



# ART. 30010103 ALARM CONTROL PANEL S8 WITH INCLUDED SIMPLYTOUCH KEYPAD

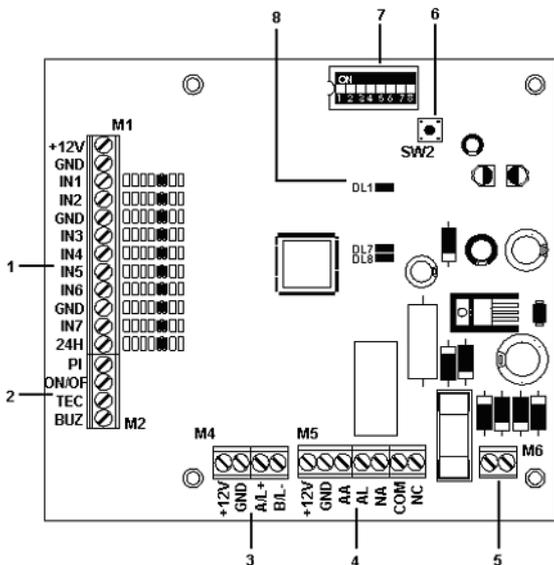


The unit is a fixed S8 programming control panel with 7 alarm inputs and one reserved tamper function input. The 7 zones/entrances are divided into 2 areas. “Entrance time” and “exit time” function, connections for up to 8 key insertion units and 8 SimplyTouch keypads (30010102). Self-powered siren output, internal siren output, voltage free alarm output, 4 open-collector outputs for miscellaneous signals (battery status, system status, etc...). Alarm memory available via SimplyTouch keypad.

**SPECIFICATION:**

- Housing: plastic
- Battery housing: model 7Ah (art. 30076003 - optional)
- Number of entrances/zones on controller board: 7
- Number of balanced tamperproof entrances/zones: 1
- Type of entrance/zone connection: N.C., single balanced with R in series, single balanced with R in parallel, double balanced
- Power supply: transformer 230 VAC/14,5 VAC - 1,8 A with PTC
- Outputs: 1, relay 12 VDC - contact 5A max.  
4, open collector 12 VDC – 100 mA, non programmable
- Number of areas: 2
- Battery status check: present
- Max. number of activators: 8
- Max. number of keypads (art. 30010102): 8
- Number of user codes: 1
- Number of anti-coercion codes: 1
- Entrances/zones settable as “key”: 1
- Entrances/zones settable as “path”: 1
- Entrances/zones settable as “delayed”: 2
- Connection: terminals
- Installation: wall-mounting
- Dimensions: 377x320x90 mm
- Weight: 2400 g
- Operating temperature: 0 to +40°C
- Protection: tamperproof (resistant to breaking off mounting and forced opening)
- Power absorption: 32 mA (AC)
- Minimum system absorption with 8 keypads and 8 activators: 520 mA (AC)
- Maximum system absorption with 8 keypads and 8 activators: 620 mA (AC)

Specifications are subject to change without notice.



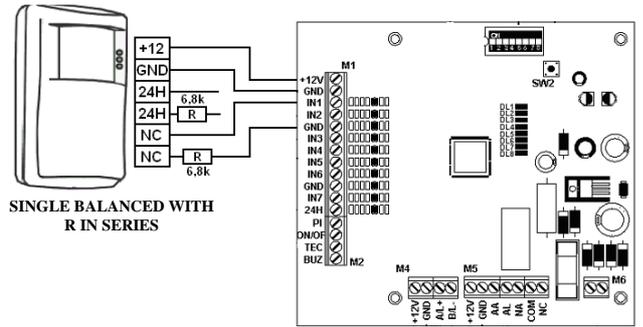
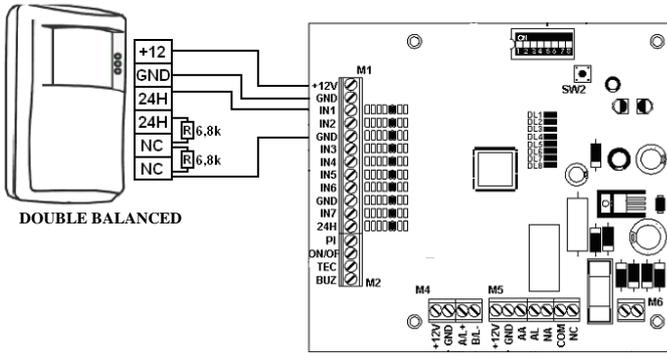
- 1 - Entrances/zones terminal block
- 2 - Open collector output terminal block
- 3 - Bus terminal block
- 4 - Signal output terminal block
- 5 - Power terminal block 14,5 VAC
- 6 - Control panel reset button
- 7 - Configuration dip switch
- 8 - System status leds

