AiR2

CE

Air2-Smarty/W

Wireless indoor sounder/flasher

Installation and programming manual

inim

Table of contents

1. Description of the Air2 system

The advanced Air2 two-way wireless intrusion protection system (868 MHz frequency) integrates directly with all models in INIM intrusion control panel range.

Description of the Air2 system devices:

- *Air2-BS200/50 transceiver module, 50 terminals*
- *Air2-BS200/30 transceiver module, 30 terminals*
- *Air2-BS200/10 transceiver module, 10 terminals*
- *Air2-KF100/S 4 button remote-control key*
- *Air2-Ergo/S 4 button remote-control key*
- *Air2-Pebble/S 4 button remote-control key*
- *Air2-MC200 magnetic contact with shock and tilt sensor*
- *Air2-MC300 magnetic contact with two I/O terminals*
- *Air2-FD100 smoke detector*
- Air2-Aria/W keypad with graphic display
- *Air2-Smarty/W indoor sounder/flasher*
- *Air2-Hedera outdoor sounder/flasher*
- Air2-DT200T dual technology curtain detector
- Air2-XIR200W PIR detector, 12 m
- Air2-XDT200W dual technology curtain detector
- Air2-UT100 universal transceiver
- Air2-ODI100W outdoor wireless dual-infrared detector
- Air2-OTT100W outdoor wireless triple-technology detector

Technical specifications of Air2 system	
Operating frequency	
range	868.0 - 868.6 MHz
selectable channels	868.1, 868.3, 868.5 MHz
RF output power	25mW e.r.p.
Communication type	Two-way
Modulation	GFSK
Device monitoring	from 12 to 250 minutes

Note

In order to comply with the EN 50131-1 standards the alarm system supervision time must be below 120 minutes.

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2. Description of Air2-Smarty/W

The Air2-Smarty/W wireless sounder interfaces with INIM control panels via the Air2-BS200 transceiver and through it is controlled and supervised by the control panel.

The sounder/flasher can be programmed from the control panel via software that allows the configuration of the various parameters (tone, maximum alarm time, flash rate, signalling activation mode, etc.) and the activation of different signals for different events.

The control panel, via the Air2 wireless system, is at all times capable of supervising tamper, low battery, fault and battery level signalsl.

The Air2-Smarty/W provides self-diagnostic functions for prompt identification of faults and, during the installation phase, allows the operator to choose the type of signal for wireless-signal loss events.

The super bright LED flasher offers long autonomy and reduced power consumption and has two ancillary signal LEDs.

Functions

- Piezoelectric horn
- Super bright LED-technology flasher
- 3.6V 2.8Ah battery
- Open-enclosure tamper protection
- Tamper-protection device
- IP Protection rating30
- Communicates with Air2-BS200 transceiver @ 868
- Direct control via control panel
- Battery with test circuit
- Programmable sound-output time
- 4 programmable volume levels
- Programmable flasher sequence
- Programmable flasher time
- STATUS and PRG LEDs activation via control panel

Battery

The sounder/flasher is powered by a 3.6V 2.8Ah (ER17505M) battery to be located in its housing inside the casing and connected up during the installation phase.

The battery may not be capable of meeting the declared duration as this depends on how the sounder/flasher is employed and the number and length of activations.

Used batteries must be disposed of in accordance with the information provided in the leaflet inside the package.

Package contents

- Air2-Smarty/W sounder/flasher
- 2 wall plugs for mounting the backplate and tamper bracket
- Drilling pattern
- Installation manual
- 1 battery to be connected

