





PROTEC4 4 zones burglary central unit

USER'S MANUAL

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1 Introduction

Dear customer,

we desire thank you for buying a CIA product. We recommend us to read this manual with attention, because it will be very useful in phase of installation and use.

As CIA customer you can make use of a series of services, such as the technical telephone assistance on the CIA products.

1.1 Central unit description

The PROTEC4 is a burglary central unit with microprocessor technology to use on the whole of a burglary protection system for habitation and commercial rooms of small and middle dimensions.

It is to be used with the perimetral protection magnetic sensors, and/or with the volumetric detectors.

The alarm can be:sounding/luminous,with the autopowered SA310 siren for outdoor use; sounding, with the piezoelectric SP31 siren for inside use; telephonic, with the TD81 telephone dialer.

1.2 Operating features

- 4 protection zones: (1 delayed, 2 immediate, 1 24 hours) with alarm memory.
- All zones singly excludibles.
- Exit timing adjustable from 5 up to 75 sec.
- Entrance time from 5 up to 90 sec.
- Alarm duration from 30 up to 600 sec.
- Control LEDs: main voltage presence, exit timing and zone status.
- Visualization of the zones state with central unit switched off.
- Protection fuse on sirens voltage output and service voltage output.
- Sabotage alarm for attempt to exclude zone when the central is switched on.
- Output for connection for controller systems SK,KB and SCM (electronic key, electronic keyboard and magnetic card).
- "ALARM MEMORY" function for visualization of the zones that caused the alarm.
- Central unit protection by intermal tamper (can be excluded for maintenance).
- According to the 1° level of CEI 79-2 standard.



1.3 Technical features

- Operating voltage:
- Maximum current absorption:
- Service output voltage:
- Maximum current supplied on services output:
- Fuse on services output voltage
- Maximum current supplied on sirens output
- Sirens output fuse:
- Maximum current supplied by power supplier AL5:
- Min operating temperature:
- Max operating temperature:
- Box protection level:
- Buffer battery:
- Fuse on primary of the power supply:
- Fuse on secondary of the power supply:
- Central unit dimensions:
- Insulation class:
- Prestation level:

230V~+10% 50Hz 140mA 13V! ±5% 650mA F type 1A 3A (connected to the battery) Tipo F 3,15A 1A 5+2°C 40±2°C (relative humidity. 93±2%) IP30 12V7Ah F type 250mA F type 1A 280x230x95mm 1°



DECLARATION OF **(€** CONFORMITY

CONSTRUCTOR: HILTRON S.r.l.

ADDRESS: Circ. Est. di Napoli compls. Lemar 80026 Casoria (NA)

TRADE MARK: 🖉 CA

PRODUCT CODE: PROTEC4

PRODUCT DESCRIPTION: 4 ZONES BURGLARY CENTRAL UNIT

THE PRODUCT RESULTS CONFORM TO THE FOLLOWING STANDARDS REQUIREMENTS:

STND SPECIFICATION TITLE

EN50081-1 EMISSION STND Part.1: residential, commercial and light industry

IMMUNITY STND

EN50082-1

EN60335-1

SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES

Part.1: residential, commercial and light industry

CONFORMITY WAS BASED ON EMC PERFORMANCE TESTS CONDUCTED ON SAMPLE RUNNING IN THE DESIGNED WORKING CONDITIONS AS FOR ITS FUNCTIONAL PROJECT, IT MEETS 89/336/EEC AND 73/23 EEC REQUIREMENTS.

DATE

21 May 1999

COMPANY MANAGEMENT



2 Installation

2.1 General instructions

- Do not install the device at places exposed to the bad weather or to the extreme temperatures.
- The central unit is protected from the opening, but the installation in a safe place is a greater protection of the device.
- For a strong and safe fixing, it needs making sure the wall surface is plane.
- Fixing the device by the four fishers included in the central unit and no replacing them with others of more small size.
- Fixing the central unit at a height that allows an easy access to the frontal panel.
- The central unit must be connected with an alarm system according to CEI 79-3 Standard or similar.

2.2 Power supply

It 's important to know that the entire system is powered exclusively by the 12V 7,5Ah lead battery inside of the burglary central unit; the lead battery is constantly in charge by the AL5 power supplier/battery connected to the 230V~ main power supply.

WARNING!

The main power supply 230Vac has to be connected to the power supplier/battery charger AL5 by two 1,5mm² double-isolation wires coming from a sectioning switch(i.e. a magneto-thermic protection switch) used exclusively for the burglary central unit. Inside of the central unit positioning orderly the two wires, locking them by wrappers.



