

TECHNICAL MANUAL



LEDA Outdoor self-powered siren

Patent application No° VE2013A000035

090010878



 **EL.MO.** SPA



FOREWORD

FOR INSTALLERS

Please follow carefully the specifications about electric and security systems realization further to the manufacturer's prescriptions indicated in the manual provided.

Provide the user the necessary indication for use and system's limitations, specifying that there exist precise specifications and different safety performance levels that should be proportioned to the user needs. Have the user read carefully the instructions provided in this document.

FOR USERS

Carefully check the system functionality at regular intervals making sure all enabling and disabling operations were made correctly.

Have skilled personnel make the periodic system's maintenance. Contact the installer to verify correct system operation in case its conditions have changed (e.g.: variations in the areas to protect due to extension, change of the access modes, etc.)

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This device has been designed, assembled and tested with the maximum care, adopting control procedures in accordance with the laws in force. The full correspondence to the functional characteristics is given exclusively when it is used for the purpose it was projected for, which is as follows:

Outdoor self-powered siren

Any use other than the one mentioned above has not been forecast and therefore it is not possible to guarantee the correct functioning of the device. Similarly, any other use of this technical manual other than the one it has been compiled for - that is: to illustrate the devices technical features and operating mode - is expressly prohibited.

The manufacturing process is carefully controlled in order to prevent defaults and bad functioning. Nevertheless, an extremely low percentage of the components used is subjected to faults just as any other electronic or mechanic product. As this item is meant to protect both property and people, we invite the user to proportion the level of protection that the system offers to the actual risk (also taking into account the possibility that the system was operated in a degraded manner because of faults and the like), as well reminding that there are precise laws for the design and assemblage of the systems destined to these kind of applications.

The system's operator is hereby advised to see regularly to the periodic maintenance of the system, at least in accordance with the provisions of current legislation, as well as to carry out checks on the correct running of said system on as regular a basis as the risk involved requires, with particular reference to the control unit, sensors, sounders, dialler(s) and any other device connected. The user must let the installer know how well the system seems to be operating, based on the results of periodic checks, without delay.

Design, installation and servicing of systems which include this product, should be made by skilled staff with the necessary knowledge to operate in safe conditions in order to prevent accidents. These systems' installation must be made in accordance with the laws in force. Some equipment's inner parts are connected to electric main and therefore electrocution may occur if servicing was made before switching off the main and emergency power. Some products incorporate rechargeable or non rechargeable batteries as emergency power supply. Their wrong connection may damage the product, properties and the operator's safety (burst and fire).

DISPOSAL INSTRUCTIONS - USER INFORMATIONSI



According to Directive 2012/19/EU on the Waste of Electric and Electronic Equipment (WEEE), it is here specified that this Electrical-Electromechanical Device started to be commercialized after 13th August 2005, and it shall be disposed of separately from ordinary waste products.

IT08020000001624



1. GENERALS

LEDA siren offers an innovative and exclusive design, with acoustic power and limited consumption. The solid housing, NOVODUR® BAYER, is equipped with a multifunctional indicator with high brightness LED. The internal components are protected by a second plastic cover.

The installation and maintenance operation are faster and easier thanks to the hinged cover that becomes a useful supporting base; the external cover is finally equipped with flexible support hinge.

To show the great attention in the siren study, there is also a bubble presence on the siren bottom to allow an easier positioning and a more precise installation.

It is possible to replace the components with removal mode and plug-in mounting. As tradition, it is possible to customize the housing by affixing a label with the installation company logo on the front box.

The sound siren activation occurs interrupting the positive reference applied to the corresponding terminal, the front LED flasher works in sync with the sound emission while an emergency timer stops the siren after 5 min of activity in case of control unit failure or cable cutting.

The front indicator incorporates a front LED for status such as arming/disarming of the system.

The LEDA siren is equipped with two horns 4 Ohm, it incorporates a tamper microswitch against the front cover opening and the removal from the wall.

In the housing is placed a 12V 1,2 Ah battery, the charging voltage for the internal battery is done by connecting the power supply terminals to the corresponding available in the intrusion detection control unit or separate power supply group; in the predisposed EL.MO control unit is present a specific + 14V terminal.

The LEDA project also includes the mod. LEDA485 for direct connection on RS485 serial bus soon available.

LEDA is concerned by patent application No. **VE2013A000035**.

