



## Aria

### Wireless keypad

Installation and programming manual



GameOver

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# Chapter 1

## GENERAL INFORMATION

### About this manual 1-1

DCMIINE0A2ARIAV8 **MANUAL CODE**  
1.00 **REVISION**

### Manufacturer's details 1-2

Manufacturer: INIM Electronics s.r.l.  
Production plant: Via Fosso Antico - Centobuchi  
63076, Monteprandone (AP) - Italy  
Tel.: +39 0735 705007  
Fax: +39 0735 704912  
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Web: www.inim.biz

The persons authorized by the manufacturer to repair or replace the parts of this system, hold authorization to work on INIM Electronics brand devices only.

### Air2 System Description 1-3

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

**Table 1: Technical specifications of Air2 system**

Operating frequency	range	868.0 - 868.6MHz
	selectable channels	868.1, 868.3, 868.5MHz
Communication type		Two-way
Modulation		GFSK
Device supervision		From 12 to 250 minutes
Security grade		2
Environmental class		II

For secure deployment and operations of the Air2 wireless intrusion protection system, it is necessary to refer to the Installation and programming guide of the hardwired intrusion control panel in use.

The notified body N°0051, were involved in the R&TTE Directive conformity assessment procedure for all the devices of the Air2 system.

### Note

# Chapter 2

## KEYPAD DESCRIPTION

The Aria wireless keypad provides all the necessary functions for control and management of a SmartLiving installation equipped with an Air2 system, which it can interface with through the Air2-BS200 transceiver. It integrates all the functions of a hard-wired keypad and provides a graphic icon display.

It is equipped with an accelerometer which provides both anti-tamper and "wake-up" from stand-by functions, whereas the brightness sensor controls the display and key brightness optimally with respect to the surrounding environment. Moreover, it has an automatic shutdown function in the event of loss of wireless connection.

Aria is also equipped with a connector which allows hardwiring connection if required.

**Table 2: Technical specifications**

<b>Batteries</b>	CR17450 Lithium battery - 3V - 2200mAh, 2
<b>Battery life</b>	2 years
<b>"Low battery" fault voltage</b>	Less than 2.4V
<b>Ancillary power supply</b>	6 - 20 V $\overline{=}$
<b>Stand-by current draw</b>	90 $\mu$ A
<b>Maximum current draw</b>	25mA
<b>Operating temperature and humidity</b>	-10°C +40°C, $\leq$ 93%
<b>Dimensions (W x H x D)</b>	140 x 115 x 27mm
<b>Weight</b>	255g
<b>Security grade</b>	2
<b>Environmental class</b>	II
<b>Number of Aria keypads supported by Air2-BS200</b>	Maximum 4

- Communicates with Air2-BS200 transceiver @ 868MHz
- Backlit graphic display
- Icon Easy4U interface
- Programmable backlight
- Brightness sensor
- 4 indicator LEDs
- Signal buzzer
- Inertial tamper protection
- Accelerometer controlled "Wake-up" function
- Mounts to "503" outlets
- Attaches to wall bracket or counter support
- 6 -20V ancillary power connector $\overline{=}$
- "Rolling-code" authentication

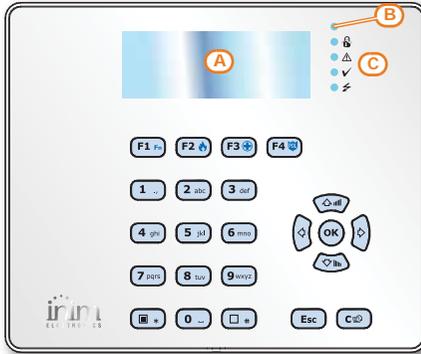
## FUNCTIONS

I

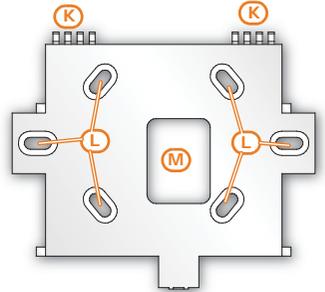
Table 3: Description of parts

A	Display
B	Brightness sensor
C	LED
D	Ancillary power connector
E	Battery switch
F	Battery compartment cover
G	Cover screws
H	Counter support
I	Wall bracket support
J	Screw location
K	Backlocking grips
L	Mounting screw location
M	Cable entry

