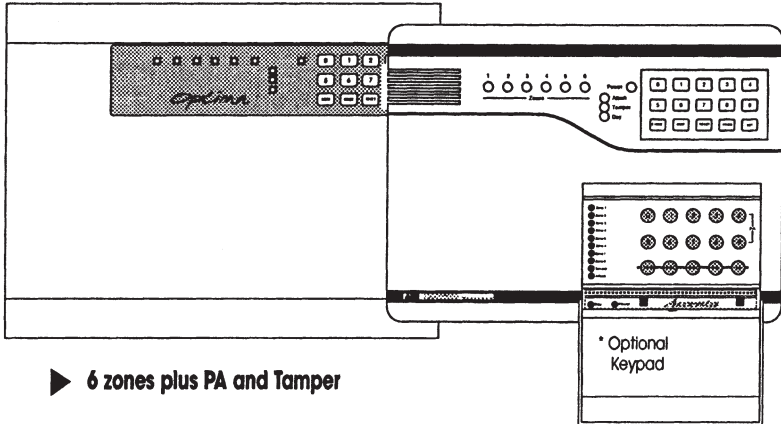


Optima
COMPACT

Optima

Intruder Alarm Control System - Engineering Instructions



- ▶ 6 zones plus PA and Tamper
- ▶ On Board Back-lit Keypad
- ▶ Option of up to four remote keypads per installation
- ▶ Three fully selectable part set programs
- ▶ Chime on any zone
- ▶ 8 event memory recall, indicates first and subsequent alarm activations
- ▶ Programmable timers including bell cut off
- ▶ NVM for protection of engineer programme
- ▶ Quick set feature
- ▶ Service warning indicator, programmable between 200 and 1200 Set and Unset events

Engineering Information

CE

1. INTRODUCTION

The Optima Compact / Optima is a microprocessor based intruder alarm control system designed to comply with the installation requirements of BS 4737 1986/87.

Optima has a large polycarbonate case capable of housing up to a 7Ah battery. *Optima Compact* uses the same electronics but has a smaller polycarbonate case capable of housing either a 1.2Ah or 2.1Ah battery. The control panel is operated and programmed via either, the onboard 15 button keypad or any Accenta remote keypads fitted to the system (maximum of four). The keypads are back-lit for use in low light conditions.

Separate user and engineer codes are available. Both are 4 digit and may be programmed to any code number between 0000 and 9999.

Please read carefully through this manual and the Operating Instructions before beginning any planning or installation work.

2. INSTALLATION

2.1 Installation Design

Carefully plan the position of each part of the alarm system and the cable runs. Detectors should be carefully sited with particular regard to the degree of coverage required and the function of each of the zones.

The control panel should be sited in a position which is convenient for the user, typically within the entry/exit route. The chosen location of the panel will depend on the overall layout of the building, but it is worth taking time to consider the convenience of a mains supply and ease of access for alarm cables coming from various parts of the installation.

Finally note that the total current output of this control system (in alarm condition) is 1 Amp when supported by a fully charged battery. Carefully calculate the total current consumption of every part of the system including the bell/sounders, strobes, and detectors to ensure that this rating is not exceeded.

2.2 Fixing

Removing the PCB

Remove the front covers from the control panel and unscrew the transformer wires from the AC terminals. Carefully remove the PCB by gently pushing down the holding clips on the bottom edge of the PCB and withdraw it from the base.

Replace the PCB by aligning it on the round support pillars to the bottom and allow it to click down past the clips at the top of the case. Refit the transformer wires into the terminals. These are not polarity conscious and may be connected either way round.

Refitting the PCB is the reverse of the removal. Reconnect the transformer wires to the terminals

marked AC.

Cable entry holes are provided in the rear of the base and around the outside edges through the thinned out plastic sections which may be cut away as required. It is recommended that the round 20mm hole or the entry point adjacent to the keypad bracket is used for the mains cable.

2.3 Wiring - Power Up

Before you begin, bring all of the alarm cables into the base. Wire the speaker terminals 17 and 18. Optima Compact only - fit the top cover on to the base and leave it in position throughout the rest of the installation.

