DIGITAL COMMUNICATOR CONTROL PANEL

quattro 4 quattro

academy **otto 8 otto**

otto 8 otto L

CE

● **INSTALLATION MANUAL**

®
BENTEL
SECURITY

BENTEL SECURITY

Digital Communicator Control Panel

academy **4** – academy **8** – academy **8** L

complies to:

Emission: **EN 50081-1/1992**

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

Low voltage: **EN 60950/1996 + A4/1997**

Burglar alarm systems: **CEI 79/2 2^n Ed. 1993**

Terminal Equipment (TE): **TBR21-1/1993**

BENTEL SECURITY declines all responsibility in the event of unauthorized intervention on the control panel.

The control panel has been developed and made according to the highest standards of quality, reliability and performance adopted by BENTEL SECURITY srl.

To make sure your system continues to work as intended, you must test your system every month. Consult the installer for testing and maintenance instructions. If your system does not work correctly, call your installer for service.

Installation of the control panel must carried out strictly according to the instructions, and in compliance with the safety laws in force.

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

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General features

Burglar Control Panel

This manual is for **Academy 8/L** and **Academy4/8**. Where the specifications, features and procedures are the same, the system will be referred to as the **Panel** or **Main Unit**. However, where the specifications, features and procedures differ the system will be referred to by its name.

- ❒ 8 programmable input zones (4 on **Academy4**)
- ❒ 24h balanced Tamper zone
- ❒ Alarm output (relay)
- ❒ 4 programmable open-collector outputs (2 on **Academy4/8**)
- ❒ Fire sensor power supply with RESET
- ❒ Up to 8 keypads
- ❒ Up to 16 key readers
- ❒ 4 independent partitions
- ❒ Auto-arming for partitions
- ❒ 23 user codes (4 to 6 digits)
- ❒ Disarm for Patrol with auto re-arming
- ❒ Programming from keypad
- ❒ Programming via PC through RS232 interface, or OmniaMod modem via telephone line
- ❒ Input for remote arming / disarming
- ❒ Integrated 1A linear power-supply
- ❒ Supplementary connector for 3.5A switching power-supply

Dialler

- ❒ DTMF or Pulse dialling
- ❒ 8 telephone numbers
- ❒ Operates with CONTACT ID - DTMF protocol, and the following pulse protocols:
  ADEMCO / SILENT KNIGHT - slow 10 baud - 3/1, 4/1, 4/2
  ADEMCO / SILENT KNIGHT - fast 14 baud - 3/1, 4/1, 4/2
  FRANKLIN / SECOA / DCI - VERTEX - Fast 20 baud - 3/1, 4/1, 4/2
  RADIONICS - 40 baud - 3/1, 4/1, 42
  SCANTRONIC - 10 Baud - 3/1, 4/1, 4/2
  CESA.
- ❒ Optional voice board (NCDUEVOX)
- ❒ Remote Listen-in
- ❒ Two-way communication
- ❒ 128 event buffer (can be viewed on PC)

- ❒ 3 Superkeys for instant alarm calls from keypad
- ❒ Programmable Test call
- ❒ Teleservice management
- ❒ Callback
- ❒ Line-sharing management (double call)

Overview

The Main Unit The Main Unit has 8 zones and 4 partitions (4 zones on **Academy4**). The basic system comprises the Main Unit, integrated Digital Communicator and 1 Keypad. The Main Unit can support up 16 remote devices (key readers / keypads), with a maximum of 8 keypads (including the one supplied), and 128 different digital keys.

Communicator The integrated Digital Communicator can manage 8 telephone numbers for teleservice and communication with central stations. A Customer code, and a communication protocol can be assigned to each telephone number, in this way, the Panel can communicate with several central stations.

It is possible to program the Event codes individually, and to select the events that will generate calls. The Panel will generate the event call----to 1 or more of the 8 programmed telephone numbers----when the event occurs (e.g. Arm, Disarm, Alarm, Trouble).

Voice messages The optional NCDUEVOX voice board can record up to 8 voice messages----to be sent to 1 or more of the 8 programmed telephone numbers.

The NCDUEVOX voice board will allow the Communicator to send voice messages, and will also provide remote listen-in and two-way conversation functions.

Teleservice and remote monitoring Teleservice and remote monitoring of the Panel can be done from a Personal Computer with the OmniaMod modem and management software.

Programming The Panel can be programmed from:

- ➢ any keypad;
- ➢ local Personal Computer connected to the RS232 interface on the main board;
- ➢ remote Personal Computer connected to the Main Unit through the OMNIAMOD modem via telephone line.

Security System Control Panel

The basic system

The Main Unit The basic system comprises the Main Unit and 1 keypad. The cabinet houses the main board, built in Communicator, power supply unit, battery, and the terminals for connection of sensors, sirens and auxiliary devices.

Up to 16 remote devices can be connected to the system, with a maximum of 8 keypads, including the one supplied. Installation of the NCDUEVOX voice board enhances the system by providing Voice call management.

OmniaMod The OmniaMod modem, and the necessary software will allow the Installer to provide teleservice.

Teleservice The *OmniaMod/V1* modem will allow the installer to program, manage and provide teleservice (remote maintenance authorized by the user).

Remote monitoring The *OmniaMOD/V2* modem will allow the Installer to provide teleservice and telemonitoring (constant supervision) for all the connected systems. All operations, alarms and trouble warnings will be logged in the event buffer. All the events signalled to the central station will provide detailed information, maps and icons.

Management software The software manages teleservice and telemonitoring, and also provides data viewing and detailed printout of logged teleservice and telemonitoring operations.

For further details of management software refer to the Software manual.

Accessories

NCDUE/TAST	Keypad
BPI/3	Flush-mounting key reader
BPI/3-W	Wall-mounting key reader
ECLIPSE	Flush-mounting key reader (no contacts)
SAT	Digital Key (no contacts)
DKC	Digital key
NCDUEVOX	Voice board
OMNIA-MOD V1	Modem for Teleservice management only
OMNIA-MOD V2	Modem for Teleservice and Telemonitoring complete with telemonitoring software
CVSER/9F9F	Serial cable for PC connection
ADSER/9M25F	Serial adapter for DB25

Security System Control Panel

The **DESCRIPTION** column in the following table provides a brief description of the Panel peripherals (Keypad, Key reader and digital key). The **Parts** column indicates the reference number used in the figures. Refer to the Panel manual for the specification of the Panel components.

The **LEDs** column shows the LED indicators, and the **STATUS** column shows the meaning of their ON / OFF status.

■ Keypad

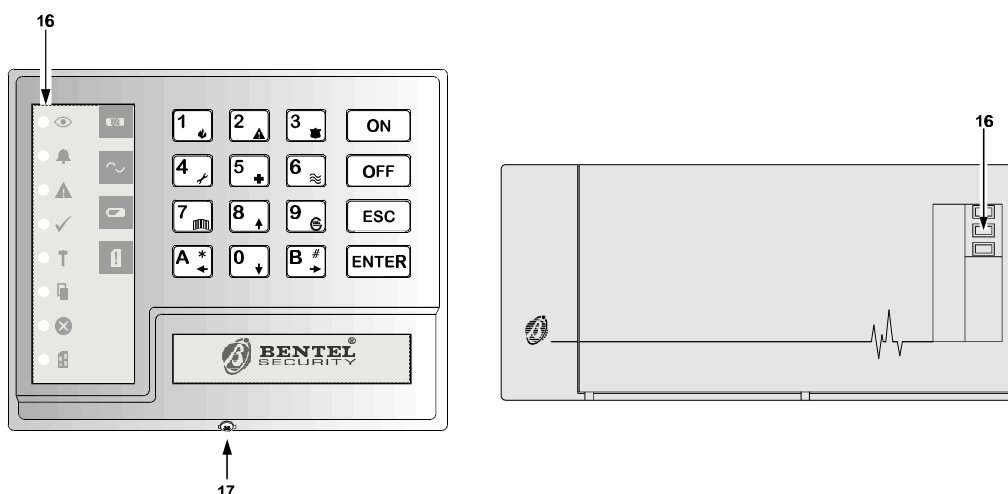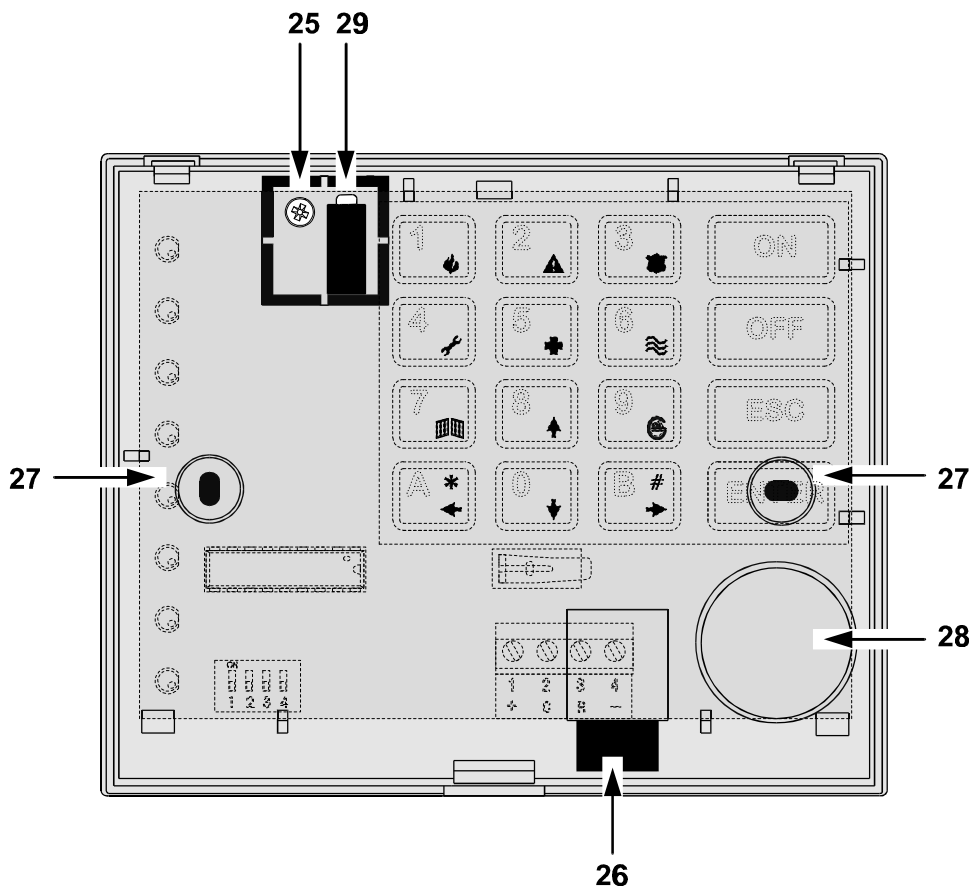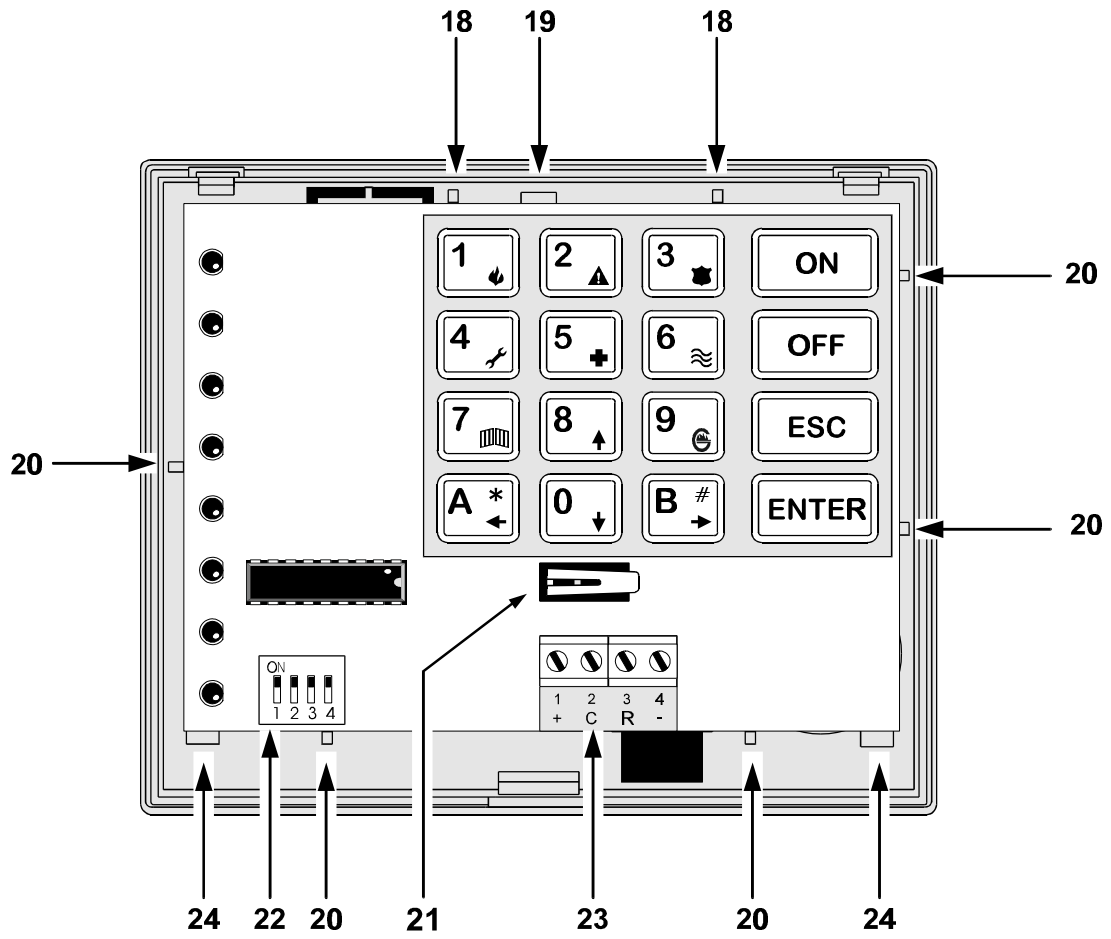| PARTS		DESCRIPTIONS
	16	*LED indicators*
	17	*Screws*
	18	*Board supports (2)*
	19	*Board clip*
	20	*Board supports (3)*
	21	*Tamper switch*
	22	*Address dipswitches*
	23	*Terminals*
	24	*Board supports (2)*
	25	*Snatch bracket screw*
	26	*Wire passage*
	27	*2 holes (Ø 4 mm) for back box*
	28	*Buzzer*
	29	*Snatch switch*

Figure 1   *NC2TAST and ICON/KP keypads*
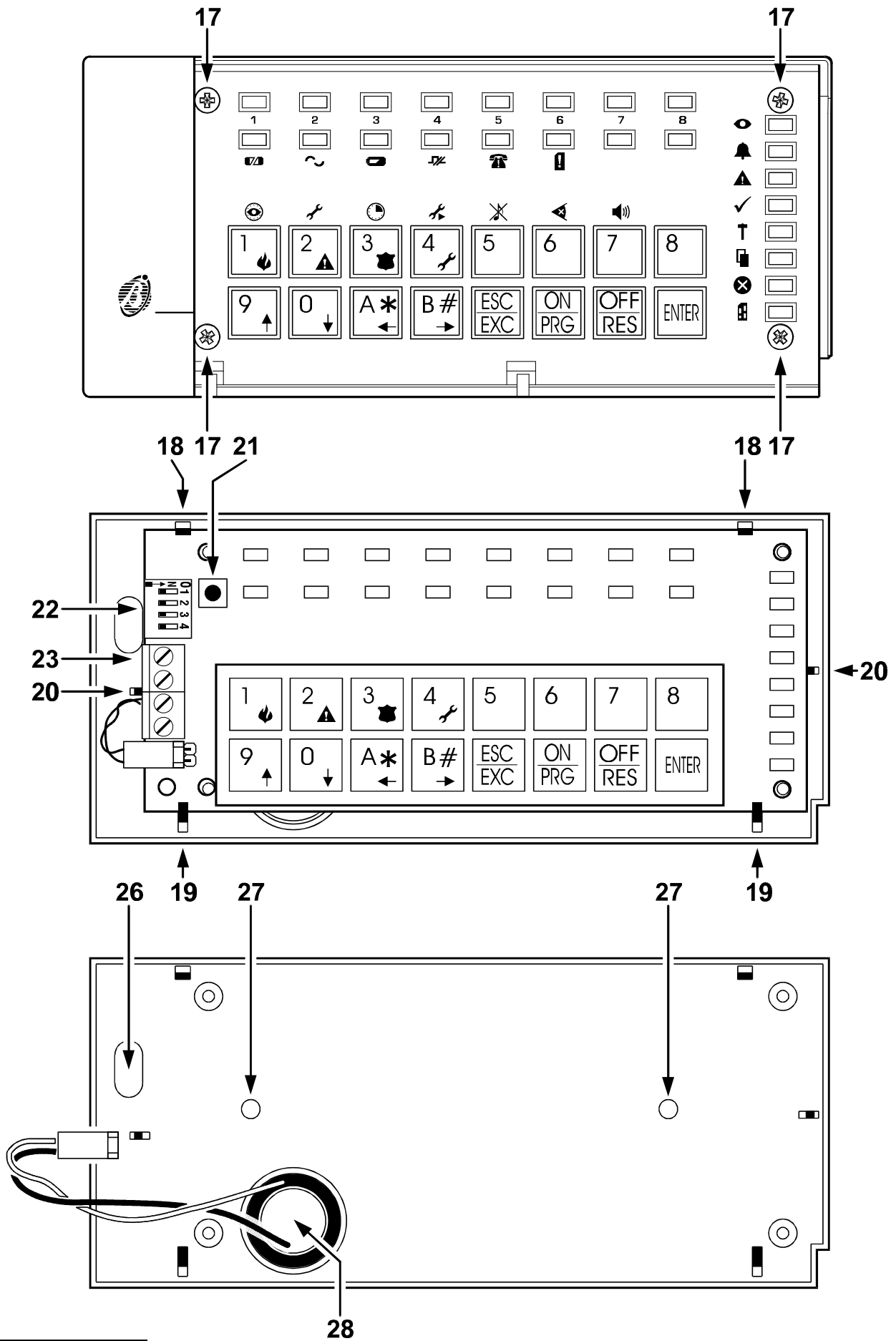
Figure 2 *NCDUETAST Keypad components*

Security System Control Panel

Figure 3 *ICON/KP Keypad components*

LEDs	STATUS	
👁 **Arm**	OFF: **ON:** *Fast flashing:*	All keypad partitions **disarmed** At least one keypad partition **armed** ***Viewing armed partitions***
🔔 **Alarm**	OFF: *Slow flashing:* *Fast flashing:*	Standby status (no alarm) Alarm memory Alarm status
⚠ **Trouble**	OFF: **ON:** *Slow flashing:*	No trouble Trouble: use the **Trouble Viewing Mode** mode ***Trouble Viewing Mode running***
✓ **Ready**	**ON:** OFF: *Fast flashing:*	Ready to arm:----arming will not generate an alarm At least one unbypassed zone is in alarm status:---arming will generate an alarm Panel in service status (maintenance)
🕇 **24h**	OFF: *Slow flashing:* *Fast flashing:*	Tamper line balanced ***Alarm memorized on the tamper line*** ***Alarm memorized and tamper line open***
⬚ **Open**	OFF: **ON:**	Panel closed (Academy8L only) Panel open (Academy8L only)
❌ **Bypass**	OFF: **ON:** *Slow flashing* *Fast flashing:*	No bypassed zones At least one bypassed keypad zone Panel ready for zone bypass ***Viewing bypassed zones***
▦ **Program.**	OFF: **ON:** *Slow flashing:* *Fast flashing:*	Panel in standby status Panel enabled for Teleservice calls ***Panel in programming status*** ***User menu accessed***

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TROUBLE VIEWING MODE			
NCDUE/TAST **KEYS**	**ICON/KP** **LEDs**	**STATUS**	
▱ Key 1	▱	OFF: **ON:**	Sensor power fuse intact Sensor power **fuse blown**
∿ Key 4	∿	OFF: **ON:**	Panel powered by mains Mains failure----Panel powered by battery
▭ Key 7	▭	OFF: **ON:**	Battery OK Low battery or battery **trouble**
Key B	⚡	OFF: **ON:**	Comunication bus OK Comunication bus **trouble**
Key 0	☎	OFF: **ON:**	Telephone line OK Telephone line **trouble**
❗ Key A	❗	OFF: **ON:**	At least one codes not at default All codes at default

USER MENU OPTIONS FROM KEYPAD (ICON/KP)	
👁 Key 1	Enable / Disable Auto-arming
🔧 Key 2	Enable / Disable Teleservice
🕐 Key 3	Overtime Request
🔧▸ Key 4	Teleservice Request
✕ Key 5	Enable / Disable Silent Keypad
◀✕ Key 6	Enable / Disable Hidden zone status on keypad
🔊 Key 7	Alarm Device Test

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■ Digital key and key reader

The key reader is an optional accessory, available in the following versions.

