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EN 50131-3
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EN 50131-10
EN 50136-1
EN 50136-2
EN 50130-4
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CEB T031



GameOver

sol

Anti-intrusion control panels and security systems

Programming manual

inim
ELECTRONICS

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Table of contents

End-User Licence Agreement (EULA)	2
Copyright.	2
Disclaimer of warranties	2
Disclaimer of liabilities.	2
Table of contents	3
About this manual.	5
0-1 Terminology	5
0-2 Graphic conventions.	5
Chapter 1 Programming the Sol system	6
1-1 Programming via keypad	6
1-2 Programming via Sol/STUDIO software	7
1-3 Programming via InimTech Security App	7
Chapter 2 Programming the control panel	9
2-1 Control panel configuration	9
2-2 Installer codes.	10
2-3 Sol control panel parameters.	10
2-4 Programming IP parameters	12
2-5 "Cloud mode" preset	13
2-6 Compliance 50131 grade 3	13
2-7 Control panel language.	15
2-8 Updating the control panel firmware	15
Chapter 3 Programming the peripherals and modules	16
3-1 Keypads	16
3-2 Proximity readers	19
3-3 Sounder/flashers	20
3-4 Wireless transceivers	22
3-5 Programming the Sol-3G	25
Chapter 4 Programming inputs and outputs	29
4-1 Control panel terminals	29
4-2 Zones/Inputs	29
4-3 Programming wireless zones	32
4-4 Outputs	33
4-5 Output scenarios	35
Chapter 5 Programming partitions	36
5-1 Partition parameters	36
Chapter 6 Programming arming scenarios	38
6-1 Scenario parameters	38
Chapter 7 Programming timers	39
7-1 Timer parameters	40
Chapter 8 Programming user codes	41
8-1 Change user PIN	41
8-2 User code parameters	42

Chapter 9	Programming keys	43
9-1	Enrolling keys	43
9-2	Key parameters	44
Chapter 10	Programming the telephone	45
10-1	Telephone numbers	46
10-2	Telephone line	47
Chapter 11	Programming events	49
11-1	Programming single events	50
11-2	Maintenance of events	53
11-3	Periodic events.	53
Chapter 12	Voice messages	54
12-1	Programming a single voice message	54
12-2	Voice board maintenance	55
Chapter 13	Keypad shortcut and icon	56
13-1	Icons	56
13-2	Association shortcut-icon.	56
Chapter 14	Events log	57
Chapter 15	Default settings.	58
Chapter 16	User functions for the installer	60
Chapter 17	Compliance with rules in force	62
17-1	EN50131, Grade 2	62
Chapter 18	Graphic map configuration	64
Chapter 19	Monitoring the control panel	66
19-1	Remote keypads	66
19-2	Monitoring partitions.	66
19-3	Monitoring Zones	67
19-4	Monitoring timers.	67
19-5	Monitoring peripheral and internal modules	67
19-6	Monitoring wireless devices	68
19-7	Monitoring wireless sounders	68
19-8	Walk test.	68
19-9	Monitoring the power supply	69
Appendix A	Default programming.	70
Appendix B	Default Shortcuts	72
Appendix C	Available Icons	74
Appendix D	Voice messages	75
Appendix E	Event type	77

About this manual

DCMPINEOSOLE **MANUAL CODE**
1.00 **REVISION**
PROGRAMMING
MANUAL

The Programming manual contains instructions for the configuration and programming of the Sol system, as well as the descriptions of all the parameters and options, regardless of the means chosen for the programming process (keypad, software, etc.).

The manual also contains the instructions for commissioning, maintenance and troubleshooting.

Terminology

0-1

The main command unit or any constituent part of the Sol intrusion control system.

**CONTROL PANEL,
SYSTEM, DEVICE**

Refer to the directions as perceived by the operator when directly in front of the mounted device or computer screen.

**LEFT, RIGHT,
BEHIND, ABOVE,
BELOW**

Persons whose training, expertise and knowledge of the products and laws regarding security systems, are capable of creating, in accordance with the requirements of the purchaser, the most suitable solution for the protected premises.

**QUALIFIED
PERSONNEL**

Click on a specific item on the interface (drop-down menu, options box, graphic object, etc.).

SELECT

Click-on/push a video button/key on a keypad or screen.

PRESS

Graphic conventions

0-2

The notes contain important information relating to the text.

Note

The "Attention" prompts indicate that total or partial disregard of the procedure could damage the device or its peripherals.

ATTENTION!

Chapter 1 Programming the Sol system

The Sol system has been especially designed to be programmed either from a keypad (using one of the keypads connected to the control panel) or from a PC via Sol/STUDIO software.

All the options, functions and parameters of Sol control panels must be programmed solely by the installer or by qualified persons authorized by the installer.

The control panels are programmed at the factory with almost ready-to-go settings ("Factory settings") which, in the majority of installations, require the installer to make only minor changes in order to customize the system. For example, all the zones, keypads and readers are assigned to (belong to) partition 1, alarm and tamper events related to partition 1 activate the relay output which is monostable set at 3 minutes (Monostable time = 3 minutes), etc.

LIMITATIONS

All the parameters and programming data can be set via keypad or PC (equipped with the Sol/STUDIO software) with the following limitations:

- via the keypad it is not possible to program:
 - timer exceptions
 - input calibration
 - BUS speed
 - description of the "Emergency keys"
 - Ethernet communication parameters
 - Sol-LAN module parameters
 - GPRS, GSM and 3G communication parameters
 - Sol-3G communicator parameters
 - sounder tones
 - I-BUS Ivy-B sounder/flasher parameters
 - Air2-Hedera wireless sounder/flasher parameters
 - programmable events
 - shortcuts on event
 - output scenarios
 - configuration of cameras
 - configuration of graphic maps
- via the Sol/STUDIO software it is not possible to program:
 - DTMF sensitivity
 - the second Installer code
 - the Installer code PINs
 - the shortcut descriptions
 - the transceiver channel

1-1 Programming via keypad

The programming of the control panel via one of the Sol system keypads can be carried out only after a valid access to the installer menu.

To access the installer menu from a keypad and thus have the possibility to read/write the control panel parameters it is necessary to:

1. Ensure all the control panel partitions are disarmed.
2. Type-in the installer code Pin on a keypad then press **OK**.
In the case of a Sol-P control panel, first access the "Settings" section, type in the user code and access the "Installer" section, then type in the installer code.



Note

The PIN is "9999" at default.

3. The system will allow access to installer menu only after the entry of a valid PIN.

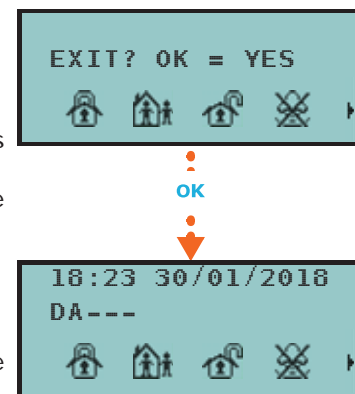
Once access to the installer menu is achieved, the system will:

- Block all system keypads except the one in use.
- Broadcast the “PROGRAMMING” message to all the keypads.
- Force all the system keypads to standby status.
- Bring the call queue and events log to a temporary standstill, thus there will be no events saved to the log, no outputs activated and no outgoing calls.

To exit the installer menu, press **Esc** or **C** until the system asks: “EXIT? OK = YES”, therefore press **OK**.

On exiting the installer menu, the control panel will:

- Apply all the new settings and values.
- Restart the I-BUS, reprogram and make all the peripherals fully operational.
- Restart the entire control panel processing phase thus allowing the queuing of phone calls, the activation of outputs and the storage of events.



Programming via Sol/STUDIO software

1-2

Programming the control panel and the system devices via the Sol/STUDIO software is possible only when the installation of the system is complete and the relative configuration has been downloaded to the PC in use.

1. Open a solution for a system (**Open** button).
2. Connect the apparatus to the PC in use.
3. Read the system configuration by downloading it to the PC by means of the **Read** button.
4. Select the first element to be programmed using the buttons on the left, then customize the programming parameters in the section that appears on the right.
5. To download the data to the control panel, click-on **Write** button.



If an error occurs during the writing phase, it will be necessary to repeat the operation. Any data currently on the control panel will be overwritten.

6. Save the solution (**Save** button on the menu or print out the details (**Print** button)).

For a description of the Sol/STUDIO software and the instructions on how to use it, refer to the software manual.

Note




Programming via InimTech Security App

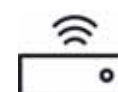
1-3

“InimTech Security” is an Inim Electronics application created for installers, for the management via telephone or tablet of customers and installations, as well as for interfacing with the InimCloud portal.

Among the various functions the App provides the installer with is a section for quick guided programming. When this function is selected, it starts the procedure to follow for setting the main programming parameters of the system and its parts.

This procedure is based on the registration of the Sol system to the Inim Cloud service. On completion the control panel will be operational and capable of making the installation function.

1. Start the App and access the side menu using the  button shown top left.
2. Access the “Programming” section.
3. Follow the guided procedure for the quick configuration of the system. After selecting one of the available installations, it is possible to program:
 - the description of the control panel
 - the installer PIN
 - 2 partitions
 - 2 arming scenarios
 - 2 hardwired terminals
 - 15 telephone numbers
 - 30 wireless zones
 - 8 wireless keypad
 - 8 wireless sounder-flashers



4. Access the last section of the guided procedure.
This section changes in relation to the registration of the Sol control panel to Inim Cloud service.

CONTROL PANEL REGISTERED TO INIM CLOUD

The last section of the guided procedure provides the **SEND** button that sends all the acquired data to the Sol control panel via Inim Cloud.

CONTROL PANEL NOT REGISTERED TO INIM CLOUD

The last section of the guided procedure provides the **SHOW** button that displays a QR code on the screen, for use during the wireless device enrollment phase via the Sol/STUDIO software.

Programming the control panel

Chapter 2

Control panel configuration

2-1

An installation managed by a Sol control panel requires different devices to be connected or installed directly on the control panel in order to enhance its functions. The configuration of a Sol control panel consists not only in the programming of its parameters but also of the enrollment of these devices, the relative parameters of which can also be programmed.

Access the "Home" section.

Via software




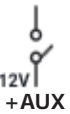





This section has a menu bar on the right with icons representing the devices connected or installed directly on the control panel.



Clicking directly on them provides direct access to the programming section of the related parameters.

For some of these icons, at the bottom next to the description, is an arrow ("∨") to add or remove the module from the configuration or change its type:

Table 2-1: "Home" Menu

 Transceiver	Wireless transceiver	There are two icons, one for the integrated transceiver in the control panel and the other for the optional Air2-BS200 transceiver connected to I-BUS. <i>paragraph 3-4 Wireless transceivers</i>
 Sounder	Local Sounder	<i>paragraph 3-3-1 Programming the local sounder</i>
 Relay	Device connected to "COM NC NO" terminals	<i>paragraph 4-4 Outputs</i>
 12V +AUX	Device connected to "AUX" terminals	<i>paragraph 4-4 Outputs</i>
T1, T2	Device connected to "T1" and "T2" terminals	The icon changes depending on the type of device connected. The type can be attributed by means of the "∨" button. <i>paragraph 4-1 Control panel terminals</i>
 Reader	Local reader	The reader can be attributed by means of the "∨" button. <i>paragraph 3-2 Proximity readers</i>
 Sol-LAN/S	LAN interface module	Gives access to the section for the settings of the network parameters. <i>paragraph 2-4 Programming IP parameters</i>
 Sol-WIFI	Wi-Fi interface module	For use of the optional Wi-Fi interface board refer to the user manual.
 Sol-3G	GSM/GPRS/2G/3G communicator module	Gives access to the section for the settings of the network parameters. <i>paragraph 3-5-4 Sol-3G module parameters</i>
 Sol-PSTN	PSTN interface module	Gives access to the section for the settings of the telephone line. <i>paragraph 10-2 Telephone line</i>

Via App

Access the “Programming” section using the button on the top left and follow the guided procedure for the quick configuration of the system up to the programming of the wired terminals.

2-2 Installer codes

The installer code allows the installer to access the programming phase of the Sol system. In fact, the system will request the PIN before allowing any programming from a keypad via the installer menu or before allowing reading or writing operations via the Sol/STUDIO software, that is, if it has not already been entered in the appropriate field.

The installer can set 2 installer codes (one personal and another) exclusively by accessing the installer menu via a keypad:

Via keypad

Type-in a valid code (Installer) , PROGRAMMING Installer code .

Table 2-2: Installer code parameters

Parameter		Installer menu section
Changelnst. 1	Program the PIN of the primary installer code by entering it twice. The PIN is “9999” at default.	Installer Code
Changelnst. 2	Program the PIN of the secondary installer code by entering it twice. The PIN is “9998” at default.	
Inst.code access 2	Use <input type="checkbox"/> * and <input type="checkbox"/> # to enable/disable the Installer-Menu sections the secondary installer code can access.	

Code PINs must comprise 4, 5 or 6 digits.

Note

In this section, the secondary installer code can access Inst.CodePIN2 section only.

Via software



Any reading operations from the system or writing of software solutions on the Sol system will be executed only after the installer code has been correctly entered.

This option is made available by clicking on the **Panel parameters** button in the section on the left and accessing the “Programming - Installer code” section on the right.

Via App

Access the Programming” section using the button on the top left and follow the guided procedure for quick configuration of the system until the request to enter the installer code and, at the next step, for any changes to it.

2-3 Sol control panel parameters

Table 2-3: Control panel definition

Parameter		Software section	Installer menu section
Control panel description	Edit field for the description of the control panel (max 50 alphanumeric characters).	Control panel parameters	Not available
Serial number	Section where it is possible to view the univocal serial number of the control panel.		Other parameters, Serial number
“Cloud Mode”	If enabled, this option will apply a preset of some of the control panel parameters that would otherwise have to be programmed individually for connection to the Inim Cloud service. Refer to <i>paragraph 2-5 “Cloud mode” preset</i> .		Not available
Date/Time	Editable field for the system date and time.		User functions, Set date/time
Set local time	This button sets the local time of the PC in use.		Not available
Write on control panel	This button writes the local time of the PC on the control panel.		Not available

Access the “Programming” section using the button on the top left and follow the guided procedure for the quick configuration of the system up to the request for changes to the control panel description. **Via App**

Table 2-4: Control panel options

Parameter		Software section	Installer menu section
Restart monostable outputs	If activated, each event which activates a monostable output refreshes the programmed “Monostable time”.	Control panel parameters	Parameters RefreshMnstblOut
Do not arm if any zones are not ready	The control panel will not arm the partition if it detects any open zones (zones which are not in standby status). If there are zones with the “Auto-bypassable” or “NoArmIfNotReady” attribute amongst the open-zones (refer to <i>paragraph 4-2 Zones/Inputs</i>), they will be shown on the keypad as Not ready. If the user goes ahead with the arming operation, these zones will be bypassed automatically and the partition will arm.		OpenZonesArmLock
Bypass tamper in the event of bypassed zones	If a zone is bypassed (disabled), it will also be unable to generate terminal tamper.		BypassAlsoTamper
Prevents the deletion of tamper memory by user code	No user will be allowed to delete of the following events: <ul style="list-style-type: none"> • terminal tamper • control panel open-tamper • control panel dislodgement-tamper • peripheral tamper • peripheral loss • false key 		NoUserTamp.reset
Instant reset of wireless magnetic contact	If this option is enabled, reset of the magnetic reed sensor of wireless detectors will be signalled instantly (otherwise signalling has a maximum delay of 10 seconds).		Instant restoral
Lock installer code	If this option is enabled, all the control panel parameters with the exception of the installer PIN will reset to the factory default settings after reset.		LockInstall.Code
Automatic Day-light Saving Time (DST)	The control panel clock will go back automatically one hour at 03:00 the first Sunday in October, and it will go forward automatically one hour at 02:00 the last Sunday in March.		DayLightSav.time
Maintenance	This activates maintenance mode from the keypad without the need of opening the control panel and moving the jumper. After exiting the Installer menu, it will be possible to work on the system in the same way as when the control panel is placed in maintenance mode by means of the jumper. To put the control panel in “RUN” mode, it is necessary to disable this option.		Maintenance
Squawk	This option activates the sounder for a brief period during partition stay/away arming and disarming operations. This audible signal indicates that these operations have been executed successfully.		Squawk on arming
Enable control panel anti-dislodgement	This option, enabled by default, provides protection against tamper on the control panel (tear-off and tilt detection).		Not available
Wireless supervision time	This parameter allows the selection of the supervision time of wireless devices. On expiration of the programmed time, any wireless devices which do not respond will be signalled as lost. Accepted values: 12 to 250 minutes.	Other parameters, Wireless superv.	
Mains fault delay	This parameter allows the programming of the delay, expressed in minutes, between an “AC Mains failure” event and “AC Mains failure” event signalling. Accepted values: 0 to 250 minutes.	Mains fail.Delay	
Low battery delay	This parameter allows the programming of the delay, expressed in minutes, which will be applied before “Low Battery” events are actually signalled after detection. Accepted values: 0 to 250 minutes.	LowBatteryDelay	

Table 2-4: Control panel options

BUS speed	This is the BUS communication speed (38.4 / 125 / 250 kbps).		Not available
Cloud options	Parameter for selecting the communication channel with the Cloud: <ul style="list-style-type: none"> • Use LAN • Use Sol-3G If both are selected priority will be given to the LAN.		Cloud options
Enable context menu	Enabling this option, in the event of an alarm signalled by the control panel, the display of the Sol-G control panel will show a request for entry of a valid user code. Following this entry, the system will carry out the following operations, depending on the options selected by the installer: <ul style="list-style-type: none"> • Switch off sounder/flashers • Stop call queue • Disarm • Delete alarm memories 		QuickAlarmAction
Cloud port settings	Section that appears only if the "Allow cloud port configuration" option included in the Sol/STUDIO software settings is enabled. By means of the respective boxes, it is possible to type-in the cloud communication ports: <ul style="list-style-type: none"> • Events cloud port, for the control-panel event transmission channel • Management cloud port, for the commands channel The Read and Write buttons allow the installer to read operations from the control panel or to set entered data.		Not available

2-4

Programming IP parameters

The connectivity to the Sol control panel LAN is subject to the configuration of the network itself.

It is therefore strongly recommended that the network administrator is contacted for the correct configuration.

Table 2-5: IP connection


Parameter		Software section	Installer menu section
IP Address Subnet mask Gateway DNS Communication port	Connection parameters	 IP connection parameters	Other parameters, IP parameters
Web server port SSL port			Not available
Obtain an IP address automatically	If this option is enabled the above items are not required. The protocol used is DHCP.		Parameters Enable DHCP
Enable UPnP	This option enables UPnP protocol which automatically activates "port-forwarding" through the network router of the communication, web and SSL ports.		Not available
Domain User name Password	In the case of a connection with a dynamic public IP address, it is useful to use a domain name in order to be able to track the LAN card at all times. Sol supports the service offered by: <ul style="list-style-type: none"> • dyndns.org • freedns.afraid.org • no-ip.com • camsec.net • inimdns.biz The access data to be entered in this programming section is obtained by registering to one of these addresses.		Not available
Update every	This interval (expressed in seconds) will be applied by the LAN when updating the association of the selected domain with the public IP address.		Not available

Table 2-5: IP connection

Enable NTP synchronization	If enabled, the Sol control panel clock will be synchronized with NTP protocol, therefore, it will be necessary to indicate: <ul style="list-style-type: none"> • Server • Update every - this is the time, expressed in seconds, that elapses between successive time updates. 	Not available
This section allows the programming of the parameters of the IP connection test.		Not available
IP address Port	Pv4 Address and port connection attempts are directed to.	Not available
Interval	Time, expressed in seconds, between connection tests. If "0" is set, the connection test will be disabled.	Not available
Number of attempts	Number of connection attempts for each test.	Not available

"Cloud mode" preset

2-5

In order to make it easier for the installer to program a Sol panel registered with the Inim Cloud service, the software has an option that, if enabled, provides a preset of some of the control panel parameters that would otherwise have to be programmed individually.

If activated, the software will perform the following default programming: A preset of events of various types will be applied and must be communicated to the Cloud when they occur.

Table 2-6: Preset events for the Cloud

Event	Communication to Cloud in case of		Event	Communication to Cloud in case of	
	Activation	Reset		Activation	Reset
Zone alarm	Yes	Yes	Keypad Tamper	Yes	Yes
Terminal tamper	Yes	Yes	Reader Tamper	Yes	Yes
Zone bypass	Yes	Yes	Sounder flasher tamper	Yes	Yes
Effective arming mode on partition	Yes	No	Keypad Loss	Yes	Yes
Partition armed in Away mode	Yes	No	Reader Loss	Yes	Yes
Partition disarmed	Yes	No	Sounder loss	Yes	Yes
Overtime request on partition	Yes	No	Jamming	Yes	Yes
Partition failed to arm	Yes	No	Low battery wireless zone	Yes	Yes
Activate scenario	Yes	No	Wireless zone loss	Yes	Yes
Emergency button	Yes	No	Valid Installer code	Yes	No
Panic	Yes	No	Invalid code	Yes	No
Control panel Tamper	Yes	Yes	False key	Yes	No
Zone fuse fault	Yes	Yes	Sol-3G fault	Yes	No
I-BUS fuse fault	Yes	Yes	Input undergoing programming	Yes	Yes
Battery inefficient	Yes	Yes	Output fault	Yes	No
Mains failure	Yes	Yes	Low credit	Yes	No

Compliance 50131 grade 3

2-6

The Sol/STUDIO software provides a section for a configuration of the control panel that complies with grade 3 of 50131 regulations.

However, total respect of the said regulations is obtained by appropriately setting also the other options related to grade 2.