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When the installation is finished, it needs to connect the red/black conductors equipped with faston coming from the AL5 power supplier to the battery. Be careful about connection polarity (Red=positive [+] of the battery; Black=negative [-] of the battery), so that no cause great damages to the connected devices.

ATTENTION!

The 12V7Ah battery must <u>always be connected</u>. Ensure of its efficient charge state, measuring the tension by a volt-meter, after disconnecting the main power supply from the AL5 power supplier/battery charger by the sectioning switch. Also in case of changing of the lead battery it's necessary to disconnect the main power supply from the AL5 power supplier/battery charger, to avoid that the entire system burden on it.

Don't connect on 13Vcc services power supply output of the central unit (clamps [5] and [6] "+12V") a load beyond 650mA.

After connecting the central unit and the siren batteries, it's possible to power on the system by the sectioning switch connected on the AL5. The "RETE" LED signals the effective presence of the main voltage.

The PROTEC4 and the AL5 don't need the ground connection, but for safety reasons and for the respect of the laws in vigor we suggest to make and test a ground connection for the all devices that need it.

2.3 Connections

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16



- 1-2 Output in series to the key switch of the front panel. Cut to connect PX, SK or KB command systems.
- 3-4 13Vcc output tension on system enabled for the telephone dialer enabling.
- 5-6 13Vcc regular output tension for volumetric detectors, telephone dialer, etc. ATTENTION! Maximun current supplied: 650mA
- 7-8 13Vcc output tension to recharge the autopowered siren. In alarm condition this tension falls.
- 8-9 13Vcc output tension in alarm condition for supplementary indoor sirens and telephone dialer activation.
- 10 11 13Vcc output tension to command the LED on PX, SK or KB command systems. (10) = red LED

(11) = green LED

- 12-13 24h anti-sabotage protection zone NC* line (immediated).
- 12 14 Zone 1 NC* line (immediated).
- 12 15 Zone 2 NC* line (immediated).
- 12 16 Zone 3 NC* line (delayed).

^{*} If the alarm zones are not used, the clamps must be arched.



2.3.1 Electronic key



* This connection will activate the 24h anti-sabotage protection alarm when a false key is inserted in the SKI connector.



2.3.2 Reed contacts and volumetric detectors



ATTENTION!

The PROTEC4 doesn't allow the connection of the 'switch' contacts for rolling shutters type C778 directly on the terminal boards becouse this central unit hasn't got an impulse counter.

Use the SCHSW impulse counter board to connect the 'switch' contact for rolling shutters type C778, or use the 'switch' contact for rolling shutters C800 with integrated impulse counter for the direct connection to this central unit.



2.3.3 Telephone dialer





2.3.4 Sirens





3 Programmation

3.1 Exiting time regulation

The exiting time allows the system user to leave the protected zones after the system enabling. During this time a possible activation of the sensors of the all protection zones doesn't activate alarms.

This timing is adjustable from 5 to 75 seconds by the trimmer situated inside of the central unit (see picture below).

The exiting time is signalled by the flashing of the green LED "USCITA" situated on the front panel of the central unit.

3.2 Entering time regulation

The entering time allows the system user to access the protected environments and reach the central unit to disable the system. During this time, a possible activation of the sensors installed on the zone 1 doesn't activate an alarm cycle.

This timing is adjustable from 5 to 90 seconds by the trimmer situated inside of the central unit (see picture below).

If an electronic key or any command system is installed externally to the protected environments it's advisable to adjust to minimum this timing.

3.3 Alarm time regulation

The alarm time duration is adjustable from 30 seconds to 10 minutes by the trimmer situated inside of the central unit (see picture below).





Δ Operating

4.1 Front panel description



1 Key switch

Allows to enable / disable the system. If there's an electronic key or another command system, this switch has always to be turned on the "INSERITO" position.

2 "RETE" red LED

on presence of main supply off absence of main supply

3 "ALLARME" yellow LED

on	during the entering time
	or in alarm condition
olinking	ALARM MEMORY

USCITA" green LED

on system disabled during the exiting time blinking off system enabled

Image: Memoria Allarme button

pressed

ALARM MEMORY visualization

released

zone status visualization

On system disabled, by pressing this button, the blinking zones status control LEDs 0, 0 e 0 indicate the ALARM MEMORY (i.e. the zone that caused the alarm).

6 24h zone status control LED

on	zona aperta
off	zona chiusa
blinking	zona autoesclusa

Zone1, zone 2, zone 3 status control LED

on 9 off *blinking

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zona aperta zona chiusa ALARM MEMORY

*with the S button pressed.

Zones exclusion/inclusion buttons

On system disabled, it is possible to exclude a zone by pressing the relative button: the LED upstanding the button starts blinking. The zone protection willnot be included during the system enabling.