2. FEATURES

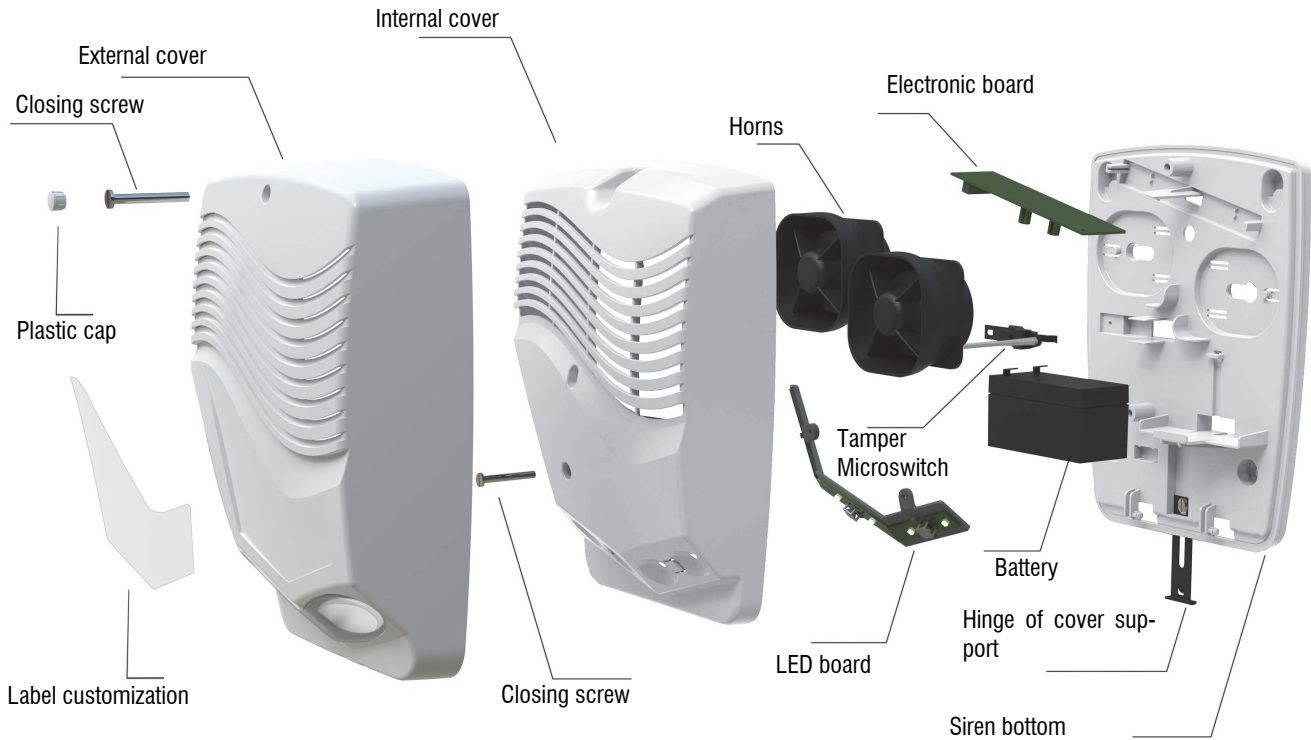
Model:	LEDA	Activation:	voltage drop out
Performance level:	II° (CEI 79-2)	Activation delay:	0,5 seconds.
Protection class:	housing protected against solid objects greater than 2.5 mm and against splashing water. Outdoor.	Sound pressure:	112 dB(A) 1m @12V 108 dB(A) 3m @12V certified by the manufacturer.
Mounting:	SMD	Alarm time:	5 minutes +/- 20% max.
Horns:	2 horns 4 Ohm mod.TES 154	Flashing light activation:	in sync with sound activities.
Nominal supply voltage:	13,8V \approx	Connections:	terminals for power supply, reference, status LEDs, tamper protection.
Operating voltage.:	from 9 to 15V \approx	Number flashes:	120 per minute.
Consumption (quiescent status):	1 mA @12V	Protections:	siren protected against the cover opening and tear from the wall.
Consumption (in alarm):	700 mA @12V	Dimensions:	W 226 x H 310 x D 90 mm
Consumption LED plant status:	13mA @12V	Weight:	1,9 Kg
Environmental class:	IV	Parts supplied:	screws and plugs, cap of the front screw, technical manual.
Allocable accumulator:	12V / 1,2 Ah		
Battery dimensions:	max W97 x D43 x H52 mm. (H with excluded terminals)		
Fundamental frequency:	1,73KHz.		
Sound:	two-tone.		

EU DECLARATION OF CONFORMITY

The product complies with current European EMC and LVD directives. The full text of the EU declaration of conformity is available at the following Internet address: elmospa.com – registration is quick and easy.