For this purpose refer to *Chapter 17 , Compliance with rules in force.*

Table 2-7: Parameters for compliance

Parameter		Software section	Installer menu section
This section allows the selection of the faults or events, other than zones in alarm status, that will be signalled as reduced-security conditions when the partition arms.		Regulatory compatibility Forced arming faults	Other parameters, FaultForNotReady
Overload AUX	A load of over 1.5A detected on the "+AUX" terminal		Overload AUX
Overload BUS	A load of over 3.5A has been detected on the "+" terminal of the I-BUS of the motherboard.		Overload BUS
Battery inefficient	The backup battery is low		Low battery
Mains failure	The primary power supply 230V~ fails		Mains failure
Telephone line down	The land line is not working		Tel. line down
Jamming	Wireless interference detected		Jamming
Low battery wireless	The battery of a least one wireless detector must be replaced		Low battery WLS
Wireless zone loss	Loss of at least one wireless detector has been signalled (supervisory time expired)		WLS zone loss
Loss or tamper ongoing	This warning groups together the following events: <ul style="list-style-type: none"> • Control panel open • Keypad Tamper • Reader Tamper • Sounder flasher tamper • Keypad Loss • Reader Loss • Sounder loss 		LossTamp.ongoing
Sol-3G fault	A fault has been detected on the Sol-3G device		Sol-3G fault
Faults on zones	Violation has occurred on one or more zones with the "Fault zone" option enabled.		Faults on zones
Sounder faults	Fault present on one of the sounder/flashers		Sounder faults
Contaminated smoke sensor chamber	The smoke chamber of at least one of the Air2-FD100 smoke detectors is contaminated by dirt or dust.		Not available
General power-supply faults	Fault present on the power supply or one of the power sources	Not available	Power faults
Keypad faults	Fault present on one of the keypads	Not available	Keypad faults
IP connection lost	The IP connectivity test is enabled and the test has failed	Not available	IP conn. lost
Reader LED OFF	The readers LEDs will remain OFF when there are no keys near the readers themselves. As soon as a key is held near a reader and then immediately moved away, the reader will show the status of the LEDs for 30 seconds, after which it will switch OFF all the LEDs again. During this 30 second phase, the user can hold the key in the vicinity of the reader and select the desired shortcut indicated by LEDs.	Regulatory compatibility Parameters 50131	Parameters 50131ReadLedOFF
Hide status	The status of the partitions will be hidden. If a valid code is entered at a keypad, the real-time status will be indicated on the keypad concerned for 30 seconds. If partitions are armed, the real-time status of the system will be hidden from non-authorized users. If the partitions are disarmed, the LEDs will function normally, the status icons will be present and the alarm and tamper events will be visible.		50131StatHidden
Hide icons	If partitions are armed, the status icons will be hidden from non-authorized users. If a valid code is entered at a keypad, the status of the icons will be shown for 30 seconds. The keypad will show the real-time status of the icons when all the keypad partitions are disarmed.		50131IconsHidden
Alarm delay	If an instant-zone alarm occurs on a partition while entry time is running, the associated actions (calls, output activation, save to log, etc.) will not be generated until 30 seconds after the expiry of the entry time. If the partition (or partitions) are disarmed during this period, the associated actions will not be generated, however, the keypads will indicate the violation of the instant zone.		50131AlarDelayed
Fault memory LED	If the control panel detects a fault, the yellow LED on the keypads will go On and will remain On even after the fault clears. To switch the yellow LED Off, clear all activating causes and reset the partition.		50131WarnLedMem



Control panel language

2-7

The Sol system allows selection of the language the system uses for the strings in the User and Installer menus and for the descriptions of events, faults, etc.

Type in Code (Installer), **PROGRAMMING Language**

SOL-G

Use keys  and  to select the desired language and **OK** to confirm.

Access the “Settings” section, type-in a valid user code and then access the “Display settings” section. The “Language” parameter allows the selection of the language used by the control panel.

SOL-P



Obviously, after a change of language the descriptions of the various system elements such as the zones, partitions, outputs, codes, etc., will remain unchanged.

Updating the control panel firmware

2-8

Through a direct connection between the Sol/STUDIO software and the Sol control panel, it is possible to update the control panel firmware to the latest revision available at the time of the software release.

Click-on the **Update firmware** button on the menu bar on the right to open a section with the tools for updating the control panel firmware and connected devices.

Via software



In order to avoid invalidating the procedure, do not switch off or disconnect the PC or Sol control panel during the updating process.

ATTENTION!

Chapter 3 Programming the peripherals and modules

3-1 Keypads


3-1-1 Setting up keypads in the system layout

The Sol system provides guided procedures(programming wizards) for the enrolling of a wireless keypad.

Via software




Access the “Home” section using the button on the left then, in the section on the right, click-on the icon of the transceiver required for the enrolling process.

Click-on the  button to start the enrolling process. A window will open where it is possible to select the required procedure:

- “Add device” - to proceed with the enrolling of each device, by either entering the serial number of the device or pressing keys “1” and “3” simultaneously on the Aria keypad.
- “Add codes” - to proceed with the enrolling of each device via QR code.

Via App

Access the “Programming” section using the  button on the top left and follow the guided procedure for quick configuration of the system up to the request to program the wireless devices.


3-1-2 Programming keypads

The programming of the keypads, as peripherals of the Sol system, can be carried out either via software or keypad.

Via software



Click-on the **Keypads** button on the menu on the left, to access two programming sections on the right:

- **Configured keypads**, with a list of all the configured keypads. By selecting one of these items it is possible to set the parameters of the single keypad by clicking on the  button.
- **Keypad parameters**, section with parameters common to all the keypads.

Type in Code (Installer), PROGRAMMING Keypads, Enablements, ChoosePeripheral

This section provides a list of the available keypads.

The “<” symbol appears next to the description of the keypad in use. The keypad integrated into the frontplate is referred to as the “Local keypad”.

From this list it is possible to select a keypad for the programming of parameters.

KEYPAD SETTINGS

The Sol system keypads also provide a section where it is possible to set their parameters, for the customization and optimization of use by the end-user.

The complete description of the parameters in this section can be found in *paragraph 7-3-8 Keypad and display settings* in the user manual.

```
ChoosePeripheral
KEYP. 001)
KEYP. 002
KEYP. 003
```


Keypad parameters

3-1-3

Table 3-1: Parameters common to all keypads


Parameter		Software section	Installer menu section
Wrong PIN keypad lockout	If a wrong code is typed-in at a keypad more than 5 times in succession, the keypad will lock for 10 minutes. If the control panel is reset or if programming accessed while the keypad-lockout time is running, it will refresh to zero and start again.	 Keypad parameters	Parameters Keypad lockout
View open zones	The keypad will show the descriptions of any open zones (zones which are not in standby status) when the partitions disarm. Any autobypassable open-zones will be shown in white on a black background.		View open zones
Show scenario	The second line on the keypad displays will show the description of the active scenario.		Show scenario
Message repetitions on voice keypad	This refers to the number of times messages relating to the events are played vocally on the keypad (only for keypads with speakers). The playback phase can be stopped by pressing any button.		Parameters, Other parameters, LockpadMesSTimes
Press any key to end playback	If this option is enabled, message playback can be interrupted solely by pressing a button on the keypad.		LockpadMesSTimes, "255"

Table 3-2: Parameters for single keypads




Parameter		Software section	Installer menu section
Description	Description of the keypad (to be customized by the installer).	 Configured keypads , selected keypad, General	Keypads, ChoosePeripheral, "keypad"
Partitions	Section for the selection of the partitions the keypad can operate on.		
Shortcut	For each key, from F1 to F12, it is possible to program the shortcut type which can be selected from among all the available shortcuts. When programming Sol-P keypads, positions F1 - F12 refer to the positions in the list available in the "Scenarios" section of the control panel being programmed.	 Configured keypads , selected keypad, General, Advanced	Keypads, Selected peripheral, "keypad", F1/4KeyShortcuts, "Fx", Type
Shortcut parameter	You must specify a further parameter for each shortcut: <ul style="list-style-type: none"> • Arm/Disarm - the parameter this shortcut refers to will be one of the scenarios. • Activate output - the parameter this shortcut refers to will be one of the scenarios. • Deactivate output - the parameter this shortcut refers to will be one of the scenarios. • Panic - the parameter this shortcut refers to will be one of the scenarios. 		
Shortcut options			Options
Requires code	If this option is enabled and a user selects the shortcut (by pressing the relative function key), the system will request entry of a user code before the activating the shortcut in question. If the system recognizes the entered user code, it will activate the shortcut command.		Requires code
Code entry in the event of security risk	if this option is enabled and the selected shortcut involves a scenario that disarms a partition, or switches a partition from Away mode to Stay mode, the security of your system will obviously be at risk, therefore, the system will request entry of a valid code.		SecurityRiskCode
Requires confirm operation	If this option is enabled when the user selects the shortcut via the relative function key, the system will request confirmation before actually activating the shortcut, confirmation is achieved by simply pressing the key. This option helps the user avoid accidental activations. This option is not available on Sol-P keypads.		Confirm
Disable entry-time signal	This option enables/disables the buzzer during partition entry-time		Keypads, ChoosePeripheral, "keypad", Options, NoEntryTimeSign.
Disable audible exit-time signal	This option enables/disables the buzzer during partition exit-time		NoExitTimeSignal

Table 3-2: Parameters for single keypads

Disable chime	This option enables/disables the buzzer that signals the violation of the bell zone of the keypad.		Configured keypads , selected keypad	Disable chime
LED OFF in stand-by	If enabled, in the event of inactivity on the keypad for at least 40 seconds, the respective LEDs will go off.			LED OFF in standby
Bypass wireless supervision	If enabled, this option will inhibit control panel supervision of the wireless keypad.			NO Superv. WLS
Bypass tamper	If enabled, this option will inhibit wireless keypad tamper signalling on the control panel.			Disable tamp. WLS
Valid code at keypad	This key directly accesses the programming section of the "Valid code at keypad" event			Events, Valid Code

Note

The "Listen-in" and "Arming status" shortcuts will have no effect if the respective command is entered at a keypad.
In the case of programming Sol-P keypads, the only type of shortcut that functions is "Arm/disarm".

TOUCH-SCREEN KEYPADS


It is possible to program the graphic interface of the keypad integrated in the Sol-P and the graphic maps visualized on it only via the Sol/STUDIO software.

Once the keypad has been selected, it is necessary to select "Touch keypad" as its type. Along with the "General" section, which is the same for all keypad types, appear the following sections:

- "Sol-P graphics", for the setup of the graphics interface (backgrounds, buttons, icons)
- "Sol-P maps", for the configuration of the graphic maps which are accessed through the "Maps" option in the APPS" section (refer to *Chapter 18 , Graphic map configuration*).

To set the modified parameters on the keypad, it is necessary to connect the PC to the keypad USB port.

Table 3-3: Touch-screen keypad parameters

Parameter		Software section
Available Skins	Selection of themes available for the Sol-P graphics.	 Configured keypads, selected keypad, Sol-P graphics
Background	Button to display only the background of the Sol-P graphics in the image below.	
All	Button to display the Sol-P graphics complete with buttons in the image below.	
Default	Button to display the default graphics for the selected theme in the image below.	
Clean	Button to cancel the selected graphics in the image below.	
Write skin	Button to set the selected theme on the keypad.	
Write icons	Button to set the icons selected for the buttons on the keypad.	

The image at the bottom of the "Sol-P graphics" section allows display of the graphics selected for the touch-screen.

It is possible to load an image from the PC by double-clicking on the background or button icons.

The requirements for the images are

- - the background file must be a JPG file with a maximum size of 120 kbytes, 480x272 pixels
- - each of the 8 main buttons must be a JPG file with a maximum size of 12 kbytes, 109x88 pixels

Proximity readers

3-2

Reader plan

3-2-1

The Sol control panel can manage two proximity readers, one integrated in the frontplate and an optional one on I-BUS.

In addition, the control panel can also manage two wireless transceivers, one integrated and an optional Air2-BS200 on I-BUS, which simulate two proximity readers.

During the enrollment of these devices, the control panel assigns them to the following addresses:

Table 3-4: Reader addresses

Device	Address
Integrated reader Located on the control panel frontplate	"Local reader"
Reader on I-BUS NBy/S or nBy/X proximity reader mounted on I-BUS	1
Integrated transceiver Simulates a proximity reader	"Local wireless"
Transceiver on I-BUS Air2-BS200 transceiver mounted on I-BUS that simulates a proximity reader	2

Once the solution for the system to be designed is open, connect with the control panel and download the configuration.

It is possible to view the system readers in the section reachable by means of the **Proximity readers** button on the menu on the left.

Type-in Code (Installer PIN) , **PROGRAMMING Readers** , **Enablements**

This section allows the installer to add/remove readers from the configuration, by means of keys * and # .

Via software



Via keypad

Programming readers

3-2-2

The programming of readers as Sol system peripherals can be carried out either via software or from a keypad.

Click-on the **Proximity readers** button on the menu on the left, to access two programming sections on the right:

- **Configured readers**, section containing the list of all the configured readers. By selecting one of them, it is possible to set the parameters of the single reader by clicking on the button.
- **Reader parameters**, section containing the parameters common to all the readers.

Type in Code (Installer), **PROGRAMMING Readers**, **Enablements**, **ChoosePeripheral**

This section allows the programming of the various options of the selected reader.

Via software



Via keypad

Reader parameters

3-2-3




Table 3-5: Parameters common to all readers

Parameter	Software section	Installer menu section
Reader Buzzers OFF No reader buzzers will emit audible signals during running entry time, exit time, output time or pre-arm time.	Reader parameters	Parameters, ReaderBuzzersOFF
Proximity reader address configuration This section allows the programming of the addresses of the proximity readers.		Readers, Prog. address
Address LED codes This section allows visualization of how the addresses will be shown on the LEDs.		Not available

Working through the reader addressing procedure is essential in order to assign address "1" to a reader installed on the Sol BUS; if the reader is from another Inim system from which it may have inherited a different address.

Note

Table 3-6: Parameters of single reader

Parameter		Software section	Installer menu section
Description	This is the name used to identify the reader, customizable by the installer.	 Configured readers, selected reader	Readers, ChoosePeripheral, "reader"
Partitions	Section for the selection of the partitions the reader can operate on.		
Type	It is possible to assign a shortcut type, selectable from those available, to each of the LEDs	 Configured readers, selected reader, Shortcut	Readers, ChoosePeripheral, "reader", Shortcut, Type
Parameter	For some shortcuts it is necessary to specify a further parameter:		
Valid key at reader	This button accesses directly the programming section of the "Valid key at reader" event	 Configured readers, selected reader	Events, Valid-KeyAtReader

3-3 Sounder/flashers

3-3-1 Programming the local sounder

The Sol control panel has a sounder integrated in the frontplate for audible alarm signalling. The programming of which entails association to the events that determine its activation, this is possible only via Sol/Studio software.

Via software



Access the "Home" section by means of the button on the left then, in the section on the right, click-on the icon of the local sounder. In the section that opens it is possible to:

- change the description of the sounder
- delete the associated events by clicking on the **Events** button

The association of the activation of the sounder with the occurrence of events is programmable during the events programming phase (refer to *paragraph 11-1 Programming single events*).


3-3-2 Wireless sounder/flashers

The Sol system provides guided procedures (wizards) for the enrolling of wireless sounder/flashers.

Via software




Access the "Home" section using the button on the left then, in the section on the right, click-on the icon of the transceiver required for the enrolling process.

Click-on the  button to start the enrolling process. A window will open where it is possible to select the required procedure:

- "Add device" - to proceed with the enrollment of each device, by entering the serial number of the device or pressing **ENROLL**.
- "Add codes" - to proceed with the enrolling of each device via QR code.

Via App

Access the "Programming" section using the  button on the top left and follow the guided procedure for quick configuration of the system up to the request to program the wireless devices.


3-3-3 Programming sounders

Programming of wireless sounders can be done either via software or from a keypad.

Via software



Clicking-on the **Sounders** button on the menu on the left accesses two programming sections on the right:

- **Configured sounders**, with a list of all the configured sounder/flashers. By selecting one of these options it is possible to set the parameters of the single sounder/flasher by clicking on the  button.
- **Sounder pattern**, section with the programming parameters of the tone types (pattern). 8 modifiable patterns are available.

Via keypad

Type in Code (Installer), **PROGRAMMING Sounders**, **ChoosePeripheral**

This section provides a list of all the available sounders. It is possible to select from the list a sounder/flasher and program its parameters.

Sounder/flasher parameters

3-3-4

Table 3-7: Single sounder/flasher parameters







Parameter		Software section	Installer menu section
Wireless	Check box for the assignment of the "Wireless" attribute to the selected sounder/flasher.	Not available	Sounders, ChoosePeripheral, "sounder/flasher"
Description	Descriptive string of the sounder/flasher (customizable by the installer).	 Configured sounder/flashers, selected sounder/flasher	
Events	Button to open a window that contains the list of events that activate the sounder/flasher.		




Table 3-8: Air2-Hedera wireless sounder/flasher parameters

Parameter		Software section			
Real-time	Pressing the Start button starts a 4 minute countdown during which the values of the following features of the wireless sounder/flasher will be shown:	 Configured sounder/flashers, selected sounder/flasher, Real-time			
	<table border="1"> <tr> <td>Level / foam threshold</td> <td rowspan="2">The bars indicate the values (from 1 to 100) detected by the antifoam and tamper sensors. It is possible to adjust the alarm threshold by means of the programming fields at the side. The Default button allows reset of values to factory settings.</td> </tr> <tr> <td>Level / tamper threshold</td> </tr> </table>		Level / foam threshold	The bars indicate the values (from 1 to 100) detected by the antifoam and tamper sensors. It is possible to adjust the alarm threshold by means of the programming fields at the side. The Default button allows reset of values to factory settings.	Level / tamper threshold
	Level / foam threshold		The bars indicate the values (from 1 to 100) detected by the antifoam and tamper sensors. It is possible to adjust the alarm threshold by means of the programming fields at the side. The Default button allows reset of values to factory settings.		
Level / tamper threshold					
Monitoring the wireless sounder/flasher	This section allows the viewing of the sounder/flasher status (<i>paragraph 19-7 Monitoring wireless sounders</i>).				
Sounder parameters	Communication loss signalling	 Configured sounder/flashers, selected sounder/flasher, Sounder parameters			
	Default		Button to reset the factory default data		
	Enable foam tamper signalling		If selected, it enables signalling from the anti-foam, open panel, dislodgement and battery inefficient sensors.		
	Enable anti-tamper signalling				
	Enable battery inefficient signalling				
PRG/STATUS LED activation	Section where it is possible to indicate the source (control panel or sounder/flasher) of the PRG and STATUS LED activation. The selection of one of the two LED activation sources excludes the other.				
Sounder LED activations	Activation cause x	 Configured sounder/flashers, selected sounder/flasher, Sounder LED activations			
	Inversion		If the "Inversion" option is not enabled, LED activation will occur when the event is active. If the "Inversion" option is enabled, LED activation will occur when the event is not active.		
Cause of deactivation of sounder and flasher	Cause x	 Configured sounder/flashers, selected sounder/flasher, Cause of sounder and flasher deactivation			
	Inversion		If the "Inversion" option is not enabled, the sounder and flasher will deactivate on activation of the event. If the "Inversion" option is enabled, the sounder and flasher will deactivate on deactivation of the event.		
Monitoring wireless	Pressing the Start button starts a monitoring phase on the variation of the signal transmitted by the device and background noise detected over time.	 Configured sounders, selected sounder, Wireless monitoring			

3-3-5

Programming the patterns

Table 3-9: Pattern parameters

Parameter		Software section
Description	<ul style="list-style-type: none"> Burglary Burglary low volume Fire Tamper Pre-alarm Automation Squawk Chime 	 Sounder pattern Selection menu of the pattern to be programmed.
Tone	This is the audible signal the sounder will emit. To be selected from the 3 available tones.	
Time	This is the sounder/flasher activation time, expressed in seconds (from 1 to 127) or minutes (from 1 to 127)	
Volume	Sound level of the sounder.	
Flash type	<ul style="list-style-type: none"> 1=36 flash/min 1=56 flash/min 	Dropdown box for the selection of the flash rate (number of flashes per minute).
Time	This is the flasher activation time, expressed in seconds (from 1 to 127) or minutes (from 1 to 127). If the event which activates the flasher indefinitely is a zone alarm, terminal tamper, partition alarm or partition tamper event, even memory reset operations will switch off the flasher.	
Activate sounder	Enable/Disable sounder activation	
Activate flasher	Enable/Disable flasher activation	
Activate STATUS LED	Enable/Disable activation of the STATUS LED	
Activate PRG LED	Enable/Disable activation of PRG LED	
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 also the image of the sounder on the left of the buttons.	
Stop		
Sounder pattern test	Test	Buttons to start and stop a test on the pattern selected for the sounder selected from the list provided. This test requires an active connection with the control panel.
	Stop	
	Button to reset the factory default pattern	
		 Bar for the section menus

3-4

Wireless transceivers

Via software



The Sol/STUDIO software has a section that allows the viewing of all the enrolled wireless devices, and also the setting up of the programming parameters of the wireless transceivers.

Select the transceiver to be programmed between the two available (one integrated transceiver and one optional Air2-BS200 transceiver) in the menu bar to the right of the "Home" section for the parameter settings.

The button related to the optional transceiver also has an arrow at the bottom ("∨") to add or remove the module from the configuration.

On the right, the section relating to the selected transceiver is divided in sub-sections with tabs, which allow the viewing and setting of the configured wireless devices. The sub-sections show:

- the detectors (refer to *paragraph 4-3 Programming wireless zones*)
- the keypads (refer to *paragraph 3-1 Keypads*)
- the sounders (refer to *paragraph 3-3 Sounder/flashers*)
- the wireless keys (refer to *paragraph 9-2 Key parameters*)
- the transceiver parameters (refer to *paragraph 3-4-1 Programming transceivers*)

Alongside these sections are the following buttons for the activation of functions.

Table 3-10: Menu bar for wireless transceivers

Button		Function
	Add	Button to start the procedure for enrolling new wireless devices (refer to <i>paragraph 3-4-2 Enrolling wireless devices</i>).
	Read	Button for reading from the control panel and writing on the control panel the data relative the configuration of the wireless transceivers.
	Write	
	Remove	Button for removing all the wireless devices associated with the selected transceiver.
RF		This button starts an operation which attenuates (6db) the wireless signal transmitted by the transceivers for 5 minutes. During this period the installer can carry out tests on the stability of the RF connection under weak-signal conditions.
	Clone remote-control keys	This button starts the guided procedure for cloning the wireless keys enrolled by the transceiver of the selected board. The guide allows the installer to indicate which transceiver, from those selectable, the cloned keys will be assigned to.

Programming transceivers

3-4-1

Table 3-11: Wireless transceiver parameters

Parameter		Software section	Installer menu section
Channel	Section for the selection of the wireless communication channel to be used by the transceiver that simulates the reader undergoing programming: <ul style="list-style-type: none"> • Channel 001, 868.1MHz • Channel 002, 868.3MHz • Channel 003, 868.5MHz 	Home, Wireless transceiver, Parameters	Readers, ChoosePeripheral, "reader", Channel
Disable tamper protection	This option disables the Air2-BS200 transceiver tamper signal.		Readers, ChoosePeripheral, "reader", Options, Disable Tamper
Disable the Rolling Code	This option disables the use of a rolling-code algorithm for the transmission of wireless commands via the transceiver. Deactivation can be useful to the installer when the same wireless command device is used on several systems.		Readers, ChoosePeripheral, "reader", Options, RollingCodeDisab

Enrolling wireless devices

3-4-2

The final installation phase of each wireless device is the enrollment and configuration on the control panel.

