



Ness AIR2
Wireless Devices

INSTALLATION & PROGRAMMING MANUAL



GameOver



Innovative Electronic Solutions

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Chapter 1

GENERAL INFORMATION

About this manual 1-1

DCMIINE0A2BS100E **MANUAL CODE**
3.01 **VERSION**

Suppliers's details 1-2

Supplier: Ness Corporation
 Address: 4/167 Prospect Hwy,
 Seven Hills, NSW, 2417, Australia
 Tel.: +61 2 8828 9222
 e-mail: customerservice@ness.com.au
 Web: www.nesscorporation.com

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

Products description 1-3

The advanced Air2 two-way wireless intrusion protection system (915MHz frequency) integrates directly with all models in Ness's SmartLiving Series intrusion control panel range..

Technical specifications of Air2 system					
Frequency band	915-928MHz	Transmit RF power		< 10mW (e.r.p.)	
Operating frequency (selectable)	915.1MHz	Spurious emission level for frequencies above 1GHz	Operating mode	< 930 nW	
	915.3MHz		Stand-by mode	< 2 nW	
Frequency stability	+/-11kHz	Detector supervision		from 12 to 120 min.	
Communication type	Two-way	Security grade		2	
Modulation	GFSK	Environmental class			II
Channels	3				

Air2 system devices:

- **Air2-BS100/50** transceiver module, 50 terminals (Ness Part No. 106-415)
- **Air2-BS100/10** transceiver module, 10 terminals (Ness Part No. 106-414)
- **Air2-IR100** passive infrared detector, 12m (Ness Part No. 106-416)
- **Air2-MC100** magnetic contact with two I/O terminals, (Ness Part No. 106-418)
- **Air2-MC200** magnetic contact with shock and tilt sensor (Ness Part No. 106-419)
- **Air2-KF100** 4 button remote-control key (Ness Part No. 106-417)
- **Air2-FD100** smoke detector (Ness Part No. 106-420)

Each SmartLiving control panel supports more than one Air2-BS100, module connected via I-BUS cable, according to the table:

Number of Air2-BS100 managed by the control panel				
Control panel FW	SmartLiving control panel			
	505	515	1050	10100
1.00 - 1.10	Not supported			
1.20 - 2.00	1			
≥ 3.00	10		20	30

This accurate and operationally cost-effective wireless security solution performs best when the Air2-BS100 transceiver module is situated at the core of the wireless network, in a location which allows easy connection of the I-BUS cable to the control panel.

All wireless protection devices should be installed in elevated positions in order to increase detection capabilities and prevent inadvertent blinding caused by sizeable objects or building occupants.

To streamline the installation process, view the signal strength (transmitted/received by the Air2-BS100 transceiver module) of each device in the wireless network via the system keypads and SmartLeague software.

As an integral part of the system, the Air2 provides 3 inter-module transmission channels. This feature allows you to select the channel in such way as to avoid over-the-air interference between two close-proximity wireless systems (for example, in two adjoining apartments).

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.

Air2-BS100 transceiver 1-4

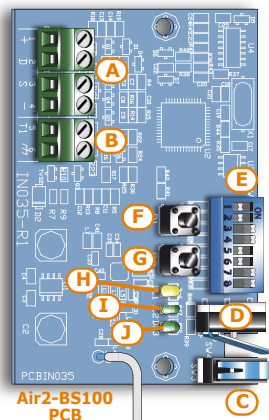
The Air2-BS100 transceiver module integrates wireless devices (detectors, keyfobs, etc.) into the hardwired environments of all models of Ness's SmartLiving intrusion control panels.

The module simulates:

- a reader, at a pre-programmed address (ADD), which allows you to configure the keyfobs
- up to 10 expansion boards, at addresses ADD, ADD+1, ... ADD+9, capable of managing the terminals

Technical specifications	Air2-BS100/50	Air2-BS100/30	Air2-BS100/10
Voltage	10.5 - 16 V=		
Maximum current draw	80 - 100 mA		
Operating temperature and humidity	-10°C +40°C, ≤93%		
Dimensions (W x H x D)	80 x 170 x 25 mm		
Weight	130 g		
Terminals	50	30	10
Keyfobs	100	50	30
Security grade	2		
Environmental class	II		

A	Terminals + D S - for connection to the control panel BUS
B	Terminal T1 (for future use)
C	Tamper microswitch: Open cover
D	Tamper microswitch: Dislodgement
E	Device address DIP microswitch strip
F	Button P1
G	Button P2
H	LED 1 - yellow
I	LED 2 - green
J	LED 3 - green
K	Antenna
L	Mounting screw location
M	Tamper screw hole
N	Cable entry
O	Enclosure screw hole



Air2-BS100 Backbox



The meanings of the signals provided on the LEDs are as follows:

LED 1	LED 2	LED 3	Signal
Discontinuous flashing	Off	Off	Wireless data reception
Off	Discontinuous flashing	Off	Programming (see Programming)
Off	Off	Discontinuous flashing	Programming (see Programming)
Off	Off	Continuous flashing	Enrolling (requested at the control panel)
Off	Continuous flashing	Continuous flashing	Erroneous programming (for example, two devices on the same terminal)
1 flash	1 flash	1 flash	Reset factory default settings

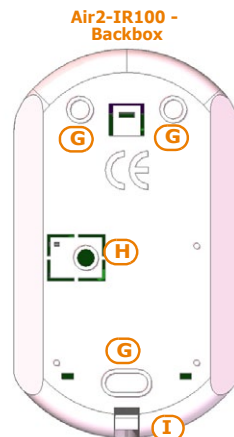
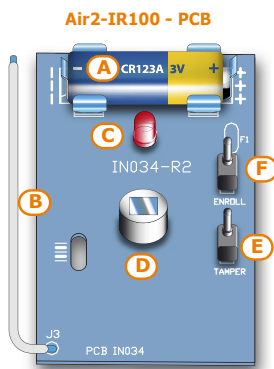
Air2-IR100 and Air2-IR100/C PIR detectors 1-5

Air2-IR100 is a two-way communication PIR detector with 12m coverage. The device is protected against dislodgement and open-cover tamper. You can adjust the device sensitivity (accepted value between 1 and 4) from the keypad or through the SmartLeague software application.

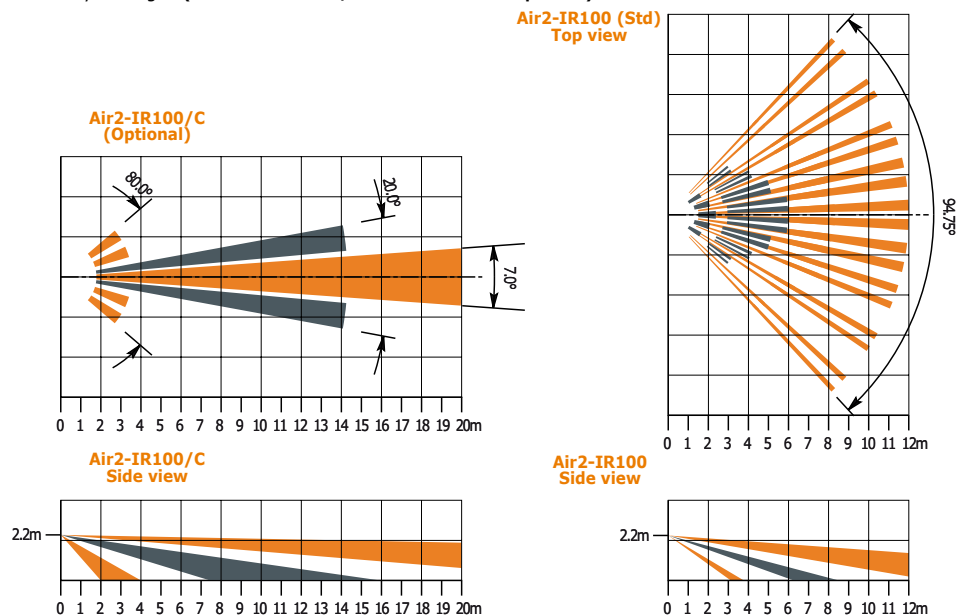
The Air2-IR100/C PIR detector has the same features as the Air2-IR100 but covers a greater distance (20m) with a minor angle.

Technical specifications	Air2-IR100	Air2-IR100/C
Battery	Lithium CR123A 3V (included)	
Battery life	3 years	
"Low battery" fault voltage	Less than 2.4V	
Stand-by current draw	51µA	
Maximum current draw	30mA	
PIR range	12 m	20 m
Lens angle	80°	80° to 6m 7° to 20m
Operating temperature and humidity	-10°C +40°C, ≤93%	
Dimensions (W x H x D)	58 x 100 x 44 mm	
Weight	80g	
Security grade	2	
Environmental class	II	

A	Battery
B	Antenna
C	Signalling LED - red
D	PIR detector
E	Open-tamper microswitch
F	ENROLL microswitch
G	Mounting screw hole
H	Tamper screw hole
I	Enclosure screw hole



The coverage in the following diagram refers to detectors with maximum sensitivity settings. (**Note: Air2-IR100/C Curtain detector optional**)



Air2-MC100 magnetic contact 1-6

The Air2-MC100 magnetic contact has two screw-in positions for placement optimization of the device magnet, 90° one from the other.

