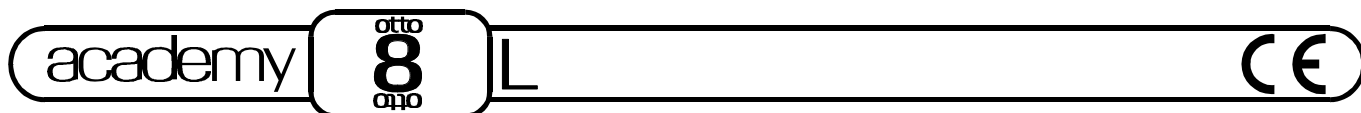
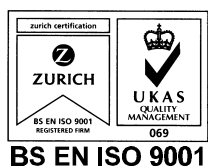


DIGITAL COMMUNICATOR CONTROL PANEL



○ MAIN UNIT MANUAL





Digital Communicator Control Panel



complies to:

Emission: EN 50081-1/1992

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

Low voltage: EN 60950/1996 + A4/1997

Burglar alarm system: CEI 79/2 2a 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 be 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.



via Florida - Z.I. Valtresino - 63013 GROTTAMMARE (AP) - ITALY
Main Unit Manual: ACADEMY8L Control Panel and Digital Communicator
ISTR. UNIT. CENT. INGL. BENT.ACADEMY8L ISTUCBLEACADEM8L

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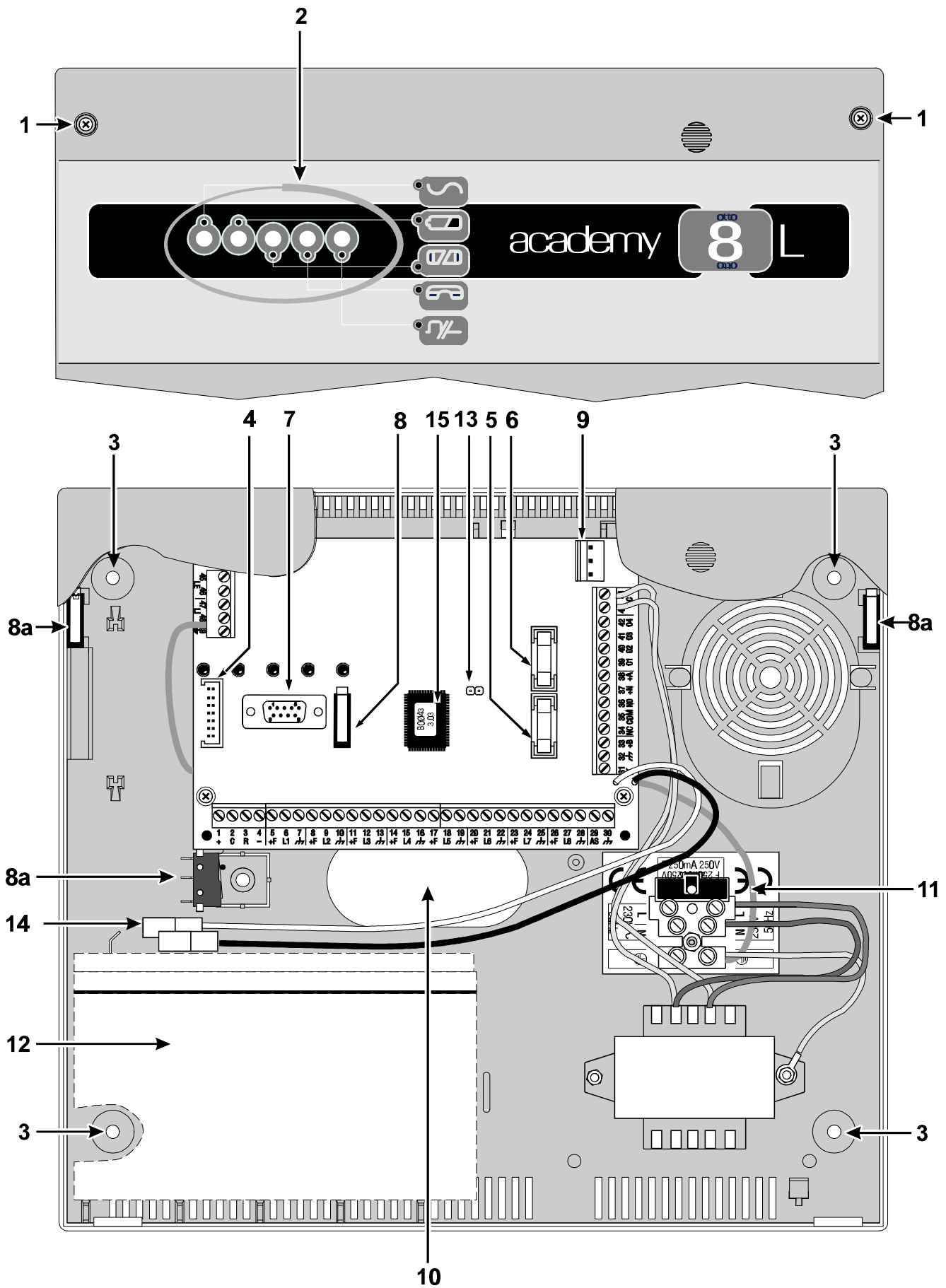