BPI3GEW	*GEWISS*
BPI3GP	*GEWISS playbus*
BPI3-GN	*GEWISS noir*

BPI3	*TICINO magic*
BPI3LIV	*TICINO living*
BPI3INT	*TICINO international*
BPI3LGT	*TICINO light*

BPI3DEL	*DELTA*
BPI3-DN	*DELTA noir*

BPI3VI	*VIMAR idea*
BPI3VIB	*VIMAR bianco*

BPI3-AVE	*AVE*
BPI3-AN	*AVE noir*

The flush mounting **Eclipse/Sat** system (key reader and digital key) is suitable for all types of installations (see figure 4). The system has no contacts, therefore, it is highly resistant to oxidization, and wear. The **Sat** digital key is waterproof, needs no battery, and has an almost unlimited life. The control button is inside the **Eclipse** reader and not on the **Sat** digital key, therefore the key must be pushed slightly into the key reader----in order to scan and select the arming mode.

The control button of the flush mounting **BPI3/DKC** system (key reader and digital key) is on the digital key, therefore, the key must be inserted into the key reader, and the button must be pressed----in order to scan and select the arming mode.

The installation described in this manual operates with the **BPI3/DKC** system, however, apart from the position of the control button, the **BPI3/DKC**, and **Eclipse/Sat** systems operate in exactly the same way.

The **BPI/W** wall mounting system can be used where flush mounting is not possible----as well as terminals for the BPI bus connection, this system offers two extra [AS] terminals for tamper an snatch protection.

PARTS	DESCRIPTIONS
30	*Terminal board*
31	*Address dipswitches*
32	*Key slot*
33	*Control button (on key)*

LED		STATUS
34	RED	*ON:* partitions assigned to the key reader armed
35	AMBER	*ON:* Type A arming
36	GREEN	*ON:* Type B arming
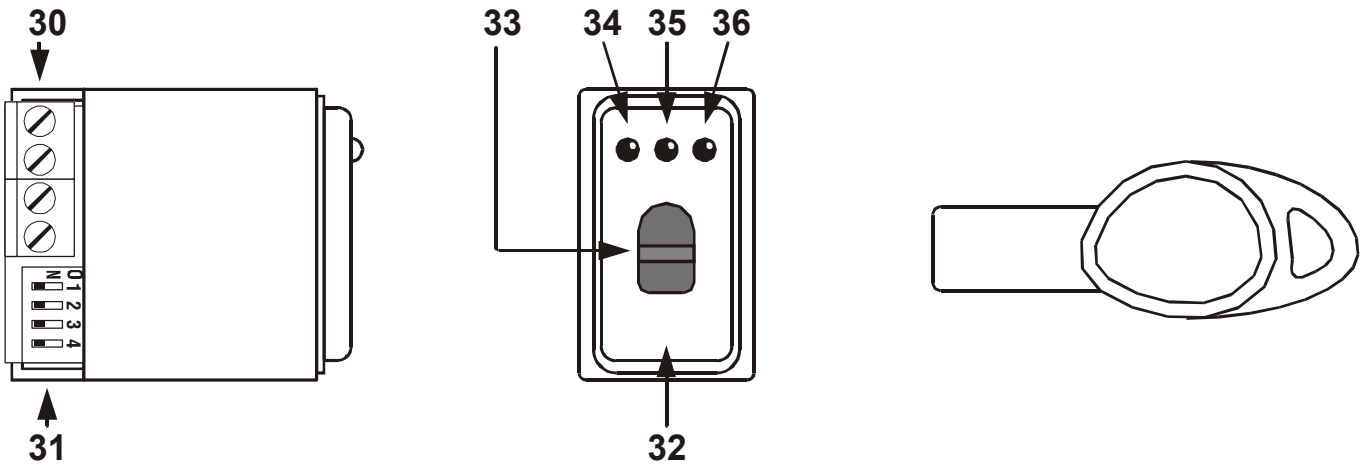
Figure 4 *Eclipse/Sat key reader/digital key*
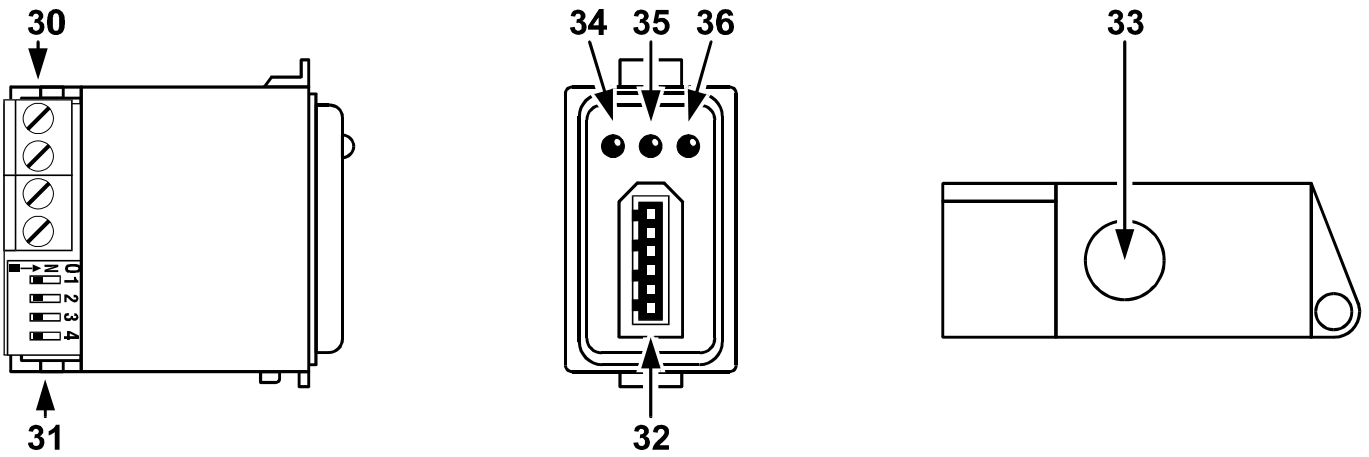
Figure 5 *Key reader (Magic) and digital key*
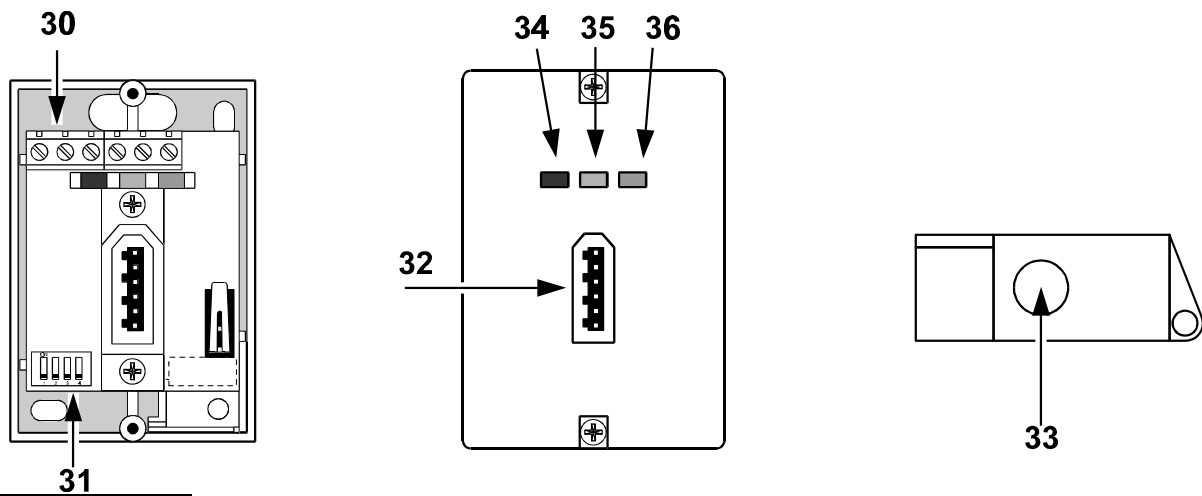
Figure 6 *Wall mounting key reader (BPI/W)and digital key*

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Installation steps

The Main Unit Refer to the relevant manual.

Keypads Keypads should be located in places where full control of the Panel is required: Programming, Disarm by Duress code, Zone Bypass, Reset Alarm Memory and Enable Teleservice. **Key readers do not provide these options.**

Keypad mounting (see figure 2 page 12)

Step 1 Remove the screws **17** and keypad box.

Step 2 Remove the PCB----lift the board support clip **19**.

Step 3 Drill the holes (∅ 4 mm) for the back box **27** and snatch bracket **25**. Check for conduits and water pipes before drilling.

Step 4 Pull the wires though the hole **26** and attach the back box and snatch bracket to the wall.

Step 5 Replace the PCB.

Step 6 Assign the keypad address----use the dipswitches **22**----complete the connections on the terminal board **23** then close the keypad box.

Key readers Key readers should be located in places where only **system arming / disarming only** is required. Install key readers as per light switches.

+ Assign the key reader address----use the dipswitches **31**----complete the connections on the terminal board **30** before mounting the key readers.

Terminal board

The following description refers to keypad and key reader terminal boards. (The description of the Main Unit terminal board can be found in the Main Unit installation manual).

➢ The **Terminal** column shows the terminal number and the identifier abbreviation of each terminal (in square brackets).

➢ The **DESCRIPTION** column holds the description of the terminals.

➢ The **V** column shows the voltage on the terminals ("━" means the voltage cannot be specified).

➢ The **I** column shows the maximum current (in amperes) that can circulate on each terminal ("━" means the voltage cannot be specified). The numbers in round brackets refer to notes **(1)** and **(2)** on the following page.

Terminal	DESCRIPTION	V	I
1 **[+]**	Power supply: positive	13.8	—
2 **[C]**	*"Command"* terminal to be connected to the corresponding terminal on the Main Unit		
3 **[R]**	"*Answer*" terminal to be connected to the corresponding terminal on the Main Unit	—	—
4 **[≡]**	Power supply: negative	0	—

Flush mounting key readers have bus connection terminals only. Wall-mounting key readers (BPI/W) also have:

Terminal	DESCRIPTION	V	I
[AS]	Tamper contact	—	—

Connections

This Panel is extremely flexible, however, only the basic connections are described. The different connection types (control device connection, signalling device connection, etc.) are dealt with individually.

+ Use shielded cable for the connections, with one end connected to the Main Unit ground and the other left free.

Diagrams The connection schematics provide a simplified guide, and should be referred to when making connections.

+ The main board terminals are shown for each connection. The terminals in the diagram may be located differently on the terminal board.

Control Device Connection

The **control devices** control both the basic and advanced options.

The keypads control all Panel options. The key readers control basic options only: Arm / Disarm.

Terminal 37[K] on the main board can be used for connection of supplementary control devices such as: mechanical keys; digital keys; proximity keys; etc.

■ Keypads and key readers

Keypads and key readers have the same electrical connections. Both can be connected to the 4 wire parallel bus connected to Main Unit terminals **[+]**, **[C]**, **[R]** and **[-]**.

Up to 16 remote devices (key readers / keypads) can be connected to the bus, with a maximum of 8 keypads including the one supplied.

Electrical connections   Keypads and key readers must be connected in parallel to the communication bus: Terminals **[+]** and **[-]** supply power while terminals **[C]** and **[R]** constitute the communication bus.

Figure 7 illustrates the connection of 3 control devices (keypads or key readers).

✛   At least one Keypad must be connected to the system.

Address assignment   Keypad addresses are assigned by means of dipswitches 2, 3 and 4 on the dipswitch board (**22**). Key reader addresses are assigned by means of dipswitches 1, 2, 3 and 4 (**31**).

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. Devices of different types (e.g. keypad and key reader) can have the same address, as these devices are intrinsically different for the Panel.

✛   On initial Startup the Panel will assign address 1 to the **Keypad** (refer to BPI configuration).

✛   Dipswitch no.1 of the keypads must always be **OFF**.
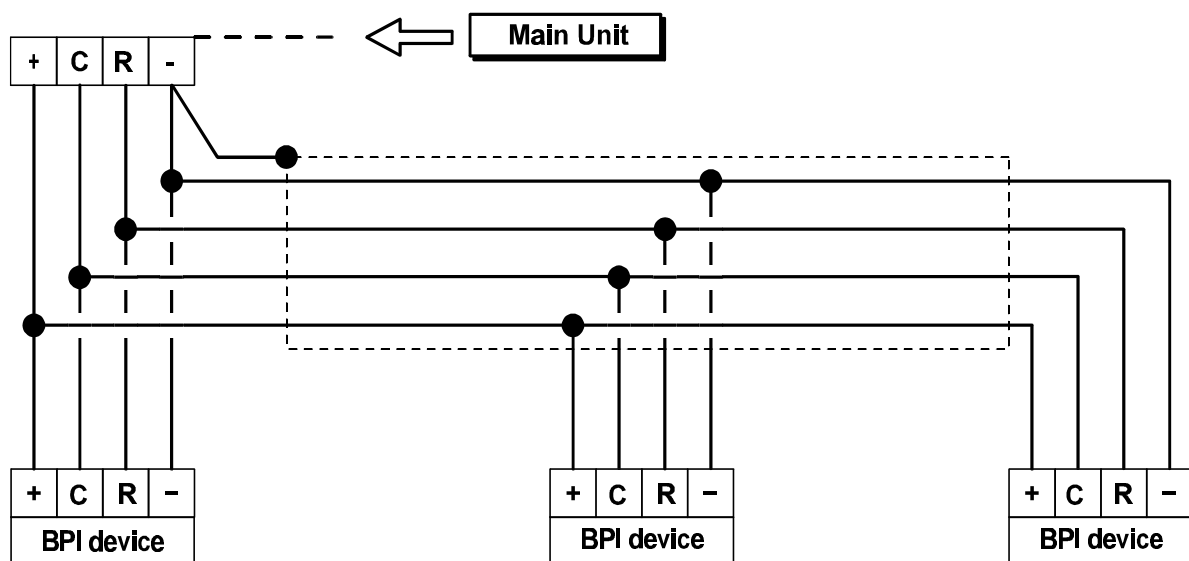
Figure 7   *Connection of control devices (keypads and key readers)*

■ 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 Main Unit to terminals [+] and [⏚] of the device);

➢ connect a power station to boost the voltage (BXM12);

➢ connect a power station to supply the devices added to the BPI devices.

■ Auxiliary control devices

Auxiliary control devices such as: digital keys, keylock switches, proximity keys and remote controls etc. can be managed through command zones. However, terminal **[K]** on **Academy8/L** can also be used for this purpose.

Terminal [K]   Control devices with a pulse output can be connected to terminal [K]. When terminal [K] switches to ground for at least 0.3 seconds, the programmed partitions will switch status (refer to Auxiliary command **OP-TIONS** paragraph).

Connection of Alarm sensors

The Main Unit has 8 independent terminals for the connection of the sensors: **[L1]**, **[L2]**, **[L3]**, **[L4]**, **[L5]**, **[L6]**, **[L7]** and **[L8]**. These are connected to the 8 Zones of the Main Unit (terminals **[L1]**, **[L2]**, **[L3]**, **[L4]** for **Academy4**).

It is possible to connect sensors with Normally Closed Alarm contacts or sensors with Normally Open Alarm contacts.
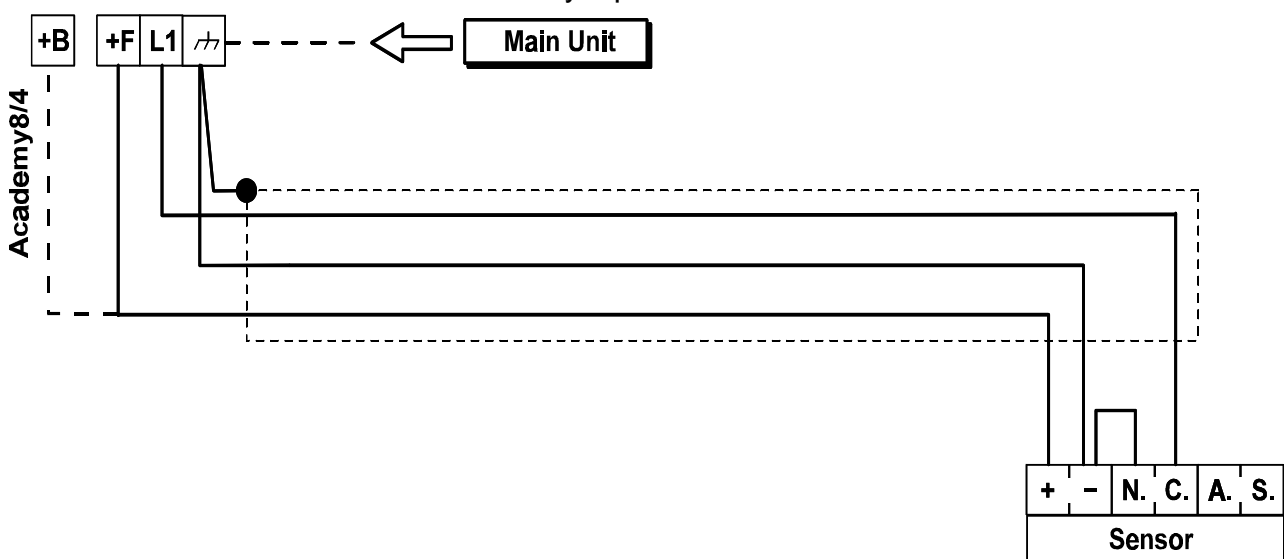
Figure 8   *Connection of a sensor to a Normally Closed line*

More than one sensor can be connected to each terminal. However, connection of one sensor is advisable, as this will facilitate sensor identification during an Alarm.

As factory default programming is for double balanced lines----balanced line resistors are provided, but will not be necessary if zones are programmed as N.C. (Normally Closed) or as NO (Normally Open).

Each input zone has its own power supply from terminals **+F** (5, 8, 11, 14, 17, 20, 23, 26) and [⏚] (7, 10, 13, 16, 19, 22, 25, 28).

Terminals [+B] and [⏚] supply the zones on **Academy4** and **Academy8**

The power supply to the sensors is protected by a fuse (**5**). If the fuse blows it will be signalled on:

➢ the Keypad----**TROUBLE** LED **ON**.

➢ the Panel----**FUSE** LED **OFF**.

Figures 8, 9, 10 and 11 show the connection of one or more sensors to a zone.

+ Refer to the **Tamper line connection** paragraph for tamper switch connection (terminals **A.S.**).

■ **Sensor auxiliary inputs**

Some sensors have auxiliary inputs for Memory and Walk Tests.

Memory This function allows identification of the sensor that generated Alarm status, and is particularly useful when more than one sensor is connected to the same line.