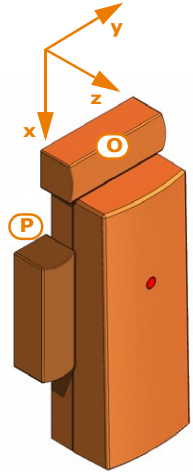
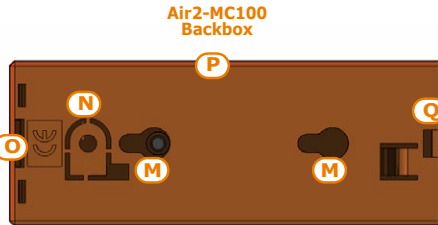
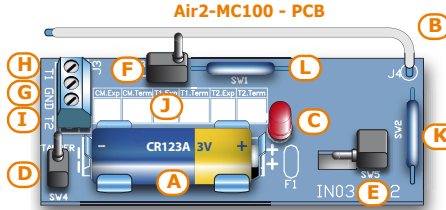
It also provides Alarms two terminals which can be configured as inputs or open-collector outputs. Configuring the terminals as inputs provides standard zone management (NO, NC, Single Balancing, Double Balancing) and allows direct connection to rollerblind sensors.

Alarms deriving from magnetic contacts and distinctly from the two terminals are signalled separately on the control panel.

The device is protected against dislodgement and open-cover tamper.

Technical specifications of the Air2-MC100	
Battery	Lithium CR123A 3V (included)
Battery life	4 years
"Low battery" fault voltage	Less than 2.4V
Stand-by current draw	21µA
Maximum current draw	30mA
Open-collector output	Max 50 mA
Operating temperature and humidity	-10°C +40°C, ≤93%
Dimensions (W x H x D)	36 x 95 x 26 mm
Weight	130 g
Magnet dimensions	13 x 40 x 14 mm
Colours	White, Brown
Security grade	2
Environmental class	II

A	Battery
B	Antenna
C	Signalling LED - red
D	Open-tamper microswitch
E	Dislodgement-tamper microswitch
F	ENROLL microswitch
G	GND terminal
H	Terminal T1
I	Terminal T2
J	Map of terminals
K	Reed contact: short side
L	Reed contact: long side
M	Mounting screw hole
N	Tamper screw hole
O	Magnet - short side
P	Magnet - long side
Q	Enclosure screw hole



The following table indicates the distance in millimetres of the operating capacity of the magnet depending on the side in use and the axes illustrated in the figure (values starting from a nominal distance of 10mm, except for axis y-):

Axis	Contact long side		Contact short side	
	Withdrawn	Near	Withdrawn	Near
x	21	15	25	20
y -	21	15	19	15
z +/-	11	9	11	9

In order to comply with the EN 50131 series of standards, double balancing is required when either terminal T1 or T2 is configured as an input.

Ferromagnetic materials which are located in the vicinity of the mounting position can influence the magnetic field and can result in malfunction.

ATTENTION!

Air2-MC200 magnetic contact 1-7

The Air2-MC200 is supplied with a magnet which is to be secured (by means of two screws) to the side of the contact, in the position indicated by the two notches.

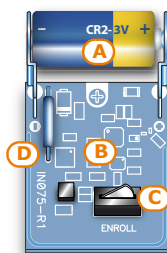
The Air2-MC200 integrates a shock and tilt sensor that allows its use without the need of the magnet.

The Air2-MC200 is equipped with open and dislodgement tamper protection. The device uses separate channels for the different types of signalling,, thus allowing precise identification of the alarm source.

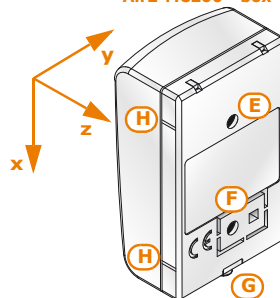
Air2-MC200 technical specifications	
Battery	CR2 3V Lithium (included)
Battery life	4 years
"Low battery" fault voltage	Less than 2.4V
Stand-by current draw	10µA
Maximum current draw	30mA
Operating temperature and humidity	-10°C +40°C, ≤93%
Dimensions (W x H x D)	35 x 58 x 23 mm
Weight	30 g
Magnet dimensions	13 x 40 x 14 mm
Colours	White, Brown
Security grade	2
Environmental class	II

A	Battery
B	Signalling LED - red (on rear)
C	Microswitch: open/dislodgement/ENROLL
D	Reed contact
E	Mounting screw hole
F	Tamper screw hole
G	Securing screws
H	Magnet position notches

Air2-MC200 - PCB



Air2-MC200 - box



The following table indicates the distance in millimetres of the operating capacity of the magnet depending on the side in use and the axes illustrated in the figure (values starting from a nominal distance of 10mm, except for axis y-):

MAGNET DETECTION RANGE

Axis	Contact long side	
	Withdrawn	Near
x	18	14
y -	18	14
z +/-	22	18

The signalling of shock waves is achieved through tri-axial vibration sensor. The vibration sensibility can be set either from a keypad or via the SmartLeague software application.

