



LEDA485

Outdoor self-powered
siren with serial interface

Patent application No. VE2013A000035

090010904



IT08020000001624



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.)

.....

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 with serial interface

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).

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.

DISPOSAL INSTRUCTIONS - USER INFORMATIONS



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.

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1. GENERALS

The LEDA485 siren offers an innovative and unique design, with high acoustic power and low consumption. The sturdy housing (in NOVODUR® by Bayer) is equipped with a multifunctional signal system complete with high brightness LEDs. The internal elements are protected with a second plastic cover.

The flip-open cover that can double as supporting base and the outer cover hanging from a flexible hinge make the installation process easier and faster.

The siren is equipped with a drilling template that can hold an air level to facilitate the positioning, the tracking and the drilling of the wall, for an even more precise and fast installation.

LEDA485 allows to quickly replace the electronic board thanks to its terminal connections; the horns also use a plug-in connection.

The siren can be customized with an installer company label to be placed on the specific frame of the front cover.

LEDA485 is programmable via RS-485 serial interface for the connection and management of control units such as **ETRG2 series, VIDOMO** and other compatible models. The siren is supplied with a preset configuration that includes all operating parameters; a different customisation can be later set through a RS-485 data exchange with the control unit compatible software, via direct connection only. A programmable emergency timer can block the siren while it is operative, in case of control unit failure or cut cables.

The front signaller also incorporates two high-brightness LEDs to display the active functional statuses that have been set via software.

The LEDA485 siren is equipped with two 4 Ω horns, incorporates a tampering microswitch against the opening of the front cover and against wall removing.

The housing also hosts a 12 V 1.2 Ah battery, charged via RS-485 thanks to an internal booster transformer.

The LEDA siren is interested by patent application made with request No. **VE2013A000035**.

2. FEATURES

2.1 General features

- Power supply to recharge the 12 V battery.
- Addressable from 1 up to the maximum number of sirens managed by the control unit.
- Tamper contact against opening and against tearing.
- Input for optional antifoam device.
- Temperature sensor.
- LED service light.
- EN50131-4 grade 2 compliance.

2.2 Functional features programmable via RS-485

The siren is equipped with the following features, programmable through the RS-485 serial line of compatible control units:

- Maintenance mode (automatic functional status at the first power supply)
- Light indication for operativity and armed system status.
- Acoustic indication for arming/disarming.
- Light indication for arming/disarming.
- Room temperature reading.
- 4 different service light activation modes.
- Settable acoustic indications volume (both for service and alarm).
- Selection of different types of sound for alarm, tampering, fault and memory.

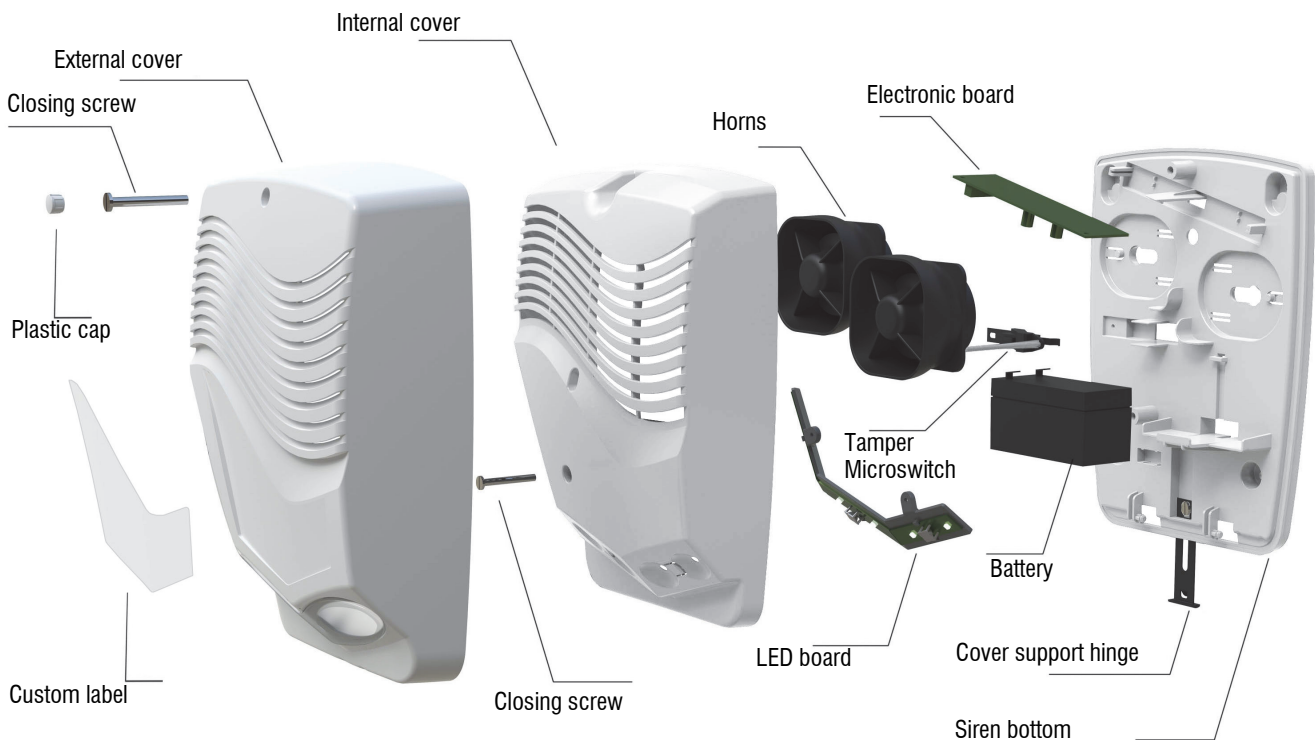


2.3 Electrical features

Model:	LEDA485	Frequency:	1.73 KHz adjustable by software.
EN 50131-4 compliance:	grade 2, environmental class IV.	Sound:	bi-tonal.
Protection class:	housing protected against solid objects larger than 2.5 mm and against splashing water. Outdoor.	Activation:	via RS-485.
Mounting:	SMD	Temperature detector:	incorporated.
Horns:	2×4 Ω horns mod. TES 154.	Specialized input:	for optional antifoam device.
Power supply:	12V $\overline{=}$ taken by the two dedicated wires of the RS-485 serial line.	Addressing:	from 1 up to the number of sirens managed by control unit.
Power consumption @ 12 V		Sound pressure:	112 dB(A) @ 1m, 12 V 108 dB(A) @ 3m, 12 V certified by the manufacturer.
Idle state:	21 mA.	Alarm time:	5 minutes, settable via software.
In alarm:	700 mA.	Flashing light activation:	settable via software.
System status LED:	37 mA increase with LED ON.	Connections:	terminals for power supply, RS-485 line, antifoam module, horns.
White LEDs:	300 mA increase with LEDs ON.	Flash number:	settable via software.
Allocable battery:	12 V / 1.2 Ah.	Protections:	siren protected against cover opening and wall tear.
Battery max. dimensions:	W 97 × H 51 terminals excluded × D 43 mm.	Dimensions:	W 226 × H 310 × D 90 mm.
		Weight:	1.9 Kg
		Parts supplied:	drilling template, level, anti-slipping washers, screws and plugs, closing cap of the front screw, technical manual.

The LEDA485 siren complies to the EN 50131-4 Standards for grade 2 and is designed for environmental class IV.

3. EXPLODED VIEW OF THE SIREN





4. BRIEF INSTALLATION GUIDE

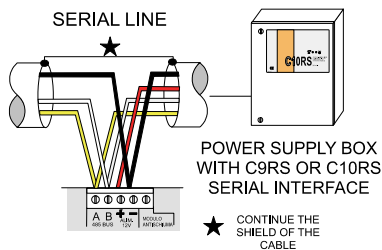
This chapter summarizes the steps to be performed for LEDA485 installation if the control unit is already installed. The same steps can be done at the bench for added convenience. The rest of the manual expand upon every step in a specific chapter.

1. From the installer menu of any system keyboard, activate the SYSTEM LOCK for the control unit;
2. Using a short 4-wires cable, connect the RS-485 bus and the 12 V power supply terminals of the siren with the nearby control unit, see "ELECTRICAL CONNECTIONS" on page 5.
3. Use the proper software for the operating control unit to set the "Active (Siren 485)" flag for ETR control units and the number and type of device for VIDOMO control units. In the management window, you will have to program the desired address and other parameters of the siren, see "PROGRAMMING" on page 6, for details see "Specific configuration of the siren" on page 8;
4. Once that the LEDA485 configuration has been completed and before exiting the management window, click on the "Write Setup" button, see "Actions" on page 12;
5. Cut the installation jumper as shown in the drawing on page 5;
6. Disconnect the siren from the short cable;
7. Repeat steps from 2 to 6 for other sirens on different addresses;
8. Mount the sirens in their definitive position, connecting the RS-485 line and the 12 V power supply;
9. Write the setup of the control unit. By default, the sirens signal the start of their operation status with the flashing of the red and white LEDs;
10. Remove the "SYSTEM LOCK".

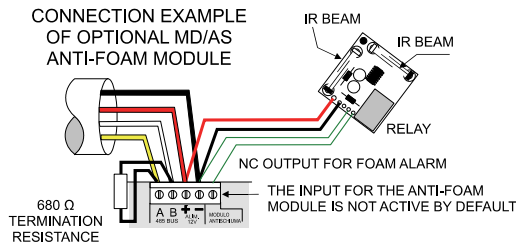
Note: if you have to connect a single siren, cut the jumper. (Default: address 1).
All other required parameters can be programmed later.

