

EXPANDABLE MULTIFUNCTION CONTROL PANEL



● **INSTALLATION MANUAL**



This Control panel has been developed and manufactured according to the highest standards of quality, reliability and performance adopted by BENTEL SECURITY srl.

Installation of this Control panel must be duly carried out in accordance with the local laws in force.

BENTEL SECURITY srl shall not be responsible for damage arising from improper installation or maintenance by unauthorized personnel.

Use the Omnia-Academy40 3.0 software release or a successive release to program this Control panel.

Where features and programming procedures apply to Academy40 and Academy40/S the product will be referred to as the Panel.

Where features and programming procedures apply to one of the appliances in particular the product name will be specified.

Academy40 and Academy40/S comply with:

Low voltage: EN 60950/1996 + A4/1997

Emission: EN 50081-1/1992

Immunity: EN 50130-4/1995 + A1/1999

Burglar control: CEI 79/2^a Ed. 1993

Terminal Equipment (TE): TBR 21 - 1/1998

BENTEL SECURITY srl reserves the right to change the technical specifications of this product without prior notice.

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Overview

The philosophy of the Academy40 Control Panel is flexibility. It can be adapted to all types of installations, and can be expanded, programmed and operated with great ease.

Academy40 and **Academy40/S** have 8 input zones—expandable to 40, and 4 outputs—expandable to 36.

Partitions The 8 partitions can be armed / disarmed individually or as groups—by means of digital keys, codes or Panel inputs. A partition can be programmed as **dependent** on other partitions—for automatic "**Common partition**" control.

Events and actions Interaction between the Inputs, Outputs and Telephone-dialler (voice or digital) can be programmed as per requirements.

The three basic actions—output, digital dialler and voice dialler actions can be assigned to the Academy40 events (445 events).

Telephone functions Academy40 can manage up to 32 telephone numbers. Four telephone numbers can be assigned to the digital communicator—each with a different customer code and communication protocol.

Four telephone numbers can be assigned to Teleservice thus allowing the Panel to communicate with the installer modem.

OmniaVOX 14 different Voice messages (to be recorded by the Installer) can be sent to the 16 telephone numbers managed by the OmniaVOX board telephone-dialler function.

The OmniaVOX board also provides an answering-machine function (one of the 14 Voice messages can be assigned to this function).

Voice communication with the Panel (after receiving a dialler call, or when the Panel is answering an incoming call) allows:

- Listen-in
- Two-way communication (talk-listen)
- Input status inquiry with voice answer from the Panel
- remote ON / OFF control of Panel devices
- Partition arming / disarming, alarm reset, stop calls etc.

Programming The **BENTEL Security Suite** allows Panel programming, Customer database management and real-time monitoring of the Panel—by connecting to the RS232 interface, or to teleservice.

- + The Panel can also be programmed from the keypads.



Burglar Panel

- Up to 40 alarm zones—8 on Main unit—24 on 6 Input expanders (4 zones per expander)—8 on 8 keypads (1 zone per keypad)
- Up to 40 alarm zones—2 relays and 2 open collectors on Main unit—32 outputs on 8 Output expanders (4 outputs per expander)
- Up to 8 keypads with back lighted LCD
- Up to 16 Electronic-key readers
- 1 or 2 Power stations (3 A or 5 A) monitored by the Panel
- 4 wire bus (protected against short circuit) for connection of remote devices
- Programmable balance type, function mode and alarm type—for all zones
- Input zones can be programmed to send specific commands to the Panel
- All outputs are programmable as bistable or cyclic with programmable cycle and standby times
- 8 programmable partitions—each with own zones, keypads, key readers, outputs and times
- 31 user codes with programmable priority and function control
- Up to 250 programmable digital keys
- A 16 character label (identifier) can be assigned to each partition, zone, keypad, key reader, code, digital key, etc.—the assigned label will be shown on the keypad screen during user operations
- Saves 200 events with date, time and user
- RS232 interface for Panel programming and monitoring
- Software (runs under Windows™) for Panel programming, teleservice and telemonitoring

Telephone functions

- DTMF and Pulse dialling
- 32 telephone numbers available for telemonitoring, teleservice and voice calls
- Built-in Digital multiprotocol communicator for DTMF and pulse protocol management
- 10 different immediate alarm calls from keypad
- Programmable test call
- Double call
- Line sharing with answering device
- 1200 baud FSK integrated modem for teleservice management

Telephone functions with OmniaVOX optional board

- Telephone dialler for Voice message control—14 different Voice messages that can be sent to 16 telephone numbers
- Remote Inquiry to the Panel with voice answer
- Remote output-control, partition arming and alarm reset from Panel
- Remote listen-in and multipoint telephone-communication (talk-listen)
- Answering-machine function



Basic Panel The basic system comprises a Main unit and a keypad. Academy40 is available in the following models:

- **Academy40** --- 8 zone Main unit expandable to 40 with 1.5 A linear battery and keypad.
- Academy40/S** --- 8 zone Main unit expandable to 40 with 3 A switching battery and keypad.

Expanders **Academy40** and **Academy40/S** can support:
---up to 6 input expanders---each with 4 zones;
---up to 8 output expanders---each with 4 open-collector outputs.

Control devices Up to 16 key readers, and 8-LCD keypads can be connected to the Panel. The key readers are available in the following models:
---Wall mounting (**BP13W**)
---Flush mounting (**BP13**)
---Flush mounting (**ECLIPSE3**---no electrical contacts).
The operating principles of all three models are the same, however, the **BP13W** and **BP13** key readers operate through electrical contacts, and have a control button on the digital key (**DKC**).
The **ECLIPSE3** has no electrical contacts, and the control button is inside the key reader slot and not on the key (**SAT**)---thus making the **ECLIPSE3/SAT** model more resistant to oxidising agents and wear.

OmniaVOX Optional board for voice call management and remote control.

BENTEL Security Suite The **BENTEL Security Suite** (runs under Windows™ environment) allows Panel programming, Customer data-base management, and Real-time monitoring.

OmniaMOD modem The **OmniaMOD** modem---and relevant software can manage manual and automatic teleservice calls thus allowing the installer to keep the computer buffer updated.
The **OmniaMOD V2** modem can receive calls for real-time information on monitored systems.

Remote power station The optional 5 A power-station (to be connected to the bus) will power the remote devices in the event of blackout. The Panel can monitor all the power station events (battery trouble, mains failure, etc.). Two power stations can be connected to the bus.



■ Accessories

- Academy40** 8 zone Main unit expandable to 40 with 1.5 A linear battery and keypad
- Academy40/S** 8 zone Main unit expandable to 40 with 3 A switching battery and keypad
- OMNIA/TAST-R** Keypad with back lighted LCD
- OMNIA/4IN** 4-input expander module
- OMNIA/4OUT** 4-output expander module
- Expander module holder 108 x101 mm
- DEVMSSG** Tamper Switch
- OMNIA/VOX** Voice board
- OMNIA/VOX-MS** Microphone and loudspeaker for ambient listen-in
- ECLIPSE3MA** Flush mounting key reader—**TICINO magic**
- ECLIPSE3IN** Flush mounting key reader—**TICINO international**
- ECLIPSE3GE** Flush mounting key reader—**GEWISS**
- ECLIPSEGP** Flush mounting key reader—**GEWISS playbus**
- SAT** Digital key
- BPI3** Flush mounting key reader **TICINO magic**
- BPI3LIV** Flush mounting key reader **TICINO living**
- BPI3INT** Flush mounting key reader **TICINO international**
- BPI3LGT** Flush mounting key reader **TICINO light**
- BPI3GEW** Flush mounting key reader **GEWISS**
- BPI3GP** Flush mounting key reader **GEWISS playbus**
- BPI3-GN** Flush mounting key reader **GEWISS noir**
- BPI3DEL** Flush mounting key reader **DELTA**
- BPI3-DN** Flush mounting key reader **DELTA noir**
- BPI3VI** Flush mounting key reader **VIMAR idea**
- BPI3VIB** Flush mounting key reader **VIMAR bianco**
- BPI3-AVE** Flush mounting key reader **AVE**
- BPI3-AN** Flush mounting key reader **AVE noir**
- BPI3W** Wall mounted key reader
- DKC** Digital key
- OMNIA/4R** 4-relay module for the output expanders
- OMNIA/MOD-V1** Teleservice modem
- OMNIA/MOD-V2** Teleservice and remote monitoring modem
- CVSER/9F9F** Serial cable for computer connection
- ADSER/9M25F** 25-pin adapter for serial ports
- SECURITY SUITE** Bentel Security Suite
- BXM12/30** 3 A remote power-station
- BXM12/50** 5 A remote power-station



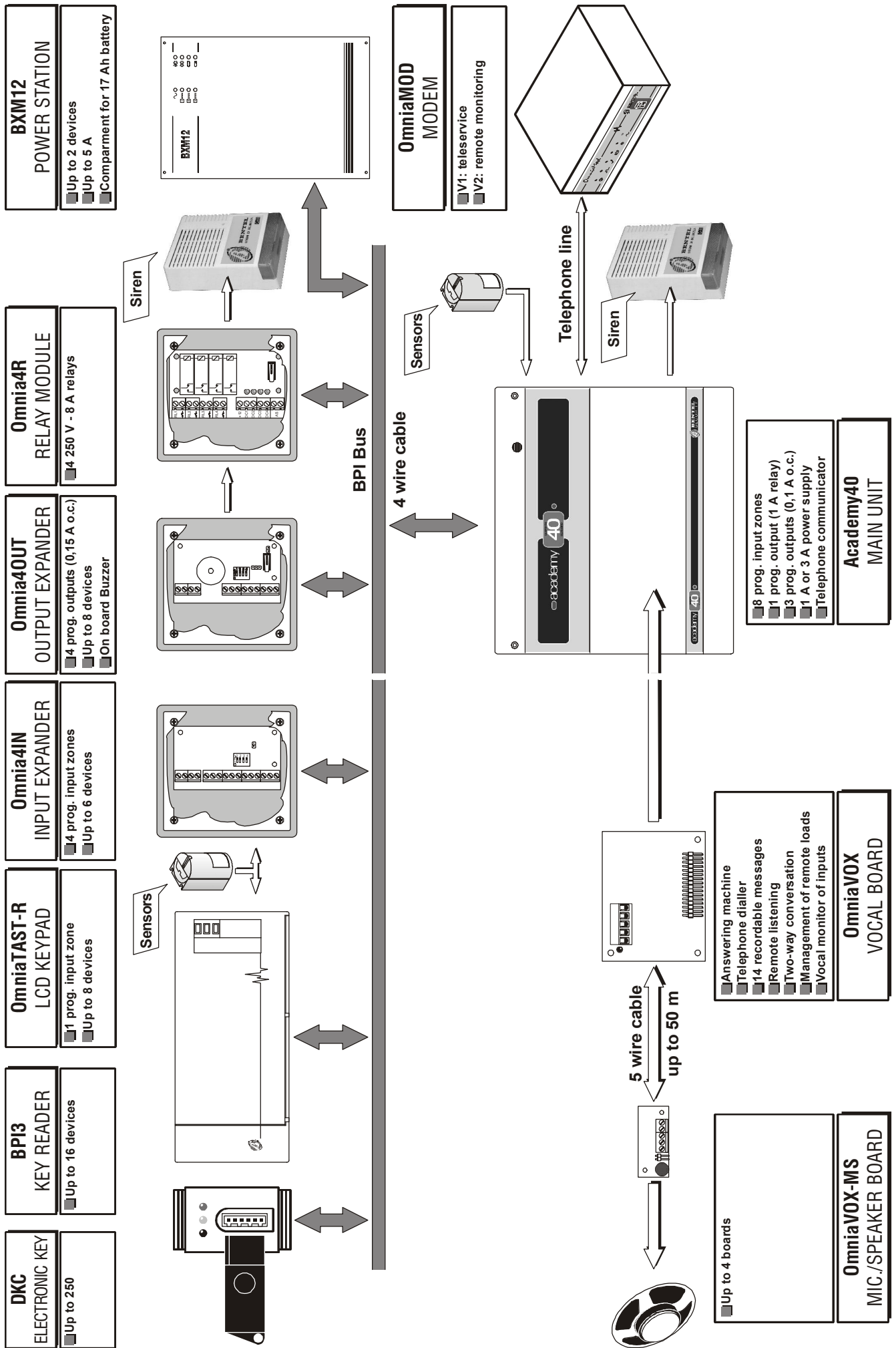




Figure 1 Academy40 system







Model	Academy40	Academy40/S
Voltage	230 V ~ 50 Hz ±10%	
Max. input	0.2 A	0.5 A
Max. power	45 W	115 W
Insulation class	Class II	Class I
Power supply Battery-charger	13.8 V  1.5 A	13.8 V  3 A
Max. current available for peripherals	1 A	2 A
Battery (Make and Model)	12 V - 7 Ah YUASA NP 7-12 FR or equivalent with UL94-V2 (or higher) case flame class	
Operating temperature range	5 ÷ 40 °C	
Dimensions (W x H x D)	309 x 227 x 89 mm	
Weight (without battery)	1.9 Kg	1.4 Kg
Complies with EN standard	EN 50081-1/1992 EN 50082-1/1992 EN 41003:1997 EN 60950:1992 + A1:1993 + A2:1993 + A3:1995 + A4:1996 79/2 2 nd Ed. 1993 - Performance level II	

Accessory	Absorption	Dimensions (WxHxD)
Academy40/S Main Board	100 mA	—
Keypad	50 mA	160 x 73 x 30 mm
Flush mounting Key reader	30 mA	—
Wall mounting Key reader	30 mA	51 x 73 x 28 mm
Input Expander	15 mA	108 x 101 x 34 mm
Output Expander	20 mA	
4-relay module	120 mA	—
Voice board + Microphone / Loudspeaker board	20 mA	
Power station	20 mA	234 x 345 x 96 mm



The following tables hold brief descriptions of the main parts of the system, and the meanings of the ON / OFF status of the LEDs. The numbers in boldface refer to the parts in the diagrams.

■ Main unit

PART	DESCRIPTION
1	Box screws (2)
2	Tamper microswitch (optional for Academy40 and Academy40/S —order code DEVMS5G)
3	Holes (4) for back box screws (Ø 5 mm)
4	Terminal boards
5	Stop alarm jumper:  > alarm enabled (default);  > alarm disabled
6	RS232 serial port
7	Jumper (MEM): saves programmed parameters during blackout  > programmed parameters will be lost (default)  > programmed parameters will be saved
8	Make / Break jumper
9	OmniaVOX board connector
10	Reserved jumper: leave the jumper at 5V
11	Cable passage
12	Battery housing: 12 V - 17 Ah maximum
13	Power supply section (see figure 3)
14	Snatch microswitch bracket
15	Snatch microswitch (optional for Academy40 and Academy40/S —order code *)
16	Protection fuse for terminal [+] BPI bus (F 3.15A 250V)
17	Snatch microswitch connector (15): connect a jumper to the connector terminals when not in use
18	Jumper to disable the Tamper (2) and Snatch (15) microswitches:  > tamper and snatch microswitches are enabled (default)  > tamper and snatch microswitches are disabled
19	Protection fuse for terminal [+B] (F 3.15A 250V)

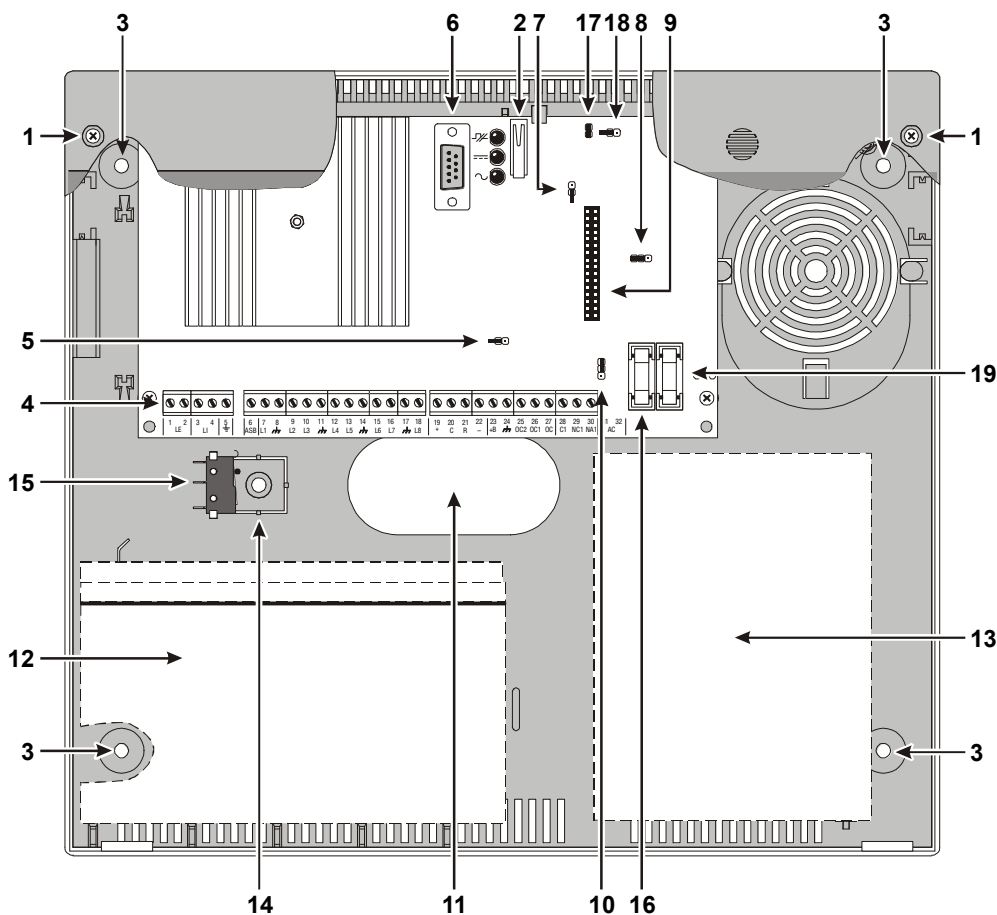







Figure 2 Main unit parts



PART	DESCRIPTION
20	Mains LED
21	Fine adjustment trimmer—output voltage
22	External device power terminals (13.8 V )
23	Mains voltage connection terminals (230 V  / 50 Hz)
24	Battery plugs
25	Plastic pin (to be removed when opening the switching-power supply)
26	Power supply fuse: Academy40 = F 250 mA 250V; Academy40/S = F 2 A 250V
27	Battery fuse—protects against polarity inversion (F 8 A 250V)

LED	MEANING
Mains 	ON: Mains OK
Battery 	ON: battery low or empty
BPI Bus 	ON: communication trouble on BPI bus

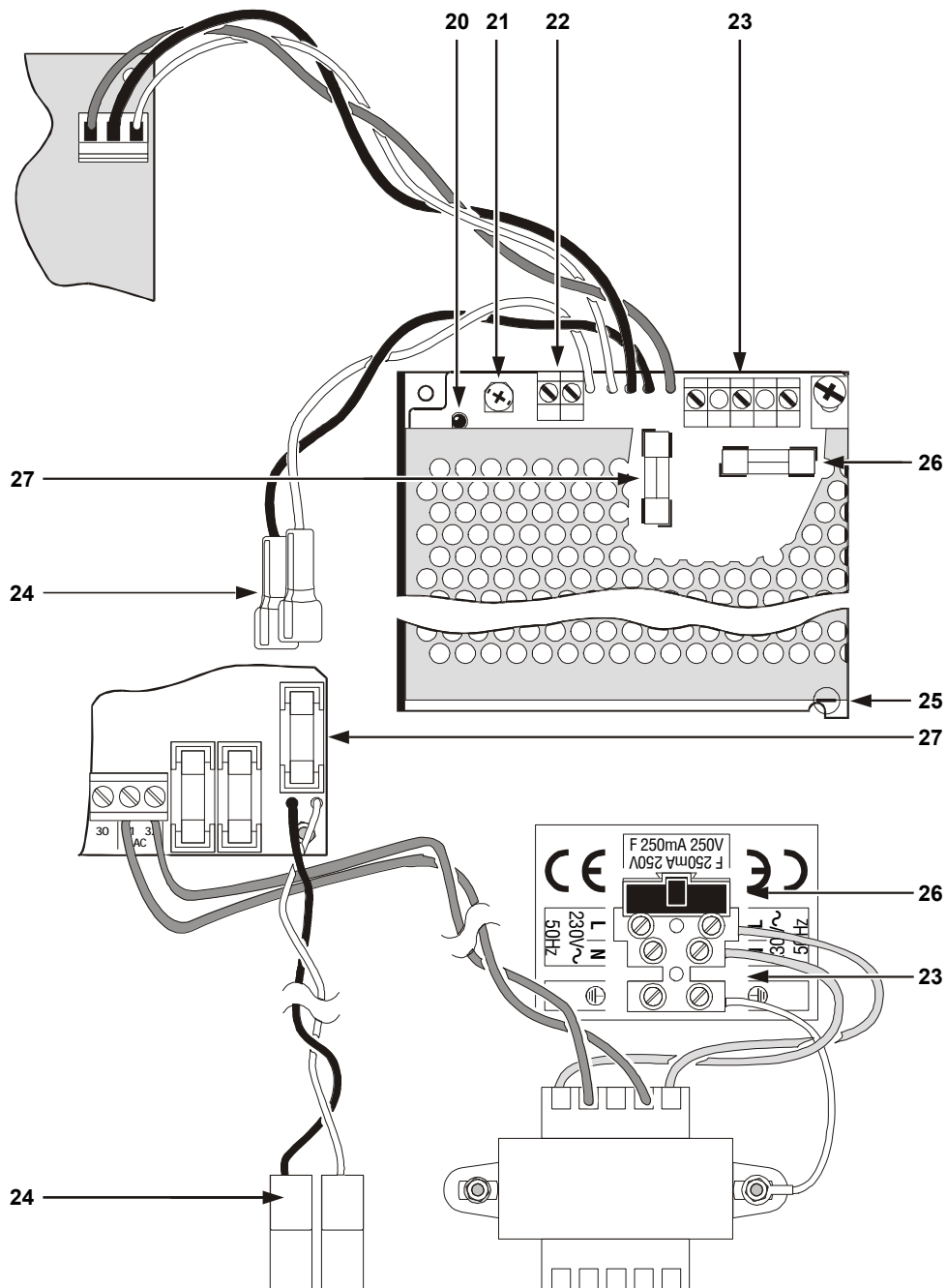


Figure 3 Switching and linear power supply units



■ Keypad












ICON	MEANING
	Partitions armed
	Alarm memory
	Trouble
	Open Panel
	Tamper line alarm
	Device tamper
	False key on key reader
	Peripheral device not found
	Teleservice enabled
	Answering device enabled
	Telephone line engaged



Figure 4 Control Keypad parts



PARTS	DESCRIPTION
28	Flip
29	LEDs window
30	Box screws (4)
31	LCD
32	Terminal identifier—in accordance with device address
33	Reference pins (2)
34	Connection terminals
35	PCB clips (2)
36	Snatch microswitch
37	Device identifier—in accordance with dipswitch configuration 39
38	Tamper switches
39	Address dipswitches
40	PCB clips (2)
41	Cable passage
42	Holes (2) for back box screws (Ø 4 mm)
43	Snatch microswitch hole
44	Buzzer
45	Buzzer plug

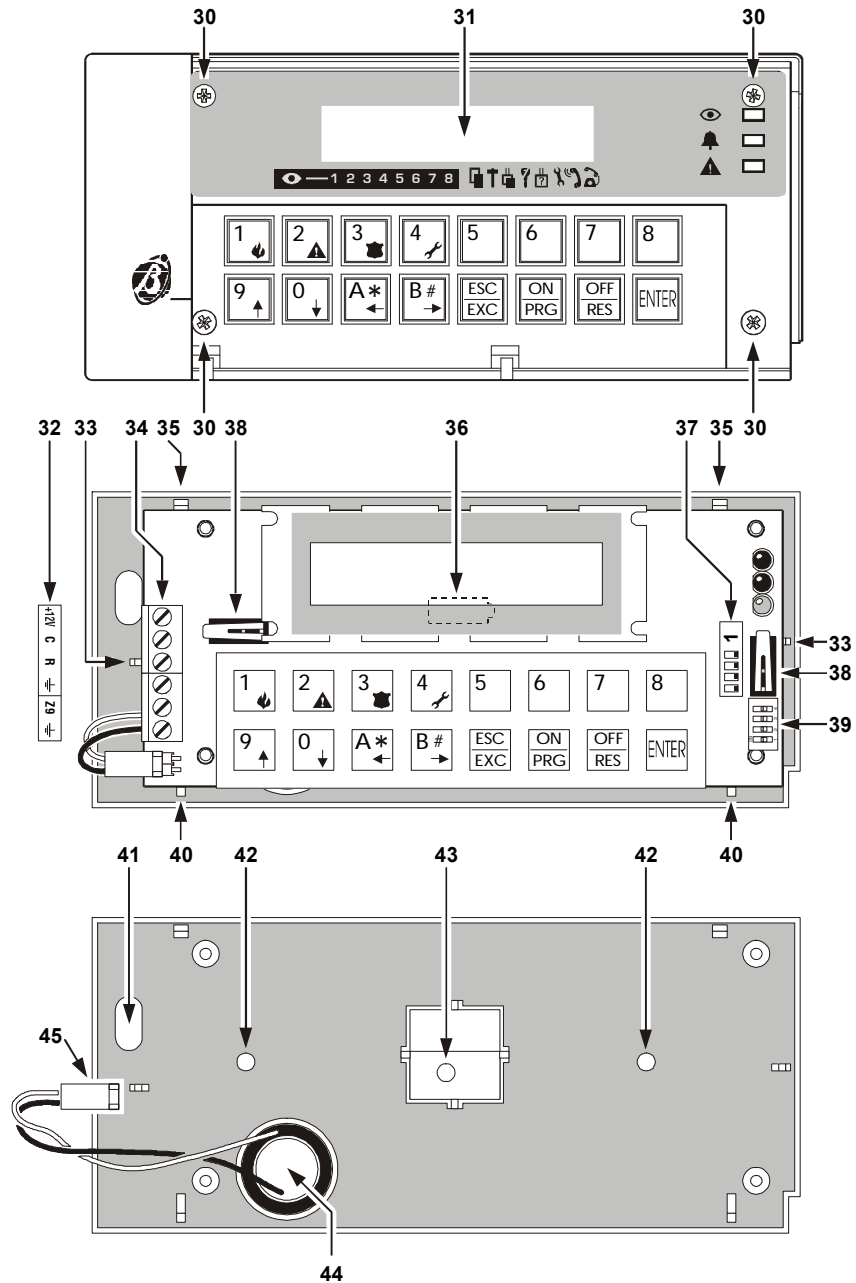


Figure 5 Control Keypad parts



■ **Key reader and Digital key**

The optional key reader is available in several models (flush and wall mounting) refer to "Accessories" for the order codes.

+ Figure 6 shows the Magic-box model.