SHOCK DETECTION

The signalling of tilting (angle change) is achieved through tri-axial tilt sensing. The tilt-variation value (angle) can be set in relation to the standby position, which is saved to the memory during the reset-after-alarm phase.

TILT DETECTION

If both shock and tilt sensing are activated, alarm signalling will occur as soon as one of the two conditions exceeds its respective alarm threshold.

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.

ATTENTION!

Air2-KF100 remote-control keyfob

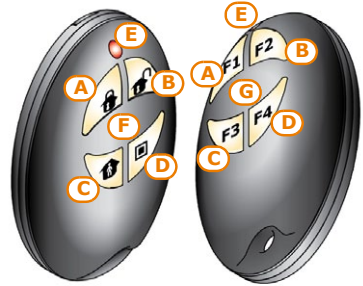
1-8

The Air2-KF100 keyfob has 4 buttons which can be programmed from the control panel.

The graphic-choice feature allows you to identify the buttons by numbers or icons.

Technical specifications of the Air2-KF100	
Battery	Lithium CR2032 3V (included)
"Low battery" fault voltage	Less than 2.4V
Stand-by current draw	0A
Maximum current draw	30mA
Buzzer	Multitone
Operating temperature and humidity	-10°C +40°C, ≤93%
Dimensions (W x H x D)	61 x 41 x 12 mm
Weight	15 g
Rubber push-buttons	<ul style="list-style-type: none"> • with icons • with numbers
Security grade	2
Environmental class	II
Number of available PIN code combinations	2 ²⁴

A	Key1/F1, LED1-red
B	Key2/F2, LED2-red
C	Key3/F3, LED3-red
D	Key4/F4, LED4-red
E	Confirmation LED - red/green
F	Icon graphic keys
G	Alphanumeric keys



The Air2-KF100 keyfob imparts audible and visual feedback signals (beep and LED signals) which notify the user of the successful outcome of requested operations. The meanings of the signals provided on the LEDs are as follows:

Push button	LED 1	LED 2	LED 3	LED 4	Buzzer signal	Operation
F1	1 flash				beep	Activates shortcut 1
F2		1 flash			beep	Activates shortcut 2
F3			1 flash		beep	Activates shortcut 3
F4				1 flash	beep	Activates shortcut 4
F2 + F3		1 flash	1 flash		beep	Lock/Unlock wireless keyfob
F3 + F4			1 flash	1 flash	beep	Enrolling
Any		4 flashes	4 flashes			Keyfob locked signal

Failure of the LED to light, after pressing the corresponding button and the successful execution of the command, is an indication that the wireless battery is running low.

Panel response	Confirmation LED		Buzzer signal
	green	red	
Command not received		1 flash	
Operation not done		4 flashes	bop
Operation done	3 flashes		long beep

The rolling-code feature provided by the Air2-KF100 wireless keyfob allows the Air2-BS100 module to authenticate all wireless-client transmissions, via use of over-the-air random codes.

ROLLING-CODE AUTHENTICATION

In the event of irregular wireless-client activity, denial-of-request will be signalled by an audible error signal ("bop").

This feature is active at default but can be disabled during the programming phase of the Air2-BS100 module (details follow). If an Air2-KF100 wireless keyfob is used on several systems, it is impractical to leave this feature enabled.

Air2-FD100 smoke detector 1-9

The Air2-FD100 detector is capable of sensing the presence of smoke particles and thus detecting a fire in its early stages.

Air2-FD100 optical smoke detector is equipped with a sampling chamber (based on light scattering mass - Tyndall effect). In order to ensure the proper operating capacity of the device, it must be installed away from drafts and large objects which may alter the airflow to the sampling chamber.

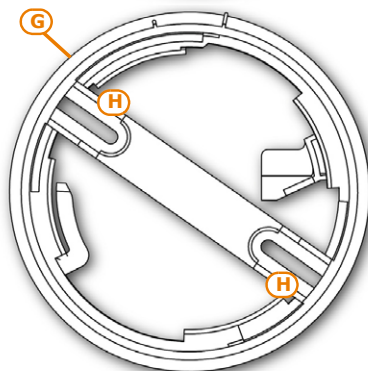
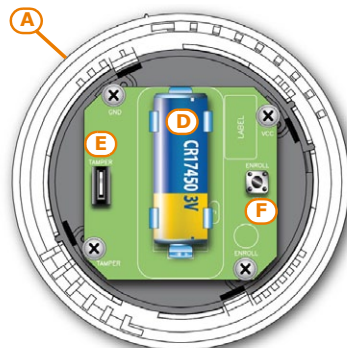
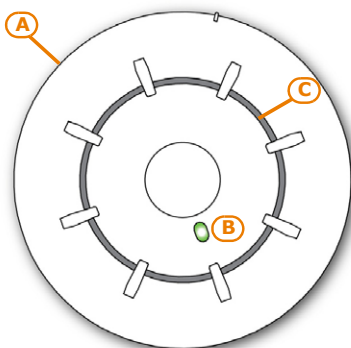
The sole task of the Air2-FD100 smoke detector is to sense for smoke in the protected area. Therefore, in no way can the combination of a SmartLiving system and an Air2-FD100 smoke detector be considered a fire control system.