5. ELECTRICAL CONNECTIONS

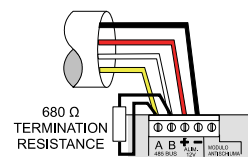
EXAMPLE OF EXTERNAL POWER SUPPLY



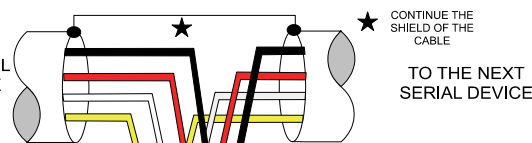
CONNECTION EXAMPLE OF OPTIONAL MD/AS ANTI-FOAM MODULE



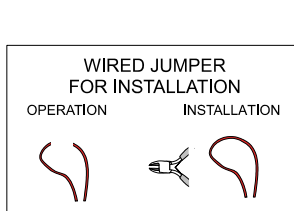
EXAMPLE OF RS-485 LAST DEVICE



SERIAL LINE FROM THE CONTROL UNIT OR OTHER SERIAL DEVICE

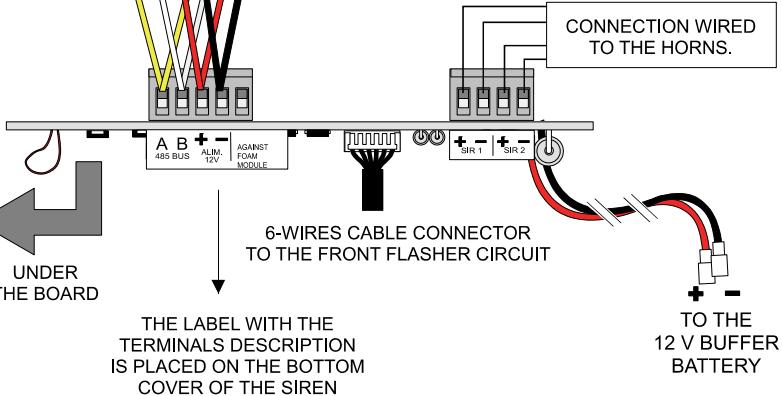


LEDs FOR OPERATION SIGNALLING IN RS-485 ONLY ACTIVE WHEN THE COVERS ARE OPEN (OPEN TAMPER)



TO TAMPER PROTECTION MICROSWITCH

CONNECTION WIRED TO THE HORNS.



THE LABEL WITH THE TERMINALS DESCRIPTION IS PLACED ON THE BOTTOM COVER OF THE SIREN



5.1 Informations on siren power supply

If the siren battery is low, the current demand for its recharging can get to 250 mA.
If you enable the white LED signals, add 300 mA to the current draw, totalling 550 mA.
Keep in mind these values when dimensioning the system.

The max. length of the power supply cables depends on their section and on whether the white leds are in use.
Calculate the length from the siren to the power source (control unit or power supply unit).
The stated max lengths are valid if a single siren and no other devices are connected at the end of the line.

	White LEDs in use	No white LEDs used
0.75 mm ² power cable section	60 m	130 m
1.5 mm ² power cable section	120 m	260 m

Hold in consideration the consumption of any other device connected to the RS-485 line farther than the siren.
The approximate maximum length for the cables can be calculated using the formulae below.

$$\begin{aligned} 0.75 \text{ mm}^2 \text{ power cable section} & \quad \text{max length [m]} = 32600 \text{ [mA}\cdot\text{m]} / \text{load [mA]} \\ 1.5 \text{ mm}^2 \text{ power cable section} & \quad \text{max length [m]} = 65200 \text{ [mA}\cdot\text{m]} / \text{load [mA]} \end{aligned}$$

For example, the following devices are used on the same RS-485 line, and a 0.75 mm² power cable is used:

Siren (white LEDs used): 550 mA load Siren (white LEDs not used): 250 mA load
TRES01485: 25 mA load RIVER: 35 mA load

$$32600 / (550 + 250 + 25 + 35) = 37,9 \text{ m}$$

6. PROGRAMMING

To program the siren, it is necessary to use a software compatible with the control unit connected to the siren, such as BrowserOne version 2.8.6 or higher, equipped with the specific module for the control unit (using module v1.3.5 or higher for the ETRG2 series).

The control unit shall be updated to a firmware version that supports the LEDA485 management (the support is explicitly stated in the file that comes with the firmware). The following example uses a v1.8 or higher firmware for an ETRG2 series control unit.

Follow the software manual to activate a direct connection with the control unit and select the “Devices” page, “Sirens” tab.

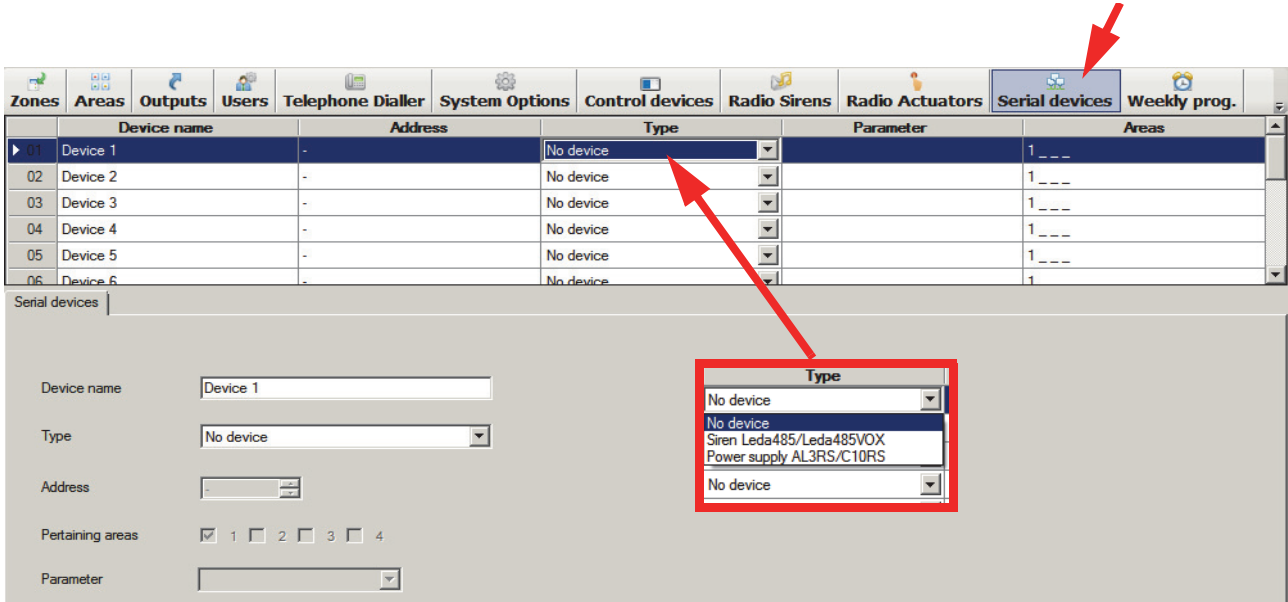
The following image shows this page for an ETRG2 series control unit.



Select the “Siren n.001” row (which is selected by default), then click on “Active (Siren 485)”, as indicated. If this is the only 485 siren, cut the “Install” wire jumper, then click on “Write setup” to save the configuration in the control unit.

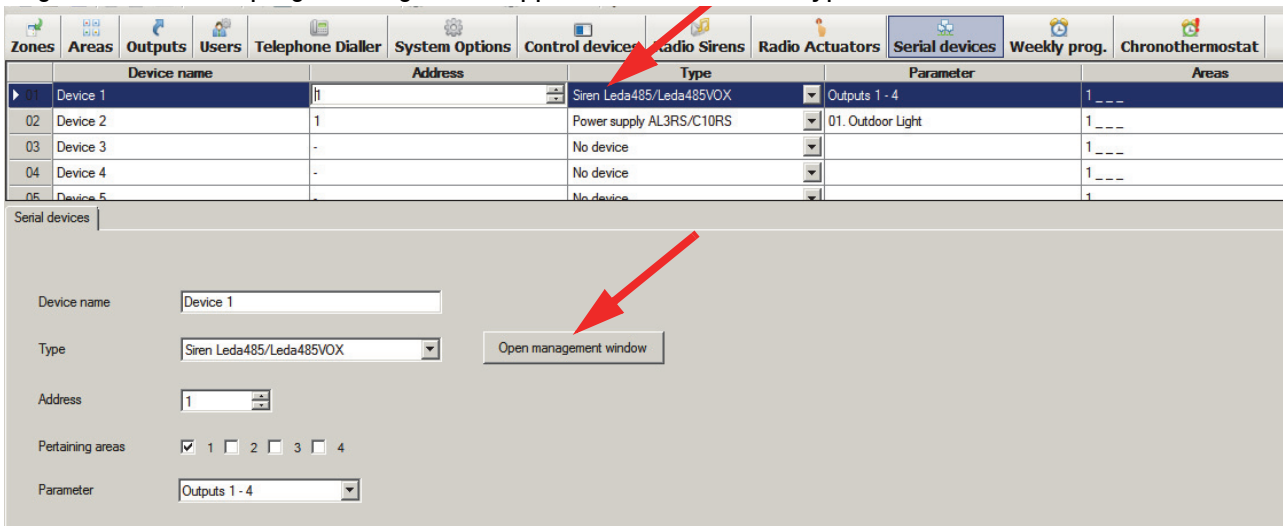
To proceed with the programming of the siren, click on the “Open management window” button, detailed below. The ETRG2 series control units can manage up to 15 sirens each.

The following screenshot shows the same screen for a VIDOMO control unit. Select the “Serial devices” window:



Unlike the ETRG2 module, the VIDOMO module software has a window where you can set up to 16 serial devices, each type of device using its own set of addresses. For example, as long as device No. 1 is a siren and device No.2 is a power supply unit, they can both have the same address.