PARTS	DESCRIPTION
46	Connection terminals
47	Address dipswitches
48	Device identifier—in accordance with dipswitch configuration 47
49	Cable passage
50	Screw holes (2)
51	Snatch bracket screw hole
52	Snatch microswitch
53	Tamper switch
54	Digital key slot
55	Control button (on Digital key)

LED	MEANING
RED	ON: All partitions enabled on the Key reader are armed
AMBER	ON: Type A arming
GREEN	ON: Type B arming

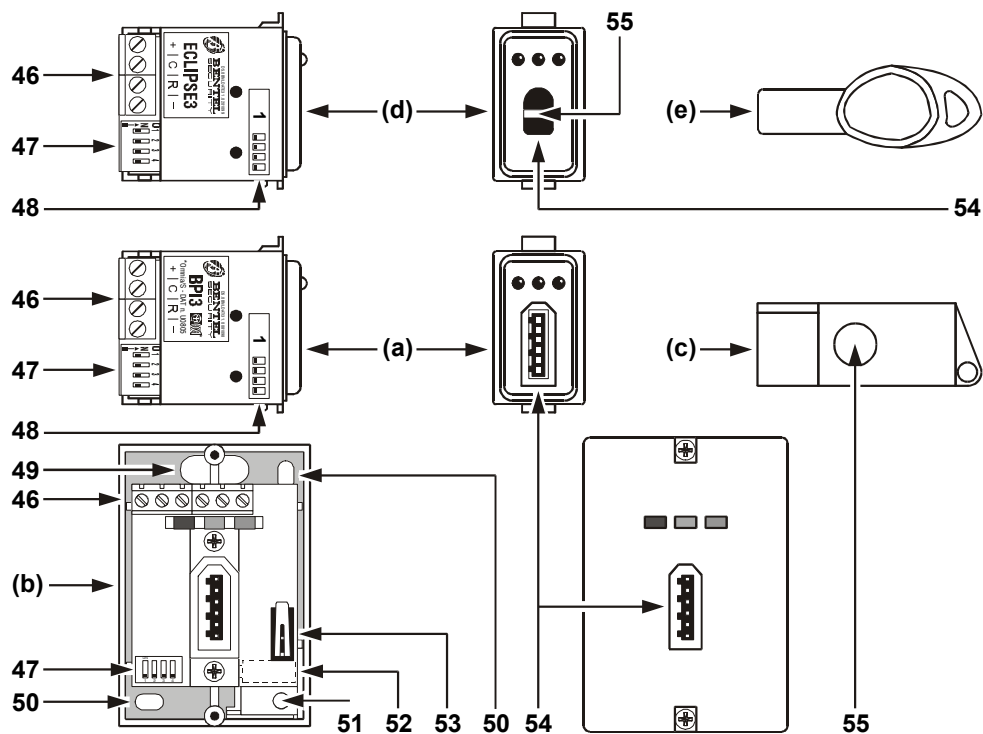







Figure 6 Parts of the Magic (a) and wall-mounted (b) Key reader, and Digital key (c)



■ **Input and Output expanders**

PART	DESCRIPTION
56	BPI Bus connection terminal
57	Device identifier—in accordance with dipswitch configuration 59
58	Input Zone terminal board
59	Address dipswitches
60	Tamper and Snatch bypass jumper:  > switches unbypassed  > switches bypassed (default)
61	Snatch microswitch
62	Tamper switch
63	Buzzer
64	Buzzer mode jumper:  > buzzer bypassed (default)  > buzzer will be activated when terminal [OC4] opens  > buzzer will be activated when terminal [OC4] switches to ground
65	Open-collector output terminal board, 150 mA maximum
66	Terminal identifier—in accordance with the device address
67	Box screws (4)
68	Input or Output expander or 4 relay Module
69	Expander screws (2)
70	Cable passage
71	Screw holes (2) for mounting on model 503 box
72	Opening for cable duct
73	Screw holes (2)
74	Snatch bracket screw hole
75	Tooth (closes tamper switch)

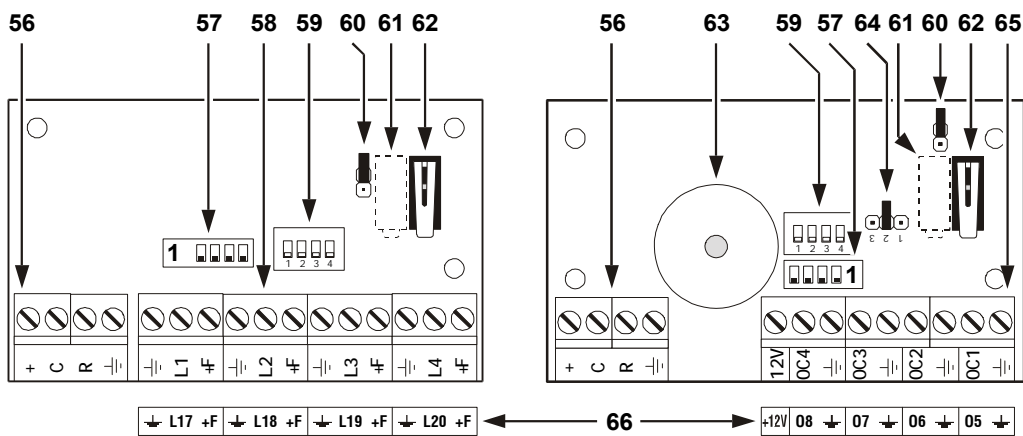


Figure 7 Input and Output Expanders

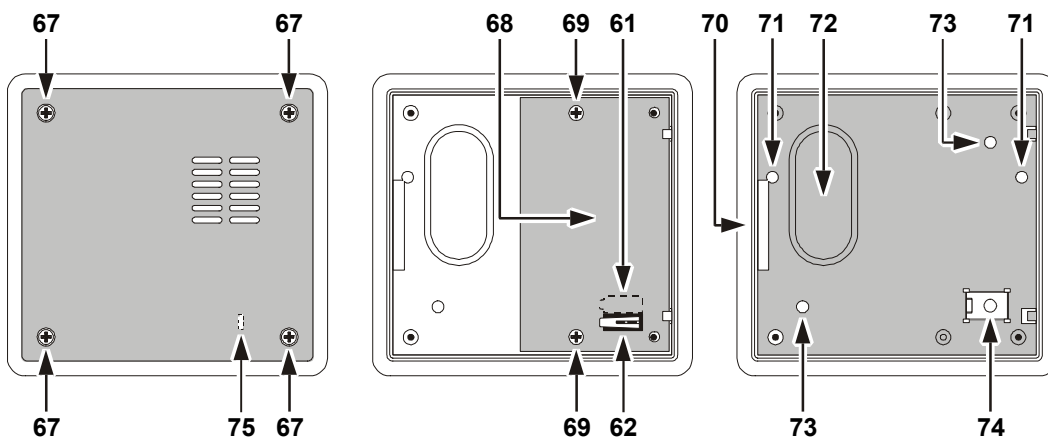


Figure 8 Box for Expanders and the 4 Relay module



Installation steps

The Panel must be located in a safe place.

IMPORTANT The Panel must be at least 2 metres from GSM and radio relay systems.

- Step 1** Create a layout—include all alarm detection devices, zone expanders, keypads, key readers, etc.
- Step 2** Drill the holes for the cabinet **3** and snatch bracket **14** (see figure 2—"Parts").
- Step 3** Pull the connection wires through the hole **11** (see figure 2—"Parts") then attach the cabinet and snatch bracket to the wall.
 - + Do not over tighten the snatch bracket screw as this may damage the bracket.
- Step 4** Install the additional modules and boards (Omnia4IN, Omnia4OUT, OmniaVOX, etc.—refer to the relevant instructions).
- Step 5** Make all connections—do not connect the Mains until all other wiring is complete.

Mounting the keypad The keypad should be located in a place where full control of the security system is required.

- Step 1** Remove the screws **30** and the keypad box.
- Step 2** Unplug the buzzer (plug **45**).
- Step 3** Remove the PCB—lift the plastic board support clips **35**.
- Step 4** Drill the holes for the cabinet and snatch bracket screws (**42** and **43**).
- Step 5** Pull the connection wire through the hole **41** then attach the cabinet and snatch bracket to the wall.
- Step 6** Replace the PCB and plug the buzzer in (plug **45**).
- Step 7** Assign the keypad identifier number—use the dipswitches **39**—complete the connections on the terminal board **34** then close the keypad box.

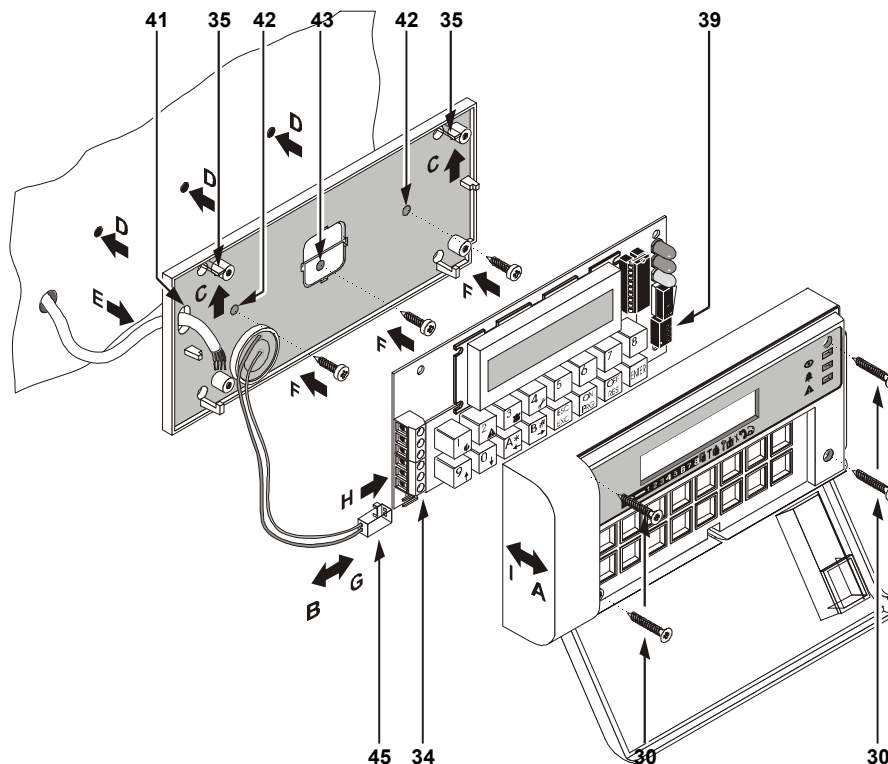


Figure 9 Keypad mounting



Flush mounting Key reader Key readers should be located in places where limited control of the security system is required.

Step 1 Assign the key reader identifier number—use the dipswitches **47**—complete the connections on the terminal board **46**.

Step 2 Mount the key reader as per figure 10a.

IMPORTANT Ensure that **Flush mounting** key readers located **outdoors** are equipped with tamper protection. **ECLIPSE** key readers must be at least 2.5 cm apart.

Wall mounting Key reader The operating principles of wall (BPI3W) and flush mounting key readers are the same, however, the boxes are different. The Wall mounting key reader is designed for side by side mounting with the keypad.

Step 1 Remove the screws and open the key reader.

Step 2 Drill the holes for the back box and snatch bracket screws (**50** and **51**).

Step 3 Pull the connection wire through the hole **49** then attach the key reader back box and snatch bracket to the wall.

Step 4 Assign the key reader identifier number—use the dipswitches **47**—complete the connections on the terminal board **46** then close the key reader.

Expanders and Relay modules The Wall or Flush mounting Input expanders, Output expanders and Relay module must be as near as possible to the peripherals.

Step 1 Remove the screws **67** and front.

Step 2 Remove the screws **69** and PCB.

Step 3 Remove the knockout (**70** or **72** as required).

Step 4 **Wall mounting:** drill the holes for the box and snatch bracket screws (**73** and **74**—fig. 13b).
Wall mounting above a model 503 box: drill the hole for the snatch bracket screw only (fig. 13c).
—No drilling is necessary for Flush mounting (fig. 13a).

Step 5 Pull the connection wires through the hole then attach the back box and snatch bracket.
+ Position the snatch microswitch as per figure 11—for wall and Flush mounting.

Step 6 Replace the PCB.

Step 7 Assign the expander identifier number—use the dipswitches **59**—complete the connections on the terminal boards.

Step 8 Remove the jumper **60** to enable the tamper and snatch microswitches.

Step 9 Select the Output-expander buzzer mode—use the jumper **64**—then close the box.
+ The plastic tooth **75** will close the tamper switch.

The Input and Output expanders and the relay module can be mounted inside the Panel (see figure 12) by means of supports (optional).

IMPORTANT The tamper and snatch microswitches of Input and Output expanders—attached by means of supports—must be disabled (jumper **60** connected).

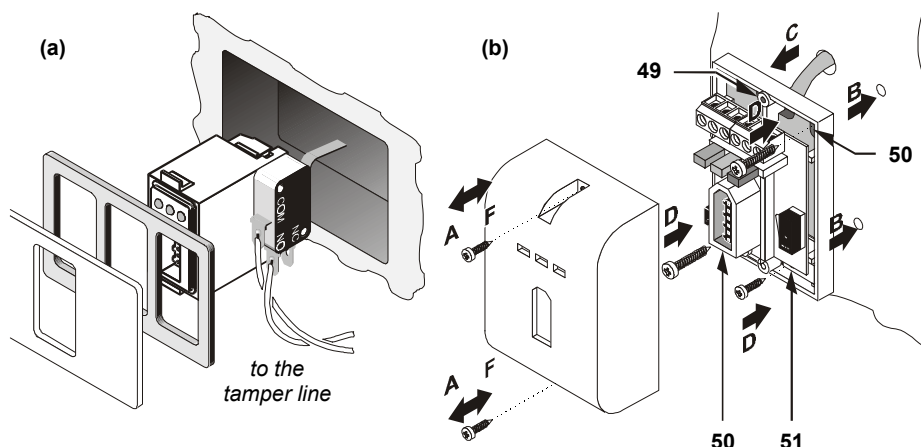


Figure 10 Flush mounting key reader (a); Wall mounting key reader (b)



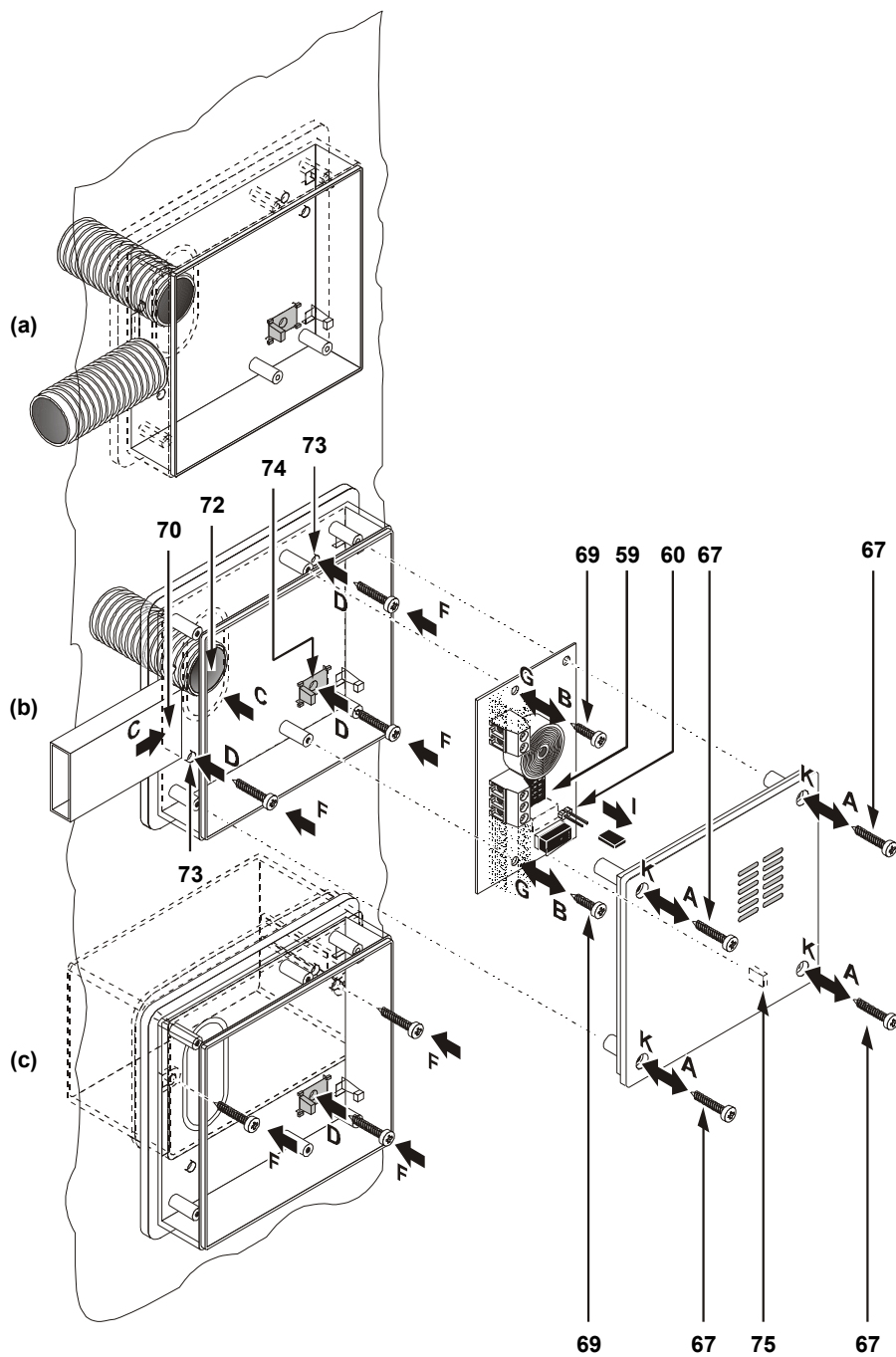


Figure 11 Expander installation: (a) Flush mounting; (b) on view; (c) inside mod.503 box



Snatch microswitch Install the Snatch microswitch **15** (optional), as per the instructions below (see fig. 12).

- 1 Use an adequate wire length with a female connector at one end (pitch 2.54 mm), and the other end loose.
- 2 Solder the loose end of the wire to terminals **C** and **NO** of the Snatch microswitch **15**.
- 3 Attach the Snatch microswitch to the back box.
- + The release lever must be held in place by the plastic pin on the Snatch microswitch bracket (**14**)
- 4 Remove the jumper from the connector (**17**) then connect the Snatch microswitch to the connector.

Maximum Configuration

Figure 12 shows the maximum configuration of the Panel.

PART	DESCRIPTION
77	Speaker
79	Voltage supply
80	Battery 12 V - 17 Ah max.
81	Voice board
82	Main board
83	Microphone board

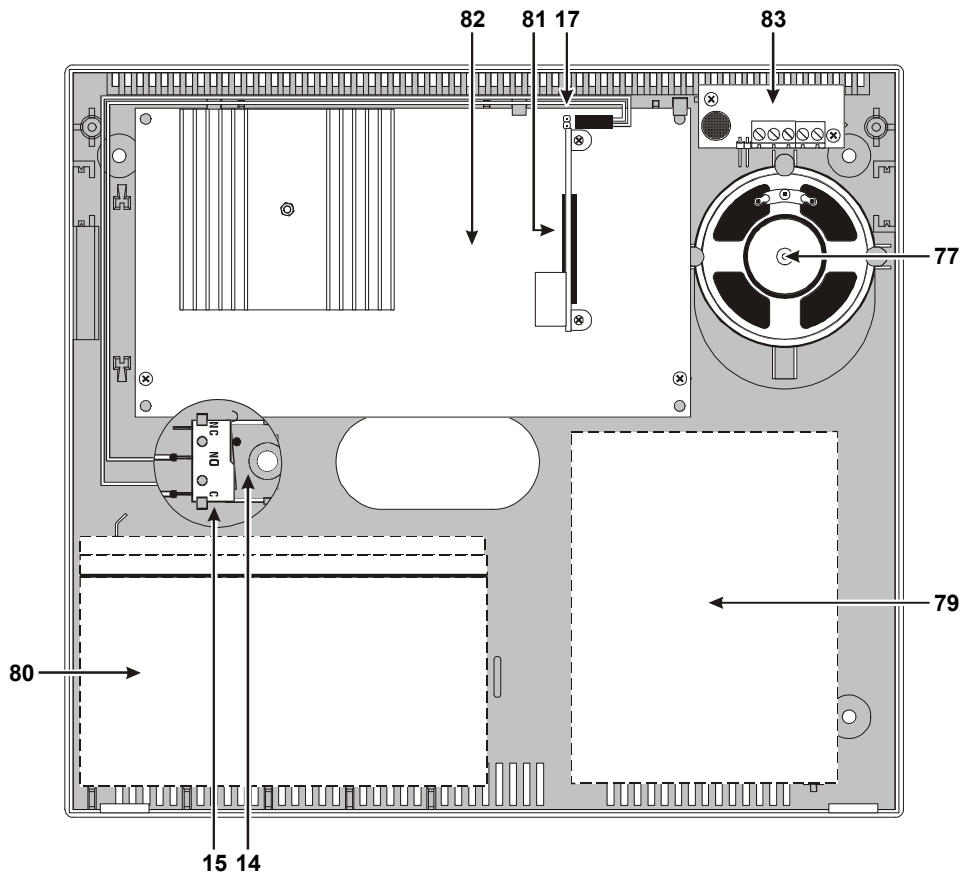


Figure 12 Maximum configuration of the Panel



Terminal board description

Following is a brief description of the Panel and BPI device terminals.

- The **TERMINAL** column shows the terminal identifier (in square brackets):
 --- **not present** means the terminal is not available on the Panel in question.
 - The **DESCRIPTION** column provides a brief description of each terminal.
 - The **v(V)** column shows the voltage of the terminals (the "—" symbol means the voltage cannot be specified).
 - The **i(A)** column shows the maximum current (in amperes) that can circulate on each terminal (the "—" symbol means that the voltage cannot be specified).
 - + The numbers in round brackets refer to the following notes.
- (1) The sum of the current absorbed by Panel terminals [+B] and [+] must not exceed:
 --- **2 A** for **Academy40/S**
 --- **1 A** for **Academy40**
- (2) **13.8 V** is present on the [+] terminals of the Panel—protected by fuse **16**. This voltage will be supplied by the battery in the event of Mains failure.
- (3) The current absorbed by the [+] terminals of the BPI devices is as follows:
 - **Keypad = 50 mA**
 - **Key reader = 30 mA**
 - **Input expander = 15 mA**
 - **Output expander = 20 mA**
 - **Power station = 20 mA**
 These values refer to the current absorbed by the BPI devices with no load (no peripherals).
- (4) The sum of the current absorbed by the [+F] terminals of Input expanders should not exceed 0.4 A.

■ Panel

TERMINAL	DESCRIPTION	v(V)	i(A)
[LE]	Terminal for external telephone line connection	—	—
[LI]	Terminal for the connection of other telephone devices on the same telephone line as the Panel (answering machines, telephones, fax machines, modems, etc.)	—	—
[⊥]	Earth terminal	0	—
[ASB]	Balanced tamper line (terminal [ASB]) normally connected to ground (terminal [⌚]) by a 10K resistor	—	—
[L1¼ L8]	Programmable input lines	—	—
[⌚]	Ground	0	—
[+] [C] [R] [-]	Device connection Bus BPI (LCD Keypads, Input Exp., Output Exp., Key readers)	(2)	(1)
[+B]	Voltage to peripherals—protected by fuse 19 This voltage is supplied by the battery during mains failure	13.8	(1)
[OC2]	Programmable open-collector output	0	0.15
[OC1]	Programmable open-collector output	0	0.15
[OC]	Programmable open-collector output	0	0.15
[C1-NC1-NA1]	RL1 output (voltage free relay switch): standby → C1 connected to NC1—NA1 open alarm → C1 connected to NA1—NC1 open	—	1
[AC]	Connected terminals (not in the model with switching power-supply)	—	—



■ **BPI devices**

The following table provides a brief description of the device terminals. The terminals are the same for all **BPI devices**—LCD Keypads, Digital-key readers, Input expanders, Output expanders and Power stations.

TERMINAL	DESCRIPTION	v(V)	i(A)
[+]	Voltage: positive	13.8	(5)
[R]	"Answer" terminal to be connected to the corresponding terminal on the Panel	---	---
[C]	"Command" terminal to be connected to the corresponding terminal on the Panel	---	---
[⊖]	Voltage: negative	0	---

Key reader Flush mounting key readers have bus connection terminals only. Wall mounting key readers have also the following terminals:

TERMINAL	DESCRIPTION	v(V)	i(A)
[AS]	Tamper switch: closed when switches 52 and 53 are closed open when switch 52 or 53 is open	---	---

Keypad The keypad has bus connection terminals, and also the following:

TERMINAL	DESCRIPTION	v(V)	i(A)
[L1]	Programmable input line	---	---
[⊖]	Input-line ground	0	---

Input expander Input expanders have bus connection terminals, and also the following:

TERMINAL	DESCRIPTION	v(V)	i(A)
[L1] [L2] [L3] [L4]	Programmable input lines	---	---
[⊖]	Input-line ground	0	---
[+F]	Sensor supply protected by resettable fuse	13.8	(6)

Output expander Output expanders have bus connection terminals, and also the following:

TERMINAL	DESCRIPTION	V	I
[+12V]	Voltage for devices connected to open-collector outputs, protected by resettable fuse	13.8	0.4
[OC1] [OC2] [OC3] [OC4]	Programmable open-collector outputs	0	0.15
[⊖]	Ground terminals	0	---

Power station Refer to the instructions provided with the Power station.

Schematic diagrams

The schematic diagrams and instructions refer to the connections of the various device types (BPI devices, sensors, alarms devices, etc.).

Following are just a few of the many applications this Panel provides.

Diagram symbols The schematic diagrams may differ slightly from the board.

- Each schematic diagram shows the relevant terminals **only**.
- The input zone and open-collector-output terminals—shown in the diagrams—can be found on the Panel and on the expanders.
- The negative terminals may be represented by \ominus , $\omin�$ or $-$.
- + Use shielded wire.



BPI device connection

The following devices can be connected to the BPI bus:

- Up to 8 keypads
- Up to 8 output expanders
- Up to 16 digital-key readers
- Up to 6 input expanders for **Academy40** and **Academy40/S**
- 2 power stations

Electrical connections The BPI devices must be connected to terminals [+], [C], [R] and [⏚], as per figure 13.

BPI bus Figure 13 illustrates the connection of 3 BPI devices (Keypads, Key readers, Input expanders, Output expanders or Power stations).

Address assignment The BPI device address assignment is done by dipswitch **39** for keypads; **47** for key readers; **59** for Input and Output expanders.

Power station Refer to the instructions provided with the Power station.

The following table shows the 16 address combinations.

Dipswitch No.	Address															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	off	off	off	off	off	off	off	off	ON	ON	ON	ON	ON	ON	ON	ON
2	off	off	off	off	ON	ON	ON	ON	off	off	off	off	ON	ON	ON	ON
3	off	off	ON	ON	off	off	ON	ON	off	off	ON	ON	off	off	ON	ON
4	off	ON	off	ON	off	ON	off	ON	off	ON	off	ON	off	ON	off	ON

- + Addresses can be assigned in any order, however, devices of the same type must have different addresses—refer to "**Address assignment**".
Devices of different types (e.g. keypad and expander) can have the same address, as these devices are intrinsically different for the Panel.