2.1 Description of parts
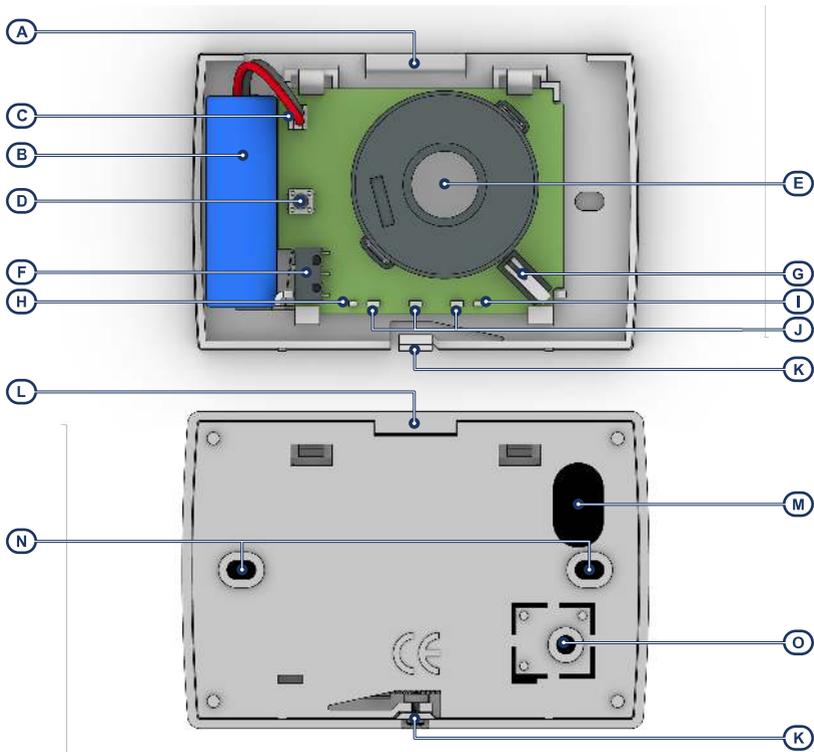
[A]	Locations for the cover pin		**[L]**	Cover pin
[B]	Battery		**[M]**	Cable entry
[C]	Battery connector		**[N]**	Mounting screw location
[D]	ENROLL button		**[O]**	Tamper-screw location
[E]	Piezoelectric horn			
[F]	Tamper microswitch: Dislodgement			
[G]	Tamper microswitch: Open cover			
[H]	Red STATUS LED			
[I]	Green PRG LED			
[J]	LED flasher			
[K]	Cover screw			

2.2 Technical specifications of Air2-Smarty/W

Warning device type	For indoor use , self-powered, type W
Battery	
type	ER17505M 3,6V 2,8Ah with connector
estimated life	4 years (depending on activations)
'Low battery' fault voltage	Less than 3.2V
Current draw	
during standby	50 µA
maximum	200 mA
Acoustic output type	tones
Sound pressure at 1m.	85 dB(A)
Carrier frequency	1148 Hz
Flash rate per minute (programmable)	36 - 56
Maximum alarm-time (programmable)	4 min
Operating environmental conditions	
Temperature	from -10 to +40 °C
Relative humidity	≤ 93 % without condensation
Degree of protection	IP30
Security grade	2
Environmental class	II
Dimensions (W x H x D)	111 x 75 x 30 mm
Weight	130 g

⚠ ℹ **(EN IEC 62368-1)**

Terminal type	**BATTERY**	ES1, PS1

3. Sounder/flasher functions

The Air2-Smarty/W sounder/flasher provides various audible and visual signals. The signals will activate or deactivate in accordance with the programmed settings of the sounder/flasher or the connected control panel. The parameters of each signal can be programmed individually, combined with other signals, or deactivated.

3.1 Types of signalling

Flasher

The high intensity luminous signal is achieved by means of high-efficiency LEDs (*Description of parts, [J]*) which, due to their extra-low power consumption, provide optimum autonomy.

STATUS LED, PRG LED

The two LEDs on the sides of the flasher can be used for signalling purposes as well as during installation operations (*Description of parts, [H]*, *Description of parts, [I]*).

These two LEDs, if suitably programmed, will signal device faults and tamper events.

Audible signalling

The speaker emits an audible signal which can be programmed for tone (3 tones available), duration, volume and associated events.

3.2 Sounder/flasher activations

Air2-Smarty/W sounders can be activated both by signals from the anti-intrusion control panel and by events generated by the sounder unit itself.

Control-panel event activations

The occurrence of control-panel events (activations or resets) can activate a sounder/flasher and generate signalling.

Each event can be associated with one or more sounder/flashers, configured as 'Outputs' during the event programming phase. Each event can be associated with one of the tone types (patterns) available.

Sounder/flasher events

The sounder/flasher processes the signals detected by the devices it is equipped with, in such a way as to generate events to which one or more signals can be associated:

- Low battery
- Open casing
- Device dislodgement
- Loss of wireless communication with the control panel
- Wireless noise

Note

The 'Open casing' event does not trigger audible signals when the connected intrusion control panel is operating in 'Programming' mode.