Figure 1

Parts



The table below provides a brief description of each part (the numbers in boldface refer to the parts illustrated in the **figure 1**), and the meaning of the **ON / OFF** status of each indicator **LED**.

PARTS		DESCRIPTIONS
1	4 screws	
2	5 Indicator LEDs	
3	4 holes (Ø 5 mm)	
4	NormVox2 voice board connector	
5	Protection fuse for sensor and auxiliary power supply (250 V - 5 A)	
6	Protection fuse against polarity inversion on battery (250 V - 8 A)	
7	DB9 connector for PC connection via serial cable	
8-8a	Tamper microswitch; 8a optional (see Installation Manual page 26)	
9	Connector for the 3 A switching power supply BAQ35 or BAW35 (optional)	
10	3 holes for wires (Ø40 mm)	
11	Mains connection terminals (230 V~ ±10% / 150 mA)	
12	Housing for 13.8 V / 7 Ah standby battery (optional)	
13	Service mode jumper. Connection of this jumper will disable the Alarm outputs for maintenance purposes.	
14	Battery connectors	
15	Firmware Release: to be communicated to Service dealer	

LEDs	STATUS
	ON: Panel powered from mains OFF: Mains failure----Panel powered by the battery
	OFF: Battery OK ON: Battery low or battery trouble
	OFF: Fuse 5 intact (power to sensors) ON: Fuse 5 blown
	OFF: Communicator in standby status: telephone line free ON: Telephone line engaged by the communicator
	OFF: Communication bus OK ON: Communication bus trouble



Mounting the Panel

The Panel should be located in a dry area, preferably near the mains power source and incoming telephone line.

Follow the installation instructions carefully, and refer to **figure 1**.

- Step 1** Unfasten the screws **(1)** and remove the front.
- Step 2** Check for cable conduits and water pipes before drilling. Use the back box as a drill pattern **(holes 3)**.
- Step 3** Attach the NCDUEVOX voice board 8 (if used).
- Step 4** Pull the wires through the hole **(10)** and mount the back box.

Terminal board

Below is a description of the Main Unit terminal board, keypads and key readers.

- The **Terminal** column shows the terminal number and the identifier of each terminal (in square brackets).
- The **DESCRIPTION** column provides a description of each terminal.

The **V** column shows the voltage on the corresponding terminal.

The **I** column shows the maximum current for each terminal.

Where **(1)** or **(2)** is shown as the value in the **I** column refer to the footnote below the terminal description table.



Terminal	DESCRIPTION	V	I
5-8-11-14 17-20-23-26 [+F]	Sensor power-supply terminals	13.8	(1)
6-9-12-15-18 21-24-27 [L1 ¼ L8]	Alarm Zones programmable as NC, NO, Balanced or Double Balanced	-	-
7-10-13-16-19-22 25-28-30-36 [⌚]	Ground and Negative	0	-
1 [+]	Power supply to additional devices (keypads and key readers)	13.8	(1)
2 [C]	Connection terminal for standard BPI control devices (keypads and key readers)	-	-
3 [R]	Connection terminal for standard BPI control devices (keypads and key readers)	-	-
4 [-]	Power supply (negative) (keypads and key readers)		
29 [AS]	Balanced Tamper line	-	-
38[+A]	Terminal for indoor sirens Standby status → terminal open Alarm status → voltage on terminal	13.8	(2)
37 [+N]	Terminal for self-powered sirens Standby status → voltage on terminal Alarm status → terminal open	13.8	(1)
34-35-36 [NC-COM-NO]	Voltage free alarm-relay contacts Standby status → NC connected to COM and NO open Alarm status → NO connected to COM and NC open	-	3
31 [K]	Auxiliary terminal to Arm / Disarm the Panel by means non-standard BPI devices (keylock switch, digital key, proximity key, etc.)	13.8	-
39-40-41-42 [O1] [O2] [O3] [O4]	Programmable open-collector output	0	0.5
33 [+B]	Auxiliary power supply	13.8	(1)
45-46 [LE]	Incoming telephone line connection terminals	-	-
47-48 [LI]	Terminals for line sharing devices (switchboard, telephone, fax, modem, etc.)	-	-
49 [⊥]	Earth	-	-

- (1) The total current absorbed by terminals [**+F**], [**+B**], [**+**] and [**+N**] must not exceed 1 A.
- (2) Terminal [**+A**] can absorb up to 2.5 A for short periods.