**CONTROL PANEL LEDS**

CONTROL PANEL LED	DESCRIPTION
DL1	TX bus RS485
DL7	System ON
DL8	Microprocessor operation

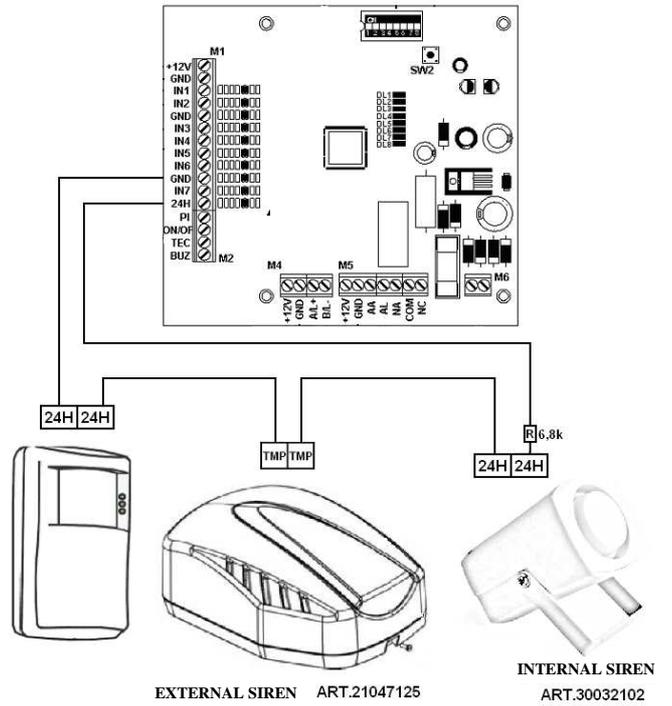
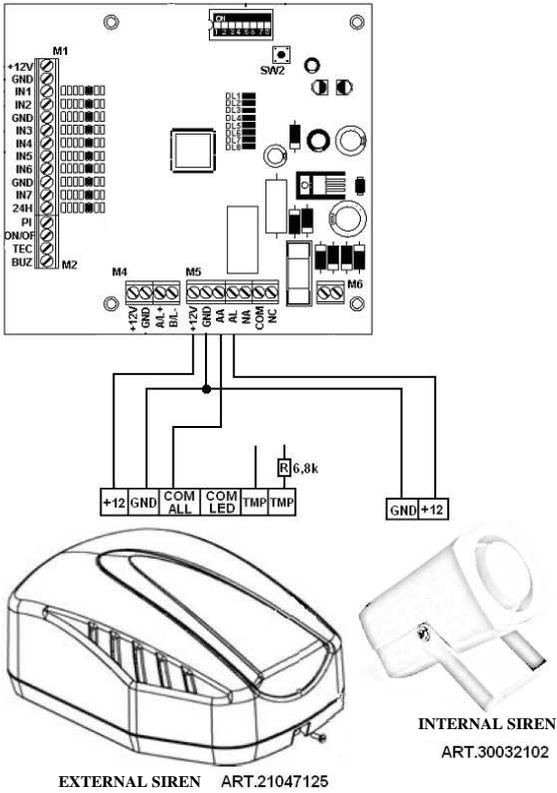
TERMINAL BLOCK M1	
+12V	Power +12VDC
GND	Common (GND)
IN1	Zone input 1
IN2	Zone input 2
GND	Common (GND)
IN3	Zone input 3
IN4	Zone input 4
IN5	Zone input 5
IN6	Zone input 6
GND	Common (GND)
IN7	Zone input 7
24H	Tamper input
TERMINAL BLOCK M2	
PI	Standby zone output
ON/OFF	System status output
TEC	Technical output
BUZ	Buzzer output
TERMINAL BLOCK M4	
+12V	+13,8 V power
GND	Common (GND)
A/L+	L+ serial RS485
B/L-	L- serial RS485
TERMINAL BLOCK M5	
+12V	Power +12VDC
GND	Common (GND)
AA	Self-powered siren output
AL	Internal siren output
NA	Relay N.O. contact
COM	Relay common
NC	Relay N.C. contact
TERMINAL BLOCK M6	
Power from transformer 14,5 VAC.	