Use the “Type” column to set the type of the previously connected siren to “Siren Leda485” and set its Address. The contents of the currently selected row can also be changed in the lower half of the window, where the “Open management window” programming button appears as soon as the Type is set to “Siren Leda485”.



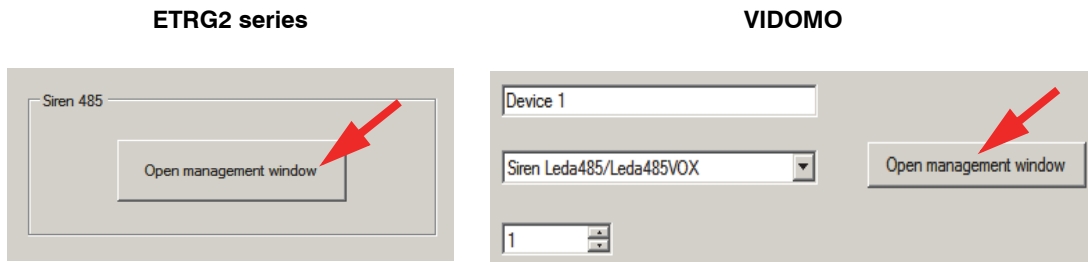
The following columns are noteworthy:

Device name:	for a quicker detection of the connected device.
Address:	identification number of the connected device.
Type:	model of the compatible serial device to be connected.
Pertaining areas:	areas pertaining to the device.
Parameter:	output group dedicated to the device for the Service functions (white LEDs) of the LEDA485 siren or for the relay No. 1 of the remote power supply unit.

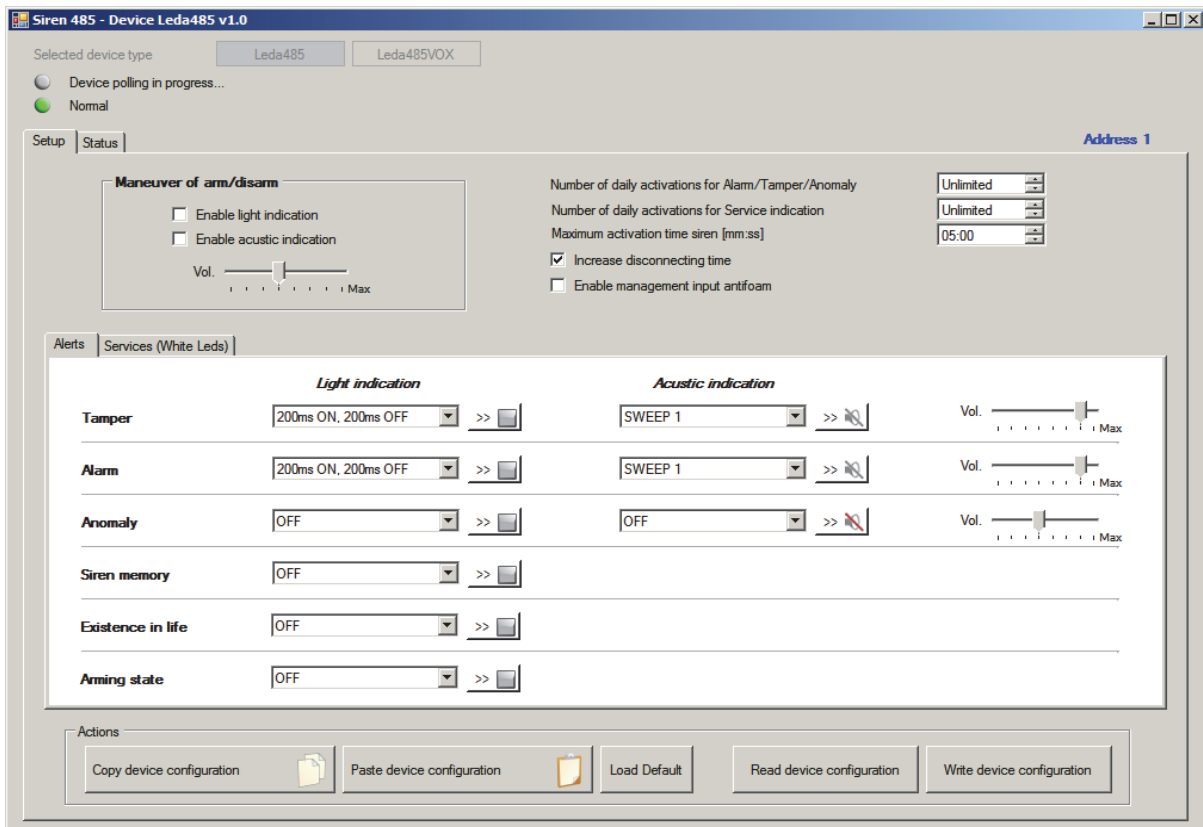


6.1 Specific configuration of the siren

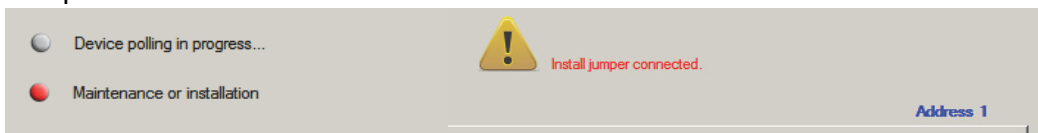
This window appears after clicking on the buttons below:



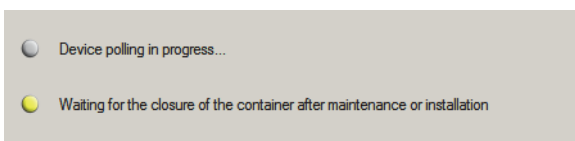
The screenshot below shows the management window for a siren with address 1.



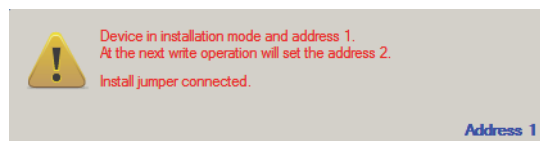
The upper part of the window hosts a collection of data that might help the installer during the programming phase, some examples below:



The address has been saved but there's a single siren and the wire jumper is still intact



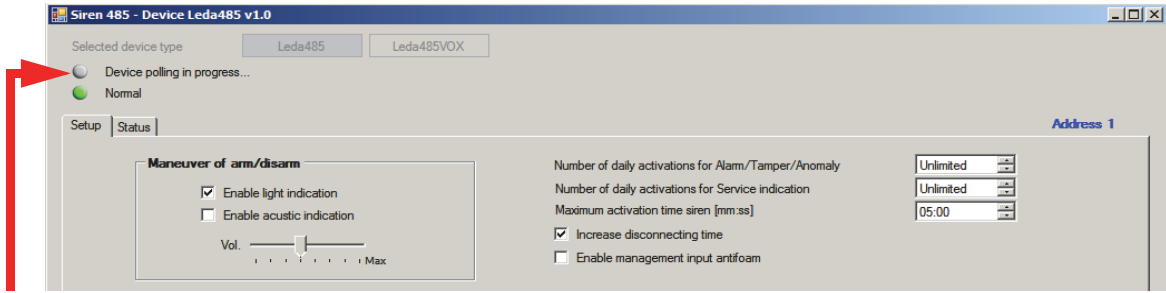
Close the housing of the siren and make sure that the Tamper Protection is working.



The siren is being programmed with an address different from the default.



In addition to the described indications, you can also check the (operating) status for diagnostic purposes.



The upper part also hosts the indications and the operating status communication.

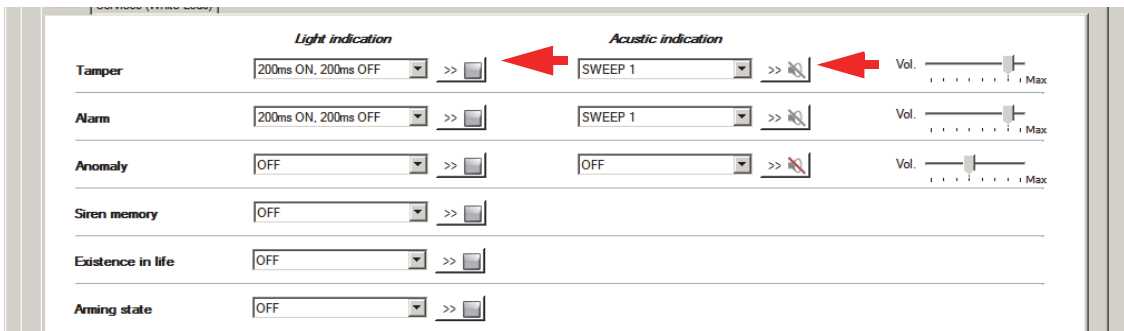
In the first part of the “Setup” section, the following parameters can be set:

- The behaviour of the siren when arming/disarming the control unit, with possible light indication (all red LEDs ON) and sound indication (with volume adjustment).
- The number of daily activations for alarm/tampering/fault and service, the limitation is valid only for the acoustic indication and not for lights.
- The maximum siren activation time, expressed in minutes and seconds.
Default = 5 minutes, max 10 minutes.
- The “**Increase disconnecting time**” selection, used to set the amount of time after which the lack of communication through the RS-485 serial line is signalled.
Default = function selected, maximum delay time. **Disable this function to comply with the EN 50131-4 Standard.**
- The activation of the “Antifoam” input management, necessary for the optional dedicated module “MD/AS”.

6.1.1 Alerts

The “Alerts” section lets you diversify the light and sound signals differently for the manageable events. The options include the type of light indication and the type and volume of the sound signals.