This phase involves a procedure that can be carried out using different modalities and depending on the registration of the Sol installation to Inim Cloud service:

- using only the InimTech Security App, in this case registration to Inim Cloud is necessary;
- using only the Sol/STUDIO software, in this case registration to Inim Cloud is not necessary;
- using the Sol/STUDIO software and the InimTech Security App, in this case registration to Inim Cloud is not necessary.

1. Start the App and access the side menu using the button shown top left.
2. Access the "Programming" section.
3. Follow the guided procedure for fast system configuration up to the request to program the wireless peripherals.
4. In the section reached by means of the button it is possible to add new wireless devices.
5. The smartphone activates the camera that will be used to frame the QR code on the devices. The application recognizes automatically the various devices and puts them in a list.
6. On exiting the video capture mode, the application will show a list of recognized devices. In this section it is necessary to complete the configuration of the devices in



Via App



order to proceed. The devices which are not completed will have the description bordered in red.

7. Access the last section of the guided procedure.
This section changes in relation to the registration of the Sol control panel to Inim Cloud service.

CONTROL PANEL REGISTERED TO INIM CLOUD

The last section of the guided procedure provides the **SEND** button that sends all the acquired data to the Sol control panel via Inim Cloud.


CONTROL PANEL NOT REGISTERED TO INIM CLOUD

The last section of the guided procedure provides the **SHOW** button that displays a QR code on the screen, for use during the wireless device enrollment phase via the Sol/STUDIO software.

Via software



Use of the Sol/STUDIO software requires a PC on which to run it and a connected camera.

1. Open the system solution in configuration.
2. Access the "Home" section using the button on the left. .
3. In the section on the right, click-on the icon relative to the transceiver that will be used for the device enrolling operation:
 - transceiver integrated into the control panel.
 - Air2-BS200 transceiver connected to the I-BUS
4. Click-on the  button to start the enrolling process.
5. A window will open where it is possible to select the required procedure:
 - "Add device" - to proceed with the enrollment of each device, by entering the serial number of the device or pressing **ENROLL**.
 - "Add codes" - to proceed with the enrolling of each device via QR code.
6. Select the type of device to be enrolled.
7. Follow the guided process for the device configuration.
8. The enrollment section provides the possibility to select the modality:
 - access the "Code enrolling" section and enter the serial number and firmware revision indicated on the label on the PCB of the device
 - access the "Manual enrolling" section and press the section Send button.
At this point the software will wait until the **ENROLL** button on the device is pressed.
6. The section reached provides keys to select and start one of the video capture devices of the PC in use. Select one of these.
7. Using the camera frame capture the QR code of the device to be enrolled, obtained at the end of the guided procedure of the InimTech Security App.
All the recognized devices will be shown in a list at the bottom of the window.
8. Click-on the **Enroll** button to enroll all the devices in the list.

ADD DEVICE

ADD CODES

3-4-3

Wireless device data check

The Sol/STUDIO software has a section where, after a direct connection to the control panel (refer to the software manual, *Connecting the software to the control panel*), it is possible to check the configuration of the wireless devices the control panel actually recognizes compared to the configuration set during programming.

Click-on the **Maintenance** button on the menu bar. The page on the right provides different sections, selectable from the menu, dedicated to different categories of wireless devices.

Click on the **Check consistency** button of each section to initiate a cross-check between the devices in the control panel configuration, those recognized as wireless and those present on the wireless transceiver.

The outcome of this check will be displayed with a list of devices and their respective configurations:

- **In configuration**, for a device in the control panel configuration.
- **Wireless**, for a device recognized as a wireless device.
- **On transceiver**, for a device in the configuration of one of the wireless transceivers.

If an inconsistency is highlighted, the process provides a **Fix** button which restores a coherent situation after a request for confirmation.



The following table lists the various configuration conditions of the devices the software detects and, in the case of inconsistent conditions, the correction proposed by the **Fix** button:

Table 3-12: Wireless configuration consistency

Device condition detected	Combination of configurations			Outcome	
	In configuration	Wireless	On transceiver	Test result	Correction
Device is not configured and not detected (potential configuration available)	No	No	No	Fix	Device unenrolled from each configuration
Device enrolled by the transceiver but not in the control panel configuration.	No	No	Yes	Fix	Wireless device both in the control panel and transceiver configurations
Wireless device detected but not in the control panel configuration	No	Yes	No	Fix	Device unenrolled from each configuration
Wireless device detected and enrolled by the wireless transceiver but not in the control panel configuration	No	Yes	Yes	Fix	Wireless device both in the control panel and transceiver configurations
Device wired and in configuration	Yes	No	No	Ok	/
Device in both the control panel and wireless transceiver configurations but not detected	Yes	No	Yes	Fix	Wireless device both in the control panel and transceiver configurations
Wireless device in the control panel configuration only	Yes	Yes	No	Fix	Device unenrolled from each configuration
Wireless device configured correctly	Yes	Yes	Yes	Ok	/

Programming the Sol-3G

3-5

The Sol-3G programming phase allows the installer to select which actions the control panel will implement on receiving a command from a user via voice call or SMS message over the GSM network. Each command comprises a group of fully-programmable parameters.

When a user requests an operation, via a correctly formatted SMS message or voice call to the SIM card inside the Sol-3G communicator, the control panel can activate the respective shortcut and send confirmation (feedback) of the successfully implemented command.

The following parameters can be programmed solely via the Sol/STUDIO software. Click on the **Sol-3G** button on the menu bar to the right of the "Home" section to set the parameters and the relative arrow at the bottom ("✓" to add or remove the module from the configuration.

Via software



Note

INIM does not guarantee the total availability of all the GSM/GPRS functions described in this manual, due to the various combinations of GSM/GPRS service providers, SIM types and telephone models that may be in use.

SMS Commands

3-5-1

The "Programming - SMS Commands" section allows the programming of up to 30 SMS-activated commands.

Double clicking on the line of a command opens a window that allows the programming of the respective parameters.

Table 3-13: SMS command parameters

Parameter		Software section
Action	This identifies the number of the command in the table displayed.	SMS Commands
SMS text	This is the identification string to be included in the SMS command.	
Shortcut	This field will allow the selection of one of the following shortcuts: <ul style="list-style-type: none"> • Arm/Disarm • Stop alarms • Clear call queue • Delete memory • Activate output • Deactivate output • Inhibit (bypass) control panel zones • Activate (unbypass) control panel zones • Sol-3G status • Credit enquiry • GPRS client 	

Table 3-13: SMS command parameters

Shortcut parameter	Selection menu for the parameter relating to the shortcut.
Shortcut 2	Selection menu for the shortcut which is to be activated after the one selected above.
Shortcut 2 parameter	As per "Shortcut parameter" but valid for the "Shortcut 2" command.
Confirm	<p>Identifies the type of command feedback:</p> <ul style="list-style-type: none"> • SMS - feedback will be provided by an SMS text to the telephone number of the caller (command dispatcher). • Ring - feedback will be provided on the telephone of the caller (command dispatcher). Positive outcome will be indicated by a "ring"; negative outcome by no "ring". <p>Feedback, whether by means of an SMS message or ring, will be provided only when the number of the telephone where the command was entered is known. Hidden numbers will not receive any kind of confirmation.</p> <ul style="list-style-type: none"> • Buzzer - feedback will be provided by an audible signal on the Sol-3G buzzer. Positive outcome will be indicated by three short audible signals; negative outcome by five long audible signals.

COMMAND USING SMS TEXT

Users who wish to activate a command via SMS text must enter the command details as follows:

<xxxxxx> <SMS Text>

where:

- <xxxxxx> stands for the PIN of a control panel user
- a blank space must be keyed in after PIN entry
- <SMS Text> which is the command identifier, as previously described

EXAMPLE

The command dispatcher wants the control panel to activate "Scenario 3", switch On the perimeter lights and confirm the operation via SMS text. For an operation of this type, proceed as follows:

1. "SMS Text" - choose the desired description, for example "Night mode"
2. "Shortcut" - select the "Arm/Disarm" shortcut
3. "Shortcut option": "Scenario 3"
4. "Shortcut 2" - select the "Activate output" shortcut
5. "Shortcut option 2" - output associated with the perimeter lights
6. "Confirm" - SMS

When a user keys in the following SMS text on a mobile (cellular) phone:

123456 Night mode

"123456" stands for the User PIN and this message is sent to the number of the SIM card in the Sol 3G, the control panel will carry out the requested operations and then send an SMS message of confirmation to the phone of the caller who dispatched the command.

Night mode: command done!

DEFAULT COMMANDS

By default, commands are predefined and can be modified by the installer:

- **"CREDIT"** - for balance enquiries relating to the SIM card of the Sol-3G, the user will receive an SMS text indicating the remaining credit.
- **"STATUS"** - for status enquiries relating to the Sol-3G, the user will receive an SMS text indicating the:
 - device name and firmware revision
 - GSM network provider
 - GSM signal reception level
 - device tamper status
 - BUS status
 - Balance (remaining credit)
 - scenario active (if present)
- **"EXC"** (or **"ESC"**), to inhibit the control panel zones
- **"INC"**, to activate the control panel zones

For the last two commands, the message text must be:

<xxxxxx> EXC <zone description>

where:


- <xxxxxx> is the PIN of a control-panel user coded, followed by a blank space
- "EXC" (or "ESC" or "INC") is the command to be implemented on the zone, followed by a space
- <zone description> is the name zone to be inhibited or activated

Caller ID commands

3-5-2

The “Programming - Caller ID commands” section allows the installer to program up to 200 telephone numbers and the commands which will be implemented when each telephone number is recognized by the control panel. If the telephone number makes a voice call, the command selected from those programmed in the “SMS Commands” section will be activated.

Table 3-14: Call command parameters

Parameter		Software section
N°	This identifies the number of the command in the table displayed.	 Caller ID commands
Name	This is the identification string of the command.	
Telephone number	This is the telephone number which, during a call to the Sol-3G, will activate the command.	
Code	This field associates the user code with the telephone number. The code determines which partitions the telephone-number user can operate on.	
Actions	This is the number that identifies the command option selected from the 30 commands programmed in the SMS Commands section.	
Reject call	If enabled, when the telephone number calls, the Sol-3G will carry out the command associated with the telephone number then reject the call. If disabled - when the telephone number calls, the Sol-3G will not reject the call but will allow it to proceed in such a way that the control panel can activate (if duly programmed) the dialer after the programmed number of rings.	
Receive diverted SMS	This option, when active, enables one selected number to receive SMS messages diverted from the Sol-3G communicator which do not comply with the command-activation format. If the SMS message is a “command”, it cannot be diverted.	

SMS message texts

3-5-3

The “Programming - Text for SMS messages” section allows the editing of up to 50 SMS text messages of 80 alphanumeric characters each. These messages can be associated with the events by means of the “SMS number” option described in *paragraph 11-1 Programming single events*.

In the section concerned, where SMS messages are listed in the column, you have the following parameters for each message:

- **N°**, which identifies the number of the SMS message.
- **Text**, editable field for the SMS text message. Also indicated is the number of characters available.

Sol-3G module parameters

3-5-4

The “Programming - General parameters” section will allow the installer to program some of the Sol-3G management functions, such as remaining credit enquiries, input and output volume and the disabling of tamper protection and the emergency signalling delay.

Table 3-15: General parameters of Sol-3G




Parameter	Software section	Installer menu section
Enable credit check If this option is enabled, it is also necessary to program the method of enquiry the Sol-3G will use to make remaining-credit enquiries to the GSM provider. <ul style="list-style-type: none"> • Automatic - the Sol-3G will make remaining credit enquiries to the GSM provider without need of programming any parameters. • Manual - the parameters of enquiry to the provider and those of the reply must be set up manually. 	 General parameters, Remaining credit	Not available
Manual parameter - Request <ul style="list-style-type: none"> • SMS - the remaining credit enquiry will be made via an SMS text sent by the Sol-3G to the provider. • Call - the remaining credit enquiry will be made via a call which will be diverted by the Sol-3G to the provider. • Network command - the remaining credit enquiry will be made via a special command made available by the provider. • Credit request number - this is the telephone number or network command (made available by the GSM provider) for remaining credit enquiries. This field must be programmed regardless of the type of manual mode selected (SMS, Call or network command). • Credit request message - this text will be sent to the above-mentioned number in order to obtain information regarding the remaining credit. 		

Table 3-15: General parameters of Sol-3G

Manual parameter - Answer via SMS	<ul style="list-style-type: none"> Answer number - this is the telephone number (made available by the GSM provider) the remaining credit information will come from. This field must be programmed regardless of the selected manual mode (SMS, call or Network command). Answer message - part of the SMS answer message, to filter the credit information. It is necessary to type in the text which precedes the numeric value of the remaining credit. 		
Low credit threshold	This is the remaining credit limit, expressed in local currency. If credit drops below this limit, the Sol-3G communicator will signal a "Low credit" error.		
Credit enquiry interval	This is the interval, expressed in hours, which must pass between one automatic credit-enquiry and the next.		
Balancing	This option permits adjustments to the correlation between input volume/output volume.	 General parameters, Volume settings	
Incoming volume	This option allows the programming of the volume of the input signal to the Sol-3G and, consequently, the volume of the signal received by the control panel.		
Output volume	This option allows the programming of the volume of the output signal from the Sol-3G to recipient telephone devices.		
Disable tamper	This option, if enabled, deactivates tamper signalling on the Sol-3G communicator.	 General parameters, Other parameters	
Emergency signalling delay	This is the delay, expressed in seconds, the Sol-3G device will apply before generating the "Sol-3G lost" event.		
Disable GPRS fault on keypads	If enabled, this option stops the control panel from signalling the occurrence of specific faults or GPRS connection trouble.		
Fault signaling on insufficient GSM cover	<p>If enabled, this option determines the generation of the "Sol-3G fault" event when the GSM cover is poor or insufficient.</p> <p>If disabled, poor GSM cover will not generate a fault event.</p>		Low field enable


Note

The remaining credit control feature is subject to temporary or even permanent unavailability caused by changes in the implementation of the methods used by the GSM/GPRS service provider. INIM provides device programming functions which may be capable of restoring this feature, by means of manual changes to the respective parameter settings.

3-5-5**GPRS connection parameters**

The "Programming - GPRS Parameters" section provides the parameters necessary for setting up the GPRS connection for the remote GPRS connection with the control panel.

Table 3-16: GPRS parameters

Parameter		Software section
Access point name (APN)	This is the field for the name of the GPRS provider.	 GPRS parameters
Advanced	This button opens a window for the user's name and password, sometimes required by the provider. If these details are not required, these fields can be left blank.	

Programming inputs and outputs

Chapter 4

Control panel terminals

4-1

Control panel terminals "T1" and "T2" can be configured via Sol/STUDIO software.

Access the "Home" section using the button on the left then, in the section on the right, click on the icon of the terminal required.

Via software

For some of these icons, at the bottom next to the description, is an arrow ("↙") to add or remove the module from the configuration or change its type:

Table 4-1: Configuration of control panel terminals



	Input terminals	<i>paragraph 4-2 Zones/Inputs</i>
	Output terminal	<i>paragraph 4-4 Outputs</i>
	Input/Output terminals	The Sol control panel is capable of reading the status of the terminals used as "supervised outputs". During the programming of this terminal, the Sol/STUDIO provides two sections, one to program it as an "output", the other as an "input" to set the reading parameters of the terminal.
	Double terminal	The Sol system allows the connection of two different zones to a single terminal. During the programming of this terminal Sol/STUDIO provides two sections to set the reading parameters of the terminal.
	Unused terminal	Terminal eliminated from the configuration

Access the "Programming" section using the ≡ button on the top left and follow the guided procedure for the quick configuration of the system up to the programming of the wired terminals.

Via App

Here it is possible to set the control panel terminals as inputs or outputs or eliminate them from the configuration.

Zones/Inputs

4-2

Click on the **Zones** button on the menu on the left, the section on the right will show a list of all the available zones and their parameters.

Via software

By selecting one of these items it is possible to set the parameters of the single zone by clicking on the button.



Type in Code (Installer) , **PROGRAMMING Zones** , select the zone concerned
This section allows the programming of the various parameters of the selected zone.

Via keypad

Table 4-2: Zone parameters






Parameter		Software section	Installer menu section
Description	This is the editable label which identifies the zone. At default all the zones assume the description of the peripheral they refer to, followed by the respective terminal.	 Zones, selected zone	Zones, "zone"
Type	Dropdown box for the selection of the zone type: Instant, Delayed, Viewable delayed, Route, 24hour, Technological, Arm, Disarm, Switch, Follow, Patrol.		
Balancing	Dropdown box for the selection of the balancing type (the options vary in accordance with the zone type). Normally open (NO), Normally closed (NC), Single balancing, Double balancing, Double zone (without EOL), Double zone (with EOL).		
Detector type	Generic zone, Roller blind, Shock		
Alarm cycles	Dropdown box for the selection of the number of alarm cycles (between 1 and 14). If "Unlimited" is selected, the zone will operate as a "repetitive" zone.		
Configuration scheme	Button for to open a window showing the zone connection mode.		
Contact ID	Check box to indicate the Contact-ID code associated with the zone for the occurrence or reset of events such as: <ul style="list-style-type: none"> • Zone alarm • Zone tamper • Zone bypass • Zone real-time 		
Configuration scheme	Button for to open a window showing the zone connection mode.	Not available	
Real-time	Section for the adjustment of zone detection thresholds. The thresholds can be modified via the number boxes or by using the bar which indicates the levels by means of colours: <ul style="list-style-type: none"> • yellow - tamper/short • green - standby • red - alarm • orange - double zone with one zone in alarm status and the other in standby status Clocking-on the Real-time button makes a connection with the zone which feeds back information regarding the thresholds. The OK button saves the changes which will be written during the write phase.	Not available	
Multi-pulse time	This parameter applies only when the "Alarm pulse num." parameter (see below) is more than 1. This is the window during which a number of alarm pulses must be detected (each lasting as long as the programmed "Al.pulse Duration"). The number of alarm pulses must equal or exceed the value programmed for "Alarm pulses", before the system generates an alarm. This time window can be expressed in seconds or minutes.	 Zones, selected zone, Device parameters "generic"	Zones, generic zone
Alarm pulses	This is the number of pulses (each lasting for the length of the "Al.pulseDuration") necessary to generate a zone alarm event. If this value is more than 1, the "Multi-pulse time" parameter must also be programmed.		
Al. pulse Duration	This is the length of time (after detection of alarm conditions) the zone will allow before generating an alarm. Expressed in multiples of 15 milliseconds or in minutes.		
Roller blind time	This parameter applies only when the value of the "Roller blind pulses" parameter (see below) is more than 1. This is the time window during which the system must detect a number of pulses equal to the value set for "Roller blind pulses" before generating a zone alarm. This time window can be expressed in seconds or minutes.	 Zones, selected zone, Device parameters "roller blind"	Zones, "roller blind zone"
Roller blind pulses	This is the number of pulses necessary to generate a zone-alarm event. If this value is more than 1, the "Roller blind time" parameter must also be programmed.		

Table 4-2: Zone parameters

<p>Shock time</p>	<p>This parameter applies only when the “Shock pulses” (see below) value is more than 1. This is the time window during which the system must detect a number of pulses equal to the value set for “Shock pulses” before generating a zone alarm. This time window can be expressed in seconds or minutes.</p>	 <p>Zones, selected zone, Device parameters “shock”</p>	<p>Zones, “shock zone”</p>
<p>Shock pulses</p>	<p>This is the number of pulses necessary to generate a zone-alarm event. If this value is more than 1, the “Shock time” parameter must also be programmed. If this value is 0, the alarm will be generated exclusively in accordance with the “Shock sensitivity” parameter.</p>		
<p>Shock sensitivity</p>	<p>This is an empirical parameter which regulates the sensitivity of the sensor. Increasing this value decreases detection sensitivity.</p>		
<p>Partitions</p>	<p>These are the partitions the zone belongs to. A zone configured as “Automation” cannot be assigned to any partition.</p>	 <p>Zones, selected zone</p>	<p>Zones, “zone”</p>
<p>Events button</p>	<p>At the bottom of the section are the buttons that directly access the programming section of the events associated with the selected zone.</p>		<p>Events</p>

For Arming”, “Disarming”. “Switching”, “Following” and “Patrol” type zones, refer to the glossary in the installation and programming support manual. **ZONE TYPE**

“Delayed” and “Delayed unhidden” zones are delayed both during entry and exit phases, in accordance with the output “Entry Time” and “Exit Time” settings (refer to *Table 5-1: Parameters for single partitions*). In particular, “Delayed unhidden” zones behave as follows:

- if violated when the system is disarmed, it will switch Off the blue LED on the keypad
- if the “View open zones” option is enabled, it will be shown on the keypad (refer to *Table 3-1: Parameters common to all keypads*)
- it will not generate “Partition not ready” events
- on arming from a keypad, the zone will be visualized as a violated zone but, when the arming operation is confirmed, it will behave as a delayed zone and will not generate an alarm.
- if the “OpenZonesArmLock” option is enabled and the zone is violated, it will appear as a violated zone but, when the arming operation is confirmed, will behave as a delayed zone and will not generate an alarm (refer to *Table 2-4: Control panel options*).
- if the “OpenZonesArmLock” option is enabled, the zone is violated and instant arming is required, the zone will appear as a violated zone and when the partition arming operation is confirmed, the partitions the zone belongs to will not be armed.