**SENSOR CONNECTIONS**

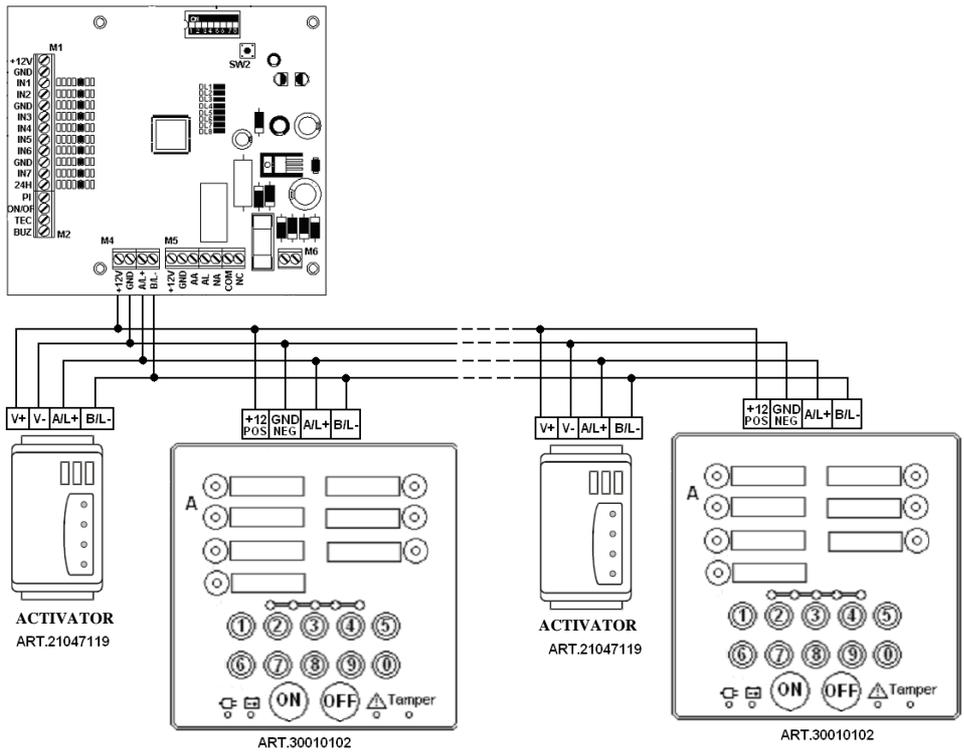


**SIREN CONNECTION**

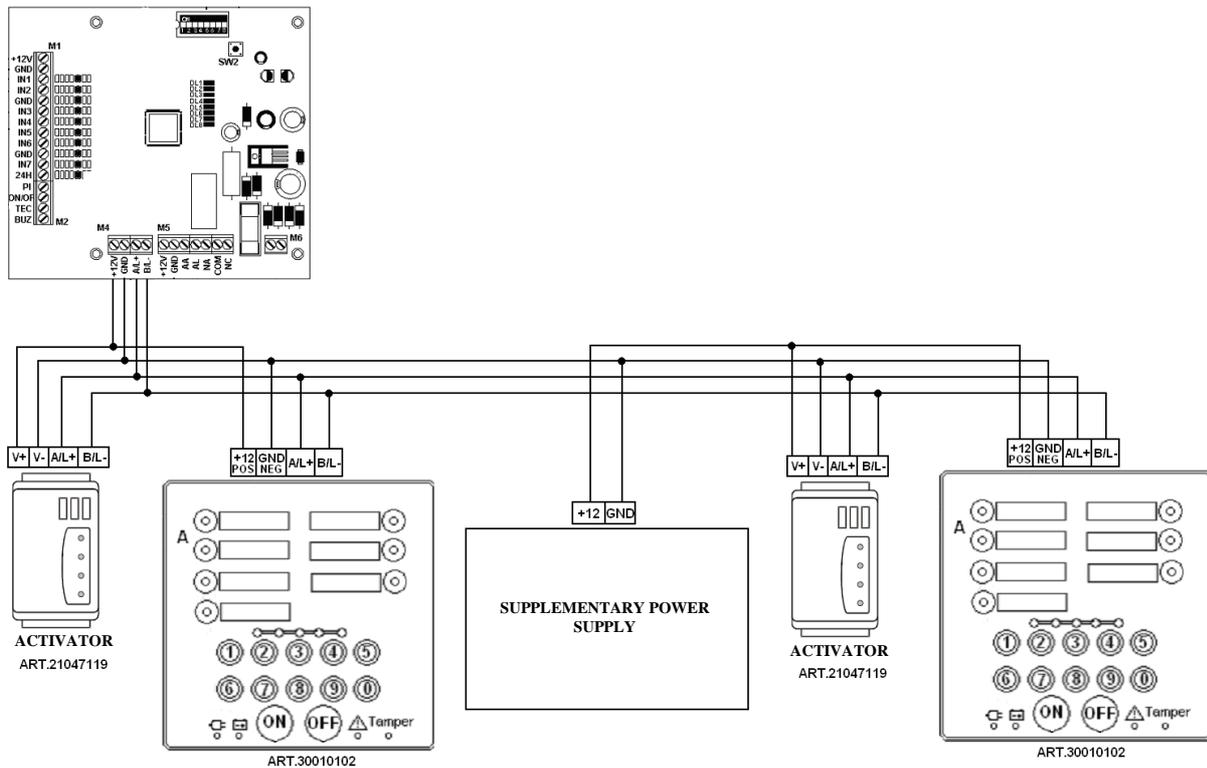
**24 HOUR ENTRANCE CONNECTION**



**KEYPAD AND KEY INSERTION UNIT CONNECTION**



**SUPPLEMENTARY POWER SUPPLY CONNECTION**



**OPERATION**

Enter the user code followed by “activate” to activate all ready entrances/zones. The entrances/zones 1 and 5 (delayed) and 2 (path), can be opened during the exit time if the entrance/exit times have been set. At the end of this time, the entrances/zones will be activated normally. Entrances/zones which are found to be open will be disabled by the system until they are next de-activated. The remaining entrances/zones are always instantaneous. If an entrance/zone generates an alarm, the siren and keypad sound for the preset time. During the alarm time, if other zones are opened, the entrance/zone alarm will be signaled but the alarm time counter is not reset. Even after the system has been switched off, the entrances/zones which caused the alarm remain in the alarms memory (led flashes). The alarms memory is cancelled at the next activation or second de-activation. Enter the user code followed by “de-activate” to de-activate the system.

Entrances 1,2,3 and 4 are in area A while entrances 5,6 and 7 are in area B.

The “24H” entrance must always be connected to the system device “tamper” contacts or those of the sensors/contacts with the balancing resistance (6,8 kΩ) in series.