- 1) Check that the 10 factory fitted links are fitted into the PCB terminals at the positions marked.
- 2) Carefully fit the battery wires to the BATT terminals at the far right of the PCB, Red to + and Black to -.
- 3) Connect the battery. The system will now go into alarm condition.
- 4) Enter the user code (factory set at 0123). The alarm condition will cease and the **Tamper** indicator will show.
- 5) Depress and hold down the tamper spring at the bottom centre of the PCB and the system will go to Day mode. Press PROG and immediately enter the engineer code (9999). The **Day** and **Attack** indicators will now show and the tamper spring may be released.
- 6) The system is now in engineering mode and it may now be carefully and systematically wired. Connect each of the zones, the PA, and the tamper circuit (series wired into the TAMP terminals 15 & 16). Finish by wiring any additional internal sounders, external bell/sounder, strobe and the 13V supplies.
- 7) Connect the mains supply following the recommendations listed in section 2.4 and then refer to the commissioning section.

2.4 Mains Connection

The mains power should be connected using a 3 core cable of not less than 0.75mm² from a fused spur to the mains connector inside the control panel. The fused spur must be located close to the control panel and have a 2 Amp fuse.

WARNING

The mains supply should only be connected by a technically competent person and according to current IEE wiring regulations.

to avoid the risk of electrical shock you must always totally isolate the mains supply before opening the control panel cover(s).

Mains Input Fuse

The mains input fuse inside the control panel is located within the mains terminal block connector. Only replace this fuse with the correct value, which is 125mA, 250V type T (anti surge) and of a type approved to IEC 127, part 2 sheet III.

2.5 Final Commissioning

On completion of the installation the red **Power** indicator should be showing. Position the speaker wiring so that it does not foul the tamper spring/switch. Replace the bottom front cover and press the RESET key. The system should go to Day mode, showing the green **Day** indicator. If any faults are present, refer to section 5 of this manual.

The system should now be fully tested and programmed. Fill in the Installation Log at the back of the manual and retain it for future reference.

Finally explain the operation of the system to the end user. The Operating Instructions are attached to the back page of this manual. Detach them at the perforation and leave them with the user.

2.6 Power Up Reset - Clear NVM

If the engineer code has been lost or forgotten or in extreme circumstances, where a software crash has occurred, it will be necessary to clear the Non Volatile Memory (NVM) and return to factory set conditions.

- 1) Remove the mains supply and cause an alarm condition by removing the bottom front cover. Disconnect the battery.
- 2) Remove all wires from terminals 13 (PA) and 23 (SET +). Fit a wire link between terminals 13 and 23 and apply power.
- 3) The system will now power up with no alarm condition. Remove the wire link and replace the original wiring, checking that the **Attack** indicator goes off.
- 4) The indicators will now show in response to each of the zones and circuits as they operate. Refit the front cover checking that the **Tamper** indicator goes off.


When ALL of the zones and circuits become clear the system will go to Day mode and at that moment the NVM will be cleared and factory set conditions will apply.

- 5) The system may now be programmed, tested and re-commissioned.

3. PCB LAYOUT

3.1 Zones

(Terminals 1 - 12)

As supplied, wire service links are fitted across each of the zones to represent a closed circuit. These are removed during installation as the zone wiring is connected, but their positions are marked for future reference with a  symbol.

The majority of detection devices use normally closed contacts. These are connected together in a series loop across the required zone input. There are also a small minority of sensors that use normally open contacts (typically pressure mats). These should be connected in parallel together and finally wired between the required zone and the tamper circuit.

The function of each zone is fully programmable in each of three programs, for further information see section 4.1.

3.2 PA

(Terminals 13 & 14)

Any quantity of normally closed type personal attack sensors may be wired in series and then connected to the PA circuit.

Operational In Day and Set, the PA circuit will cause a full alarm condition when activated. PA is indicated on the control panel or RKP as **Attack**.