It is possible to preview the currently selected flashing and sounds by clicking where indicated by the arrows.



Meanings of some programmable events with light activity:

Operation and arming status = if the optical indication of the arming status is configured according to the table and when the siren is associated with at least one armed sector, the single LED (bottom right) shows this setting. If all the sectors of the siren are disarmed, the single LED displays the “Existence in life” status.

If the connection status function is not enabled, the single LED **always** displays the “Existence in life.” setting.

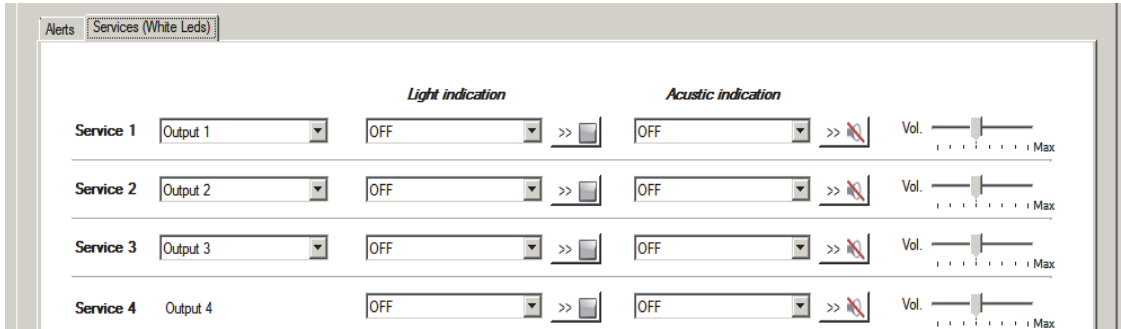
Alarm/tampering memory LED = if so configured, the alarm/tampering memory signal is used at the end of the alarm cycles until the control unit is reset.

This means that all sectors assigned to the siren have to be disarmed before the memory indication can stop.



6.1.2 Services

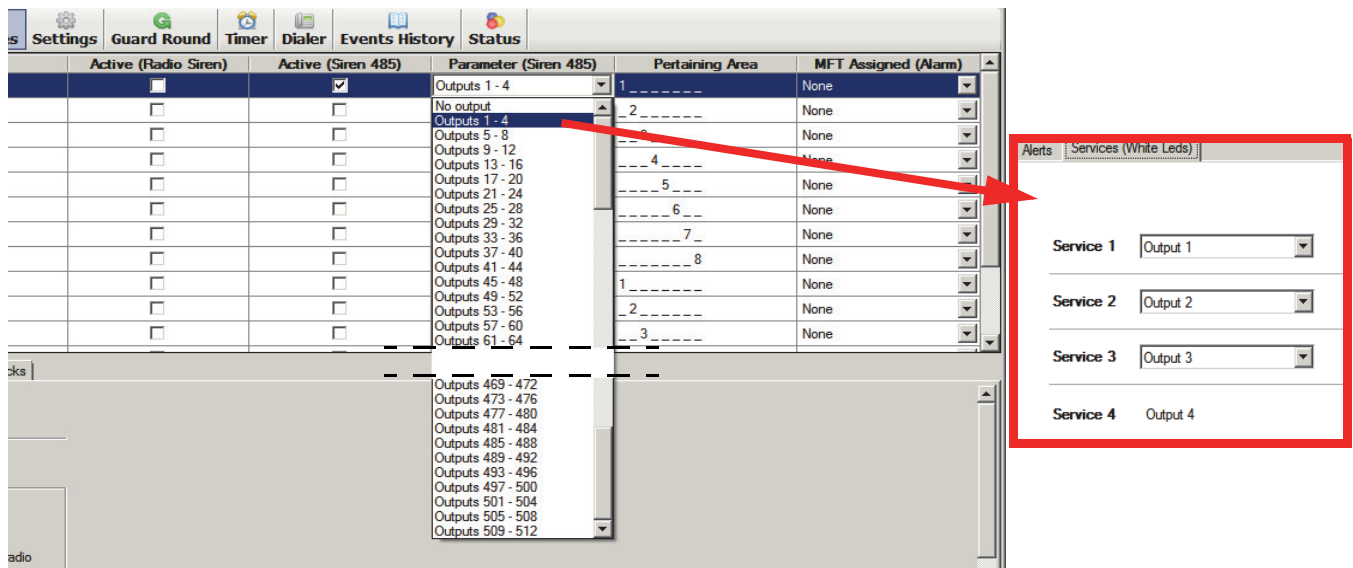
The “Services (White Leds)” tab is used to associate a different sound or light indication for each service, with decreasing priority from service 1 to 4.



6.1.3 Outputs associated for Services indication (White LEDs)

The outputs to be associated to the four services depend on the set selections, indicated in a different way in the ETRG2 and VIDOMO series software modules.

For ETRG2 control units:





Active (Radio Siren)	Active (Siren 485)	Parameter (Siren 485)	Pertaining Area	MFT Assigned (Alarm)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Outputs 9 - 12	1	None
<input type="checkbox"/>	<input type="checkbox"/>	No output	2	None
<input type="checkbox"/>	<input type="checkbox"/>	Outputs 1 - 4	3	None
<input type="checkbox"/>	<input type="checkbox"/>	Outputs 5 - 8	4	None
<input type="checkbox"/>	<input type="checkbox"/>	Outputs 9 - 12	5	None
<input type="checkbox"/>	<input type="checkbox"/>	Outputs 13 - 16	6	None
<input type="checkbox"/>	<input type="checkbox"/>	Outputs 17 - 20	7	None
<input type="checkbox"/>	<input type="checkbox"/>	Outputs 21 - 24	8	None
<input type="checkbox"/>	<input type="checkbox"/>	Outputs 25 - 28	1	None
<input type="checkbox"/>	<input type="checkbox"/>	Outputs 29 - 32	2	None
<input type="checkbox"/>	<input type="checkbox"/>	Outputs 33 - 36	3	None
<input type="checkbox"/>	<input type="checkbox"/>	Outputs 37 - 40		
<input type="checkbox"/>	<input type="checkbox"/>	Outputs 41 - 44		
<input type="checkbox"/>	<input type="checkbox"/>	Outputs 45 - 48		
<input type="checkbox"/>	<input type="checkbox"/>	Outputs 49 - 52		
<input type="checkbox"/>	<input type="checkbox"/>	Outputs 53 - 56		
<input type="checkbox"/>	<input type="checkbox"/>	Outputs 57 - 60		
<input type="checkbox"/>	<input type="checkbox"/>	Outputs 61 - 64		

Alerts Services (White Leds)

Service 1 Output 9

Service 2 Output 10

Service 3 Output 11

Service 4 Output 12

In addition to the corresponding outputs, the following events can also be associated to the first three services:

Service 1 = Tamper (for relay) Service 2 = Alarm (for relay) Service 3 = Anomaly

Service 1 Tamper

Service 2 Alarm

Service 3 Anomaly

For the VIDOMO control unit:

The outputs to be associated to the four services depend on the selections made in the Serial Devices overview window, "Parameter" column.

Parameter Outputs 1 - 4

- Outputs 1 - 4
- Outputs 5 - 8
- Outputs 9 - 12
- Outputs 13 - 16
- Outputs 17 - 20
- Outputs 21 - 24
- Outputs 25 - 28
- Outputs 29 - 32
- Outputs 33 - 36
- Outputs 37 - 40
- Outputs 41 - 44
- Outputs 45 - 48
- Outputs 49 - 52
- Outputs 53 - 56
- Outputs 57 - 60
- Outputs 61 - 64

Alerts Services (White Leds)

Service 1 Output 1

Service 2 Output 2

Service 3 Output 3

Service 4 Output 4

Parameter Outputs 9 - 12

- Outputs 1 - 4
- Outputs 5 - 8
- Outputs 9 - 12
- Outputs 13 - 16
- Outputs 17 - 20
- Outputs 21 - 24
- Outputs 25 - 28
- Outputs 29 - 32
- Outputs 33 - 36
- Outputs 37 - 40
- Outputs 41 - 44
- Outputs 45 - 48
- Outputs 49 - 52
- Outputs 53 - 56
- Outputs 57 - 60
- Outputs 61 - 64

Alerts Services (White Leds)

Service 1 Output 9

Service 2 Output 10

Service 3 Output 11

Service 4 Output 12

In addition to the corresponding outputs, the following events can also be associated to the first three services:

Service 1 = Tamper (for relay) Service 2 = Alarm (for relay) Service 3 = Anomaly

Service 1 Tamper

Service 2 Alarm

Service 3 Anomaly



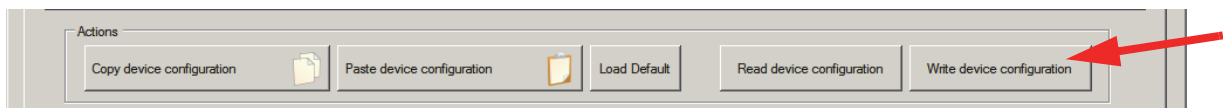
6.1.4 Activations priority

When a signal with higher priority is active, signals with lower priority are ignored.