**CONTROL PANEL CONFIGURATION**

To configure the control panel, you must set the dip switches on the controller board.

**Dip switch 1:** set to OFF with dip switches 2-3-4-5-6-7-8 set to ON resets the board to factory settings.

**Dip switch 2:** set to ON to access entrance key programming for bus activators.

**Dip switch 3 and 4 with dip switch 1 set to OFF:** configuration of entrance and exit times on entrances/zones “IN1” and “IN2”.

DIP3	DIP4	
0	0	Immediate
1	0	30 seconds
0	1	60 seconds
1	1	120 seconds

**When the timers are set with dip switches 3 and 4, entrances 1 and 2 are linked together; entrance 1 will always be delayed in entrance and exit, entrance 2 is only delayed in exit.**

**Dip switches 3 and 4 with dip switch 1 set to ON:** on activation, if dip switch 1 is set to ON, dip switches 3 and 4 determine the characteristics of the entrances. First set the dip switches and only then power up the control panel.

DIP3	DIP4	
0	0	NC - normally closed entrances/zones
1	0	Single balanced with R in series
0	1	Double balanced
1	1	Single balanced with R in parallel

*N.B. To change the entrance settings after power on, shut off the control panel and follow the entrance setting procedure.*

**Dip switch 5:** sets the duration of the alarm. When set to OFF, the alarm duration is 60 seconds. When set to ON, the alarm duration is 180 seconds.