ATTENTION!

Air2-FD100 technical specifications	
Battery	CR17450 3V Lithium (included)
Battery life	3 years
"Low battery" fault voltage	Less than 2.4V
Current draw during standby	70µA
Current draw during alarm	Max 40mA
Operating temperature and humidity	-10°C +55°C, ≤93%
Height (base included)	60mm
Diameter (base included)	114mm
Weight (base and battery included)	182 gr

The operating parameters can be changed and adapted to the environmental conditions, either from the control panel or through the SmartLeague software application. The detector signals alarm status when the level of smoke in the protected environment reaches the following levels:

- 0.08 dB/m (pre-set mode)
- 0.10 dB/m
- 0.12 dB/m
- 0.15 dB/m



A	Detector
B	LED red/yellow/green
C	Optical chamber
D	Battery
E	Tamper microswitch
F	ENROLL microswitch
G	Base
H	Mounting screw hole

The tricolour LED (360° visibility) indicates the detector status.

- **Green - one flash every 15 seconds:** detector not operating properly.
- **Green - one flash every 40 seconds:** low battery.
- **Yellow - On solid:** fault present.
- **Yellow - flashing:** sampling chamber contaminated (with dust, etc.).
- **Red - On solid:** detector in alarm status.

Chapter 2

OPERATING PRINCIPLES

Air2-BS100 address **2-1**

To enroll the Air2-BS100 on the control panel, set the DIP-switch strip to an ("ADD") between 1 and 16.

The selected address will be assigned to the simulated reader (which processes and manages wireless transmissions in the same way as keys) and to the first 10 expansion boards, also simulated, with successive addresses "ADD", "ADD"+1, ..., "ADD"+9.

Conditions for secure deployment and operations:

- the simulated reader must be enrolled on the control panel
- the simulated reader cannot share its address with any other hardwired reader (nBy/X, nBy/S, JOY/MAX)
- the simulated reader need not be associated with any partitions
- the simulated expansion boards must be enrolled on the control panel
- an expansion board will be considered part of the wireless network only when one of its terminals is configured as "wireless"
- a simulated expansion board cannot share its assigned address with other hardwired FLEX5 expansion boards.

Wireless terminals **2-2**

A terminal can be considered a "Wireless" terminal only under the following conditions:

- it must not be configured as a "Double" zone (D)
- if configured as a "Zone", it must not be configured as "Shock" in the detector type field
- it must be assigned to an expansion board (and not to the control panel or keypads)

Chapter 3

INSTALLATION

Installing the Air2-BS100 3-1

1. Choose a suitable mounting placement.
2. Using a flat-bladed screwdriver in the enclosure screw location, push open the enclosure and separate the two parts.
3. Hold the base to the chosen mounting placement and mark the screw holes and tamper protection position.
4. Pull the wires through the cable entry and wire up the Air2-BS100.
5. Using the screws, secure the base and the tamper protection in position.
6. Enroll the device.
7. Re-attach the cover to the base and replace the enclosure screw.

Installing the IR100 and IR100/C 3-2

1. Choose a suitable mounting placement.
2. Using a flat-bladed screwdriver in the enclosure screw location, push open the enclosure and separate the two parts.
3. Push the board grip to release and remove the PCB.
4. Open the anchor-screw holes.
5. Hold the base to the chosen mounting placement and mark the screw holes and tamper protection position.
6. Using the screws, secure the base and the tamper protection in position.
7. Replace the PCB.
8. Insert the battery, ensure you respect the proper polarity.
9. Enroll the device.
10. Re-attach the cover to the base and replace the enclosure screw.

- The recommended installation height is 2.2m.
- Be careful not to drill in the vicinity of electrical wiring or plumbing/gas pipes, etc.
- Avoid installing the detector close to the following sources of interference: reflective surfaces, direct air flow from vents, drafts, fans, windows, sources of steam, sources of oil vapour, sources of infrared rays, and objects which can cause temperature changes such as heaters, refrigerators and ovens.
- Do not place large objects (machinery or furniture) in front of the detector.
- The alarm LED must be above the lens.