Light activations	Acoustic activations
<p>The flashing LEDs are activated with decreasing priority from tamper to memory:</p> <ol style="list-style-type: none"> 1. Tamper 2. Alarm 3. Anomaly 4. Memory <p>The white LEDs are activated with decreasing priority from service 1 to service 4:</p> <ol style="list-style-type: none"> 1. Service 1 2. Service 2 3. Service 3 4. Service 4 	<p>The sounds are played with decreasing priority from tamper to service 4:</p> <ol style="list-style-type: none"> 1. Tamper 2. Alarm 3. Anomaly 4. Service 1 5. Service 2 6. Service 3 7. Service 4

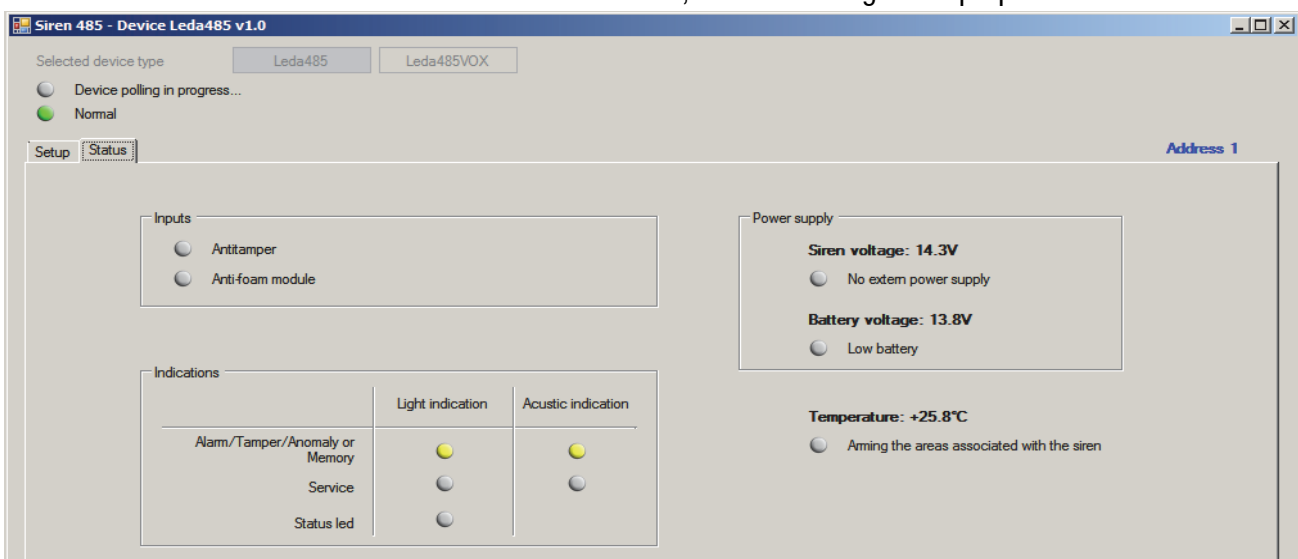
6.1.5 Actions

The “Actions” section contains the “Copy device configuration” and “Paste device configuration” buttons that can be used to replicate the programming of a siren for other sirens that might be added to the system. The “Write device configuration” button is used to save the defined configuration in the memory of the siren before leaving the management window.



6.2 Status

This control window hosts the real-time status of the siren, usable for diagnostic purposes.





Most labels are self-explaining. Indicators in the “indications” frame have the following meaning:

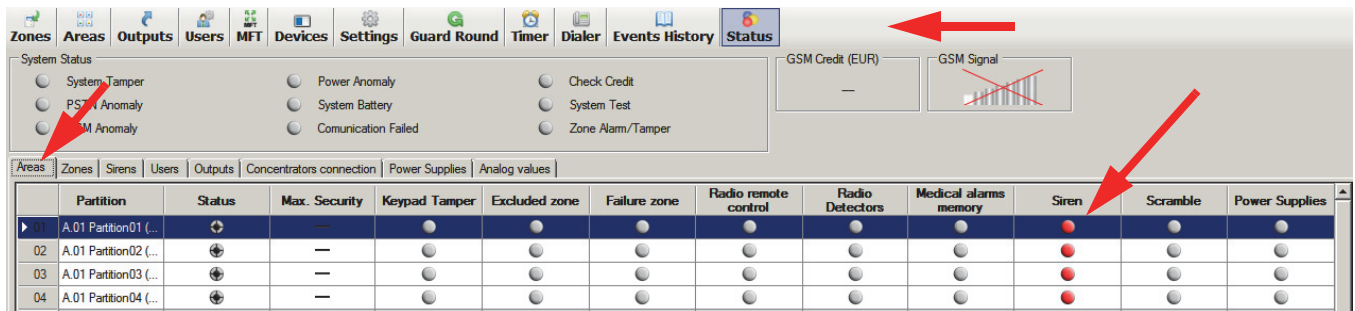
- **Alarm/Tamper/Anomaly or Memory acoustic indication**
This indicates that an alarm/tampering/anomaly acoustic signal is in progress or that the acoustic signal stopped for exceeding the maximum activation time.
- **Alarm/Tamper/Anomaly or Memory light indication**
This indicates that an alarm/tampering/anomaly or tampering/alarm memory light signal is in progress.
- **Status LED**
This indicates that the status LED is active for connection or “existence in life” indications.
- **Service or memory sound indication**
This indicates that the service acoustic indication is in progress or that the acoustic signal stopped for exceeding the maximum time of activation.
- **Service light indication**
This indicates that a service light indication is in progress.

Important note: if the battery is not connected, the measured voltage refers to the charging voltage at the Faston terminals.

6.3 General status of the serial devices

It is possible to use the software to view the control unit status, including its serial devices such as the siren and the power supply unit.

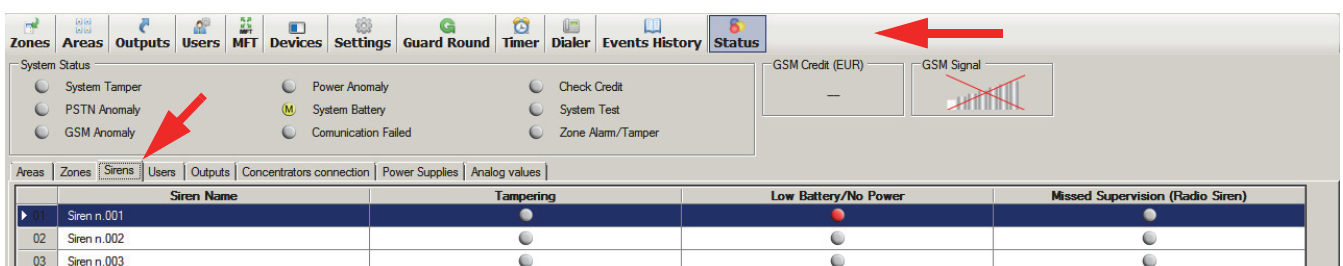
The image below shows the first screen of the Status page for the ETRG2 control units module, which displays data about the zones.



One of the columns contains an indication for the “Sirens” section.

Click on the “Sirens” tab to find more details about the connected sirens.

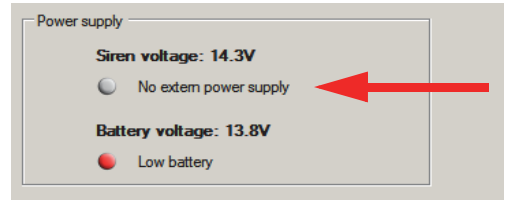
Siren No. 1 in the example below has the “Low battery/no power supply” status.



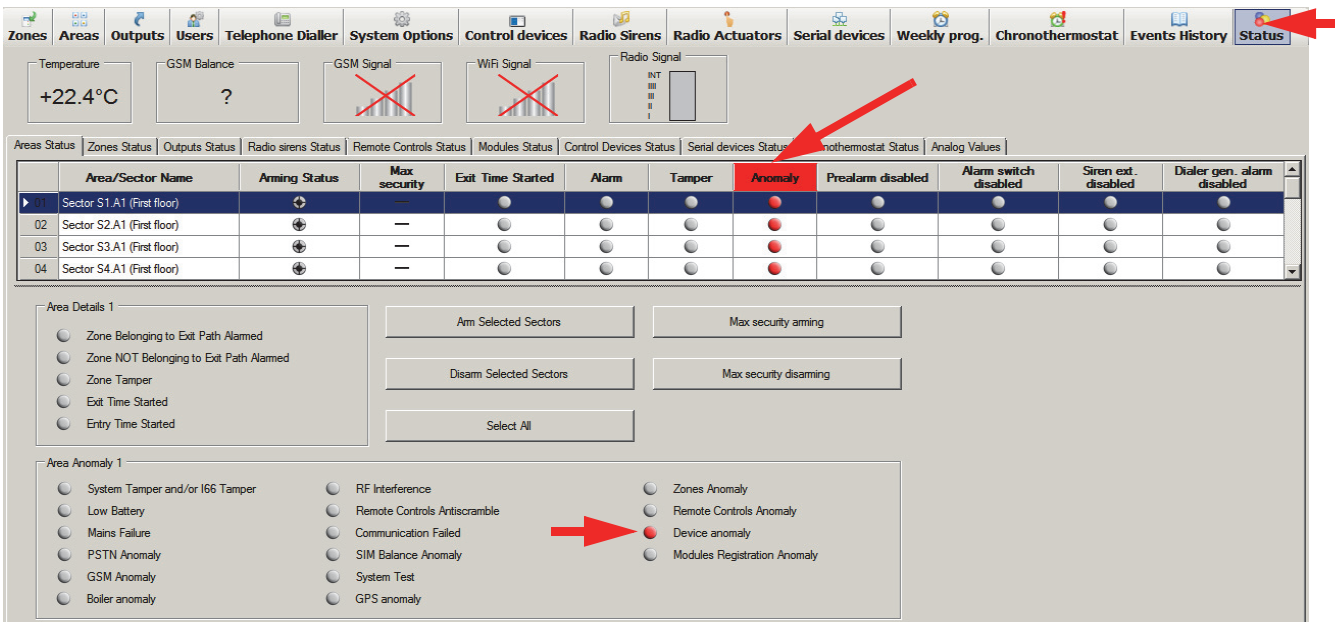


It is now possible to open the status window of the siren to see any problems of power supply, as in the example.