Walk Test This function allows the sensor alarm LED to be enabled during the Walk Test (Panel disarmed), and disabled during standby status (Panel armed), thus intruders will not be aware of their detection.
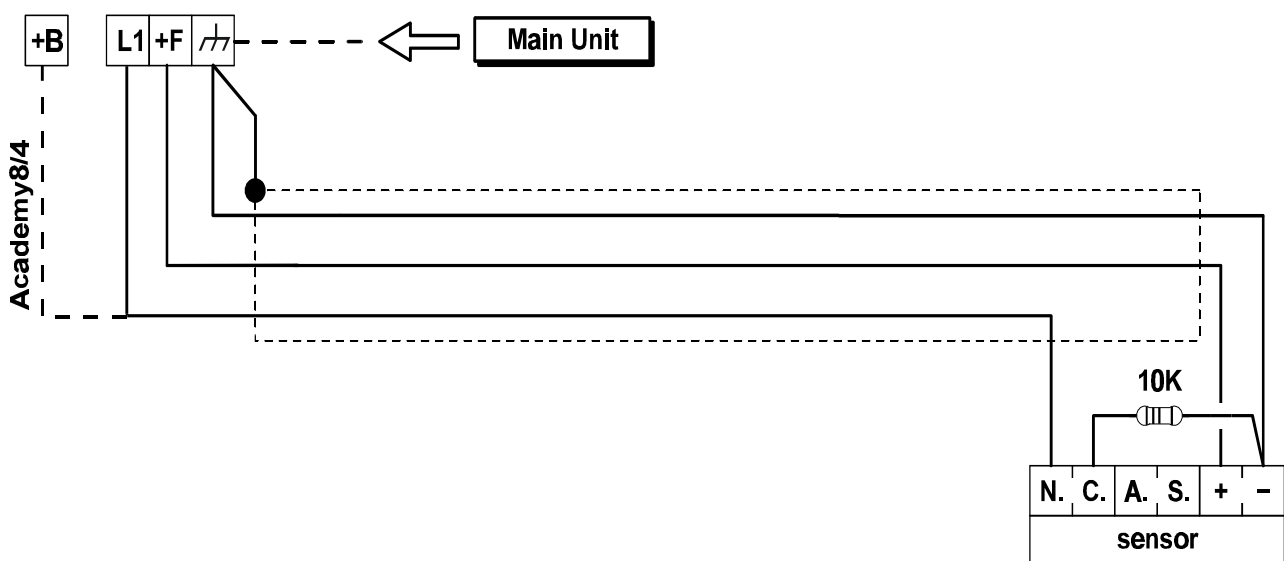
Figure 9 *Sensor connection to balanced line*
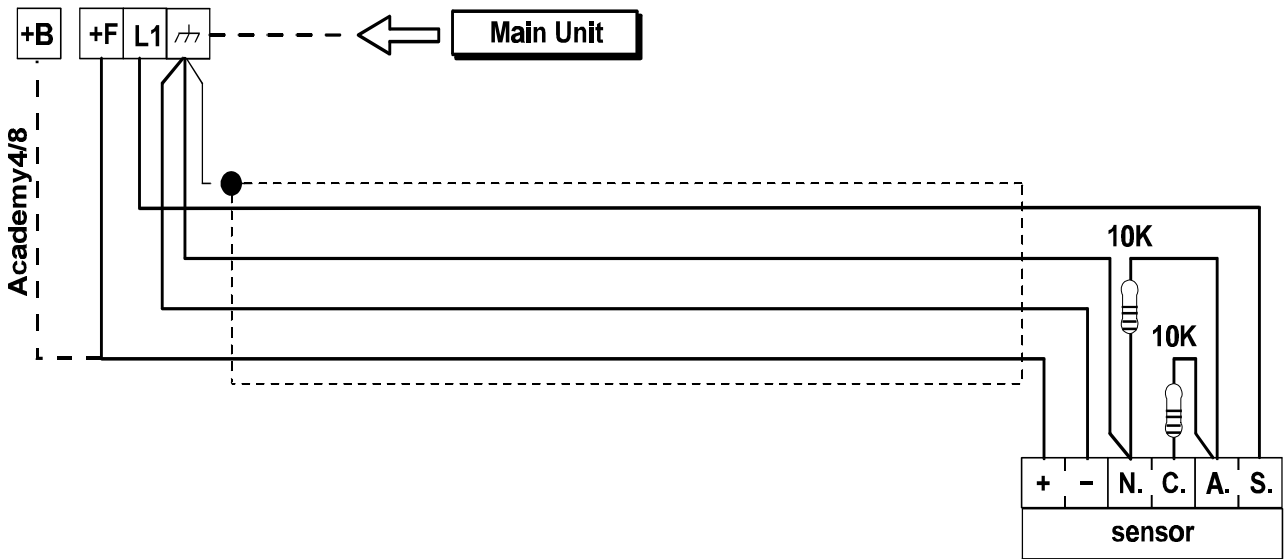
Figure 10   *Sensor connection to double balanced line*

The signal generated by the auxiliary outputs **[O1]**, **[O2]**, **[O3]**, **[O4]** can be used for this purposes.

Figure 12 shows the connection of three Bentel LB612 sensors, with positive command memory. The Auxiliary output **[O1]** must be programmed as Normally Open, and must supply **Partitions Disarmed** signal (refer to **PROGRAMMING**). As the Main Unit output is an open-collector, a pull-up resistor must be used, in order to activate the positive command memory.

■ **Fire sensor connection**

This Panel is capable of monitoring fire detection devices, and providing household fire warnings. Only fire sensors with repeat outputs can be connected.

Step 1   Program a Zone as a Normally Open 24h Zone.
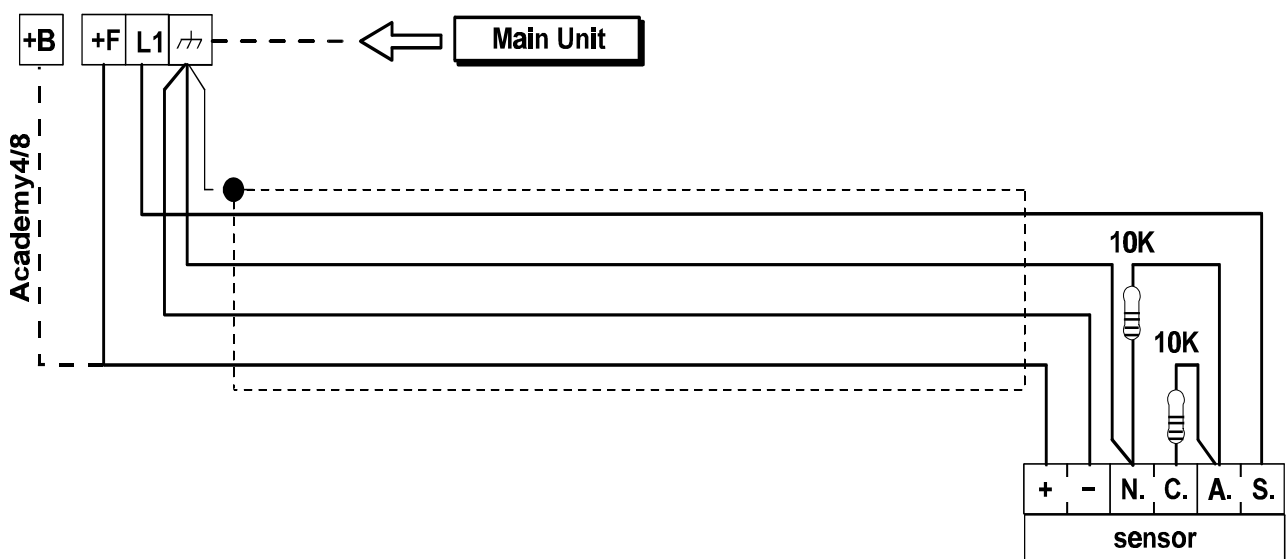
Figure 11   *Connection of three sensors to the same balanced zone*

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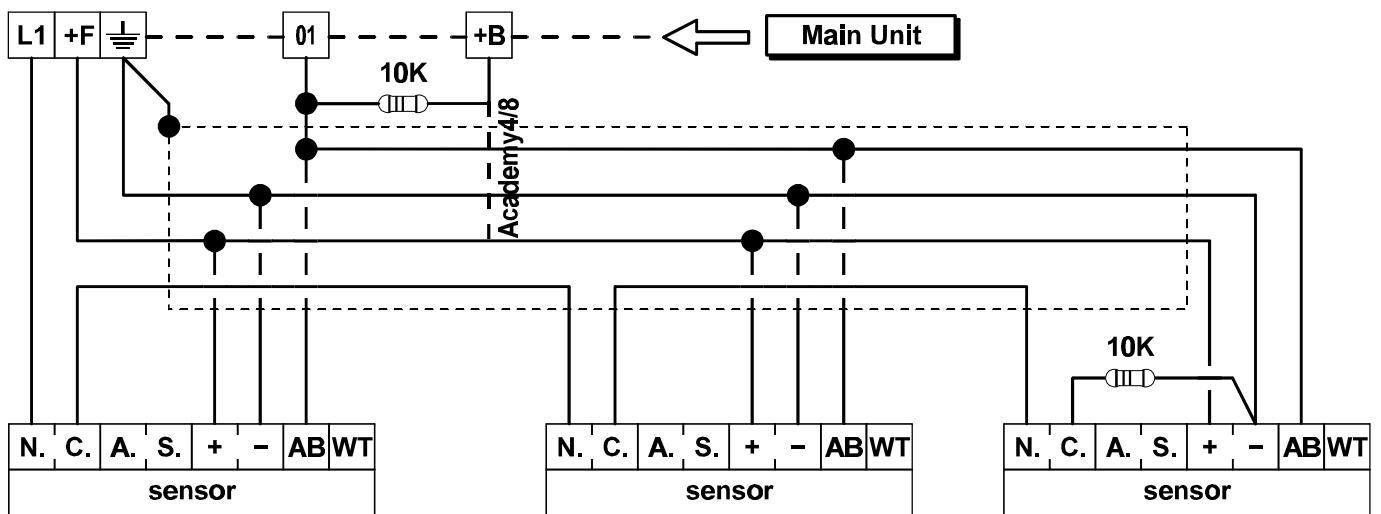
Figure 12   *Connection of three sensors with positive command memory*

> ***Step 2***   Connect to the sensor repeat output.
>
> Figure 13 shows the connection of three rate-of-rise temperature or smoke detectors Bentel RT-101, RT-102, RF501t.
>
> The negative to the sensors is supplied by auxiliary output **[O4]** on **Academy8L** or by terminal [O2] on **Academy4** and **Academy8**. These outputs must be programmed as Normally Closed, and must supply the **Reset Fire Sensor** signal (refer to **PROGRAMMING**).

> **+**   A maximum current of 500 mA can circulate on terminal **[O4]** on **Academy8L**.
> A maximum current of 100 mA can circulate on terminal **[O2]** on **Academy4** and **Academy8**.
>
> Figure 14 shows the connection of fire sensors with relay base to line **L1** programmed as balanced. Output **[O4]** on **Academy8L** or Output **[O2]** on **Academy4** and **Academy8** must be programmed as Normally Closed.

Connection of signalling devices

> Signalling devices can be classified as follows:
>
> ➢ **Intrinsic security** devices activated by power failure on the specific terminal e.g. self-powered sirens.
>
> ➢ **Positive** alarm line devices activated by positive (12 V) on the terminal e.g. indoor sirens.
>
> ➢ **Negative** Alarm line devices activated by ground on the specific terminal.
>
> ➢ **Balanced** Alarm line devices are activated by unbalanced impedance on the specific terminal.

INSTALLATION
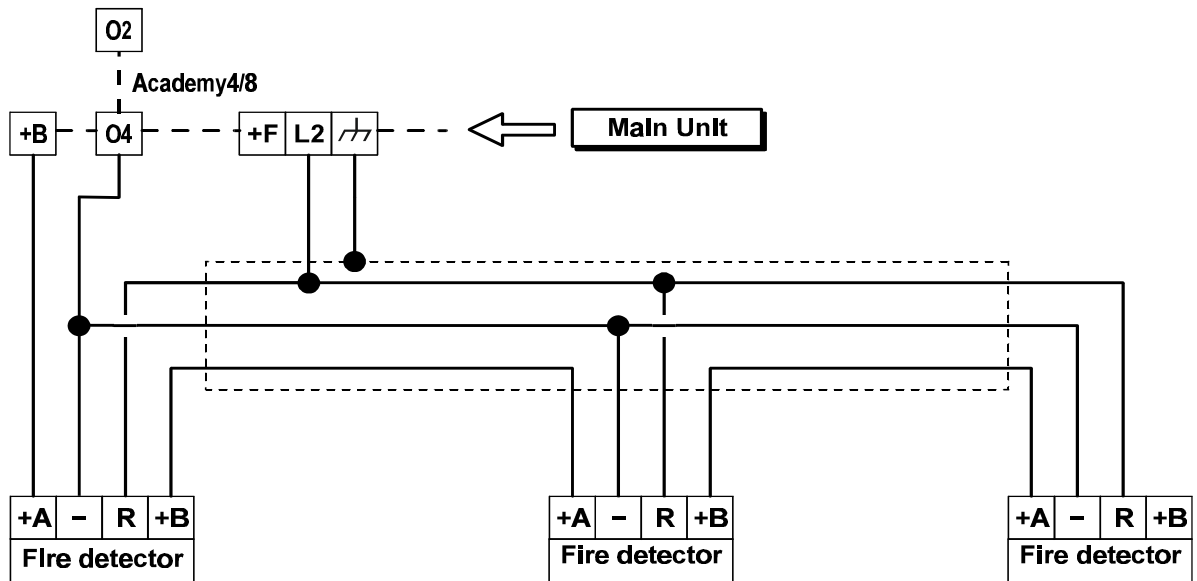
Figure 13   *Connection of Fire sensors*

Academy8L has a voltage free relay switch (terminals **[NO]**, **[COM]** and **[NC]**) for the connection of all types of signalling devices, and a 12V switch (terminals **[+A]** and **[+N]**) for the connection of indoor sirens (terminal **[+A]**), and self-powered sirens (**[+N]**).

Figure 15 shows a connection of a self-powered siren and indoor siren.

Academy4 and **Academy8** have a voltage free relay switch (terminals **[NO]**, **[COM]** and **[NC]**) for the connection of all types of signalling devices.

Balanced Tamper-line connection

The alarm device tamper switches can be connected to the 24h balanced tamper line of the Main Unit, as follows.

➢ Connect all the alarm device tamper switches in series.
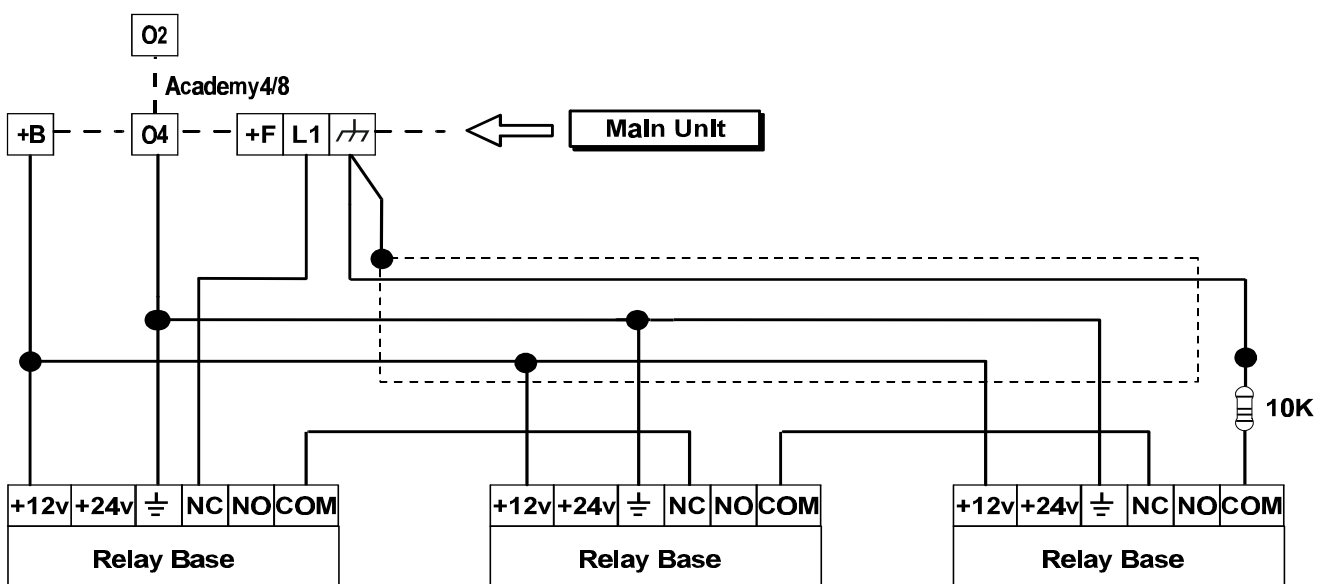
Figure 14   *Connection to a balanced line and relay base*

Security System Control Panel
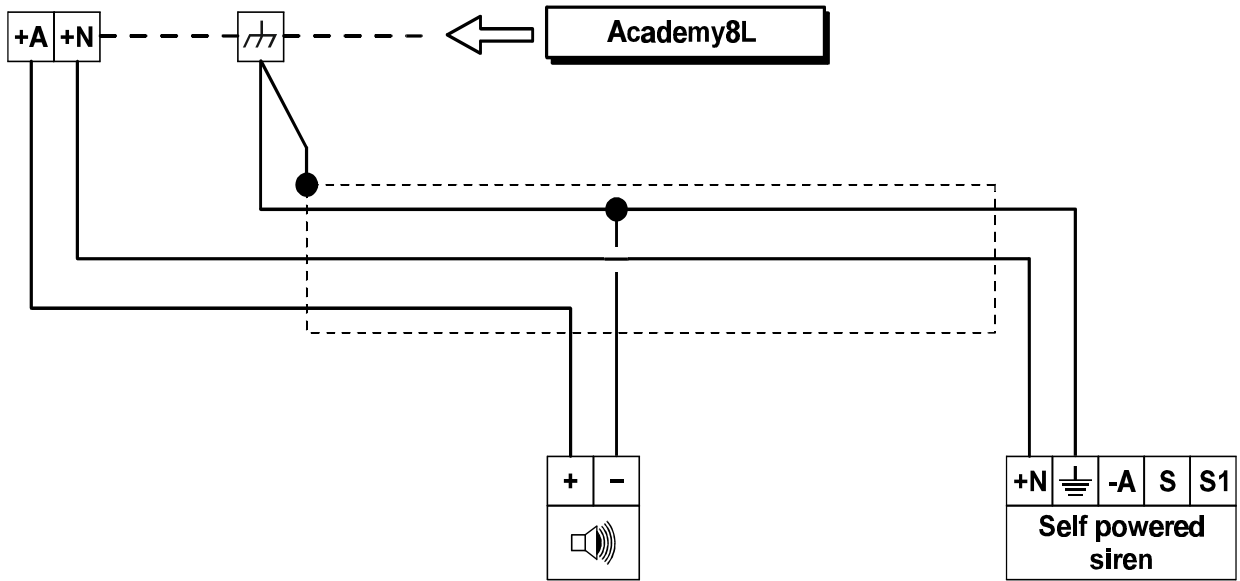
Figure 15 *Connection of self-powered siren and indoor siren*

➢ Connect one end of the series to terminal **[AS]** 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 and alarm terminals to a **Double Balanced** zone (refer to **"Connection of Alarm sensors"** paragraph.