3. SIREN EXPLODED VIEW/INSTALLATION



4. INSTALLATION

ATTENTION: the installer must have DPI and individual protection devices.

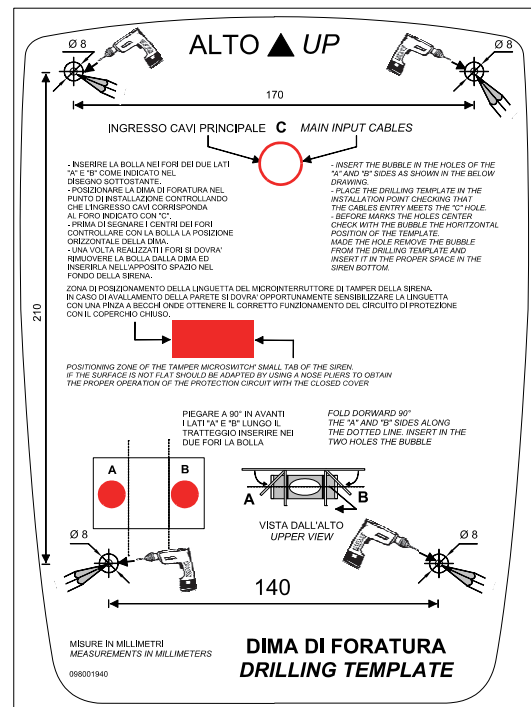
Check that the wall is perfectly on level ground and that the tab of the microswitch does not fall in correspondence with holes, unevenness or cracking plaster. Use the drilling template to control the micro-switch area (red rectangle in the image).

Be careful to position the siren sufficiently away from the wall edges if they prevent the correct opening of the cover. Prepare the drilling of the wall to let out the connection cables of the siren, without power source.

4.1 Drilling template

Take the drilling template, raise the support tabs indicated with A and B favoring the rotation until 90° and insert the bubble in the holes.

- Insert the bubble in the "A" and "B" holes as indicated in the drawing at the side.
- Place the drilling template at the installation point checking that the cables entry matches the hole indicated with "C".
- Before scoring hole centers check with the bubble the horizontal position of the drilling template.
- Once realized the holes, you will have to remove the bubble from the template and insert it in the space provided in the bottom of the siren.



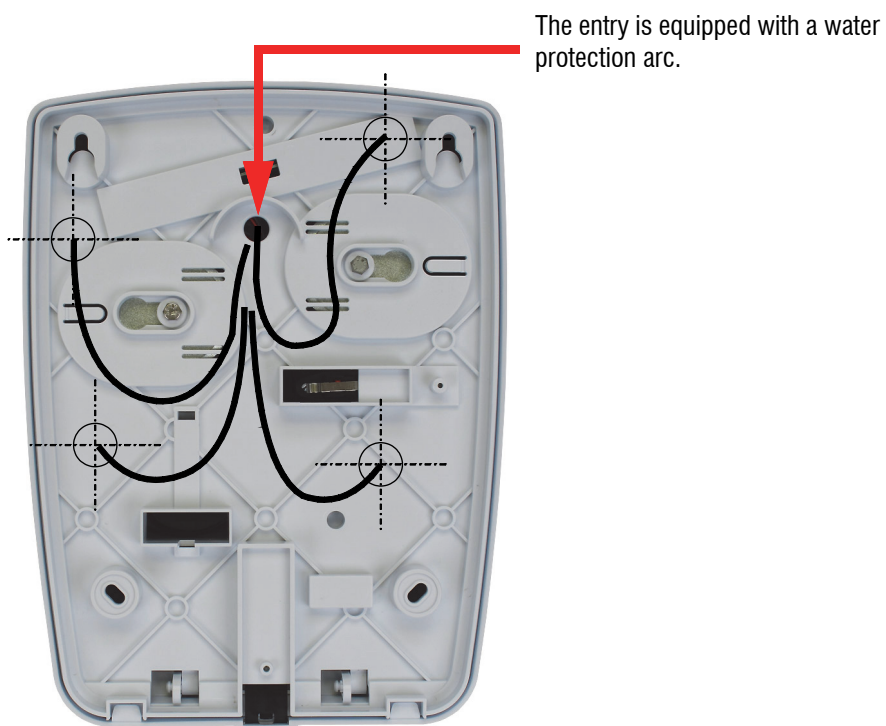


4.2 Fixing

Insert the four dowels, leaving a space of about 4 mm between the wall and the screw head.
Insert the cable into the housing hole as shown in the previous image.
Attach the housing to the screws.