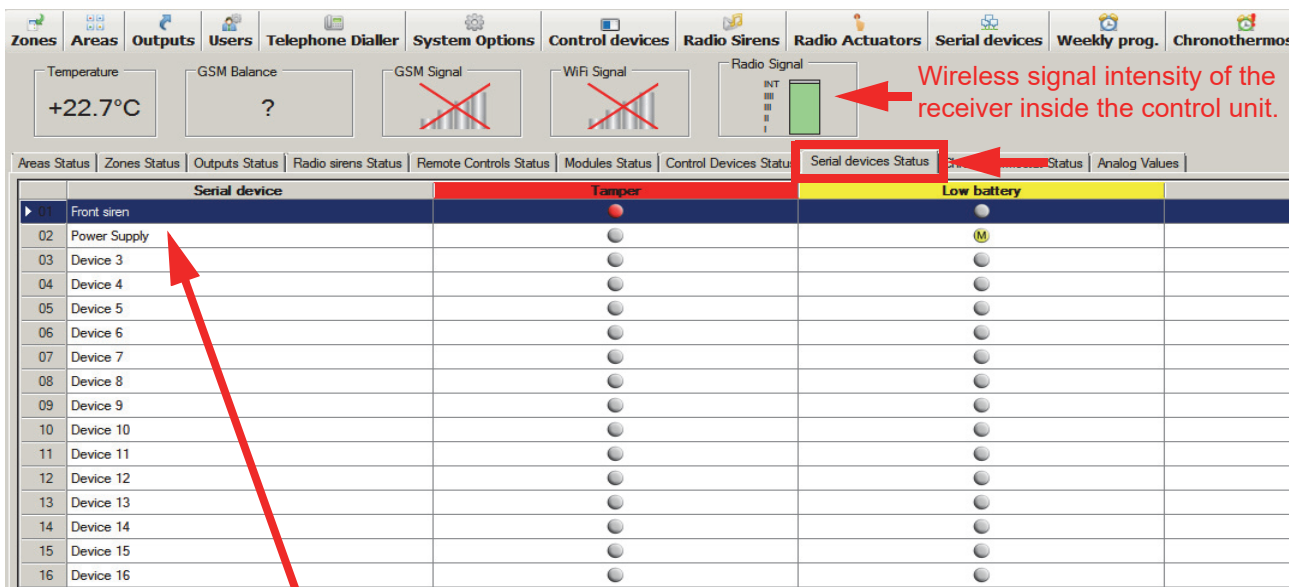
Note: Whenever the remote power supply is lost, the LED marked on the right lights up and the siren generates a fault signal. To abide to the EN50131-4 Standard, assign an acoustic or optical anomaly alarm to this event.



The image below shows the first screen of the Status page for the VIDOMO control units module, which displays data about the zones.



The Area Anomaly 1 area contains a “Device anomaly” indication. Click on the “Serial devices Status” tab to find more details about the connected sirens.






Assigning a specific name to the devices makes it easier to recognize which one is sending the signals.



The different status icons on this page have the following meaning according to their colour:

Status icons and column header colour

-  (Red LED): alarm/anomaly in progress;

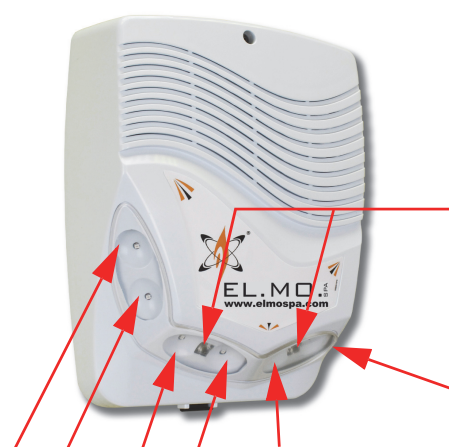
 (Yellow LED with M letter): anomaly memory;
-  (Grey LED): no anomaly or memory;

For LEDA485 sirens, the Fault column includes the “No power” status.

7. LIGHT INDICATIONS FOR THE DIFFERENT FUNCTION STATUSES

A LEDA485 siren signals the “INSTALLATION” and “MAINTENANCE” statuses (during which acoustic and optical signals are disabled) with a short flash every 5 seconds.

When these statuses end, the siren waits for 2 minutes before generating open cover tampering signals (microswitch contact open), to allow the installer to close the cover (microswitch contact closed) and get away.



White LEDs, programmable for different indication types in the “Services” window, see “Specific configuration of the siren” on page 8 and following.

Side LED to indicate the connected system status.

All the red LEDs, including the side LED, flash by default when in Alarm/Tamper condition. The end of the “INSTALL” or “MAINTENANCE” conditions is signalled by a quick flashing of the red and white LED, which lasts 10 seconds, after which the siren comes into operation. For other specific light signals related to functional statuses, see “Specific configuration of the siren” on page 8 and following.

8. NOTES FOR FIRMWARE UPDATES OF THE CONTROL UNIT

When the installer has to upgrade the firmware of the control unit where the LEDA485 siren is connected, additional precautions are necessary. If the interrogations to the siren stop, the siren activates the tampering indications after a set disconnection time.

It is therefore necessary to have the siren enter the MAINTENANCE status, i.e. to set the SYSTEM LOCK in the control unit before starting the firmware update procedure.

After updating and restarting the control unit, the siren will signal the end of the MAINTENANCE status for 10 seconds (as described above). At the end of this time, if a tampering microswitch is open, the siren will activate the tampering indication. As usual, it is sufficient to enter a user code to silence the indications.



9. INSTALLATION

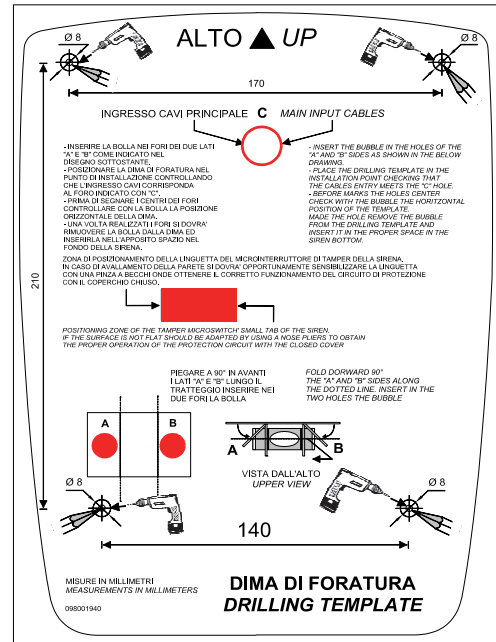
These installation steps refer to a LEDA485 siren that has already been programmed as previously explained.

ATTENTION: the installer shall use PPE (personal protective equipment) suitable for works at height and for the specific installation to be performed.

Check that the wall is perfectly level and that the microswitch tab does not fall over holes, unevenness or plaster cracks. For this purpose, use the drilling template to control the buffer area of the microswitch, marked by the coloured rectangle in the drawing on the right.

Make sure to place the siren as far from the edges of the wall as it is necessary to permit the proper opening of the cover.

Have the (unpowered) connection cables for the siren come out from the wall as much as it is needed to run the wirings.



9.1 Drilling template

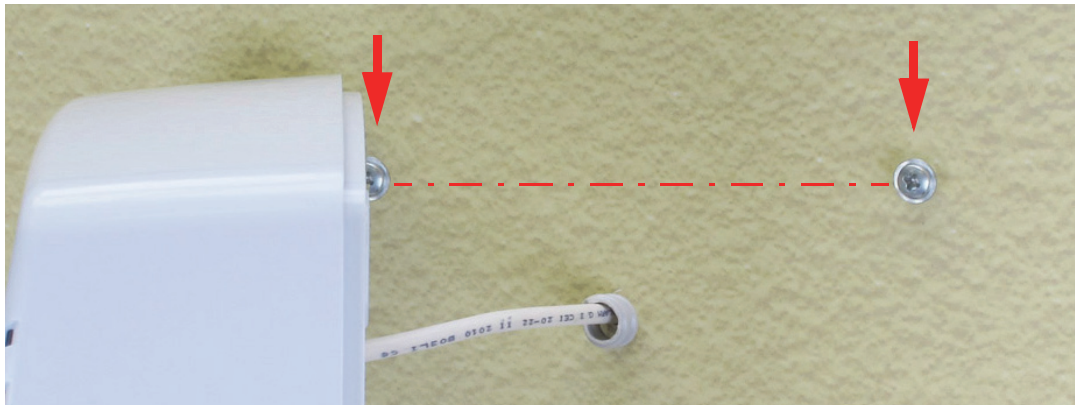
Take the template, bend the support flaps indicated with A and B to 90° and insert the level into the holes.

- Insert the bubble in the holes of the two “A” and “B” sides as shown in the image at the side.
- Place the drilling template at the installation point, checking that the cable entry matches the hole indicated with “C”.
- Before marking the centre of the holes, check the level to ensure that the drilling template is horizontal.
- Drill the holes, then remove the level from the template and insert it in its specific space on the bottom of the siren.

