply of the siren and the tamper management with end line resistance (10k), the second one (b), which uses the siren programmable inputs [AL] and [LI] by means of open collector outputs [O1] and [O2] of the Control Panel. Moreover the failure output [F] is connected to a zone input [i1] of the alarm station (i.e. to program an action as the activation of a vocal call or SMS or e-mail with a "Battery failure" message).



PANEL TERMINALS DESCRIPTION	
+R	Power positive 13.8Vdc
M4	Tamper 24hr balanced 10KΩ
02	Open collector 2 output
-	Power negative
01	Open collector 1 output
i1	Zone input

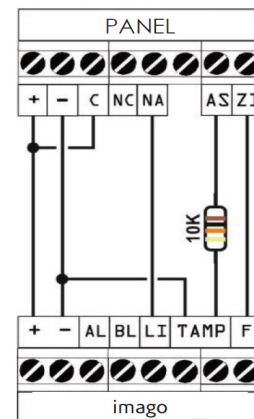
The 13,8V voltage of the terminals [+] and [-] of the siren, keeps the backup battery charged and provides a protection against cables cut.

If the alarm station doesn't have open collector outputs, relay free exchange of the alarm station can be used to simulate the required voltage (start with positive) on the input terminal of the imago siren.

Example: There's the need to have the siren LED blinking when an event scheduled by the alarm station and associated to a relay occurs. The name shown by the terminals are:

- [C] Common
- [NA] Normally open
- [NC] Normally closed

The connection that must be set is shown in imago the figure aside.



Note. The panel terminals names refer to Ksenia Control Panel series lares 4.0. The imago Universal siren can interface any Intrusion Control Panel having terminals with same functions.

QUANTITY DATA

lares 4.0 models	wls 96	16	40	40 wls	140 wls	644 wls
Maximum number of imago outdoor siren	1	6	24	24	40	64

Technical data, appearance, functionality and other product characteristics may change without notice.

CERTIFICATIONS

Europe - Rohs, CE
Europe - EN50131-4 grade 3



ENVIRONMENTAL CARE

imago has been specifically designed and manufactured for the environment respect as follows:

1. PCB laminates are brome and lead free.
2. Low consumption
3. Packaging realized mainly with recycled fibers and materials

Installation of these systems must be carried out strictly in accordance with the instructions described in this manual, and in compliance with the local laws and bylaws in force. imago has been designed and made with the highest standards of quality and performance adopted by Ksenia Security. Is recommended that the installed system should be completely tested at least once a month. Test procedures depends on the system configuration. Ask to the installer for the procedures to be followed. Ksenia Security srl shall not be responsible for damage arising from improper installation or maintenance by unauthorized personnel. The content of this guide can change without prior notice from KSENIA SECURITY.

Information for users: Disposal (RAEE Directive)

Warning! Do not use an ordinary dustbin to dispose of this equipment.

Used electrical and electronic equipment must be treated separately, in accordance with the relative legislation which requires the proper treatment, recovery and recycling of used electrical and electronic equipment.

Following the implementation of directives in member states, private households within the EU may return their used electrical and electronic equipment to designated collection facilities free of charge. Local retailers may also accept used products free of charge if a similar product is purchased from them.*

If used electrical or electronic equipment has batteries or accumulators, these must be disposed of separately according to local provisions.

Correct disposal of this product guarantees it undergoes the necessary treatment, recovery and recycling. This prevents any potential negative effects on both the environment and public health which may arise through the inappropriate handling of waste.

** Please contact your local authority for further details.*