3.3 Tamper Network

(Terminals 15 & 16, T & A)
Tamp, RKP

The Tamper circuit is used to protect all cables and detectors in the system from unauthorised access including the CPU and the RKP covers.

The zone and PA tampers should be series wired and connected to the TAMP terminals 15 & 16. Terminals T & A are for the external bell / sounder tamper. The TAMP terminals at the bottom left of the PCB are for the RKP tampers.

Tamper alarms that occur in the Day mode operate internal sounders only. Tamper alarms in Set cause a full alarm condition.

Tamper is indicated on the control panel or RKPs by the **Tamper** indicator.

3.4 Internal Sounder

(Terminals 17 & 18)

Mounted on the underside of the top cover, the loudspeaker produces high volume alarm tones and low volume entry/exit fault tones.

Up to two 16 Ω extension speakers may also be wired across the LS terminals 17 & 18. Mounted in convenient positions within the installation the extension speakers will reproduce all of the alarm tones generated by the control panel.

A control marked VOLUME in the centre of the PCB

may be used to adjust the low volume entry/exit tones to suit environmental conditions. To adjust this control, partially lift up the top cover.

Activated by all types of alarm condition, the STROBE output will continue to operate after automatic reset of the external sounders.

3.5 Strobe Output (Terminals 19 & 20)

The output will also remain active after entry of the user code and will not stop until the **RESET** key is pressed.

The strobe output is a 12V supply. Terminal 19 is permanently +Ve and terminal 20 is switched -Ve in alarm.

3.6 Bell Output

Terminals T A D B are for connection to the external bell or sounder. These terminals provide a power/hold-off supply, sounder trigger and tamper circuit to protect the external sounder housing.

The terminals are summarised as follows:

T -	-Ve tamper return
A -	-Ve supply (0V)
D -	+Ve supply (12V)
B -	-Ve sounder trigger

Where self contained/powered sounders are used, carefully follow the manufacturers instructions, matching each of the terminals to those above. For ease of installation, ADE sounders and modules use the same T A D B terminals.

Where a discrete bell or sounder is used, it should be connected to terminals D & B. Terminals T & A are then used for tamper protection for the sounder housing.

3.7 13v Supply (Terminals 21 & 22)

The 13V output is to power detectors which require a voltage supply (PIR detectors etc). The supply is present at all times and may be used to supply a total load of up to 350 mA.

3.8 Set + (Terminal 23)

This output, marked SET + is used with latching detectors. The output becomes positive on correct Set of the system and is removed at the commencement of entry time or entry of the a valid user code.

3.9 Remote Keypad Connections

Remote Keypads are wired to the 6 way terminal block located at the bottom left of the PCB.

The 0V supply, 13V supply, COMMS and SOUND connections must all be wired in parallel to the corresponding terminals in each RKP. The TAMP in each RKP must be wired in a series loop to the TAMP

terminals in the CPU.

3.10 Fuses

There are three fuses mounted on the CPU circuit board.

Two fuses are located at the bottom right of the PCB and are 1.6A 20mm. The left fuse protects the STROBE +Ve terminal 19, the BELL +Ve terminal D and the 13V +VE terminal 21.

The right fuse is in the +Ve battery line and prevents excessive current being drawn from the battery. This fuse will also blow if the battery is inadvertently reverse polarity connected during installation.

The third fuse at the bottom left, marked keypad is 1A 20mm and protects the 13V keypad supply.

3.11 Battery Back Up

It is essential that this control system is used with a rechargeable 12V battery. Optima may use any battery up to a 7Ah, as required. Optima Compact may use either a 1.2Ah or 2.1Ah battery as required.

The BATT terminals should be connected to the system battery only, and must not be connected to any other battery or used for any other form of power supply or distribution.

4. SYSTEM DESCRIPTION

4.1 Programs and Zones

The Optima Compact / Optima uses 3 Part Set routines known as Programs. In each Program the exit mode can be changed and the zone may be set up to have a different function.

The examples below show how 3 typical Programs could be used in a house.

Program 1 To arm all of the zones and become Set as the user leaves the property and closes the final door.