9.2 Fixing

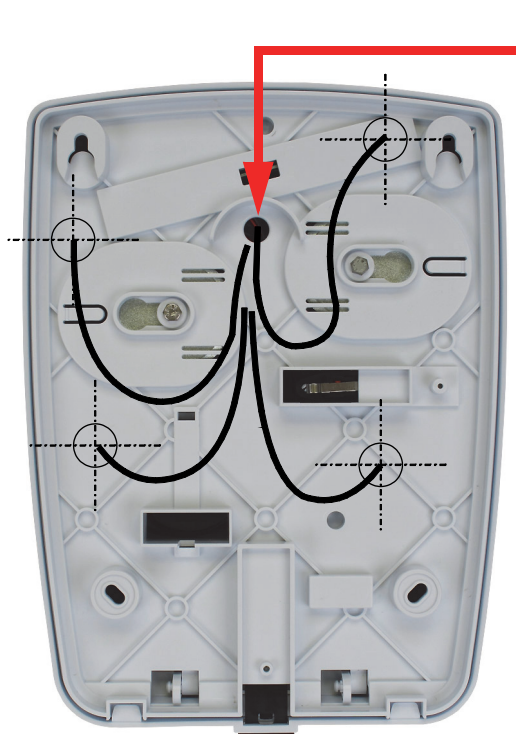
Place the four dowels into the drilled holes and fasten the two top screws, leaving a space of about 4 mm between the wall and the head of the screws.

Feed the cable into the hole of the housing (corresponding to hole “C” of the template) and hang the housing to the screws.





Note: whenever the hole in the siren and the hole in the wall can not be aligned (so that a portion of the cable is not under the water protection arc), make sure that the cable travels upwards right before entering the siren, to avoid letting any drop of condensation inside. The image below shows some examples:



The input hole is equipped with a water protection arc.

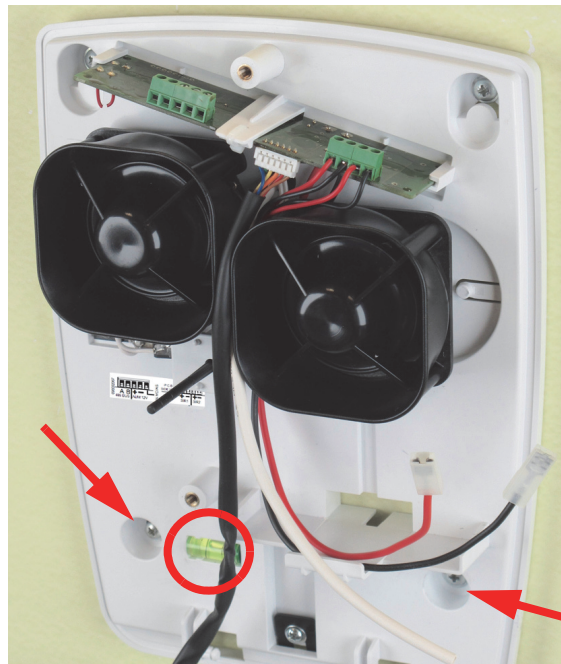
Open the outer cover of the siren by unwinding the front screw. The screw can be left in the cover without the risk of losing it and the cover itself is attached to the base with an anchorage hinge.



Open the inner cover by removing the screw located above the LEDs bar. Pull the inner cover, moving it slightly to the right, and place it on the outer cover which, with its shape, can support it during the installation process.



Hook the level where shown below (inside the circle), check the correct position, insert the two lower screws and proceed to tighten the four screws to block the housing.



9.3 Wiring

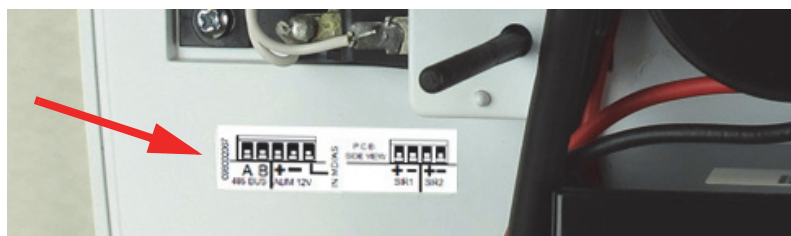
Wire the RS-485 cable on the terminals to the left (white cable in the image below), according to the diagram in the corresponding chapter.

The board is held in place with a Nylon hose clamp, do not try to remove it.



Horns already connected in the factory.

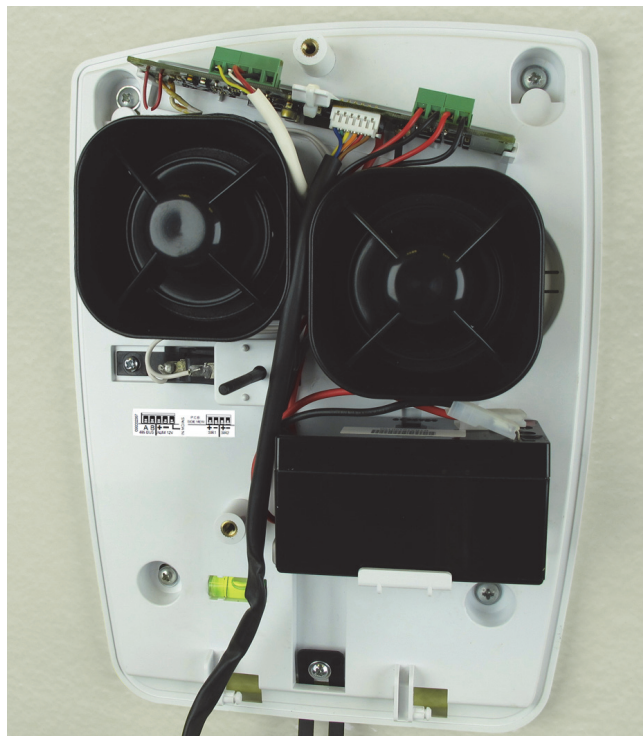
Note: a label, placed under the microswitch tamper, shows the meaning of each terminal.



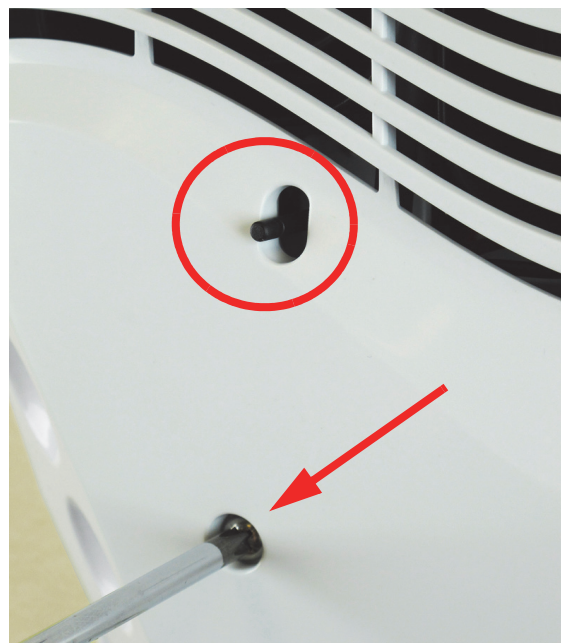
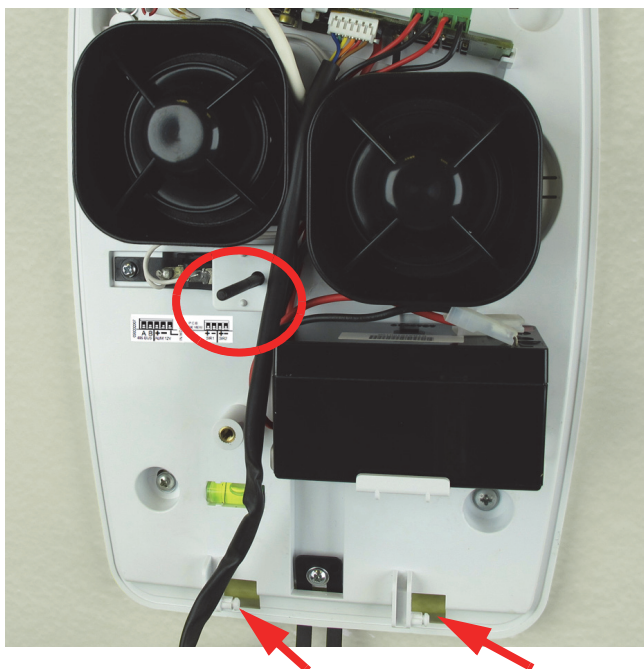
Connect the battery, taking care to not reverse the polarity. Then, store it inside the specific area as shown below.



View of the siren with battery in place.

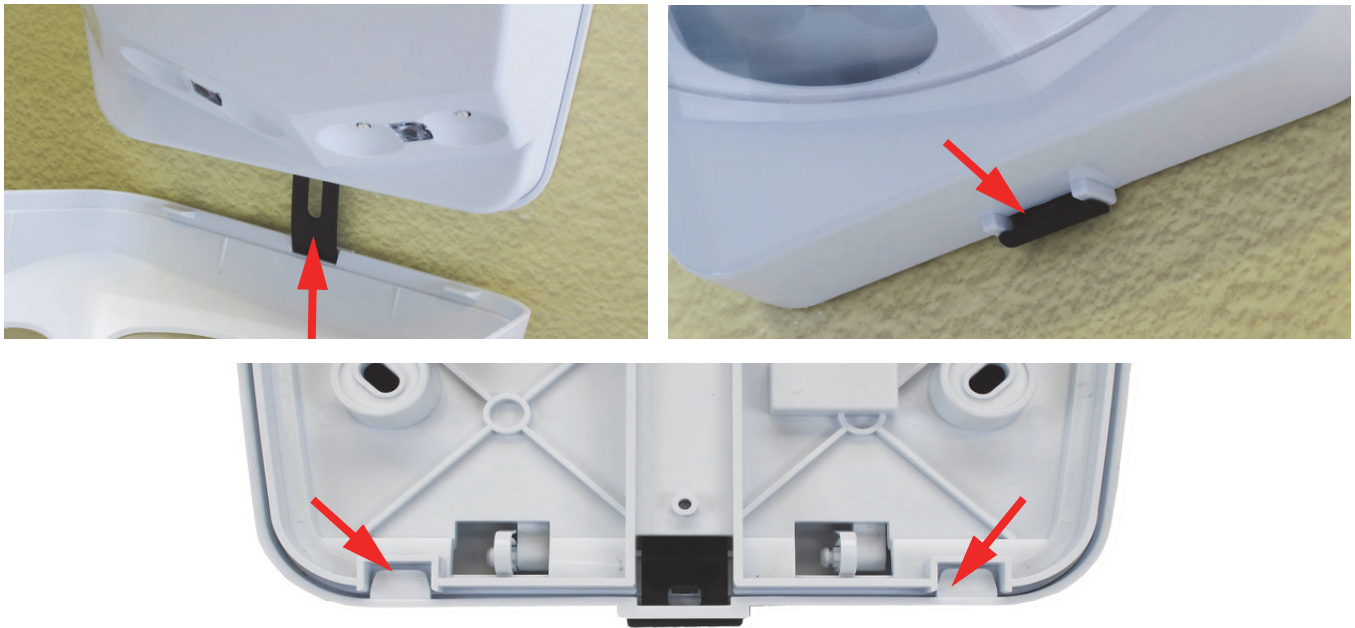


Hook the inner cover to the two pins of the bottom. If you so wish, press the supplied anti-slip washer, then close the cover by turning it up. **Make sure that the tamper microswitch pin passes through the hole circled in the image below.**



Tighten the fixing screw indicated by the arrow.