Power supply connection

The Panel is powered by the Mains source (230 V/50 Hz) through an on-board power supply. The Mains wires must be connected to the terminals **(11)** and the battery must be plugged into the connectors **(14)**.

On power up—the green LED  Main (on the Panel) will go **ON**.
The red LEDs:



Battery



Fuse



Communicator



Communication Bus --- will all go **OFF**.

- + On power up (Open Panel) the OPEN LED on the keypad will go **ON** but the Panel will not generate a **Tamper Alarm**. However, once the Panel is closed a **Tamper Alarm** will be generated if the Panel is reopened.

The battery (13.8 V, 7 Ah max. not supplied) will supply power during mains failure. Mains failure will be signalled as follows:


- **MAIN** LED on the Panel will go **OFF**.
- **TROUBLE** LED on the Control Keypad will go **ON**.
- Activation of one of the auxiliary outputs: 39[O1], 40[O2], 41[O3], 42[O4]—if programmed to signal **TROUBLE**.

The cause of trouble must always be eliminated before the battery empties. Total power failure (mains and battery) will not affect the configuration, as the non-volatile memory will save any changes made during Armed status.

Open Panel

Access the programming phase before opening the Panel for servicing, testing etc., as this will disable the Tamper microswitch.

Step 1 Enter **INSTALLER PIN**.

Step 2 Press  to access programming.

Step 3 Open the Panel.

or

Step 1 Enter **MAIN USER PIN**.

Step 2 Press .



- Step 3** Press to access programming.
- Step 4** Open the Panel and service as required.
The OPEN LED on the keypads will stay **ON** until the Panel is closed again. No alarms will be generated during this phase.
- Step 5** Close the Panel.
- Step 6** Press to exit the programming phase.

A Typical System

Figure 2 illustrates a typical system.

- Incoming telephone line connection
- Signalling device connections—indoor siren and self-powered siren
- Connection of a burglar sensor to line L1
- Connection of three fire sensors to line L8
- Tamper line connection
- Connection of additional devices (Keypad and Key reader) to the BPI bus

Please note:

- Line L1 must be programmed as **Double Balanced**. This configuration provides tamper detection, and requires two wires only.
- Line L8 must be programmed as **Fire** and the auxiliary output (terminal 42[O4]) as **Fire GND — Normally Closed**.

Not all Alarm line connections are illustrated, however, burglar sensors must be connected as per line L1, and fire sensors as per line L8.

- + Use shielded cable—one end must be connected to the Panel ground and the other to the device ground.