Table 4-3: Zone options


Parameter		Software section	Installer menu section
<p>Interior</p>	<p>A zone that monitors the inside of the protected building. If a partition that a zone belongs to is armed in Stay mode, it will be unable to generate alarms.</p>	 <p>Zones, selected zone, options</p>	<p>Zones, “zone” Options</p>
<p>Auto-bypassable</p>	<p>A zone with this attribute will be bypassed automatically by the control panel if the partition it belongs to arms when the zone is not in standby status. The zone will be unbypassed automatically when it restores to standby or when the partition it belongs to is disarms.</p>		
<p>Unbypassable</p>	<p>A zone with this attribute cannot be bypassed, manually (by the user) or automatically (by the control panel).</p>		
<p>Chime</p>	<p>A zone with this attribute will generate “Chime on partition” events, if violated when the partitions it belongs to are disarmed. Keypads which have partitions in common with the chime zone will emit an audible signal when the “Chime on partition” event occurs. If all the partitions the zone belongs to are armed, the zone will operate as programmed.</p>		

Table 4-3: Zone options


Test	A zone with this attribute cannot generate alarms (activate audible and visual signalling devices). However, any alarm events that occur will be saved to the events memory.
No-Unbypassable	If this option is enabled, the zone will operate as an "Auto-bypassable" zone, with the difference that it will be automatically unbypassed when the partition next disarms.
NoArmIfNotReady	If this option is enabled, the zone, even if it is a 24H, automation or delayed zone, will not arm when it is not in stand-by status. If this option is selected for a 24H or technological zone, it can be used together with the control panel option: "Do not arm if any zones are not ready", for the management of the "anti-masking" function on duly capable detectors.
Last exit zone	If this option is enabled and the zone passes from standby status to alarm status while the partition exit time is running, the exit time will be forced to 15 seconds. If the zone passes from alarm status to standby status, the exit time will be forced to 5 seconds.
UnbypassOnDisarm	If this option is enabled, a zone which has been bypassed by a user, will be automatically unbypassed when the partition next disarms.
Hold-up	Activation of a zone with this configuration generates an instant alarm even when the partition it belongs to is disarmed. However, audible and/or visual signalling devices will not be activated (silent alarm). Therefore, calls generated by the alarm will not be revealed audibly or visually on the keypad display and LEDs.
Fault zone	If this option is enabled, violation of the zone will generate a zone alarm event and contribute to fault signalling (yellow LED on the keypad).

4-3

Programming wireless zones

The "Wireless" section contains the parameters for the adjustment of detector sensitivity of previously enrolled devices and their functions. These parameters vary depending on the type of wireless terminal.

Table 4-4: Options for Wireless zones

Parameter		Software section	Installer menu section
Tamper on unused reed relays	Detects tamper on the Air2-MC300 magnetic-contact when both reeds are in stand-by status.	 Zones, selected zone, Wireless, Options	Terminals, "terminal", Options, TampReed/FollPir Use sensor LED Broadcast RF DisableTamperWLS WLS
Disable detector when partition is disarmed	In order to increase battery life, the PIR detector will deactivate when the partitions it belongs to are disarmed and will only activate when the partitions it belongs to arm. Deactivated detectors do not generate alarms. When the partitions arm, there may be a delay of up to 3 minutes before the detector receives the activation command.		
Use detector LED	The red LED on the device provides visual signalling of alarm or tamper conditions on the device itself. This option will be enabled on all the terminals of the Air2 device.		
Broadcast RF	This option assures the activation/deactivation of the output within 2 seconds of the control panel command. Valid only for terminals T1 and T2 of Air2-MC300 configured as outputs.		
Bypass tamper	If this option is disabled, open/dislodgement tamper on Air2 devices will not generate tamper events.		

The sensitivity of the detectors can be adjusted exclusively via the Sol/STUDIO software:

Table 4-5: Wireless detector sensitivity

Parameter		Terminal type
Sensitivity	from 1 (=0,08 dB/m) to 10 (=0.15 dB/m default)	Smoke detectors
Infrared Sensitivity	PIR detector sensitivity Varies from 1 (least sensitive) to 10 (most sensitive). The default setting is 6.	Passive infrared detector Outdoor terminal Dual technology detector Curtain detector
Microwave sensitivity	Microwave detector sensitivity. Varies from 1 (least sensitive) to 10 (most sensitive). The default setting is 6.	Dual technology detector Curtain detector
Tamper sensitivity	Tamper sensor sensitivity. Varies from 1 (least sensitive) to 10 (most sensitive). The default setting is 3.	Dual technology detector Curtain detector Outdoor terminal
Antimask sensitivity	Anti-mask detector sensitivity Varies from 1 (least sensitive) to 10 (most sensitive). The default setting is 3.	Dual technology detector Curtain detector
Reed relay type	Selection of the magnetic reed contact: <ul style="list-style-type: none"> • Magnet - long side, for detection using the long side of the magnetic contact. • Magnet - short side, for detection using the short side of the magnetic contact. • Both magnets - for detection using both sides of the magnetic contact. 	Magnetic contact
Shock sensor	Shock sensor sensitivity Varies from 1 (least sensitive) to 10 (most sensitive). The default setting is 1.	MC200 magnetic contact
Tilt	Maximum angle within which the movement is not signalled, from 1 (minimum tilt) to 10 (about 90 ° from the resting position); 1 is the default preset value.	MC200 magnetic contact
Tilt delay	This is the length of the delay applied before signalling of tilting occurs (seconds or milliseconds)	MC200 magnetic contact
Disabled	Check box to disable the corresponding detector	

Table 4-6: Real-time for wireless zones

Parameter		Software section	
Real-time	Clicking on the Real-time button displays the current values of the following features of the wireless device:	<p>Zones, selected zone</p>	
	Reading level		The value read by each detector of the device is displayed on a bar which indicates the alarm threshold by means of a colour change from green to red.
	Battery charge level		Percentage of the device battery charge.
	Signal reception		The series of notches represent the reception level of the wireless signal of the device as received by the transceiver.
RF analysis	This button opens a window that allows the monitoring of signal variations transmitted by the device and any detected background noise.		

Outputs

4-4

Click-on the **Outputs** button on the menu on the left, the section on the right will provide a list of all the available outputs and their parameters.

Via software

By selecting one of these items it is possible to set the parameters of the single zone by clicking on the button.



Via keypad




Type in Code (Installer) , **PROGRAMMING Zones** , select the zone concerned

This section allows the programming of the various parameters of the selected zone.

Table 4-7: Output parameters

Parameter	Software section	Installer menu section
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Table 4-7: Output parameters

Description	This is the editable output label (device description). At default all the outputs, except for the 3 outputs on the control panel motherboard, assume the description of the peripheral they refer to followed by the respective terminal.	 Outputs, selected outputs	Outputs, "output"
Monostable time	Check box for the monostable time in the event the "Monostable" option is activated.		
Icon	Check box for the selection of one of the 80 icons available (refer to <i>Appendix C, Available Icons</i>) that can be associated with the "Output activation" shortcut associated to the selected output.		
Events	Clicking-on the Events option in the table opens a window containing a list of events which, when they occur, activate the output. Each individual event can be deleted by clicking on Delete .	 Outputs	Not available
Codes	licking-on the Codes option in the table opens a window containing a list of user codes which can activate the output.		
Normally closed	This is the condition of the output during standby status.	 Outputs, selected outputs, Options	Outputs, "output", Options,
Monostable	This option makes the output a "monostable" output.		
Buzzer - beep 1KHz	When the output is activated, it will generate a 1KHz signal. This can be used to directly drive a buzzer.		
Flasher - 0.5s ON and 0.5s OFF	When the output is activated, it will generate an intermittent signal (0.5 sec ON and 0.5 sec OFF). This can be used to drive a visual signalling device.		
Do not deactivate on reset	The output will not restore when the activating event ends.		
Switch	Each time an output activation command is executed, it is switched.		
Relay use	The output will operate as a relay output.		
Home Automation	The output has the "home-automation" attribute (refer to <i>paragraph 4-4-1 Home-automation outputs</i>). If the output is activated when the control panel enters the programming phase, it will not reset to stand-by.		
Interlocked	If enabled, this option inhibits the contemporary activation of the associated terminals. It can be enabled only for terminal T01, which will automatically activate the option for the associated T02, and terminal T03, which will automatically activate the option for the associated T04.		

The options listed above allow the installer to indicate the type of function of the output.

Note

A declaration as to the type of output which is incoherent with the output itself may cause malfunction.

MONOSTABLE

When a "Monostable" output receives an activation signal, it will remain active (On) for the programmed time, regardless of the status of the event which caused its activation.

For some events there are conditions that can force the deactivation of the activated monostable outputs in advance.

DO NOT DEACTIVATE ON RESET

If the option is activated, the output will not reset when the event that refers to it ends. It is useful to activate the output with one event and deactivate it with another.

This option applies to bistable outputs only. if this option is active on a bistable output, its selection as an event-reset output will generate reset of the output and not its activation (refer to *Chapter 11, Programming events*).

This option is useful when it is necessary to create "memory" events, whose occurrence will be signalled by the respective output. The deactivation of the output is carried out via a further event that forces the output to reset.

For example set:

- for the AUX output this option
- on activation of the "AC Mains failure" event, the AUX output
- on reset of the "Valid Code" event for "Code 1" AUX output

In the event of Mains failure the output will activate but will not deactivate when the Mains power restores. The output will be deactivated only when the "CODE 1" recognition event occurs.

If this option is enabled, each time an output activation command is carried out the output will switch status. Therefore, if it is deactivated it will activate and vice versa.

A deactivation command will always carry out deactivation.



In order to use this feature with the shortcuts, it is therefore necessary to use the "Activate output" shortcut.

SWITCH

Home-automation outputs

The installer can program the outputs which can be viewed and activated from a keypad without authentication (i.e. without entering a user code).

The procedure for access to these outputs depends on the type of keypad in use:

- from a keypad with keys, activate the shortcut for the "Output management menu" (shortcut n. 21) associated with **F1**  , ... , **F4** 
- from a touchscreen keypad, access the "Commands" section, then the "Home automation" section.

Click-on the **Outputs** button on the menu on the left, the section on the right will provide the list of configured outputs. Here it is possible to indicate the outputs required for the home automation systems by activating the relative "Home Automation" option.

The outputs selected in this way can be activated by anyone with access to the keypad without any request for authentication via user code entry.

4-4-1



Via software



Output scenarios

It is possible, solely via the Sol/STUDIO software, to combine the activation and reset of each event with the activation of an output scenario event.

The Sol control panel provides 50 output scenarios, each with a maximum of 10 outputs.

Programming occurs in two phases: the first is the definition of the scenarios, the second is the assignment to the activation and reset of the event.

Click-on the **Output scenarios** button on the menu on the left, the section on the right will show the list of the 50 available scenarios. By selecting one of them, it is possible to set (at the side of the list) each of the 10 outputs available.

For each of these it is necessary to indicate the output (from those configured) and the activation type:

- **ON** - command that activates the output or, if it is a "switching" type output, changes its operating status.
- **OFF** - command that deactivates the output
- **Force ON** - command that activates the output
- **Toggle** - command that changes the activation status of the output

To assign one of the programmed scenarios to the each event, go to the programming section of the event.

The "Output scenarios" section provides two programming fields for the selection of the scenarios, one relating to activation of the event and the other to its reset.

4-5

Via software



SCENARIOS ON EVENTS


Chapter 5

Programming partitions

The programming of the partitions of the Sol system can be performed either via software or from a keypad.

Via software




Click on the **Partitions** button on the menu on the left, the section on the right will show a list of all the available partitions and their parameters. By selecting one of these items it is possible to set the parameters of the single partition by clicking on the  button.

Via keypad

Type-in Code (Installer PIN) , **PROGRAMMING Partitions** .

This section allows the programming of the various options of the selected partition.


Via App

Access the "Programming" section using the  button on the top left and follow the guided procedure for quick configuration of the system up to the request to program the partitions.

5-1

Partition parameters

Table 5-1: Parameters for single partitions

Parameter		Software section	Installer menu section	
Description	This is the editable partition label (description).	 Partitions, selected partition	Partitions, "partition"	
Exit time	This is the Exit time window (programmable in seconds or minutes) If "0" is set in this field, there will be no Exit time (delay), therefore, any delayed zones, which belong to the partition, will generate alarms if they are not in standby status when the system arms.			
Entry Time	This is the Entry time window (programmable in seconds or minutes). If you set "0" in this field, there will be no Entry time. Therefore, any delayed zones belonging to the partition will generate alarms instantly if violated when the partition is armed.			
Entry Time 2	This is the window for the second Entry time.			
Pre-arm time	This setting is the delay, expressed in minutes, which precedes automatic-arming on a partition.			
Patrol time	This is the time window for patrol operations (programmable in minutes).			
Timers	Select the timer you want to associate with the automatic-arming operations.			
Autoreset memory on arming	If enabled, the partition alarm and tamper memory will reset automatically when the partition arms.			Partitions, "partition", Options, AutoresetMemories Autoarm.STAYmode
Auto-arm in stay mode	If enabled, the partition will arm in "Stay" mode at the programmed time. If disabled, the partition will arm in "Away" mode at the programmed time.			
Clear call queue on disarm	If enabled, the call queue will clear when the partition disarms.			
Events button	At the bottom of the section are the buttons that directly access the programming section of the events associated with the selected partition.		StopTelOn Disarm Events	

**AUTOMATIC
ARMING/
DISARMING**

The association of a timer to a partition will allow it to arm or disarm automatically at the ON/OFF times set on the timer.

This function must be enabled or disabled for each individual partition.

Type-in Code (User), Activations, Auto-arm

This section lists the partitions on which to activate or not automatic arm/disarm operations by means of the * and * buttons.


Forced auto-arm operations may occur, generated by events active at the time of the auto-arm operation.

Chapter 6 Programming arming scenarios

The programming of the arming scenarios (configurations of the arming mode of the Sol system partitions) can be carried out either via software or from a keypad.

Via software



Click-on the **Arming scenarios** button on the menu on the left, the section on the right will provide a list of all the available scenarios and their parameters. Selecting one of these items allows you to set the parameters of the single scenario by clicking on the  button.

Via keypad

Type-in Code (Installer), **PROGRAMMING Arming Scenarios**.


This section allows you to program the various options of the selected scenario.

Via App

Access the "Programming" section using the  button on the top left and follow the guided procedure for quick configuration of the system up to the request to program the scenarios.

6-1 Scenario parameters

Table 6-1: Parameters of single scenario

Parameter		Software section	Installer menu section
Description	Editable field for the description of the scenario.	 Arming scenario, selected scenario	ArmingScenario, "scenario"
Icon	This section allows you to select the icon you wish to assign to the scenario, simply by indicating the icon number (refer to <i>Chapter 13, Keypad shortcut and icon</i>):		
Output	The selected output will be activated when the scenario is applied (via keypad, reader, phone, etc.). It is possible to use a scenario solely to activate an output (leaving all actions on the areas null) thus having the possibility to display different icons on the keypads to activate different outputs, inheriting the desired icon from the scenarios.		
Partitions	This section allows you to configure the arm/disarm scenarios of all the partitions managed by the control panel. <ul style="list-style-type: none"> • "-" the current operating mode of the partition will not be changed. • Away - the partition will arm in Away mode (interior and perimeter). • Stay - the partition will arm in Stay mode (perimeter only). • Instant - the partition will arm in Instant mode (perimeter only with zero delay). • Disarm - the partition will disarm. 		
Activate scenario	At the bottom of the section is a key that directly accesses the programming section of the event that applies the selected scenario.		Events, Scenario-ON

Programming timers

Chapter 7

Each timer can be programmed to manage:


- the assigned partitions of the codes and keypads that have access to the programming process of the timers via the user menu
- two scheduled activation times ("ON") for each day of the week.
- two scheduled deactivation times ("OFF") for each day of the week.
- Up to 15 exceptions

A timer can be associated with:

- a **Partition** - if a timer is associated with a partition on which automatic-arming operations are enabled (refer to *paragraph 6-5 Activations* in the *User's Manual*), the partition will arm when the timer activates and disarm when the timer deactivates.
- a **Code** - if the timer is enabled, the code will be authorized to operate on the system only during the period the timer is active (ON).
- a **Key** - if the timer is enabled, the key will be authorized to operate on the system only when the timer is active (ON).

The timers must be enabled/disabled by the user (refer to *paragraph 6-5 Activations* in the *User's manual*).
On exiting the programming session all the timers will be automatically re-enabled, therefore, if the user previously disabled any of the timers, then these must be re-enabled.

Note

Click-on the **Timer** button on the menu on the left, the section on the right will provide a list of all the available timers and their parameters. Selecting one of these items allows you to set the parameters of the single timer by clicking on the  button.

Via software



The software program allows you to set up 15 setting exceptions for each timer. Each exception allows you to define an interval period (of even one day) within which you can set an activation time and a deactivation time valid for all the days of the interval. The system does not accept intervals which go over the end of the year. Therefore, it is impossible to program an interval such as 12th December to 5th January. In such situations, you must program 2 "timer exceptions", one from 12th to 31st December and the other from the 1st to 5th January, both with the same On and Off settings.

The exceptions have priority over the days of the week. For example, if a "timer exception", lets say 1st May, falls on a Tuesday the settings programmed for 1st May will be applied.

Type-in Code (Installer PIN) , **PROGRAMMING Timers** .

This section allows you to program the various options of the selected timer.

Via keypad


The exceptions cannot be programmed via keypad.

Note

7-1

Timer parameters

Table 7-1: Single timer parameters

Parameter		Software section	Installer menu section
Description	This is an editable field for the description of the timer.	 Timer, selected timer	Not available
Monday / ... / Sunday	It is possible to set two "ON" and "OFF" time frames for each day of the week. During the week, the timer will activate in accordance with each "ON" indication and deactivate in accordance with each "OFF" indication, regardless of the number of times "ON" and "OFF" indications occur and also regardless of whether the indications belong to the same day of the week.		Timers, "timer"
Partition filter for user-codes	This section indicates the partitions associated with the codes and keypads which have access to timer programming through the user menu.		
Exceptions	Each exception allows the definition of a time frame, expressed in days, within which you can set an "ON" (activation) time and an "OFF" (deactivation) time valid for all the days included in the time frame. Exceptions always have priority over the days of the week.		Not available
Timer event	A key is provided that directly accesses the programming section of the activation event of the selected timer.		Events, Activated timer

Note

It is also possible to program only activation or only reset of a timer.
The field not used for programming purposes must be set as "--:--".

Programming user codes

Chapter 8

Programming of the user codes involves both the authorizations of the user the code is associated with, and the code itself with its parameters (hierarchical level, PIN, etc.).

Click-on the **Codes** button on the menu on the left, the section on the right will provide a list of all the available user codes and their parameters. Selecting one of these items allows you to set the parameters of the single code by clicking on the button.

Type-in Code (Installer) , **PROGRAMMING Codes** .

This section allows you to program the various options of the selected user code.

Via software



Via keypad

Change user PIN

8-1

The user code PINs must be numeric and comprise 4 to 6 digits.

The PIN of the user code n. 1 is "0001" at default. The PINs of the following user codes are "0002", "0003" etc., up to "0050" for the Sol060S and Sol060L control panel models and up to "0100" for Sol120L and Sol240L.

Click-on the **Codes** button on the menu on the left, the section on the right will provide the "Change User PIN" subsection where it is possible to change the PIN of the selected code.

The new Code PIN must be created in the "New PIN" programming field in two different ways:

- **Old PIN** - this method allows you to substitute the old code PIN (to be entered in the upper edit field) with a new PIN (to be entered in the lower edit field).
- **Master or Manager User PIN** - this method, using a Master or Manager user PIN (to be entered in the upper edit field) allows you to substitute the old code PIN with a new one (to be entered in the lower edit field on the right).

Changes will be valid only after the **Change PIN** button has been pressed.

Type-in Code (User), **Change PIN**

This section allows you to change the User Code PIN used for access and also the PINs of all other users with a lower rank in the system hierarchy.

1. Using keys and select the user code you want to change.
2. Type-in the new PIN (4, 5 or 6 digits) using keys **0** , ..., **9** then press **OK**.
3. Type-in the new PIN again using keys **0** , ..., **9** and press **OK** to save.

Type in Code (Installer) , **PROGRAMMING Default settings, Only PIN default**

This section will allow you to reset all PINs of the user codes to default.

From the Sol-P touch-screen keypad, access the "Settings" section, enter a valid user code, then access the "Date/Time - Change PIN - Change tel. num." section, then the "Change PIN" section.

Select the code from those available on the list. The next step is to change the code using the buttons on the touch screen then tap **OK** to confirm.

Via software



Via keypad

Via touch-screen keypad



8-2

User code parameters

Table 8-1: Single code parameters

Parameter		Software section	Installer menu section
Description	This is an editable programming field for the code user's name.	Codes, selected code	Codes, "code"
Partitions	Section for the selection of the partitions the code is assigned to.		
Type	Programming field for the assignment of the level in the code hierarchy of the selected user. The default level of code number 1 is "Master"; the default level of all the other codes is "User".	Codes, selected code, Options	Codes, "code", Options
Partition filter	If this option is enabled, the code concerned can change the parameters only of codes of a lower level in the code hierarchy whose partitions are a subset of its own partitions. For example, if a code is configured as "Master" with "Partition filter" and is assigned to partitions 1, 3, 5 and 7, it will be able to enable/disable or change the PIN of a "User" code assigned to partitions 1 and 5 but not the PIN of a "User" code assigned to partitions 1, 2, and 3.		
Fixed length	Fixed length - if enabled, the user will be able to arm and disarm the control panel simply by typing in their PIN without need of pressing the OK button. If all the partitions the user controls are disarmed, it will arm them, otherwise it will disarm them If this option is enabled, the user of the code concerned can access their menu only after pressing OK and typing-in their PIN.	Codes, selected code, Enablement details, Options	AnnounceShortcut
Voice guide	If enabled on a keypad with a speaker, the voice guide (after PIN entry followed by OK) will announce the shortcut descriptions relating to the entered user-code and the respective number keys on the keypad.		
Patrol	If enabled, the code will be able to disable the system for the pre-set "Patrol time".		
Remote access	If enabled, the code PIN can be used to operate the system from any remote telephone. If the code PIN is entered on a remote telephone keypad, only the shortcuts associated with keys 0 to 9 can be used to: <ul style="list-style-type: none"> • Arm/Disarm • Stop alarms • Clear call queue • Delete memory • Activate output • Deactivate output • Listen-in • Arming status 		
Recognized valid user code	A key is available that directly accesses the programming section of the system arming event of the selected code.	Codes, selected code	Events, Valid Code

Table 8-2: Code enablements

Parameter		Software section	Installer menu section
Enablements	This section allows you to enable/disable access to the various sections of the User Menu. For details regarding the sections of the user menu, refer to the <i>User Manual</i> .	Codes, selected code, Enablement details	Codes, "code" Enablements
Enablement of outputs	This section allows you to enable/disable each output the code is authorized to control manually via the user menu.		Assigned outputs
0/9 key shortcuts	In this section it is possible to associate each number key on the control panel keypad (0, ..., 9) with a shortcut (and eventual parameter) to be activated when the key is pressed.	Codes, selected code, Shortcut details	Key shortcuts
Timers	This section allows you to assign a timer to the code. The code will be operative only at the pre-set times.	Codes, selected code, Enablement details	Timers

Programming keys

Chapter 9

Key programming consists of setting the parameters of the keys and remote-control devices for user access to the partitions protected by the Sol system.