NOTES

Installing the Air2-MC100 3-3

1. Choose a suitable mounting placement.
2. Using a flat-bladed screwdriver in the enclosure screw location, push open the enclosure and separate the two parts.
3. Push the board grip to release and remove the PCB.
4. If you use terminal T1 or T2, open the respective wire entry and pull the wires through.
5. Hold the base to the chosen mounting placement and mark the screw holes and tamper protection position.
6. Using the screws, secure the base and the tamper protection in position.
7. Replace the PCB.
8. Insert the battery, ensure you respect the proper polarity.
9. Enroll the device.
10. If you wish to fit the magnet by means of the screws (included), remove the magnet base by means of a flat-bladed screwdriver.

11. Locate the magnet (long or short side in the required position) on the contact, at a distance of about 2 mm from the magnetic reed contact. If you are using the long side, use the notches on the base in order to position it correctly.
12. Using the screws or the adhesive tape, attach the magnet.
13. Re-attach the cover to the base of the contact and replace the enclosure screw.

Installing the Air2-MC200 3-4

1. Choose a suitable mounting placement.
2. Using a flat-bladed screwdriver in the enclosure screw location, push open the enclosure and separate the two parts.
3. Hold the base to the chosen mounting placement and mark the screw holes and tamper protection position.
4. Using the screws, secure the base and the tamper protection in position.
5. Insert the battery, ensure you respect the proper polarity.
6. Enroll the device.
7. If you wish to fit the magnet, work through the steps described in the previous paragraph.
8. Re-attach the cover to the base of the contact and replace the enclosure screw.

Installing the Air2-KF100 3-5

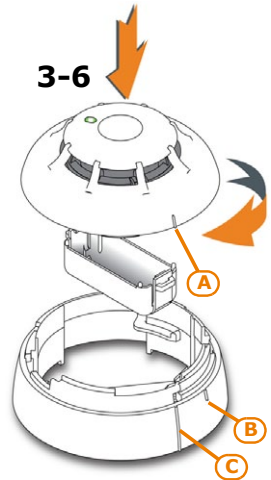
The Air2-KF100 requires enrolling only.

If it becomes necessary to replace the device cover or battery, work through the following steps.

1. Remove the enclosure screw on the back of the keyfob and open the device.
2. Remove the cover.
3. Replace the cover/battery as required.
4. Close the device and replace the enclosure screw.
5. Enroll the key.

Installing the Air2-FD100 3-6


1. Choose a suitable mounting placement.
2. Hold the base to the chosen mounting placement and mark the screw locations.
3. Insert the battery, ensure you respect the proper polarity.
4. Attach the battery cover.
5. Position the detector over the base and, with minimum force, turn it clockwise until notch "A" aligns with notch "B" (in order to attach the detector to the base); turn it still further until notch "A" aligns with notch "C" (in order to allow the base to close the tamper microswitch).
6. Enroll the device.



Addressing the Air2-BS100 3-7

1. Plan the layout of all the mounting placements of the Air2 devices.
2. Using the DIP-switch of the Air2-BS100 module, configure the address ("ADD") of the first expansion board that is to manage the wireless terminals.
3. Include the wireless expansion boards in the control panel configuration, starting from the "ADD" address (maximum "ADD" +9).
4. Enroll the wireless reader at the "ADD" address.


Enrolling the devices 3-8

1. Select the expansion board at the "ADD" address and then select the terminal in question.
2. Configuring the terminal as "Wireless":
 - Via keypad:** press key ; the word "Wireless" will appear on the last line on the display
 - Via SmartLeague:** using the right button on the mouse, select "Wireless".

If any terminal on the expansion board is configured as "wireless", all the remaining terminals must be configured as "wireless" terminals.

ATTENTION!

3. Configuring the type of terminal:
 - INPUT** - for Air2-IR100 and Air2-MC100 devices
 - DOUBLE ZONE** - for Air2-MC200 devices
4. Enrolling the wireless terminals.

From a keypad: access the zone programming section by pressing the  key.
Go to the "Wireless" section and enroll the terminal by selecting one of the following:

 - "Infrared detector" for Air2-IR100
 - "Magnetic Contact" for Air2-MC100
 - Terminal T1 CM" or "Terminal T2 CM" for devices connected to the terminals of the Air2-MC100
 - "Smoke detector for Air2-FD100
 - "Magn.Cont. MC200" for Air2-MC200

From SmartLeague: double-clicking on the configured terminal will open a window where you can programme the zone.
The lower part of the window shows the "Wireless section", right-click and select the "Wireless" option.
Select the type of device, by means of the "Type" field, then start the guided enrolling process by pressing the "Enroll" button.
5. For Air2 devices press the "ENROLL" key.
6. If you are enrolling an output device that is connected to a terminal of the Air2-MC100, you must enable the "Broadcast RF" zone option in this section.
Once done, you must step back to the configuration of the terminal and configure it as an "OUTPUT".
7. Enroll all the Air2-KF100 wireless keyfobs in the same way as you would enroll ordinary proximity keys, selecting the reader with the "ADD" address.
8. Set the parameters of the zones, outputs and keypads.