Note: in case of different entry, the path of the cable should always be upwards to the siren to avoid getting any condensation drop. In the following image some examples:

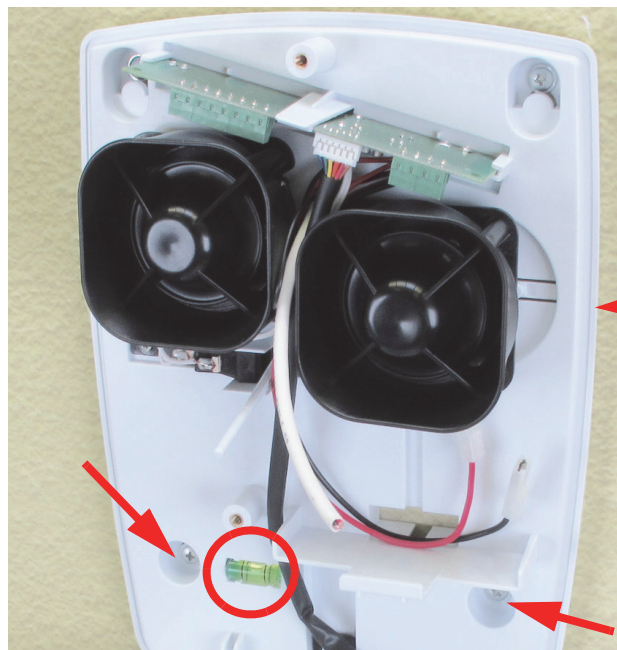




Open the external cover of the siren unscrewing the front screw. The screw is equipped with washer against fall and the cover is attached to the base with an anchorage strap.



Open the internal cover removing the screw on the led bar. Detach the internal cover by moving it slightly to the right and place it on the external cover which, with its conformation, it can sustain during the installation phases. Hook the bubble inside the circle shown in the following image, check the correct position, insert the two lower screws and proceed to final tightening of the screws up to permanently lock the housing.

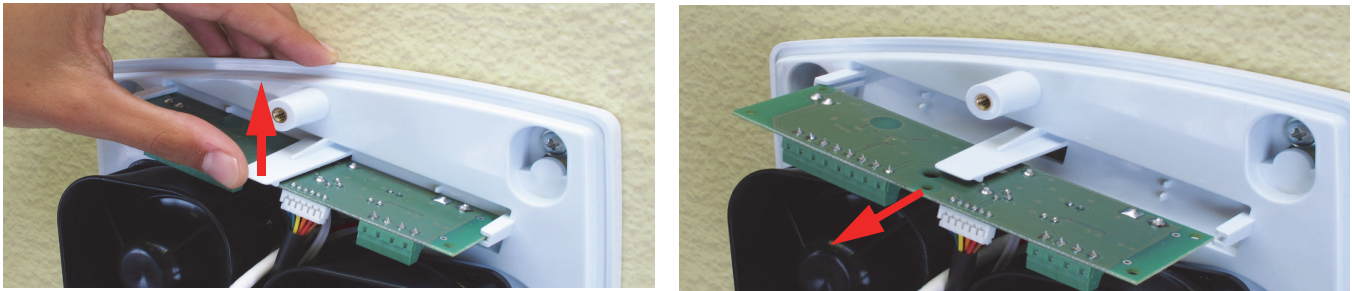


Max dimensions of the battery W97 x D43 x H51 mm. (H with excluded terminals).



4.3 Wiring

Proceed to the siren wiring according to the diagram in the corresponding chapter.
Release the locking tab board and extract it.



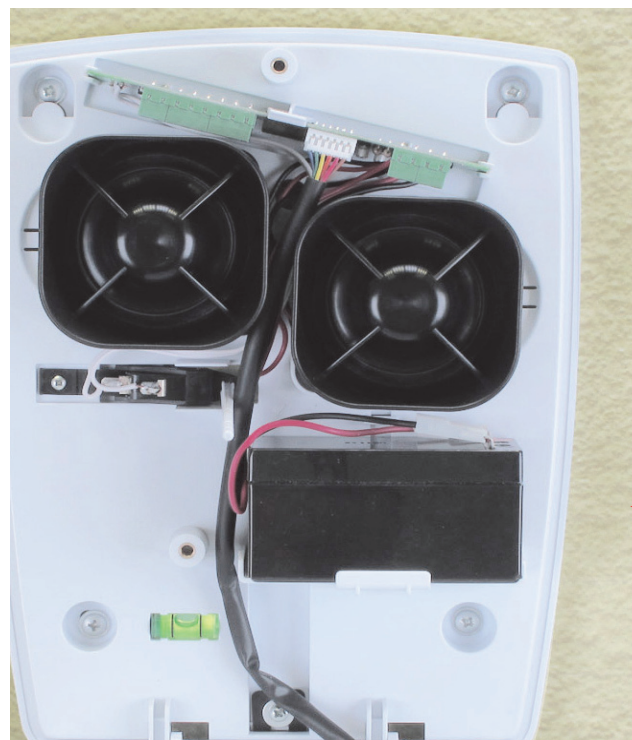
Turn the electronic board, insert the locking tab into the rectangular hole and lock it using the screw on the inner cover partially screwed into the turret.