Each digital key and remote-control device must be enrolled separately on the system in order to allow it to operate.

Enrolling keys

9-1

The enrolling procedure is carried out in this section, as follows:

Type-in Code (Installer) , **PROGRAMMING** Keys, **Enroll**

Via keypad

1. The readers present in the control panel configuration will be shown. Select the reader for enrolling the keys, then press **OK**, if you select a reader simulated by a transceiver, a "W" will be shown at the end of the description.
2. Select the digital key you want to enroll and press **OK**, if you are using an nBy/S or nBy/X reader all the LEDs will start to blink to indicate that it is ready to enroll the key.
3. The keypad will indicate the current description of the key concerned.
4. Hold the digital key in the vicinity of the reader and then move it away. In the case of a wireless keyfob, press simultaneously keys **3** and **4**.
5. The keypad will emit a beep to confirm that the key has been successfully enrolled. If you are using an nBy/S or nBy/X reader, the red LED will go On.
6. The digital key description on the display will pass to the next key automatically. This method (from step 4.) allows you to enroll as many digital keys as the system requires.
7. Once you have completed the enrolling process, press **Esc** or **C** .




All the enrolled keys will be enabled to operate the system immediately.

Note

Type-in Code (Installer), **PROGRAMMING** Keys, **Delete key**

DELETE KEYS

This section allows you to delete enrolled digital keys from the system configuration. The enrolled digital keys can be found in the list with the  symbol.

1. Use keys  and  to select the enrolled digital keys to be deleted.
2. Press  * to delete the selected digital key.
3. Press **OK** to confirm and exit.





Through an appropriate section of the installer menu it is also possible to delete all the enrolled keys at once. This section can be reached as follows:

Type in Code (Installer) , **PROGRAMMING** Default settings , **Only keys-Default**

Type-in Code (Installer) , **PROGRAMMING** Keys, **Enable/disable**

KEY ENABLEMENTS

This section allows you to enable/disable the digital keys. These operations are not irreversible:

1. Use keys  and  to select the key in question.
2. Use keys  * and  * to enable/disable the selected key.
3. Press **OK** to confirm and exit.

9-2

Key parameters

Via software



Click-on the **Keys** button on the menu on the left, the section on the right will provide a list of all the available keys and their parameters. By selecting one of these items it is possible to set the parameters of the single key by clicking on the button.

Via keypad

Type-in Code (Installer) , **PROGRAMMING Keys**, **"key"**, **Key parameters**
 This section allows you to program the various options of the selected key.

Table 9-1: Parameters for single key

Parameter		Software section	Installer menu section	
Description	This is an editable field for the key name/description.	Keys, selected key	Keys, "key", Key parameters	
Partitions	This section allows the installer to establish which partitions the key can control.			
Timers	This section allows the association a timer with the key, in order to control when (according to set hours) the key can operate on the system.			
Shortcut	In this section it is possible to set the four shortcuts (with any related parameter) that the key can activate at a reader. Each shortcut is associated with the lighting-up of a specific reader LED: <ul style="list-style-type: none"> • F1 - red LED • F2 - blue LED • F3 - green LED • F4 - yellow LED 			
Patrol	The key will be able to disarm specific partitions for patrol purposes.	Keys, selected key, Options	Keys, "key", Change key, Options	
Maintenance	The key will be able to stop outputs associated with alarm and/or tamper events for the time that it is held in front of a reader.			
Wireless	This option indicates whether the previously enrolled key is a wireless key or not.			
Use key shortcuts only	If a digital key is held in the vicinity of a reader, only the digital key shortcuts will be indicated and not the reader shortcuts.			Use keyShortcuts
Total disarming disabled	If a key is held in the vicinity of a reader when some partitions are armed, the Disarm option will be inhibited (all LEDs Off).			DisarmNotAllowed
Valid key	A key is available that allows direct access to the programming section of the access to the system event via a valid key.	Keys, selected key	Events, Valid key	

If a digital key is held in the vicinity of a reader, the LEDs will run through a series of visual signals with the following meanings:

Table 9-2: Readers - LED visualization

LED indicator sequence		Option: Use key shortcuts only									
		enabled	disabled								
1	Red LED On	Key shortcut F1	shortcut associated with the red LED on the reader								
2	Blue LED On	Key shortcut F2	shortcut associated with the blue LED on the reader								
3	Green LED On	Key shortcut F3	shortcut associated with the green LED on the reader								
4	Yellow LED On	Key shortcut F4	shortcut associated with the yellow LED on the reader								
5	All LEDs On	This sequence does not occur	Key shortcut F1								
6		Option: Total disarming disabled									
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">enabled</th> <th colspan="2">disabled</th> </tr> </thead> <tbody> <tr> <td colspan="2">no request to arm all the partitions common to both the key and reader.</td> <td colspan="2">request to arm all the partitions common to both the key and reader.</td> </tr> </tbody> </table>		enabled		disabled		no request to arm all the partitions common to both the key and reader.		request to arm all the partitions common to both the key and reader.	
		enabled		disabled							
no request to arm all the partitions common to both the key and reader.		request to arm all the partitions common to both the key and reader.									

Note The "Use only key shortcut" and "Total disarm disabled" options have no effect for wireless keyfobs.

Programming the telephone

Chapter 10


The Sol system provides for the programming of all the telephone parameters, both for the telephone numbers to be called when events occur, and for the telephone line parameters.

The built-in ATS device (alarm transmitting system) provides the following features (in compliance with EN50131 relating to the notification of information).

ATS DEVICE

- Type B notification apparatus (refer to EN50131-1:2008-02, paragraph 8.6 Notification, Table 10, page 46, Grade 2).
- The ATS2 notification apparatus specified in the table, is characterized by:
 - Transmission time - classification D2 (60 seconds)
 - Transmission time - max. values M2 (120 seconds)
 - Classification time - classification T2 (25 hours)
 - Substitution security - S0 (no detection of device substitution)
 - Information security - I0 (no detection of message substitution)

Clicking-on the **Telephone** button on the menu on the left accesses two sections on the right.

- **Telephone numbers**, where all the available telephone numbers and their parameters are listed. Selecting one of these items allows you to set the parameters of the single scenario by clicking on the  button.
- **Telephone parameters**, where it is possible to set the parameters of the telephone line and telephone dialers.

Via software




Type-in Code (Installer PIN) , PROGRAMMING Telephone

In this section it is possible to program both the parameters of each selected telephone number and some parameters of the telephone line. Other parameters are available in the sections:

Type-in Code (Installer), **PROGRAMMING Parameters** or also **Other parameters**

Via keypad

Access the “Programming” section using the  button on the top left and follow the guided procedure for quick configuration of the system up to the request to program:

- telephone numbers for voice calls
- telephone numbers for SMS messages
- telephone numbers for Alarm Receiving Centres using Contact-ID


The association of these telephone numbers with the activation events can be done through the “Call type” option.

Via App

10-1

Telephone numbers

Table 10-1: Parameters of single telephone number

Parameter		Software section	Installer menu section
Description	This is an editable field for the code user's telephone number, to be customized by the installer.	 Telephone numbers, selected number	Telephone, Selected number, "number"
Telephone number	Editable field for the contact number (maximum 20 digits). Accepts also ", " (= 2 second pause), "*" and "#".		
Type	Telephone number type: <ul style="list-style-type: none"> • None - the selected number can receive SMS text messages only • Voice - the selected number can receive voice calls and SMS text messages If the number refers to the Alarm Receiving Centre, assigns the ARC protocol (reporting format): <ul style="list-style-type: none"> • Ademco 10bps, Ademco 14bps, Franklin 20bps, Radionics 40bps, Scantronic 10bps, CONTACT-ID, SIA-IP 		
Account code	This is the 4-character alphanumeric code which identifies the caller in reports to the Alarm Receiving Centre.		
Channel	Selection box for the channel on which you can route the call: <ul style="list-style-type: none"> • PSTN • Sol-3G 		
Encryption	This field allows you to select the SIA-IP protocol encryption type: <ul style="list-style-type: none"> • None • AES 128 bit • AES 192 bit • AES 256 bit After selecting the type is necessary to indicate the encryption key.		
Receive SMS	This option allows the telephone number to receive an SMS message from the Sol-3G GSM module, as well as all other event-related communications.		Telephone, Selected number, "number", Options
Toggle channel on	This option, in the event of call failure on a channel, enables the control panel to carry out call attempts on an alternative channel and then try again on the original channel and continue on both channels alternately for the set number of attempts.		
SIA-IP	If a telephone number is configured as "SIA-IP", you must program the IP address and the SIA-IP receiver port in this section.		Not available
Enable SIA-IP polling	If a telephone number is a "SIA-IP" type number, this option enables the polling function.		
Partitions	You can associate each telephone number with specific partitions. By selecting the partitions, you can enable/disable users (who have at least one of these partitions in common with the telephone number) to modify the number concerned.	Telephone, Selected number, "number"	
Failed call	A key is available that directly accesses the programming section of the failed call.event.	Events, Failed call	

"SIA-IP" TYPE

If a telephone number is "SIA-IP" type, the IP address and port of the SIA-IP receiver must be entered in the receiver number field in the "Number" section, using the following format:

xxxxyyzzttt,ppppp

where:

- "xxxxyyzzttt" are the 4 octets of the IP address (standard IPv4), each of which should be written with 3 figures and, if necessary, "0" filler characters and no separation points.
- "ppppp" is the port and should be written with 5 figures and, if necessary, "0" filler characters.

POLLING SIA-IP

If a telephone number is a "SIA-IP" type number, it is possible to enable the "polling" function. In this way, from this number the control panel sends a periodic signal to the receiver SIA-IP server, which can verify proper functioning of the transmission. The parameters of the polling periodicity are available in the "Telephone parameters" section (*Table 10-2: Telephone parameters*).

ACCOUNT CODE

Some protocols (reporting formats) accept digits only, whilst others accept also "A", "B", "C", "D", "E" and "F", available using keys **2** abc **3** def .

Telephone line

10-2

Table 10-2: Telephone parameters

Parameter		Software section	Installer menu section
Dial-tone check	The control panel will engage the telephone line and check for the "dial tone"; if present, the control panel will start dialing.	Telephone parameters - Telephone line parameters	Parameters Dial tone check
Pulse dialing	The control panel will dial using pulse tone.		Pulse dialing
Telephone line fault alert	If a "telephone line fault" event occurs, the control panel will flash the respective icon on the keypad displays.		Line down signal
Double call	The control panel will override the answerphone function. Option available only for PSTN calls.		Double call
Number of rings for answerphone	This value determines the number of rings the system allows before picking up an incoming call (from 1 to 15).		Telephone Number of rings
Ring sensitivity	This value determines the reception sensitivity of incoming call rings. At default this value is set at 60. Accepted values: 1 to 120.		Other parameters, Ring sensitivity
Call all voice/digital/SIA-IP numbers	If several voice calls (digital or SIA-IP) generated by the an event are waiting in the outgoing call queue, the control panel will attempt to send voice calls to all the numbers of this type.	Telephone parameters, Telephone dialer parameters	Parameters Call allVoxNums Call all TLVNums Call all SIA-IP
Access DTMF menu without code	Allows access to the User Menu over-the-phone (during voice calls from the control panel) in accordance with the access level (enabled options, etc.) of the last user code that operated on the control panel (code 30, 50 or 100).		DTMF withoutCode
Start message after dialing	The control panel will start the voice message 5 seconds after dialing the respective contact number.		BypassVoiceCheck
Confirm call with ""	The control panel will consider the voice call successful when, during the telephone call, the recipient presses "" on their telephone keypad.		Confirm with *
UTC Time on SIA-IP	Calls to SIA-IP type numbers will contain the date and time in "UTC" format (Coordinated Universal Time).		UTC timeOnSIA-IP
Increase DTMF sensitivity	Option that increase the sensitivity of incoming DTMF tones.		DTMF sensitivity
No SIA strings No SIA-IP strings	The descriptive strings will not be sent in SIA/SIA-IP protocol.		NoStrings SiaProt NoStrings SIA-IP
Arm/Disarm inverted on C.ID	Partition arming events using CONTACT-ID protocol will send the "New event/Event activation" code when the partition arms, and the "Event ended/Event restore" code when the partition disarms.		CONT-IDInversion
Generates one call only for each event	If this option is enabled, it blocks all the calls programmed for an event after the first successful call. If the options "Call all voice/digital/SIA-IP numbers" are enables, then the latter have priority.		SingleCallEachEv
Stop calls on disarm with no alarm	The control panel will not carry out the calls programmed for disarm operations when there are no active alarms or alarm memories present.		Disab.Tel.Disarm
Message repetition number	This value determines the number of times the voice message will be played during the call (from 1 to 15).		Telephone Message repeats
Number of attempts	This value determines the number of calls attempts the system will make before deleting the contact number from the call queue (from 1 to 15).		Max.num.attempts
Delay on line-down signal	This parameter allows you to program the delay, expressed in seconds or minutes, which will be applied before "Line Down" events is signalled.		Other parameters, LinedownDelay
SIA-IP polling interval	Programming field for the setting, expressed in seconds, of the between two consecutive polling signals.	Telephone parameters	Not available
Disabled	Option that disables the polling function for all telephone numbers.		

10-2-1

Telephone line adjustment

The “Outgoing voice volume” and “Incoming voice volume” parameters can be used to correct the voice functions of the dialer and DTMF tones (refer to *Table 2-4: Control panel options*). The values of these parameters affect each other, therefore, and a good result is always a compromise.

If you are not using a GSM interface, you should:

- Adjust one parameter at a time and carry out tests to verify the result.
- Increase/decrease the values in small steps (for example, from 25 to 22 and not from 25 to 15).
- If the DTMF tones are not recognized, or are recognized with difficulty, decrease the value of the “Outgoing voice volume” parameter (in small steps of 2 or 3 units) and verify the effect. If there is no improvement, increase the value of the “Incoming voice volume” parameter until an acceptable level is achieved.
- Do not increase the “Incoming voice volume” parameter excessively, as an excessive value may cause incorrect interpretation of DTMF tones.
- If the volume of the telephone messages is low, increase the “Outgoing voice volume” (in small steps of 1 or 2 units) and verify the effect. An excessive value of the “Outgoing voice volume” parameter may cause incorrect interpretation of DTMF tones.

In most cases, the value of the “Outgoing voice volume” parameter is between 15 and 25, whereas, the value of the “Incoming voice volume” parameter is between 20 and 30.

If there is a SmartLinkAdv GSM interface, it is possible to adjust the values of incoming and of the output volume parameters of the SmartLinkAdv.

Note

Any changes to the value of the SmartLinkAdv incoming volume parameter come into effect almost 2 minutes after the setting change, therefore, you must allow this time to pass before verifying the effect.

Programming events

Chapter 11

The programming of events includes the programming of actions that the control panel must carry out at the occurrence of events. The control panel recognizes all of the events described in this paragraph and, in accordance with programming, is capable of generating pre-programmed actions for each event, both when the event occurs and when it restores/ends.

The actions are:

- activation of outputs
- activation/deactivation of outputs
- event notification via telephone call
- send SMS text messages
- event storage
- management of voice messages
- management of the option of each event
- activation of event related shortcuts

Telephone notifications (calls) are queued and sent out in chronological order. However, some events may need to be notified immediately (for example, use of a code under duress), therefore, such events can be given priority by selecting the “Priority” option.


Notification of events via predefined SMS messages requires the use of a Sol-3G (refer to *paragraph 3-5-3 SMS message texts*).

If a list of telephone calls is programmed for the notification of an event as well as SMS messages, the SMS messages will be sent before the telephone calls.

Note

The following table shows the events the control panel recognizes (described in the *Appendix E, Event type*), the number of events for each type, the activation and reset modes of each event and if the event is a pulse type event.

Click-on the **Events** button on the menu on the left to access the various sections on the right:





- **Events list**, this section is where all the available events and their parameters are listed. The programming field above “Event type” performs a filter on the display of events, in accordance with the type. Selecting one of these items allows you to set the parameters of the single event by clicking on the  button.
- **Event maintenance**, this section groups together all the fast programming functions of the events.
- **Configure other outputs**, this section allows you to configure the set of outputs selectable for each individual event in the **Other outputs** section.
- **Output scenarios**, this section allows you program the scenarios of the outputs that are to be associated with activation and reset of each event.

Via software



Type-in Code (Installer PIN) , PROGRAMMING Events

This section allows you to program the various options of each selected event.




1. Using the  and  buttons select the event type and press **OK**.
2. Using the  and  buttons select the single event from the previously selected type and then press **OK**.
3. Select:
 - **Activation**, to program the actions to be carried out when the event occurs.
 - **Restoral**, to program the actions to be carried out when the event ends.
4. Set the parameters relating to the event activation or reset actions.

Via keypad

11-1

Programming single events

Table 11-1: Single event parameters

Parameter		Software section	Installer menu section	
Activation / Restoral	The actions are arranged on lines in a table, each with a check box for the activation of the action when the event occurs and a check box for the activation of the action when the event reset.	 Events list, selected event, Actions	Events, "Event type", "event", Activation / Restoral TelephoneNumbers Outputs	
Tel. number "x"	This section allows you to select the telephone numbers to call on event activation/reset.			
Output	The output to be activated on activation/reset of each event can be selected from the check-box list.			
Notification to Cloud	If the panel is registered with the Cloud, the event will be sent to the Cloud.			Not available
Activate periodic event	When the event occurs, the system will generate Periodic event number 1.			Options StartPeriodicEv.
Clear call queue	When the event occurs, the system will cancel the outgoing call queue.			Clear call queue
Memory	If this option is enabled, activation/reset of the event will be saved to the events log.			Event ON to log/ Event OFF to log
Voice message on keyp. 001	Activation of message playback on the keypad must be set on the keypad at address "001" on activation/reset of the selected event.			Local Message ON (for activation) Local Message OFF (for reset)
Output scenarios	This section provides boxes for the selection of one of the 50 output scenarios, a field for event activation and one for event reset.			Not available
Shortcut on event	This programming field is for the selection of a control panel operation that will be activated automatically when the event occurs (refer to <i>paragraph 11-1-2 Shortcut on event</i>). This field is followed by a further two fields for the definition of the respective parameters.	 Events list, selected event	Not available	
Sounder pattern	If a sounder is included in the selected outputs, its activation will occur in accordance with the selected pattern.		SirenSound types	
Silent event	If the event occurs, the system will generate silent calls which will not be signalled on the keypads.		Options Silent event	
Force call to alternative channel	All telephone calls programmed for the event will be diverted to the channel that is the alternative of the one indicated by the Channel parameter in the programming of each telephone number (refer to <i>Table 10-1: Parameters of single telephone number</i>).		ForceAlt.Channel	
Priority event	Calls associated with this type of event have priority over all other calls. Therefore, if a priority event occurs, any ongoing calls will be interrupted and the priority-event call will be sent immediately.		Priority	
Enable SMS mess.	When the event occurs, the control panel will send an SMS message to all the duly enabled telephone numbers (refer to <i>Table 10-1: Parameters of single telephone number, "Receive SMS" parameter</i>).	 Events list, selected event, Sol-3G	Enable SMS	
Automatic SMS	If enabled, the dispatched SMS message will consist of the event description contained in the Events log.		Automatic SMS	
SMS number	If the "Automatic SMS" option is not activated, the SMS message, selected from the 50 available on the Sol-3G, will be sent (refer to <i>paragraph 3-5-3 SMS message texts</i>).		Not available	
Configure object	At the bottom of the section is a button that accesses directly the programming section of the object (system component) associated with the selected event.		Not available	

Note

The "Force call to alternative channel" option is valid only with Sol-3G installed.

OUTPUT

For the conditions of Zone alarm, Terminal tamper, Partition alarm, Partition in Stay-mode alarm and Partition tamper, if a monostable output is programmed in the "Outputs" parameter, the event will reset when, at the end of the monostable time, the event has actually returned to stand-by status.

If the event status returns to stand-by while the monostable time is running, the event itself will not be restored.

If the output has the “Do not deactivate on reset” option enabled (refer to *Table 4-7: Output parameters*) and is programmed to restore when the event occurs, it will be deactivated when the event occurs.

Note

This section deals with the selection of the audible and visual signals emitted by the sounder/flashers when these are programmed in the “Outputs” and “Other outputs” sections.

SOUNDER PATTERN

This is a parameter of the event, therefore, if several sounder/flashers have been programmed in relation to a specific event, they will all emit the programmed tone when the event occurs. If a sounder/flasher has been programmed to respond to several events, it will emit the last tone type set.

Voice and digital dialer for the event

11-1-1

The programming of a single event also includes the association of the occurrence of the event with a voice message, a combination of 3 voice messages, and a message with a digital protocol.

Each event can be associated with 3 voice messages, selected from the message list (refer to *Appendix D, Voice messages*).

VOICE MESSAGE

- Message type
- Message A
- Message B

This feature allows you to create messages which will be played during event-related voice calls to contact numbers, both at the start and end of the event.

The choice of the messages to be programmed and the replace sequence of these, depend on the setting of the “AutomaticDialer” option.

The following table shows the voice-message sequence in accordance with the previously mentioned parameters and options.



Table 11-2: Event-related messages

	“Automatic dialer” option enabled	“Automatic dialer” option disabled
Message type	Plays the message relating to the event type (e.g. “zone alarm”, “Mains failure”). This message should not be changed.	You can select any message from 1 to 219
Message A	Blank message, editable	
Message B	Contains event details, for events which are not distinctive (e.g. the “zone alarm” event indicates the zone concerned).	
Event Activation Sequence	<ol style="list-style-type: none"> 1. Message type + 260 2. Message A 3. Message B 4. “Location” (244) 	<ol style="list-style-type: none"> 1. Message type 2. Message B 3. “Location” (244)
Sequence in the event of Reset	<ol style="list-style-type: none"> 1. “Reset” (97) 2. Message type 3. Message A 4. Message B 5. “Location” (244) 	<ol style="list-style-type: none"> 1. Message A 2. Message B 3. “Location” (244)

If an event is programmed with the “Automatic dialer” option enabled, the “Message type” parameter will identify messages from 420 to 484, that is, messages containing descriptions of the event types.