For device identification----connect the device tamper terminals to a **24h** zone.
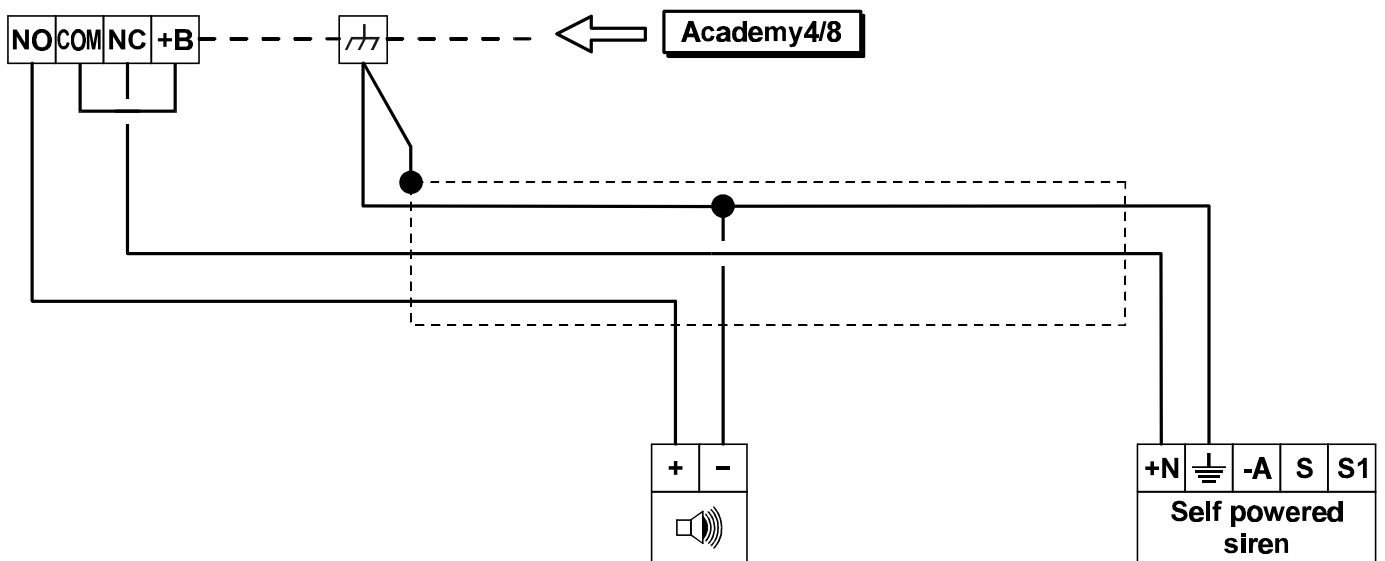
Figure 16 *Connection of self-powered siren and indoor siren*

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Connection of auxiliary outputs

Academy8L has 4 programmable auxiliary open-collector outputs **[O1]**, **[O2]**, **[O3]** and **[O4]**.

Academy4 and Academy8 have 2 programmable auxiliary open-collector outputs **[O1]**, **[O2]**. These outputs can be connected to ground or open when the relevant signal is present.

The standby status of the output can be programmed, and the activating signals can be selected from the following: ARMED, DISARMED, TROUBLE, ALARM MEMORY, EXIT TIME, ENTRY TIME, CHIME, ARMING DELAY, FIRE GND, TELEPHONE LINE TROUBLE (refer to "Output Programming").

A maximum current of 500 mA can circulate on terminals **[O1]**, **[O2]**, **[O3**], and **[O4]** on **Academy8L.**
A maximum current of 100 mA max. current can circulate on terminals **[O1]**, and **[O2]** on **Academy4 and Academy8**.

Below are two of the many auxiliary output applications. Refer also to **"Auxiliary control devices"**, **"Sensor auxiliary inputs"** and **"Fire sensors"** paragraphs.

➢ **Arming delay signalled on Buzzer**: connect an auto-oscillating buzzer to a power supply terminal (e.g. **[+B]**) and to the Normally Open auxiliary output **[O1]** ----programmed for ENTRY TIME signalling.

Courtesy lamp (during Exit Time): connect a relay coil to a power supply terminal (e.g. **[+B]**) and to the Normally Open auxiliary output **[O2]**----programmed for EXIT TIME signalling. Use the voltage relay free switch to power the 230 V lamp.

Telephone-line connection

Connect the telephone line to terminals **[LE]** to enable the telephone com-
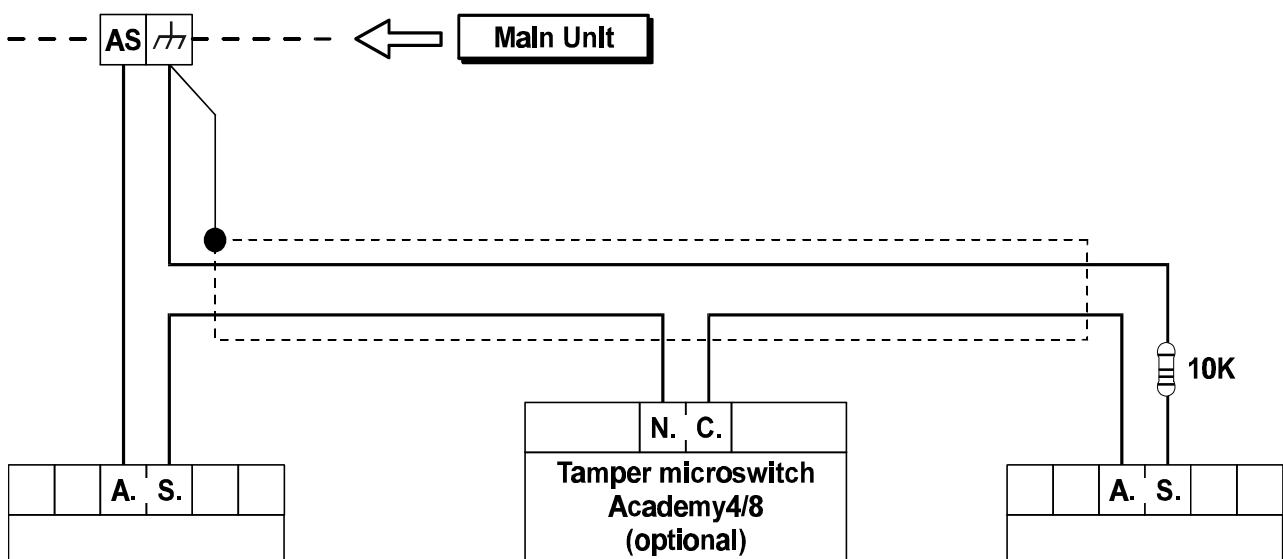
Figure 17   *Tamper switch connection*

municator 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.

> **WARNING** Ensure that the Mains earth line is intact and operating properly before connecting the telephone line.

BPI bus Configuration

On initial Startup the Panel will assign address 1 to the Keypad (refer to "Device Address"). This will be the basic configuration of the system. The installer must put all the other devices in the configuration. Devices that are not in the configuration will not be controlled by the Panel.

Stop signalling devices

To stop the Alarm outputs terminals **[+A]**-**[+N]** and **[NO]**-**[COM]**-**[NC]**

Step 1 Disarm all partitions

Step 2 Enter **INSTALLER PIN** (on any keypad).

Step 3 Press ⌷ENTER⌷.

The current telephone call will stop, and the call queue will be cleared.

Jumper 13 Signalling devices can also be stopped by short-circuiting the connector pins **13** on the PCB. It may also be useful to connect a keylock switch, to stop the signalling devices in the event of trouble on the communication bus, etc.

| LE | LI | ⌐/ |

Basic connection

Main Unit

Phone plug

Ground connection
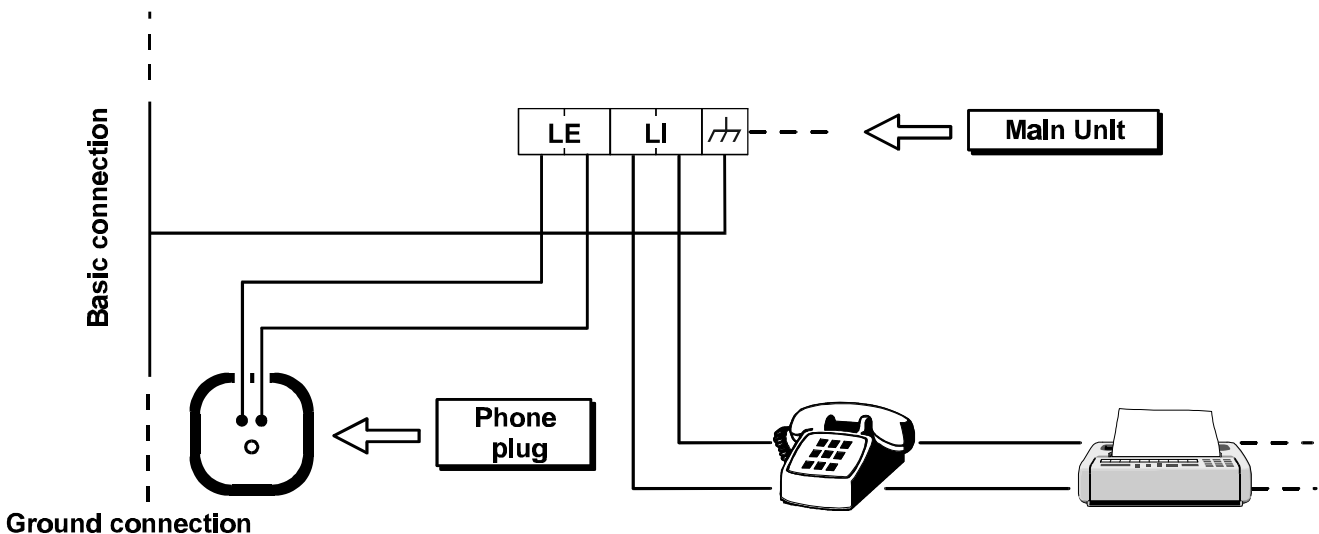
Figure 18 *Telephone line connection*

This Panel can be programmed via PC by means of the **Omnia4-8-8L Academy4-8-8L NC2 application from the Security Suite** software (optional) or from the Keypad (see **PROGRAMMING FROM KEYPAD** manual).

This chapter provides the parameter details and programming instructions, and should also be referred to when programming from the keypad.

+   Refer to the **Security Suite** manual for further information on the **Omnia4-8-8L Academy4-8-8L NC2** application.

Programming via PC

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

Step 2   Start the **Omnia4-8-8L Academy4-8-8L NC2** application.

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

Step 4   Program the parameters as per the relevant instructions.

Step 5   Program as per the instructions in the **On-site Programming via PC** or **Remote Programming via PC** paragraph.

The programmed parameters can be saved on a PC hard disk or on a floppy disk then downloaded via telephone line to the Panel, or downloaded on-site (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 **Omnia4-8-8L Academy4-8-8L NC2** application.

Customer data

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

➤ The top row shows the **File**; **Programming**; **Check**; **Buffer; Modem; Options**; **Page** and **Help** menus.

➤ The tags on the bottom row open the **Customer**; **Config.**; **Zones**; **Outputs**; **Times**; **Codes**; **Digital Key**; **Options**; **Scheduler**; **Telephone**; **Events**; **Teleserv.**; **Clock** and **Inst. Code** pages.

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** (i.e. when more than one telephone line is available).

Accepted digits: 0 through 9 and commas **(,)**. The comma is for 2 second pauses (e.g. between the prefix and the telephone number).

Customer code Enter the Customer code in this field. 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).

Figure 19 *Customer data page*

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

Search button This button, on the Customer page, will assign the lowest Customer Code available. This method eliminates the possibility of code duplication.

Last update This parameter will be updated automatically when changes are made to the customer data, and cannot be modified manually.

Notes This button opens a window (notepad) for Customer notes. These notes will not appear in the **Installation description** field. If the notepad is empty, the icon (on the button) will show an empty page, otherwise, a full page will be shown.

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.

The BPI bus configuration is essential to proper functioning of the system. The Panel will **match** each configuration reading with the programmed configuration, and **mismatch**----due to the loss of a device----will generate a BPI Fault Alarm. In the event of tamper the Panel will generate a BPI Tamper Alarm.
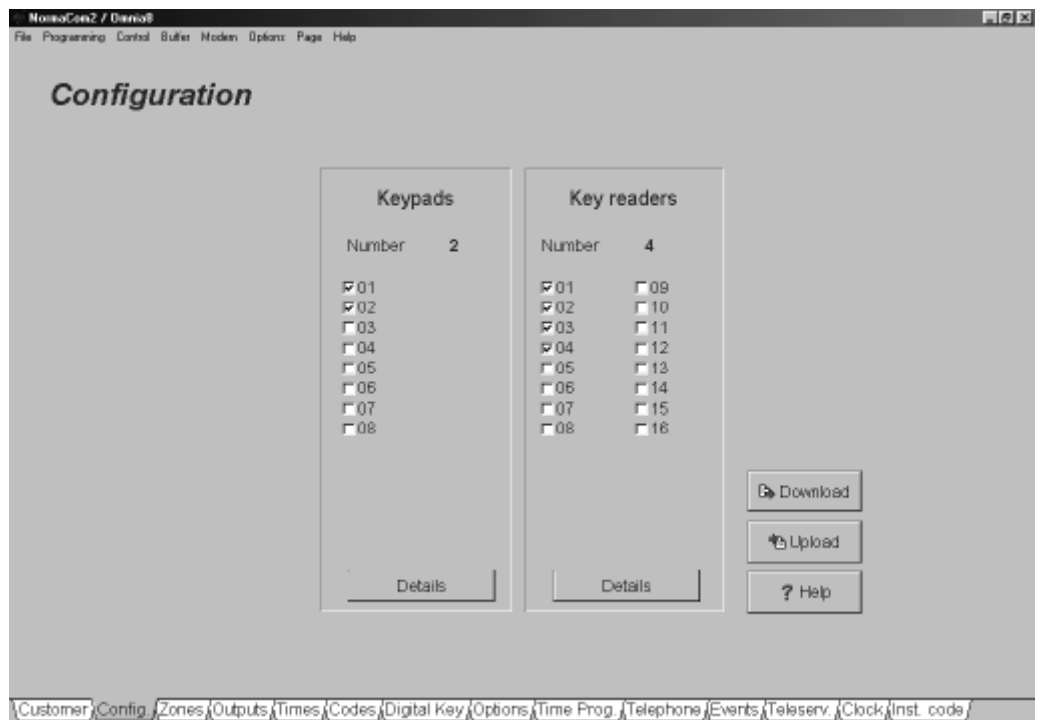
Figure 20   *System Configuration page*

PROGRAMMING

+   Select the **Load > Page** option from the **Programming** menu to view the configuration.

Configuration Setup   Open the **Config.** page----there are two columns of numbered boxes----one for keypads and one for key readers.
The numbers correspond to the device addresses (refer to "Peripheral device connection" paragraph for details).

Setup:
box **checked** = peripheral in configuration
box **clear** = peripheral not in configuration

Devices that are not in the configuration cannot be controlled by the Panel, and can be considered "Virtually disconnected".

Select the **Details** button to open the required **Details** window (Keypads or Key readers) and program the peripheral parameters, as follows.

no.   This is the non-modifiable device address and identifier number.

Description   Enter the device location e.g. Garage, Cloakroom, etc. (maximum 16 characters). This will identify the device in all actions.

■ **Keypads**

1 ... 4   Use this row to assign the keypad to the partitions it must control (arm, disarm, etc.).
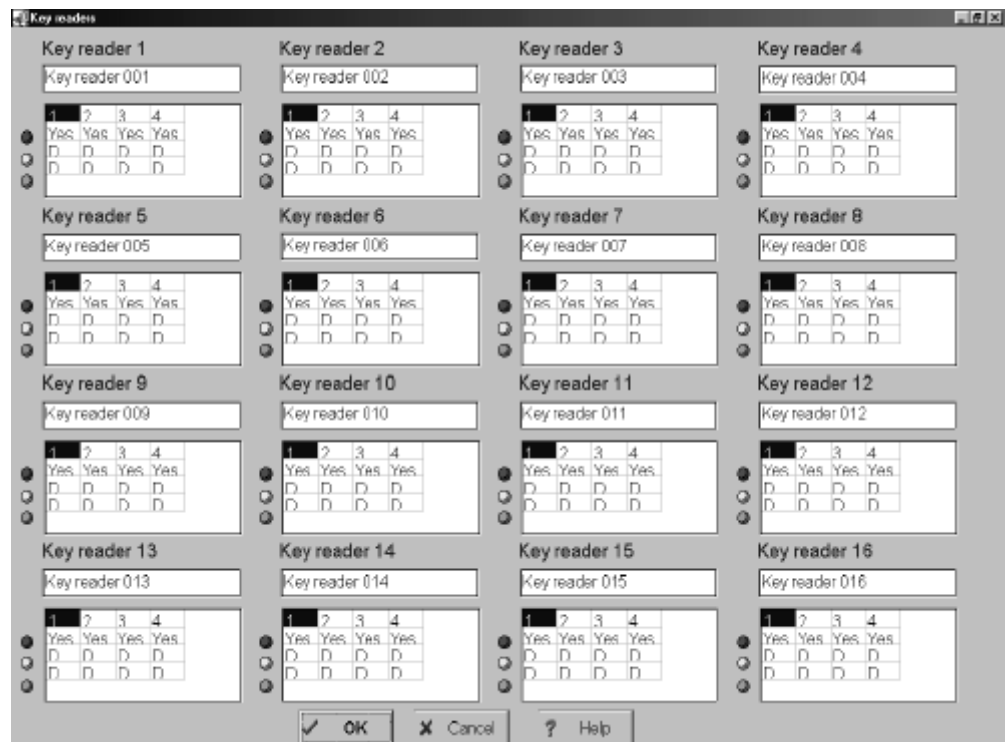
Figure 21   *Key reader page*

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

■ Key readers

The basic functions of the Panel can be controlled by a valid digital key at any key reader, the basic functions are:

➢ Global arming----**A**, **B**

➢ Disarm partitions

➢ Stop alarm signalling on partitions

The Main Unit can support up to 16 devices (key readers or keypads, maximum 8 keypads including the one supplied), up to 128 digital keys and an unlimited number of clone digital keys (clones of digital key 128). The digital keys must be programmed via keypad, as per the instructions in the "Digital key" paragraph. The following paragraphs describe the key reader parameters.

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 must 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 amber 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.

The Main Unit has 8 Input zones (Academy4 has 4 Input zones) terminals **[Lx]**.

The zones can be programmed as **Alarm** or **Commands**.

Alarm   Violation of this type of zone----during armed status of its partition (refer to "Partitions") will activate:

> the alarm output (terminals **[+A]**, **[+N]** and **[NO]**-**[COM]**-**[NC]**;

> the **[Alarm zone no.]** event (**no.** indicates the zone identifier number). One or more telephone actions (digital communicator and / or telephone dialler) can be assigned to this alarm event.

After generating **[Alarm zone no.]** event----a zone must reset to standby status before it can generate another (refer to "Balance types"). Persistent violation of this type of zone will be signalled by the corresponding key on the keypad.

The Panel will start monitoring a **Delayed** zone as soon as its partition is armed (refer to "Types"), otherwise, monitoring will start when the programmed **Exit delay** elapses (refer to "Partitions).

An alarm will be generated when the zone is unbalanced for 0.3 seconds (refer to "Balance types").

Each zone can generate alarm for the programmed number of times (refer to "Cycles").

Commands   Violation or tamper of this type of zone will not generate alarm or tamper status, and will not be signalled on the keypads, stored in the alarm memory or logged in the Event Buffer.
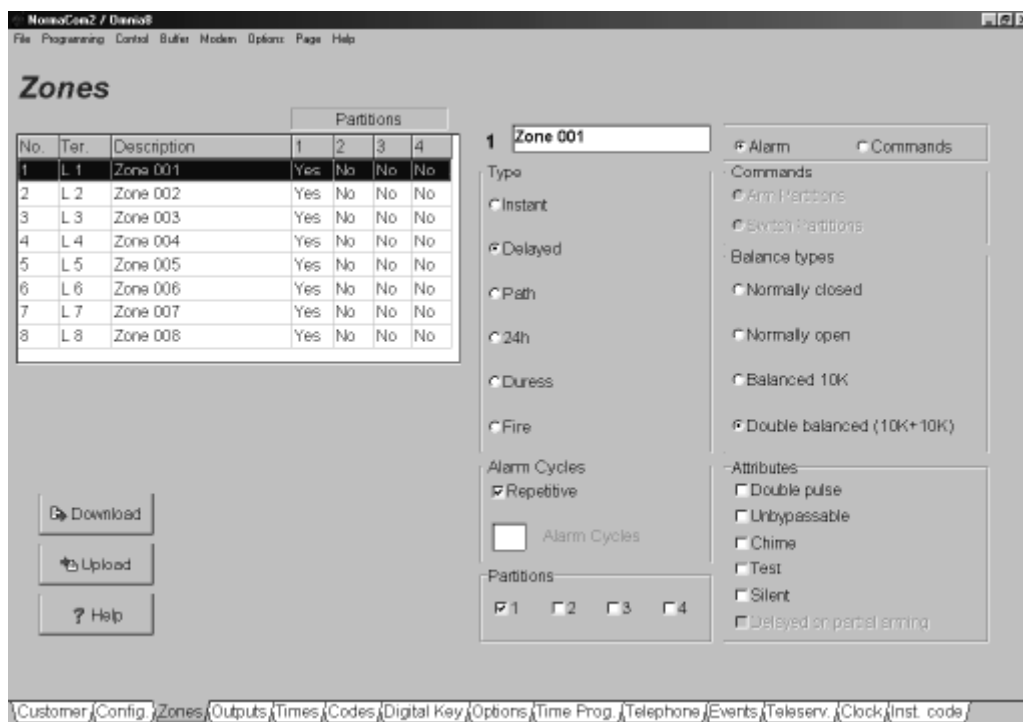
Figure 22   *Zones page*

Command zones can be programmed as either **"Arm partitions"** or **"Switch partitions"**.