**Dip switch 6:** when set to ON entrance/zone “IN5” is set as “exit time”. The time is set to 45 seconds.

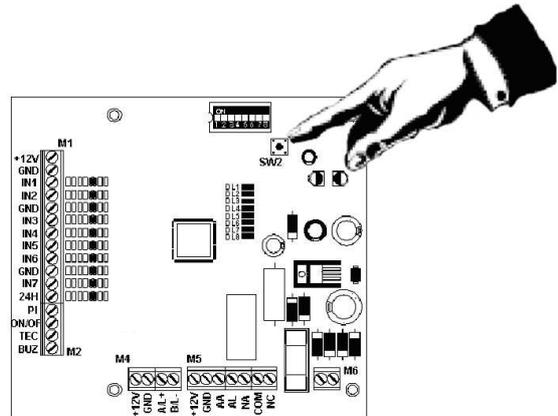
**Dip switch 7:** when set to ON entrance/zone “IN7” is set as “24 hours”.

**Dip switch 8:** when set to ON entrance/zone “24H” is set as “key”. If set as “24H” a 6,8 kohm resistance must be connected in series to the input. If set as “key” the entrance/zone is always “NC”.

**RESTORING FACTORY SETTINGS**

To restore the factory setting, proceed as follows:

- Power up the control panel.
- Set dip switches 2-3-4-5-6-7-8 to ON.
- Set dip switch 1 to OFF.
- Press button SW2 on the controller board as shown in the figure.



- Leds 1, 7 and 8 on the controller board will turn on.
- Shut off power to the control panel.
- Set all dip switches to OFF.
- Set dip switches 1, 3 and 4 as desired (see “CONTROL PANEL CONFIGURATION”).
- Power up the alarm control panel.

**ENTRANCE FUNCTION**

**Entrance 1:** can be set either as “instantaneous”, “entrance time” or “exit time”.

**Entrance 2:** can be set as “instantaneous”, or “path” if an entrance/exit time has been set for entrance/zone 1.

**Entrance 3:** always “instantaneous”.

**Entrance 4:** always “instantaneous”.

**Entrance 5:** can be set either as “instantaneous” or “exit time”.

**Entrance 6:** always “instantaneous”.

**Entrance 7:** can be set either as “instantaneous” or “24 hours”.

**24 hours entrance:** can be set either as tamperproof or key (NC).

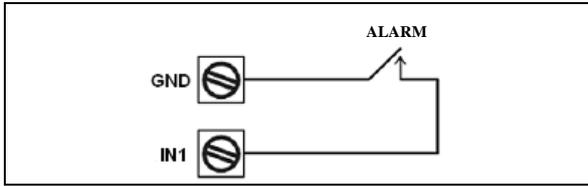
**ALARM CYCLES**

The maximum number of alarm cycles for each entrance is 3 by default. The zone signals the alarm condition 3 times, after which it is excluded from analysis. The maximum number of alarm cycles is 8.

**ZONES/ENTRANCES CONNECTION**

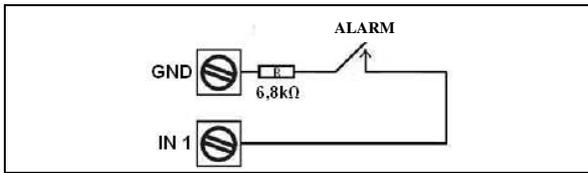
**Normally closed (NC)**

In standby, the zone should be connected to GND. Opening it (open entrance/zone) is considered a violation.



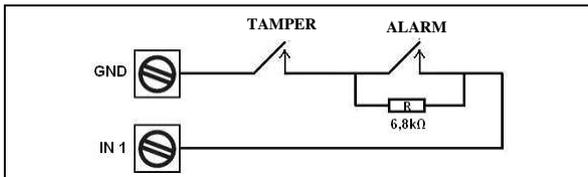
**Single balanced with R in series**

In standby, the zone must be connected to GND with a 6,8 kohm resistance. If this resistance is shorted, the controller issues a tamper alarm. On the other hand, if the resistance is shut out (open entrance/zone) the controller issues an alarm event.