Program 2 To protect the perimeter of the property in the evening and become Set after say 20 seconds.

Program 3 To protect the downstairs areas of the house at night and become Set instantly and silently.

Zone Functions per Program

Timed This function would be used to protect the main entry/exit door or the first sensor in the entry route.

Opening the door or operating the sensor whilst the system is Set will start the entry timer and allow time to Unset the system.

Time Inhibit This is used for detectors located between the main entry/exit door or sensor, and the control panel or RKP. On entry, once a *timed* zone has been operated and the entry timer started, the zone will be inhibited and allow access through to the control panel or keypad.

But when the system is Set the zone is fully active and will cause an immediate alarm activation.

Immediate This function would be used for all zones that are not part of an entry route and will cause a full alarm condition when activated.

Exit Modes per Program

Timed A timed Program will become Set as the Exit timer expires.

Final Door A final door program will be Set 5 seconds after a *timed* zone has opened and closed.

If a *timed* zone is not operated during the exit period, the system will not Set.

Immediate An immediate Program will be Set silently 3 seconds after the exit routine has been initiated.

Note

If a Program is not selected when the user Sets the system, Program 1 will automatically Set. Therefore Program 1 is usually considered as the 'Full Set Program' containing all of the zones.

Day Mode This is when the system is turned off, with

4.2 Operating the System

only tamper and PA circuits active. Day mode is indicated on the control panel or RKPs by the green **Day** indicator.

To Set the System From the Day mode, enter the four digit user code. The system will start to Set Program 1. If another Program is not selected, Program 1 will arm according to its exit mode.

To Set a Program From the Day mode, enter a four digit user code. The system will start to Set Program 1. Press **Prog** followed by the the Program number to be Set. A series of beeps will be produced acknowledging the Program number and the Program will start to Set according to its exit mode.

Faults During Setting Faults are shown by the **zone** indicators, accompanied by a broken beep tone, one beep for zone 1, two beeps for zone 2 etc. All exit timers have their timer periods halved whilst zones are in fault.

To Omit Zones Enter a 4 digit user code and if required, select Program 2 or 3. Press **Omit**, the exit tone will stop and the zones that are about to be armed will be displayed. Key in the zone number(s) to be omitted which will flash to confirm selection. (Zones which have been programmed as omit prevent will give a reject tone). When the selection is complete press **Set** and the exit tone will continue.

To Quick Set Pressing **Set** during the exit period will cause the exit tone to stop and the system to Set within about 5 seconds.

To Unset the System Enter the user code and the system will return to Day mode. If the alarm has been activated then entering the code will stop the alarm and the cause of the alarm will be displayed.

Press **Reset** to clear the indication and return to Day mode.

There are 3 codes used in the system, all are 4 digit

4.3 Codes

and can be set to any number from 0000 to 9999.

The user 1 and user 2 codes have the same operation for testing, Setting and Unsetting, but user 1 code which is usually considered to be the 'Managers' code has the authority to add, change or delete the user 2 code.

4.4 Keypad PA

Keys 4 and 9 on the control panel and remote keypad are **PA**. If these keys are depressed together, a full alarm condition will be generated. A keypad PA alarm is indicated on the control panel or RKP as **AHack**. The keypad PA is operational in the Day and Set conditions.

4.5 Chime

Chime is a low security application for use when the system is Unset. When a zone that is set to chime is operated, the internal sounders will produce a low volume two stage warning tone and the **Zone** indicator will show. If required, the **Zone** indicator may be cancelled by pressing **Reset**.

Chime is particularly useful in a shop to warn of a customers presence or in a house to warn that a door or particular area has been accessed.

Any of the zones may be set up to be on or off chime by pressing the **Chime** key and then keying in the required zone number to 'put it on' or 'take it off' chime. Key 0 to take all zones off chime. After a few seconds the system will automatically return to Day mode.

4.6 Service Timer

Where the system is covered by a maintenance agreement with the installation company, the service timer may be used to alert the end user that a service is due by flashing the **Tamper** indicator.