Chapter 4

PROGRAMMING

Programming via keypad 4-1

If you wish to carry out the programming process via keypad (parameter settings, enrolling, deleting wireless modules, etc.), refer to the Installation and Programming guide supplied with the intrusion control panel.

To program a SmartLiving 1050 control panel which requires:

- 12 hardwired zones of which 3 on the control panel, 2 on a keypad, 7 on 2 expansion boards
- 18 wireless zones
- 5 wireless keyfobs

Minimum requirements: 18/5=4 expansion boards; if 2 expansion boards are for the hardwired zones assign them to addresses 1 and 2; set the Air2-BS100 DIP-microswitches to address 3 (00000010).

Enroll expansion boards 3, 4, 5 and 6 and reader 3 on the control panel.

In the "Terminals" programming section, select terminal T1 of expansion board 3 and enroll the detector. Enroll all the wireless devices consecutively.

In the "Keys-Enroll" programming section, select reader 3 then select the number of wireless keyfobs you wish to enroll.

EXAMPLE

Programming via the Air2-BS100 module 4-2

Although partial programming using this method is possible, the manufacturer strongly recommends that programming is carried out via the SmartLeague software or via keypad through the Installer menu.

Using the buttons and LEDs on the PCB of the Air2-BS100 module, carefully work through the 5 programming phases, as follows:

- key P1 allows access to the 5 programming phases which run cyclically (1-2-3-4-5-END PROG.-1-2-3-4-5-END PROG. etc.), by pressing successively key P1
- key P2 allows changes (where workable)
- LED DL3 indicates the current programming phase
- LED DL2 indicates the current data value (where effective)

Enrolling: Press the "ENROLL" button on the detector you wish to enroll. Press simultaneously keys F3 and F4 on the wireless keyfob. Within 4 seconds, LED DL1 should flash to indicate that the detector/keyfob has been received and enrolled. LED DL2 will remain Off.

PHASE 1

Unenrolling: Press the "ENROLL" button on the detector you wish to unenroll (delete). Press simultaneously keys F3 and F4 on the wireless keyfob. Within 4 seconds, LED DL1 should flash to indicate that the detector/keyfob has been received and unenrolled. LED DL2 will remain Off.

PHASE 2

Change transmission/reception channel: LED DL2 emits a number of flashes equal to the channel currently operative. 3 channels are available. Press button P2 to activate the successive channel to the one currently operative on the Air2-BS100 module. At this point, press the "ENROLL" button on all the detectors, and to press keys F3 and F4 simultaneously on all the keyfobs. This will synchronize the system wireless devices with the new channel.

PHASE 3

Enable/Disable tamper Air2-BS100: LED DL2 indicates the status of this option: OFF = Tamper enabled; ON = Tamper disabled. Press button P2 to toggle the status of this option. If the Tamper option is disabled, the status of both microswitches will be ignored.

PHASE 4

Enable/Disable rolling-code authentication on all Air2-KF100 keys: LED DL2 indicates the status of this option: OFF = Rolling code authentication enabled; ON = Rolling code authentication disabled. Press button P2 to toggle the status of this option.

PHASE 5

Air2-BS100 module default settings

4-3

To restore the factory default settings, press and hold key P2 until the three LEDs are ON, during the **Phase 2 - Unenroll**, shown in the former paragraph.

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.

ATTENTION!

Options programmable at the control panel

4-4

You can set the following options for the “wireless” zones during the programming phase of the SmartLiving control panel:

Option	If enabled	If disabled
TampReed/FollPir	<ul style="list-style-type: none"> Air2-IR100 - in order to increase the life of the batteries, the infrared detector is deactivated when its partitions are disarmed and activated when its partitions are armed. Disabled detectors cannot generate alarms. When the partitions arm, there may be a delay of up to 3 minutes before the detector receives the activation command. Air2-MC100/MC200 - detects tamper on the magnetic contact. 	<ul style="list-style-type: none"> Air2-IR100 - the PIR detector will be active at all times. Air2-MC100/MC200 - tamper conditions on the magnetic contact will not be detected.
Broadcast RF	This option must be enabled when the zone and one of the Air2-MC100 terminals (“T1” or “T2”) is configured as an “output”. Assures the activation/deactivation of the output within two seconds of the control panel command.	The activation/deactivation of the “wireless” output occurs within two minutes of the command from the control panel.
Use sensor LED	The red LED of Air2-IR100 and Air2-MC100/MC200 devices signal alarm or tamper on the device.	The red LED of Air2-IR100 and Air2-MC100/MC200 devices is always Off.
ATTENTION! In the case of an Air2-MC100 device, this option should be enabled on all its terminals.		