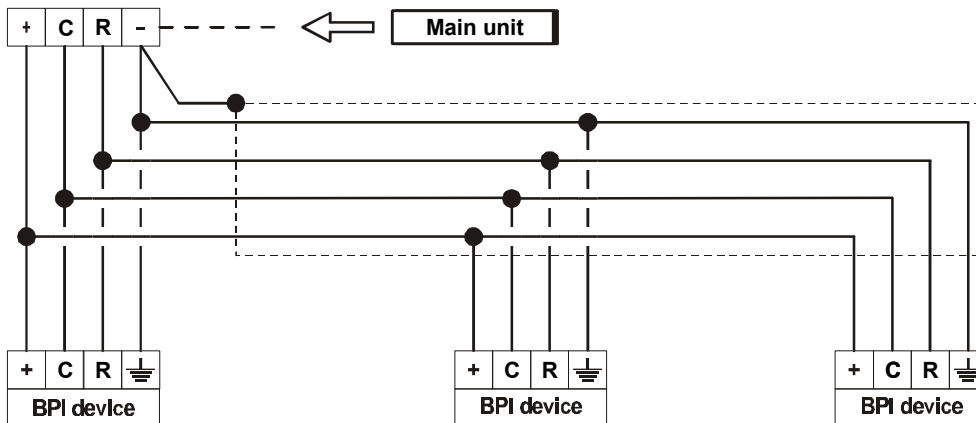


Figure 13 Connection of 3 BPI devices to the BPI bus



■ BPI bus wiring

No BPI device can be more than 500 meters (in wire length) from the Panel. The overall wire length for each branch of the BPI bus can be no more than 1,000 meters.

If the voltage across terminals [+] and [⚡] is less than 10 V (the voltage required by the BPI devices) it is possible to:

- increase the wire section that supplies the device (the wires that connect terminals [+] and [⚡] of the Panel to terminals [+] and [⚡] of the device);
- connect a power station to boost the voltage;
- connect a power station to supply the devices connected to the BPI devices.

Alarm sensor connection

The Panel provides 8 zones on the Main board; 4 Zones per Input Expander; 1 Zone per keypad for the connection of alarm sensors.

Academy40 and **Academy40/S** can manage up to 40 zones

The input zone terminals are marked [L1], [L2], etc.

The following terminals supply the sensors:

— **[+B]** (positive) and **[⚡]** (negative) on **Academy40** and **Academy40/S**

— **[+F]** (positive) and **[⚡]** (negative) on **Input Expanders**

— **[+]** (positive) and **[⚡]** (negative) on **Keypads**

Several sensors can be connected to each zone, although, connection of one sensor is strongly advised, as this will allow identification of the sensor in alarm status.

It is possible to connect sensors with normally closed contacts and normally open contacts. All input zones are programmable as Normally Closed, Normally Open, Balanced or Double balanced.

Use the 10 K resistors (provided) for Balanced or Double Balanced Zones.

The Balance resistors are not required for Normally Closed or Normally Open zones.

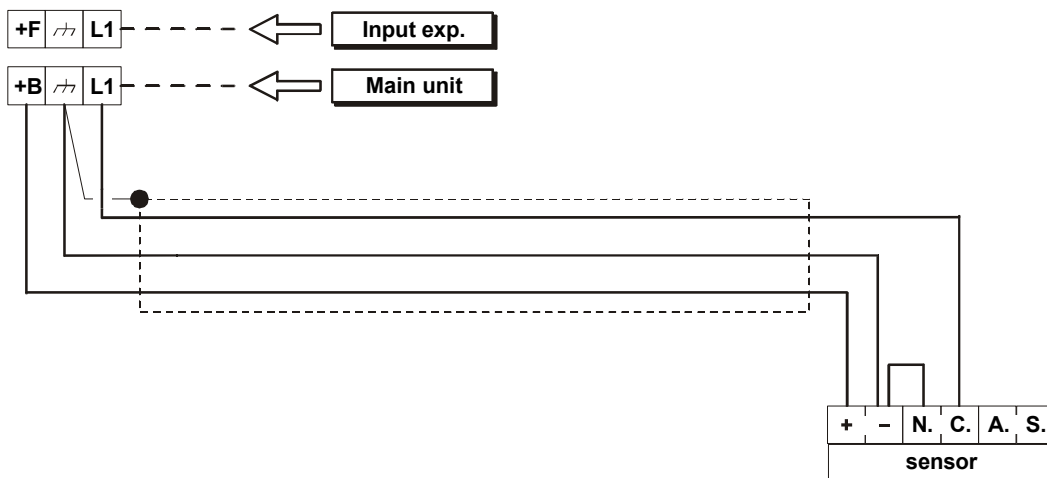


Figure 14 Sensor connection to Normally Closed line

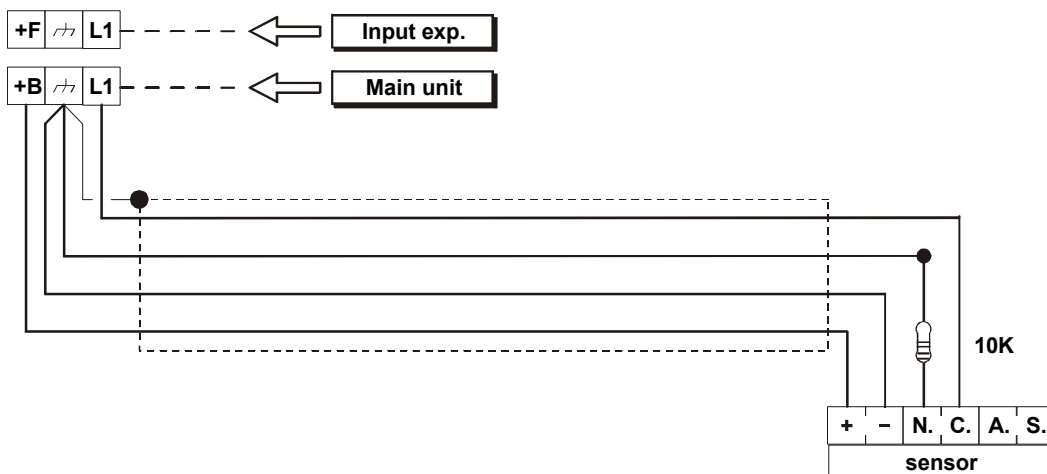


Figure 15 Connection of a sensor to a Balanced line



Double balanced The double balanced mode provides information on sensor alarm and tamper, and also identifies the sensor signalling alarm.

The schematic diagrams show the connection of sensors to Normally Closed, Balanced and Double Balanced zones.

- + Refer to “**Tamper terminal connection**” for connection of tamper terminals (terminals A.S.).

■ **Fire sensors**

Connect fire sensors with alarm-repeat outputs that operate at 12 V (e.g. BENTEL SECURITY sensors RT101-RT102 and RF501).

- + Refer to the schematic diagram for fire sensor connection (fig.20).

Connect the alarm-repeat outputs of the fire sensors in parallel to an input zone programmed as **FIRE** (Normally Open—24h).

Connect the positive supply terminal of the fire sensors to terminals:

- **[+F]** on **Input Expanders**
- **[+B]** on **Academy40** and **Academy40/S**
- **[+]** on **Keypads**

Connect the negative supply terminal of the fire sensors in parallel to a Panel output or Output Expander programmed as:

- **Monostable**
- **Normally Closed**
- **20 seconds**

Assign the output to an event that will reset the fire sensors (e.g. Reset Panel or Reset Partition). When the programmed event occurs, the negative power supply of the fire sensors will be interrupted for 20 seconds, in order to reset the fire sensors.

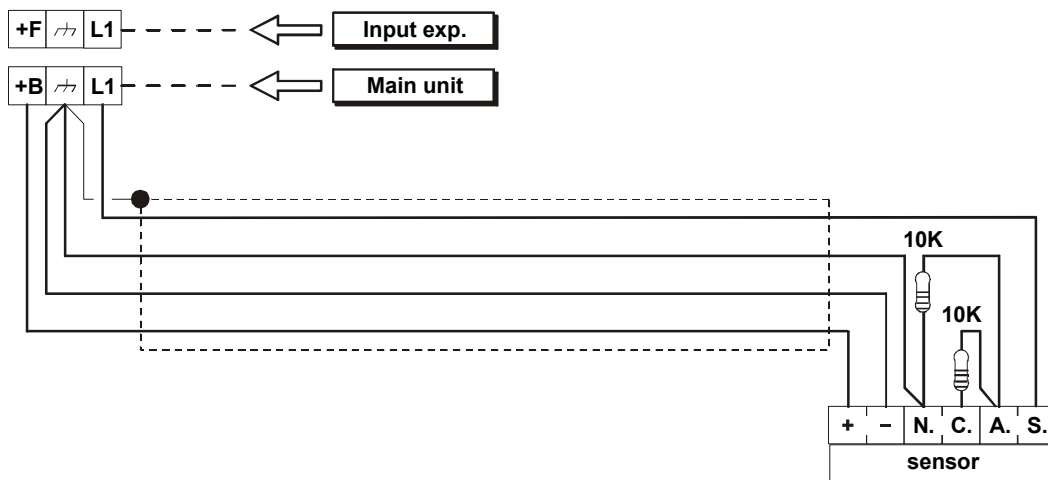


Figure 16 Connection of a sensor to a Double Balanced line

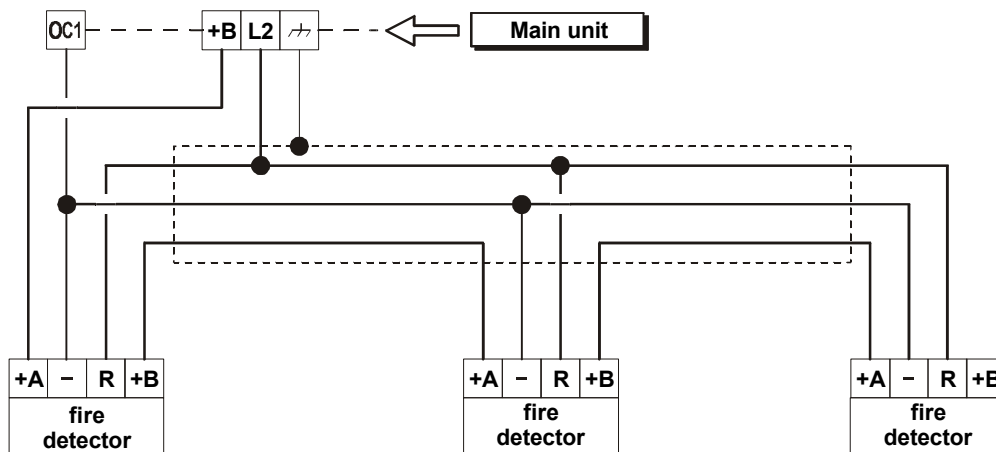


Figure 17 Connection of three fire detectors



Alarm signalling devices

Alarm signalling devices such as: Self-powered sirens, Indoor sirens and Telephone diallers be classified as follows.

- **Intrinsic security** devices (e.g. Self-powered sirens—see fig. 18) will be activated by voltage failure on the alarm terminal.
- **Positive alarm line** devices (e.g. Indoor sirens—see fig. 18) will be activated by positive (12 V) on the alarm terminal.
- **Negative alarm line** devices are activated by negative on the alarm terminal.
- **Balanced alarm-line** devices are activated by unbalanced impedance on the alarm terminal.

Terminals [C1-NC1-NA1] on Panel can activate all types of signalling devices.

Academy Panel and Output Expanders have open-collector outputs (terminals **[OC]**, **[OC1]** and **[OC2]**, etc.) that can activate all types of signalling device directly or through Omnia/4R relay board.

- + Refer to "**Tamper terminal connection**" for connection of tamper terminals (terminals [S] and [S1]).

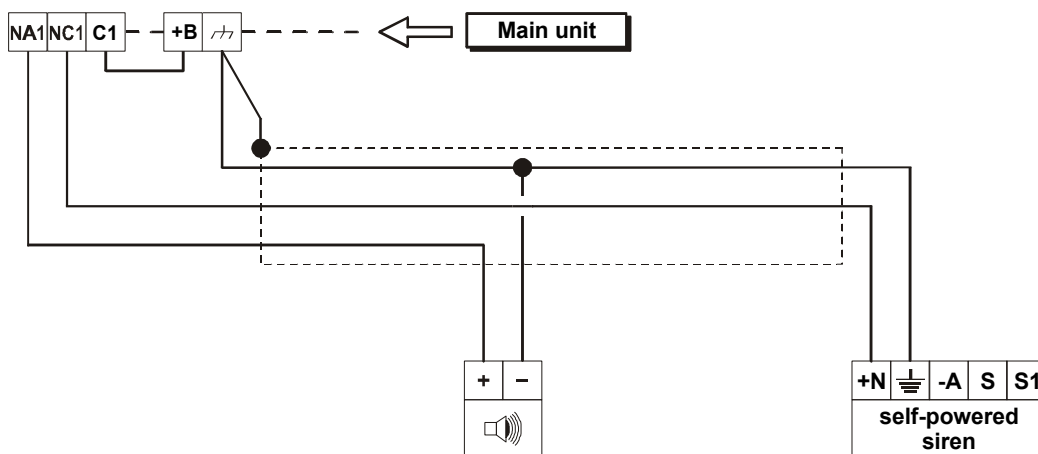


Figure 18 Connection of self-powered siren and indoor siren



Tamper terminals

The alarm device tamper switches can be connected to the 24h balanced tamper line of the Panel, as per below (see figure 19).

- Connect all the alarm device tamper switches in series.
- Connect one end of the series to terminal [ASB] and the other to terminal [↗]; connect the balance resistor to the last device.
- + If the tamper line is used, the **device** in tamper status will not be identified.
 - For **sensor** identification—connect the sensor tamper terminal and alarm terminal to a **Double Balanced** zone, as per the instructions in the "**Alarm sensor connection**" paragraph.
 - For **device** identification—connect the device tamper terminal to a **24h** zone.

Telephone-line connection

Connect the telephone line to terminals [LE] to enable the telephone communicator functions.

If the Panel shares the telephone line with another telephone device—connect the latter to terminals [LI]. In this way, the Panel will take priority only in the event of an alarm.

- + Connect the earth terminal [⏚] to the Mains earth line—in order to protect the PCB against surges from the telephone line.

IMPORTANT Ensure that the Mains earth line is fully intact and operating properly before connecting the telephone line.

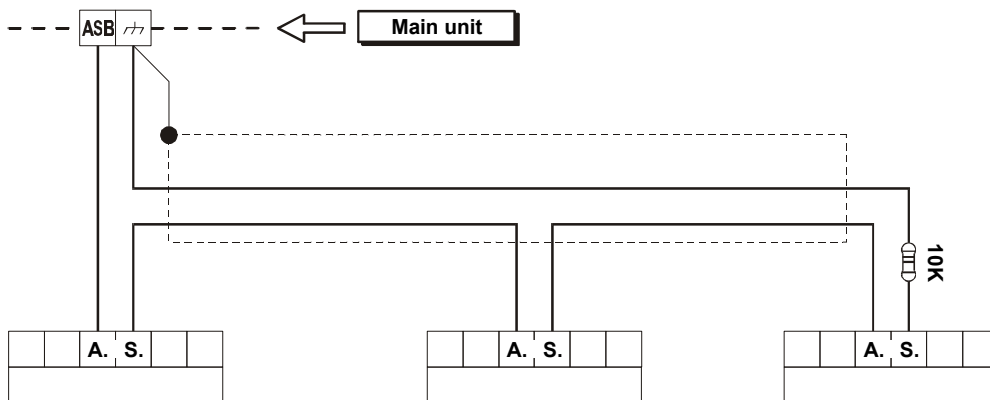


Figure 19 Connection of tamper terminals

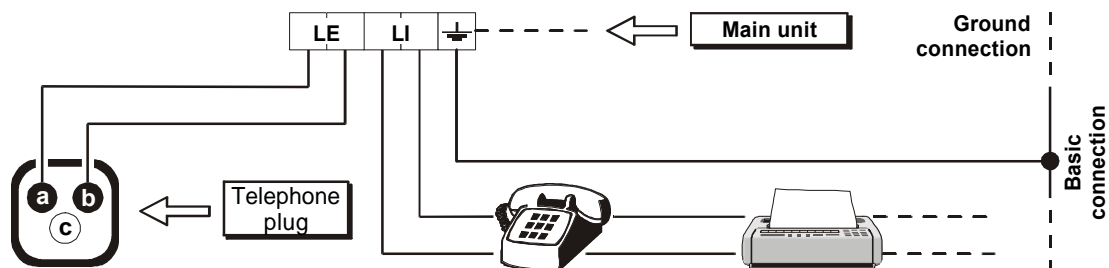


Figure 20 Telephone line connection



Power supply connection



IMPORTANT Safety regulations state that the Mains must be equipped with a bipolar isolating device for protection against overvoltage and short-circuit to earth (e.g. automatic isolating switch).

Academy40 are powered by a mains voltage of 230V/50 Hz through an on-board **linear power supply**.

Academy40/S are powered by a mains voltage of 230V/50 Hz through a **switching power supply** inside the cabinet.

- + The backup battery will supply power in the event of Mains Failure.

Mains failure will be signalled by:

- LED  on the main board of the Panel **OFF**
- LED  on the keypads **ON**
- **Warning mains failure** event (this event can be delayed).

Low battery will be signalled by the **Low battery** event—**Troubles** must be eliminated before the battery empties. However, in the event of total blackout (Mains and battery) the non-volatile memory will store all the programmed parameters.




Mains Connection

Step 1 Connect the battery by means of the connectors **24**—**Red** wire to **Positive** terminal—**Black** wire to **Negative** terminal (see figure 3 "**Parts Identification**").

Step 2 Connect the **Earth** wire to terminal [⊕] the **Neutral wire** to terminal [N] and the **Line wire** to terminal [L] on the **terminal board 23**.

- + The backup battery is protected against polarity inversion by fuse **27** (F 8A 250 V).

Once the Mains connection has been completed the Panel will perform an **Auto-configuration** phase (see below), when this phase ends the LEDs on the main board of the Panel will be as follows:

- Green LED  **ON**
- Red LED  **OFF**
- Red LED  **OFF**

Auto configuration The Auto-configuration phase takes approximately 15 seconds and will be signalled by blinking on the red LED. During this phase the Panel will learn the configuration of the devices on the BPI bus—the memorized configuration can be changed during the programming phase.

The following configuration will be shown on the keypad displays

00: 01 05/03/1996
DDDDDDDD

 when this phase ends. Connect the jumper **7** (MEM) to enable the non-volatile memory—all programmed data will be saved in the event of blackout.

IMPORTANT The memory battery will be empty on Startup. Therefore, it must be charged for approximately 1 hour to ensure storage of the programmed data for up to 1 month of total blackout (Mains and backup battery). The jumper **7** (MEM) must be connected.



This Panel can be programmed via computer or keypad. The **Omnia - Academy40** application —from the optional **Security Suite** software—provides a trouble-free way of programming the Panel. This chapter holds in-detail information on the system parameters, and should be referred to when programming via keypad.

- + Refer to the **Security Suite** manual for further information on the **Omnia - Academy40** application.

Programming via computer

Step 1 Install **Security Suite** as per the instructions in the **Security Suite** manual.

Step 2 Start the Omnia - Academy40 application.

Step 3 Select the Panel Type (refer to **Customer data** paragraph) and Firmware release (refer to **Options** paragraph in the **Security Suite** manual).

Step 4 Program the parameters (refer to the relevant paragraph).

Step 5 Program as per **On-site Programming via computer** or **Remote Programming via computer** (refer to the relevant paragraph).

The programmed parameters can be saved on a computer, or floppy disk, and downloaded on-site or via telephone to the Panel (refer to the **Save** and **Open Customer** paragraphs in the **Security Suite** manual).

The parameters of each feature are grouped together in pages. The pages in this chapter are as per page order in the application.



Customer data

The program opens on the **Customer data** window.

- The top row shows the **File; Programming; Check; Buffer; Modem; Options; Page** and **Help** menus.
- The tags on the bottom row open the **Customer; Zones; Outputs; Partitions; Telephone; Dialler; Digital comm.; Teleserv.; Events-Actions; DTMF comm.** and **Test event** pages—click the tag to open the corresponding page.

The Customer's **Address, City, Customer tel.num** and **Installation description** are for Customer identification purposes only.

The **Essential** data: **Name; Installation tel. num.** and **Customer code** must be programmed as per below.

Name Enter the Customer name.

Installation tel. num. Enter the number of the telephone line the Panel is connected to. The OmniaMOD modem will call this number when the **Connecting** option is selected from the **Modem** menu. This number can be different to the **Customer tel.num** (e.g. When more than one telephone line is available).

Accepted digits: 0 through 9 and commas (,). The comma represents pauses of 2 seconds (e.g. between the prefix and the telephone number).

Customer code Enter the Customer code in this space. This code will identify the Panel during communications with the OmniaMOD modem (for Teleservice or Test calls). Therefore, each Panel must have a different Customer code. Duplicate codes will be signalled when **Save** is selected (the code and the Panel it is assigned to will be shown).

- + The Customer code—entered on the **Customer data** page—will be copied automatically onto the **Teleservice** page, and vice versa.

Panel version Select **Academy40** to program **Academy40** and **Academy40/S**.

Firmware Release This is a non-modifiable field that will show the selected firmware release (selected from the **Options** menu or downloaded from the Panel). The program will supply the relevant parameters.

- Select **File** then click **Save** to save the Customer data.

Last update This parameter will be updated automatically when **Save** is selected.

Notes Data entered on the notepad will not be shown in the **Installation description**. If the notepad is empty the icon will show an empty page.

Omnia - Omnia 840 - Academy 40

File Programming Check Buffer Modem Options Page Help

Customer data

Name

Address

City

Customer tel.num.

Installation description

Installation tel. num.

Customer code Find

Panel type

Firmware Release

Last update Notes

Customer / Config / Zones / Outputs / Partitions / Telephone / Dialler / Dig. communic. / Teleserv. / Event-Actions / DTMF comm. / Test event

Figure 21 Customer data page



Configuration

On initial Startup the Panel will perform an auto-configuration cycle.

- + The configuration learned during this cycle will become the recognized BPI bus configuration (refer to the **Power supply connection** paragraph). Any changes must be made by the Installer.

Proper functioning of the Panel depends on the BPI bus configuration. The Panel will **match** each configuration reading with the programmed configuration. **Mismatch**—due to the loss of a device—will generate a BPI Fault Alarm.

- Select the **Upload > Page** option from the **Programming** menu to view the configuration.
- Click the **Config.** tag to open the configuration page.

The **Config.** (Configuration) page is divided in sections—one for each device type (Keypad, Key reader, Input expander, Output expander, Power station).

Each section has a column of numbered check boxes—the number corresponds to the device address (refer to **Peripheral device connection** paragraph for details).

Configuration setup:

box **checked** = device in configuration

box **clear** = device not in configuration

Only the devices in the configuration can be controlled by the Panel.

Configuration Done:

- Click **Details** to open the **Details** window.

Details windows

- no.** The non-modifiable **no.** column will show the peripheral device address. The address depends on the configuration of the device dip-switches.

Description The modifiable **Description** column will show Keypad 001, Keypad 002, etc. (default).

- Enter the device location **e.g.** Garage, Cloakroom, etc. (maximum 16 characters). This will be the device location **identifier**.

Program the parameters of the device type. Keypad and key reader parameters must also be programmed, as per the instructions in the relevant paragraphs.

- Select **OK** to save data and exit the window.
- Select **Cancel** to exit the window without saving.
- Select **Help** for further information.
- Select **Print** (if available) to print the open page.

■ Keypads

- 1 ... 8 Numbers 1 through 8 (top left of window) correspond to the partitions. Assign the keypad to the partitions it will control (arm, disarm, etc.).

Yes = keypad enabled on the corresponding partition

No = keypad disabled on the corresponding partition

Double click to toggle the status.

- + Keypads need not necessarily be assigned to partitions and can be used for programming, display and other operating purposes.



Figure 22 Configuration page



■ **Key readers**

The Panel can control up to 16 key readers and up to 250 digital keys. The following **parameters apply to key readers only**. Digital keys must be programmed via keypad, as per the instructions in the **Digital keys** paragraph.

- + Enabled digital keys operate the following:
 - Partition arming
 - Partition disarming
 - Type **A** or **B** arming mode
 - Stop Alarm on partitions

RED spot (corresponds to the red LED on the key reader) Numbers 1 through 8 on the top row correspond to the partitions. Assign the key reader to the partitions it will control (arm, disarm, stop alarm signalling, etc.). Double click (or press **ENTER**) on the selected box to toggle the status.
Yes (Yes) = key reader **enabled** on the corresponding partition.
box clear = key reader **disabled** on the corresponding partition.
All the enabled partitions will arm—if the digital key is extracted from the key reader when the **RED LED** is glowing.

AMBER spot (corresponds to the amber LED on the key reader) Select the partitions for Type **A** arming. Double click (or press **ENTER**) on the selected box to toggle the status. Partitions with **A** will arm, and those with **D** will disarm—if the digital key is extracted from the key reader when the **AMBER LED** is glowing.

GREEN spot (corresponds to the red LED on the key reader) Select the partitions for Type **B** arming. Double click (or press **ENTER**) on the selected box to toggle the status. Partitions with **A** will arm, and those with **D** will disarm—if the digital key is extracted from the key reader when the **GREEN LED** is glowing.

Zones

The zones (terminals [L1], [L2], etc.) can be programmed as Alarm or Command zones.

Alarm zones Violation of an Alarm zone—during armed status of its partition (refer to **Partitions**) will generate an **Alarm on zone** event. One or more actions can be assigned to this event (activation of sirens, digital communicator, telephone dialler etc.).
The Panel will start monitoring zones—other than **Exit delay** or **Last exit zones** (refer to **Type**)—as soon as their partitions arm.
The Panel will start monitoring **Exit delay** and **Last exit zones** when the programmed **Exit time** of the partition elapses (refer to **Partitions**).
Alarm status will be generated when the zone is unbalanced (refer to **Balancing**) for the programmed cycle and time (refer to **Sensitivity**).
Each zone can generate the **Alarm on zone** event for the programmed cycle only (refer to **Cycles**).

Command zones Violation of a Command zone will activate one of the following:

- Switch status of partitions
- Arm partitions only
- Disarm partitions only
- Reset partition
- Reset Panel
- Clear call queue

Unbalancing will activate a Command zone (refer to **Balancing**) for its programmed cycle and time (refer to **Sensitivity**).

■ **Zone Table Description**

The non-modifiable Zone table, on the left side of the page, shows the available zones (refer to **Config.** page).

no. This is the zone **identifier** number that in some cases will be used instead of the full description (refer to **Description**).

Position This is the label (Description) of the hardware component the zone is assigned to. This description can be changed in the **Config.** page and can be used as the device location identifier.

Device This is the identifier number of the device the zone is assigned to (addresses 1 through 8 for keypad zones; and addresses 1 through 6 for Input-Expander zones).
This parameter does not apply to Main Unit zones.

Ter. This is the zone identifier on the terminal board of the device the zone is assigned to. This parameter is also the sequential number of the zone on the device.



Description This is the zone label (maximum 16 characters)---used as the zone identifier in all parts of the program, and also in the event buffer.