Arm partitions Violation or tamper of a Command zone programmed as **"Arm partitions"** will arm the partitions the zone is assigned to.

Switch partitions Violation or tamper of a Command zone programmed as **"Switch partitions"** will switch the status of the partitions the zone is assigned to (armed to disarmed or vice versa).

✛ Command zones cannot be bypassed.

◼ **How to program Zones**

The programming----done in the various sections on the right side of the page----will be transferred automatically to the table.

Zones table description

no. This is the zone Identifier number that, where necessary, will be used instead of the full description (refer to "Description").

Ter. This abbreviation identifies the zone terminal.

Description This is the zone name (16 characters maximum)----used in all parts of the application as the zone Identifier.

Partitions Columns **1**, **2**, **3** and **4** show the partitions the Alarm zones are assigned to, or the Partitions the Command zones can control.

Step 1 Select the zone from the Zones table (top left of page).

Step 2 Assign the Zone description (top centre of page) e.g. Kitchen, Cloakroom, etc.

Step 3 Select either **Alarm** or **Commands** (top right of page).

Step 4 Program the selected zone, as follows.

◼ *Type*

Select the required zone type from the 6 options in the **Type** section.

Instant Violation of an armed Instant zone will generate an instant alarm.

Delayed Violation of an armed Delayed zone will trigger the alarm delay. If the Panel is not disarmed before the delay elapses, the Panel will generate an alarm event.

✛ Violation of this type of alarm zone during the *Exit Time* delay will not generate an alarm.

Path Violation of a Path zone (delayed zone to a disarm-point) will start the *Entry Time* Delay. The *Entry Time* Delay will give the user time to reach the disarm-point and disarm the partition. An instant alarm will be generated, if

this zone is violated **before** a Delayed zone. During the *Exit Time* delay this zone type will operate in the same way as a delayed zone.

+　See also **Delayed on Partial arming** attribute.

24h　Violation of a 24h zone will generate an instant alarm, whatever the status (armed / disarmed) of the partitions it is assigned to.

Duress　This is a 24h zone type: in the event of an alarm it will disarm the system (*silent* attribute), and activate the communicator and dialler simultaneously. This zone can be used for the connection of a "Silent alarm" button.

Fire　This is a 24h zone type, *Normally Open* (N.O. attribute), and can be used for fire sensor connection.

■ Alarm cycles

Enter the number of cycles for the alarm relay (0 through 14 cycles). Each zone can be programmed separately.

0　The zone will not generate any alarm cycles.

Cycles　The zone will generate an alarm cycle each time it is violated. The zone cannot generate more than its programmed number of alarm cycles.

Further violation of the zone will not generate any kind of alarm until:

➢ one of the partitions the zone is assigned to changes status.

➢ the Alarm memory of one or more of its partitions is reset.

➢ the Stop-alarm status **ceases** on one or more of its partitions (via keypad by means of a Code PIN or via key reader by means of digital key).

➢ the programming session ends (via keypad or by means of local or remote connection).

Repetitive　The zone will generate an unlimited number of alarm cycles.

Zones with a persistent alarm condition (e.g. due to trouble) will generate one alarm cycle only, as required by CEI 79/2.

■ Partitions

Alarm zones　Assign the zone to one or more of the partitions. The partition codes, digital keys, and programmed times will be enabled on the zone.
----A violated zone with more than one partition will generate alarm when all its partitions are armed.
----A violated zone that can generate 24h alarms (24h zone, Duress, Fire or Zone Tamper for balanced or double balanced zones) will generate alarms whatever the status of the partitions it is assigned to (armed / disarmed).
----Delayed zones with more than one partition, will have the *Entry* or *Exit* times of the partition with the highest values.

Command zones　Select the partitions that the Command zone will control.

■ Commands

Arm partitions Violation or tamper of an **Arm partitions** zone will arm the partitions the zone is assigned to.

Switch partition Violation or tamper of a **Switch partitions** zone will switch the status of the partitions the zone is assigned to (armed to disarmed or vice versa).

■ Balance types

Select the zone balance type from the 4 options in the "Balance types" section. An alarm zone will signal violation when the electrical conditions of its selected balance type are present on the corresponding input terminal for at least 0.3 seconds.

+ See also Double Pulse option.

Normally Closed The zone will be connected to negative (closed) during Standby status. The Panel will detect violation when the zone disconnects from negative (opens).

Normally Open The zone will be open during Standby status. The Panel will detect violation when the zone switches to ground (negative).

Balanced 10K The zone will be in Standby status when it is connected to negative through a 10 K (10,000 ohm) resistor. The Panel will generate a tamper event if the zone switches to ground (negative). The Panel will generate a zone alarm if the zone is unbalanced (zone open).

Double Balanced The zone will be in Standby status when it is connected to negative through **two** 10 K (10,000 ohm) resistors. The Panel will generate a zone alarm if one of the resistors disconnects. The Panel will generate a tamper event in all other cases (open zone, zone connected to negative, etc.).

■ Attributes

Select the zone attributes from the 5 options in the "Attributes" section.

Double Pulse This attribute **will lower** the sensitivity of the zone, as it doubles (from 0.3 to 0.6 seconds) the minimum alarm pulse time required by an alarm zone for alarm condition detection.

Unbypassable Unbypassable zones cannot be bypassed.

Chime Violation of a Chime zone----during disarmed status of one of its partitions, will activate the CHIME outputs, and a fast beep on keypads of the partition the zone is assigned to.

Test Violation of a Test zone will not activate the signalling devices, the digital communicator or dialler, and the Zone Alarm events will not be logged.

Silent Violation of a Silent zone will activate the telephone communicator only. The alarm output will not be activated, and violation will not be signalled on the keypad.

| *Delayed on Partitioning* | A Path zone can be programmed as **Delayed on Partitioning**. |
| | If the zone is assigned to several partitions----and not all are armed----the zone will operate as a delayed zone. |

Outputs

Academy8L has **four** 0.5A open-collector outputs (terminals **[O1]**, **[O2]**, **[O3]**, **[O4]**).

Academy4 and **Academy8** have **two** 0.1A open-collector outputs (terminals **[O1]**, **[O2]**). These outputs can be programmed to supply the following signals: Armed partitions, Disarmed partitions, Trouble, Alarm Memory, Exit Time, Entry Time, Chime, Arming delay, Alarm and Tamper, Fire Sensor Reset, Telephone Line Trouble.

■ How to program Outputs

The programming----done in the various sections on the bottom part of the page----will be transferred automatically to the table.

Outputs table description

Output	This is the sequential number of the output on the main board.
no.	This is the Output Identifier number that, where necessary, will be used instead of the full description (refer to "Description").
Ter.	This abbreviation identifies the output terminal.
Description	This is the zone name (16 characters maximum) that will be used in all parts of the application as the zone Identifier.
Attributes	This is the electrical status of the output during standby status: **NO** = Normally Open **NC** = Normally Closed
Partitions	Columns **1**, **2**, **3** and **4** show the assigned partitions.
+	The output will be activated when the programmed signal is generated by a partition assigned to the output or when the programmed signal is generated by the Panel.
Step 1	Select the output from the Outputs table (top half of page).
Step 2	Assign one or more partitions to the output----double click to toggle the status.
Step 3	Enter the Output description e.g. Indoor siren, Outdoor siren, etc.
Step 4	Program the selected output, as follows.

■ Attributes

The open-collector outputs (terminals **[Ox]**) can be programmed as Normally Open or Normally Closed.

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Normally Open	**Standby status:** output open
	Active status: negative present on the output
Normally Closed	**Standby status:** negative present on the output
	Active status: output open

■ Signals

The outputs can be programmed to generate the following signals.

Partitions Armed	The output will be activated when one (or more) of its partitions is armed.
Partitions Disarmed	The output will be activated when one (or more) of its partitions is disarmed.
Trouble	The output will be activated in the event of Main Unit trouble: blown fuse; mains failure; low battery; communication bus trouble; reset factory default.
Alarm Memory	The output will be activated in the event of alarm memory on one, or more zones of the partition the output is assigned to.
Exit time	The output will be activated during the **Exit time** of the partitions it is assigned to.
Entry time	The output will be activated during the **Entry time** of the partitions it is assigned to.
Chime	The output will be activated when a Chime zone is violated during disarmed status, of one or more of the partitions the zone is assigned to.

Figure 23   *Outputs page*

+	The output must be assigned to one or more of the partitions of the zone.
Arming delay	This output will be activated during the **Arming delay** of the partitions it is assigned to.
Alarm and Tamper-Restore on bell timeout	The output will be activated in the event of alarm or tamper on one or more zones of a partition the output is assigned to. This status will be held for the programmed alarm time.
+	The **Alarm and Tamper** signal does not signal system tamper (Open Panel, Terminal [AS] unbalanced, False key, Keypad tamper).
Fire GND	The **Reset Alarm Memory** command will activate the output for 10 seconds. The keypad and Code PIN in use must be enabled on one or more of the partitions the output is assigned to. It is possible to use an output as the negative power supply to the fire sensors. In this case, the output must be programmed with the **Normally Closed** attribute and the **Fire GND** signal. The **Reset Alarm Memory** command will cause the negative to fail for 10 seconds, and thus will reset the fire sensors.
Telephone line trouble	The output will be activated for 15 minutes when the telephone line current drops below 3 V for more than 30 seconds. The output will return to standby status 15 minutes after restoral.
Alarm and Tamper-Restore on zone reset	The output will be activated in the event of alarm or tamper on one or more zones of a partition the output is assigned to. This status will be held until the zone returns to standby status.

Times

The **Entry time**, **Exit time** and **Arming delay** of the partition must be programmed individually on the **Times** table (top half of page).

Times table description

no.	This is the non-modifiable partition number that will be used instead of the partition description.
Description	Enter the identifier name of the partition----maximum 16 characters. The name will be used in other parts of the application, and in the Event Buffer.
Entry time	Enter the necessary **Entry time** (in seconds). Violation of an armed zone----programmed with the **Entry time** signal (refer to **Outputs** page)----will activate the programmed delay. **Entry Time** will be signalled by: ➤ activation of the partition outputs----programmed with the **Entry time** signal; ➤ an audible signal (fast beep) on the enabled keypads of the partition.
Exit time	Enter the necessary **Exit time** (in seconds). Violation of an armed zone----programmed with the **Exit time** signal (refer to **Outputs** page)----will not generate an alarm during the programmed delay. The delay will start

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when the partition arms.

Exit Time will be signalled by:

➢ activation of the partition outputs----programmed with the *Exit time* signal;

➢ an audible signal (slow beep) on the enabled keypads of the partition.

Arming delay   Enter the necessary *Arming delay* (in minutes). An output must be programmed with the *Arming delay* signal (refer to **Outputs** page).

Example

If partition no.1 is programmed to arm at 17.45 with a 15 minute *Arming delay*----the *Arming delay* will start at 17.30 and end at 17.45.

Auto-arming can be delayed by 30 minute overtime requests----**valid until 24.00** (refer to "Scheduler" paragraph).

Arming delay: 0 through 99 minutes with steps of 1 minute
0 minutes = No Arming delay

Alarm Time   Enter the *Alarm Time* (0 through 99 minutes). This parameter determines the alarm cycle time, and will apply to all zones.

Patrol Time   Enter the necessary *Patrol Time* (0 through 99 minutes). Partitions disarmed by a Patrol Code PIN will rearm automatically after the time programmed in this field. The programmed time will apply to all partitions.
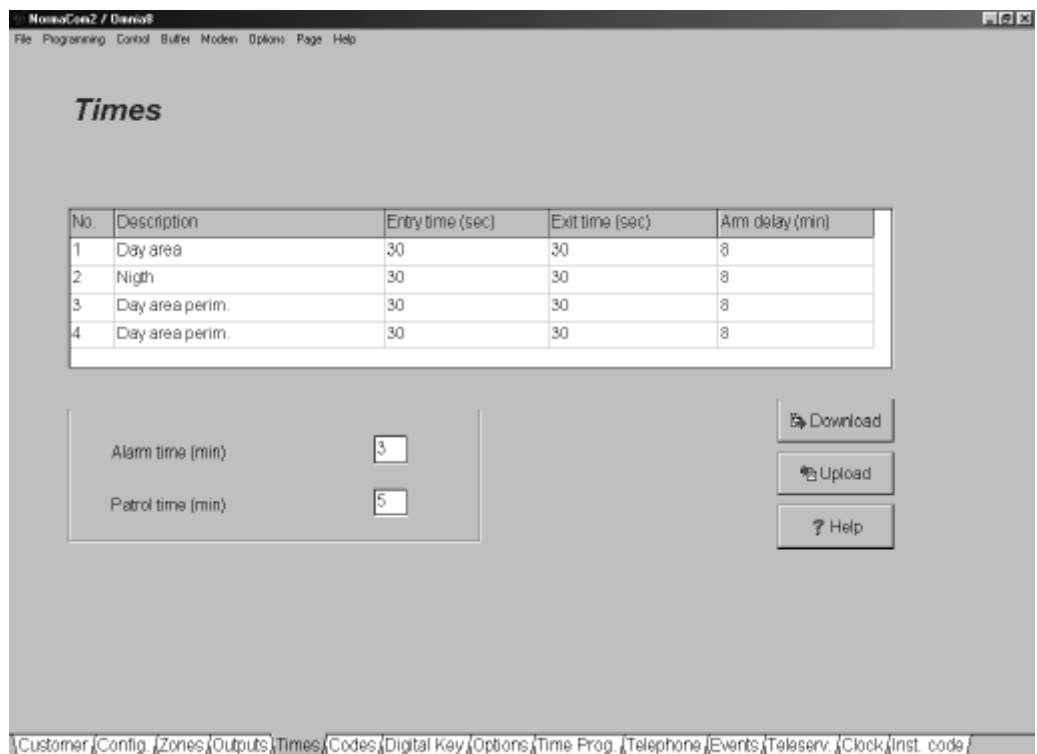
Figure 24   *Times page*

Codes

The codes and digital keys allow different levels of access to the system, and must be programmed in the **Codes** page.

Each code comprises:

----PIN (4 to 6 digits)

----Type (MAIN USER, USER, PATROL, DURESS, DISABLED)

----Enabled Partitions

----Type A Arming mode

----Type B Arming mode

24 codes available   The Panel can manage up to 24 codes. Codes 1 through 23 are for users, and code 24 is for the Installer (refer to **"Installer Code"** paragraph). The Installer can program the User code parameters but cannot program the User code PINs.

Keypads and User Code PINs   Each keypad can be assigned to a specific group of partitions (refer to the **Config.** page). Keypads and Code PINs can control their enabled partitions **only**, thus, an **enabled Code PIN** entered on an **disabled keypad** will have **no effect**. This dual level of control means that the partitions a Code PIN can control depends on the keypad. Therefore, the same operation can have different effects on different keypads.

Main User   This Code allows full command of the system: Global arming, Partitioning, Global disarming, Memory Reset, Stop Alarm, Zone Bypass, Enable Teleservice and User Code PIN programming.

User   This Code Type allows Global arming / disarming and Reset Alarm Memory.

Duress   This Code Type allows Global arming / disarming, and should be used in the event of forced disarming, as this code will disable the system and activate the Telephone Dialler simultaneously.

Patrol   This Code Type can disarm the partitions for the programmed ***Patrol time***. The partition will rearm automatically when the patrol time elapses.

■ How to program Codes

Step 1   Select the code from the **Codes** table (upper part of page). The selected Code identifier number (1 through 23) will be shown in the **Codes** box (lower part of page).

Step 2   Enter the name of the Code User.

Step 3   Click on **Code Type** (bottom left of the **Codes** box) then select the required **Type** (Main User, User etc.) from the menu.

Step 4   Double click on the box below the partition number row (**1-2-3-4**) to Enable / Disable the Code on the partitions.

     YES = Code **Enabled** on the corresponding partition

Box **Clear** = Code **Disabled** on the corresponding partition

Step 5   Double click on the **A** row boxes to select the partitions that will Arm / Disarm when the Code makes a **Type A arming** request.

        A = The corresponding partition will **Arm**
        D = The corresponding partition will **Disarm**

Step 6   Double click on the **B** row boxes to select the partitions that will Arm / Disarm when the Code makes a **Type B arming** request.

        A = The corresponding partition will **Arm**
        D = The corresponding partition will **Disarm**

+   The programmed data will be transferred automatically to the Codes table.

Step 7   Repeat the procedure as required. Select the **Download** button to download the programming to the Panel.
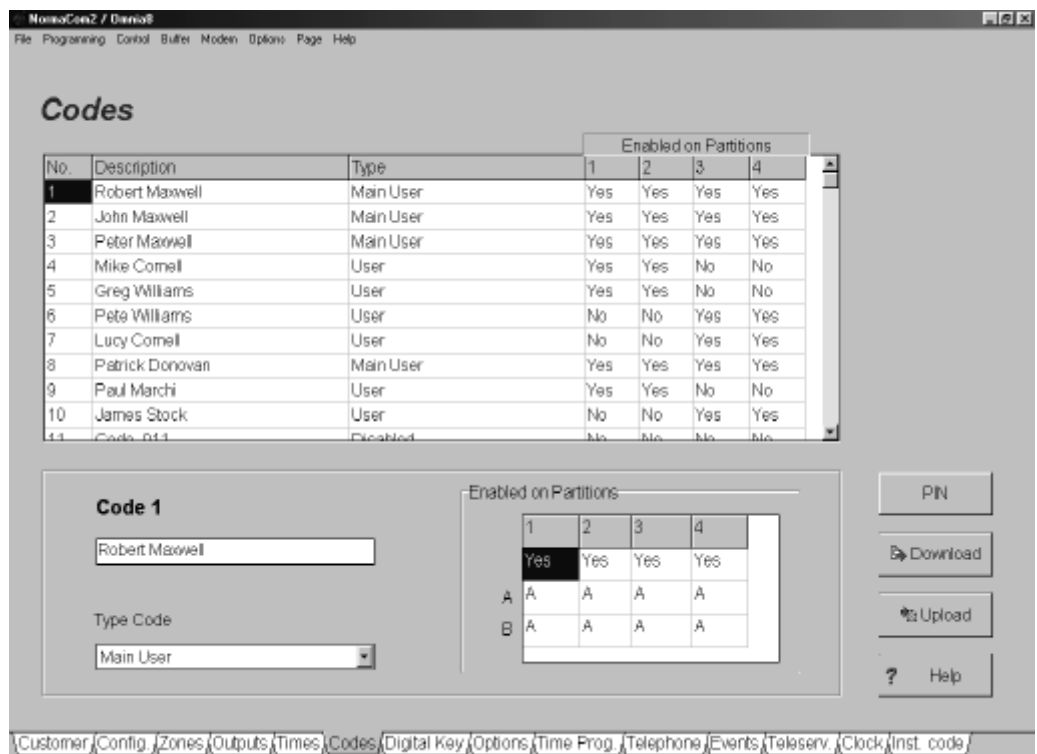
Figure 25   *Codes page*

■ **How to program Code PINs**

The default PINs of all the **Enabled** Codes must be changed for security reasons. The New Code PINs (Personal Identification Number) will identify the Users in all the operations they are involved in.