Close the external cover too. Slide up the support hinge and hook the lower clips properly.



Tighten the appropriate screw and cover the hole with the supplied cap.

Complete the configuration of the control unit via PC, referring to the “BRIEF INSTALLATION GUIDE” on page 5 if necessary.

The LEDA485 siren signals the start of the operation status with the established flashing of the red and white LEDs.

Exit the “SYSTEM LOCK” condition.

Test the siren and the system, checking the required functions.

10. REPLACEMENT OF THE SIREN COMPONENTS

If necessary, you can replace some of the components of the siren, taking advantage of its modular construction.

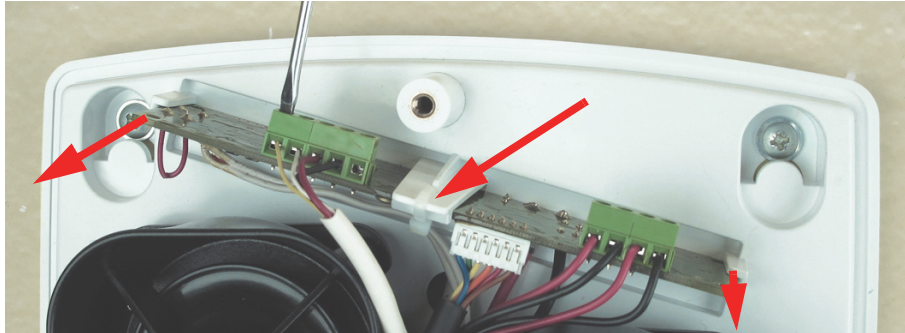
ATTENTION: the installer shall use PPE (personal protective equipment) suitable for works at height and for the specific installation to be performed.

Note: all following operations must be carried out in a de-energized state.

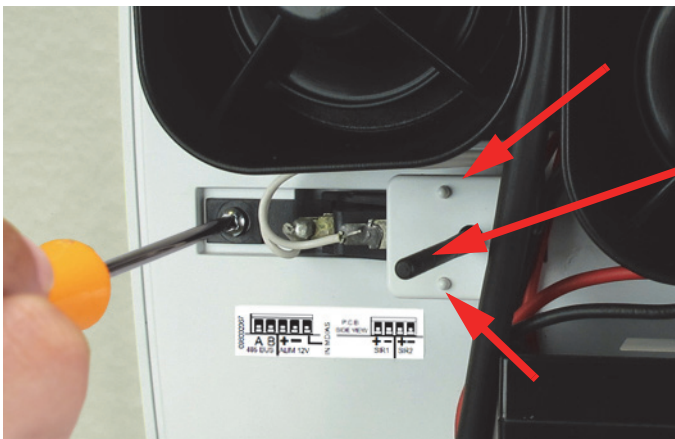


10.1 Replacing the electronic board

Remove the connection cables. Mark them so you can recognize which is which during the next wiring. Sever the cable tie, then remove and replace the board with a new one. Secure the board with a new tie and rewire correctly.



To completely remove the old board, it is necessary to disconnect the tamper microswitch, replacing it with the one supplied (and already wired) with the new board. The replacement shall be ordered with the SKLEDA485 R1RSE01006#00 code.

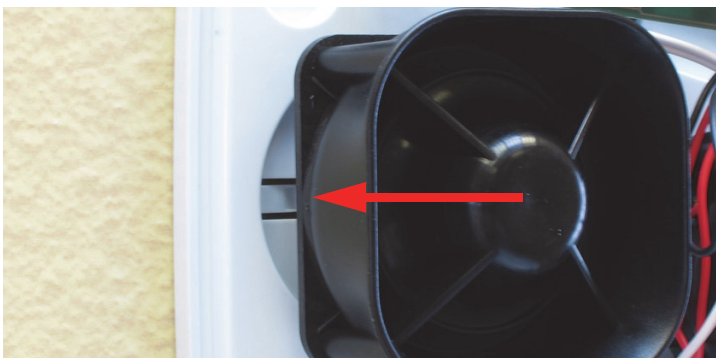
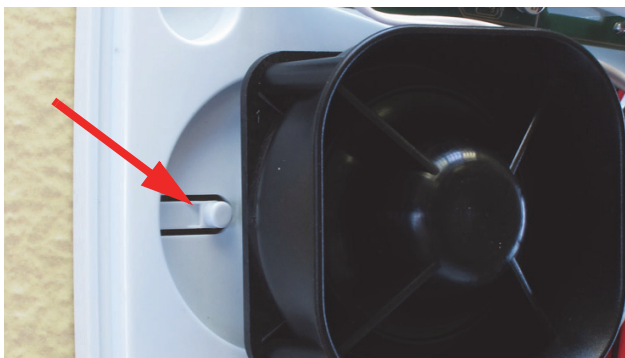


To remove the old microswitch, it is necessary to remove the alignment plate of the pin, unhooking it from the two pins indicated by the arrows. Then, remove the plastic pin from the old microswitch, plug it in the new one and remove the fixing screw as shown. Perform the operations in reverse order to install the microswitch of the new replacement board. If necessary, it is possible to order the microswitch replacement only, with the following code: MSWLEDA R1RSE03002#00

10.2 Replacing a horn

Disconnect the terminals relative to the horn to replace. Press the pin indicated by the arrow. *Do not force the movement.*

Move the horn outwards.





Remove the horn.



Note: this part can be ordered with the following code: TRSIR R1RSE02001#00.

It will be delivered without the screw and the spacer, use the ones from the faulty horn and assemble them as shown in the photos.

Prop the new horn against the base, near to the nearby side of the back cover, inserting the screw with the plastic spacer into the hole shown in the picture.

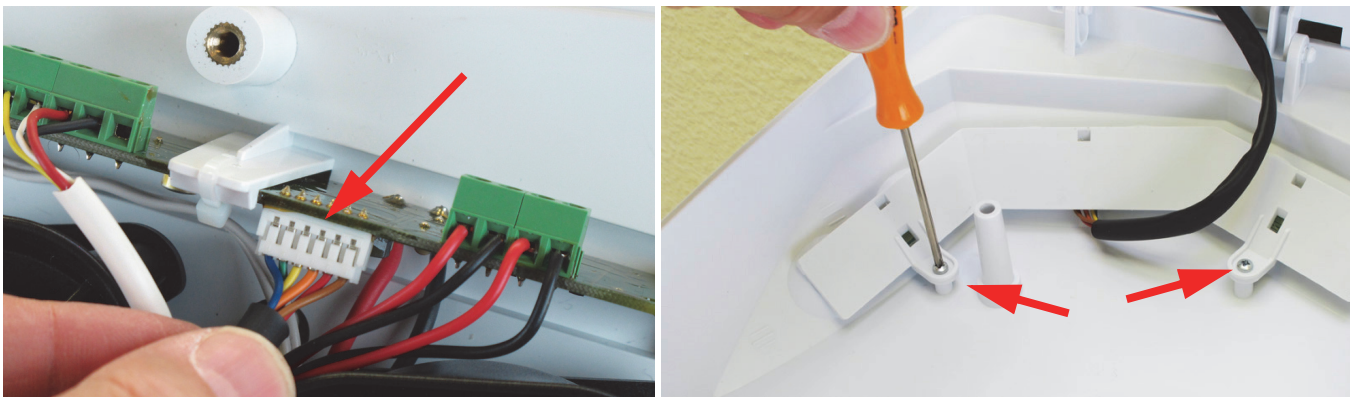
Slide the horn towards the inside of the siren.

Connect the wires of the new horn.

Give power and test the functionality.

10.3 Replacement of the front LED board

The LED board is attached to the internal cover and connected to the board of the siren with a connector. Unhook the connector indicated by the arrow and, if necessary, also remove the electronic board of the siren as previously seen.



Remove the connection cable that passes between the two horns and the fixing screws of the plastic board that incorporates the LED board. Replace the board with a new one, fixing it with the screws.

The replacement can be ordered with the following code SKLRBLEDA R1RSE01007#00.

Place the new wire where the old one was, passing it between the two horns.

Plug the connector in the siren board, respecting the insertion direction.

Give power and test the functionality.

10.4 Replacement of the housing

The replacement of the housing only is also available, it can be ordered with the CLEDA R2CRS00004#00 code.



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The information and product features herein are not binding and may be changed without prior notice.

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