Partition This is the partition the zone is assigned to---Command zones will be shown by an asterisk.

■ **Zone programming**

To program zone parameters:

- Select the required zone from the Zone table---the zone number will appear in a box on the top right of the page.
- Enter the zone label (Description).
The label will be transferred automatically to the corresponding box in the zone table.
- + Step from zone to zone without saving---the data will be saved automatically on the computer memory.

■ **Type**

This parameter determines the actions the zone will generate when violated during armed / disarmed status, and also whether zone violation will generate Fire, 24h or Burglar type alarm events, at partition and Panel level.

- + All Zones---other than **Fire** or **24h**---will be classified as Burglar.
- Select the **Type**.

Instant Violation of an **Instant** zone will generate:

- **Alarm on zone no.**
- **Burglar alarm on partition no., Generic alarm on partition no. and Generic+Tamper alarm on partition no.** on the partition of the zone
- **Burglar alarm on panel, Generic alarm on panel and Generic+Tamper alarm on panel**

Entry delay Violation of an **Entry delay** zone---during the programmed **Entry Time** of its partition---will not generate events. However, if the partition is not disarmed before the delay elapses, or if the zone is violated after the delay, the events assigned to **Instant** zones will be generated.

The first zone on the path to the partition disarm-point should be an **Entry delay** zone.

Entry path Violation of an **Entry path** zone---after violation of an **Entry delay** zone ---will generate the events assigned to **Instant** zones when the programmed delay elapses.

The events assigned to **Instant** zones will be generated, if the **Entry Time** is not active or has elapsed.

- + Zones on the way to the partition disarm-point should be **Entry path** zones.

Exit delay Violation of an **Exit delay** zone---during the programmed **Exit Time** of its partition---will not generate any events. In all other cases, the events assigned to **Instant** zones will be generated.

- + Zones on the way out of a partition should be **Exit delay** zones.

Last exit Violation of a **Last exit** zone---during the programmed **Exit time** of its partition---will not generate any events. However, the **Last exit** zone will temporarily assume the new value (the time actually taken to leave the protected partition), and therefore, monitoring will start immediately. In all other cases, the events assigned to **Instant** zones will be generated.

- + The last zone on the way out of a partition should be a **Last exit** zone.

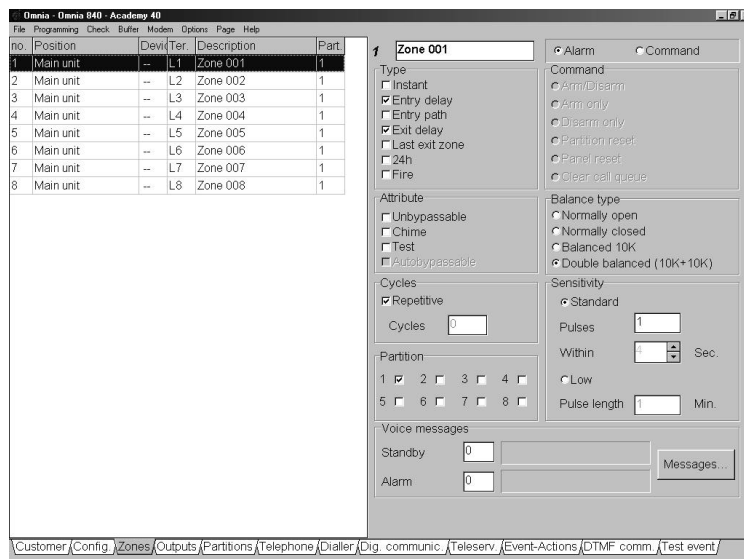


Figure 23 Zones page



24h Violation of a **24h** zone—whatever the status of its partition (armed / disarmed) will generate:

- **Alarm on zone no.**
- **24h alarm on partition no., Generic alarm on partition no. and Generic+Tamper alarm on partition no.**
- **24h alarm on panel, Generic alarm on panel and Generic+Tamper alarm on panel**

Fire Violation of a **Fire** zone—whatever the status of its partition (armed / disarmed) will generate:

- **Alarm on zone no.**
- **Fire alarm on partition no., Generic alarm on partition no. and Generic+Tamper alarm on partition no.** on the partition of the zone
- **Fire alarm on panel, Generic alarm on panel and Generic+Tamper alarm on panel**

■ **Attributes**

The following parameters are for **Alarm** zones only.

- Select the **Attributes**.

Unbypassable Zones with this attribute **cannot** be bypassed.

Chime Violation of a **Chime** zone—during disarmed status of its partition—will generate the **Chime on partition no.** event (signalled by slow beeping on the enabled keypads of the partition).

Violation of a **Chime** zone—during armed status of its partition—will generate the actions programmed for the **Type** parameter.

- + The **Chime** attribute will not affect the **24h** or **Fire** zones.

Test Violation of a Test zone will not generate the **Alarm on zone no.** event. However, the <<**Alarm on zones being tested**>> message will be logged in the Panel event buffer.

By default **only** events that occur when the partition is armed will be logged.

- + Enable the Maintain Zone Test Attribute (**Options—Programming** menu) to log the events that occur during armed and disarmed status.

Auto-bypassable A zone with this attribute will be bypassed automatically—if violated during armed status of its partition. The zone will be unbypassed automatically when its partition is disarmed

- + The **Auto-bypassable** attribute will not affect **Exit delay** zones. The **Exit delay** of the partition of an Auto-bypassable zone must be over 5 seconds.

■ **Balance Type**

A zone will signal violation when the electrical conditions of its **Balance Type** are present on the corresponding input terminal for at least 0.3 seconds.

Select the **Balance Type**.

Normally open The zone must be open during standby status. An alarm will be generated when the zone switches to ground (e.g. connections to fire detectors).

Normally closed The voltage across the zone terminal and ground must be 0 during standby status. An alarm will be generated when the zone opens.

Balanced 10K The zone must be connected to ground by a 10K (10,000 ohm) resistor during standby status. If short-circuited to ground—the Panel will detect tamper and will generate:

- **Tamper on zone no.**
- **Tamper alarm on partition no. and Generic+Tamper alarm on partition no.** on the partition of the zone
- **Tamper alarm on panel and Generic+Tamper alarm on panel**

In all other cases (unbalanced, open zones etc.) the Panel will detect violation (refer to **Type**).

Double balanced The zone must be connected to ground by **two** 10 K (10,000 ohm) resistors. The Panel will generate the events specified for the zone type (refer to the **Type**), if one of the resistors disconnects.

In all other cases, the Panel will detect tamper and generate the events programmed for tamper on balanced 10K zones.

This Balance Type (only 2 wires) allows detection of the open alarm / tamper contacts of the connected sensors (refer to **Alarm sensor connection**).

- + Command Lines should not be programmed as **Double Balanced**, as recognition of a **Tamper on zone no.** event cannot generate actions.



■ **Cycles**

This parameter determines the number of times the zone will signal an alarm status before being bypassed on the analysis, as per the following values.

- Enter the required number of cycles under **Cycles**.

0 Violation on the zone will be ignored.

1 ÷ 254 The zone will signal alarm status, as per programming, the zone will then be bypassed on the analysis until one of the following conditions occurs:

- Status change on its partition
- Reset on its partition
- Exit Stop-Alarm status on its partition (via keypad by User code or via key reader by digital key)
- Exit programming session (via keypad or by on-site or remote connection)
- + All the previously mentioned conditions clear the alarm-cycle counter.

Repetitive If a zone is programmed as **Repetitive** the cycles will be unlimited.

- + A zone in persistent alarm status (e.g. due to faults) will activate one alarm cycle only. This function mode is explicitly required by CEI 79/2 regulations. The zone will be unable to generate another cycle until the alarm counter is cleared, or the zone is unbypassed.

■ **Partition**

Alarm Zone	Command Zone
This shows the partition the zone is assigned to, and therefore, the enabled User codes, Keys and also programmed times. Each Alarm zone should be assigned to one partition only. It is not necessary to assign a zone to several partitions, as the Panel controls partition dependency (refer to Partitions).	This shows the partitions the Command zone is assigned to. Each Command zone can operate more than one partition. It is not possible to specify the partitions for the Panel Reset and Clear Calls options, as the partitions are irrelevant in this case.

■ **Sensitivity**

Standard If this option is selected the zone will generate an alarm when the programmed number of **Pulses** are detected **Within** the programmed number of seconds, as follows.

- **Pulses:** enter the number of pulses (1 through 3).
- **Within:** enter the seconds (4 through 32).

Low If this option is selected the zone will generate an alarm when it is unbalanced (violated) for more than the programmed **Pulse length** time, as follows.

- **Pulse length:** enter the number of minutes (1 through 16).

■ **Voice messages**

It is possible to assign 2 of the 14 Voice messages to the zone—for status enquiry via telephone on connected appliances (e.g. heating system).

- Enter the assigned message number:

Standby The message assigned message will play when the zone is in standby status.

- + If no Voice message is specified—**Standby status** will be signalled by a beep.

Alarm The message assigned in this field will play when the zone is in Alarm status.

- + If no Voice message is specified—**Alarm status** will be signalled by two beeps.

Messages... Click **Messages** (bottom left of page) to open the message description window then enter the message labels (maximum 16 characters per message). Select **Download** to download the **Messages** to the Panel.

- + The voice messages must be recorded, played and deleted via keypad. These options are provided by the optional OmniaVOX kit (Voice board + Microphone board + Speaker).



Academy40 and **Academy40/S** main units have:

—three 0.15 A open-collector outputs(Terminals [OC], [OC1] and [OC2])

—one 1 A relay (Terminals [C1], [NC1], [NA1])

The **Omnia/OUT** expanders have four 0.15 A open-collector outputs (Terminals [OC1], [OC2], [OC3] and [OC4]). The buzzer on the **Omnia/OUT** expander can be connected to terminal [OC4] with positive or negative logic—depending on the jumper **64**.

All outputs are programmable, and can be associated with the events that activate signalling devices (sirens and flashers, etc.). Outputs can also be used for fault status signalling and device control, and can be programmed for remote control of connected appliances (heating, sprinkler systems, etc.).

■ **Outputs page**

All the outputs can be programmed in this page.

- Select the required output from the Outputs table (left side of the page) and program in the programming section (right side of the page).

Page description:

no. This is the output identifier number used in the **Event-Actions** page (when assigning the corresponding output to the required events).

Position This is the **Description** of the output hardware device. The **Description** can be changed in the **Config.** page.

Device This is the Output expander address.
This parameter does not apply to Main unit Outputs.

Ter. This is the output terminal identifier:
—**RL1** corresponds to terminals [C1] - [NC1] - [NA1]

Description This is output **Description**.

Type This is the type --- **Bistable** (B) or **Monostable** (M).

Attrib. This is the attribute --- **Normally closed** (NC) or **Normally open** (NO).

Reserv. This shows whether or not the output will be **Reserved** for manual control. Manual arming must be done via keypad (USER MENU, Outs control) or via telephone.

Time **Monostable** outputs—this is the output activation time.
Bistable outputs—this field will be empty.

All the programmable output parameters, selected from the Output table, can be changed on the right side of the **Output** page, as follows.

■ **Description**

This is the output label (maximum 16 characters) that will be used in all parts of the program as the output identifier—the label will be copied onto the left side of the **Outputs** page. The output identifier number (1 through 36) of will be shown to the left of the Description.

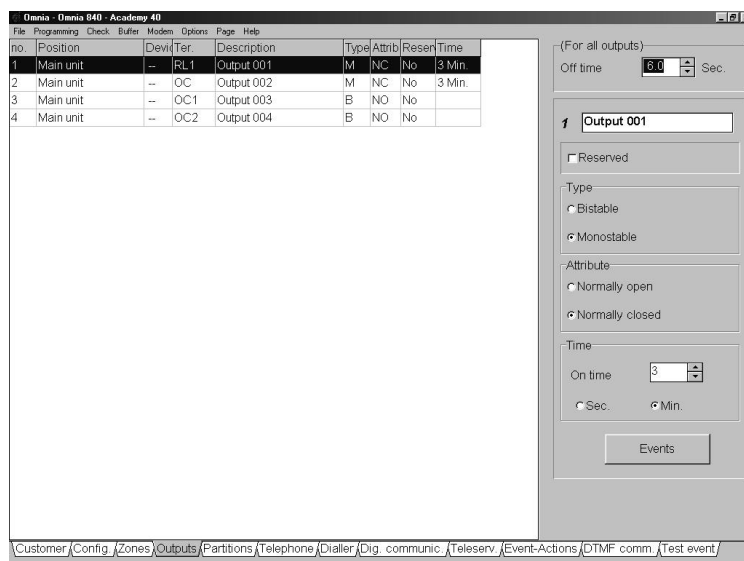


Figure 24 Outputs page



■ Reserved

Outputs can be used for electrical appliance control (switch ON / OFF), via keypad or telephone.

A **Reserved** output cannot be assigned to events, and therefore, its status will be determined by the commands given via keypad or telephone.

A **Reserved** output should not be programmed as **Monostable**—as it must be activated (or stopped) by the User. (Refer to the **Output activation** paragraph and the **TELEPHONE OPERATIONS** chapter in the **USER MANUAL**).

■ Type

Bistable Bistable outputs will be activated when at least one of their assigned events occurs, and will reset when all the assigned events end.

Monostable Monostable outputs will be activated when one of their assigned event occurs. Activated status will be held for the programmed **On time**, after which, Standby status will be restored for the programmed **Off Time**.

■ Attribute

The selected attribute will determine the electrical conditions of the output during standby status.

Normally open The Open-collector outputs (terminals [OCx]) open; the Common contact of the voltage free switch of the output relay (terminals [C1]) closed on the Normally open contact (terminals [NA1]).

Normally closed Ground on the open-collector output (terminals [OCx]); the Common contact of the voltage free switch of the output relay (terminals [C1]) closed on the Normally Closed contact (terminals [NC1]).

■ Times

On time This is the maximum activation time for the output.

- + The **On time** applies to the **Monostable** outputs only, as the **Bistable** output will reset when all the assigned events end.

Each **Monostable** output may have a different **On time**:

- from 0.0 through 25.4 seconds—in steps of 0.2 seconds (**Sec.** option);
- from 1 through 128 minutes in steps of 1 minute (**Min.** option).

By default the Monostable output **On time** is 3 minutes.

■ Off Time

An output cannot be reactivated until the **Off Time** elapses.

- + The selected **Off Time** will apply to all **Monostable** outputs. The **Off Time** does not apply to **Bistable** outputs.

Off Time: 0.0 through 127.5 seconds in steps of 0.5 second (default = 6.0 seconds).



Partitions

A partition is a group of zones. The Panel can control up to 8 partitions (defined in the **Zones** page). Each partition can be programmed with its own Codes, Times, Output actions etc., and can interact with the other partitions.

- + A partition can have several input zones, however, a zone can be assigned to one partition only.

The partition parameters must be defined on the Partition programming page, as follows.

- no.** The non-modifiable partition identifier number will be used instead of the partition label (e.g. status enquiry via telephone).

Description Assign a label to the partition (maximum 16 characters). This label will be used as the partition identifier in all parts of the program, and in the event buffer.

Entry time Program the **Entry time**. Violation of an armed **Entry delay** zone will activate the programmed delay. The **Entry time** will be signalled by:

- activation of **Entry time on partition no.** event;
- an audible signal on all the enabled keypads of the violated partition.

An alarm will not be generated if the partition is disarmed before the delay elapses.

Exit time Program the **Exit time**. Violation of an armed **Exit delay** zone will generate the programmed delay. Violation of the zone during the programmed delay will not generate an alarm.

The **Exit time** will be signalled by:

- activation of the **Exit time on partition no.** event;
- an audible signal on all the enabled keypads of the armed partition.

Last exit time Violation of a **Last exit** zone—during the programmed **Exit time** of its partition—will not generate any events. However, the **Last exit** zone will temporarily assume the new value (i.e. the time actually taken to exit the protected partition), therefore, it will start monitoring immediately.

Depends on The partition will be subordinate to the selected partitions.

Double click (**Yes /No**) or press **ENTER** on the selected box to toggle the status.

- Dependent partitions will arm automatically when all the partitions they depend on are armed;
- Dependent partitions will disarm automatically when all the partitions they depend on are disarmed.
- + The Dependent partition can be armed / disarmed manually by enabled User codes or digital keys.
- + A partition should not be programmed as depending on itself.

no.	Description	Entry time	Exit time	Last exit tim	1	2	3	4	5	6	7	8
1	Partition 001	00:30	00:30	00:06								
2	Partition 002	00:30	00:30	00:06								
3	Partition 003	00:30	00:30	00:06								
4	Partition 004	00:30	00:30	00:06								
5	Partition 005	00:30	00:30	00:06								
6	Partition 006	00:30	00:30	00:06								
7	Partition 007	00:30	00:30	00:06								
8	Partition 008	00:30	00:30	00:06								

Customer Config \Zones\Outputs\Partitions\Telephone\Dialler\Dig. communic. \Teleserv\Event-Actions\DTMF comm. \Test event

Figure 25 Partitions page



This page holds up to 32 telephone numbers (Phonebook), and the telephone line data.

The parameters must be programmed as follows.

no. The non-modifiable identifier number (1 through 32) will be used instead of the whole telephone number.

Number Enter the whole telephone number—maximum 16 digits including pauses. Accepted digits: 0 through 9 and the comma (.). Use the comma for pauses (for example, between a telephone number and area code). The telephone number will be used by the:

---Telephone Dialler

---Digital Communicator and for Teleservice requests.

Description Enter the name of the telephone number user (maximum 16 characters).

Used by The **Used by** table has 4 columns: **Dial.**; **Dig**; **DTMF**; **Tel.** The table will show whether a telephone number was used by the Telephone Dialler (**Dial.**), by the Digital Communicator (**Dig.**), by the DTMF communicator (**DTMF**) (not present on this Panel) or Teleservice (**Tel.**).

■ **Answer**

The Panel will answer incoming calls in accordance with the following parameters.

To enable the Panel to answer calls:

---select the **En./Dis. Answer.** or **En./Dis. Teleser.** option from the USER MENU. The answer message must be recorded beforehand (refer to **Answering machine**).

The Panel will answer after the programmed number of **Rings**, unless the Double call option is enabled.

Enable answer Omnia 2.0 and successive releases do not have this option, as the enable / disable answer option is for the User **only**.

Double Call The Double Call option allows the Panel to share the telephone line with another answering device (answerphone, fax, etc.). In normal circumstances the device with the least number of rings will answer, however, if this option is enabled (**ON**), the Panel will override the other answering device when it recognizes the double call sequence.

Double call sequence: the User must call the Panel and allow 2 rings then hang up and callback within 60 seconds. The Panel will answer on the first ring of the second call.

- + The other answering device must be programmed to answer after 3 or more rings.
- + The **Double call** is controlled by the OmniaMOD modem.

Rings Specify the number of rings required.

If the **Double call** option is enabled, this parameter will be ignored.

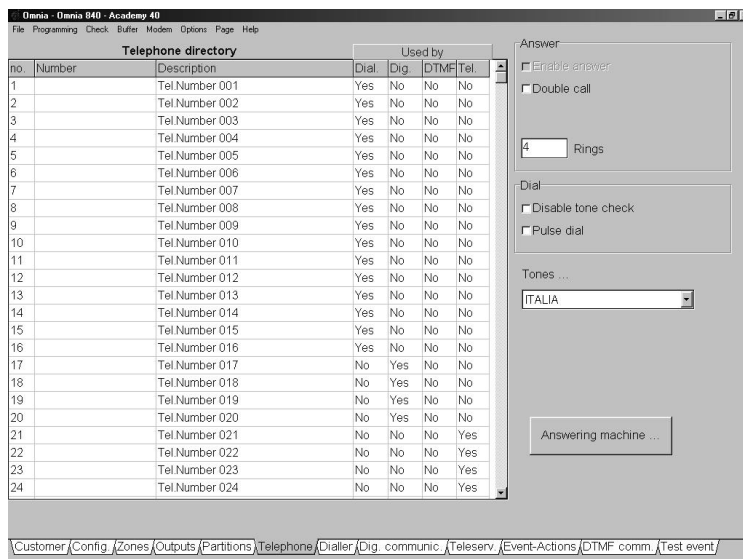


Figure 26 Telephone page



■ **Dialling mode**

Disable tone check The Panel will check for the dialling tone before dialling a telephone number. If it is not detected, the Panel will hook-up and retry.

If the **Disable tone check** option is selected, the Panel will dial the telephone numbers without checking for the dialling tone. This option is useful when the Panel is connected downstream to a switchboard with non-standard tones.

Pulse dialling The Panel operates with **DTMF**, as is faster than **Pulse** dialling. If **DTMF** is not available, the **Pulse** dial option must be enabled.

■ **PSTN line parameters**

Select the country—to allow the Panel to operate properly with local PSTN line parameters.

If the country is not listed—select **EUROPEAN GENERIC**.

If the country is not listed and local telephone line parameters are different from **EUROPEAN GENERIC**—Select **Disable tone Check**.

■ **Answering machine**

The Answering machine option allows the Panel to answer incoming calls with a Voice message (to be recorded).

+ The Answering machine option from the USER MENU must be enabled by the User (refer to **Answering machine Enable / Disable** paragraph in the USER MANUAL).

+ When the Answering machine and Teleservice options are enabled, the Panel will check if the incoming call is from the OmniaMOD before playing the answer-message—this operation will take approximately 4 seconds.

An audible signal will indicate that the Panel has engaged the line. A high-pitched tone (2400 Hz) will be emitted when the Teleservice option is enabled, and a low-pitched tone (1250 Hz) when the Answering machine option **only** is enabled.

The answer-message allows authorized Users (refer to **User codes**) to call the Panel from a remote telephone and check the status of the Panel and peripheral devices (refer to the **TELEPHONE OPERATIONS** chapter in the **USER MANUAL**).

Click **Answering machine**, then program the following parameters.

Answer message Select the required Answer Message from the list. These messages can be programmed on the **Message** page (from the **Zones** or **Dialler** page).

+ If no Answer Message is selected—the **Answering machine** option cannot be enabled.

Message repetition time Enter the number of seconds the Answer-message must run for.

Replay Pause Enter the number of seconds between voice message replays.

PIN entry timeout Enter the number of seconds the Panel must wait for a valid code entry on the telephone keypad. If a valid code is not entered within the specified time Panel will end the call.

+ User codes: 25 through 31 (refer to the **Codes** page) can be used via telephone.

DTMF tone timeout Enter the number of seconds the Panel must wait (after code acceptance) for the communication to start. If no telephone key is pressed within the specified time Panel will end the call.



Up to 32 Dialler actions can be programmed. The programmed actions can be assigned to the events in the **Event-Actions** page. Each Dialler action will send a Voice message to signal the start / end of the corresponding event. Refer to **Dialler** in the **APPLICATIONS** chapter for further details on Dialler programming.

Each telephone dialler action can send one of the 14 Voice Messages to up to 16 telephone numbers (selected from the 32 programmable numbers available).

■ **Dialler Telephone Numbers**

The assigned voice messages will be sent to the Dialler Telephone numbers when the programmed events occur. Program the telephone number parameters on the left side of the **Dialler** page.

no. This is the non-modifiable identifier number (1 through 16).

Tel. Num. Enter the identifier number (1 through 32) of the required telephone number (refer to the **Telephone** page) that the voice message must be sent to. The telephone number label will appear automatically in the **Description** column.

- + It is not necessary to follow the order defined in the **Telephone** page, however, dialling priority will be defined by the order established in the table.
- + The **Description** column can be changed in the **Telephone** page.

Repetition time Enter the total number of seconds that the Voice message must run. A different **Repetition time** can be specified for each telephone number.

Replay pause Enter the number of seconds between voice message replays.

Voice timeout Enter the number of seconds the Panel must wait for a voice answer before hooking up. This parameter depends on the **Send message after** option, as follows.

- **Voice on line:** the Panel will hook up after dialling—if a voice answer is not detected within the programmed **Voice on line** time.
- **First ring:** the Panel will hook up after dialling—if a back-ring is not detected within the programmed **Voice on line** time.
- **Dial:** the Panel will send the message immediately after dialling the number.

Attempts Enter the number of tries the Panel must make in the event of a failed call.

Call successful numbers If this option is enabled the telephone numbers of successful calls will be redialled in the following cycles. If not, the successful numbers will be bypassed in the successive cycles.

The programmed parameters of the **Replay pause**, **Voice timeout**, **Attempts** and the **Call successful numbers** options will be the same for all Telephone numbers.

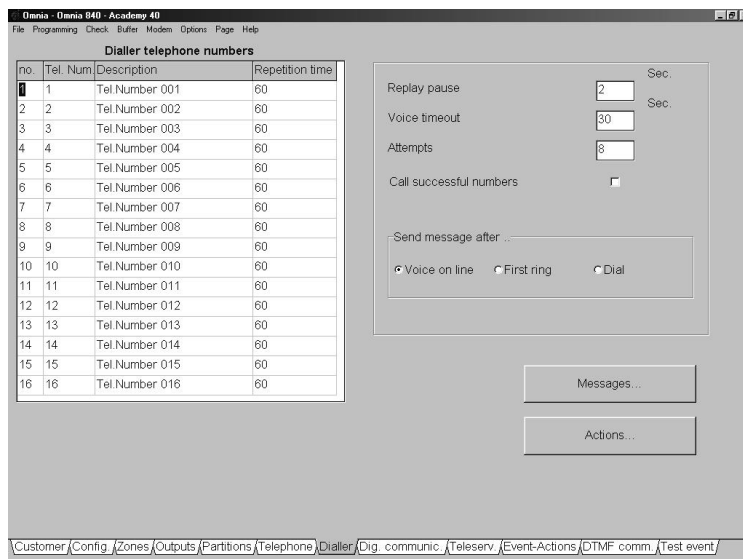


Figure 27 Dialler page



Send message after Specify when the voice message will be sent.

Voice on line: the message will be sent on voice answer (e.g. on "Hello").

First ring: the message will be sent after the first back-ring.

Dial: the message will be sent immediately after dialling the telephone number. call will be considered **successful** when it matches the programming of the selected option.

- + A Call will be considered **successful** when it corresponds to the condition of the option selected in the **Send message after** section.

The **Voice on line** options offers the certainty of an answered call.

The **First ring** or **Dial** options do not offer the same certainty, therefore, enable the **Call successful numbers** option.

■ Messages

Assign a label (maximum 16 characters) to the 14 Voice messages in the **Messages** window (see figure 28). Select the **Send** button to download.

- + Voice message recording requires the OmniaVOX kit (Voice board + Microphone board + Speaker). Recording, play and deletion can all be done via keypad. Refer to the **OmniaVOX** chapter for a full description of the Voice function.

■ Actions

Click **Actions** to open the **Dialler actions** window. Program the **Dialler actions** that will be assigned to specific events in the **Events / Actions** Page.

Each Dialler action will send one of the 14 Voice Messages to up to 16 telephone numbers (from the 32 telephone numbers in the Phonebook). Dialler actions will be repeated as per the programmed number of **Attempts** programmed in the **Dialler** page.

The parameters must be programmed as follows.

no. This is the identifier number of the Dialler action. Use the corresponding identifier number to assign the **Dialler action** to the **Event** in the **Events / Actions** Page.