➕ The Panel must be connected to the PC----via serial or modem.

Step 1 Select the **PIN** button on the **Codes** page.

Step 2 Select the **Upload** button----the Code attributes will be Uploaded (Description, Type and Partitions).

Step 3 Enter the **PIN** of a **Main User Code** (default **PIN** on initial Startup) in the **Main User Code** field then select **OK**.

Step 4 Select the corresponding **Main User Code** identifier number (**1** through **23**) or the identifier number of the Code to be changed from the **Code** table (bottom left of page).

Step 5 Enter the New PIN in the **New PIN** field in the **PIN Programming** box (top right of page).

Step 6 Enter the New PIN in the **Confirm PIN** field then select **OK**.

➕ A **Main User Code PIN** can change all **User, Duress and Patrol Code PINs** enabled on the group of partitions it controls.

Example **Main User Code PIN** controls partitions **1** and **2**, therefore:

----User Code PINs controlling partitions **1** and **2 can** be changed

----User Codes PINs controlling partitions **1 can** be changed

----User Codes PINs controlling partitions **1** and **3 cannot** be changed.

➕ **Main User Code PINs** cannot change the **PINs** of other **Main User Codes**.

Step 7 Repeat the operation as required then select the **Download** button to download the programming to the Panel.

Digital keys

The Panel can support up to 128 different digital keys, and an unlimited number of clone keys (clones of digital key 128). Each digital key can be assigned a 16 character name in the **Digital Key** page. The name will be used as the digital key identifier in all the operations it is involved in.

no. This is the identifier number (1 through 128) of the digital key to be used when programming the digital key on the keypad.

Description Enter the name of the User in this field (maximum 16 characters).

Enable Double click Enable / Disable the digital key. Disabled digital keys

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will not be considered false but will be unable to control the system.

Service   Double click to Enable / Disable the **Service** attribute. **Service** digital keys can disable the system for maintenance purposes.

YES = Attribute enabled
NO = Attribute disabled

+   During **Service** mode the alarm relay will be deactivated, therefore, the Panel will not generate alarms.

Reset call queue   Double click to Enable / Disable the **Reset call queue** attribute. Enabled digital keys can stop ongoing calls and clear the call queue.

YES = Attribute enabled
NO = Attribute disabled

1 .. 4   Double click to Enable / Disable the digital key on the corresponding partitions (**1-2-3-4**).

YES = Enabled on the corresponding partition
NO = Disabled on the corresponding partition

Figure 26   *Digital keys page*

Options

The Enabled / Disabled status of the **Options** will determine the operating mode of the Panel.
Click on the check box----to Enable / Disable the corresponding option.

box **checked** = **Enabled**
box **clear** = **Disabled**

False digital key tamper signalling
Enabled: false digital keys will generate a tamper alarm.
Disabled: false digital keys will not generate a tamper alarm.

+ In both cases false digital keys will be unable to operate on the system.

Immediate Mains Trouble signalling
Enabled: power failure will be signalled immediately.
Disabled: power failure will be signalled **after 15 minutes blackout**.

Key reader LEDs permanently active
Enabled: key reader LEDs will signal Panel status at all times.
Disabled: key reader LEDs will signal Panel status **only** in response to a valid digital key. **This option is enabled at default.**

Reset Tamper Memory denied to User Code
Enabled: only the **INSTALLER Code PIN** can Reset Tamper Memory.
Disabled: INSTALLER, **MAIN USER** and **USER Code PINs** can Reset Tamper Memory.

Reset Alarm Memory denied to Installer Code
Enabled: only **MAIN USER** and **USER Code PINs** can Reset Alarm Memory.
Disabled: INSTALLER, **MAIN USER** and **USER Code PINs** can Reset Alarm Memory.

Figure 27 *Options page*

Arming Denied with Battery Trouble	**Enabled:** the system **will not arm** when the battery is low. **Disabled:** the system **will arm** even when the battery is low.
Disable Telephone line check	**Select** this option when the Panel **is not** connected to the telephone line, otherwise, **Telephone line trouble** will be signalled constantly on the keypads, and during Trouble viewing mode.

----box **checked:** Telephone line trouble **will not be** signalled
----box **clear:** Telephone line trouble **will be** signalled by:

⚠ = **ON** (on keypads)

0↓ = **ON** (Trouble viewing mode)

Bypass zone tamper signalling	**Enabled:** zone tamper signalling will be bypassed on bypassed zones. **Disabled:** zone tamper will be signalled on bypassed zones.
Call all Central station numbers	**Enabled:** all the Central station telephone numbers----programmed for an event----will be called even after a successful call. **Disabled:** the telephone numbers----programmed for an event--- will **stop** after the first successful call.
Call all voice message numbers	**Enabled:** all the voice message telephone numbers----programmed for an event----will be called even after a successful call. **Disabled:** the voice message telephone numbers----programmed for an event----will **stop** after the first successful call. **This option is enabled at default.**
ICON/KP keypads	**Enabled:** Panel ready for **ICON/KP** keypads. **Disabled:** Panel ready for **NC2TAST** keypads.
+	**ICON/KP** and **NC2TAST** keypads cannot coexist on the BPI bus.
Auto-bypass	**Enabled:** the zone will be bypassed automatically----if violation is detected on partition arming. The event will be logged in the event buffer. **Disabled:** the zone will not be bypassed----if violation is detected on partition arming.
Real time zone reset	**Enabled:** the zone will reset when the alarm status stops. **Disabled:** the zone will reset after the programmed alarm time has elapsed, and the alarm condition is no longer present.
Auto-Reset Memories	The memories of the selected partitions will reset automatically each time they are armed.
Auxiliary Command [K]	The selected partitions will switch status when terminal **[K]** switches to ground (negative) for at least 0.3 second (refer to "Auxiliary Control Devices" paragraph).
2 way Audio alert	If this option is enabled, the panel will open the Audio channel for 15 seconds before activating Listen-in.

Scheduler

The Scheduler controls Auto-arming of the partitions.

+   It is not possible to select between Daily or Weekly schedules in Firmware release 3.00 and higher, therefore, the days of the week must be programmed individually.

Weekly   The panel will arm as per the programmed times of the day in question.

Overtime request   30 minute Overtime requests can be made until midnight (24.00). Overtime requests that go past midnight will be rectified to 24.00.
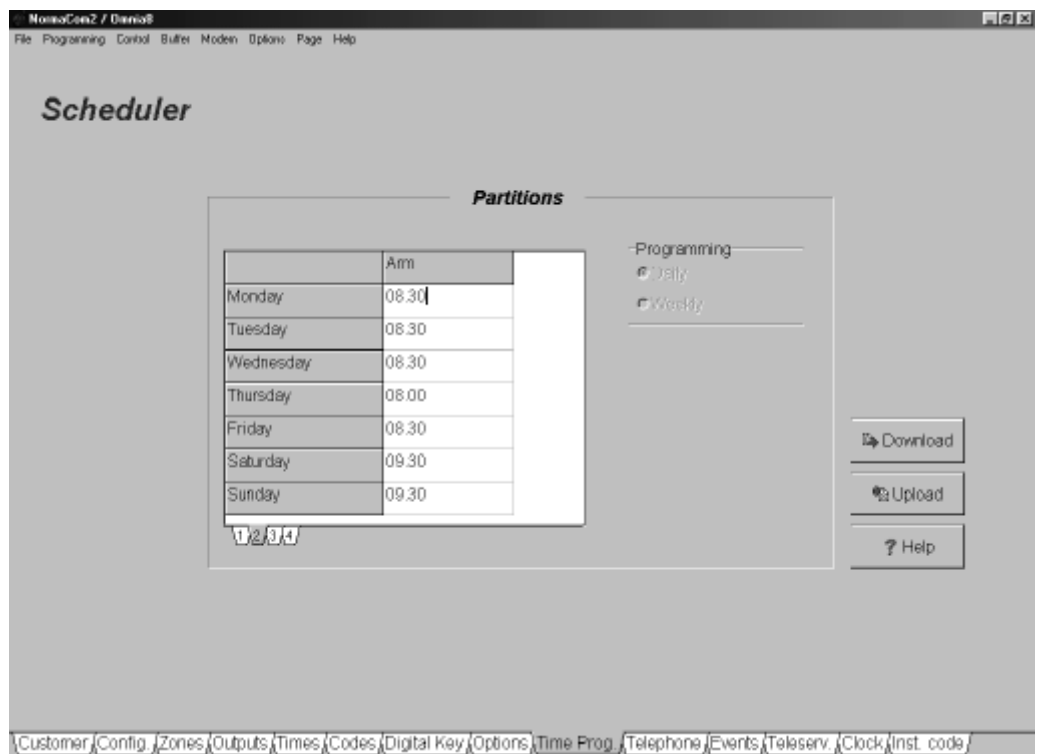
Figure 28   *Scheduler page*

Security System Control Panel

Telephone

The Panel can manage 8 telephone numbers. The Telephone numbers, telephone line data, and options must be programmed as follows.

no. This is the non-modifiable identifier number (1 through 8) that will be used instead of the whole telephone number----when programming from the keypad or where necessary in the application.

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
----DTMF communicator, and for teleservice requests.

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

■ **Dialling options**

Disable Tone check **Enabled:** the Panel will dial the telephone numbers without checking for the dial tone. This option is useful when the Panel is connected downstream to a switchboard with non-standard tones.
Disabled: the Panel will check for the dial tone before dialling and, if the dial tone is not present, will disengage and retry.

Pulse Dialling **Enabled:** the Panel will dial in *Pulse* mode.
Disabled: the Panel will dial in *DTMF* mode.
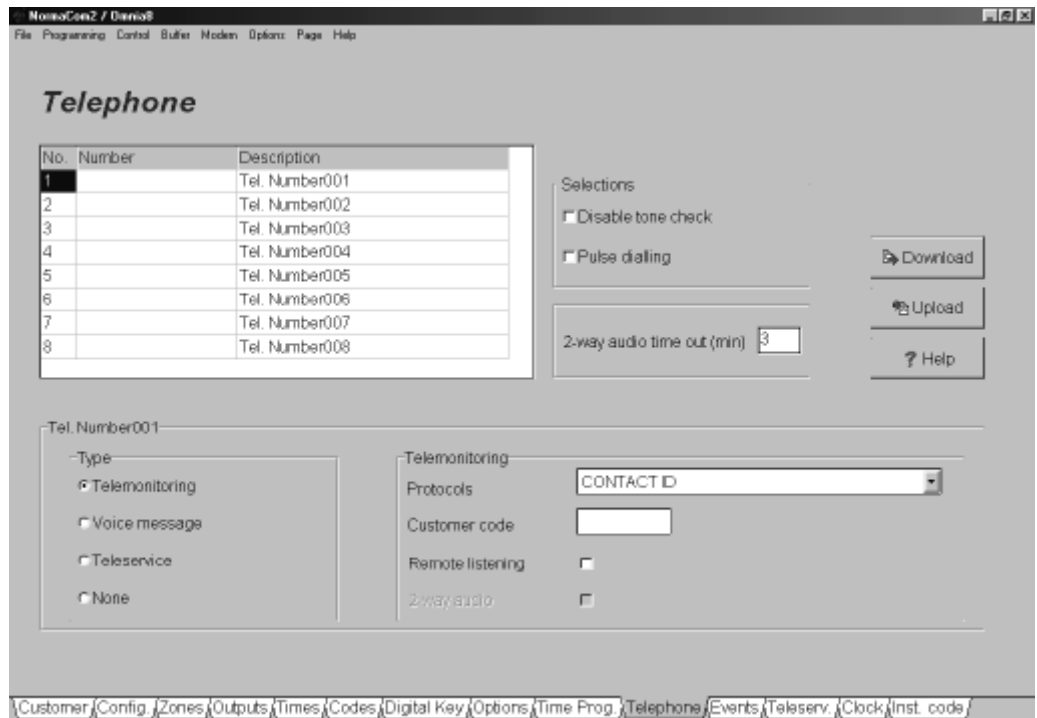
Figure 29 *Telephone page*

+ If both modes are available select *DTMF* as it is faster.

■ **Type**

Select the type of telephone number: **Central station**, **Teleservice**, **Voice Message** (requires NormaVox board).

■ **Central station**

Select the Central station specifications in this field.

Communication Protocol The Central station can assign one of the following data transfer protocols:

  ➢ ADEMCO / SILENT KNIGHT - slow 10 baud - 3/1, 4/1, 4/2

  ➢ ADEMCO / SILENT KNIGHT - fast i4 baud - 3/1, 4/1, 4/2

  ➢ FRANKLIN / SECOA / DCI - VERTEX - Fast 20 baud - 3/1, 4/1, 4/2

  ➢ RADIONICS - 40 baud - 3/1, 4/1, 4/2

  ➢ SCANTRONIC - 10 baud - 3/1, 4/1, 4/2

  ➢ CONTACT ID

  ➢ CESA.

CUSTOMIZED This pulse protocol allows customization of:
----Handshake
----Call ended tone
----Single pulse code length
----Digit pause
----Pulse pause
----Interframe pause

Customer Code This is the Panel identifier code----usually assigned by the Central Station.
The **Customer code** can comprise 3 or 4 digits
CONTACT ID requires 4 digits ----**CESA** requires 5 digits:
0 through **9** and characters **A** through **F** (HEX digits).
0 = **A** for Pulse protocols.

Remote Listen-in **Enabled:** remote listen-in sessions can be opened on the protected premises (valid for all protocols).

If the **2 way Audio** alert option is enabled, the panel will open the Audio channel for 15 seconds before activating **Listen-in** refer to "Options" section.

2way Audio **Enabled:** two-way communication sessions can be opened with persons on the protected premises (valid for all protocols).

Voice message **Enabled:** the Voice message selected in the Events page will be sent when its assigned action occurs (refer to the **Events** paragraph).

Teleservice This is the **Teleservice** number. The **Teleservice** parameters must be programmed in the **Teleservice** page.

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None   Select **None** to disable the assigned Telephone number.

Events

Program the events in this page. Each event can activate one or both of the following:

➢ the Digital Communicator (Pulse and DTMF);

➢ the Voice Telephone Dialler.

The events table is set out as follows:

no.   This column shows the identifier number of each event.

Description   This is a list of Panel events (refer to "Programming from keypad" for further details).

Telephone number   The selected telephone numbers (right side of the page) will be called when the corresponding event occurs.

Event code   The **Event codes** are usually assigned by the Central Station, and allow the Central station operators to identify the events.

Event codes comprise 2 digits:
0 through **9** and characters **A** through **F** (HEX digits).
0 = **A** for Pulse protocols.

+   The **Event codes** will be sent to Central Station telephone numbers only.
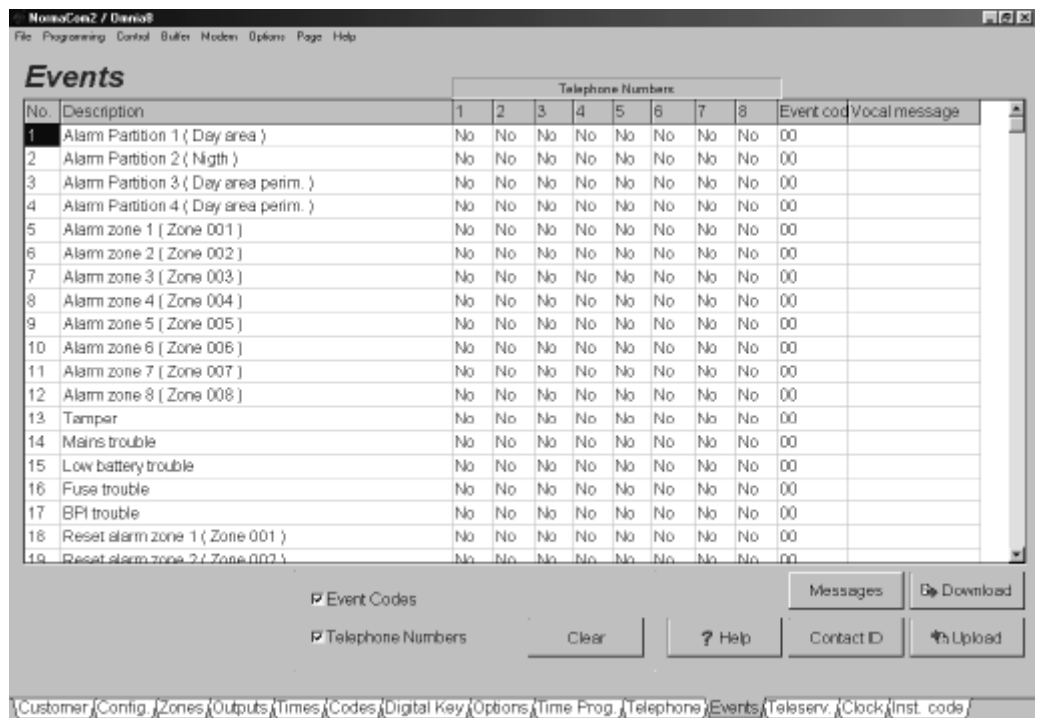
| **Figure 30** | *Events page* |

Contact ID Select the **Contact ID** button to assign the codes in column **A** of the table on page 26 (Programming from Keypad). These codes will be sent to the Central Station with lowest Identifier number that supports Contact ID protocol.

Delete Select the Delete button to delete all the event codes and clear all the telephone numbers.

Voice message Voice messages will be sent when the programmed event occurs.

EVENT		OCCURS when ...
01 : 04	**Alarm Partition no.**	... one of the zones assigned to the Partition is in alarm status[1]
05 : 12	**Alarm Zone no.**	... the Zone is in alarm status[1]
13	**Tamper**	.... one of the following conditions is detected: Zone tamper (Balanced, Double Balanced); Open Panel[2]; Terminal [AS] unbalanced, False key[3]; Keypad Tamper[4].
14	**Mains Trouble**	.... mains power fails for more than the allowed time (refer to the "Options" paragraph in the "Programming" chapter)
15	**Low Battery Trouble**	... the battery is low or empty, and therefore, unable to power the Panel. The battery is constantly monitored by the system (dynamic check), however, in the event of blackout a static check will be done.
16	**Fuse Trouble**	... fuse **5** blows
17	**BPI Trouble**	... one or more BPI devices fails to respond
18 : 25	**Reset Alarm Zone no.**	... standby status is restored on the zone, and all alarm generating conditions is no longer present
26	**Reset Tamper**	... alarm status ends, and all conditions that generate the tamper event (Zone tamper; Open Panel[2]; Terminal [AS] unbalanced; False key[3]; Keypad Tamper[4]) are no longer present
27	**Reset Mains Trouble**	... mains power restored
28	**Reset Low Battery Trouble**	... battery **OK**
29	**Reset Fuse Trouble**	... fuse **5 OK**
30	**Reset BPI Trouble**	... all BPI bus devices in the configuration respond
31	**Superkey 1**	... key 1 pressed for 4 seconds
32	**Superkey 2**	... key 2 pressed for 4 seconds
33	**Superkey 3**	... key 3 pressed for 4 seconds
34 : 37	**Partition no. Armed**	... partition armed by a Code or digital key
38 : 41	**Partition no. Disarmed**	... partition disarmed by a Code or digital key

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42 : 45	**Special Arming Partition no.**	... partition armed by: Command zone; Terminal **[K]**; Scheduler; PC (via modem)
46 : 49	**Special Disarming Partition no.**	... partition disarmed by: Command zone; Terminal **[K]**; Scheduler; PC (via modem)
50 : 65	**Partitions Armed/Disarmed by Code no.**	... partition armed / disarmed by Code
66 : 81	**Partitions Armed/Disarmed by Digital key no.**	... partition armed / disarmed by a digital key
82	**Command via modem**	... partition armed / disarmed, or Zone bypassed / unbypassed via modem
83 : 86	**Reset Memory Partition no.**	... partition Alarm Memory cleared
87 94	**Bypassed Zone no.**	... zone bypassed
95 102	**Unbypassed Zone no.**	... zone unbypassed
103	**Test**	... programmed in the **Teleservice** page
104	**Telephone line trouble**	... the telephone line current drops below 3 V for over 30 seconds
105	**Reset Telephone line trouble**	... Telephone line voltage normal for over 15 minutes
106 : 109	**Partition no. Disarmed by Duress**	... partition disarmed by the Duress code
110	**Event Buffer 70% full**	... 90 events logged since last reading of the Event Buffer via PC
111 : 118	**Failed Call to Tel.Number**	... a call to the telephone number (1 through 8) is unsuccessful N.B. For security reasons events **111** through **118** cannot be programmed to call their corresponding Telephone numbers. **e.g. Event 111 cannot call Telephone number no.1**
119 : 126	**Auto-bypass zone no.**	... zone bypassed automatically

1 Refer to **Zones** page for the conditions that generate zone alarm and tamper.

2 Opening of tamper microswitch **8**.

3 Applies when the **False key** option is enabled.

4 Opening of microswitch **21** (open-Main Unit tamper microswitch) or of **29** (snatch microswitch) on keypad.

Teleservice

The OMNIAMOD/V1 or OMNIAMOD/V2 modem, and the software applications will allow the Installer to teleservice Main Units, that is, solve problems and change the Main Unit parameters via telephone line.