Deactivations

Signalling will cease when one of the following conditions occurs:

- Deactivations from the control panel:
  - with the 'Stop alarms' shortcut
  - by accessing maintenance mode
  - by pre-set disarm scenarios
  - with the events associated with the causes of shutdown
- The alarm condition clears
- The maximum alarm time expires

If an alarm condition exceeds the maximum sounder signalling time, the signalling will be interrupted.

3.3 Faults and tampers

The STATUS and PRG LEDs will signal fault or tamper conditions on the sounder/flasher only when set up to do so during the programming phase.

Note

This type of activation prevents the control panel from activating the LEDs.

This signalling consists of a series of flashes. If several conditions are detected simultaneously, both LEDs are capable of signalling the events consecutively.

LEDs	Number of blinks	Event	
STATUS	1	Fault	Low battery
	2		Loss of communication with the control panel
PRG	1	Tamper	Open casing tamper
			Dislodgement tamper

Fault signalling will stop automatically when the cause of the fault clears.

4. Installation of Air2-Smarty/W
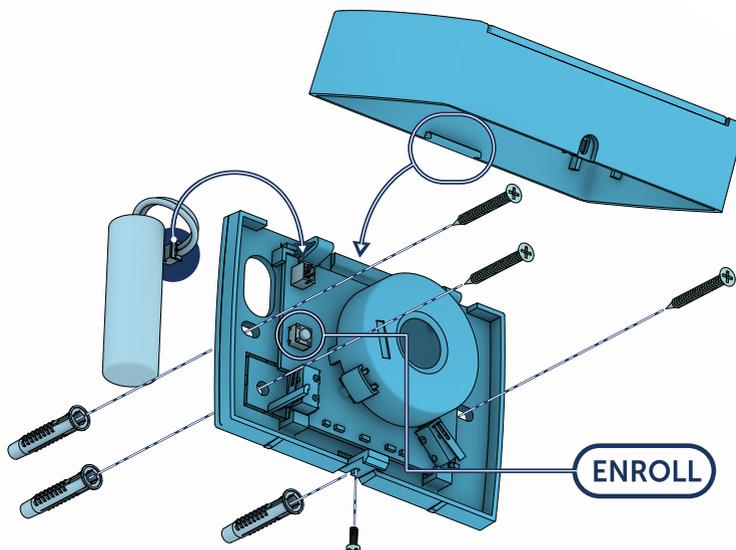
1. Choose a suitable mounting placement.

The sounder/flasher must be installed high up on a flat surface/wall. Ferromagnetic materials which are located in the vicinity of the mounting position can influence the magnetic field and can result in the reduced operating capacity of the device.

2. Remove the cover by first unscrewing the screw then lifting the catch on the base (*Description of parts, [K]*).
3. Using the wall plugs, attach the base to the wall.
4. Insert the tamper-protection screw into its location (*Description of parts, [O]*).
5. Connect the battery to the connector on the PCB (*Description of parts, [C]*) and place it in its housing.

The STATUS LED will alternate 5 flashes and 5 second pauses (waiting to be enrolled).

6. Enroll the device.

The STATUS LED will alternate 3 flashes and 3 second pauses (waiting for the dislodgement/ Open tamper device to close).

7. Close the cover by positioning the pin in its location on the base, then turn it until the catch clicks closed.

The STATUS LED will flash with a frequency of one flash per second for 15 seconds.

The STATUS LED will stop flashing and the sounder/flasher will be ready to operate.

4.1 Enrolling a wireless device

The enrolling process allows you to associate an INIM wireless device with the Air2-BS200 transceiver that connects to the anti-intrusion control panel.

This procedure varies depending on the control panel in use and the programming software or application:

1. Access the control-panel programming section.

2. Select the device to be enrolled in accordance with its type:
   - an input terminal, for a detector (motion detector, magnetic contact, etc.)
   - an output terminal, for an output device connected to a terminal of the Air2-MC300 magnetic contact
   - a keypad
   - a sounder/flasher
   - a key, for a remote control device, selecting as the associated reader the one simulated by the transceiver

3. Set the device as 'Wireless'.

4. Start the learning phase from the control panel.

5. Press the **ENROLL** button on the wireless device.

Via Prime/STUDIO software application

Once the solution for the system to be designed has been opened, click on the **System Layout** button on the menu on the left. Then in the section on the right click on the **Add device on BUS** button.