Note

Table 11-3: Voice dialer parameters

Parameter		Software section	Installer menu section
Automatic dialer	If this option is enabled, the system will configure an optimal sequence of the messages for the activation/reset of the event. You can select different messages from those proposed, but the option enabled in this way imposes a limited selection in accordance with the event type.	 Events list, selected event, Voice dialer	Events, "Event type", "event", Activation/Reset, Options, Automatic dialer
Send address	Option that adds the message corresponding to the recorded address to the message sequence.		Send address
Message type Message A Message B	Section for the selection of the messages.		Events, "Event type", "event", Activation/Reset Message type Message A Message B
	Button to listen to the combined message.		Not available

DIGITAL MESSAGE The digital message associated with the occurrence of the event follows the protocols in accordance with the following parameters:

Table 11-4: Voice dialer parameters

Parameter		Software section	Installer menu section
Class code	This is the CONTACT-ID reporting format Class-Code which corresponds to the event.	 Events list, selected event, Digital dialer	Events, "Event type", "event", Activation/Reset Class code
Event Code on Activation/Reset	This is the 2-character alphanumeric code, which corresponds to the activation/reset of the event sent to the alarm receiving centre (ARC).		Event code
SIA protocol	If the event is associated with calls using SIA protocol or SIA-IP, this parameter will allow the installer to program the event code in accordance with SIA standard by selecting it from the list.		SIA Codes

EVENT CODE For zone and terminal events (alarm, tamper, bypass), the "CCC" field of the CONTACT-ID protocol counts the number of physical terminals.

SIA CODES An explanatory table of all the SIA codes is provided in the support manual for the installer and programmer.

11-1-2 Shortcut on event

It is possible, via software only, to associate a shortcut with each event, the selected shortcut will activate as soon as the event activates.

These shortcuts function differently from those which can be activated by the user (refer to *Appendix A, Default programming*) and allow the control panel to activate automatically determined operations when the event occurs.

Via software



Click-on the **Events** button on the menu on the left, then from the "Programming section on the right select the single event to be programmed.

The "Shortcut functions" section provides check boxes that allow the selection of the shortcut and definition of the relative parameter:

Table 11-5: Shortcut on event

Shortcut	Function	Parameter
Activate scenario	Shortcut that activates the scenario selected in the check box alongside.	One of the 30 shortcuts available
Activate output	Shortcut that activates the scenario selected in the check box alongside.	One of the configured outputs
Deactivate output		
Zone bypass	Shortcut that deactivates/activates the zone selected in the check box alongside.	One of the configured zones
Unbypass zone		
Disable code	Shortcut that deactivates/activates the code selected in the check box alongside.	One of the available codes
Enable code		

Table 11-5: Shortcut on event

Shortcut	Function	Parameter
Disable key	Shortcut that deactivates/activates the key selected in the check box alongside.	One of the available keys
Enable key		
Delete alarm memory	Shortcut that deactivates the outputs relative to zone/partition alarm and tamper events and deletes the partition and system alarm and tamper memories. This shortcut operates on the partitions selected for the scenario.	One of the 30 shortcuts available

Maintenance of events

11-2

Table 11-6: Single event parameters

Parameter		Software section	Installer menu section
Reset CONTACT-ID default	Button to reset the default values of the digital communicator for all the events.	Event maintenance	Default settings, CONTACTIDDefault
Delete activation/reset outputs	Sections with a Delete button for the deletion of all the outputs set for the activation/reset of each event.		Not available
Delete activation/reset notifications to Cloud	Sections with a Delete button for the deletion of all notifications to cloud service set for the activation/reset of each event.		Not available
Delete activation/reset calls	Sections with a Delete button for the deletion of all the telephone calls set for the activation/reset of each event.		Not available
Delete voice message playbacks on activation/reset	Sections with a Delete button for the deletion of playback on the keypad of the voice message set for the activation/reset of each event.		Not available
Reset SIA protocols to default	This section provides a Reset default button that resets the default settings of SIA protocol codes for all the events.		Default settings, SIA defaults
Delete shortcuts on event	This section provides a Delete Shortcuts button that delete the "Shortcut on event" parameters for all events.		Not available

Periodic events

11-3

The Sol control panel provides 4 periodic events.

Programming of these events includes the date and time of the first activation and the periodicity.

The activation of the first periodic event can be driven by other events (see the "Activate periodic event" option in *Table 11-6: Single event parameters*).

Table 11-7: Periodic event parameters

Parameter		Software section	Installer menu section
Periodic event	Programming field for the date and time of the first "Periodic Event" You can write the setting on the control panel by means of the Write on control panel button.	Control panel parameters, Periodic event	Other parameters, Periodic ev., Periodic ev. "x" Time per. Event
Periodic event Interval	This parameter allows the programming of the interval between periodic events (expressed in minutes or hours). Set "0" too disable the periodic event completely.		PeriodicInterval Options, Periodic ev. InMin
Continuous periodic event	If enabled, the system will generate the corresponding periodic event regardless of its initial date/time. The event will be generated when the programming session is exited, or when the system starts up, and will be generated continuously when the set period expires.		Options, Per.Ev. Continuous
Write on control panel	This button writes the setting on the control panel.		Not available

Set the date and time of first occurrence following the current date and time of the control panel.

Note

Chapter 12



Voice messages

The Sol provides a programming section for the recording and playback of all voice messages. The Table in the Appendix shows all the pre-recorded messages provided by the SmartLogos30M voice board (*Appendix D, Voice messages*).

Via software









By clicking-on the **Voice messages** button on the menu on the left, the section on the right will give access to several sections:

- **Messages list**, this section is where all the available voice messages and their parameters are listed. The "Message category" box at the top implements a filter on the display of messages, depending on the category it belongs to. Selecting one of these options makes it possible to set up the single message by clicking on the  button or to listen to it by means of the relative button .
- **Voice board maintenance**, this section allows the formatting the SmartLogos30M voice board.

The menu bar of these sections has the following buttons:

Table 12-1: Voice messages, menu bar

Button		Function
	Import	Buttons to import/export the voice message programming
	Export	
	Execute Text to speech	Button to apply the text to speech setting to the selected messages. The texts entered in the Text to speech section will be converted into audio files and associated with all the messages selected in the table.
	Configure Text to speech	Button to open a window where the text to speech settings can be changed
	Invert selection	Button to invert the selection of the messages
	Delete	Button to delete the selected messages

Via keypad

Type-in Code (Installer), **PROGRAMMING Messages**

This programming field allows the selection of the single message. After which it will possible to listen to, record or delete the recording.

12-1

Programming a single voice message

Table 12-2: Voice message parameters via software



Parameter		Software section
Nr.	Message index inside the voice board memory.	 Messages list
Description	This is an editable field for the message description.	
Type of coding	Type of coding for the message: <ul style="list-style-type: none"> • No Message, no recording or playback • High quality, for superior recording/playback quality • Average quality, for a recording/playback quality similar to phone-line quality. 	
Quality	Check box that indicates the recording quality of the associated audio file.	

Table 12-2: Voice message parameters via software

Time	This is the length (expressed in seconds) of the associated audio file.	 Messages list, selected message
Text to speech	Text of the associated audio file.	
Message category	This is the message type the selected message belongs to.	
Note	This field allows the editing of a text to associate with the message.	
Recorder	This section provides software for the playback and recording of audio files. Through which it is possible to edit the audio file associated with the message. It is possible to: <ul style="list-style-type: none"> • Load an audio file (.wav) • Play the loaded audio file • Record a new audio file • Reset the selected file to default 	
Good/Average Quality	Button for the selection of the sound quality of the audio file.	
Text to speech	This section allows the editing of the text which will be converted to an audio file and associated with the message. The conversion and association with the message will occur after the execution of text to speech (in this section this can be done using the record button).	



Type-in Code (Installer), PROGRAMMING Messages, "message", Record Via keypad

Before recording a voice message it is necessary to select:

- **No Message**, no recording or playback.
- **High quality**, for superior recording/playback quality
- **Average quality**, for recording/playback quality similar to phone-line quality.

High quality messages occupy twice the memory space of average quality messages of the same length.

The recording phase will start when the **OK** button is pressed, the recording time (in seconds) will be indicated by a second counter on the display. To stop the record/playback operation manually press **OK**, otherwise, it will end automatically when the pre-set time expires.



Type-in Code (Installer), PROGRAMMING Messages, "message", Play
 Message playback section. The volume can be adjusted during the playback phase by means of keys  and .

Type-in Code (Installer), PROGRAMMING Messages, "message", Delete
 Section for the deletion of the message. The control panel will ask for confirmation before deleting the message by means of the **OK** button.

Voice board maintenance

12-2

Table 12-3: Voice board maintenance operations

Parameter		Software section
Read all messages from the control panel	Button that allows the reading from the control panel of all the messages on the voice board.	 Voice board maintenance
Write all messages on the control panel	Button that allows the writing on the control panel of all the programmed voice messages.	
Check SmartLogos board	Button to start a check on the voice board and obtain information regarding its firmware version.	 Voice board maintenance, Formatting the SmartLogos board
Formatting the voice board	Button to start the formatting process of the voice board in order to align the firmware version with that of the control panel. The following formatting options are available: <ul style="list-style-type: none"> • Preserve previously-recorded messages • Format using default messages 	

Chapter 13

Keypad shortcut and icon

The Sol provides two programming sections to edit the shortcut icons that appear on the keypad display in correspondence to keys **F1**, ..., **F12**.

The basic icons and association with the shortcuts at default are shown on the table in *Appendix A, Default programming*.

13-1

Icons

Via software



Click-on the **Icon** button on the menu on the left, the section on the right will provide a grid with all the 80 icons available. Of these the last 30 are "blank" icon spaces.

Selecting one of these blank spaces opens a page where it is possible to edit:

- **Description**, the descriptive string associated with the icon.
- The graphics of the icon can be changed using digital graphic tools.

13-2

Association shortcut-icon

Via software





Click-on the **Association shortcut-icon** button on the menu on the left, the section on the right will provide a grid with all the 38 available shortcuts and their associated icons.

Selection of one of these icons opens a section in the lower part of the screen showing all the 80 icons and their descriptions. Clicking-on any one of these associates it with the selected shortcut.



Via keypad

1. Accessing the "Shortcuts" section:

Type-in Code (Installer), **PROGRAMMING Shortcuts**

2. Use keys  and  to select the shortcut then press **OK**.
Set the parameters:

- **Description**, this is the descriptive string of the shortcut which can be customized by the installer.
- **Icon**, this allows the selection of the icon associated with the shortcut, by indicating the icon number

3. Use keys  and  to scroll across the digits of the number.
4. Use the number keys to edit the number.
5. Press **OK** to confirm and exit.

Events log

Chapter 14

Click-on the **Events log** button on the menu on the left, the section on the right will allow the viewing of all the events saved to the control panel via a table, in which each row refers to a single event and the columns show the related data.

Via software



Table 14-1: Events log via software

Parameter		Note
Num.	Number which indicates the chronological order of the events in the log.	The events can be grouped into categories by dragging the header of the required category to the grey line above the columns.
Date/Time	Event date and time	
Event	Type of event	
Filter	Parameters for further event details.	
Agent		
Location		
Category		
Num.	Number which indicates the chronological order of the events in the log.	
Date/Time	Event date and time	
	Button to download the events log from the control panel.	These buttons are active only when you are working on a solution or a database. In particular, the Save button is enabled after a reading from the control panel.
	Print button for the events log	
	Button to save the contents of the events log to the database.	
	Button to load the contents of the events log from the database. A time interval will be requested, if no particular period is specified the entire contents of the Events Log will be loaded.	
	Button to delete the Events log from the database. A time interval will be requested, if no particular period is specified the entire contents of the Events Log will be deleted.	

Type-in Code (Installer), PROGRAMMING User functions, View

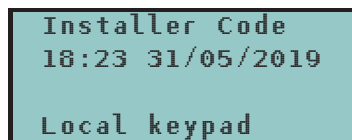
Via keypad

This section allows the viewing of the events log on the keypad, also via a subdivision of the events:

- **Events log** - allows the viewing of all the events saved to the log.
- **Alarms log** - allows the viewing of all the events relating to zone/partition alarm and tamper saved to the log.
- **Faults log** - allows the viewing of all the fault events saved to the log.
- **Arm/Disarm ops.** - allows the viewing of all the arm/disarm operations saved to the log.

Press keys and to scroll the list of events in chronological order. For some events,

pressing the button accesses the partition details. For example, the details of an "Arm" command will show the code and keypad concerned and, by pressing the , the list of partitions involved.



Access the "Intrusion" section and enter the user code. The "Events log" section will be shown.

Via touch-screen keypad



All the events saved to the log will be shown one at a time. However, the up/down keys will allow you to scroll the entire list of events. Each event shows the relative details and, when available, it is possible to view the partitions involved by pressing the **PARTITIONS** button.

Chapter 15

Default settings

The operations necessary for the reset of factory data vary and can be carried out by the installer in accordance with the method used to access the control panel:

- the **FACTORY** and **RESET** buttons on the control panel PCB
- the keypad, via the installer menu
- the Sol/STUDIO software

ATTENTION!

Reset of all factory default programming deletes any previously programmed data.

Note

Reset of the factory default programming data does not cancel the connection of the control panel to the Cloud.

Via PCB

1. Press and hold the **SERV-FACT** button on the motherboard.
2. Press and release the **RESET** button on the motherboard.
3. Release the **SERV-FACT** button.

Within 70 seconds the control panel will reset to default settings, re-enroll all the peripherals currently on the I-BUS and, if a keypad is connected, will ask for selection of the Language to be used.

Reset to factory default data will not delete the events log.

Via keypad

Type in Code (Installer) ,**PROGRAMMING Default settings**

In this section it is possible to reset to factory values all the control panel parameters, auto-learn zone balancing values, auto-enroll I-BUS peripherals and reset the event codes of CONTACT-ID reporting format.

Following each of these operations, the control panel will ask for confirmation by pressing the **OK** button.

CONTINUE?OK=YES

Via software





The Sol/STUDIO software program allows reset of the control panel default values only for the following parameters:

- digital dialer parameters
- "CCC" field of CONTACT-ID protocol of the zones
- phone calls on activation and reset
- outputs on activation or reset
- message playback on keypads on activation or reset
- SIA protocol parameters

Table 15-1: Reset operations

Parameter		Software section	Installer menu section
Full reset	If this option is selected, the control panel will reset all programming data to factory default settings.	Not available	Default settings, Factory data
Learn zone balancing	If this option is selected, the control panel will gather and save the balancing settings of all the zones automatically (Patent Filed).	Not available	Learn zone bal.
Reset CONTACT-ID event codes	If this option is selected, the control panel will reset all the event codes used for the CONTACT-ID protocol to factory default (refer to <i>paragraph 11-1-1 Voice and digital dialer for the event</i>).	Not available	CONTACTIDdefault

Table 15-1: Reset operations

Reset SIA protocols to default	If this option is selected, the control panel (after requesting confirmation) will reset to factory default all the SIA parameters of all events.	 Event maintenance	SIA defaults
Delete events programming	Pressing the OK button will delete all the control panel events, both for activation and reset: <ul style="list-style-type: none"> • all outputs • all calls • all options 		DeletePrg.events
Wireless data reset	Pressing the OK button will delete all the data relating to the transceiver. The data relating to the detectors and wireless remote-control devices will not be deleted, nor will the devices simulated by the transceiver be removed from the configuration.	  	WLS data reset
Reset PIN codes	Pressing the OK button will delete all the programmed User PIN codes and will reset the default codes.	Not available	Reset PIN default
Reset keys	Pressing the OK button will delete all the enrolled keys.	Not available	Only keysDefault

AUTO-LEARN BALANCING

This option allows the control panel to learn the balancing settings of all the zones automatically (Patent Filed).

The balancing settings which are acquired correctly are:

- Normally Open
- Normally Closed
- Balancing (Single balancing)
- Double balancing
- Roller blind with EOL

The balancing settings which are not acquired correctly are:

- Roller blind without EOL (which is classified as a normally-closed generic zone)
- Double zone without EOL (which is classified as a normally-closed generic zone)
- Double zone with EOL (which is classified as a generic zone with Double balancing)

In order to allow correct acquisition of the balancing settings it is necessary to:

1. Wire and select the balancing settings of all the zones.
2. Ensure, as far as possible, that all the zones are in standby status
3. Select the "Learn zone bal." option.
4. Verify that the operation has been carried properly and that all the settings are accurate (if any zones are not in standby status during this process their settings will not be acquired accurately).
5. Set manually any inaccurate zone balancing settings.

Chapter 16 User functions for the installer

The installer menu on the keypad contains a section that provides the installer with the functions shared with the user.


Via keypad

1. Access the "User Functions" section of the installer menu:

Type-in Code (Installer) , **PROGRAMMING User functions** .

The options available are:

- Activations
- View
- Outputs ON/OFF
- Set date/time

2. Use keys  and  to select the required function then press **OK**.





ACTIVATIONS

This section provides the "Cloud registrat." option for connection of the Sol control panel to the INIM Electronics cloud services.

VIEW

- **Events log** - allows the viewing of all the events saved to the log.
- **Alarms log** - allows the viewing of all the events relating to zone/partition alarm and tamper saved to the log.
- **Faults log** - allows the viewing of all the fault events saved to the log.
- **Arm/Disarm ops.** - allows the viewing of all the arm/disarm operations saved to the log.
- **Sol-3G status** - allows viewing (on the display) of the following parameters of the Sol-3G device:

Table 16-1: View Sol-3G status on the keypad

Line	Display	View
1		<ul style="list-style-type: none"> • Mobile network provider (on the left side) • "--" means that the Sol-3G is connected to the BUS • "C" means that data transfer is in progress • data network technology (on the right side) <ul style="list-style-type: none"> G, GPRS service 3G, UMTS service H, HSPA service
2		GSM signal reception (value between 1 and 100)
3		Credit balance, at the last operation (expressed in the local currency)
4		Faults present, in this case it is necessary to access the "View-Faults" section for details.

- **System voltage** - allows the viewing of the system voltage:
 - measured on the battery
 - power-supply of the control panel
 - measured on terminal "AUX x"
 - measured on terminal "+" of the I-BUS


- **Zone status** - allows the viewing of the status of all the zones. Use keys  and  to scroll the list of available zones. The display shows the following zone parameters:

Table 16-2: View zone status from keypad

Line	Display	View
1	FD living room	Zone description
2	Standby Unbypassed	Zone status ("Standby", "Alarm", "Short-circuit", "Tamper") and its operating status ("unbypassed" - capable of generating alarms, or "bypassed" - incapable of generating alarms)
3	Lev.07 000 mdB/m	Indications that vary depending on the device type: <ul style="list-style-type: none"> • wired zone; resistance value reading expressed Ohm • wireless zone; level of wireless signal reception (from 0 to 7) • Air2-FD100 smoke detector; level of wireless signal and level of smoke present in the sensing chamber, expressed in mdB/m
4	Dust level 000%	Level of contamination present in the smoke detection chamber of Air2-FD100 smoke detector (%)

It is advisable to clean the detector when the value exceeds 90%.

Note

- **Faults ongoing** - allows the viewing of any ongoing faults.
- **Panel version** - allows the viewing of the firmware version and model of the Sol control panel.

Allows manual activation/deactivation of the outputs by means of keys  * and  .

OUTPUTS ON/OFF

Allows the setting of the date and time of the control panel (refer to *paragraph 2-3 Sol control panel parameters*).

WRITE DATE/TIME

The Sol/STUDIO software program provides a section which, during a direct connection to a Sol control panel, allows monitoring of the entire system in real time and access to some of the above-mentioned parameters.

Via software

Select the "Monitoring" option from the menu bar.

A window containing various sections will open. The sections can be selected by means of tags, each referring to a different part of the system (refer to *Chapter 19 , Monitoring the control panel*).

Chapter 17

Compliance with rules in force

In order to guarantee compliance with the regulations in force, you must adhere to the following guidelines:

- NBY/X** The nBy/X readers must be equipped with devices that protect them against the forced-opening of their casings (EN50131 grade 2) and dislodgement from their placements (EN50131 grade 3), as indicated in *paragraph 4-2-3 Installation der Leser nBy/X* in the Installation manual.
- ANTI-DISLODGE-
MENT OF
CONTROL PANEL** The protection against control panel tamper (*Table 2-4: Control panel options*) must be enabled (EN50131 grade 3).
- KEYPADS** The tamper protection devices on Air2-Aria/W keypads must be enabled.
- ZONE BALANCING** The lines relating to the intrusion-detection zones must be configured as 'Double balancing' with double EOL resistors, or as Single balancing with single EOL resistor. They must also be equipped with devices which protect them against the forced-opening of their casings.
- TAMPER EVENTS** Terminal tamper, peripheral tamper and control-panel tamper events must activate audible signals (on the sounder) for a period of not less than 3 minutes.
The output activated by the previously mentioned tamper events must be different from the output activated by alarms signals.
- PIN** All Code PINs must have 6 digits.
- TIMERS** If a Timer is used for automatic-arming operations, the Pre-arm times must be programmed separately for each partition (the pre-arm time must not be set at "0").

17-1

EN50131, Grade 2

Compliance with EN50131 Grade 2 is guaranteed by observing the following guidelines.

OPTIONS

Table 17-1: EN50131 grade 2 - Enablement of options









Parameter	Software section	Installer menu section	Status
Wrong PIN keypad lockout	 Keypad parameters <i>Table 3-1: Parameters common to all keypads</i>	Parameters Keypad lockout	Enabled
Do not arm if any zones are not ready	 Control panel parameters <i>Table 2-4: Control panel options</i>	OpenZonesArmLock	Enabled
Prevents the deletion of tamper memory by user code		NoUserTamp.reset	Enabled
Reader LED OFF	 Regulatory compatibility, Parameters 50131 <i>Table 2-7: Parameters for compliance</i>	50131ReadLedOFF	Enabled
Hide status		50131StatHidden	Enabled
Hide icons		50131IconsHidden	Enabled
Alarm delay		50131AlarDelayed	Enabled
Fault memory LED		50131WarnLedMem	Enabled

Table 17-1: EN50131 grade 2 - Enablement of options

Reader Buzzers OFF	<i>Table 3-5: Parameters common to all readers</i>	 Reader parameters	<code>ReaderBuzzer OFF</code>	Disabled
Bypass tamper in the event of bypassed zones	<i>Table 2-4: Control panel options</i>	 Control panel parameters	<code>BypassAlsoTamper</code>	Disabled
Overload AUX	<i>Table 2-7: Parameters for compliance</i>	 Regulatory compatibility Forced arming faults	<code>Other parameters, FaultForNotReady</code>	Enabled
Overload BUS			<code>Zone fuse fault</code>	Enabled
Low battery			<code>IBUS fuse fault</code>	Enabled
Mains failure			<code>Low battery</code>	Enabled
Telephone line down			<code>Mains failure</code>	Enabled
Jamming			<code>Tel. line down</code>	Enabled
Low battery wireless			<code>Jamming</code>	Enabled
Wireless zone loss			<code>Low battery WLS</code>	Enabled
Loss or tamper ongoing			<code>WLS zone loss</code>	Enabled
Requires code	<i>Table 3-2: Parameters for single keypads</i>	 Configured keypads, selected keypad, General, Advanced	<code>Requires code</code>	Enabled
Clear call queue on disarm	<i>Table 5-1: Parameters for single partitions</i>	 Partitions, selected partition	<code>Partitions, "partition", StopTelOn Disarm</code>	Disabled

Zones configured as "24H", "Automation" are non-compliant.