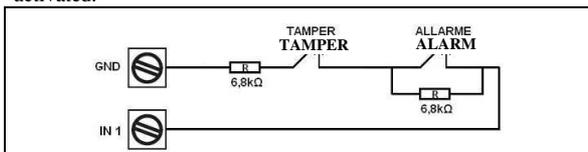
**Single balanced with R in parallel**

Opening the tamper contact generates a zone tamper alarm, opening the alarm contact generates a zone alarm.



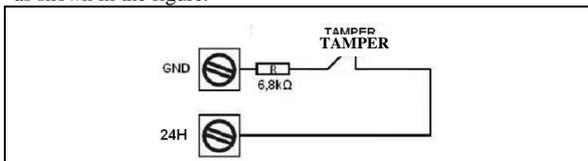
**Double balanced**

In standby, the zone must be connected to GND with two 6,8 kohm resistances. If one of these is shut out, the controller generates a zone alarm. In all other cases (open or shorted zone) the controller generates a tamper event. This type of balancing enables the system to detect, using only two wires, both the opening of the alarm contact and that of the tamper contact of the connected sensors. If the entrance is in tamper status, it not only generates an alarm, but it prevents the system from being activated.



**24H HOUR ENTRANCE CONNECTION**

The “24H” entrance must always be connected with a resistance in series as shown in the figure.



**KEY ENTRY**

The key entrance/zone is defined as a command input. Switching it activates/de-activates the system. If the system is partially activated, switching it de-activates the entire system.

**ENTRANCE TIME**

When the entrance/zone is set with an entrance time, it can be violated for the entire duration of the time without generating an alarm. The system (or entrance) with an entrance time setting must be de-activated before the entrance time expires.

**EXIT TIME**

An entrance/zone set with an exit time can be violated for the entire duration of the exit time without generating an alarm.

**PATH ENTRANCE**

Entrance/path 2 can be set as a “path”. The “path” entrance/zone does not generate an alarm if it is violated during the exit time for the entrance/zone 1. If the entrance/zone is violated once the exit time has expired, it generates an “instantaneous” alarm. Entrance/zone 2 acquires the attribute “path” only if entrance /zone 1 is entered.

**24H ENTRANCE**

The 24H entrance is always active independently of the system’s activation status. Violation generates an “instantaneous” alarm. If not used, the input must be always closed with GND with a 6,8 kohm resistance. If open, it not only generates an alarm, but prevents the system from being activated.

**INSTANTANEOUS ENTRANCE**

The “instantaneous” entrance/zone, if violated with the entrance/zone activated, generates an “instantaneous” alarm.

**OPEN COLLECTOR OUTPUTS**

**Output ready for entry of “PI”:** output active when all zones/entrances are in standby.

**“ON/OFF” output:** output active when the system is activated.

**“TEC” technical output:** output active on tampering event, bus fault or low battery charge. In case of tampering, the output remains active for the alarm time set with the dip switches. In case of RS485 bus fault, it remains active for the duration of the fault. If the battery charge is low the output de-activates when the system is de-activated.

**“BUZ” buzzer output:** output active when the coercion code is entered or when an incorrect code is entered using the keypad 5 times in a row. The output remains active for 60 seconds. To de-activate the output, enter the user code and press the de-activation button.

**SIGNAL OUTPUTS**

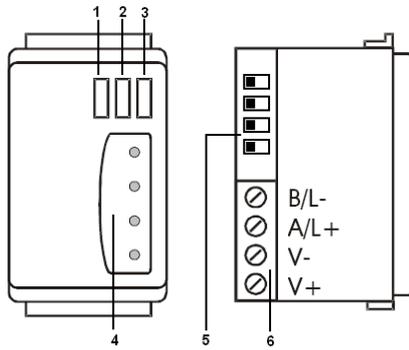
**Self-powered alarm output “AA”** output with permanent 12 VDC power. Power failure when an alarm occurs. Output used to connect external sirens.

**“AL” alarm output:** output with 12 VDC voltage when an alarm occurs. Output used to connect internal sirens.

**“NA-COM-NC” alarm contact:** voltage free switching contact. Switches when an alarm occurs.

**KEY INSERTION UNIT**

The bus activator for electronic keys enables one or more areas (partitions) to be activated/de-activated using a reprogrammable electronic key.