+ The Panel will answer incoming Teleservice calls **only** when the **Teleservice** option is enabled (refer to "Enable Teleservice" paragraph in the User Manual).

The Panel will engage the line after the programmed *Number of Rings*, except when the *Double call option* is enabled.

Double call This function allows the Panel to share the telephone line with other answering devices (answerphone, fax, etc.). The line will be engaged by the device with the least number of rings. However, if the Double call option is enabled, the Panel will override other telephone devices when the Double call sequence is acknowledged.

Double-call sequence: the User must call the Panel and allow **2 rings only** before hanging up, then redial 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.
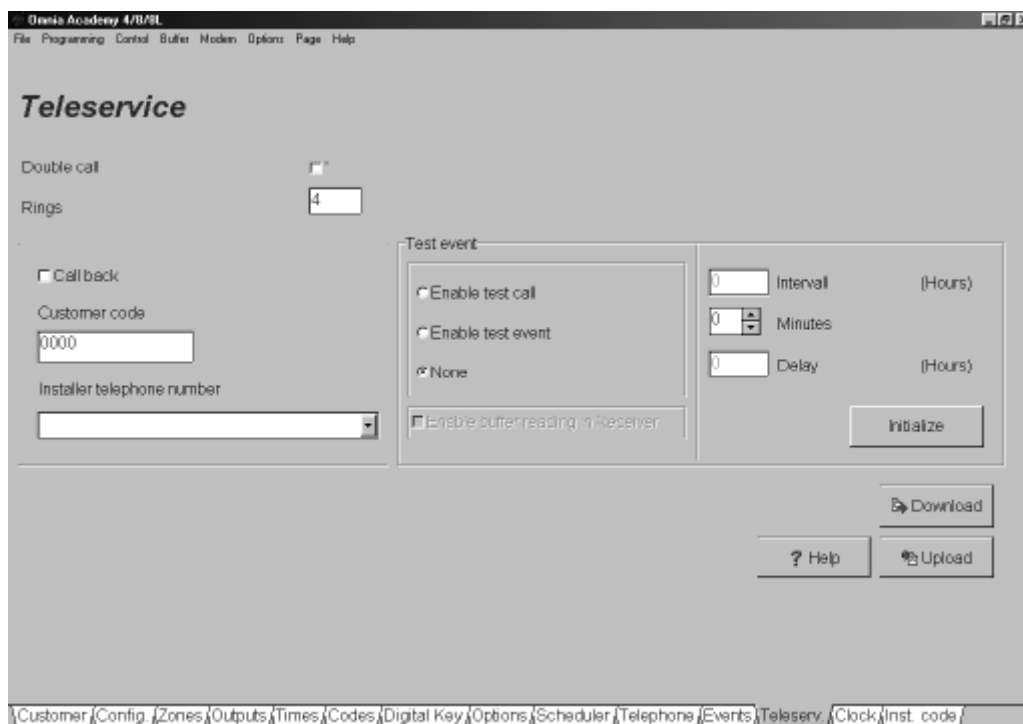
Figure 31 *Teleservice page*

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+ The Double call option is managed automatically by the OmniaMOD modem.

Rings This determines the number of rings before the Panel will answer an incoming call.

This parameter will be ignored when the Double call option is enabled.

Callback When this option is enabled the Panel will check the validity of an incoming Teleservice call by calling the number selected from the **Installer telephone number** menu. In this way authorized persons only can access Teleservice.

Customer code The Customer code in this page is linked to the Customer code in the **Customer** page, therefore, changes in this page will automatically be transferred to the **Customer** page, and vice versa.

■ **Test Event**

The Test event will activate the digital, voice and teleservice calls, as per programming in the **Test** row on the **Events** page. The Test event will be performed periodically, according to the following parameters.

Enable Test call (Teleservice) Select this option to enable the panel to send the **Test** call (Teleservice) to the **Installer**. The **Test** call will be sent automatically at regular intervals (as per **Test** programming----refer to **Events** page).

Enable Test event Select this option to enable the panel to send a Test event call to the **Central station** each time the Test event occurs.

If **Test** call (Teleservice) is enabled the panel will not send a Test event call to the Central station. If both call options are enabled the panel will send the **Test** call to the Installer only.

Test event **Interval:** enter the number of hours between test events----4 digits maximum.
Minutes: enter the minutes value of the established time of the test event----2 digits.
Delay: enter the number of hours before the established time of the first test event----4 digits maximum (refer o the example).

Initialize Click on this button to initialize the Test **Interval** and **Delay**. The **Delay** will start when the programming session closes and will be counted from the **hour** value (e.g. programming closed at **10:20** delay will start at **10:00**).

Example established time **17:30** every **Monday**

Interval: 168 hours (7 days x 24 hours)

Minutes: 30 (established time 17:**30**)

Programming session closed at **10:20 Monday**----from **10:00** to **17:00** = **9** hours therefore:

Delay: 9

The Test event will be generated at **17:30**----as the final sum includes the programmed **Delay** of **9** hours and the programmed **Minutes** value of **30**.

However, if the first Test event is required at **17.30** on **Tuesday** or **Wednesday**, etc. the **9** hour **Delay** must be increased by **24** hours for each day.

+ The programmed delay will reset the start values after every programming session.

Enable buffer reading in Receiver This option will allow the Installer to download and view the buffer contents through the **Receiver** application (Bentel Security Suite).

Clock

All scheduled actions depend on the clock setting, therefore, the Clock must be set with precision.

Clock Select the real-time **Hour**, **Minute**, **Day**, **Month** and **Year**----use the Up / Down arrows to scroll.

Figure 32 *Clock page*

Security System Control Panel
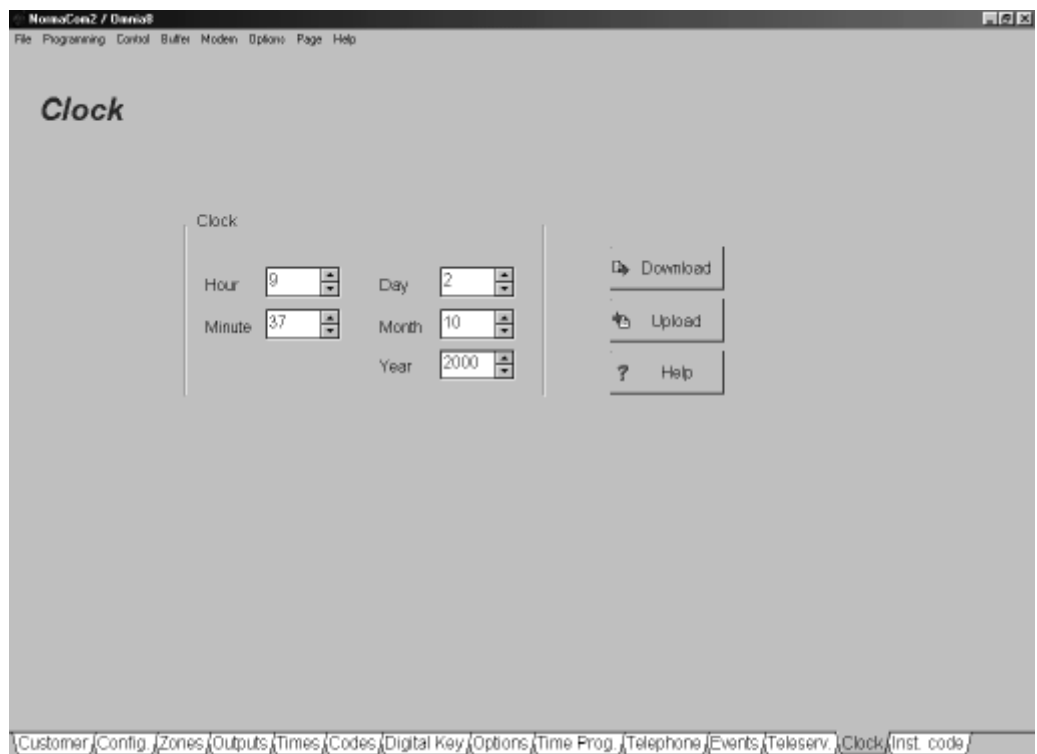
Installer code

The Installer Code PIN is of utmost importance , as it allows the Installer to program the Panel parameters via local / remote PC, and access the **IN-STALLER MENU** from the keypad.

Current Installer Code PIN
Enter the Installer Code PIN in the PIN field (Installer Code window) to download. If the entered Installer Code PIN does not match the programmed PIN----the request for a New Installer Code PIN will be revoked.

How to change Current PIN

Step 1   Enter the current Installer Code PIN in the Pin field.

Step 2   Enter the New Installer Code PIN in the New PIN field.

Step 3   Confirm New Installer Code PIN (protection against errors).

Step 4   Download the New Installer Code PIN to the Panel.

Firmware release   Select the **Load** button to view the Panel Firmware release.
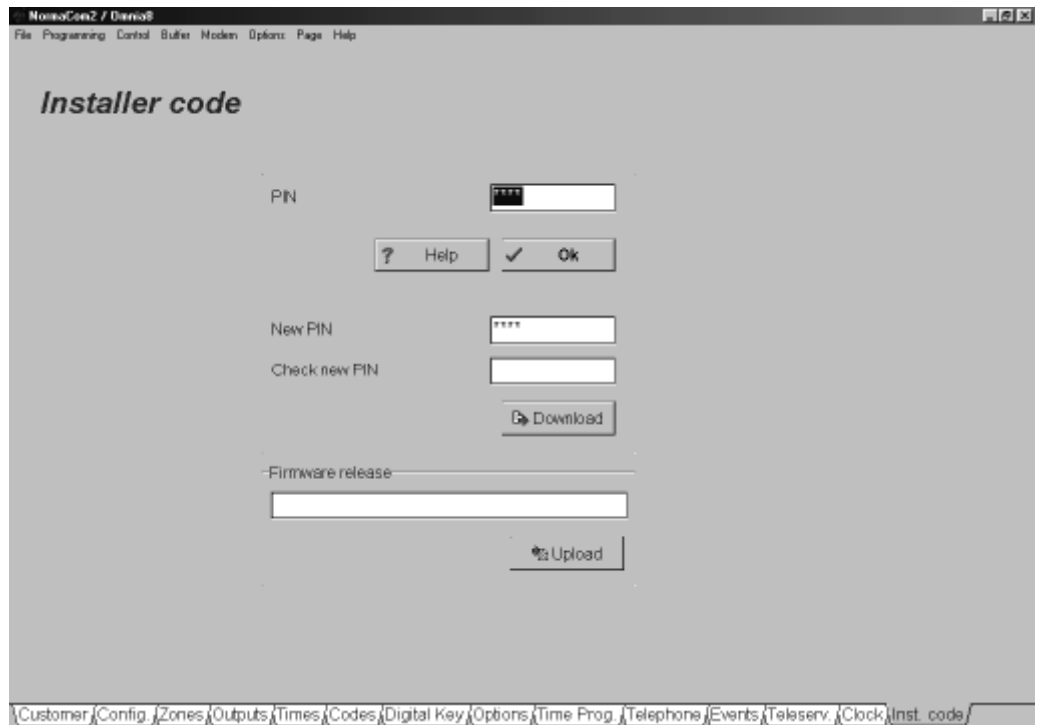
Figure 33   *Installer Code page*

On-site programming via PC

Only the Installer Code PIN can access the Panel programming phase.

Step 1   Connect a PC serial port to the Panel serial port (**7**) by a **CVSER/9F9F** serial cable (optional) or make the cable as per figure 34a.

If the PC has 25 pin serial-port connector----use an **ADSER/9M25F** adapter (optional) or make the cable as per figure 34b.

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 on **OK** to confirm.

Step 3   Select **Inst. code** page (bottom row)----enter the Installer Code PIN in the **PIN** field. Click on **OK** to confirm.

Step 4   Select Customer page (bottom row)----select the corresponding Panel type from the **Control panel** menu.

Step 5   Select **Firmware Release** from the **Options** menu then select the Panel firmware release from the **Firmware Release** menu. Click on **OK** to confirm.

Use the **Download** and **Upload** buttons (on every page) to transfer the
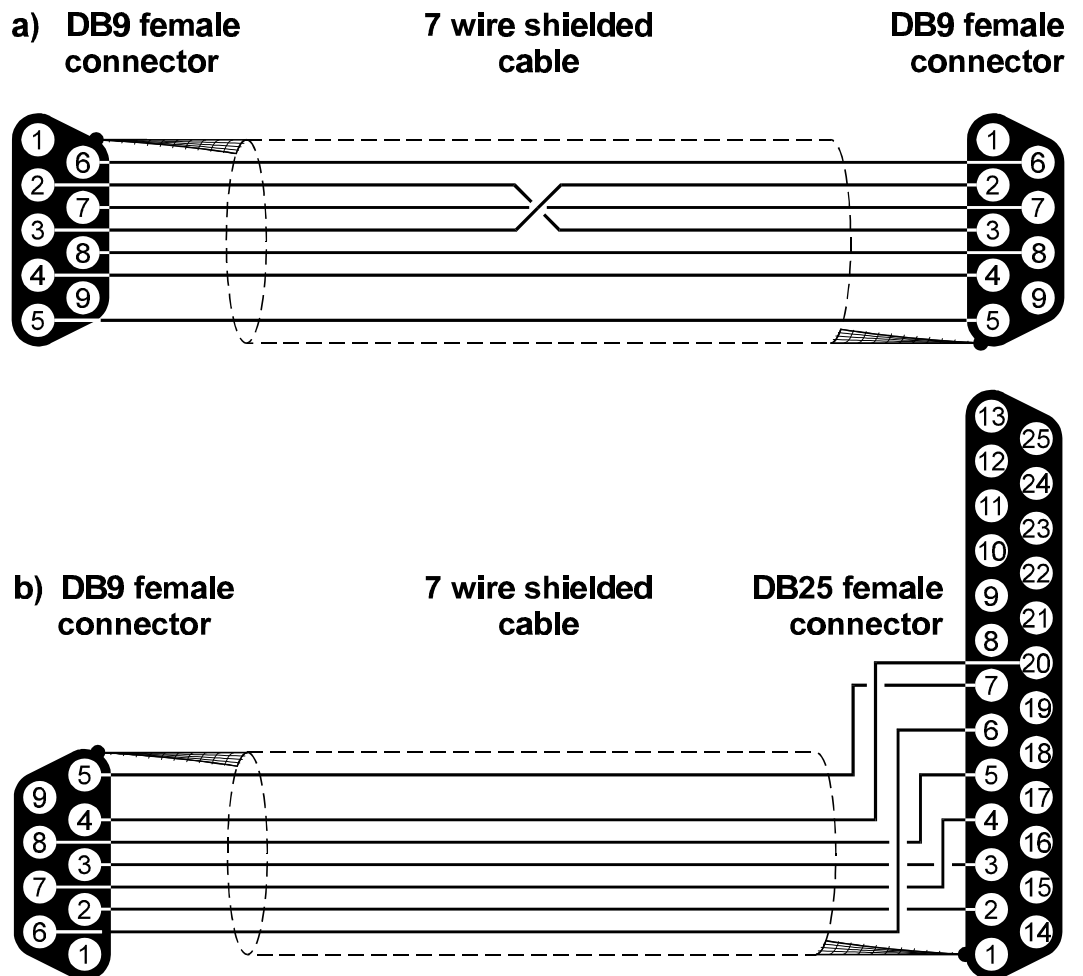
Figure 34   *Serial cables*

specific page data to and from the Panel that is connected via telephone.

Use the **Download** and **Upload** options from the **Programming** menu to transfer the full programming data to and from the Panel that is connected via telephone. Full on-site data transfer will take about 2 minutes.

Remote programming via PC

Only the Installer Code PIN can access the Panel programming phase.

+ 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 PC by means of the serial cable (as per **On-site programming via PC**).

Step 2 Select **Serial ports** from the **Options** menu----select the serial port (used for the connection to the Panel) from the **Modem** section. Click on **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 35).

Step 5 Enter the Panel telephone number in the **Telephone Number** field.

Step 6 Program:

----**Disable Tone Check** option (refer to **Telephone** paragraph)

----**Double Call** and **Callback** options (refer to **Teleservice** paragraph) as per requirements.

+ The parameters in the **Connection management** window can be temporarily changed without affecting the programmed parameters of the open customer.

Step 7 Enter the Installer Code PIN in the **Installer Code** field.

Step 8 Select **Dial** to start the connection.

The connection sequence will be shown in the box at the bottom of the **Connection management** window. Do not select the **OK** button until the connection has been established, and one of the following message appears:

Academy8L-Omnia8L-NC2 ACK
Installer code recognized

Omnia8-Academy8 ACK
Installer code recognized

Omnia4-Academy4 ACK
Installer code recognized

Step 9   Select **OK** to confirm----the **Connection management** window will close.

Use the **Download** and **Upload** buttons (on every page) to transfer the specific page data to and from the Panel that is connected via telephone.

Use the **Download** and **Upload** options from the **Programming** menu to transfer all the programming data to and from the Panel that is connected via telephone. Remote on-site data transfer will take about 7 minutes.

Step 10   Select **On-hook** from the **Modem** menu to end the connection.

Software messages   The box at the bottom of the **Connection management** window shows the connection status, as per the following messages.

Omnia/Norma MODEM v. x.xx	Modem version----connected to the PC serial port
Modem not recognized	Modem not recognized on the selected serial port. Check the cable and the selected Serial port (Select **Serial ports** from the **Options** menu).
Receiving....	The Modem / PC system is waiting for an incoming call. This is the system status when the window opens.
RING	Rings detected on telephone line
BACK RING	Dialled telephone number ringing
ACADEMY8L-OMNIA8L-NC2 ACK	Academy8L-Omnia8-NC2 Panel acknowledged
OMNIA4-ACADEMY4 ACK	Omnia4-Academy4 Panel acknowledged
OMNIA8-ACADEMY8 ACK	Omnia8-Academy8 Panel acknowledged
Installer Code reading error	The Code PIN sent to the Panel cannot be read----probably due poor quality signal on telephone line.
Failed connection	Failed Connection with the Panel----probably due to poor quality telephone line signal.
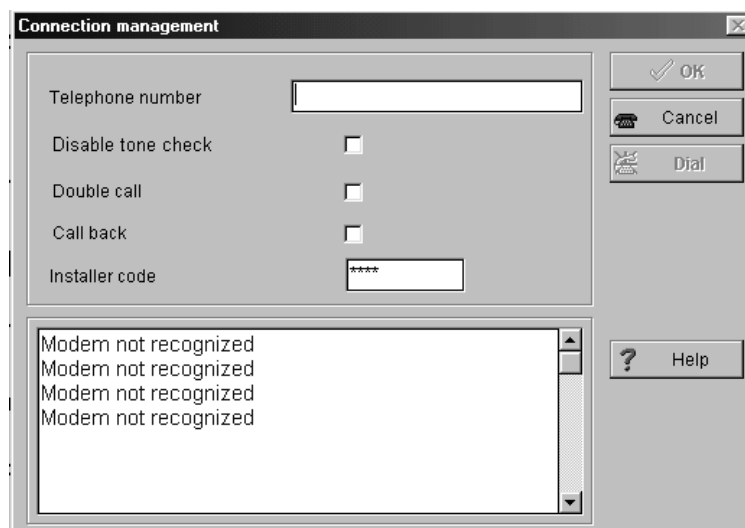
Figure 35   *Page of connection*

NCDUEVOX voice board

The NCDUEVOX voice board (optional) can send voice messages (telephone dialler).