ZONES

Zones programmed as "Arm", "Disarm", "Switch" or "Follow" comply only when activated by keyswitches with more than 10,000 code combinations.

An input is set up for system fault management.

For zones with the "Fault Zone" option enabled, it is necessary to eliminate from the relative alarm event the programming of an external sounder/flasher in the "Outputs" option. Indoor sounders can be programmed via the "Other outputs" option.

The system must include a self-powered outdoor sounder/flasher for the signalling of intrusion-alarm events.

SOUNDERS

The telephone dialer must be enabled.

TELEPHONE DIALER

If a digital dialer or voice dialer is used with a SmartLogos30M board for transmissions, a telephone number must be reserved for the following events:

- All events generated by zones with the "Hold-up" attribute.
- All events generated by: "Instant", "Delayed", "Delayed unhidden" and "Route"
- All events generated by terminal, peripheral and control panel tamper.
- All faults detected by the control panel.

The "Alarm Cycles" parameter of each zone must be set between 3 and 10.

OPTIONS

The "Mains fail.Delay" parameter must be set at no more than 1 minute.

The "Entry Time" of each partition must be set at a maximum of 45 seconds.

You must enable the "Priority" option for any alarm events associated with "Hold-up" zones.

"Failed to arm" and "Forced arming" events must be saved to the Events log.

The programmed "LowBattery delay" must not be programmed at more than 5 minutes.

Chapter 18

Graphic map configuration

The Sol control panel provides supervision functions based on graphic maps to which a user has access through the web interface or the touchscreen display of the Sol-P model. A user, through a graphic map, has a view of the supervised area and the possibility to access the functions of the security system.

The Sol-P control panel is capable of managing up to 10 maps (revisions below 2.00 can manage up to 5 maps) and the web interface up to 20 maps. Each map accepts a maximum of 20 objects/buttons represented by icons.

Note

In order to use the graphic maps it is necessary to use an SD card in micro-SD format. The card must be inserted in the slot on the main board of the control panel. The programming of the maps is specifically linked to the SD card in use. Changing the SD card completely loses all programming.

Via software



Exclusively with the Sol/STUDIO software, access to the configuration of the maps is via the "Graphic Maps" section of the local Sol-P keypad.




At the center of both sections is a box that displays the image of the current map.

Above this is a bar with the icons of the objects to be inserted and the buttons to edit the current map.

To the left of this is the graphic-map tree with the objects inserted.

NEW MAP

The construction of a new map is carried out as follows:

1. Add a new map by clicking on the  button.
2. Associate an image with the map by selecting a file by means of the  button.
3. Insert an object from among those available on the icons bar.
The objects are inserted by clicking on the respective icon on the bar and then by clicking on the point on the map where it is to be positioned.
4. Load the configured map in the control panel by means of the  button.


If, instead, it is necessary to change the maps that are already programmed in the control panel, first read the configuration by means of the  button and then implement the changes.

Table 18-1: Map configuration buttons





Keys	Programming Sol-P Maps
Object icons	 <p>Left-clicking on any one of the icons positioned on the map will highlight the icon which will then be shown in a frame that allows its resizing or repositioning. Right-clicking on any one of the icons positioned on the map or map tree on the left allows the deletion of the object concerned or modification of its settings; in this case a window will open showing all the editable settings (refer to <i>Table 18-2: Map object settings</i>).</p>
	Button to show or hide the map tree located to the left of the displayed map.
	Buttons for the addition of a new map in the last position on the map tree or for the deletion of the last map on the map tree.
	Button for the insertion or overwriting of the background image of the current map. The name of the current image file is indicated in the lower section.

Table 18-1: Map configuration buttons

	By selecting several icons, with these buttons it is possible to align them.
	By selecting several icons, with these buttons it is possible to change their dimensions by assigning them the dimensions of the first icon selected (width, height or both).
	Button to read from the keypad the configured maps in order to modify them.
	Button to write on the keypad the newly configured or modified maps after a reading.

Table 18-2: Map object settings

Section	Parameter		Note
Size and position	Height, Width, Position X and Y	Number fields for the dimensions of the object icon and its position on the map.	
	String	Field for the string that appears over the icon.	
		Button for the definition of the colour of the string.	
Control panel	Field for the selection of the part of the intrusion control system the icon refers to.		Zone, partition, output, scenario, keypad
Map link	Field for the selection of the map the link refers to. For web interfaces it is possible to indicate the home page.		
Images	Section containing the icons which replace the current icons in the event of status change of the represented object. It is possible to indicate which strings appear below the current one, as indicated above.		
		Button to select the image that will replace the default image.	
		Button for the definition of the colour of the string.	
		Button to reset the factory default images	
Options	Command selection window	If enabled, touching the icon on the map will open a window on the display for command selection.	The commands implement a status change on the object. The type of status depends on the type of object: <ul style="list-style-type: none"> • Arming type - for a "Partition status" object • Activation/ Enablement status - for a "Zone" object • Activation/ Enablement status - for an "Output" object • Activation/ Enablement status - for a "Scenario" object
	Command with authorization request	If enabled, the keypad will request user-code entry before activating the command associated with the icon.	
	Switch/Invert	If enabled, touching the icon on the map will immediately switch/invert the status of the object it represents. The "Partition status" object requires further indications relating to the arming type which is to be switched to Away status (totally disarmed).	
	Immediate command	If enabled, touching the icon on the map will almost immediately activate the command. The command can be selected from the drop-down menu which appears.	
	View status	If enabled, this option allows the visualization on the display of status changes on an object by means of changes on the icon, in accordance with the configuration selected in the "Image" section.	
		Button to reset the factory default settings.	

Chapter 19

Monitoring the control panel



The Sol/STUDIO provides a section where, after a direct connection to the control panel (refer to *Connecting the software to the control panel* in the software manual), it is possible to carry out real-time monitoring on the entire system.

Click-on the **Monitoring** button on the menu bar. The section on the right provides various sections selectable by means of tabs with headers, each one concerning different parts of the system and monitoring functions.

Some of these functions are also reachable from the keypad.

19-1

Remote keypads

Via software

Click-on the **Monitoring** button on the menu bar, then go to the “Remote Keypad” section on the right.

In this section is divided in two parts. The left hand side shows all the keypads available for the system, those currently connected to the control panel are highlighted (in colour).

Clicking-on one of the keypads in the box on the right, reproduces its exact replica, it is possible therefore not only to view the display and LED status, but also to issue commands by means of the buttons on the image.

The following buttons are available:

Table 19-1: Monitoring buttons for the open section

Button	Function
Refresh	This refreshes the connection with the control panel and thus renew the images in the window.
Control panel status	Button to open, at the bottom of the window, a section where it is possible to view the real-time status of the control panel. A list of the basic functions of the control panel, the system parts and components will be shown and also information regarding the proper functionality of the system or any ongoing faults.

19-2

Monitoring partitions

Via software

Click-on the **Monitoring** button on the menu bar, then go to the Partitions” sections on the right.

The top of this section shows a series of icons which represent all the partitions that group together the system zones. These icons show the arming status of the partition based on colour:

- red - armed in Away mode
- blue - armed in instant mode
- orange - armed in Stay mode
- green - disarmed

If necessary, these icons can also report the alarm or tamper status of one of their zones by showing the appropriate icon (refer to *paragraph 19-3 Monitoring Zones*).

By clicking on one of the partition icons, in the “Controls” section it is possible to view the partition status, its arming status, tamper conditions and whether the “auto-arm” function has been enabled (refer to *paragraph 5-1 Partition parameters*).

The “Actions” section is also available where, once a valid user code has been entered, it is possible to change the arming status of the partition or carry out reset.



Monitoring Zones

19-3










Click-on the **Monitoring** button on the menu bar, then go to the “Zones” section on the right. On selecting a partition from the section at the top, the section will divide into two parts:

Via software

- the left side will show the list of all the zones of the selected partition
- the right side will show the list of all the system outputs

Both sections will show the status of the items listed according to the icons present:

Table 19-2: Terminal status icons

Icon	Status	Icon	Status
	Zone operating normally and in stand-by status		Zone in test mode.
	Zone in alarm status		Zone disabled
	Zone with alarm memory		Output activated
	Zone tamper in progress		Output deactivated
	Zone with tamper memory		

The lists also provide a button to enable or disable the related zone, as well as a button to activate or deactivate the related output. These operations are allowed only after entry of a valid user code authorized to carry out these operations.

Type-in Code (Installer) , **PROGRAMMING** User functions, **View, Zone status**



Via keypad

Monitoring timers

19-4

Click-on the **Monitoring** button on the menu bar, then go to the “Timers” section on the right. This section provides a grid containing all the available timer icons.

Via software

The status of each icon reflects the status of the respective timer and indicates, in real-time, whether it is enabled or not, or whether it is currently On (operating).

Monitoring peripheral and internal modules

19-5

To monitor the devices connected to I-BUS and the modules inside the control panel, the Sol/STUDIO software provides different sections, where each of these devices are represented by icons.

Click-on the **Monitoring** button on the menu bar, then go to the “Peripherals” section on the right.

Via software

The section shows the status of:

- keypads (local and wireless)
- sounders (local and wireless)
- Sol-3G internal communicator
- readers (local, on the I-BUS and simulated by transceivers)

Pressing the **Update** button provides specific information regarding each peripheral:

- tooltips provide information regarding the peripheral model and whether it is present in the configuration or not
- the address, firmware version and operating voltage of each of the peripherals present is shown alongside the icon

19-6

Monitoring wireless devices

Via software

Click-on the **Monitoring** button on the menu bar, then go to the “Wireless devices” section on the right.

The section provides a list containing all the wireless devices and the **Update** button that shows for each device:

- an index of the reception quality of the wireless signal
- the percentage of the battery charge

The colour of the values shown also indicates the level of both the signal index and the charge (red-orange-green).

19-7

Monitoring wireless sounders

Via software





The programming section of the wireless sounders allows the viewing of their status.

Click-on the **Sounders** button on the menu on the left, the “Configured sounders” section on the right will show a list of configured sounder/flashers. By selecting a wireless sounder/flasher, the “Real time” sub-section allows the viewing of its status.

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

Table 19-3: Wireless sounder/flasher status LEDs

LED		Status
Tamper	Green	Sounder/flasher not in tamper status
	Red	Sounder in tamper status (open or dislodged)
Antifoam	Green	Foam level below alarm signalling threshold
	Red	Foam level above alarm signalling threshold
Battery inefficient	Green	Battery charged
	Red	Battery charge low (below 40%)
Sounder active	Green	Audible signalling Off
	Red	Audible signalling On

LED		Status
Flasher active	Green	Visual signalling Off
	Red	Visual signalling On
STATUS LED ON	Green	STATUS LED Off
	Red	STATUS LED On
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 level		Percentage of charge of the sounder/flasher battery

Instead, the “Wireless monitoring” sub-section provides the **Start** button that starts a monitoring on the variation of the signal transmitted by the device and background noise detected over time.

19-8

Walk test

This section provides a quick and easy way of testing all the configured inputs.

After starting the test, all the operator needs to do is walk through the protected partitions and thus verify the detection accuracy by means of what is reported on the keypad or even by Sol/STUDIO software.

Via keypad

Type-in Code (Installer) , **PROGRAMMING walk test** .

Access to this section opens the full list of configured zones on the keypad display.

As these input zones are violated by the operator carrying out the walk test, they will be cleared from the list and the keypad will emit a long beep.

The system can be considered as having passed the test when all the items disappear from the list.

Click-on the **Monitoring** button on the menu bar, then go to the “Walk Test” section on the right.

Via software

The list of zones and the **Start Walk test** button will be shown.

Once the test starts, the operator can walk through the entire area protected by the system and verify the correctness of the detection capacity of the inputs by means of the information reported in this section, marking the violated areas with a red dot and the time of the violation.

The **Print Walk test** button allows the software to print the test results.

Monitoring the power supply

19-9

The software provides a section for the monitoring of power supplies, by means of LEDs with respective colours and values indicated in readings.

Click-on the **Monitoring** button on the menu bar, then go to the “Power” section.

Via software

After clicking-on the **Start monitoring** button this section will show:

- data relating to the power supplied to the control panel
 - primary power supply
 - power and secondary power supply
 - power supply module
 - battery
- the data relating to the power the control panel supplies to the devices in the field:
 - voltages and currents on the “**AUX**” terminal
 - voltage and current on the I-BUS

Appendix A

Default programming

Keypads

- local keypad enabled
- all keypads belong to partitions 1 and 2
- Sol-P and Sol-G, 10 programmed shortcuts: Execute arming in "AWAY MODE" - Execute arming in "STAY MODE" - Execute "DISARM" - Stop alarms - Zone activation menu (bypasses) - View alarms log - View faults - Time/date setting - Voice function menu - Keypad settings menu

nBy Readers

- belong to partitions 1 and 2
- shortcut programmed on the red LED: Execute arming scenario " AWAY"
- shortcut programmed on the blue LED: Execute arming scenario " STAY"

Partitions

- entry time and exit time 30 seconds
- Autoreset memories on arming
- clear call queue on disarming

Terminals T1 and T2

- Set as inputs

Zones

- belong to partition 1
- have N.O. balancing (normally open)
- zones T1 and T2 on the control panel are delayed; all other zones are instant
- unlimited alarm cycles (repetitive)

Outputs

- the output relay is monostable, normally closes, monostable time at 3 minutes

Output scenarios

- scenario 1: relays and sounders from 1 to 8 ON
- scenario 2: relays and sounders from 1 to 8 OFF

Scenarios

- scenario 1: Away arm partitions 1 and 2
- scenario 2: Stay arm partitions 1 and 2
- scenario 3: Disarm partitions 1 and 2

Codes

- user code 1 belongs to all partitions
- all other codes do not belong to any partition
- only Code 1 is "Master" user
- all codes are enabled on all sections of the user menu
- 8 programmed shortcuts (keys from 1 to 8): Listen-in - Execute arming scenario " AWAY" - Execute arming scenario " STAY" - Stop alarms - Relay output activation - Relay output deactivation - Clear call queue - Arming status
- voice guide enabled

Keys

- all keys belong to partitions 1 and 2
- Maintenance option enabled

Telephone

- contact numbers 1 to 6 in the phone book have the voice attribute (user)
- contact numbers 7 and 8 in the phone book are for alarm receiving centres CONTACT-ID
- contact number 9 in the phone book has the voice attribute (for the installer)

Zone alarm/tamper events

- the local sounder activates
- on activation of the event, "Output scenario 1" activates
- on reset of the event, "Output scenario 2" activates
- on activation of the event, calls contact numbers 1 to 8 and sends notification to cloud
- on reset of the event, calls contact numbers 7 and 8 and sends notification to cloud

Zone bypass events

- calls contact numbers 7 and 8

Partition Arming/Disarming events

- calls contact numbers 7 and 8

Partition Arming/Disarming events

- calls contact numbers 7 and 8

Emergency button (Panic) events

- on activation of the event, calls contact numbers 1 to 8

Open-panel/Panel dislodgement events and tamper on peripheral events

- the local sounder activates
- on activation of the event, "Output scenario 1" activates
- on reset of the event, "Output scenario 2" activates
- on activation of the event, calls contact numbers 1 to 8 and sends notification to cloud
- on reset of the event, calls contact numbers 7 and 8 and sends notification to cloud

Blown fuse, A.C. mains failure, peripheral loss and low battery events

- calls contact numbers 1, 2, 3, 4, 5, 6 and 9 (voice cal to installer)

Sounders

- All sounders are activated by "Output scenario 1" and deactivated by "Output scenario 2"

Appendix B

Default Shortcuts

Shortcut			on keypad			on code		on reader	on keys	on event
description	function	parameter	n.	Icon	String	via keypad	over-the-phone			
Arm/Disarm	Applies a pre-set scenario	which scenario	1		Arm/Disarm	Available	Available	Available	Available	Available Activate scenario
Stop alarms	Shortcut that deactivates instantly the outputs relative to alarm and tamper events and deletes the partition and system alarm and tamper memories.		2		Stop alarms	Available	Available	Available	Available	Not available
Clear call queue	Cancels the entire call queue and stops ongoing calls (if any).		3		Clear call queue	Available	Available	Available	Available	Not available
Delete memory	Deletes memory of system and partition alarm and tamper events.		4		Delete memory	Available	Available	Available	Available	Available
Activate output	Activates one of the programmed outputs.	which output	5		Activ. output	Available	Available	Available	Available	Available
Deactivate output	Deactivates one of the programmed outputs.	which output	6		Deactiv. output	Available	Available	Available	Available	Available
Overtime	Delays auto-arming time of partitions by 30 minutes.		7		Overtime	Available	Available	Available	Available	Not available
Listen-in	Allows listen-in sessions over-the-phone through the microphone on one of the available keypads	Keypad	10		Listen-in	Not available	Available	Not available	Not available	Not available
Arm/Disarm menu	Accesses the user menu section: Arm/Disarm op.		12		Arm/disarm menu	Available	Not available	Not available	Not available	Not available
Alarm management menu	Accesses the user menu section: Alarm management		13		Alarm menu	Available	Not available	Not available	Not available	Not available
Voice functions menu	Accesses the user menu section: Voice functions		14		Voice func. menu	Available	Not available	Not available	Not available	Not available
Activations menu	Accesses the user menu section: Activations		15		Activations menu	Available	Not available	Not available	Not available	Not available
View Sol-3G status	Accesses the user menu section: View / Sol-3G status		16		View Sol-3G status	Available	Not available	Not available	Not available	Not available
Arming status	Provides voice information regarding the armed/disarmed status of the partitions.		17		Arming status	Available	Available	Not available	Not available	Not available
Keypad settings	Accesses the user menu section: Keypad settings		18		Keypad sett. menu	Available	Not available	Not available	Not available	Not available
Zone activations menu	Accesses the user menu section: Activations / Zones		19		ZoneBypass menu	Available	Not available	Not available	Not available	Not available
Voice memo	Accesses the user menu section: Voice functions		20		Voice memo	Available	Not available	Not available	Not available	Not available
ON/OFF output menu	Accesses the user menu section: Outputs ON/OFF		21		Output control	Available	Not available	Not available	Not available	Not available
Enable/Disable answerphone	Accesses the user menu section: Activations / Answerphone		22		Enab. answerphone	Available	Not available	Not available	Not available	Not available
Enable codes	Accesses the user menu section: Activations / Codes		24		Enable codes	Available	Not available	Not available	Not available	Not available

Shortcut			on keypad		on code		on reader	on keys	on event
description	function	parameter	n.	Icon	String	via keypad			
Enable keys	Accesses the user menu section: Activations / Keys		25		Enable keys	Available	Not available	Not available	Not available
Enable timers	Accesses the user menu section: Activations / Timers		26		Enable timers	Available	Not available	Not available	Not available
Enable auto-arming	Accesses the user menu section: Activations / Auto-arming		27		Enab. auto-arm	Available	Not available	Not available	Not available
View events log	Accesses the user menu section: View / Events log		28		View events Log	Available	Not available	Not available	Not available
View alarms log	Accesses the user menu section: View / Alarms log		29		View alarm Log	Available	Not available	Not available	Not available
View faults log	Accesses the user menu section: View / Faults log		30		View faults Log	Available	Not available	Not available	Not available
View arm/disarm operations	Accesses the user menu section: View / Arm/Disarm op.		31		View arm ops Log	Available	Not available	Not available	Not available
View system status	Accesses the user menu section: View / System status		32		ViewSystem-Status	Available	Not available	Not available	Not available
View zone status	Accesses the user menu section: View / Zone status		33		View zone status	Available	Not available	Not available	Not available
Change PIN code	Accesses the user menu section: Change PIN		34		Change PIN	Available	Not available	Not available	Not available
Time/Date	Accesses the user menu section: Set date/time		35		Time/Date	Available	Not available	Not available	Not available
View faults	Accesses the user menu section: View/Faults present		36		View faults	Available	Not available	Not available	Not available
Panic	Activates a "Panic" event	which panic event	38		Panic	Available	Available	Available	Not available
Zone bypass	Bypasses one of the configured zones	which zone			Not available	Not available	Not available	Not available	Available
Unbypass zone	Activates one of the configured zones	which zone			Not available	Not available	Not available	Not available	Available
Disable code	Disables one of the configured codes	which code			Not available	Not available	Not available	Not available	Available
Enable code	Enables one of the configured codes	which code			Not available	Not available	Not available	Not available	Available
Disable key	Disables one of the configured keys	which key			Not available	Not available	Not available	Not available	Available
Enable key	Enables one of the configured keys	which key			Not available	Not available	Not available	Not available	Available

Appendix C

Available Icons

The following Table shows the icons provided at default. The icons can be customized to suit the keypad shortcuts.

num.	icon	num.	icon	num.	icon
1		19		37	
2		20		38	
3		21		39	
4		22		40	
5		23		41	
6		24		42	
7		25		43	
8		26		44	
9		27		45	
10		28		46	
11		29		47	
12		30		48	
13		31		49	
14		32		50	
15		33			
16		34	**3		
17		35			
18		36			

Voice messages

Appendix D

The SmartLogos30M voice board is supplied by Inim Electronics with 500 voice message slots, 291 of which are pre-recorded. The messages are arranged in such way as to produce event-related voice calls which clearly describe the related event.

The following Table shows the message numbers and their purpose, together with the respective recording time.