- 1 - Area activation led
- 2 - Area activation led
- 3 - Entrance/exit countdown led
- 4 - Area activation control micro-buttons
- 5 - Dip switch for programming and setting the address
- 6 - Bus terminal block RS485

**MEANINGS OF KEY INSERTION UNIT LEDS**

RED LED	AREA A
SWITCH-ON	Area activated
SLOW FLASHING	Area not ready
FAST FLASHING	Alarms memory
OFF	Area de-activated
YELLOW LED	AREA B
ON	Area activated
SLOW FLASHING	Area not ready
FAST FLASHING	Alarms memory
OFF	Area de-activated
GREEN LED	
FLASHING	Entrance/exit countdown in progress

**STORING KEYS**

**N.B. Keys can be stored only from the key insertion unit with address 1.**

The user code is unique, both for the keypads and for the keys. Before storing the keys, change the user code as indicated on page 7 so as not to store the default code on the keys. **If the user code is changed, the keys must be reprogrammed.**

To store a key for the intrusion system, proceed as follows.

- Set dip switch 2 on the controller board to ON.
- All 3 activator leds will flash together.  
*N.B. If they turn on in sequence, the activator module has not been recognized by the system. Only the leds of the entry with address 1 flash, since it is the only one from which the addressing procedure can be run.*
- Insert the key for 5 seconds or until the keypad beeps.
- Extract the key.
- The leds will continue flashing to prompt for another key.
- Set dip switch 2 to OFF to terminate the key storage procedure.

**USING THE KEY INSERTION UNIT KEY**

With the system de-activated:

- insert the key into the activator;
- the cycle activates:
  - red led + yellow led ON = areas A+B activated;
  - red led ON = area A activated;
  - yellow led ON = area B activated;
  - leds OFF = system de-activated.

Extract the key when the desired status is reached.

With the system activated:

- insert the key into the activator;
- the cycle activates:
  - leds OFF = system de-activated.

**KEY INSERTION UNIT ADDRESSING**

Use the dip switches to set the address as explained below.



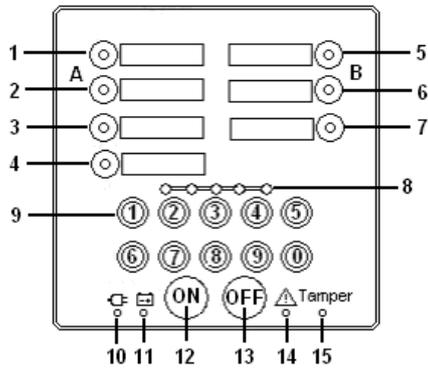
Address	DIP 1	DIP 2	DIP 3	DIP 4
1	OFF	OFF	OFF	OFF
2	ON	OFF	OFF	OFF
3	OFF	ON	OFF	OFF
4	ON	ON	OFF	OFF
5	OFF	OFF	ON	OFF
6	ON	OFF	ON	OFF
7	OFF	ON	ON	OFF
8	ON	ON	ON	OFF

**⚠ If only one key insertion unit is installed, it must be addressed as "1".**

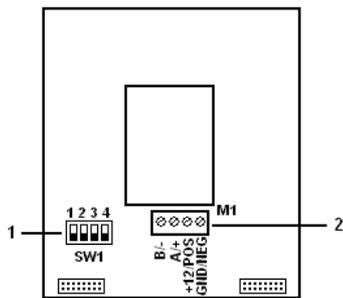
**KEY INSERTION UNIT CONNECTION**

TERMINAL BLOCK	
A/L+	RS485 bus line positive
B/L-	RS485 bus line negative
V+	DC power positive
V-	DC power negative

**KEYPAD**



- 1 - Zone 1 status
- 2 - Zone 2 status
- 3 - Zone 3 status
- 4 - Zone 4 status
- 5 - Zone 5 status
- 6 - Zone 6 status
- 7 - Zone 7 status
- 8 - Signals digits entered at the keypad
- 9 - Numeric keys for entering codes
- 10 - Green power status led
- 11 - Yellow system battery status led
- 12 - Activation key
- 13 - De-activation key
- 14 - Yellow bus fault or module sabotage led
- 15 - Red system/entrance tamper led



- 1 - Dip switch for addressing keypad
- 2 - Terminal block

**DEFAULT USER CODE**

The factory set user code is:  
**12345**

**COERCION CODE**

A coercion alarm can be tripped (silent alarm) by adding one unit to the last digit of the user code. For example, if the user code is: 12345, the buzzer output can be activated by entering "12346". This de-activates/activates the system and activates the buzzer output.