A window opens where you can select the devices to be configured and add them to the configuration.

In the section on the left you can increase the number using the button corresponding to the selected device type.

To remove a device from the structure, work through the Add device procedure, but instead deselect the device you want to remove

Alternatively, you can access the programming section by clicking on the relevant button on the menu on the left, and from the list that appears click on the **Delete** button that corresponds to the line of the device to be removed.

By clicking-on **Sounders** in the menu on the left, it will be possible to select the single sounder from the 'Programming - Configured Sounders' section.

The checkbox next to that of the sounder/flasher description allows the selection of the sounder/flasher type:

- Hardwired sounder/flasher
- Indoor wireless sounder/flasher
- Outdoor wireless sounder/flasher

If 'wireless' is selected as the sounder/flasher type, the programming section will provide the **Learn** button that initializes the enrolling process.

Via keypad

Enrolling of wireless devices is possible by enabling the menu options in the installer menu section:

```
Type in Code (Installer), PROGRAMMING Sounders/Flashers, Enable/Disable
```

In this section it is possible to add the device to the configuration or delete it, by means of keys '■' and '□'.

As soon as the device is enabled it must be configured as 'Wireless':

`PROGRAMMING Sounders, ChoosePeripheral, "sounder", Wireless`

Once the **OK** button has been pressed, it is necessary to work through the menu options in order to enroll it.

4.2 Battery replacement

When replacing the power supply batteries of the equipment, the installer must use only non-rechargeable lithium batteries compliant with IEC 60086-4 standard.

In the case of battery replacement, it is advisable to press the **ENROLL** in order to ensure that the device is synchronized with the wireless transceiver.

5. Programming of Air2-Smarty/W

Programming of Air2-Smarty/W wireless sounders can only be done through the control panel programming software.

On accessing the software, it is necessary to open a solution, configuration of the real system to be designed. Such a project must provide for the inclusion of the sounder.

For a new installation or the creation of a new solution, it is necessary to select a sounder/flasher from the devices available and include it in the system project.

If you are using an already programmed solution, you must check that the system includes a sounder/flasher. At this point it is possible to proceed with the programming of the sounder/flasher.

Note

Once the programming has been completed and the parameter have been 'written' on the control panel, it will take at least 30 seconds for the device to become operative.

Accessing the sounders section will, for each configured sounder, allow you to initially define:

- **Description**, editable field for the name of the sounder/flasher

- **Events**, that is, a selection of the events that activate the sounder

- **Type of sounder**, to indicate whether the selected sounder type is

    - wired, for on-BUS sounders
    - indoor wireless
    - outdoor wireless

5.1 Wireless sounder/flasher parameters

After the selection of a wireless sounder/flasher, the programming software provides the following parameters in addition to the parameters common to all 'wired' sounder/flasher units:

Single sounder/flasher parameters

Parameter		Software section
Communication loss signalling	It is possible to select when the sounder/flasher is to activate in the event of communication loss with the control panel: • never • only when wireless jamming affects communication • each time communication is lost In the latter two cases it is necessary to indicate the '**Wireless supervision time**', in minutes, after which if the communication continues to be absent the sounder/flasher will activate. The activation type can be defined in the same section (selection of the sound, duration, flash sequence, activation of the STATUS and PRG LEDs).	Configured sounder/flashers, selected sounder/flasher, Sounder/flasher parameters
Enable anti-tamper signalling	Options that enable the signalling of tamper or low battery charge	
Enable battery inefficient signalling		
PRG/STATUS LED activation	Parameter to indicate the source (control panel or the sounder/flasher itself) of the activation of the PRG and STATUS LEDs. The selection of one of the two LED activation sources excludes the other.	
Default	Button to reset the factory default data	
Sounder/flasher LED activations	Each sounder/flasher LED (PRG or STATUS) provides 5 options which allow you to select the control panel event that will activate the LED.	Configured sounder/flasher, selected sounder/flasher
Sounder/flasher cut off events	A maximum of 5 options allow you to select a control panel event that will deactivate the sounder and flasher.	
Inversion	If the option is disabled, the LED or sounder and flasher will switch off when activation of the event occurs. If the option is enabled, the LED or sounder and flasher will switch off when deactivation of the event occurs.	