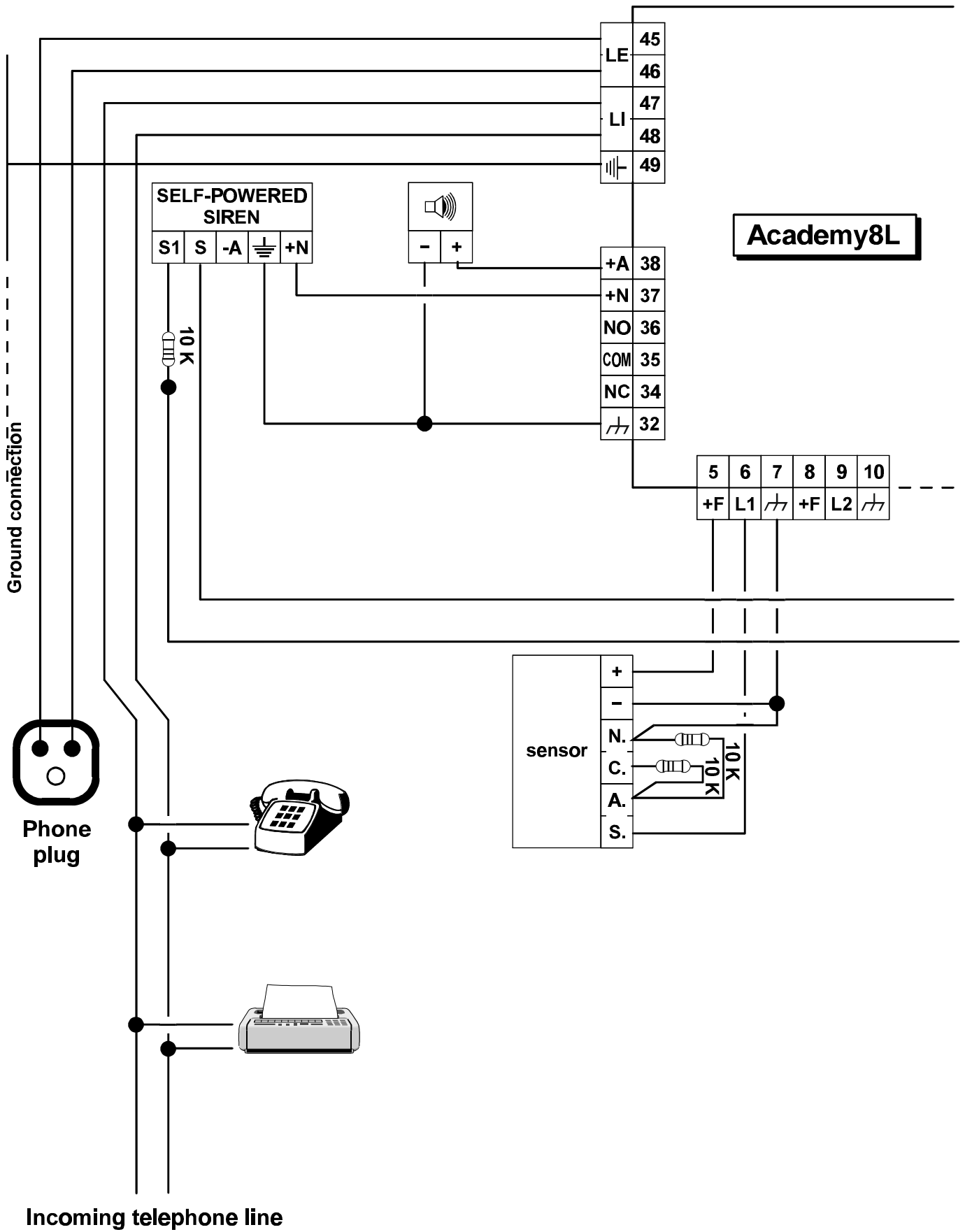
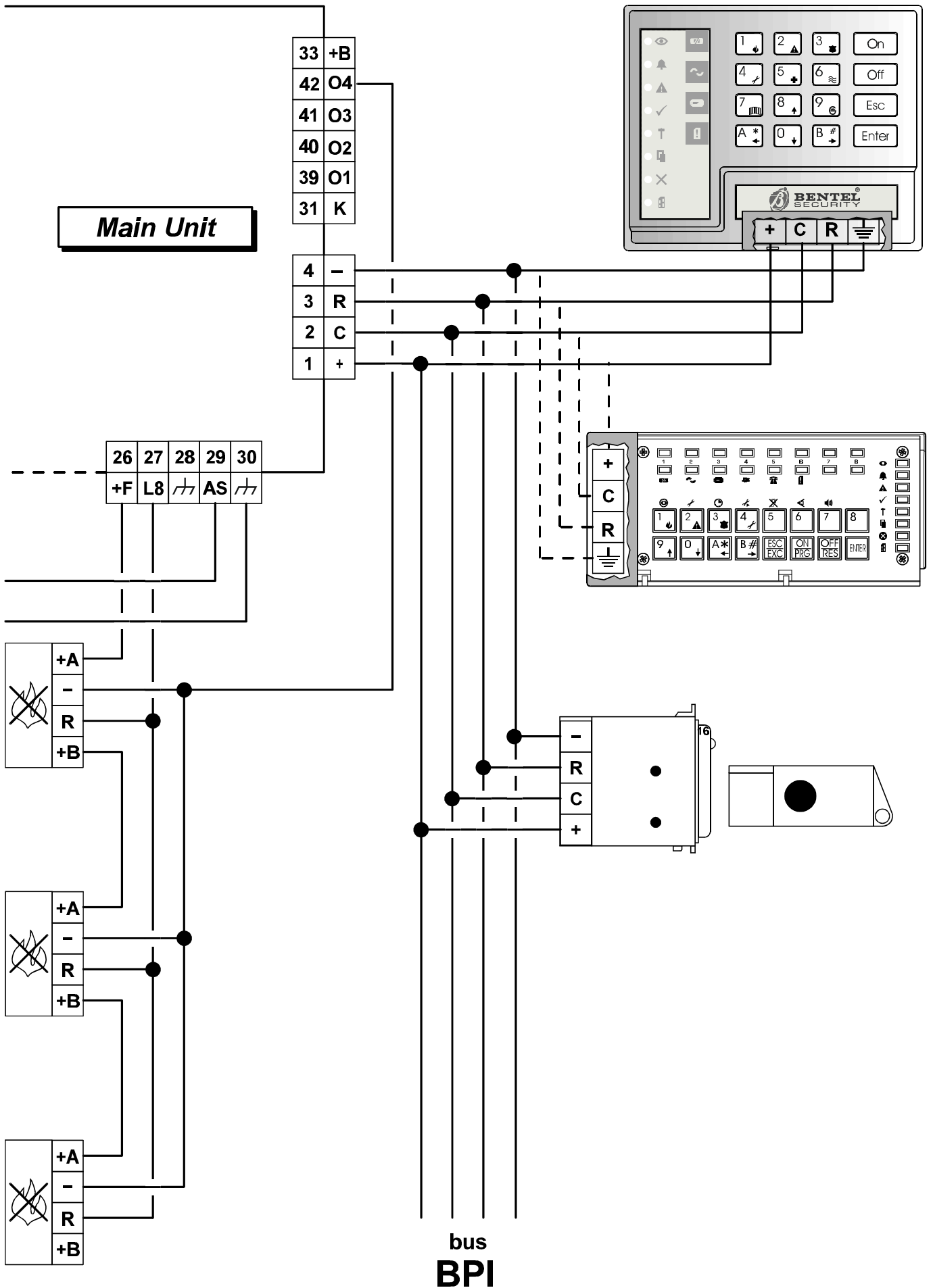