1 ... 16 The numbers on the top row of the **Dialler actions** window correspond to the numbers in the **no.** column in the **Dialler Telephone Numbers** list.

- Assign the **Dialler Telephone Numbers** to the Dialler action:

Yes = the corresponding telephone number will be dialled.

Box clear = the corresponding telephone number will not be dialled.

Double click to toggle the status.

Message Enter the identifier number of the Voice message that will be sent (refer to **no.** column in the **Messages** window). The assigned label will appear automatically in the **Descr. Mess.** column.

- + The Voice message label can be changed in the **Messages** window only.

Descr. Action Assign a label to the action—this will simplify programming in the **Event-Actions** page.

Events Each Action can be associated to the several events.

To view the events that activate a specific action:

—click **Events** on the **Dialler actions** window (from the **Dialler** page) to view the list of events that will activate the selected action.

—open the **Events-Actions** page to view the actions activated by each selected event.

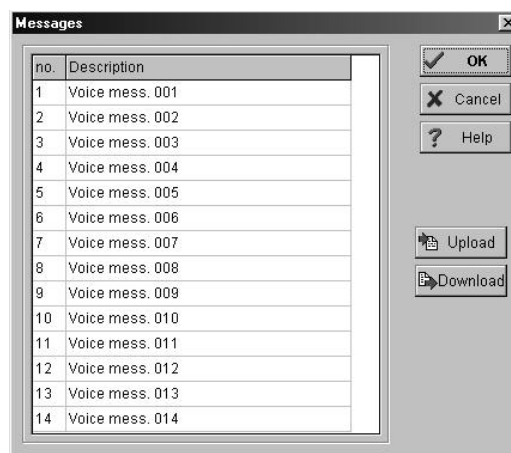


Figure 28 Voice message page



Digital Communicator

Up to 256 actions can be programmed on the Digital Communicator page, Each action will communicate the start / end of an event to the Central Station.

Each Digital Communicator action can send the corresponding event code (event identifier) to up to 4 telephone numbers. Therefore, it possible to signal burglary to the Central Station, fire to the Fire Station, Fault to the Installer and send emergency requests to the Service Centre.

Each event can be assigned to 2 Digital Communicator actions (2 different codes can be assigned to each event). This will allow the same event to be sent to two different Security Services, each with their own decoding (e.g. a Fault event to the Installer and to the Central Station).

Event queue The communication will not end until all the events destined for the service on line have been transmitted. The Event queue will reduce call costs and communication time.

+ Events will not be queued but will be transmitted individually by protocols with **Voice management**.

■ Digital Communicator telephone numbers

The **Digital Communicator** can manage 4 telephone numbers.

no. This is the non-modifiable identifier number (1 through 4).

Tel. Num Enter the identifier number (1 through 32) of the required telephone number (refer to the **no.** column in the Phone-book—**Telephone** page).

Customer code Enter the 3-4 digit Customer code (accepted digits 0 through 9 and upper-case letters from B to F). This code is usually assigned by the Central Station and functions as the system identifier (user, location, type of system, etc.).

Protocol Select the protocol (usually assigned by the Central station).

The Panel supports the following pulse protocols in 3/1, 3/2, 4/1 and 4/2 formats or, with 3 or 4-digit Customer codes and 1 or 2-digit Event codes:

- ADEMCO / SILENT KNIGHT - Slow 10 baud
 - ADEMCO / SILENT KNIGHT - Fast 20 baud
 - FRANKLIN / SECOA / DCI - VERTEX - Fast 20 baud
 - RADIONICS - 40 baud
 - SCANTRONIC - 10 baud
 - Customized
- and **DTMF** protocol:
- Contact ID

The listed protocols are available with or without **Voice Management**.

Protocols with **Voice Management** provide a two-way channel that opens when data transfer ends. This channel will allow the Central Station operator to check on the protected premises after receiving an alarm call.

The channel will close when the programmed time (refer to **2-way audio** parameter) elapses, or when the Central station receiver ends the connection.

The User can communicate with the Central Station operator through the microphone and speaker of the Omnia-VOX Voice board.

no.	Tel. Num	Description	Customer code	Protocol
1	17	Tel.Number 017		ADEMCO/SILENT KNIGHT - Slow 10 Baud
2	18	Tel.Number 018		ADEMCO/SILENT KNIGHT - Slow 10 Baud
3	19	Tel.Number 019		ADEMCO/SILENT KNIGHT - Slow 10 Baud
4	20	Tel.Number 020		ADEMCO/SILENT KNIGHT - Slow 10 Baud

Attempts: 8 2-way audio: 60 sec

Actions...

Figure 29 Digital Communicator page



- + Protocols **with Voice Management** can be used when:
 - the Panel is equipped with an **OmniaVOX** Voice board (optional);
 - the Central Station receiver manages voice communications.
- + Protocols **with Voice management** transmit one event per call, therefore, they should be used for events that do not require a voice channel. The same protocol—**without Voice management**—can be used for these events, as follows:
 - assign the Central Station telephone number to two of the four **Digital Communicator telephone numbers**;
 - assign the protocol **without Voice Management** to one of the two **Digital Communicator telephone numbers**, and the same protocol **with Voice Management** to the other;
 - click **Actions** to open the **Digital Communicator Actions** window;
 - assign the **Digital Communicator telephone number with / without Voice Management** accordingly to the events.

Attempts Enter the number of call attempts for failed calls.

2-way audio Enter the 2-way audio connection time (in seconds).

■ **Actions**

Click **Actions** to open the **Digital Communicator Actions** window.

Define **Digital Communicator Actions** then assign the actions to the events in the **Event-Actions** page.

Each Digital Communicator action has two sub-actions that will send the event code to the 4 programmed telephone numbers (using the relevant customer code and protocol).

The parameters must be programmed as follows.

- no.** This is the identifier number of the **Action**.
Use this number when assigning the Action to the Events in the **Event-Actions** page.

Event code Enter the 1 or 2 character code—usually assigned by the Central Station (accepted digits 0 through 9 and upper-case letters from B to F). This code will allow the Central Station to identify the event that activated the call.

- + **Contact ID** Event codes must have two characters. The letter A will be inserted automatically when only one character is entered (e.g. 1 will be rectified to A1).

1 2 3 4 Select the telephone numbers to be called.
Check box clear = the corresponding number will not be dialled.
Double click the corresponding box to toggle the status.

- + If a Digital Communicator telephone number operating with **Contact ID** protocol is assigned to an Action—other Digital Communicator telephone numbers assigned to the same Action must also operate with **Contact ID** protocol.

All If **Yes** is selected all the programmed telephone numbers will be dialled, if not, dialling will stop after one successful call.

Description Enter the label of the Digital Communicator action (maximum 16 characters).



Contact ID Click **Contact ID** (right side of the Digital Communicator actions window) to program standard events and codes in the Digital Communicator actions window, and in the **Events-Action** page. Central Stations using Contact ID protocol will receive the event codes shown in the following table.

EVENT	CODE
Alarm on zone	3A
Tamper on zone	44
Tamper on Main Unit (Open Panel)	45
Balanced tamper	45
Tamper BPI device	45
False key	45
Warning fuse +B	AA
Warn. fuse BPI	AA
Main fault	A1
Low battery	A2
Warn. power troub.	A9
Main fault P.S.	AA
Low Batt. P.S.	AA
Warn. power troub. P.S.	AA
Trouble on BPI	3A
Partition Armed	A2
Bypass. zone	7A
Tel. Line fault	51
Test	A2
Recognized code	22

+ If **Contact ID** is selected—the first 22 actions in Column **B** and the programming in the **Dig.Comm.** column in the **Events-Actions** page will be overwritten.

Clear A Select **A** (Clear section) to delete the programming of the Actions in column **A**.

Clear B Select **B** (Clear section) to delete the programming of the Actions in column **B**.

Clear Descr. Click **Clear Descr.** to delete all the labels.

Events Assign the programmed Digital Communicator action to one or more events in the **Event-Actions** page.

Click **Events** to view the events that activate the selected action.

To view the Events and Digital Communicator actions open either:

- the **Event-Actions** page—to view which Digital Communicator action is activated by an event;
- the **Digital Communicator actions window** from the **Dig. Communic.** page (click **Actions**)—to view the Events that activate the Digital Communicator action.



The **OmniaMOD/V1** or **OmniaMOD/V2** modem, and the **Omnia - Academy40** application from the **Security Suite** will allow the Installer to teleservice Academy40 Panels (e.g. change parameters via telephone).

The Teleservice call can be made by: the Installer (with user authorization); the User and the **Test event** (if enabled).

When the Panel generates a Teleservice call (whether manual—on User request, or automatic—by means of **Callback** or **Enable Test call**) it will dial the enabled telephone numbers (refer to **Enable**) until a call is successful, or until the programmed call **Attempts** cycle ends.

Callback When this option is selected the Panel will call the enabled telephone numbers (refer to **Enable**) in the **Teleservice** page (refer to **Tel.Num.** and **Description**). Thus authorized personnel **only** can teleservice the Panel.

Enable Test call When this option is enabled the Panel will make the Teleservice call automatically, as per the programming in the **Test event** page.

- + The Test event must be enabled (refer to **Test event** page).

Enable Select the Teleservice telephone numbers.

Tel. Num. Assign up to 4 telephone numbers to Teleservice (enter the identifier numbers—1 through 32). The corresponding label will be shown in the **Description** column. Enable the telephone numbers for Teleservice.

- + 4 telephone numbers are dedicated to Teleservice. The unused telephone numbers must be disabled and left at default.

Customer code This code allows the Central Station to identify the Panel. Each Panel must have a different **Customer code**. Duplication of a Customer code will be signalled when **Save** is selected (full details of the current code User will be shown).

- + Changes made to the **Customer code** in this page will be transferred to the **Customer** page and vice versa.

Attempts Enter the maximum number of call attempts for failed calls.

Omnia - Omnia B40 - Academy 40

File Programming Check Buffer Modem Options Page Help

Teleservice

Callback

Test call

Enable	Tel. Num.	Description
<input type="checkbox"/>	21	Tel.Number 021
<input type="checkbox"/>	22	Tel.Number 022
<input type="checkbox"/>	23	Tel.Number 023
<input type="checkbox"/>	24	Tel.Number 024

Customer code 0000

Attempts 8

\\Customer\Config\Zones\Outputs\Partitions\Telephone\Dialler\Dig_communic.\Teleserv\Event-Actions\DTMF comm\Test event

Figure 30 Teleservice page



The Events-Actions window is the core of the System. The Panel will operate as programmed in this page.

■ **Events Table**

The Output, Digital Communicator and Dialler Actions can be assigned to the Events shown. The Events Table is set out as follows.

no. This is the event number.

Description This is the event label:

- the round brackets hold the **Description** of the device of the object that generates the event,
- the square brackets hold the **Description** of the device that generates the event.

+ The Event number will vary in accordance with the detail level selected on the right side of the page (refer to the **Events description** paragraph).

Outputs ON Enter the identifier number of the output that will be activated (refer to **Outputs** page) by the corresponding event.
0 = no Output will be activated

Dig. Communic. Use the **ON** column for the identifier numbers of the actions that will be activated by the Digital Communicator when the corresponding event starts (refer to **Dig. Communic.**).

Use the **OFF** column for the identifier numbers of the actions that will be activated by the Digital Communicator when the corresponding event ends (refer to **Dig. Communic.**).

Dialler Use the **ON** column for the identifier numbers of the actions that will be activated by the Dialler when the corresponding event starts (refer to **Dialler** page).

Use the **OFF** column for the identifier numbers of the actions that will be activated by the Dialler when the corresponding event ends (refer to **Dialler** page).

■ **Priority telephone actions**

Action no.1 on the telephone Dialler and action no.1A of the Digital communicator have priority over all other telephone actions.

These two actions have the same priority level, therefore, if one occurs whilst the other is active, the ongoing action will not be interrupted.

+ Priority telephone actions should be used for events such as medical emergency or armed robbery (Duress).

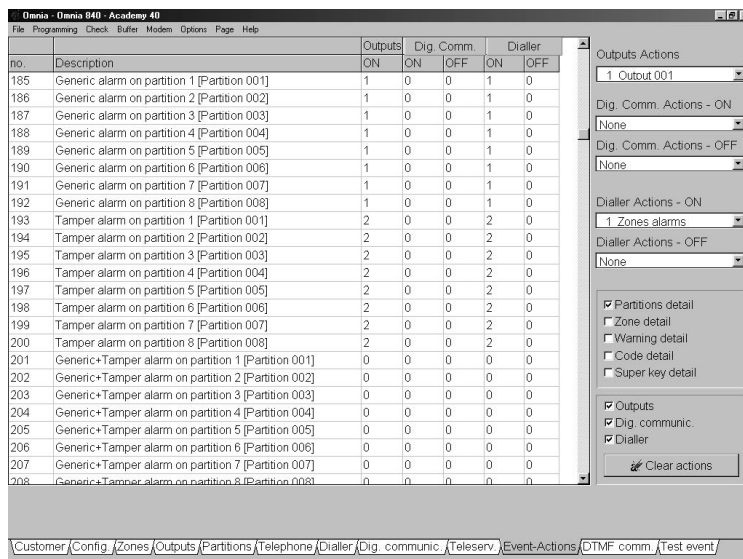


Figure 31 Event-Actions page



■ Actions

To facilitate the assignment of actions and events use the right side of the page, where (for the selected event) it is possible to program:

Output action Select the Output that will be activated by the event in question.

Dig. Comm. Action - ON Select the Digital Communicator action that will be generated when the event starts.

Dig. Comm. Action - OFF Select the Digital Communicator action that will be generated when the event ends.

Dialler Actions - ON Select the Dialler action that will be generated when the event starts.

Dialler Actions - OFF Select the Dialler action that will be generated when the event ends.

■ View event details

The **Events-Actions** page shows the Panel events—but not the event details. Click the relevant detail check box to view the **corresponding *Global*** events.

Partition detail Select this option to view all Partition events (Alarms, Arming, etc.).

Zone detail Select this option to view all Zone events (Alarms, Tamper, Bypass etc.).

Warning detail Select this option to view all faults (trouble) events.
When deselected—only event no. 229 **Warning generic** will be shown (this warning represents all types faults).

Code Detail Select this option to view all events assigned to Codes on keypads.
When deselected—only the Global event no. 437 **Recognized code *Global*** will be shown.

Super key detail Select this option to view all Super key events.
When deselected—only the no. 397 **Super keys *Global*** event will be shown.

- + No actions can be assigned to ***Global*** events—as this is the label of the **virtual** events that will not be shown for the selected detail level.
- The word **None** in the **Outputs**, **Dig.Comm.** and **Dialler** columns means:
—none of the ***Global*** events has an action of the corresponding type.
- The **Act.Pres.** string in the **Outputs**, **Dig.Comm.** and **Dialler** columns means:
—one or more ***Global*** events has an action of the corresponding type.

■ Clear actions

Click **Clear actions**—in the **Outputs**, **Dig.Comm.** and **Dialler** section—to delete the corresponding Actions, as per below.

Outputs Select the **Outputs** check box then click **Clear actions** to clear all **Output** actions.

Dig.Comm. Select the **Dig.Comm.** check box then click **Clear actions** to clear all **Dig.Comm.** actions.

Dialler Select the **Dialler** check box then click **Clear actions** to clear all **Dialler** actions.

- + The Panel will ask for confirmation before clearing the selected actions.

Events description

Following is a description of the conditions that generate (or stop) the various events. Please note that events do not always end when the generating condition ends.

■ Alarm events

Alarm events will be generated by alarm status at zone, partition, or Panel level.

The **Zone Events** are the lowest level of Alarm events. They are linked to alarm and tamper status on the corresponding zones.

The **Partition** and **Panel Events** are the **"OR"** logic of the **Zone Events**.

All alarm events will end when the cause ceases, **unless assigned to monostable outputs**.

Events—assigned to monostable outputs—will end when the programmed **On time** of the assigned output elapses.

The **On time** will continue running even if the cause of output activation ends.

These events will not be generated during the programmed **Off Time** of the assigned output, or when the assigned monostable output is active.

If an alarm event is assigned to a Siren output—programmed as monostable with a 3-minute **On time**, the complete 3-minute cycle will run even if the cause of the alarm ends. However, the **Alarm Event** will end immediately if the Panel is disarmed.



- + The **ENDS WHEN...** column in the following table is valid for events that are not assigned to monostable outputs.

Zone events

EVENT	OCCURS WHEN ...	ENDS WHEN ...
1 : 80 Alarm on zone no.	... the zone is in alarm status	... the zone returns to standby status
81 : 160 Tamper on zone no.	... the zone is in tamper status	... tamper status on the zone ends

* **The conditions causing the zone alarm and tamper are described in the {Zones} page.**

These events can be forced into standby status by:

- changing the status (Arm / Disarm) of the partition the zone is assigned to;
- resetting the partition the zone is assigned to;
- inserting a digital key into a key reader (both must be enabled on the partition);
- entering a User code on a keypad, and selecting the Stop alarm option (both User code and keypad must be enabled on the partition).

Partition Events A Partition Event will be generated when an event occurs on one of the zones (Zone Event) assigned to the Partition, and will end when all the zone events cease, as follows.

EVENT	OCCURS WHEN ...	ENDS WHEN ...
161 : 168 Fire alarm on partition no.	... a Fire zone—assigned to the partition is in alarm status	... all events generated by the Fire zones—assigned to the partition return to standby status
169 : 176 24h alarm on partition no.	... a 24h zone—assigned to the partition is in alarm status	... all events generated by the 24h zone—assigned to the partition return to standby status
177 : 184 Burglar alarm on partition no.	... a burglar zone (Instant, Entry delay, Entry path, Exit delay or Last exit zone)—assigned to the partition is in alarm status	... all events generated by the burglar zones—assigned to the partition return to standby status
185 : 192 Generic alarm on partition no.	... a zone (any Type)—assigned to the partition is in alarm status	... all Alarm events generated by the zones—assigned to the partition return to standby status
193 : 200 Tamper alarm on partition no.	... a zone—assigned to the partition is in tamper status	... all Tamper events generated by the zones—assigned to the partition return to standby status
201 : 208 Generic+ Tamper alarm on partition no.	... a zone—assigned to the partition is in alarm or tamper status	... all events (Alarm and Tamper) generated by the zones—assigned to the partition return to standby status

To force these events into Standby status:

- change the partition status
- reset the partition
- use a digital key on a key reader (both digital key and key reader must be enabled on the partition)
- enter a User code at a keypad, and select the Stop alarm option (both User code and keypad must be enabled on the partition).



Panel Events A Panel Event will be generated when the corresponding event type occurs on any zone—whatever the partition, and will end when all the corresponding types of zone events cease, as follows.

EVENT	OCCURS WHEN ...	ENDS WHEN ...
209 Fire alarm on panel	... a Fire zone—assigned to any partition is in alarm status	... all events generated by the Fire zones—of all partitions—return to standby status
210 24h alarm on panel	... a 24h zone—assigned to any partition is in alarm status	... all events generated by the 24h zones—of all partitions—return to standby status
211 Burglar alarm on panel	... a burglar zone (Instant, Entry delay, Entry path, Exit delay or Last exit zone)—assigned to any partition is in alarm status	... all events generated by burglar zones of all partitions return to standby status
212 Generic alarm on panel	... any zone—assigned to any partition is in alarm status	... all Alarm events generated by the zones of all partitions return to standby status
213 Tamper alarm on panel	... any zone—assigned to any partition is in tamper status	... all Tamper events generated by the zones of all partitions return to standby status
214 Generic+ Tamper alarm on panel	... any zone—assigned to any partition is in alarm or tamper status	... all events (Alarm and Tamper) generated by the zones of all partitions return to standby status
215 Tamper on Main unit	... the tamper microswitch (2) or snatch microswitch (15) in the Main unit is open	... the tamper and snatch microswitches close
216 Balanced tamper	... terminal [ASB] is unbalanced	... terminal [ASB] is balanced (connected to ground with a 10,000 ohm-resistor)
217 Tamper on BPI device	... a tamper microswitch or a snatch microswitch of a device connected to the BPI bus is open (Keypads, Input or Output Expanders, etc.)	... all tamper and snatch microswitches of the BPI devices closed
218 False key on key reader	... A false digital key is inserted into a key reader	... false digital key is no longer detected

These events can be forced into standby status by:

- entering (at any keypad) a User code enabled for **Panel Reset**, and selecting the Alarm reset option;
- entering (at any keypad) a User code enabled for **Panel Reset** and selecting the Stop alarm option;
- inserting a valid digital key into any key reader. The **Enable Stop alarm on panel with valid key** option must be enabled (refer to **Options** from the **Programming** menu).

■ Generic Events

These events will be generated by the Panel, and do not have a start or end condition (e.g. No Mains).

Generic Events can be forced into standby status by using an enabled User Code (at any keypad) to activate the **Reset Alarm** command.

If these events are assigned to a monostable output they will behave as follows.

- If the generating condition is still present after the **On time** of the output—the latter will return to standby status but the event will not end until the condition ceases.
- If the generating condition ends before the **On time** of the **Monostable** output has elapsed, the output will return to standby status, and the event will end.

When these events are not assigned to a Monostable output, they will end when the conditions in the following table occur.

EVENT	OCCURS WHEN ...	ENDS WHEN ...
219 Warning fuse +F	Not operative	
220 Warning fuse +B	... Fuse 19 blows	... fuse 19 is replaced
221 Warning fuse BPI1	... Fuse 16 blows	... fuse 16 is replaced
222 Warning fuse BPI2	Not operative	
223 Warning mains failure	... after mains power failure for the programmed time (refer to Filter times in the Programming menu)	... the mains power supply is restored
224 Warning low battery	... mains power failure and insufficient battery power for Panel functioning	... the battery charge is above the safety limit
225 Warning power trouble	... the battery supply cannot ensure Panel functioning (calculated with mains present only).	... the battery or the protection fuse 27 is replaced



EVENT	OCCURS WHEN ...	ENDS WHEN ...
226 Warning mains failure on Power station	... after the power supply of one of the Power stations connected to the BPI bus fails for the programmed time (refer to Filter times in the Programming menu)	... the mains power supply is restored on all the Power stations connected to the BPI bus
227 Warning low battery on Power station	... mains power supply failure on one of the Power stations connected to the BPI and the battery charge cannot ensure proper functioning of the peripherals	... the battery charge of the Power station is above the safety level
228 Warning power trouble on Power station	... the battery of one of the Power stations connected to the BPI bus cannot supply enough power to ensure proper functioning of the peripherals	... the battery (or the protection fuse) is replaced
229 Warning generic	... one of the previously described troubles starts	... all previously described troubles end
230 Trouble on BPI	... the Main unit does not detect a device on the BPI bus, because of trouble or tamper	... the Main unit detects all the devices of the BPI bus configuration
231 : 238 partition no. armed	... the partition is armed	... the partition is disarmed
239 : 246 Exit time on partition no.	... the partition is armed	... the programmed Exit time of the partition elapses, unless, a Last exit zone is violated during the Exit time , in which case it will end after the programmed Last exit time of the partition
247 : 254 Entry time on partition no.	... an Entry delay zone —assigned to the armed partition is violated	... the programmed Entry time of the partition elapses or when the partition is disarmed
255 : 262 Valid key on partition no.	... a valid digital key—enabled on the partition, is inserted into a key reader enabled on the same partition	... the digital key is extracted from the key reader
263 Valid key on panel	... a valid digital key is used at any key reader	... there are no valid digital keys at key readers
264 : 271 Stop alarm on partition no.	... a Stop alarm request made by an enabled User code is done on a keypad—enabled on the partition	... alarms are no longer blocked
272 Stop alarm on panel	... a Stop alarm request made by a User code—enabled for this option	... alarms are no longer blocked
273 : 352 Bypass zone no.	... the zone is bypassed	... the zone is unbypassed
353 : 360 Not ready to arm partition no.	... there is alarm status on at least one zone, that is not a delayed, last exit, bypassed or command type zone. The calculation occurs every 2 seconds	... the alarm status ends on all the not delayed, last exit, bypassed or command type zones
361 Telephone line trouble	... the voltage on the telephone line is less than 3 V for at least 45 seconds	... the required voltage on the telephone line (over 3 V) is restored for at least 15 seconds
362 : 369 Autoarming warning partition no.		Not operative
370 Error serial printer		Not operative
371 Error parallel printer		Not operative
372 : 379 Timer no.		Not operative



■ **Spot events**

Spot events have no **END** status, therefore, cannot be:

- assigned to bistable outputs;
- assigned to reset actions of the Dialler and the Digital Communicator.

EVENT	OCCURS WHEN ...	ENDS WHEN ...
380 Test	... programmed in the Test event page	
381 : Reset on 388 partition no.	... Alarm reset is done on a keypad—enabled on the partition —by a User code—enabled on the partition	
389 Reset on panel	... Alarm reset is done by a User code—enabled for this option	
390 : Super key no. 399	... the key is pressed for more than 3 seconds	
400 : Chime on 407 partition no.	... a Chime zone—assigned to the disarmed partition is violated	
408 : Recognized 438 User code no.	... the PIN of the enabled User code is entered	
439 Recognized Installer code	... the Installer PIN is entered. This event will not generate actions as access to the Installer menu stops all actions	
440 Teleservice request from OmniaMod	.. a Teleservice call coming from OmniaMOD is answered	
441 Teleservice ON	... the Teleservice connection is activated after acceptance of the Installer PIN	
442 Teleservice action failed	... test call or Teleservice action fails (requested by the User)	
443 Failed DTMF Communicator action	... an action fails on the Digital communicator—programmed to call the Central station with Contact ID protocol	
444 Failed Dialler action	... an action fails on the telephone dialler	
445 Failed Digital Communicator action	... a Digital Communicator action fails	



Test event

The **Test** event will occur as per the following parameters, and can be assigned to actions in the **Event-Actions** page.

Enable Use this option to enable the Test event.

Hour and minute test event Enter the scheduled time of the Test event (refer to **Clock** from the **Programming** menu).
Accepted values for **hh**—0 through 23 (hour).
Accepted values for **mm**—0 through 59 (minutes)
00 in the **hh** field will be read as midnight.

First Test delay Enter the number of times the Panel must ignore the scheduled hour before activating the Test event. This parameter determines the number of days that must elapse before the first Test event (the day count will start when **Initialize** is selected).

Repeat Test event Specify how often the Test event must be activated.

Initialize Download the Test event parameters to the Panel (select **Download Page** from the **Programming** menu) then click **Initialize**.

Click **Initialize** when new Test event parameters are downloaded to the Panel.

- + The Panel must be connected to the computer (via RS232 or telephone), otherwise, the program cannot initialize the system.

Keypad Codes

The Codes (User and Installer Codes) and digital keys operate the system. The Panel has a total of 32 Access Codes.

Access Codes 1 through 32 correspond to default Code PINs **0001** through **0032**.

- + By default Code 1 is already **Available**, and is also Master of all Codes—including itself (refer to **Code Attributes programmed by the Installer**).

■ User Code Description

Enable on partitions Keypads and User codes can be enabled on specific partitions (refer to **Config.** page for keypad partitions). User codes operate enabled partitions only (User code partitions), and the matching partitions on the keypad in use (Keypad partitions). Therefore, the effect of a User code request also depends on the keypad. This dual level of control facilitates system use, as the same operation can have different effects on different keypads.