5.2 Real-time

For each of the configured sounder/flasher units, the software provides a direct software-to-sounder/flasher connection. Pressing the **Start** button initiates a 4-minute countdown during which the current values of various features of the wireless sounder are displayed.

Monitoring the wireless sounder/flasher

In this section, the monitoring window lists the parts of the sounder/flasher whose status is represented by icons/LED:

LED	Colour	Status
Tamper	Green	Sounder/flasher not in tamper status
	Red	Sounder/flasher in tamper status (open or dislodged)
Battery inefficient	Green	Battery charged
	Red	Battery charge low (below 40%)
Sounder active	Green	Audible signalling Off
	Red	Audible signalling On
Flasher active	Green	Visual signalling Off
	Red	Visual signalling On
STATUS LED ON	Green	STATUS LED Off
	Red	STATUS LED On

LED	Colour	Status
PRG LED ON	Green	PRG LED Off
	Red	PRG LED On
Signal reception level	This series of notches represents the reception level of the wireless signal of the device as received by the Air2-BS200 transceiver.	
Battery charge level	Percentage of charge of the sounder/flasher battery	

Monitoring wireless

This software section starts a monitoring phase on the variation of the signal transmitted by the device and background noise detected over time.

5.3 Programming the patterns

By selecting the system 'Sounder' category, it is possible to program the patterns, sequences of visual and audible signalling, for all the sounders in the configuration.

Pattern parameters

Parameter			Software section
Description	Description of the pattern to program.	• Burglary • Burglary low volume • Fire • Tamper • Pre-alarm • Automation • Squawk • Chime	Configured sounder/flashers, Sounder/flasher pattern
Tone	Sound of the audible signal	5 types available	
Sounder duration	Sounder activation time	from 1 to 127 seconds or from 1 to 127 minutes	
Volume	Sound level of the sounder/flasher.		
Flash type	Checkbox for the selection of the flash rate (number of flashes per minute).	• 36 flash/min • 56 flash/min	
Flasher duration	Flasher activation time	from 1 to 127 seconds or from 1 to 127 minutes	
Activate sounder	Enable/Disable sounder activation		
Activate flasher	Enable/Disable flasher activation		
Activate STATUS LED	Enables/Disables the activation of the red STATUS LED.		
Activate PRG LED	Enables/Disables the activation of the PRG green LED output.		
Activate TAMPER output	Enable/Disable activation of TAMPER output		
Activate FAULT output	Enable/Disable activation of FAULT output		
Test	Buttons to start and stop a test on the pattern selected via the audio output of the PC in use and the image of the sounder/flasher on the left of the buttons.		
Stop			
Test sounder/flasher pattern	Buttons to start and stop a test on the selected pattern on the sounder/flasher selected from the list provided. This test requires an active connection with the control panel.		

Default

The pattern programming section has a dedicated button in its menu bar for the rein-statement of the pattern settings.

The following default patterns are available, each of which can be modified:

Description	Sounder/flasher	Sounder duration	Tone	Volume	Flasher	Flasher duration	Flash type	STATUS / PRG LED
Burglary	ON	3 minutes	1	high	ON	3 minutes	56	OFF
Burglary low volume	ON	3 minutes	1	medium / low	ON	3 minutes	56	OFF
Fire	ON	3 minutes	3	high	ON	3 minutes	56	OFF
Tamper	ON	3 minutes	1	high	ON	3 minutes	36	STATUS ON
Pre-alarm	ON	30 seconds	1	low	ON	30 seconds	36	OFF
Automation	ON	3 seconds	1	medium / low	OFF			PRG ON
Signalling	ON	1 second	5	low	ON	3 seconds	ON solid	OFF
Chime	ON	3 seconds	4	low	ON	3 seconds	ON solid	OFF
Total cut off	OFF	/	/	low	OFF	/	/	OFF

6. General information

6.1 About this manual

Manual code: DCMIINE0A2SMARTYW8E

Revision: 102

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6.2 Manufacturer's details

Manufacturer: Inim Electronics S.r.l.
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Web: www.inim.biz

The persons authorized by the manufacturer to repair or replace the parts of this system have authorization to work only on devices marketed under the brand Inim Electronics.