**OPERATION**

**Total system activation**

Enter the code with the numeric keys (9).  
Press the activation key (12).

**Partial system activation**

Enter the code with the numeric keys (9).  
Select the zone you wish to activate (1...7).  
Press the activation key (12) to confirm.

**Total system activation with zones activated**

If you wish to activate the entire system when some zones are already activated, proceed as follows.

Enter the code with the numeric keys (9).  
Press the activation key (12).

**System activation with zones open**

An open zone is indicated by the bright red led for the zone in question (1...7). When you activate the system the zone is not activated and the red led stays on.

**Total system shutdown**

Enter the code with the numeric keys (9).  
Press the de-activation key (13) to confirm.

**Changing the user code**

Enter "1".  
Press the activation key (12).  
Enter the old code.  
Press the activation key (12).  
Enter the new code.  
Press the activation key (12).  
Enter the new code once more.  
Press the activation key (12).  
If the user code is changed, the keys must also be reprogrammed.

**TEST**

Checks the operation of the individual zones without generating an alarm.

Enter code "00000".

Press the activation key (12).

To quit the test, enter "00000" once more and press the de-activation key (13).

During the zone test, a beep sounds on the keypad when a zone changes status.

When the zone is in standby the corresponding led is off, when it is opened the led turns on.

**ADDRESSING THE KEYPAD**

Set the dip switches on the bracket to set the keypad address as explained below.



Keypad address	DIP 1	DIP 2	DIP 3	DIP 4
1	OFF	OFF	OFF	OFF
2	ON	OFF	OFF	OFF
3	OFF	ON	OFF	OFF
4	ON	ON	OFF	OFF
5	OFF	OFF	ON	OFF
6	ON	OFF	ON	OFF
7	OFF	ON	ON	OFF
8	ON	ON	ON	OFF

**⚠** If the system has only one keypad, this must be addressed to "1".

**KEYPAD CONNECTION**

TERMINAL BLOCK	
A/+	RS485 bus line positive
B/-	RS485 bus line negative
+12/POS	DC power positive
GND/NEG	DC power negative

**KEYPAD SIGNALS**

<p><b>Zone status led (1..7)</b></p> <p>Indicates the status of the corresponding entrance/zone.</p> <p>Red led on with bright light: zone open.                  Red led on with weak light and ON key (12) on: zone activated.                  Red led flashing: zone alarms memory or zone alarm in progress.                  Red led flashing + tamper led flashing red: zone tamper alarm memory (single/double balanced signal).</p>	
<p><b>Code entry leds (8)</b></p> <p>Green leds on: They turn on in sequence when the numeric keys are pressed (9) for code entry.                  Green leds flashing: system test.                  Green leds off: no numeric keys being pressed.</p>	
<p><b>Activation key (12)</b></p> <p>Red led on: system totally or partially activated.                  Red led off: system de-activated.                  Red led on + green de-activation led (13) flashing: system activated with entrance/exit time counting down.</p>	
<p><b>De-activation key (13)</b></p> <p>Green led on: system de-activated.                  Green led on + green code entry leds on: control pad testing.                  Green led flashing + red activation led (12) on: system activated with entrance/exit time counting down.                  Green led off: system activated.</p>	
<p><b>Power led (10)</b></p> <p>Green led on: 230 Vac mains power on.                  Green led off: no 230 Vac main power.</p>	
<p><b>Battery led (11)</b></p> <p>Yellow led flashing: No backup battery or battery charge low.                  Yellow led off: backup battery present and charged.</p>	
<p><b>Fault led (14)</b></p> <p>Yellow led flashing: bus line fault, bus line - keypads - activators sabotage.                  Yellow led off: no fault.</p>	
<p><b>Tamper led (15)</b></p> <p>Red led on: system tamper input open.                  Red led flashing: system tamper alarm memory.                  Red led flashing + red zone (1..7) led flashing: zone tamper alarm memory (single/double balanced signal).</p>	