Example

User code enabled on partitions **1, 5** and **7** entered at a Keypad enabled on partitions **1, 4, 7** and **8**.

The User code request will effect partitions **1** and **7**—as partition **5** is not a keypad partition, and partitions **4** and **8** are not User code partitions.

Recognized User code event Code acceptance will generate the **Recognized User code no.** event. This event can be assigned to an output or telephone action. Proper programming of events and outputs eliminates trouble linked with access control and / or limitations (refer to the **Recognition of multiple codes** paragraph in the **APPLICATIONS** chapter).

Omnia - Omnia 840 - Academy 40
File Programming Check Buffer Modem Options Page Help

Enable Customer code 0000 Hour and minute test event 0 hh 0 mm

First Test delay 0 Days

Repeat Test event 1 Days Initialize

\\Customer\Config\Zones\Outputs\Partitions\Telephone\Dialler\Dig_communic\Teleserv\Event-Actions\DTMF comm\Test event

Figure 32 Test Event page



■ Code attributes programmed by the Installer

The attributes determine how the User code can operate the system (refer to **Enable on Partitions**—**Enable user menu**—**Enable instant actions**).

Available Only **Available** User codes can operate the system.

The system usually requires less than the 31 User codes provided. This time-saving option allows the Installer to make only the required number of User codes **Available** to operate the system. Without this option it would be necessary to change all the default PINs for security reasons.

- + A programmed Code that is not **Available** can be considered inexistent.

Master code —All User codes must have a **Master** code.

—User codes with **Master** status will automatically become **Available** and **Active**.

—The **Available** and **Active** status of **Master** codes cannot be changed.

—User codes **1** through **24** can be **Master** codes.

—User codes **25** through **31** cannot be **Master** codes.

—A code can be its own Master, and therefore, can change its own **PIN**.

—A code can be Master of several codes but Slave of only one.

—Only a **Master** code can change the **Active** status and **PIN** of its **Slave** code.

—A Slave code must be disabled (made not **Active**) by its current **Master** code before it can be given a new **Master** code (refer to **User parameters**).

- + The Installer cannot change the **Available** status of an **Active** User code via computer.

■ User Parameters


These parameters are usually programmed by the User. However, if Installer intervention is preferred, the User must provide the Installer with the **Master code PIN**.


- **Active:** this option allows the Installer to disable a User code via computer (**Master code PIN** required).
- **PIN:** this option allows the Installer to change a User code PIN via computer (**Master code PIN** required).



Enable on partitions Enabled User codes can control: Arming / Disarming, Stop Alarm and Bypass zone operations on their partitions.

Yes = User code **Enabled** on the corresponding partition

Box clear = User code disabled on the corresponding partition

Row **A** is for the partitions that will arm (**A**) or disarm (**D**) when the User code is entered at a keypad, and  is pressed (Type A arming mode).

Row **B** is for the partitions that will arm (**A**) or disarm (**D**) when the User code is entered at a keypad, and  is pressed (Type B arming mode).

The enabled partitions will arm or disarm when the User code is entered at a keypad, and  or  is pressed.

Enable User menu The User menu will provide the enabled options **only**. Enable / Disable the following options, as per requirements.

- **Arm / Disarm:** arms / disarms partitions separately
- **Panel reset:** resets / stops alarms on panel
- **Partitions reset:** resets / stops alarms on partitions
- **View / Bypass zones:** views / bypasses zones
- **View:** views the event buffer
- **Teleservice:** teleservice
- **Clear call queue:** clears telephone-call queue
- **Output management:** enables /disables outputs

The enabled options will be shown on the corresponding User menu. However, in particular instances the **Teleserv.**, **Panel reset** and **Partition reset** will perform as follows.

- + If **Teleservice** is disabled the **Teleserv.**, **En./Dis.Teleser.** and **En./Dis.Answer** options will not appear on the User menu.
- + Enablement of the **Panel reset** and **Partitions reset** options determines the actions the Panel will perform when **Alarm reset** or **Stop alarm** is selected from the User menu.



Alarm reset from User Menu If the **Alarm reset** option is selected by a User code enabled for **Panel reset**—it will:

- Delete alarm memory**—Main unit open, balanced tamper, BPI device tamper and false digital key at key reader.
- Force to Standby**—the Outputs activated by the following events.

Fire alarm on panel	Generic+Tamper alarm on panel
24h alarm on panel	Tamper on Main unit
Burglar alarm on panel	Balanced tamper
Generic alarm on panel	Tamper on BPI devices
Tamper alarm on panel	False key on key reader

If the **Alarm reset** option is selected from by a User code enabled for **Panel reset** and **Partition reset**—it will perform as per above (**Alarm reset**) and will also:

- Delete alarm memory**—for partition alarm and tamper.
- Force to Standby**—the Outputs activated by the following events.

Fire alarm on partition	Generic alarm on partition
24h alarm on partition	Tamper alarm on partition
Burglar alarm on partition	Generic+Tamper alarm on partition

Stop alarm from User Menu When the **Stop Alarm** option is selected by a User code enabled for **Panel reset**—it will:

- Force to Standby**—the Outputs activated by the following events.

Fire alarm on panel	Generic+Tamper alarm on panel
24h alarm on panel	Tamper on Main unit
Burglar alarm on panel	Balanced tamper
Generic alarm on panel	Tamper on BPI devices
Tamper alarm on panel	False key on key reader





If the **Stop alarm** option is selected by a User code enabled for **Panel reset** and **Partition reset**—it will perform as per above (**Stop alarm**) and will also:

- Force to Standby**—the Outputs activated by the following events.

Fire alarm on partition	Generic alarm on partition
24h alarm on partition	Tamper alarm on partition
Burglar alarm on partition	Generic+Tamper alarm on partition

- + **Alarm reset** and **Stop Alarm** requests will effect the User code partitions only. Therefore, if an output is assigned to two partitions—and one of the two is not an enabled partition of the User code entered at the keypad—the output will remain active until a **Stop alarm** request is made for both partitions.
- + An Output will return to Standby status automatically when all the activating events end. **Alarm reset** and **Stop Alarm** requests will effect the User code partitions only.

Enable Instant actions The USER MENU also provides extra User code options, as follows.

- **Arming type A:** enter the User code then press 
- **Arming type B:** enter the User code then press 
- **Arm enabled partitions:** enter the User code then press 
- **Disarm enabled partitions:** enter the User code then press 
- **Enable scheduler:** enable the Scheduler (this Panel is UNABLE to operate this option)
- ***1 - Enable / Disable via DTMF:** code enable / disable via DTMF
- ***2 - Inputs status via DTMF:** Input reading via DTMF
- ***3 - Remote listen-in—Telephone func:** remote listen-in and two-way communication (via telephone)

* The last 3 actions (*1, *2 and *3) are provided by DTMF commands (*1, *2 and *3) via telephone. Refer to the **TELEPHONE OPERATIONS** chapter in the **USER MANUAL** under: —**Enable / Disable via DTMF** and **Inputs status via DTMF** for *1 and *2; —**Remote Listen-in—Telephone func.** for *3.



User codes **25** through **31** are enabled for these options (OmniaVOX module required).

■ **How to program Access Codes**

Please note that improper programming of Codes may impair security, therefore, the instructions must be followed carefully. The following notes may be helpful.

- Step 1** Select **Keypad codes** from the **Programming** menu then select a Code from the **Keypad codes** table.
- Step 2** Enter the User label (up to 16 characters) under Description—then click the Code Identifier number. The window will be dedicated to the selected Code.
- Step 3** Make the code **Available** (top centre of window).
 - + Codes that are not **Available** cannot operate the system.
- Step 4** Click **Master** (top centre of window) then enter the identifier number (1 through 31) of the new **Master** code. Click **OK** to confirm. The **Master code** identifier number will be shown in the Master column of the **Keypad codes** table, and also next to the **Master Code** button.
- Step 5** Enable / Disable the Code on Partitions 1 through 8 (top row). Double click to toggle the status.
 - Yes** = Code **Enabled** on the corresponding partition
 - Box Clear = Code **Disabled** on the corresponding partition
- Step 6** Select the partitions that will **Arm / Disarm** when the Code makes a **Type A arming** request (row **A**). Double click to toggle the status.
 - Select the partitions that will **Arm / Disarm** when the Code makes a **Type B arming** request (row **B**). Double click to toggle the status.
- Step 7** Enable the User menu options.
- Step 8** Enable the Instant Actions.
 - + The **Enable / Disable via DTMF—Inputs Status via DTMF—Remote listen-in - Telephone func.** options apply to User codes no. **25** through no. **31** only.
- Step 9** Click **OK** to confirm the programmed parameters.
 - + The Installer Code label can be assigned in the Keypad codes page. Select the **Installer code** option from the **Programming** menu to program the Installer Code PIN (Code 32).

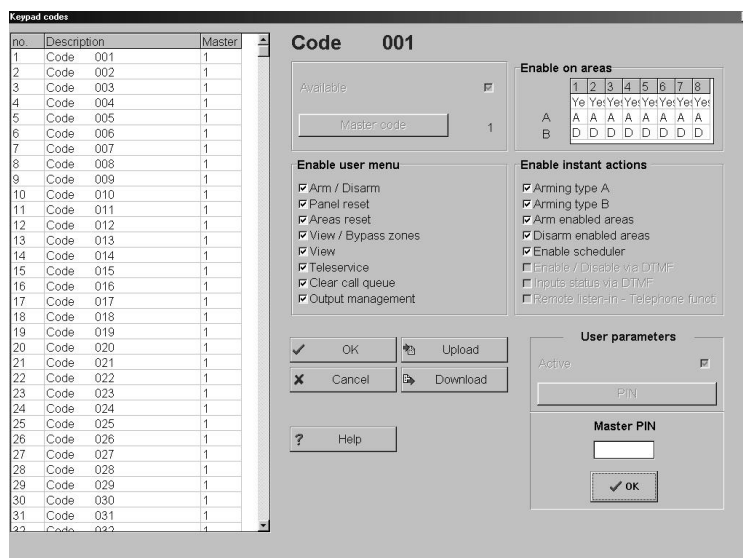


Figure 33 Codes page



■ **Attributes programmed by the user**

Only **Master codes** can program and change the following attributes of their Slave codes.

PIN The User code **PIN (Personal Identification Number)** can have 4, 5 or 6 digits.

Active Disabled An **Active** User code can operate the system. A **Master code** can disable its Slave codes.

Disabled User codes will not be recognized by the Panel, and therefore, will be unable to operate the system. **Master codes** cannot be disabled.

Download Select to download the programmed data to the Panel.

Upload Select to upload programmed data from the Panel to the computer.

The data that will be downloaded depends on whether or not the User **PINs** in the computer memory **match** those in the Panel memory—as follows.

PINs Match The User code PINs are either at default, or have been uploaded from the Panel. Therefore, all the parameters programmed in the **Keypad codes** page will be downloaded.

Pins Mismatch The User code PINs are not at default, or have not been loaded. Therefore, the following data will be downloaded:

- **Description**
- **Available:** if the User code in the Panel memory is disabled (not Active).
- **Enable User menu**
- **Enable on partitions**
- **Enable instant actions**

Keypad codes										
Programmable data										
no.	Description	Active	Descr.	En. User men	En. Imm. fund	En. areas	Avail	Master	PIN	
1	Andrea Seattle	Yes	Yes	Yes	Yes	Yes	No	No	No	
2	Code 2	No	Yes	Yes	Yes	Yes	Yes	No	No	
3	Code 3	No	Yes	Yes	Yes	Yes	Yes	No	No	
4	Code 4	No	Yes	Yes	Yes	Yes	Yes	No	No	
5	Code 5	No	Yes	Yes	Yes	Yes	Yes	No	No	
6	Code 6	No	Yes	Yes	Yes	Yes	Yes	No	No	
7	Code 7	No	Yes	Yes	Yes	Yes	Yes	No	No	
8	Code 8	No	Yes	Yes	Yes	Yes	Yes	No	No	
9	Code 9	No	Yes	Yes	Yes	Yes	Yes	No	No	
10	Code 10	No	Yes	Yes	Yes	Yes	Yes	No	No	
11	Code 11	No	Yes	Yes	Yes	Yes	Yes	No	No	
12	Code 12	No	Yes	Yes	Yes	Yes	Yes	No	No	
13	Code 13	No	Yes	Yes	Yes	Yes	Yes	No	No	
14	Code 14	No	Yes	Yes	Yes	Yes	Yes	No	No	
15	Code 15	No	Yes	Yes	Yes	Yes	Yes	No	No	
16	Code 16	No	Yes	Yes	Yes	Yes	Yes	No	No	
17	Code 17	No	Yes	Yes	Yes	Yes	Yes	No	No	
18	Code 18	No	Yes	Yes	Yes	Yes	Yes	No	No	
19	Code 19	No	Yes	Yes	Yes	Yes	Yes	No	No	
20	Code 20	No	Yes	Yes	Yes	Yes	Yes	No	No	
21	Code 21	No	Yes	Yes	Yes	Yes	Yes	No	No	
22	Code 22	No	Yes	Yes	Yes	Yes	Yes	No	No	
23	Code 23	No	Yes	Yes	Yes	Yes	Yes	No	No	
24	Code 24	No	Yes	Yes	Yes	Yes	Yes	No	No	
25	Peter Green	No	Yes	Yes	Yes	Yes	Yes	No	No	
26	John Smith	No	Yes	Yes	Yes	Yes	Yes	No	No	
27	Susan White	No	Yes	Yes	Yes	Yes	Yes	No	No	
28	Code 28	No	Yes	Yes	Yes	Yes	Yes	No	No	
29	Code 29	No	Yes	Yes	Yes	Yes	Yes	No	No	
30	Code 30	No	Yes	Yes	Yes	Yes	Yes	No	No	
31	Code 31	No	Yes	Yes	Yes	Yes	Yes	No	No	
32	Code 32	Yes	Yes	No	No	No	No	No	No	

Figure 34 Keypad codes page



Digital keys

Select **Digital keys** from the **Programming** menu to open the **Digital keys** window then program as follows.

no. This is the identifier number used during digital key programming via keypad.

Description Assign the identifier label to the digital key in this field (maximum 16 characters). The label will be used as the digital key identifier.

En. Use this attribute to enable the digital key. The Panel will consider Disabled digital keys as false.

1..8 Assign the digital keys to the partitions.

Select **Download** to transfer data to the Panel.

Select **Upload** to transfer data from the Panel to the computer.

Super keys

Select **Super keys** from the **Programming menu** to open the Super keys window. Keys **0** through **9** will take on Super key status when pressed for approximately 3 seconds. Program the Super keys as follows.

Assign a label (maximum 16 characters) to each Super key.

no. This is the Super key identifier number from 1 to 10 (0 corresponds to 10).

Description Enter the Super key label (maximum 16 characters).

Select **Download** to transfer data to the Panel.

Select **Upload** to transfer data from the Panel to the computer.

Filter times

Select **Filter times** from the **Programming** menu to open the **Filter times** window then program the Mains parameter—all other parameters are non-modifiable.

Mains Enter the number of seconds that must elapse before Mains failure is signalled. Accepted values: 0.3 sec. through 3,600 seconds (= 1 hour) in steps of 0.1 second. Event no. 223 **Warning Mains failure** will be generated when the programmed delay elapses.

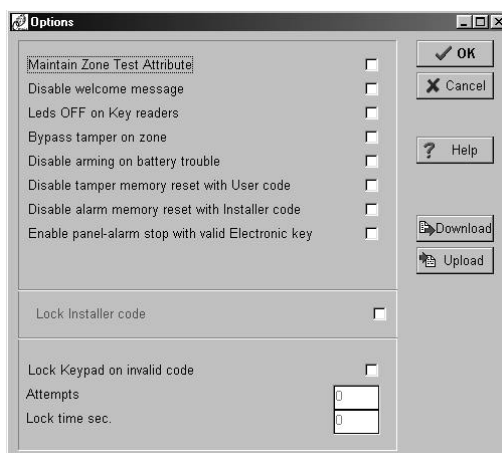


Figure 35 Options page



Options

Select **Options** from the **Programming** menu to open the **Options** window then program as follows.

- Maintain Zone Test Attribute** Option enabled—the **Zone Test** attribute will be active even when the partition is disarmed, therefore, zone alarms on **Test** zones will be logged in the event buffer.
- Disable welcome message** Option enabled—the welcome message will not be displayed—even in response to a valid User code.
- LEDs OFF on key readers** Option enabled—the three key reader LEDs will be OFF if no valid digital key is present.
- Bypass tamper on zone** Option enabled—tamper will not generate an alarm when the zones are bypassed.
- Disable arming on battery trouble** Option enabled—arming requests will be denied when there is battery trouble on the Main unit or on the connected Power stations, especially for the following events:
—**Low battery warning**
—**Power trouble warning**
—**Low battery on power station warning**
—**Power station trouble warning**
- Disable tamper memory reset with User code** Option enabled—User codes cannot reset the zone, partition and Panel tamper alarm memory, this can be done by the Installer code only.
- Disable alarm memory reset with Installer code** Option enabled—the alarm memory cannot be reset by the Installer, this can be done by enabled User codes only.
- Enable Stop panel alarm with valid digital key** Option enabled—Panel alarms can be stopped by inserting a valid digital key into any key reader.
- Lock Installer code** Option enabled—reset of the factory default programming will not default the Installer PIN (refer to **Installer Code** paragraph).
- Lock Keypad on invalid code** Option enabled—keypad lock-out will occur after the programmed number of wrong code entries.
- Attempts** This is the number of wrong codes allowed before lock out: accepted values 1 through 10.
- Lock time sec.** This is the keypad lock-out time (in seconds): set 9 through 1,800 seconds.

LCD strings

Select the **LCD strings** option from the **Programming** menu to change the **Welcome message** and language (LCD strings) on the keypads. The Welcome message will be shown in response to valid User code PINs.

- Change Welcome message** Enter the new message in the Welcome message **space** (max. 16 characters) then Select **Download** to the Panel.
- + The message will not be changed if **Download** is selected when the Welcome message space is empty, therefore, the message will be as per default.
 - Click **Global download** to download all the LCD messages to the keypads in the language used in the application (refer to **Language—Options** menu).
 - + Download and Global Download cannot be used until the Panel is connected to the computer—via serial cable.

Clock

Proper functioning of the Panel depends on the clock setting, therefore, the Clock must be set with precision.

Setting Select **Clock** from the **Programming** menu then select the exact time: **Hour, Minute, Day, Month** and **Year**.

Date format **dd/mm/yyyy** = Day / Month / Year

yyyy/mm/gg = Year / Day / Month

Separators

Select the date separator (colon (:)) or slash (/)). The date format and selected separator will be used on the keypads.



Installer code

The Installer code PIN allows the Installer to program the Panel parameters via on-site / remote computer, and access the **INSTALLER MENU** from the keypad. The Installer code PIN is also required for downloading.

By default the Installer code PIN is 0032. Select the **Installer code** option from the **INSTALLER MENU** (at keypad) to change the Installer code PIN.

Current PIN Enter the current Installer Code PIN under **Current PIN** (Installer code window) to download. If a wrong PIN is entered the data will not be downloaded to the Panel.

Change PIN Enter the current Installer Code PIN under **Current PIN** then enter the new pin under **New PIN** and **Check new PIN**. Click **Download** to the memorize the New PIN on the Panel.

Lost Installer code PIN If lost, the Installer code PIN can be reset to default (refer to the **Reset default** paragraph). However, if the Installer code PIN is locked it will be necessary to call your dealer (refer to **Lock Installer code** in the **Options** paragraph).

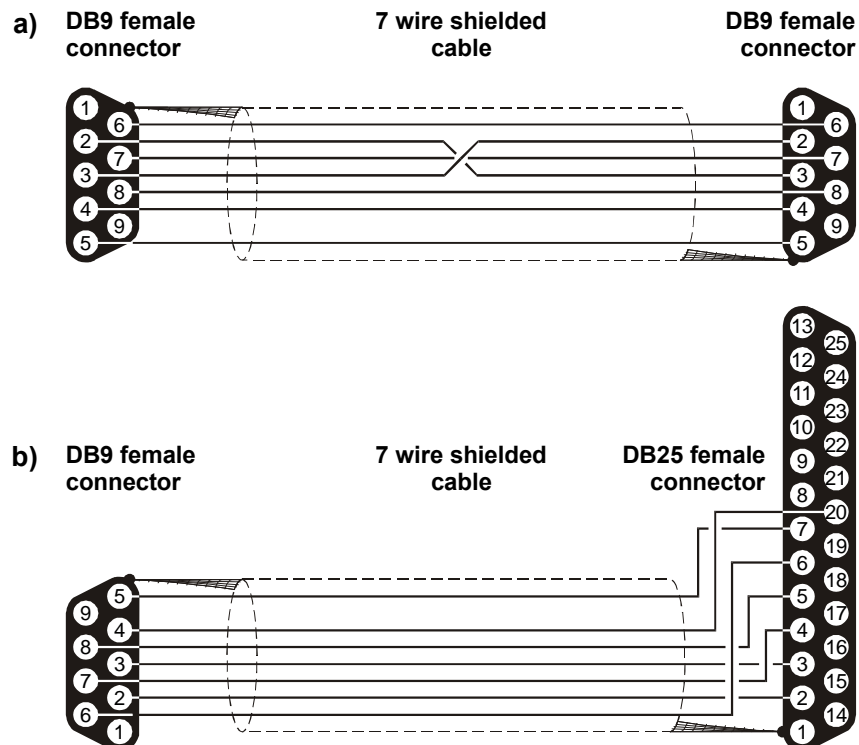


Figure 36 Diagram of a Serial cable with two DB9 connectors (a) and with a DB9 and a DB25 connector (b)



On-site Downloading from computer

Download the programmed parameters as follows (Installer Code PIN required).

- Step 1** Connect a computer serial port to the Panel serial port (**6**) by a **CVSER/9F9F** serial cable (optional) or make the cable as per figure 36a.
- If the computer has 25 pin serial-port connector—use an **ADSER/9M25F** adapter (optional) or make the cable as per figure 36b.
- Step 2** Select **Serial ports** from the **Options** menu—then select the serial port (**Control Panel** section) used for the connection to the Panel. Click **OK** to confirm.
- Step 3** Select **Installer code** from the Programming window—then enter the Installer Code PIN in the PIN section. Click **OK** to confirm.
- Step 4** Open the **Customer** page—then select the corresponding **Panel Type**. Click **OK** to confirm.
- Step 5** Select **Firmware release** from the **Options** menu—then select the corresponding release. Click **OK** to confirm.
- Step 6** Use the **Download** option from the **Programming** menu to download specific **Page** data or **All** programming data to the Panel.
- Full On-site download will take approximately 3 minutes.
- Use the **Upload** option from the **Programming** menu to upload and view specific **Page** data or **All** programming data from the Panel.
- + The selected firmware release must match the Panel firmware release. The firmware release can be viewed on the display of any keypad by selecting **Revision** from the **Installer Menu**.

Remote Downloading from computer

The Panel can be programmed through the OmniaMOD modem (version **V1** or **V2**).

- + The Teleservice option must be enabled by the User (refer to **Enable / Disable Teleservice** paragraph in the **USER MANUAL**).
- Step 1** Connect OmniaMOD to the computer serial port by means of the serial cable.
- Step 2** Select **Serial ports** from the **Options** menu—then select the serial port—used for the connection to the Panel—from the Remote section. Click **OK** to confirm.
- Step 3** Setup the Modem (refer to the **Modem** paragraph in the **Security Suite** manual).
- Step 4** Select **Connecting** from the **Modem** menu to open the **Connection management** window (see figure 37).
- Step 5** Program the **Connection management** window as follows.
- Enter the Panel telephone number in the **Telephone Number** section.
 - Program **Disable Tone Check** option (refer to **Telephone** paragraph)
 - Program **Double Call** and **Callback** options (refer to **Teleservice** paragraph) as per requirements.
 - Enter the Installer Code PIN
- + The parameters in the **Connection management** window can be temporarily changed without affecting the programmed parameters of the open customer.
- Step 6** Select **Dial** to start the connection.
- The connection status will be shown in the box at the bottom of the **Connection management** window.
- Step 7** Select **OK** when the following message appears:
- OMNIA ACK**
Installer code recognized
- The **Connection management** window will close.

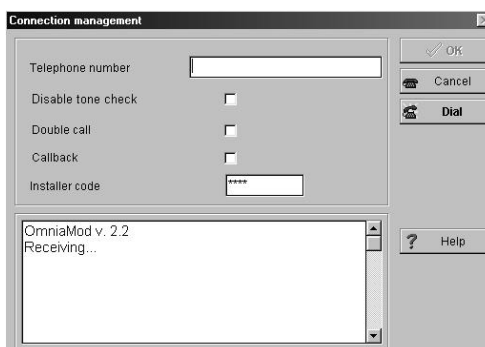


Figure 37 Incoming telephone line connection to Panel



Step 8 Use the **Download** option from the **Programming** menu to download specific **Page** data or **All** programming data to the Panel.

Full Remote download will take approximately 7 minutes.

Use the **Upload** option from the **Programming** menu to upload and view specific **Page** data or **All** programming data from the Panel.

Step 9 Select **On-hook** from the **Modem** menu to end the connection.

Software messages The connection status will be shown in the box at the bottom of the **Connection management** page. The following table shows the messages and meanings.

OmniaMod v. x.xx	This is the modem release connected to the computer serial port.
Modem not recognized	The modem is not recognized on the selected serial port. Check the cable and the selected serial port (see Serial ports— Options menu).
Receiving....	The Modem / Computer system is waiting for an incoming call. This will be the system status when the page opens.
RING	Rings detected on the telephone line.
BACK RING	This confirms that the dialled telephone is ringing.
NORMA ACK	NormaCom Panel acknowledged.
OMNIA ACK	Omnia or Academy40 Panel acknowledged.
Installer Code reading error	The Panel cannot read the PIN—probably due to the poor quality signal on the telephone line.
Failed Connection	It is impossible to communicate with the Panel—probably due to the poor quality signal on the telephone line.

Refer to the **Programming from on-site computer** paragraph for the downloading instructions.

Programming from Keypad

The parameters in this section can be programmed via keypad, by means of the following options from the **INSTALLER MENU**.

- Tel.Numb.Progr. (Telephone Number Programming)
- Descript.Progr. (Description Programming)
- Installer code
- User codes
- Parameter progr. (Parameter Programming)

Digital-key coding and **Voice-message recording** can be done via keypad **only**. These functions can be accessed from the **INSTALLER MENU** through:

- Voice functions
- digital keys

Reset default

To reset the factory default programming:

- disconnect the Main unit power supply (both mains power and battery)
- remove the jumper **7** (MEM)
- **wait for at least 20 seconds**
- replace the jumper **7** (MEM)
- connect the Main unit power supply (refer to **Power supply connection**).

ATTENTION Jumper **7** MEM **must be disconnected for at least 20 seconds** in order to ensure full reset of the factory default programming, and to avoid problems that may occur when the power supply is reconnected to the Main unit.

Installer code locked If the **Lock Installer code** option is programmed, the Installer PIN will not be reset to factory default (refer to **Lock Installer code** in the **Options** paragraph).



The Install-and-go factory default programming allows trouble free installation.

Configuration On first startup the Panel will perform an auto-configuration cycle. The configuration of all the devices on the BPI bus learned during this cycle will become the recognized configuration.