AIR2-BS100 DECLARATION OF CONFORMITY

Deutsch: Hiermit erklärt Ness Corporation, dass sich das Gerät Air2-BS100 in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.

Български: С настоящето Ness Corporation декларира, че Air2-BS100 отговаря на съществените изисквания и другите приложими изисквания на Директива 1999/5/EC.

Ελληνικά: Ο εξοπλισμός αυτός συμμορφώνεται με την Ευρωπαϊκή Οδηγία 1999/5/ΕΚ

Español: Por la presente, el Ness Corporation declara que este "producto" cumple con la requisitos esenciales y otras disposiciones relevantes de la Directiva 1999/5/CE.

Français: Par la présente, Ness Corporation déclare que l'appareil Air2-BS100 est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.

Dansk: Undertegnede Ness Corporation erklærer herved, at følgende udstyr Air2-BS100 overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.

Magyar: Ez a berendezés megfelel az európai 1999/5/EC irányelvnek.

Malti: Hawnhekk, Ness Corporation, jiddikjara li dan Air2-BS100 jikkonforma mal-htigijiet essenzjali u ma provvedimenti oħrajn rilevanti li hemm fi d-Direttiva 1999/5/EC.

Islenska: Hér með lýsir Ness Corporation yfi r því að Air2-BS100 er í samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 1999/5/EC.

Italiano: Con la presente, INess Corporation, dichiara che questo Air2-BS100 è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.

Lietuvių: Šiuo Ness Corporation, deklaruoja, kad šis Air2-BS100 atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.

English: Hereby, Ness Corporation, declares that this Air2-BS100 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Nederlands: Hierbij verklaart Ness Corporation dat het toestel Air2-BS100 in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.

Norsk: Ness Corporation erklærer herved at utstyret Air2-BS100 er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/EF.

Polski: Niniejszym Ness Corporation deklaruje że Air2-BS100 jest zgodny z zasadniczymi wymaganiami i innymi właściwymi postanowieniami Dyrektywy 1999/5/EC.

Português: Eu, Ness Corporation, declaro que o Air2-BS100 cumpre os requisitos essenciais e outras provisões relevantes da Directiva 1999/5/EC.

Româna: Prin prezenta, Ness Corporation, declară că aparatul Air2-BS100 este în conformitate cu cerințele esențiale și cu alte prevederi pertinente ale Directivei 1999/5/CE.

Svenska: Denna utrustning är i överensstämmelse med de väsentliga kraven och andra relevanta bestämmelser i Direktiv Försäkran om över 1999/5/EC.

Slovenski: INess Corporation izjavlja, da je ta Air2-BS100 v skladu z bistvenimi zahtevami in drugimi relevantnimi določili direktive 1999/5/ES.

Appendix B

ORDER CODES

Please quote the following Wireless Products order codes when ordering items from the Ness SmartLiving:

Code	Product description
106-414 - Air2-BS100/10	Wireless transceiver module, 10 terminals
106-415 - Air2-BS100/50	Wireless transceiver module, 50 terminals
106-420 - Air2-FD100	Wireless smoke detector
106-416 - Air2-IR100	Wireless PIR with 12m coverage
106-416C - Air2-IR100/C	Wireless PIR with 20m coverage
106-417 - Air2-KF100	4 button remote-control keyfob
106-418 - Air2-MC100B	Wireless magnetic contact with 2 inputs/outputs, in white
106-419 - Air2-MC200B	Two-way wireless magnetic contact, in white
106-403 - 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
106-402 - SmartLiving1050L	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
106-400 - SmartLiving505	Intrusion control panel: manages 5 terminals, 5 partitions, switching power supply @ 1.2A, comes in metal enclosure with housing for 1 battery @7Ah
106-401 - 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 @7Ah



EN 50131-5-3
EN 50131-2-2
EN 50131-2-6
CEB T014
CEB T014 A

www.nesscorporation.com

AIR2 Installation & Programming Manual

National Customer Service Centre
Ph: 1300 551 991
customerservice@ness.com.au

Document Part Number: 890-445

All possible care and diligence has been applied during manufacture to ensure the reliable operation of this product. However there are various external factors that may impede or restrict the operation of this product in accordance with the product's specification.

These factors include, but are not limited to:

1. Erratic or reduced radio range. AIR2 radio products are sophisticated low power devices, however the presence of in-band radio signals, high power transmissions or interference caused by electrical appliances such as wireless routers, cordless phones, computers, TVs and other electronic devices may reduce the range performance. While such occurrences are unusual, they are possible. In this case it may be necessary to either increase the physical separation between the AIR2 receiver and other devices or if possible change the radio frequency or channel of the other devices.
2. Unauthorised tampering, physical damage, electrical interruptions such as mains failure, electrical spikes or lightning.

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Ness reserves the right to make changes to features and specifications at any time without prior notification in the interest of ongoing product development and improvement.

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