You will get a sufficient fixing to wiring according to the scheme in this manual.

At the end, unscrew the screw and place it on the inner cover, unhook the board and reinsert it between the guides and lock it with the tab.

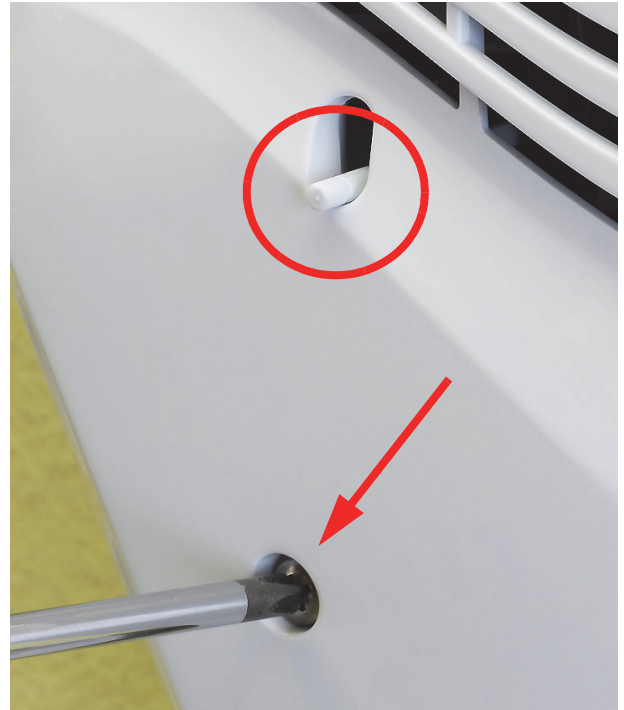
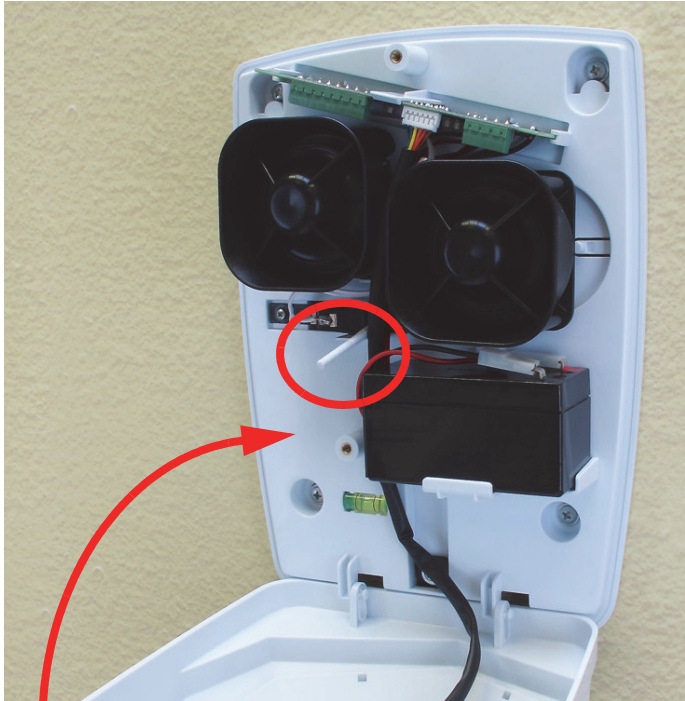
Attach the battery paying careful not to reverse the polarity. Then put it inside the provided space.