◼ General features

❐ Voice board----records and plays alarm messages

❐ Records 8 alarm messages (four 15 second messages and four 7 second messages)

❐ Repeats the alarm message up to 4 times

❐ Loudspeaker for alarm message play

❐ Talk / Listen-in function

◼ Parts

PART	DESCRIPTION
37	*Microphone*
38	*LEDs*
39	*Loudspeaker*
40	*NCDUEVOX connector*
41	*Voice board*
42	*Play button*
43	*Record button*
44	*Terminal board for voice board connection*
45	*Microphone board*
46	*Loudspeaker connector*
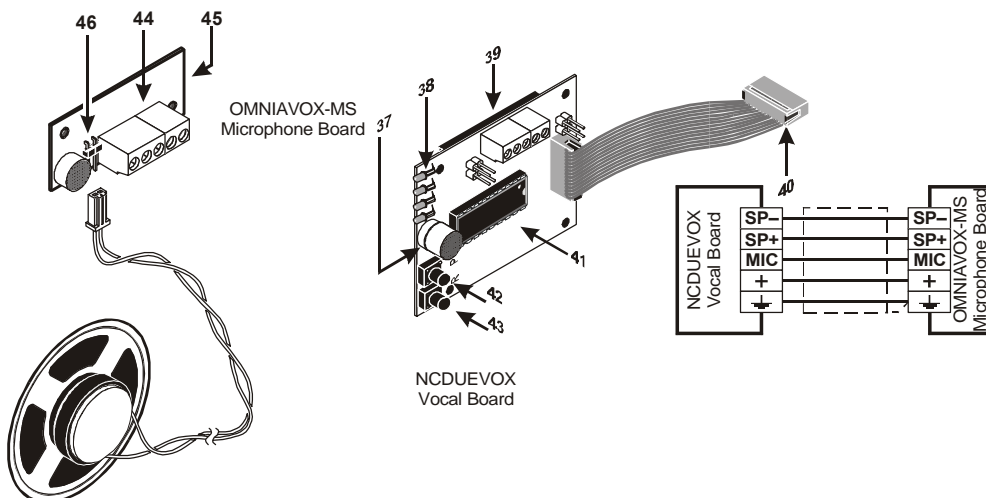
Figure 36 *Parts identification and installation of the NCDUEVOX and OMNIAVOX-MS board*

■ Extend Remote listen-in

Remote listen-in can be expanded by means of the OmniaVox-MS Micro-phone-Loudspeaker Board (optional). The OmniaVox-MS board can be located as per requirements, thus allowing the user to listen-in on specific parts of the protected premises.

The OmniaVox-MS Microphone-Loudspeaker Board----installed outside the Main Unit----must be located as near as possible to the point of intended use.

Sound quality may be affected if the maximum distance between the OmniaVox-MS Microphone-Loudspeaker Board and the NCDUEVOX Voice exceeds 50 metres.

The voice messages can be recorded by means of the NCDUEVOX Voice Board. The OmniaVox-MS should be disconnected before recording the messages, as this will improve sound quality.

■ Record / Play

The Panel must be in **Service** mode (as per maintenance). Use the jumper **13** or use a valid service digital key at any key reader **Service** mode will be signalled by fast flashing on the PRG LED on the keypad.

■ Select Message

The 8 configurations (corresponding to the 8 messages) can be viewed on the green LEDs at intervals of 1 second (see Message chart below). LED 1 is the nearest to the microphone. To select Message:

Step 1   Hold down buttons **42** and **43**.

Step 2   Release the buttons when the LEDs show the required configuration.

Message No.	1	2	3	4	5	6	7	8
LENGTH (sec.)	15	15	15	15	7	7	7	7
LED 1	**ON**	OFF	OFF	OFF	OFF	**ON**	**ON**	**ON**
LED 2	OFF	**ON**	OFF	OFF	**ON**	OFF	**ON**	**ON**
LED 3	OFF	OFF	**ON**	OFF	**ON**	**ON**	OFF	**ON**
LED 4	OFF	OFF	OFF	**ON**	**ON**	**ON**	**ON**	OFF
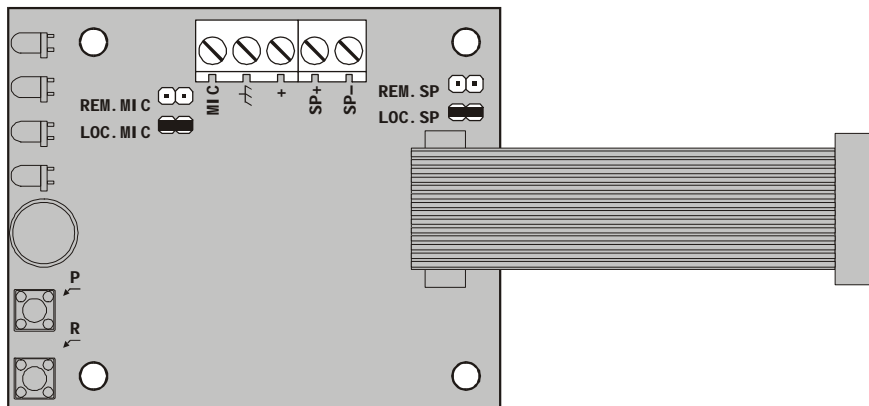
Figure 37   *Jumpers on the NCDUEVOX Board (at factory).To attach the OmniaVox-Ms and Loudspeaker—remove jumpers LOC.MIC and LOC.SP and connect jumpers REM.MIC and REM.SP*

Security System Control Panel

■ Record Alarm Messages

NCDUEVOX can record up to 8 messages. Messages 1, 2, 3 and 4 are 15 seconds long. Messages 5, 6, 7 and 8 are 7 seconds long. To record the Alarm Message----speak at a distance of approximately 20 cm from the microphone.

Step 1 Hold down the button **43**----the 4 green LEDs will flash to signal the elapsing message time.

Step 2 Press the button **43** again to stop the recording. Recording will stop automatically when the message recording time elapses.

■ Play message

Step 1 Press the button **42** - the 4 green LEDs will start flashing.

Step 2 Press the button **42** again to stop the message. Message play will stop automatically when the message time elapses.

■ Programming

The parameters on the **Telephone** and **Events** pages (refer to the "Programming" chapter) must be programmed carefully, in order to assure proper functioning of the Voice board. Note that the parameters in the **Events** page determine the activation of the Digital communicator and / or the Telephone Dialler, and the event calls. If several events occur simultaneously the corresponding messages will be played successively during the same telephone call.

■ Activation

The corresponding voice message will be sent to the telephone number when the assigned event occurs. Below is the step by step voice message procedure (see also figure 38).

Step 1 The Panel will engage the connected telephone line.

Figure 38   *voice message Flow chart*

Step 2 The Panel will wait 10 seconds for the *Dial Tone.*
----If the dial tone is detected, the Panel will go to step **3**.
----If the dial tone is not detected the Panel will hang up and go back to step **1**.

+ If the switchboard operates with non-standard tones, it may be necessary to disable the **Tone Check**. In this way the Panel will skip step **2** and go directly to step **3**.

Step 3 The Panel will dial the programmed telephone number.

Step 4 The Panel will wait for the *Line Free* tone.
----If the *Line Free* tone is detected the Panel will go to step **5**.
----If the *Line Busy* tone is detected the Panel will hang up and go back to step **1**.

Step 5 The Panel will wait for an answer.
----If the call is answered the Panel will go to step **6**.
----If the call is unanswered the Panel will hang up and go back to step **1**.

Step 6 The Panel will play the message(s) recorded on the NCDUEVOX board.

The Panel will retry for a further 8 times before quitting unanswered calls.

Security System Control Panel

Default programming

The following table shows the Panel default programming.

Configuration

Add.	Keypad in configuration	No.	Description	Partitions			
				1	2	3	4
01	**Yes**	1	Keypad 001	Yes	Yes	Yes	Yes
02	No	2	Keypad 002	Yes	Yes	Yes	Yes
...	"	...	...	"	"	"	"
08	No	8	Keypad 008	Yes	Yes	Yes	Yes

Add.	Key readers in configuration	No.	Description	Red				Yellow				Green			
				1	2	3	4	1	2	3	4	1	2	3	4
01	No	1	Key reader 001	Yes	Yes	Yes	Yes	D	D	D	D	D	D	D	D
...	"	...	...	"	"	"	"	"	"	"	"	"	"	"	"
16	No	16	Key reader 016	Yes	Yes	Yes	Yes	D	D	D	D	D	D	D	D

Zone

No.	Ter.	Description	Partitions				Alarm or Command	Types	Bal.	Cycles	Attr.
			1	2	3	4					
1	L1	Zone 001	**Yes**	No	No	No	Alarm	Delayed	Double Bal.	Repetitive	--
2	L2	Zone 002	**Yes**	No	No	No	Alarm	Delayed	Double Bal.	Repetitive	--
3	L3	Zone 003	**Yes**	No	No	No	Alarm	Instant	Double Bal.	Repetitive	--
4	L4	Zone 004	**Yes**	No	No	No	Alarm	Instant	Double Bal.	Repetitive	--
5	L5	Zone 005	**Yes**	No	No	No	Alarm	Instant	Double Bal.	Repetitive	--
6	L6	Zone 006	**Yes**	No	No	No	Alarm	Instant	Double Bal.	Repetitive	--
7	L7	Zone 007	**Yes**	No	No	No	Alarm	Instant	Double Bal.	Repetitive	--
8	L8	Zone 008	**Yes**	No	No	No	Alarm	Instant	Double Bal.	Repetitive	--

Outputs

No.	Ter.	Description	Attributes	Partitions				Signals
				1	2	3	4	
1	O1	Output 1	NO	**Yes**	No	No	No	Partitions Armed
2	O2	Output 2	NO	**Yes**	No	No	No	Trouble
3	O3	Output 3	NO	**Yes**	No	No	No	Entry Time
4	O4	Output 4	NO	**Yes**	No	No	No	Exit Time

Times

No.	Description	Entry T.	Exit T.	Delay T.	Alarm T.	Patrol T.
1	Partition 001	30 sec.	30 sec.	8 min.		
2	Partition 002	30 sec.	30 sec.	8 min.	3 min.	5 min.
3	Partition 003	30 sec.	30 sec.	8 min.		
4	Partition 004	30 sec.	30 sec.	8 min.		

Codes

No.	Description	Type	PIN	Partitions				A				B			
				1	2	3	4	1	2	3	4	1	2	3	4
1	Code 001	Main User	0001	**Yes**	**Yes**	**Yes**	**Yes**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**
2	Code 002	User	0002	**Yes**	**Yes**	**Yes**	**Yes**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**
3	Code 003	Duress	0003	**Yes**	**Yes**	**Yes**	**Yes**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**
4	Code 004	Patrol	0004	**Yes**	**Yes**	**Yes**	**Yes**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**
5	Code 005	Disabled	0005	No	No	No	No	--	--	--	--	--	--	--	--
6	Code 006	Disabled	0006	No	No	No	No	--	--	--	--	--	--	--	--
7	Code 007	Disabled	0007	No	No	No	No	--	--	--	--	--	--	--	--
8	Code 008	Disabled	0008	No	No	No	No	--	--	--	--	--	--	--	--
9	Code 009	Disabled	0009	No	No	No	No	--	--	--	--	--	--	--	--
10	Code 010	Disabled	0010	No	No	No	No	--	--	--	--	--	--	--	--
11	Code 011	Disabled	0011	No	No	No	No	--	--	--	--	--	--	--	--
12	Code 012	Disabled	0012	No	No	No	No	--	--	--	--	--	--	--	--
13	Code 013	Disabled	0013	No	No	No	No	--	--	--	--	--	--	--	--
14	Code 014	Disabled	0014	No	No	No	No	--	--	--	--	--	--	--	--
15	Code 015	Disabled	0015	No	No	No	No	--	--	--	--	--	--	--	--
16	Code 016	Disabled	0016	No	No	No	No	--	--	--	--	--	--	--	--
17	Code 017	Disabled	0017	No	No	No	No	--	--	--	--	--	--	--	--
18	Code 018	Disabled	0018	No	No	No	No	--	--	--	--	--	--	--	--
19	Code 019	Disabled	0019	No	No	No	No	--	--	--	--	--	--	--	--
20	Code 020	Disabled	0020	No	No	No	No	--	--	--	--	--	--	--	--
21	Code 021	Disabled	0021	No	No	No	No	--	--	--	--	--	--	--	--
22	Code 022	Disabled	0022	No	No	No	No	--	--	--	--	--	--	--	--
23	Code 023	Disabled	0023	No	No	No	No	--	--	--	--	--	--	--	--

Digital keys

No.	Description	Enable	Service	Partitions			
				1	2	3	4
1	Digital key 1	No	No	No	No	No	No
...	...	"	"	"	"	"	"
128	Digital key128	No	No	No	No	No	No

Scheduler

Partition	Weekly						
	Mon	Tue	Wed	Thurs	Fri	Sat	Sun
Partition 001	--	--	--	--	--	--	--
Partition 002	--	--	--	--	--	--	--
Partition 003	--	--	--	--	--	--	--
Partition 004	--	--	--	--	--	--	--

Security System Control Panel

Options

Description	Default
False Digital key signalling	No
Immediate mains trouble signalling	No
Key reader LEDs permanently active	**Yes**
Reset alarm memory denied to Installer code	No
Reset tamper memory denied to User code	No
Arming Denied----Battery trouble	No
Disable telephone line check	No
Bypass tamper zone	No
Call all telemonitoring number	No
Call all vocal numbers	**Yes**
Autobypass zones	No
Real time zone restore	No
2-way audio alert	No
ICON/KP keypad	No

	Partitions			
	1	**2**	**3**	**4**
Auto-Reset Memories	No	No	No	No
Auxiliary Command (k)	**Yes**	**Yes**	**Yes**	**Yes**

Telephone

No.	Num.	Description	Type	Protocol	Cust. Code	Check sum	Dis. Tone check	Pulse Dialling
1	--	Tel. number 001	Central Station	Contact ID	0000	--		
2	--	Tel. number 002	Voice message	--	--	--		
3	--	Tel. number 003	Voice message	--	--	--		
4	--	Tel. number 004	Voice message	--	--	--	No	No
5	--	Tel. number 005	Voice message	--	--	--		
6	--	Tel. number 006	Voice message	--	--	--		
7	--	Tel. number 007	Voice message	--	--	--		
8	--	Tel. number 008	Voice message	--	--	--		

Events

No.	Description	Telephone numbers								Event Code	Voice message
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**		
1	Partition Alarm 1 (Partition 001)	No	No	No	No	No	No	No	No	00	--
...	...	"	"	"	"	"	"	"	"	"	"
110	Event Buffer 70% full	No	No	No	No	No	No	No	No	00	--

Teleservice

Double Call	No. rings	Callback	Test Event
No	4	No	No

Installer Code   The factory default Installer Code PIN is 0024

■ **Reset Default**

To Reset the default programming, and to restart system programming:

Step 1   Disconnect power supply from Mains and battery.

Step 2   Wait 10 seconds.

Step 3   Restore power to the system by short-circuiting pins **2** and **3** of the connector **7**.

✚   The **Reset Default** procedure will not effect the Digital key programming. Therefore, all the programmed digital keys will remain valid. To invalidate digital keys new random codes must be generated.

Alarm / Restoral Event Codes for CONTACT ID

The following table shows the Alarm / Restoral Event Codes for CONTACT: The non-modifiable part of the code is shown in brackets.

Medical Alarms		Duress	(1)21	Sensor Tamper	(1)44
Medical	(1)AA	Silent	(1)22	Module Tamper	(1)45
Pendant Transmitter	(1)A1	Audible	(1)23	**24 hour Non-Burglary**	
Fail to Report In	(1)A2	**Burglar Alarms**		24 hour non-burglary	(1)5A
Fire Alarms		Burglary	(1)3A	Gas detected	(1)51
Fire Alarm	(1)1A	Perimeter	(1)31	Refrigeration	(1)52
Smoke	(1)11	Interior	(1)32	Loss of Heat	(1)53
Combustion	(1)12	24 Ore	(1)33	Water Leakage	(1)54
Water Flow	(1)13	Entry / Exit	(1)34	Foil Break	(1)55
Heat	(1)14	Day / Night	(1)35	Day Trouble	(1)56
Pull Station	(1)15	Outdoor	(1)36	Low Bottle Gas level	(1)57
Duct	(1)16	Tamper	(1)37	High temperature	(1)58
Flame	(1)17	Near alarm	(1)38	Low Temperature	(1)59
Near Alarm	(1)18	**General Alarms**		Loss of Air Flow	(1)61
Panic Alarms		General Alarm	(1)4A		
Panic	(1)2A	Exp. Module Failure	(1)43		

⬦ TROUBLE LED on keypads is ON

Press Superkey ⬚5 *to activate the Trouble viewing mode (refer to USER MANUAL) and identify the type of Trouble.*
If Default programming is signalled, the Codes are at default and must be changed for security reasons. However, for other TROUBLES refer to the list above.

⬦ FUSE LED is ON (Academy8L)

Trouble viewing mode—Key ⬚1 ***ON (Academy4-Academy8)***
Ensure that fuse 5 is intact. In the event of fuse trouble find and eliminate the cause (short-circuit on terminals [+F], [+B], +[12F], [12], [+N], [+A]) before replacing the fuse (250 V - 3 A).

⬦ MAIN LED on Main Unit is OFF (Academy8L)

Trouble viewing mode—Key ⬚4 *ON (Academy4-Academy8)*
Check the voltage on terminal [11].

⬦ LOW BATTERY LED on Main Unit is ON (Academy8L)

Trouble viewing mode—Key ⬚7 *ON (Academy4-Academy8)*
Check the polarity on the connectors 14.
*Burnt fuse—Connect the battery properly and replace fuse **6** (250 V - 8 A).*
For low battery—recharge or replace the battery as required.

⬦ BPI BUS LED on Main Unit is ON (Academy8L)

Trouble viewing mode—Key ⬚A* ***ON (Academy4-Academy8)***
Ensure that at least one keypad is connected, and that all the connections and addresses of the control devices are done properly (refer to "Connection of the control devices").

⬦ Communicator cannot engage the telephone line
COMMUNICATOR LED is OFF (Academy8L)

Trouble viewing mode—Key ⬚0 ***ON (Academy4-Academy8)***
For Central Station calls check that:
➢ *the alarm generating event is coded;*
➢*the Central Station telephone number, activated by the call generating event, is programmed properly.*
For voice messages check that:
➢ *the telephone number is programmed properly;*
➢ *the telephone number is programmed as "Voice-call" and a voice-call message is programmed for the event in question.*

◈ **The communicator engages the telephone line but cannot complete the call**
   COMMUNICATOR LED is OFF (Academy8L)

Trouble viewing mode—Key [0 ↓] *ON (Academy4-Academy8)*

Check that:
➤ *the dial tone is correct, if not, disable the Tone Check;*
➤ *the telephone line (connected to Academy8L) supports the programmed dialling mode;*
➤ *the telephone number is correct (N.B. When connected to a switchboard etc.—the first number should be the number that will engage the PSTN line).*
For Central Station calls check that:
➤ *the programmed protocol is used by the Central Station;*
➤ *the Customer Code is programmed properly;*
➤ *the call generating event code is programmed properly.*

◈ **The Personal Computer cannot connect to the Main Unit.**

Check that:
the BPI BUS LED on Main Unit is OFF (Academy8L)
➤ *the system is disarmed, and is not in the programming phase;*
➤ *the serial port is the correct one, and is functioning properly;*
➤ *the connections correspond to those indicated on page 60—for self-made serial cables.*