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4.2 System enabling

4.2.1 Enabling by the front panel key switch

- Verify that the zone status LEDs I and I are turned off.
 If they're switched on it's necessary to close the doors and windows relative to the zone signalled opened. It's also possible that the zone signalled opened could be the one relative to the volumetric detectors; in this case the exiting time will allow to exit the protected area without activating the alarm.
- Turn the key switch **1** in the "ON" position.
- The green LED "USCITA" I starts blinking indicating the exiting time, in which to leave the protected areas.
- When the exiting time is finished, the green LED "USCITA" ⁽¹⁾ turns off indicating that the system is enabled.

4.2.2 Enabling by other command system

If an electronic key system, a proximity key system, or an electronic keypad system is installed outside of the protected areas, it's necessary to leave the key switch Φ <u>ALWAYS</u> in the "ON" position.

All the SKI connector for the electronic key, the PXR reader for the proximity key and the KBC, KBM and KBT keypads have two LEDs, one green and one red, indicating the central unit status (see table beside).

To enable the system:

- Verify that the red LED is turned off. If it's turned on, it's necessary to close the opened doors or windows relative to the zone that is signalled opened in the central unit.
- Insert the electronic key, or approach the proximity key to the reader, or digit the code on the keypad.
- The green LED turns off indicating that the system is enabled.



	ON	FLASH	OFF
GREEN LED	System disabled	System disabled Excluded zone	System enabled
RED LED	Opened zone/s	Alarm memory	Closed zones
BOTH		Exiting time	



4.3 System disabling

4.3.1 Disabling by the front panel key switch

- Open the entering door.
- The yellow LED "ALLARME" I starts blinking. The alarm will not activates immediately becouse the entering door is usually protected by the delayed zone 1: the entering time will allows to reach the central unit to disable the system.
- Turn the key switch **O** in the "DISINSERITO" position.

4.3.2 Disabling by other command system

If an electronic key system, a proximity key system, or an electronic keypad system is installed outside of the protected areas, it's necessary to leave the key switch Φ <u>ALWAYS</u> in the "INSERITO" position.

All the SKI connector for the electronic key, the PXR reader for the proximity key and the KBC, KBM and KBT keypads have two LEDs, one green and one red, indicating the central unit status (see table beside).

To disable the system:

- Verify that the red LED is turned off. If it's blinking, it means that an alarm was happened, precisely on the zone signalled in the central unit with the zone status LED blinking, after having pressed the "MEMORIAALLARME" button.
- Insert the electronic key, or approach the proximity key to the reader, or digit the code on the keypad.
- The green LED turns on (or blinks, if there's an excluded zone) indicating that the system is disabled.



	ON	FLASH	OFF
GREEN LED	System disabled	System disabled Excluded zone	System enabled
RED LED	Opened zone/s	Alarm memory	Closed zones
вотн		Exiting time	



4.4 Zones exclusion

From the front panel it is possible to exclude the zones 1, 2 and 3 simply by pressing the zone related exclusion button. The exclusion of the zone is visualized by the flash of the zone related LED.

4.5 Zones operating

The four protection zones have different operating characteristics.

4.5.1 Zone 1 (immediated)

- On system enabled, the opening of the NC line immediately activates an alarm cycle.
- The alarm is active for the alarm time setted (par. 3.3).
- This zone is excludible from the front panel.

4.5.2 Zone 2 (immediated)

- On system enabled, the opening of the NC line immediately activates an alarm cycle.
- The alarm is active for the alarm time setted (par. 3.3).
- This zone is excludible from the front panel.

4.5.3 Zone 3 (delayed)

- On system enabled, the opening of the NC line activates an alarm cycle <u>after</u> the entering time setted (par. 3.2).
- The alarm is active for the alarm time setted (par. 3.3).
- This zone is excludible from the front panel.

4.5.4 Zone 24h (immediated)

- On system disabled, the opening of the NC circuit activates immediately an alarm cycle of few seconds, then the zone autoexcludes till the line is opened.
- On system enabled, the opening of the NC circuit activates immediately an alarm cycle.
- The alarm cycle is active for the alarm time setted (par. 3.3).

4.6 Alarm memory

On system disabled, pressing the "MEMORIA ALLARME" key, the zone control LEDs indicate the zone that caused the previous alarm.



5 Maintenance

5.1 Battery

It is advisable to check the battery connected to the AL5 power supplier/battery charger and the battery inside of the self-powered sirens.

5.2 Cleaning

For the central unit cleaning, use only a soft and humid cloth. No use absolutely diluents and abrasive sponges.

5.3 Fuses

F1 Sirens output F type 3A F2 Services output F type 1A