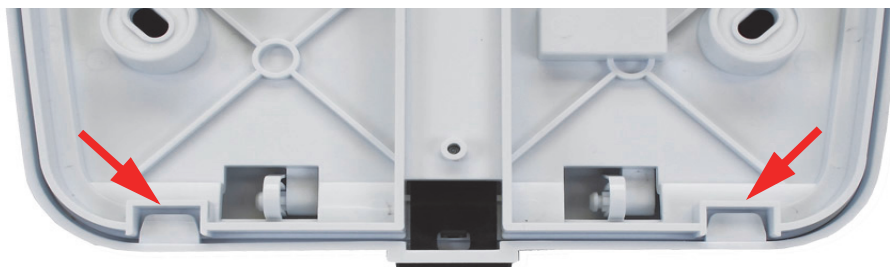
Max dimensions battery W97 x
D43 x H51 mm.
(H with excluded terminals).



Close the inner cover, taking care to pass the small pin of the microswitch tamper through the hole, such as the following image.



Screw the fixing screw indicated with the arrow.
Close the outer cover also moving up the support strap and properly hooking the lower clips.

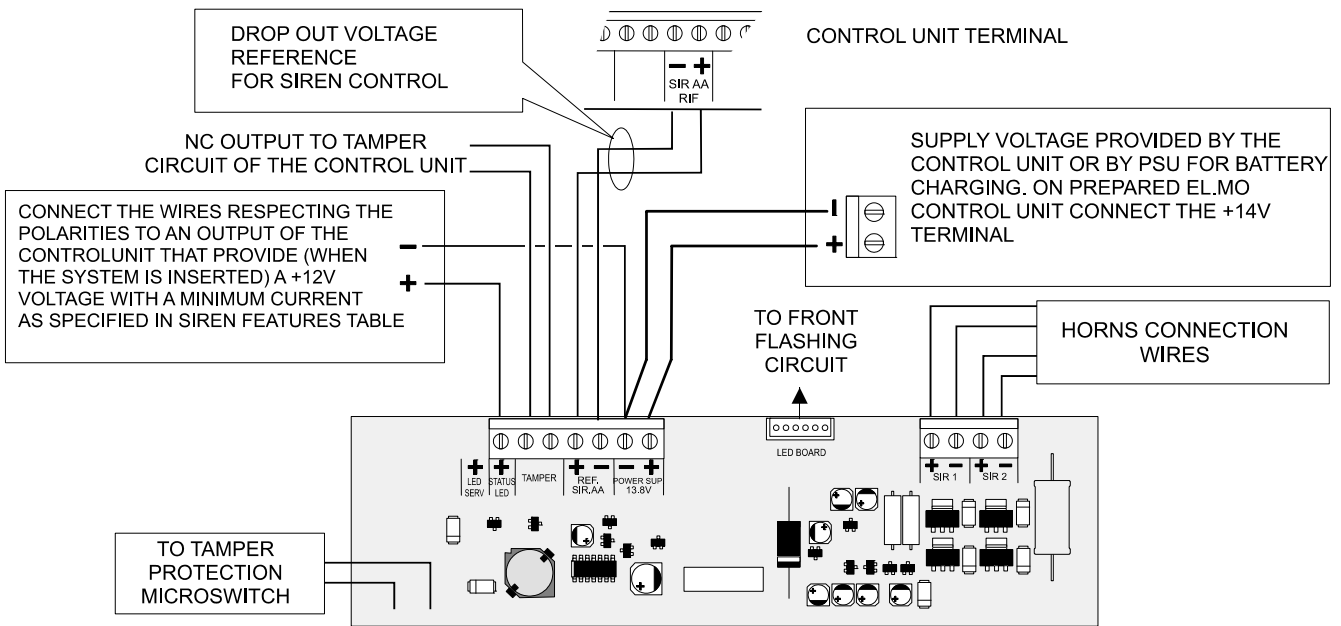


Tighten the appropriate screw and close the hole with the cap provided.

Proceed to the final wiring in the control unit, power up and test the siren verifying the required functionality.



5. ELECTRICAL CONNECTIONS



6. SIREN COMPONENTS REPLACEMENT

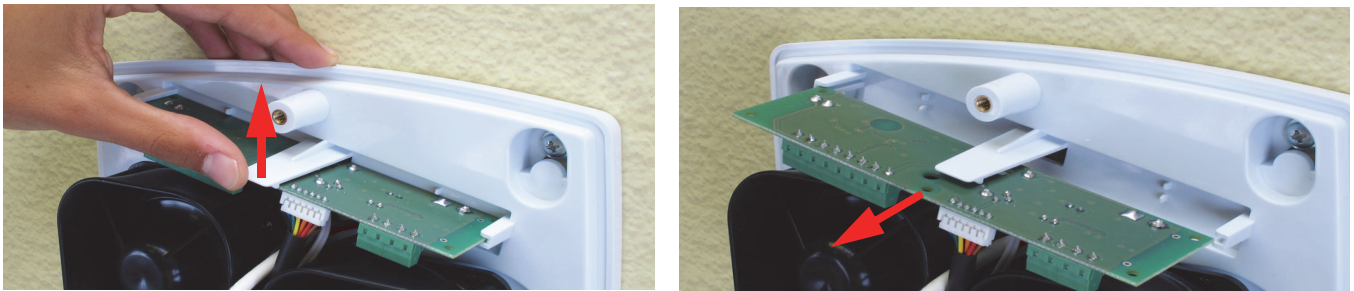
If necessary, it is possible to replace some parts of the siren using its modular construction.