Zones Zones are programmed as: **Alarm, Double balanced, single Pulse, Repetitive.**

Zones no. 1 and no. 2 are programmed as **Entry delay** and **Exit delay**; all other zones are **Instant.**

All zones are assigned to **Partition no. 1.**

Outs All outputs are **Bistable**, with the exception of the first two, that are **Monostable** with a 3-minute **On time.** The two **Monostable** outputs can be used as bell alarm outputs. The default **Off Time** is 6 seconds.

Partitions Partitions have:

—30 seconds **Entry time**

—30 seconds **Exit time**

—6 seconds **Last exit time.**

Partition dependency is not defined.

Keypads and Key readers All keypads are enabled on all the partitions.

All key readers are enabled on all partitions. Type **A** and **B** arming are not defined (all partitions are disarmed).

Codes **Code no. 1** (Code 001) is the only **Available-Active** User code with factory default programming. **Code no. 1** is enabled on all partitions and for all functions. **Code no. 1** PIN is **0001.**

The **Installer code PIN** is **0032.**

Event-Actions The following events are addressed to **output no. 1:**

- **Generic alarm on partition no.**

The following events are addressed to **output no. 2:**

- **Tamper alarm on partition no.**
- **Tamper on Main unit**
- **Balanced tamper**
- **Tamper on BPI devices**
- **False key on key reader**

The following event is addressed to **output no. 3:**

- **Warning generic**

The following event is addressed to **output no. 4:**

- **Trouble on BPI**

Dialler **Action no. 1** sends **message no. 1** to the **first 16 numbers** of the telephone-number list, this action will be generated by the following events:

- **Generic alarm on partition no.**

Action no. 2 sends **message no. 2** to the **first 16 numbers** of the telephone-number list, this action will be generated by the following events:

- **Tamper alarm on partition no.**
- **Tamper on Main unit**
- **Balanced tamper**
- **Tamper on BPI devices**
- **False key on key reader**



A basic system

The Install-and-go factory defaults allow fast and simple installation. A basic system can control all the programmed zones, and will signal alarm status on the connected alarm signalling devices (sirens and telephone diallers etc.). Arming and disarming can be done via keypad or key reader.

■ Connections

Zones A basic system has 8 zones. If input expanders are connected to the bus—the device address coding must be done as per the instructions in the **BPI device connection** paragraph. Zones on the Main unit and on the Input expanders must be connected to the sensors as per the double balancing circuit schematic in the **INSTALLATION** chapter.

Please remember that **Zones no. 1** and **no. 2** are already programmed as **Entry delay** and **Exit delay**, therefore, do not require programming.

Siren Connect the self-powered siren to **Output no. 1** as shown in figure 18 (page 26).

Keypads Connect the keypad to the bus. If more than one keypad is connected—device address coding must be done as per the instructions in the **BPI device connection** paragraph.

Key readers Connect the key readers. to the bus. If more than one key reader is connected—device address coding must be done as per the instructions in the **BPI device connection** paragraph.

Telephone dialler Install **OmniaVOX** as per the instructions in the **OmniaVOX** chapter.

Telephone line Connect the telephone line as per the instructions in the **INSTALLATION** chapter.

■ Programming

Telephone numbers Program the telephone numbers—to be called by the Dialler in the event of alarm or tamper—as per the instructions in the **Telephone numbers** paragraph in the **KEYPAD OPERATIONS** chapter. The first 16 numbers are available.



Voice messages Voice mess. 001 should be used for the alarm status message.
Voice mess. 002 should be used for the tamper status message (maximum 15 seconds per message).
Record as per the relevant instructions in the **Voice functions** paragraph in the **KEYPAD OPERATIONS** chapter.

Codes By default **User code no. 1** is **Active**—PIN **0001**. To change the PIN of **User code no. 1**—refer to **Code Programming** in the **USER MANUAL**.

Program the necessary codes as per the instructions in the **User codes** paragraph in the **PROGRAMMING FROM KEYPAD** manual.

Digital keys Program the digital keys as per the instructions in the **Digital keys** paragraph in the **PROGRAMMING FROM KEYPAD** manual.

■ System use

Arming and disarming with code **To arm the system:** enter the User code then press the  key.
To disarm the system: press the  key then enter the User code.

Arming and disarming with digital key The system can also be armed / disarmed by valid digital keys.
To arm the system: use a valid digital key at any key reader and press the digital key button once. The **red LED** will go **ON**. The system will arm when the digital key is extracted. The **red LED** on the key reader will remain **ON**.
To disarm the system: use a valid digital key at any key reader. The **red LED** will go **OFF**. The system will disarm when the digital key is extracted. The **red LED** will remain **OFF**.

Stop alarm on siren **To stop siren signalling** generated by an alarm zone event:
—use a valid digital key at any key reader or disarm the Panel as per above.





To stop siren signalling generated by zone tamper or Alarm on panel:

—select Stop alarm from the **USER MENU**.



—enter the User code, press , , .

Stop alarm status will be signalled by a flashing message on the keypad.

Press the  key to exit the Stop alarm status.

Telephone dialler stop To stop the telephone dialler—enter the User code at any keypad then press , , . Press the  key to exit the **USER MENU**.

The telephone dialler can be stopped automatically as per the instructions in the **Stop alarm with digital key** paragraph in the **APPLICATIONS** chapter.

Reset Alarm memory To delete the alarm memory—enter the User code at any keypad and press the  key twice. Press the  key to exit the **USER MENU**.



WARNING Disconnect the Mains and battery power before installing the OmniaVOX board.

OmniaVOX greatly increases the resources of the Academy40 system. The OmniaVOX kit comprises a **Voice board**, **Microphone board** and **Speaker**. The recorded voice messages can be assigned to the telephone dialler numbers, or to the Academy40 inputs (for input status control via telephone). They can also be used as answer messages (answering-machine feature).

Features

- Messages recorded on electronic memory (ChipCorder technology™)
- Records 14 Voice messages: 2 of 15 seconds; 2 of 10 seconds and 10 of 4 seconds
- Speaker
- Telephone-dialler
- Answering-machine
- DTMF management for Academy40-status control via telephone
- Listen-in and remote 2way Speaker system (Teleassistance)

Parts identification

PARTS	DESCRIPTION
84	Speaker plug
85	Microphone
86	Speaker socket
87	Terminal board (for Voice board connection)
88	Microphone board
89	Main unit Voice board connector
90	Main unit board
91	Terminal board (for Microphone board connection)
92	Voice board activity LED
93	Voice board
94	Speaker

Installation

Install the OmniaVOX as follows (see figure 38).

- Step 1** Slide the speaker into the reverse locking holder.
- Step 2** Fit the microphone board into place (as per **F**). See the figure on page 20.
- Step 3** Plug the Speaker into the connector **86** (as per **G**).
- Step 4** Connect the Voice board **93** to the Main Unit board **89** (as per **H**).
- Step 5** Use shielded cable to connect the Microphone to the Voice board (as per **I**).
 - + Delete the Voice board memory—refer to the "Voice features" paragraph for instructions.



Expand Listen-in partitions

Listen-in coverage can be expanded by connecting several Microphone-Speaker boards to the Voice board. This is especially useful for large premises, or in places where there is risk of sound muffling caused by walls or machinery, etc.

- + Microphone-Speaker boards must be installed near the point of intended use.

The supplementary boards must be connected in parallel to the Voice board, as per figure 39. The number of supplementary boards, and the connection lengths can affect sound quality, therefore:

—do not connect more than 4 Microphone-Speakers to the Voice board.

—do not use more than 50 metres of cable between each Microphone-Speaker board and the Voice board.

- + When recording messages—use the Microphone board that is nearest to the Voice board, and temporarily disconnect the other boards.

All Microphone-Speaker boards will be interconnected during Teleassistance mode—allowing several users to communicate.

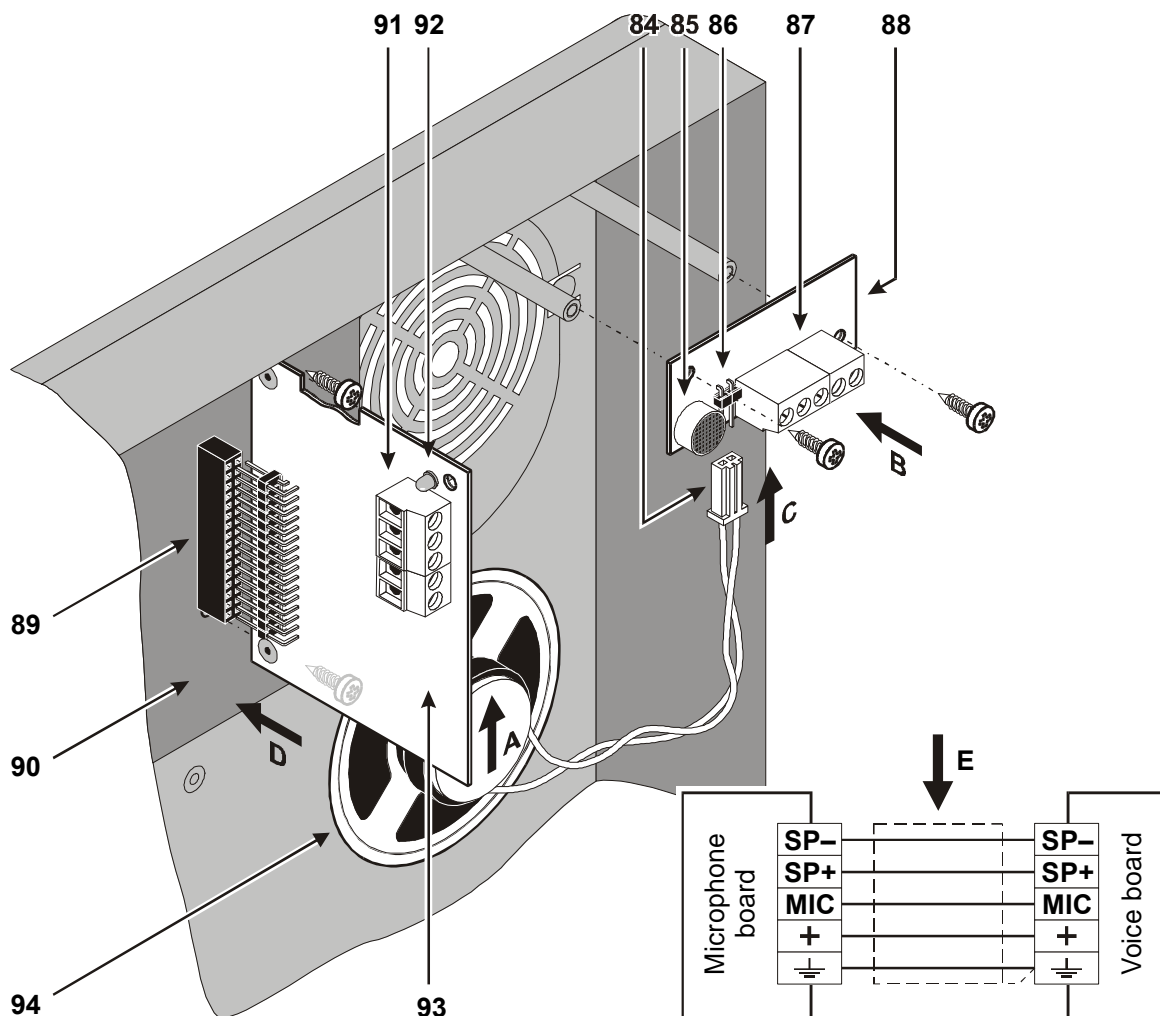


Figure 38 Parts identification and installation of the OmniaVOX kit



■ **Manual selection**

Installation of several Microphone-Speaker boards will allow the user to **listen-in** on the various parts of the premises simultaneously, however, sound tracing will not be possible.

For sound tracing—make the connections, as per figure 40. The schematic shows the Voice board and 4 Microphone-Speaker boards, and also:

- a 4-Output expander—Omnia/4OUT
- a 4-Input expander—Omnia/4IN
- two Relay modules—Omnia/4R

Academy40 must be programmed as follows.

- All the outputs of the Output expander must be **Reserved, Bistable** and **Normally Open**.
- The Input expander zones must be:
 - Instant; Repetitive; Normally Open.**

The zones must be either assigned to a **reserved* partition, or programmed as Test, and must have an **Alarm** status **Voice message** that will act as location identifier.

Enable Remote listen-in via telephone

Step 1 Press **5** (on the telephone keypad)

Step 2 Enter the number of the output that will activate the required Microphone-Speaker Board—two digits are required, therefore, enter **0** before output numbers **1** through **9**.

Step 3 Press **1** to start **Remote listen-in**.

Example

If the Output-expander address is no. 01, as per figure 40, its **hardware** outputs—OC1, OC2, OC3 and OC4 will correspond to **software** outputs no. 5, no. 6, no. 7 and no. 8.

Therefore, to enable software output no. 5 for remote listen-in on the first OmniaVOX-MS location enter **505** then press **1**.

Step 4 Press **#** then enter **405** to stop the output and end the Remote listen-in session.

- + Enter **300** (Check input zones option) to trace sounds during a **Remote listen-in** session on the entire premises.

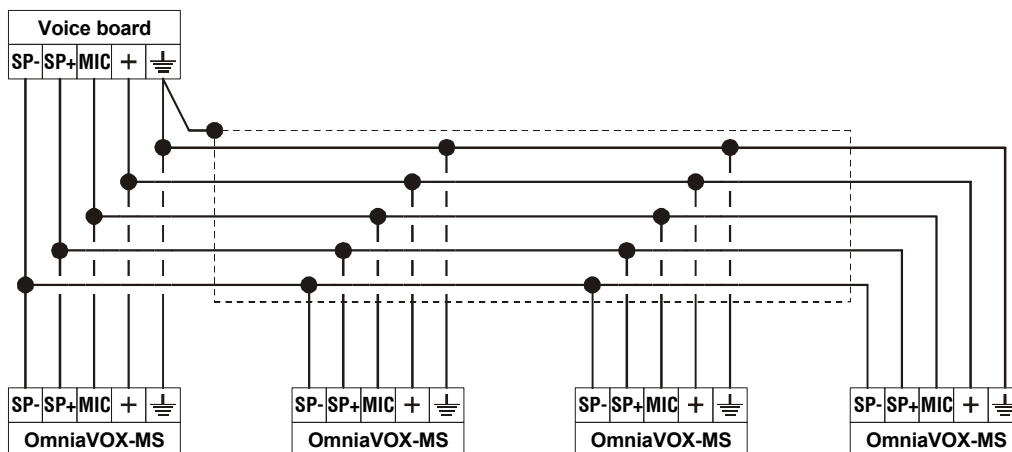


Figure 39 Connection of 4 OmniaVOX-MS boards to the Voice board



■ **Auto-select mode**

Auto-select mode is extremely useful, as the control panel will select the nearest OmniaVOX-VS board to the zone in alarm status. Figure 40 shows the necessary connections—the output must be programmed accordingly, and some parameters must be added to the **Event-Actions** page.

The 4 outputs for this application must be: **Monostable**; **Normally open**; and **Not Reserved**. The **ON time** will be as per the programmed activation time of the Microphone-Speaker Board of the location in question. Each of the outputs—connected as per figure 40 will activate one of the OmniaVOX-MS boards.

The partition and / or control panel events in the **Event-Actions** page will activate the alarm devices and telephone dialler. Therefore, the zone events will be free to control the outputs.

The zone events—assigned to the location in question must be programmed to activate the output that controls the relevant OmniaVOX-MS board—all 4 outputs must be programmed in the same way.

Auto-select mode will allow the user (called by the telephone dialler) to activate **Remote listen-in** on the specific location.

■ **Manual and Auto-select mode**

Manual and Auto-select listen-in can be integrated. This will allow the user to select (manually) specific locations during standby status.

4 outputs are required for **Manual-select** listen-in mode, and 4 outputs for **Auto-select** listen-in mode.

The outputs must be connected in two's—one Manual and one Auto, as per figure 40.

- + To ensure proper functioning of **Auto-select** mode—the manually controlled outputs must be in standby status. Therefore, the outputs must be reset to standby status when manually controlled listen-in sessions end.

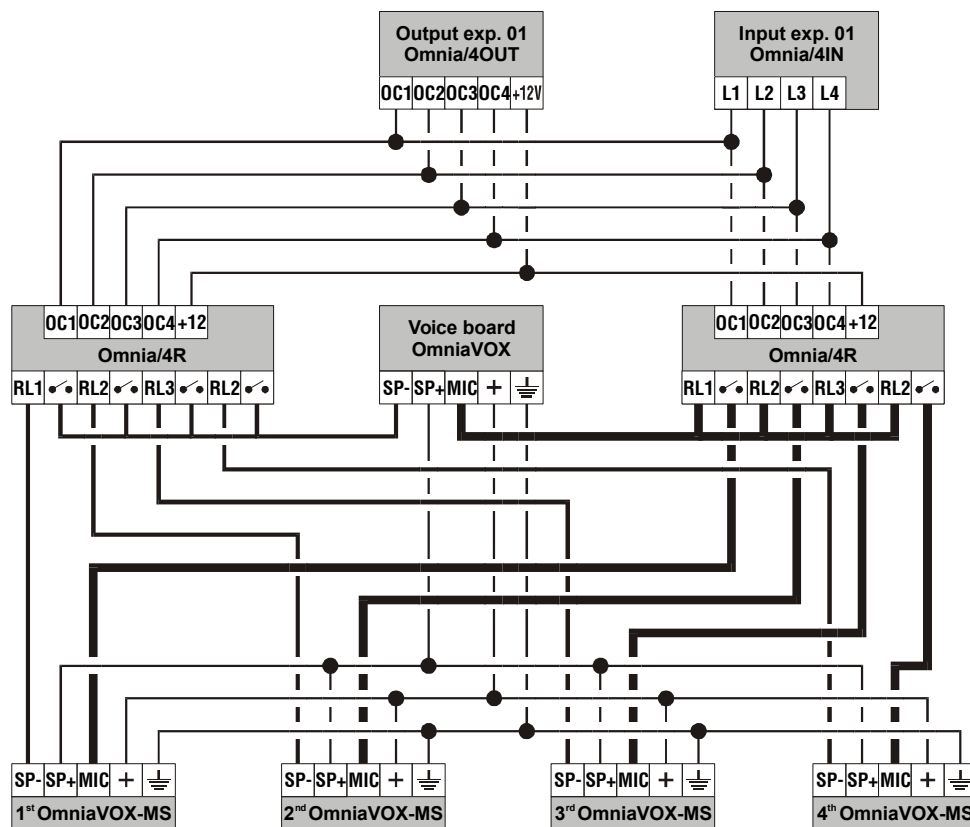


Figure 40 Listen-in schematic



How Academy40 performs some of the most frequent security-system operations can be found in this chapter.

Fast arming

Fast arming can be done by means of the pulse generated by recognition of a Super key. The 10 Super keys (one per Number key) can be programmed in the {Event-Actions} page—events **no. 390** (Super key 1) through **no. 399** (Super key 0).

The Super key must be pressed for 3 seconds for fast arming of several partitions.

Requirements For the following:

- **Event no. 390:** Super key 1 [Super Key 001];
- **Output no. 3:** corresponds to terminal [OC1] of the Main unit;
- **Zone no. 8:** corresponds to terminal [L8] of the Main unit.

For the necessary connections see figure 41 and refer to the relevant programming instructions, as per below.

Event-Actions Program **event no. 390** Super Key 1 [Super Key 001] as follows:

- **Outputs ON:** 3.

Outputs Program the **output no. 3** as follows:

- **Type:** Monostable
- **Attribute:** Normally open
- **Time:** On time—1 Sec.

Zones Program **Zone no. 8** as follows:

- Command
- + **Command:** Arm only
- **Balancing:** Normally open
- **Sensitivity:** Standard Pulses 1
- **Cycles:** Repetitive
- **Partition:** determines the partitions that will arm when key 1 (on any keypad) is pressed for more than 3 seconds.

Programming—as previously mentioned—will arm the specified partitions when key 1 is pressed for 3 seconds. A long beep (on the keypad) will signal Super Key recognition.

- + The zone is programmed for arming only, therefore, if the partitions are already armed—the fast arming request will be ignored.

The action activated by the output (enabled by the Super-Key event) can also be activated by a key connected to the command zone, as per figure 42.

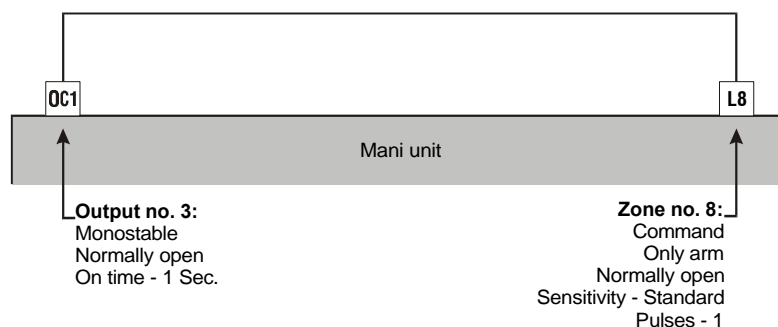


Figure 41 Fast arming by Super key

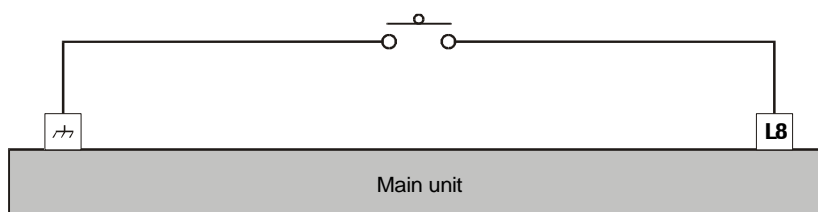


Figure 42 Fast arming by button



Temporary disarming (patrol)

This application allows one or more partitions to be disarmed temporarily for patrol purposes. In this way, security staff will be able to enter the temporarily disarmed area without generating alarms.

If the following Academy40 items are used:

- **Event no. 417:** Recognized user code 10 [Code 010]
- **Output no. 4:** corresponds to terminal [OC2] of the Main unit
- **Zones no. 6 and 7:** correspond to terminals [L6] and [L7] of the Main unit. Connect as per figure 43 and refer to the following programming instructions.

Codes Program **Pr. 10 Code** as follows:

- **Description:** Patrol
- **Available**
- **Active**
- **Enables user menu:** none
- **Enable instant actions:** none

Codes programmed in this way will be enabled for the patrol use only.

Event-Actions Program **event no. 417** --- Recognized user code 10 [Code 010] as follows:

- **Output ON:** 4

Outputs Program **Output no. 4** as follows:

- **Type:** Monostable
- **Attribute:** Normally open
- **Time:** On time [patrol time + 1] Min.

Zones Program **Zones no. 6 and 7** as follows:

	Zone no. 6	Zone no. 7
	Command	Command
➤ Command:	Disarm only	Arm only
➤ Balancing:	Normally open	Normally open
➤ Sensitivity:	Standard - 1 pulse	Low - Pulse length [Patrol time] Min.
➤ Cycles:	Repetitive	Repetitive
➤ Partition:	Select the partitions that will be disarmed for the patrol time---for both zones.	

Enter code no.10 then press the Enter key to disarm the programmed partitions for the programmed time. The partitions will re-arm automatically.

To refresh the patrol time:

- allow the programmed time to elapse;
- wait 60 seconds then enter the patrol code.

+ If the patrol code is entered when the patrol time is running it will be ignored.

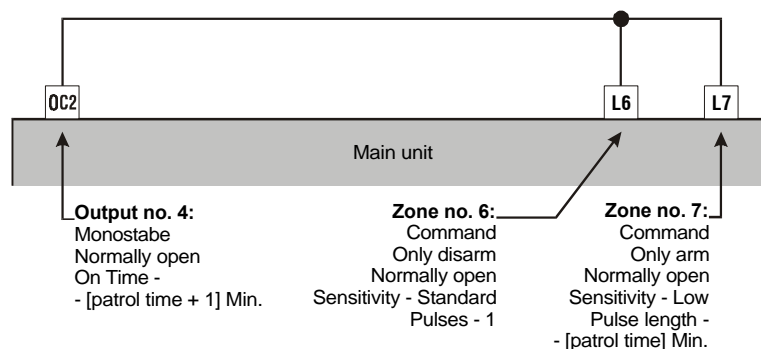


Figure 43 Temporary disarming (patrol)



Common partition management

Figure 44a illustrates access to one or more partitions (1, 2, 3 and 4) from a common partition (5)—typical of office buildings, where more than one office is adjacent to a corridor; and access to the corridor is allowed to authorized personnel.

The control panel can arm and disarm partition 5 automatically, in accordance with the status of partitions 1, 2, 3 and 4, as management of partition 5 is common to these partitions.

Various control device layouts are possible. For a layout similar to the example—which allows arming / disarming of partition 5 from a remote key reader (or keypad).

Step 1 Enable the control device (key reader or keypad) on partitions 1, 2, 3 and 4.

Step 2 Assign a key or code—enabled for the partition the user must have access to (1, 2, 3 or 4).

Step 3 Program partition 5 (Common partition) as dependent on partitions 1, 2, 3 and 4.

Each user will have access to one of the partitions (1, 2, 3 or 4) and will also have access to partition 5. Partition 5 will be **armed** when **all** the partitions it depends on are armed, and it will be **disarmed** when **one** of the partitions it depends on is disarmed.

The control device (key reader or keypad) can also be installed inside partition 5. In which case—its zones must be programmed with an entry and exit delay.

The control devices can also be installed inside partitions 1, 2, 3 and 4—in which case—their zones and the zones of partition 5 must be programmed with an entry and exit delay.

Figure 44b illustrates one of the independent partitions (e.g. partition 1) with its own entrance—in which case—to maintain common management of partition 5.

Step 1 Enable the control device located in partition 5—on partitions 1, 2, 3, 4 and 6 (Partition 6 is a "virtual" partition).

Step 2 Enable the control device installed in the independent entrance of partition 1 to control this partition only.

Step 3 Program partition 5 as depending on partitions 2, 3, 4 and 6.

The user with access to partition 1 must also have digital key (or code) enabled on partition 1—and on the "virtual" partition 6. Other users should have a digital key (or code) enabled on the partitions they have access to.

- + Please note that if all partitions are armed and the independent entrance to partition 1 is used—partition 5 will still be armed, as it depends on partition 6 and not on partition 1.

In this way, it will be possible to manage several independent partitions with independent entrances, provided that not more than 8 partitions, "virtual" partitions included, are employed.

If the control devices are inside the various partitions, it will be necessary to program the zones of the partitions with entry and exit delays.