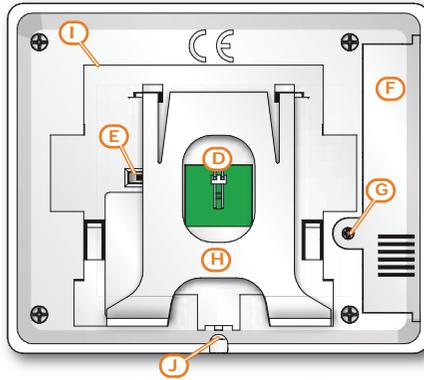
Aria - front



Wall bracket



Aria - back



# Chapter 3

## INSTALLATION

The Aria keypad can be mounted in two ways each of which requires a different installation procedure:

- Counter mount, with no fixed installation point.  
When using this method, it is necessary to disable the keypad tamper-signal option on the control panel.  
You can stand the keypad on flat surfaces by means of the support on the back of the device (*table 3, H*).
- Wall mount by means of the wall bracket (see *paragraph 3-2 Wall-mounting*).  
For this mode it is advisable to enable the keypad tamper-signalling option on the control panel.

For instructions regarding keypad tamper signalling refer to the programming manual of the SmartLiving control panel.

### Power supply

Power to the keypad can be supplied in two different ways:

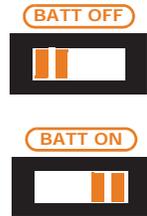
- By means of the connector on the back of the device (*table 3, D*) which allows 6-20 V $\overline{=}$ .
- By means of two CR1745 Lithium batteries installed in the battery compartment (*table 3, F*).  
The battery power supply can be turned On or Off by means of the switch on the back of the device (*table 3, E*).

The manufacturer cannot guarantee the declared battery life.

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

**Used batteries must be disposed in accordance with local regulations.**

### 3-1



**ATTENTION!**

### Wall-mounting

### 3-2

1. Choose a suitable mounting placement.
2. Put the wall bracket on the selected placement and mark the screw holes (*table 3, L*).
3. Drill the holes.
4. If you intend wiring the device, pull the wires through the cable entry (*table 3, F*) and wire up the keypad.  
If you intend using the batteries, place them in the battery compartment and put the switch in the "ON" position (refer to *paragraph 3-1 Power supply*).
5. Using the anchor screws, secure the bracket to the wall.
6. Enroll the device.
7. Mount the keypad to the wall bracket, by first inserting the locking grips (*table 3, K*) in place, then by pushing the keypad toward the wall then downward.
8. Fasten the securing screw in place (*table 3, J*).

## Enrolling keypads 3-3

The SmartLiving control panel can manage up to 4 Aria keypads for each Air2-BS200 installed. However, each control panel model supports a maximum number of keypads which must be respected.

During the addressing phase use free addresses only and ensure that no other keypads (Joy, Concept, NCode or Alien) are present at the address of the Aria keypads.

### Via Keypad:

1. Access the Installer menu, select "Keypads" then "ChoosePeripheral".
2. From the list that appears select the keypad to be assigned to the wireless function.
3. Select the "Wireless" option.
4. From the list select the wireless reader simulated by the Air2-BS200 transceiver the Aria keypad is to be associated with.
5. Access the "Enroll device" section, then select "Wireless Keypad".

### Via SmartLeague:

1. Select a keypad from the those configured in the System Tree Menu.
2. Access the keypad "Programming" section and click on the "Wireless Keypad" check box.
3. Click on the "Enroll" button. The enrollment process window will open.
4. From the list select the wireless reader simulated by the Air2-BS200 transceiver the Aria keypad is to be associated with.
5. Click on the "Enroll" button.
6. Click simultaneously on buttons "1" AND "3" on the Aria keypad.

This operation sends the enrollment request.

If the keypad menu appears, select "Enroll" option (*paragraph 4-4 Info/setup menu*).

7. Once the device is enrolled, the Aria keypad will confirm the successful outcome of the operation.

### Via Keypad:

the keypad that generated the enrollment process will emit a confirmation beep.

### Via SmartLeague:

The software window will show a a confirmation message.

# Chapter 4

## USE OF DEVICE

### Operating statuses 4-1

The Aria keypad has 3 operating statuses

- Active
- Stand-by
- No communication

During this status the keypad will be at maximum power consumption level due to the active status of: **ACTIVE**

- Display
- Backlighting
- Signal LEDs

By means of the interface with the control panel it is possible to access the User and installer menus and carry out the same operations that can be accessed from other keypads on the SmartLiving system.