ATTENTION: the installer must equip itself with the appropriate PPE for the maintenance operation to be performed.

Note: all of the following operations must be performed without power.

6.1 Electronic board replacement

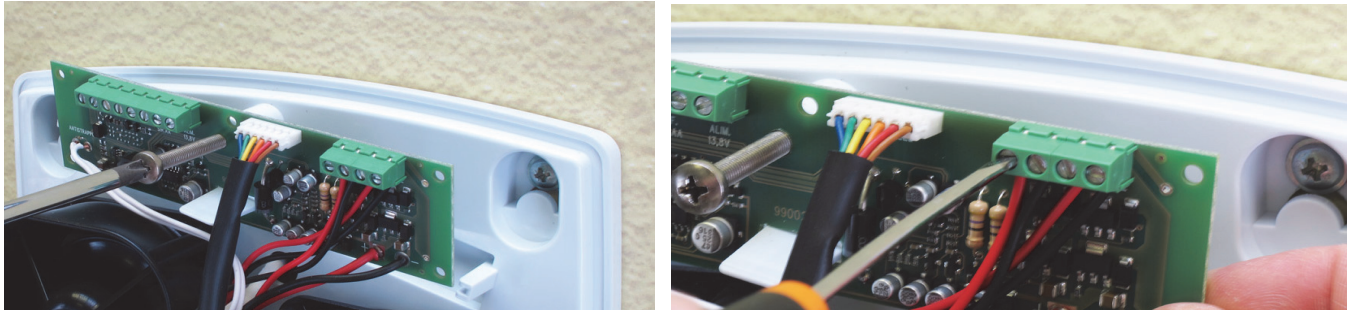
Release the board by the lock tab and remove the board.



Turn the electronic card, insert the locking tab into the rectangular hole and lock the turret using the screw on the inner cover.



You will get a sufficient fixing to proceed to the replacement with the new board



Proceed to the removal of the connection cables marking them appropriately for the subsequent wiring. Replace the board with a new one and rewire correctly.

At the end, unscrew the screw and place it on the inner cover, unhook the new board and re-insert it between the guides and lock it with the tab.

To completely remove the old board, it is necessary to remove the tamper microswitch and replace it with the same one (it is supplied wired with the new board).

The replacement must be ordered with the SKLEDA R1RSE01002#00 code.



Remove the plastic small pin from the old tamper microswitch and insert it in the new.

If necessary, it is possible to order the microswitch replacement with the following code:
MSWLEDA R1RSE03002#00

6.2 Horns replacement

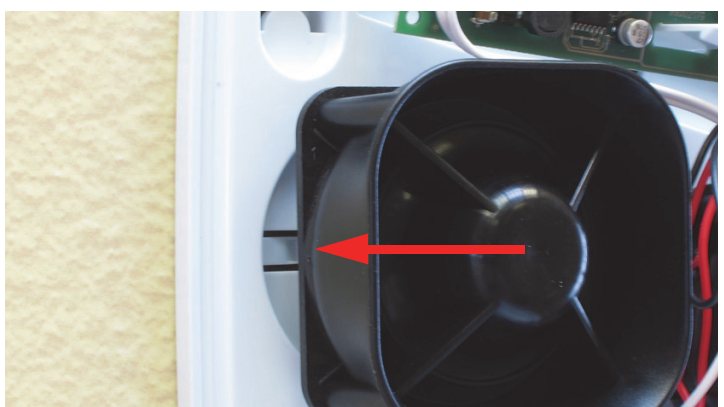
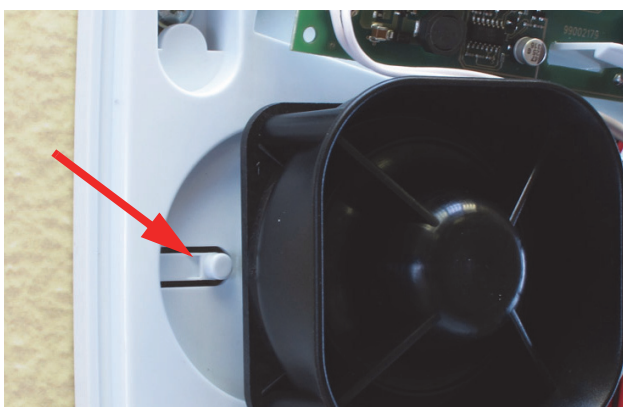
Move the electronic board fixing it with the centre screw as in the previous paragraph.