Figure 2 A Typical System





NCDUEVOX voice board

■ How to attach the NCDUEVOX voice board

Disconnect the Mains and battery before attaching the NCDUEVOX board to a Panel that is in service.

- Step 1** Slot the NCDUEVOX voice board into its holder—microphone to the top.
- Step 2** Connect the NCDUEVOX cable (**40**) to the connector (**4**) on the Main Unit board.
- Step 3** When the NCDUEVOX is properly attached—complete the connections then power the Panel, and record the alarm messages, as per the instructions in the **INSTALLATION MANUAL**.

The optional OmniaVox-MS and Speaker will allow Remote Listen-in on ambients, other than that of the Panel. Locate the OmniaVox-MS and Speaker as required then complete the connections with the Voice Board (use shielded cable only). Refer to the Installation Manual.

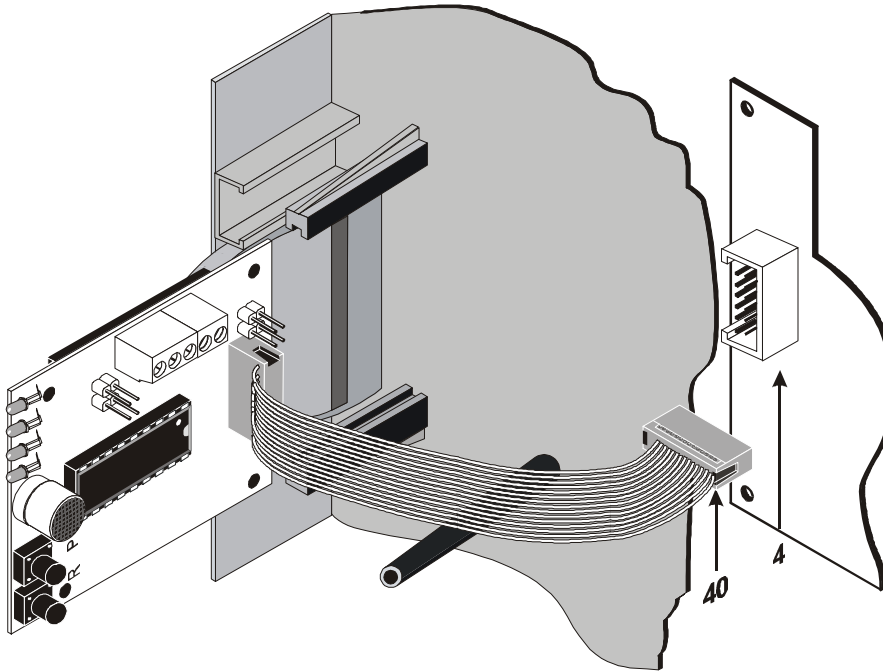


Figure 3 Attaching the NCDUEVOX board