The keypad is not equipped with a proximity reader, voice functions, thermostat and thermal probe.

The "active" status will hold for as long as there is activity on the keypad (keys are being pressed or the buzzer is active). If there is no activity for 10 consecutive seconds the status will pass from "active" to "stand-by".

During this status the keypad display will be off, the signalling LEDs will be Off or blinking, and the wireless transmission (broadcast) will be active. **STAND-BY**

The Stand-by status will hold until a key is pressed, or a remote activation occurs (for example, the buzzer signals an Exit Time) or the keypad is moved.

During this status the display, backlight and LEDs will be off.

The keypad will enter this status when the wireless communication with the control panel is interrupted in a continuous way. When the keypad enters this status the "NO COMMUNICATION" message will appear on the display. **NO COMMUNICATION**

The keypad will try to communicate with the control panel at one-minute intervals in an attempt to re-establish communication.

### Backlighting 4-2

The backlight can be programmed from the keypad in accordance with the measured ambient-brightness. The keypad manages two different brightness settings:

- Day
- Night

These settings can be programmed via the "Keypad" option from the "Options" section in the User menu.

Please note that the backlight is the most important factor with regard to the consumption of battery power.

## "Rolling-code" authentication

4-3

A further guarantee of security for Aria keypad wireless transmissions are the over-the-air random codes. These random codes allow the Air2-BS200 to authenticate the validity of each wireless keypad transmission.

In the event of irregular wireless activity, the requested operation will not be completed.

To reset wireless transmissions and rolling code authentication, press and hold keys "1" and "3" simultaneously.

## Info/setup menu

4-4

Aria has menu of its own for the access to some information on the keypad and on the wireless system, and for some programming functions.

The menu, in full version, has 7 options. It can be are activated by holding the keys "1" and "3" simultaneously when the keypad has been enrolled and the SmartLiving control panel is in maintenance status.

In the case of Aria factory data restoration, the menu is automatically activated, but in a shortened version, showing the first three options only.

The sections of the menu are:

- **Enroll** - starts enrollment process
- **Keypad Info** - information regarding the keypad and installation of the Air2.

```

WK868 Ver: 1.000
      SN: SNSNS1
N-WK: AA Ch: X-Y
BS: BB SN: SNSNS2
  
```

1st line:

- WK: operating frequency
- Ver: firmware version of the Aria keypad

2nd line:

- SN: serial number of the Aria keypad

3rd line:

- N: number of the Aria keypad managed by the Air2-BS200
- WK: address of the Aria keypad in the control panel
- Ch: RF transmission channel, primary [X] and secondary [Y] (refer to "secondary channel")

4th line:

- BS: address in the control panel of the associated Air2-BS200 transceiver
- SN: serial number of the associated Air2-BS200 transceiver

- **Power Info** - battery charge percentage or presence of the ancillary voltage
- **Second W Channel** - selects the RF support channel which guarantees the operating capacity of the keypad.  
This channel must always be different from the primary channel used by the Air2-BS200 transceiver.
- **Factory data** - starts a restore of the factory default settings after a confirmation request.  
This procedure deletes also the keypad address on the control panel. After this the info/setup menu will be shown in a shortened version, with the first three options only.
- **Test RF** - carries out an analysis of the primary wireless channel and shows the average RSSI value of the signal and a value from 0-100 which indicates the channel quality (the RF Test function is enabled only when the control panel is in maintenance mode).
- **Update Firmware** - starts the upgrade of the wireless firmware.