6.3 Notes from the Manufacturer

The Air2 devices are certified by IMQ-Sistemi di sicurezza (Italian certification body).

The information relating to the power-supply batteries required by Air2 devices is shown in the Technical Specification table that follows.

The manufacturer cannot guarantee the declared battery life.

Attention!

Do not use batteries other than those indicated by the manufacturer as they may explode.

6.4 Simplified EU Declaration of Conformity

Hereby, Inim Electronics S.r.l. declares that the radio equipment type Air2-Smarty/W is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.inim.biz.

6.5 Warranty

Inim Electronics S.r.l.. (Seller, Our, Us) warrants the original purchaser that this product shall be free from defects in materials and workmanship under normal use for a period of 24 months.

As Inim Electronics does not install this product directly, and due to the possibility that it may be used with other equipment not approved by Us;Inim Electronics does not warrant against loss of quality, degradation of performance of this product or actual damage that results from the use of products, parts or other replaceable items (such as consumables) that are neither made nor recommended by Inim Electronics. Seller obligation and liability under this warranty is expressly limited to repairing or replacing, at Seller's option, any product not meeting the specifications. In no event shall Inim Electronics be liable to the purchaser or any other person for any loss or damage whether direct of indirect or consequential or incidental, including without limitation, any damages for lost profits, stolen goods, or claims by any other party caused by defective products or otherwise arising from the incorrect or otherwise improper installation or use of this product.

This warranty applies only to defects in parts and workmanship relating to normal use. It does not cover damage arising from improper maintenance or negligence, damage caused by fire, flood, wind or lightning, vandalism, fair wear and tear.

Inim Electronics S.r.l. shall, at its option, repair or replace any defective products. Improper use, that is, use for purposes other than those mentioned in this manual will void the warranty. Contact Our authorized dealer, or visit our website for further information regarding this warranty.

6.6 Limited warranty

Inim Electronics S.r.l. shall not be liable to the purchaser or any other person for damage arising from improper storage, handling or use of this product.

Installation of this Product must be carried out by qualified persons appointed by Inim Electronics. Installation of this Product must be carried out in accordance with Our instructions in the product manual.

6.7 Documents for the users

Declarations of Performance, Declarations of Conformity and Certificates concerning to Inim Electronics S.r.l. products may be downloaded free of charge from the web address www.inim.biz, getting access to Extended Access and then selecting "Certifications" or requested to the e-mail address info@inim.biz or requested by ordinary mail to the address shown in this document.

Manuals may be downloaded free of charge from the web address www.inim.biz, getting access to the reserved area, after the login, and then to the section of each product.

6.8 Disposal of the product

Informative notice regarding the disposal of electrical and electronic equipment (applicable in countries with differentiated waste collection systems)

The crossed-out bin symbol on the equipment or on its packaging indicates that the product must be disposed of correctly at the end of its working life and should never be disposed of together with general household waste. The user, therefore, must take the equipment that has reached the end of its working life to the appropriate civic amenities site designated to the differentiated collection of electrical and electronic waste. As an alternative to the autonomous-management of electrical and electronic waste, you can hand over the equipment you wish to dispose of to a dealer when purchasing new equipment of the same type. You are also entitled to convey for disposal small electronic-waste products with dimensions of less than 25cm to the premises of electronic retail outlets with sales areas of at least 400m2, free of charge and without any obligation to buy. Appropriate differentiated waste collection for the subsequent recycling of the

discarded equipment, its treatment and its environmentally compatible disposal helps to avoid possible negative effects on the environment and on health and favours the re-use and/or recycling of the materials it is made of.

Information about disposal of batteries and accumulators (applicable in Countries with separate collection systems)

This marking on batteries and/or their manual and/or their packaging, indicates that batteries of this products, at the end of their working life, should not be disposed of as unsorted municipal waste, but must be object of a separate collection. Where marked, the chemical symbols Hg, Cd o Pb indicate that the battery contains mercury, cadmium or lead above the reference levels of the directive 2006/66/EC. If batteries are not properly disposed of, these substances, together with other ones contained, can cause harm to human health and to the environment. To protect human health and the environment, to facilitate treatment and recycling of materials, separate batteries from other kind of waste and use the collection scheme stated in your area, in accordance to current laws. Before disposing of the above, it's appropriate to remove them from their holders avoiding to damage them or causing short circuits.