Type	Number	Default message	Message duration (seconds)	
			High quality	Average quality
Available user-messages	1 – 100	“	169 (for all 100 messages)	271 (for all 100 messages)
Not available	101 - 165	“		
Arming scenarios	166	Scenario 1	2.5	4
	167	Scenario 2	2.5	4
	168	Scenario 3	2.5	4
	169	Scenario 4	2.5	4
	170	Scenario 5	2.5	4
	171	Scenario 6	2.5	4
	172	Scenario 7	2.5	4
	173	Scenario 8	2.5	4
	174	Scenario 9	2.5	4
	175	Scenario 10	2.5	4
	176	Scenario 11	2.5	4
	177	Scenario 12	2.5	4
	178	Scenario 13	2.5	4
	179	Scenario 14	2.5	4
	180	Scenario 15	2.5	4
	181	Scenario 16	2.5	4
	182	Scenario 17	2.5	4
	183	Scenario 18	2.5	4
	184	Scenario 19	2.5	4
	185	Scenario 20	2.5	4
	186	Scenario 21	2.5	4
	187	Scenario 22	2.5	4
	188	Scenario 23	2.5	4
	189	Scenario 24	2.5	4
	190	Scenario 25	2.5	4
	191	Scenario 26	2.5	4
	192	Scenario 27	2.5	4
	193	Scenario 28	2.5	4
	194	Scenario 29	2.5	4
	195	Scenario 30	2.5	4
Shortcut	196	Armed in Away mode	2.5	4
	197	Stop alarm	2.5	4
	198	Stop call queue	2.5	4
	199	Delete memory	2.5	4
	200	Activate output	2.5	4
	201	Deactivate output	2.5	4
	202	Overtime request	2.5	4
	203	Request maintenance	2.5	4
	204	StartVoiceNotifier	2.5	4
	205	Listen-in	2.5	4
	206	Intercom Call	2.5	4
	207	Arm/disarm menu	2.5	4
	208	Alarm management menu	2.5	4
	209	Voice functions	2.5	4
	210	Activations menu	2.5	4
	211	Sol-3G status	2.5	4
	212	System status	2.5	4
	213	Keypad settings	2.5	4
	214	Zone bypass menu	2.5	4
	215	Voice memo	2.5	4
	216	ON/OFF output menu	2.5	4
	217	Enable/Disable answerphone	2.5	4
	218	Enable teleservice	2.5	4
	219	Enable codes	2.5	4
	220	Enable keys	2.5	4
	221	Enable timers	2.5	4
	222	Enable auto-arming	2.5	4
	223	View events log	2.5	4
	224	View alarms log	2.5	4
	225	View faults log	2.5	4
	226	View arm/disarm operations	2.5	4
	227	View battery status	2.5	4
	228	View zone status	2.5	4
	229	Change PIN	2.5	4

Type	Number	Default message	Message duration (seconds)	
			High quality	Average quality
Zone Terminal	330	Zone 60	3.13	5
	331	Zone 61	3.13	5
	332	Zone 62	3.13	5
	333	Zone 63	3.13	5
	334	Zone 64	3.13	5
	335	Zone 65	3.13	5
	336	Zone 66	3.13	5
	337	Zone 67	3.13	5
	338	Zone 68	3.13	5
	339	Zone 69	3.13	5
	340	Zone 70	3.13	5
	341	Zone 71	3.13	5
	342	Zone 72	3.13	5
	343	Zone 73	3.13	5
	344	Zone 74	3.13	5
	345	Zone 75	3.13	5
	346	Zone 76	3.13	5
	347	Zone 77	3.13	5
	348	Zone 78	3.13	5
	349	Zone 79	3.13	5
	350	Zone 80	3.13	5
	351	Zone 81	3.13	5
	352	Zone 82	3.13	5
	353	Zone 83	3.13	5
	354	Zone 84	3.13	5
	355	Zone 85	3.13	5
	356	Zone 86	3.13	5
	357	Zone 87	3.13	5
	358	Zone 88	3.13	5
	359	Zone 89	3.13	5
	360	Zone 90	3.13	5
	361	Zone 91	3.13	5
	362	Zone 92	3.13	5
	363	Zone 93	3.13	5
	364	Zone 94	3.13	5
	365	Zone 95	3.13	5
	366	Zone 96	3.13	5
	367	Zone 97	3.13	5
	368	Zone 98	3.13	5
369	Zone 99	3.13	5	
370	Zone 100	3.13	5	
Partition	371	Partition 1	3.13	5
	372	Partition 2	3.13	5
	373	Partition 3	3.13	5
	374	Partition 4	3.13	5
	375	Partition 5	3.13	5
	376	Partition 6	3.13	5
	377	Partition 7	3.13	5
	378	Partition 8	3.13	5
	379	Partition 9	3.13	5
	380	Partition 10	3.13	5
	381	Partition 11	3.13	5
	382	Partition 12	3.13	5
	383	Partition 13	3.13	5
	384	Partition 14	3.13	5
	385	Partition 15	3.13	5
Codes	386	Code 1	2.5	4
	387	Code 2	2.5	4
	388	Code 3	2.5	4
	389	Code 4	2.5	4
	390	Code 5	2.5	4
	391	Code 6	2.5	4
	392	Code 7	2.5	4
	393	Code 8	2.5	4
	394	Code 9	2.5	4
	395	Code 10	2.5	4

Type	Number	Default message	Message duration (seconds)	
			High quality	Average quality
Shortcut	230	Date/Time settings	2.5	4
	231	View faults	2.5	4
Not available	232 - 240	"		
Generic messages	241	Reset	1.25	2
	242	To	0.63	1
	243	Press	1.25	2
	244	Location	6.25	10
	245	Zero	2.5	4
	246	One	2.5	4
	247	Two	2.5	4
	248	Three	2.5	4
	249	Four	2.5	4
	250	Five	2.5	4
	251	Six	2.5	4
	252	Seven	2.5	4
	253	Eight	2.5	4
	254	Nine	2.5	4
Partition status	255	Away mode	3.13	5
	256	Armed in Stay mode	3.13	5
	257	Instant mode	3.13	5
	258	Disarm	3.13	5
Menu	259	To go back to previous menu press *	3.13	5
Activation / Deactivation	260	To activate	1.88	3
	261	To deactivate	1.88	3
Type-in user-code PIN	262	Type-in user-code PIN followed by #	2.5	4
Outputs	263	Relay	2.5	4
	264	Output 1	2.5	4
	265	Output 2	2.5	4
Not available	266 - 270	"		
Zone Terminal	271	Zone 1	3.13	5
	272	Zone 2	3.13	5
	273	Zone 3	3.13	5
	274	Zone 4	3.13	5
	275	Zone 5	3.13	5
	276	Zone 6	3.13	5
	277	Zone 7	3.13	5
	278	Zone 8	3.13	5
	279	Zone 9	3.13	5
	280	Zone 10	3.13	5
	281	Zone 11	3.13	5
	282	Zone 12	3.13	5
	283	Zone 13	3.13	5
	284	Zone 14	3.13	5
	285	Zone 15	3.13	5
	286	Zone 16	3.13	5
	287	Zone 17	3.13	5
	288	Zone 18	3.13	5
	289	Zone 19	3.13	5
	290	Zone 20	3.13	5
	291	Zone 21	3.13	5
	292	Zone 22	3.13	5
	293	Zone 23	3.13	5
	294	Zone 24	3.13	5
	295	Zone 25	3.13	5
	296	Zone 26	3.13	5
	297	Zone 27	3.13	5
	298	Zone 28	3.13	5
	299	Zone 29	3.13	5
	300	Zone 30	3.13	5
	301	Zone 31	3.13	5
	302	Zone 32	3.13	5
	303	Zone 33	3.13	5
	304	Zone 34	3.13	5
	305	Zone 35	3.13	5
	306	Zone 36	3.13	5
	307	Zone 37	3.13	5
	308	Zone 38	3.13	5
	309	Zone 39	3.13	5
	310	Zone 40	3.13	5
	311	Zone 41	3.13	5
	312	Zone 42	3.13	5
	313	Zone 43	3.13	5
	314	Zone 44	3.13	5
	315	Zone 45	3.13	5
	316	Zone 46	3.13	5
	317	Zone 47	3.13	5
	318	Zone 48	3.13	5
	319	Zone 49	3.13	5
	320	Zone 50	3.13	5
	321	Zone 51	3.13	5
	322	Zone 52	3.13	5
	323	Zone 53	3.13	5
	324	Zone 54	3.13	5
	325	Zone 55	3.13	5
	326	Zone 56	3.13	5
	327	Zone 57	3.13	5
	328	Zone 58	3.13	5
	329	Zone 59	3.13	5
	330	Zone 60	3.13	5

Type	Number	Default message	Message duration (seconds)	
			High quality	Average quality
Keys	396	Key 1	2.5	4
	397	Key 2	2.5	4
	398	Key 3	2.5	4
	399	Key 4	2.5	4
	400	Key 5	2.5	4
	401	Key 6	2.5	4
	402	Key 7	2.5	4
	403	Key 8	2.5	4
	404	Key 9	2.5	4
	405	Key 10	2.5	4
Keypads	406	Keypad 1	2.5	4
	407	Keypad 2	2.5	4
	408	Keypad 3	2.5	4
	409	Keypad 4	2.5	4
	410	Keypad 5	2.5	4
Readers	411	Reader 1	2.5	4
	412	Reader 2	2.5	4
	413	Reader 3	2.5	4
	414	Reader 4	2.5	4
	415	Reader 5	2.5	4
Function keys Emergency	416	Fire	2.5	4
	417	Ambulance	2.5	4
Not available	418	Police	2.5	4
	419	"		
Event type	420	Zone alarm	2.5	4
	421	Terminal tamper	2.5	4
	422	Partition alarm	2.5	4
	423	Stay alarm	2.5	4
	424	Partition tamper	2.5	4
	425	Zone bypass	2.5	4
	426	Real time zone	2.5	4
	427	Partition not-ready-to-arm	2.5	4
	428	Away arm request	2.5	4
	429	Stay arm request	2.5	4
	430	Armed in Away mode	2.5	4
	431	Armed in Stay mode	2.5	4
	432	Reset partition	2.5	4
	433	Partition armed, leave partition	2.5	4
	434	Disarm partition	2.5	4
	435	Pre-arm alert	2.5	4
	436	Overtime request	2.5	4
	437	Welcome	2.5	4
	438	Forced arming	2.5	4
	439	Failed to arm	2.5	4
	440	Valid user-code	2.5	4
	441	Valid key	2.5	4
	442	Valid code at keypad	2.5	4
	443	Valid key at reader	2.5	4
	444	Valid user-code on partition	2.5	4
	445	Valid key on partition	2.5	4
	446	Failed call	2.5	4
	447	Timer activated	2.5	4
	448	Thermostat	2.5	4
	449	Scenario	2.5	4
	450	Programmable event	2.5	4
	451	Emergency	2.5	4
	452	Open-panel tamper	2.5	4
	453	Dislodged-panel tamper	2.5	4
	454	Zone fuse fault	2.5	4
	455	I-BUS fuse fault	2.5	4
	456	Battery inefficient	2.5	4
	457	Mains failure	2.5	4
	458	Expansion tamper	2.5	4
	459	Keypad Tamper	2.5	4
	460	Reader Tamper	2.5	4
	461	Sounder tamper	2.5	4
	462	Sol-3G tamper	2.5	4
	463	Expansion Loss	2.5	4
	464	Keypad Loss	2.5	4
	465	Reader Loss	2.5	4
	466	Sounder loss	2.5	4
	467	Sol-3G loss	2.5	4
	468	Jamming	2.5	4
	469	Low battery wireless zone	2.5	4
	470	Wireless zone loss	2.5	4
	471	Valid Installer code	2.5	4
	472	Invalid code		
	473	False key		
	474	Sol-3G fault		
	475	Telephone line down		
	476	Periodic test event		
	477	Hard reset		
	478	Call queue full		
	479	Successful call		
480	Start programming			
481	Ongoing call			
482	Failed to send message			
483	Output fault			
484	Low GSM credit			
Not available	485	"		
Voice memo slots	486 - 500	"	37.5 (for all 15 messages)	60 (for all 15 messages)

Event type

Appendix E

Name		Occurs when...	Restores when ...	Number of events	Pulse events
Zone alarm	Zone alarm	A zone generates an alarm	A zone restores	One event for each zone	no
Terminal tamper	Terminal tamper	A terminal detects tamper (short-circuit or wire cutting)	A terminal restores	One event for each terminal	no
Partition alarm	Partition alarm	A 24h zone which belongs to the partition generates an alarm, or a zone which belongs to the partition generates an alarm during Away mode.	All the zones belonging to the partition restore (reset).	One event for each partition	no
Alarm partition armed in Stay mode	StayPartit.alarm	A zone which belongs to a partition armed in Stay or Instant mode, generates an alarm.	All the zones belonging to the partition restore (reset).	One event for each partition	no
Partition tamper	Partition tamper	A zone which belongs to the partition detects tamper (short-circuit or wire cutting).	All the zones belonging to the partition restore (reset).	One event for each partition	no
Zone bypass	Zone bypass	A zone is inhibited	A zone is enabled (switched On)	One event for each zone	no
Real time zone	Real-time zone	The electrical status of a zone switches from standby to alarm.	The electrical status of a zone switches from alarm to standby.	One event for each zone	no
		The event is independent of the zone type and the armed/disarmed status of the partitions.			
Partition not-ready-to-arm	Partit.not ready	A zone which belongs to the partition is not in standby status.	All the zones belonging to the partition are in standby status.	One event for each partition	no
Away arming request on partition	Away arm request	A request is made to arm the interior and perimeter zones of the partition	A request is made to disarm the partition	One event for each partition	Yes
Stay arming request on partition	Stay arm request	A request is made to arm the partition in Stay mode (perimeter zones only) or in Instant mode	A request is made to disarm the partition	One event for each partition	Yes
Effective arming mode on partition	Partit.AwayArmed	The partition interior and perimeter zones have been armed effectively	The partition will be disarmed	One event for each partition	no
Partition armed in Away mode	Partit.stayArmed	The partition has been armed effectively in Stay or Instant mode	The partition will be disarmed	One event for each partition	no
Disarm partition	Partit. disarmed	The partition will be disarmed	The partition will be armed	One event for each partition	no
Reset partition memories	Partition reset	A request is made to reset the partition		One event for each partition	Yes
Partition exit time	Exit time	The partition exit time starts running	The partition exit time expires	One event for each partition	no
Partition entry time	Entry time	The partition entry time is running	The partition entry time expires	One event for each partition	no
Partition pre-arm time	Pre-arm time	The partition pre-arm time is running	The partition pre-arm time expires	One event for each partition	no
Overtime request on partition	Overtime request	A request for overtime relating to the partition is made		One event for each partition	Yes
Partition bell	Chime	A chime zone belonging to the partition is violated		One event for each partition	Yes
Forced arming on partition	Forced arming	At the time of an arming command, relating to one or more partitions, there are open zones on the partition/partitions involved, or there are other conditions present which lower system security, nonetheless, the user arms the system.		One event for each partition	Yes
Partition failed to arm	Failed to arm	If partition arming is requested whilst: there is at least one open/violated zone and the option "NoArm.ZonesOpen" is enabled or when one or more of the events described in "LossTamp.ongoing" is present (refer to "FaultForNotReady", paragraph 2-6 Compliance 50131 grade 3).		One event for each partition	Yes
Recognized valid user code	Valid code	A user-code PIN entered at a keypad is recognized as valid		One event for each code	Yes
Valid key	Valid key	A key used at a reader is recognized as valid on the reader		One event for each key	Yes
Valid code at keypad	ValidCodeAtKeyp.	An entered user-code PIN is recognized as valid on the keypad		One event for each keypad	Yes

Name		Occurs when...	Restores when ...	Number of events	Pulse events
Valid key at reader	ValidKeyAtReader	A key used at a reader is recognized as valid on the reader		One event for each reader	Yes
Valid user-code on partition	Partition code	An entered user-code PIN is recognized as valid on the partition		One event for each partition	Yes
Valid key on partition	Partition key	A key used at a reader is recognized as valid on the partition		One event for each partition	Yes
Failed call	Failed call	All attempts to call a specific telephone number have failed	One call to the phone number has been successful	One event for each contact telephone number	no
Timer activated	Timer activated	The timer is enabled (On)	The timer is disabled (Off)	One event for each timer	no
Activate scenario	Scenario ON	The status of all the partitions corresponds exactly to the pre-set scenario.	The status of all least one of the partitions does not correspond to the pre-set scenario.	One event for each scenario	no
Emergency button	Emergency button	One of the emergency buttons is pressed		One event for each emergency key	Yes
Panic	Panic Ev.	The "Panic" shortcut has been activated.		15	Yes
Periodic event	Periodic event	The Periodic Event occurs		4	Yes
Control panel Tamper	Control panel open	The control-panel enclosure is removed	The front of the control-panel is replaced	1	no
Zone fuse fault	Zone fuse fault	The zone protection fuse on the control panel is not operational (blown)	The zone protection fuse on the control panel restores	1	no
I-BUS fuse fault	IBUS fuse fault	The I-BUS protection fuse is not operational (blown)	The I-BUS protection fuse restores	1	no
Battery inefficient	Low battery	The backup battery is low (voltage below 10.4V)	The backup battery is charged (voltage above 11.4V)	1	no
AC Mains failure	Mains failure	The primary power supply 230V~ fails	The primary power supply 230V~ is restored	1	no
Keypad Tamper	Keypad tamper	A keypad signals tamper conditions	Tamper conditions clear on all the system keypads	1	no
Reader Tamper	Reader tamper	A reader signals tamper conditions	Tamper conditions clear on all the system readers	1	no
Sounder tamper	Sound.flash.Tamp	A sounder/flasher connected to the BUS signals tamper	All the sounders connected to the BUS reset after tamper	1	no
Keypad Loss	Keypad loss	A keypad cannot be found on the BUS	All keypads can be found on the BUS	1	no
Reader Loss	Reader loss	A reader cannot be found on the BUS	All readers can be found on the BUS	1	no
Sounder loss	Sound.flash.Loss	A sounder/flasher cannot be found on the BUS	All sounders can be found on the BUS	1	no
Jamming	Jamming	Wireless interference detected	Wireless interference cleared	1	no
Low battery on wireless zone	Low battery WLS	The battery of a least one wireless detector is running low	All the wireless detectors are running with sufficient power	1	no
Wireless zone loss	WLS zone loss	Loss of at least one wireless detector has been signalled (supervision time-out)	All the wireless detector are present	1	no
Valid Installer code	Installer code	An Installer PIN entered at a keypad is recognized as valid		1	Yes
Invalid code	Invalid code	An invalid code is entered at a keypad		1	Yes
False key	False key	An invalid key is used at a reader		1	Yes
Sol-3G fault	Sol-3G fault	The Sol-3G device signals a fault (refer to the User manual)	Fault conditions clear on the Sol-3G	1	no
Telephone line down	Tel. line down	The land line is not working	The land line restores	1	no
Hard reset	Hard reset	The control panel re-initializes. The system clock may be wrong or not working properly.		1	Yes
Call queue full	Call queue full	There are no more slots left in the outgoing call queue		1	Yes
Successful call	Successful call	The call is answered		1	Yes
Input undergoing programming	Programming	Access to system programming is authorized	End of system programming	1	no
Ongoing call	Ongoing call	A call is sent	A call ends	1	no
SMS message not delivered	SMSMessageFailed	Failed sending of SMS message through the Sol-3G device		1	Yes
Output fault	Output fault	An output fails to switch status as commanded		1	Yes
Low credit	Low credit	The credit remaining on the SIM card inserted in the Sol-3G is below the minimum credit threshold.	The remaining credit is above the minimum credit threshold.	1	no
Date and time change	Time modified	There is a change in the date and time. This event will be recorded together with the date/time before the change.	There is a change in the date and time. This event will be recorded together with the date/time after the change.	1	no
Resistance internal battery	Int. Resistance	The internal resistance of the battery has exceeded the $R_{i\ max}$ value.	The internal resistance of the battery returns to below the $R_{i\ max}$ value.	1	no
Short-circuit on battery	Battery shorted	A short-circuit condition has been detected on the battery connection terminals	The short-circuit condition is no longer present	1	no

Name		Occurs when...	Restores when ...	Number of events	Pulse events
Battery disconnection	Battery disconn.	The backup battery is disconnected	The backup battery is connected	1	no
Overvoltage output 1	Overvoltage 1	A voltage of over 14.5V detected on "+AUX" terminal	The normal voltage on the terminal has been restored.	1	no
Overvoltage BUS	Overvolt. BUS	A voltage of over 14.5V has been detected on I-BUS terminal "+" on the motherboard.	The normal voltage on the terminal has been restored.	1	no
Low voltage output 1	Low Voltage 1	A voltage below 9.8V detected on the "+AUX" terminal	The normal voltage on the terminal has been restored.	1	no
Low voltage output BUS	Undervoltage BUS	A voltage below 9.8V has been detected on I-BUS terminal "+" on the motherboard.	The normal voltage on the terminal has been restored.	1	no
Short-circuit output 1	Short circuit 1	Short-circuit detected on the "+AUX" terminal	The short-circuit is no longer present.	1	no
Short-circuit output BUS	Short circuit BUS	A short-circuit has been detected on I-BUS terminal "+" on the motherboard.	The short-circuit is no longer present.	1	no
Overload output 1	Overload 1	A load of over 1.5A detected on the "+AUX" terminal	The terminal restores to normal.	1	no
Overload output BUS	Overload BUS	A load of over 3.5A has been detected on I-BUS terminal "+" on the motherboard.	The terminal restores to normal.	1	no
Failed communication with power-supply unit	NoCommunPwSupply	Loss of communication between the power supply and control panel	Communication between the power supply unit and the control panel restores.	1	no
Telephone call on Number 1 in progress	Tel. on number 1	A call has been sent to phone number 1	The call has ended (even in the event of negative outcome)	1	no
Telephone call on Number 15 in progress	Tel.on number 15	A call has been sent to phone number 15	The call has ended (even in the event of negative outcome)	1	no
Data synchronization between control panel and IP2RX	Sync.data IP2RX	For future use			
IP connection lost	IP conn. lost	The IP connectivity test is enabled and the test result in negative (failed).	A connection attempt has been successful.	1	no
Connection data lost	Conn. data lost	Sol-3G detects data connectivity trouble.	Data connectivity is restored.	1	no
Dust in smoke detector chamber	Detector dusty	The smoke chamber of at least one of the Air2-FD100 smoke detectors is contaminated by dirt or dust. Refer to the instructions supplied with the detector for information regarding the respective threshold.	All smoke sensors have stopped signalling the presence of dust.	1	no
General alarm	Alarm	Any one of the zones has generated an alarm signal.	All the zones have reset the alarm signal.	1	no
General tamper	Tamper	Any one of the zones has generated a tamper signal.	All the zones have reset the tamper signal.	1	no
Failed SIA-IP polling	SiaIPPollingFail	The periodic polling signal between the control panel and SIA-IP receiver server is not transmitted.	Polling transmission is re-established.	1	no



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