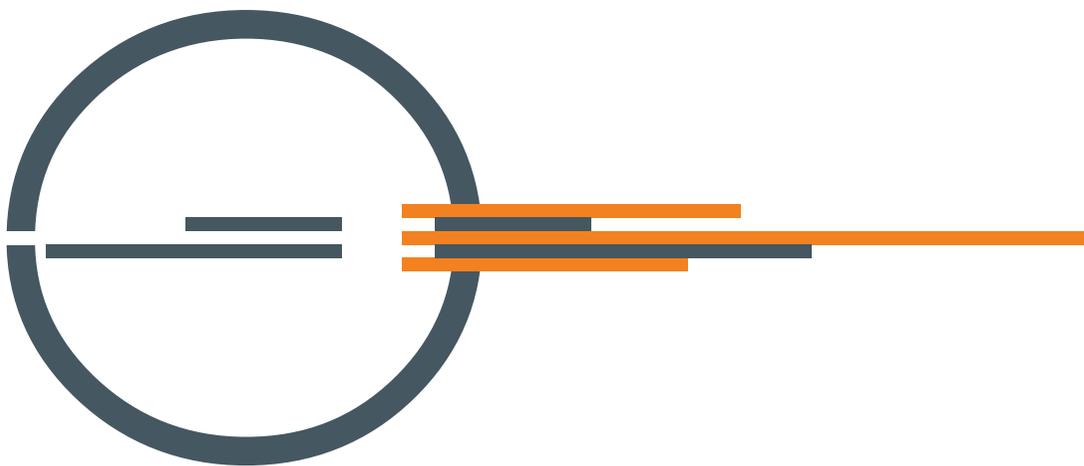
## Appendix A

## ORDER CODES

Please quote the following order codes when ordering items from the INIM Electronics product range:

Code	Product description
Air2-Aria	Wireless keypad with backlit graphic display
Air2-BS200/10	Wireless transceiver module, 10 terminals
Air2-BS200/30	Wireless transceiver module, 30 terminals
Air2-BS200/50	Wireless transceiver module, 50 terminals
Air2-DT200TB	Wireless dual-technology curtain detector, in white
Air2-DT200TM	Wireless dual-technology curtain detector, in brown
Air2-FD100	Wireless smoke detector
Air2-Hedera-F	Wireless outdoor sounder with anti-foam protection
Air2-Hedera-F#	Wireless outdoor sounder with anti-foam protection, batteries not included
Air2-Hedera-FM	Wireless outdoor sounder with anti-foam protection, in metal effect enclosure
Air2-Hedera-FM#	Wireless outdoor sounder with anti-foam protection, in metal effect enclosure, batteries not included
Air2-IR100	Two-way wireless PIR with 12m coverage
Air2-IR100/C	Two-way wireless PIR with 20m coverage
Air2-KF100	4 button remote-control keyfob
Air2-MC100B	Wireless magnetic contact with 2 inputs/outputs, in white
Air2-MC100M	Wireless magnetic contact with 2 inputs/outputs, in brown
Air2-MC200B	Two-way wireless magnetic contact, in white
Air2-MC200M	Two-way wireless magnetic contact, in brown
Air2-ODI100W	Wireless outdoor double infrared detector
Air2-OTT100W	Wireless outdoor triple-technology detector
Air2-UT100	Universal wireless transceiver
Air2-XDT200W	Wireless dual-technology detector - 8m
Air2-XIR200W	Wireless dual-technology PIR detector - 12m
DCMI1NE0A2BS200E	Air2 devices installation manual
SmartLiving10100L	Intrusion control panel: manages 10 to 100 terminals, 15 partitions, switching power supply @5A, optional TCP/IP connectivity, comes in metal enclosure with housing for 1 battery @17Ah
SmartLiving10100L/G3	Intrusion control panel: manages 10 to 100 terminals, 15 partitions, switching power supply @5A, optional TCP/IP connectivity, comes in metal enclosure with housing for 1 battery @17Ah. EN50131-6 grade 3 certified.
SmartLiving1050	Intrusion control panel: manages 10 to 50 terminals, 10 partitions, switching power supply @3A, comes in metal enclosure with housing for 1 battery @ 7 or 9Ah
SmartLiving1050/G3	Intrusion control panel: manages 10 to 50 terminals, 10 partitions, switching power supply @3A, comes in metal enclosure with housing for 1 battery @ 7 or 9Ah. EN50131-6 grade 3 certified.
SmartLiving1050L	Intrusion control panel: manages 10 to 50 terminals, 10 partitions, switching power supply @3A, comes in metal enclosure with housing for 1 battery @17Ah
SmartLiving1050L/G3	Intrusion control panel: manages 10 to 50 terminals, 10 partitions, switching power supply @3A, optional TCP/IP connectivity, comes in metal enclosure with housing for 1 battery @17Ah. EN50131-6 grade 3 certified.
SmartLiving505	Intrusion control panel: manages 5 terminals, 5 partitions, switching power supply @ 1.2A, comes in metal enclosure with housing for 1 battery @7 or 9Ah
SmartLiving515	Intrusion control panel: manages 5 to 10 terminals, 5 partitions, switching power supply @ 1.2A, comes in metal enclosure with housing for 1 battery @7 or 9Ah

## Notes



ISO 9001 Quality Management  
certified by BSI with certificate number FM530352

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