Disconnect the terminals of the horns to replace.

Press on the small pin indicated by the arrow.

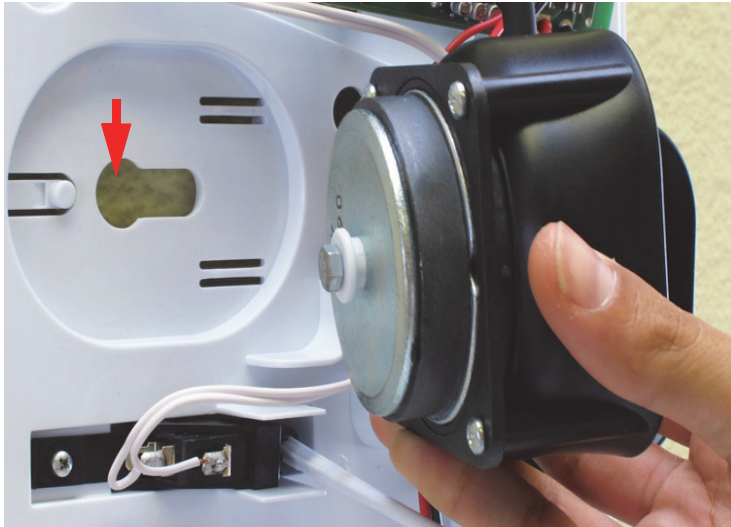
Do not force more than necessary

Move the horns outwards.





Remove the horn.



Note: the replacement must be ordered with the following code TRSIR R1RSE02001#00 and will be provided without the screw and the spacer, the installer will have to retrieve them from the horn fails and assemble them as photo on the side.

Place the new horn rotating with the cables to the inside of the siren and inserting the screw with the plastic spacer into the hole indicated by the arrow.

Move the horn inwards of the siren until hear the click of the locking tab side.

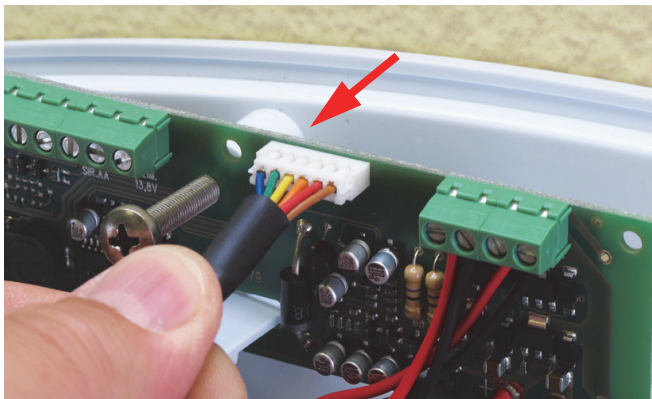
Make connections of the new horn.

Reposition correctly the electronic board of the siren.

Turn on the power and test the functionality.

6.3 Replacing of the front LED board

The LED board is attached to the inside cover, and connected to the siren board with a connector. Remove the electronics board as already seen and unhook the connector indicated by the arrow



Move the connection cable that passes between the two horns, remove the plastic board fixing screws that incorporates the LED signalling and replace it with a new one using the screws.

The replacement must be ordered with the following code: SKLRLEDA R1RSE01003#00.

Place the cable by passing it between the two horns.

Insert the connector in the siren board respecting the insertion direction. Reposition correctly the electronic board siren.

Turn on the power and test the functionality.

6.4 Housing replacement

By necessity, it is also available the housing parts, it must be ordered with the code: CLEDA R2CRS00004#00.

Outdoor self-powered siren mod. LEDA - TECHNICAL MANUAL - July 2022 Edition

Products features as described above do not bind the manufacturer and may be modified without prior notice.

090010878

EL.MO. SpA Via Pontarola, 70 - 35011 Campodarsego (PD) - Italy
Tel. +390499203333 (R.A.) - Fax +390499200306 - Help desk +390499200426
www.elmospa.com - international@elmospa.com