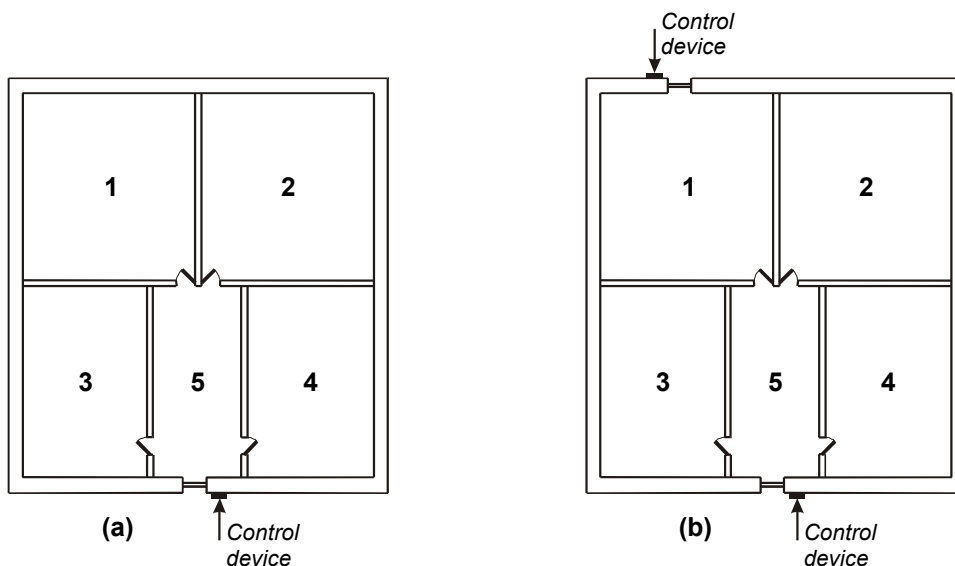


Figure 44 Common partition management



Several outputs assigned to the same event

Sometimes—especially in noisy places—zone alarm signalling requires sirens and flashers—placed in strategic positions. For this purpose, several outputs can be assigned to the same event—and the event will activate the assigned outputs on the BPI bus.

If output OCx is assigned to an event, and the same event must activate signalling on outputs OC1, OC2, OC3, ..., OCn—make the connections illustrated in figure 45, and program as per below.

- + Output OCx and inputs L1, L2, L3, ..., Ln should be close together for connection purposes.

Zones Program the zones that correspond to terminals [L1], [L2], [L3], ..., [Ln] as follows:

- **Alarm**
- **Type: 24h**
- **Balancing** compatible with the attribute of output OCx:
 - **Normally open** if the output OCx is normally open
 - **Normally closed** if the output OCx is normally closed
- **Partition:** *all the zones should be assigned to a partition that is not used by keys, codes or to control operations—this partition can be considered a Technical partition.*

Outputs The output that corresponds to terminal [OCx] can be programmed as per requirements, while the outputs that correspond to terminals [OC1], [OC2], [OC3], ..., [OCn] should be programmed as follows:

- **Type:** Bistable

Event-Actions Program the **Zone alarm events** of terminals [L1], [L2], [L3], ..., [Ln] as follows:

	Outputs ON
➤ Alarm on zone (L1):	Output (OC1)
➤ Alarm on zone (L2):	Output (OC2)
➤ Alarm on zone (L3):	Output (OC3)
➤ Alarm on zone (Ln):	Output (OCn)

Connections and programming done—activation of output (OCx) will generate the following events: **24h alarm on panel**, **Generic alarm on panel** and **Generic+Tamper alarm on panel**. To avoid false alarms—these events **must not be assigned to actions**.

As a result of the described connections and programming, the signal on output OCx will also be present on outputs OC1, OC2, OC3, ..., OCn with a 2 second delay (approx.).

- + The signal on output OCx must be present for more than 400 mS in order to activate outputs OC1, OC2, OC3, ..., OCn.

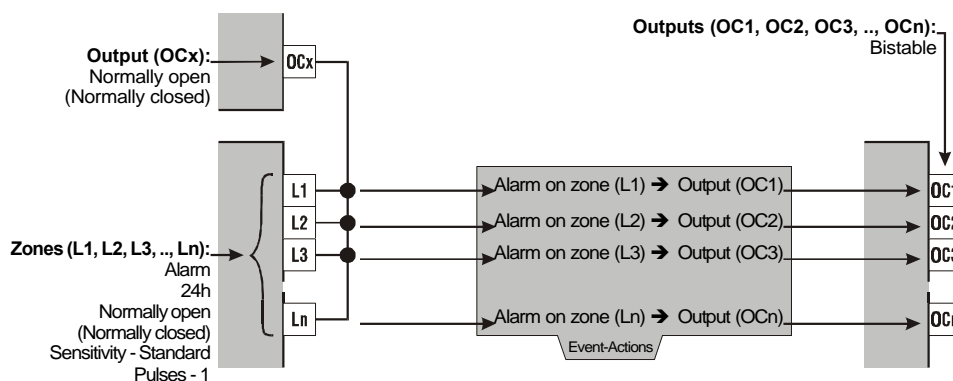


Figure 45 Multiple output event



Multi-output event

Several outputs can be assigned to the same event—and the hierarchical structure of events allows each event to enable several outputs.

If the **Generic Alarm** event (partition or panel) or **Tamper alarm** event (partition or panel) occurs the **Generic+Tamper alarm** event (partition or panel) will also be generated, as it is the sum of the two events (see figure 54).

The **Generic+Tamper alarm** event (partition or panel) can be assigned to two outputs, as follows.

Event-Actions For example: if the **Generic+Tamper alarm on partition no.** event must activate outputs **x** and **y** —program as follows.

Outputs ON	
➤ Generic+Tamper alarm on partition no.:	Output x
➤ Generic alarm on partition no.:	Output y
➤ Tamper alarm on partition no.:	Output y

The structure illustrated in figure 47 can also be used for the activation of several outputs by the same event, that is, if the zones assigned to a partition are all of the same type (fire, 24h or burglar).

If the **Generic alarm on partition x** event must activate outputs **a, b** and **c** —program as follows.

Zones Program **all** the zones—assigned to the partition—as burglar (or fire or 24h).

Event-Actions Assign output **a** to the **Generic alarm on partition x.** event;.

Assign output **b** to the **Burglar (or Fire or 24h) alarm on partition x** event.

Assign output **c** to **all** the zone alarm events—for zones assigned to partition **x**.

Alarm status on the **Instant** zones of partition **x** will activate outputs **a, b** and **c**.

+ The number of outputs that can be controlled by this feature depends on the number of levels in the hierarchical structure. To activate even more outputs refer to the application note in "Multi-output event".

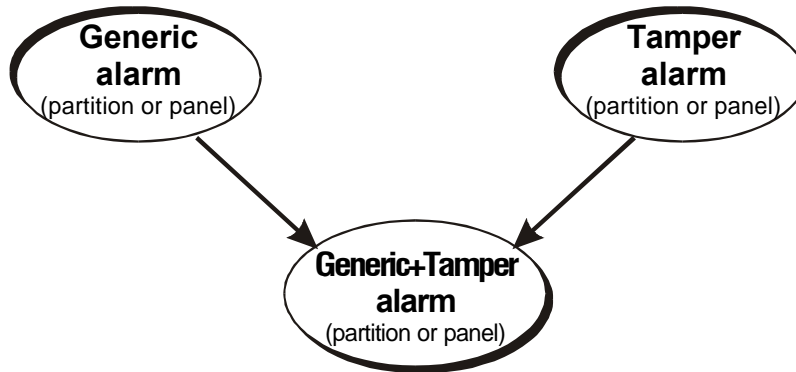


Figure 46

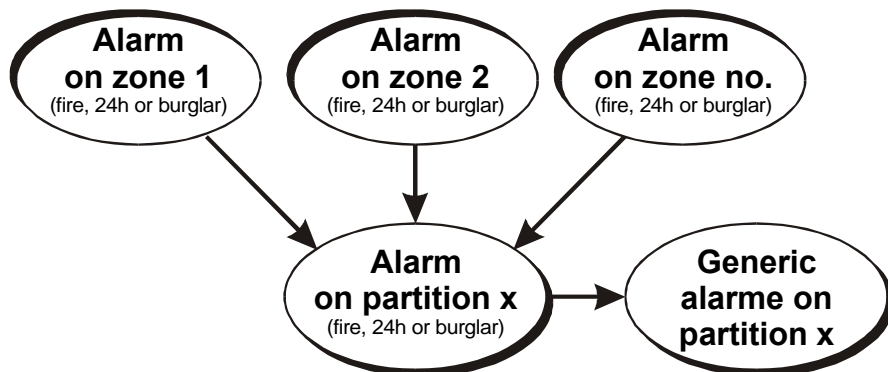


Figure 47



Recognition of multiple codes

In some cases 3 valid codes must be entered within 2 minutes—e.g. to open a bank safe door or similar. Connect as per figure 48, and program as follows.

Event-Actions The **Recognized user code** events that refer to the codes must be programmed as follows:

	Outputs ON
➤ Recognized user code 1:	Output (OC1)
➤ Recognized user code 2:	Output (OC2)
➤ Recognized user code 3:	Output (OC3)

Program the **Alarm on zone** event that refers to terminal [Ly] as follows:

	Outputs ON
➤ Alarm on zone (Ly):	Output (OCx).

Zones Program the zone that corresponds to terminal [Ly] as follows:

- **Alarm**
- **Type: 24h**
- **Balancing:** Normally closed
- **Sensitivity: Standard - Pulses 1**

Partition: must be assigned to a partition that is not used by keys, codes or to control operations—this partition can be considered a Technical partition.

Outputs Outputs corresponding to terminals [OC1], [OC2] and [OC3] should be programmed as follows:

- **Type:** Monostable
- **Attribute:** Normally closed
- **Time:** ON time - 2 Min.

Program the output that corresponds to terminal [OCx] as follows.

- **Type:** Monostable
- Program **Attribute** and **Time** as per requirements.

+ Connections and programming done: activation of output [OCx] will generate the following events: **24h alarm on panel, Generic alarm on panel** and **Generic+Tamper alarm on panel**. To avoid false alarms—these events **must not be assigned to actions**.

The door of a bank safe—connected and programmed in this way—will open when terminal [Ly] opens; that is, when terminals [OC1], [OC2] and [OC3] open simultaneously. These terminals will stay open for 2 minutes, and the codes must be entered within this time. Otherwise, an output will close to ground and block terminal [Ly] and consequently—terminal [OCx] which controls door opening.

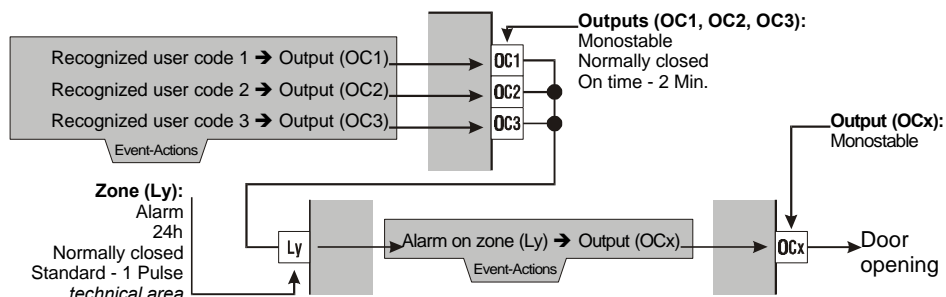


Figure 48 Recognition of multiple codes



Disarming under duress

Disarming under duress can be signalled to the central station in the following two ways, as follows.

■ **Solution no. 1**

Enable two codes for partition disarming—program the first for use in normal circumstances; and the second for use in the event of armed robbery—that as well as disarming the partitions will send a security call (**Help!**).

Program code 1 for normal disarming and code 2 for **Disarming under duress**, as follows.

Codes Enable code 2 on the same partitions as code 1.

Event-Actions Assign the **Recognized user code 2** event to the required action (Disarm-under-duress) on the Dialler and / or Digital Communicator.

■ **Solution no. 2**

Program an action to signal **Disarming under duress**—when the super key of a keypad is not pressed, within the programmed time from partition disarming.

Connect as per figure 49 and program as follows.

Zones Program the zones that refer to terminals [L1] and [L2] as follows:

	Zone (L1)	Zone (L2)
	Alarm	Alarm
➤ Type:	24h	24h
➤ Balancing:	Normally open	Normally closed
➤ Sensitivity:	Standard - Pulses 1	Low - Pulse 1 Min.
➤ Partition:	<i>both must belong to a partition that cannot be operated by digital keys or codes—this partition may be considered as a Technical partition.</i>	

Outputs Program the outputs that refer to terminals [OC1], [OC2]and [OC3] as follows :

	Output (OC1)	Output (OC2)	Output (OC3)
➤ Type:	Bistable	Monostable	Monostable
➤ Attribute:	Normally closed	Normally closed	Normally open
➤ Time:	–	2 Min.	2 Min.

Event-Actions Program the events as follows:

- | Outputs ON | |
|-------------------------------|--------------|
| ➤ Partition no. armed: | Output (OC1) |
| ➤ Alarm on zone (L1): | Output (OC2) |
| ➤ Super key no.: | Output (OC3) |
- Assign the **Alarm on zone (L2)** event to the action on the Dialler and / or Digital Communicator to signal disarming under duress.

Connected and programmed: if the Super key is not pressed—for at least 3 seconds—within 1 minute of disarming, the **Disarming under duress event** will be generated and the emergency status will be communicated to the central station.

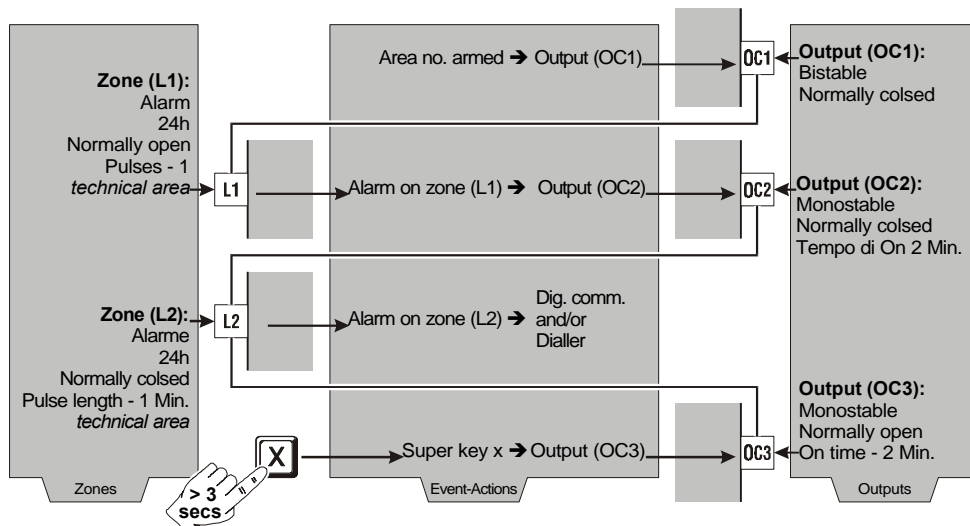


Figure 49 Disarming under duress



The 32 Academy40 Dialler actions programmed in the **Dialler** page can be assigned to events in the **Event-Actions** page to signal the start and end of an event.

All dialler actions will send a Voice message (selected from the 14 recordable messages) to up to 16 Telephone Numbers (selected from the 32 programmable numbers in the **Telephone** page).

The Dialler feature is extremely useful when the specific Voice messages must be sent to: Police, Fire Brigade, Gas Company, Installer, Contact persons, etc.

How to use the Dialler feature:

- Program the **Telephone** page (Phonebook). This page can store up to 32 telephone numbers—each with a user identifier label (**Description** column).
The programmed numbers can be used by the Digital Communicator and for Teleservice.
- Program the parameters in the **Dialler** page and relevant windows (**Messages** and **Actions**).
- Associate the Dialler actions to the Events in the **Event-Actions** page.

Telephone Program the **Telephone** page as follows.

Number: Enter the telephone numbers the Dialler must call.

- + In the example (fig. 50), the Police Fire Emergency, the Gas Company, the Installer and contact persons will be called.

Description: Enter the identifier label—assigned to the telephone number (16 digits maximum).

Used by: indicates the telephone numbers used by the Dialler (**Dial.**), Digital Communicator (**Dig.**), DTMF Communicator (**DTMF**) (not present on this Panel) and Teleservice (**Tel.**).

Other parameters on this page depend on the system.

Dialler Define the following parameters in the **Dialler** page:

- **no.:** the identifier number represents the corresponding telephone number in the **Actions** window.
- **Tel. Num.:** enter the identifier numbers of the telephone numbers—programmed in the **Telephone** page—that must be called by the dialler.
- + The identifier numbers can be entered in any order. However, the sequence defined under **Dialler telephone numbers** determines call priority. Figure 50 shows the **Warehouse Alarm** Dialler action will send a **Warehouse burg** message to: **Police Fire Emer—Central Station 1—Central Station 2—Head Office—Branch Office—Alexis Mobile—Summer House**.
- **Description:** this field will show the label that corresponds to the identifier number entered in the **Tel. Num.** column. The labels can be changed in the **Telephone** page only.

Other parameters on this page depend on the system. For a more detailed description of these parameters, refer to the **Dialler** paragraph.

- Click **Messages...** to assign message labels, as per below.
- Click **Actions...** to program the Dialler actions, as per below.

How to assign message labels and program Dialler actions:

- Messages:** assign a label (16 characters maximum) to each of the 14 messages the Panel can record.
 - + The OmniaVOX (optional) must be installed for the record, play and delete Voice messages options.
 - Actions:** program the Dialler actions as follows.
 - **no.:** this is the identifier number that must be specified in the **Event-Actions** page, in order to assign the corresponding Dialler action to the events.
 - **1...16:** these identifier numbers correspond to the telephone numbers that will be dialled (see **no.** column under **Dialler telephone numbers—Dialler** page). In figure 50 no. 1 corresponds to **Police Fire Emer**—no. 2 corresponds to **Central Station 1**—and so forth.
- Each action can be assigned to 1 or more events in the **Event-Actions** page.
Specify which telephone numbers (1...16)—from the **Dialler telephone numbers**—will be called and which message will be sent.
An empty box means that the corresponding number will not be called.
Double click (or press ENTER) to select the numbers to be called.
- **Message:** select the Voice message that will be sent for the Dialler action. Enter a number from 1 to 14—the **Descr. Mess.** column will show the label assigned in the **Messages** window.
 - **Descr. Action:** assign a label to the **Action** (16 characters maximum). The label will be shown in the **Event-Actions** page.

Figure 50 illustrates:

—**Action 6** (Fuse +B Blown) will send the **Fuse +B Blown** message to telephone numbers: **5** (Branch Office); **6** (Patricia Mobile); **10** (Installer Mobile) and **11** (Installer Office).

—**Action 5** (Flooding Alarm) will send the **Flooding** message to telephone numbers: **1** (Police Fire Emer); **4** (Head Office); **5** (Branch Office); **6** (Patricia Mobile) and **7** (Patricia Office). Telephone numbers will be dialled in accordance with call priority.



The examples show how dialler actions operate. However, they must be assigned to one or more events in order to activate actions.

Event-Actions Use this page to assign the events to the Dialler actions.

- **Dialler (ON / OFF):** figure 50 illustrates the ON and OFF status of the Dialler. Enter the identifier numbers of the actions the Dialler must perform—when the associated event occurs and ends. To simplify this operation—use the **Actions Dialler** menu (right side of the page), as follows.
- **Actions Dialler:** this menu is divided in two parts—the upper part for the actions the Dialler must perform when the event starts, and the lower part for the actions the Dialler must perform when the event ends. Both parts show the Descriptions of the Dialler Action, as illustrated in figure 50.

The screenshot displays several windows from the 'Diana - Diana 840 - Academy 40' software:

- Telephone directory:** A table listing phone numbers and descriptions.

no.	Number	Description	Dial	Dig	DTMF	Tel.
1	345678	Branch Office	Yes	No	No	No
2	12121212	Centr Station 1	Yes	No	No	No
3	20202020	Centr Station 2	Yes	No	No	No
4	08111111	Gas Company	No	No	No	No
5	555555	Head Office	Yes	No	No	No
6	0338123455	Installer Mobile	Yes	No	No	No
7	02999999	Installer Office	Yes	No	No	No
8	4567890	Alexis Mobile	Yes	No	No	No
9	66666666	Nurse	No	No	No	No
10	0337123456	Patricia Mobile	Yes	No	No	No
11	02419941320	Patricia Office	Yes	No	No	No
12	999	Police Fire Emer	Yes	No	No	No
13	333333	Summer House	Yes	No	No	No
14	TelNumber 014		Yes	No	No	No
15	TelNumber 015		Yes	No	No	No
16	TelNumber 016		Yes	No	No	No
17	TelNumber 017		No	Yes	No	No
18	TelNumber 018		No	Yes	No	No
19	TelNumber 019		No	Yes	No	No
20	TelNumber 020		No	Yes	No	No
21	TelNumber 021		No	Yes	No	No
22	TelNumber 022		No	Yes	No	No
23	TelNumber 023		No	Yes	No	No
24	TelNumber 024		No	Yes	No	No
- Dialler telephone numbers:** A table mapping descriptions to numbers and repetitions.

Description	Num	Repetition
Police Fire Emer	80	1
Centr Station 1	80	2
Centr Station 2	80	3
Head Office	80	4
Branch Office	80	5
Patricia Mobile	80	6
Patricia Office	80	7
Alexis Mobile	80	8
Summer House	80	8
Installer Mobile	80	10
	80	11
	80	7
- Event-Actions:** A table for assigning dialler actions to events.

no.	Description	Outputs	Dig Comm.	Dialler
1	Warehouse Burg	0	0	0
2	Office Burglary	0	0	0
3	Warehouse Fire	0	0	0
4	Gas Leak	0	0	0
5	Flooding	0	0	0
6	Fuse +B blown	0	0	0
7	Fuse +F blown	0	0	0
8	Fuse 1 blown	0	0	0
9	Fuse 2 blown	0	0	0
10	Alarm End	0	0	0
11	Voice mess. 011	0	0	0
12	Voice mess. 012	0	0	0
13	Voice mess. 013	0	0	0
14	Voice mess. 014	0	0	0
- Actions Dialler:** A table for defining dialler actions.

no.	Description	ON	ON	OFF	ON	OFF
1	Warehouse Alarm	0	0	0	0	0
2	Office Alarm	0	0	0	0	0
3	Warehouse Fire	0	0	0	0	0
4	Gas Leak	0	0	0	0	0
5	Flooding Alarm	0	0	0	0	0
6	Fuse +B blown	0	0	0	0	0
7	Fuse +F blown	0	0	0	0	0
8	Fuse 1 blown	0	0	0	0	0
9	Fuse 2 blown	0	0	0	0	0
10	Alarm End	0	0	0	0	0
11		0	0	0	0	0
12		0	0	0	0	0
13		0	0	0	0	0
14		0	0	0	0	0
15		0	0	0	0	0
16		0	0	0	0	0
17		0	0	0	0	0
18		0	0	0	0	0
19		0	0	0	0	0
20		0	0	0	0	0
21		0	0	0	0	0
22		0	0	0	0	0
176	24h alarm on partition 8 [Partition 008]	0	0	0	0	0
177	Burglar alarm on partition 1 [Warehouse]	0	0	0	1	10
178	Burglar alarm on partition 2 [Offices]	0	0	0	2	10
179	Burglar alarm on partition 3 [Partition 003]	0	0	0	0	0
180	Burglar alarm on partition 4 [Partition 004]	0	0	0	0	0
181	Burglar alarm on partition 5 [Partition 005]	0	0	0	0	0
182	Burglar alarm on partition 6 [Partition 006]	0	0	0	0	0

Figure 50 The pages used Telephone Dialler programming



To assign the **Warehouse Alarm** action to the Start of the **Burglar alarm on partition 1 [Warehouse]** event, and the **Alarm End** action to the End of the event, it is necessary to:

Step 1 Select the event.

Step 2 Select **Warehouse Alarm** from the **Dialler Actions - ON** menu.

Step 3 Select **Alarm End** from the **Dialler Actions - OFF** menu.

This programming will:

- send the **Warehouse Burg.** message to the programmed telephone numbers (**Police Fire Emer—Central Station 1—Central Station 2—Head Office—Branch Office—Alexis Mobile—Summer House**) when the **Burglar alarm on partition 1 [Warehouse]** event starts.
- send the **Alarm Ens** message to the programmed telephone numbers (**Police Fire Emer—Central Station 1—Central Station 2—Head Office—Branch Office—Alexis Mobile—Summer House—Installer Mobile—Installer Office**) when the alarm ends.

With reference to the examples—actions **5** and **6** are assigned to **24h alarm on partition 1 (Warehouse)** and **Warning fuse +B** events respectively.

- + Select **Events** on the **Dialler actions** page to view the events that will generate the selected Dialler action.



Stop Alarm by Digital key

Outputs (e.g. Sirens) and calls activated by false alarms can be stopped.

The quickest way to stop a false alarm is to use a valid digital key—enabled on the partition in Alarm status.

To stop a zone Alarm (Events **1** through **160**) or partition Alarm (Events **161** through **208**)—use a valid digital key at a key reader that is enabled on the partition/s in alarm status.

For example, this will stop the outputs connected to Sirens, but will not clear the call queue.

To stop outputs and clear the call queue—by digital key—program as follows.

Introduction

- **Event no. 255:** Valid key on partition 1
- **Output no. 4:** refers to terminal [OC2] of the Main unit
- **Zone no. 6:** refers to terminal [L6] of the Main unit

Connect as per figure 51 and refer to the following programming instructions (divided into programming pages).

Event-Actions Program **event no. 255** —Valid key on partition1—as follows:

- **Outputs ON:** 4

Outputs Program **output no. 4** as follows:

- **Type:** Monostable
- **Attributes:** Normally closed
- **Time:** On Time 1 Sec.

Zones Program **Zone no. 6** as follows:

- **Command:** Clear call queue
- **Balancing:** Normally closed
- **Sensitivity:** Standard

Digital keys (enabled on the partitions in alarm status) will clear the call queue and stop all the Alarm events—when inserted into a key reader that is enabled on the same partitions.

- + If alarm conditions persist, after extraction of the digital key—Alarm status signalling will restart as per programming (output activation, telephone calls, etc.).
- + Valid digital keys **can stop** zone and partition alarm events but **cannot stop** Panel alarm events unless the **Stop alarm by digital key** option is enabled.
- + If both partition and control panel alarms activate the same output, that is, **Generic alarm on partition no.** and **Generic alarm on panel** and both alarms are active—the digital key will stop the **Generic alarm on partition no.** event but not the **Generic alarm on panel** event, therefore, the output (e.g. Siren) will not be stopped.
- + These solutions will stop the alarm events and assigned outputs but will not delete the alarm memory. To do this—use the Alarm reset command from the keypads USER MENU. However, the alarm memory will be deleted automatically, when the partitions are next armed.

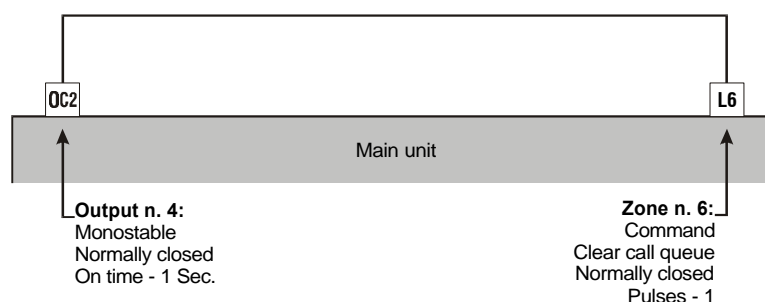


Figure 51 Stop Alarm by digital key





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ISTISBLEACADEM40 1.0 050301 V4.2