The service time period is controlled by the number of Set/Unset events, which are programmable in 200 event increments between 200 - 1200.

To set the timer, calculate the average system usage. Setting and Unsetting counts as one event, so if the system was used on average twice a day, a timer setting of 800 would indicate after approximately 12 months.

It should be noted that when the **Tamper** indicator is flashing as a service warning, this does not prevent normal system operation.

To reset the indication during a service or maintenance visit, the timer must be momentarily disabled then re-set to the required setting.

4.7 Code Tamper

During the Set and entry periods, entering an invalid user code will operate the code tamper. After 19 incorrect keypushes a full alarm condition will be generated.

4.8 Non Volatile Memory (NVM)

The Optima Compact / Optima uses an NVM circuit which retains all programmed information and the alarm memory in the event of power fail, disconnection or system faults. And thereby provides the system with a high degree of security.

Where the user or engineer code has been lost or forgotten it will be necessary to clear the NVM. This procedure is given in section 2.6.

4.9 Auto Reset and Re-arm

In alarm condition the sounders will operate for the programmed bell duration. The sounders will then shut down but the strobe will continue to operate.

Each circuit is then scrutinised and if clear will be re-

armed. Any circuit in fault condition is automatically omitted.

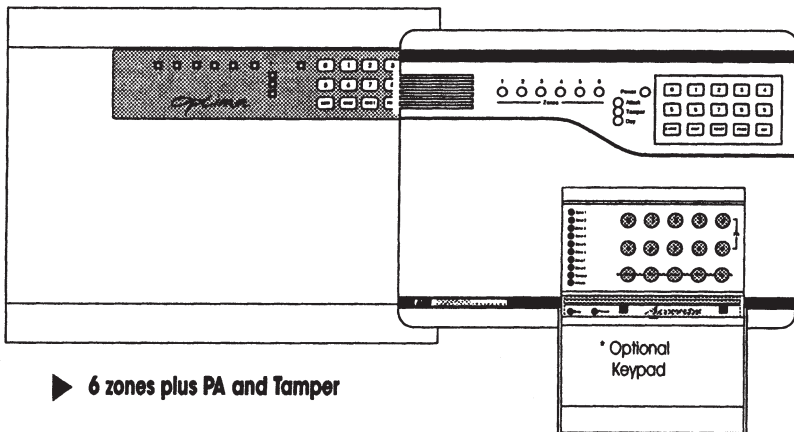
4.10 Factory Set Conditions

Exit Time	30 Seconds
Entry Time	30 Seconds
Bell Duration	20 minutes
Service Timer	Disabled
User Code 1	0123
User Code 2	Not Programmed
Engineer Code	9999
Omit Prevent Zones	None
Program 1	Zone 1 - timed Zone 2 - time
inhibited	
Immediate	Zone 3-6 - Exit Mode- timed
Program 2	Disabled
Program 3	Disabled

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Intruder Alarm Control System - Operating Instructions



- ▶ 6 zones plus PA and Tamper
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- ▶ NVM for protection of engineer programme
- ▶ Quick set feature
- ▶ Service warning indicator, programmable between 200 and 1200 Set and Unset events

Operating Information

CE

Intruder Alarm Control System - Operating Instructions

The Optima Compact / Optima is a highly flexible intruder alarm control system designed to be installed in a wide variety of applications.

Up to three programs may be preset within Optima Compact / Optima to allow full control over selected areas of your property. The 'Engineer Details' section of these instructions contains a chart showing the zones in each Program.

For Clarity, the information below on Setting the System, assumes that all Programs use a *Timed* or *Final Door Setting* routine.

TO SET THE SYSTEM (ON PROGRAM 1)

The green **Day** indicator should be showing. Enter your code number and check that the system is clear (none of the **Zone** indicators are showing). The sounder will now produce an exit beep tone and you should leave by the approved route. The system will Set as the tone stops.

TO SET A PROGRAM

The green **Day** indicator should be showing. Enter your code number and the exit tone will start. Press the **Prog** key and the exit tone will stop. Press 1, 2 or 3 for the required program, the sounder will beep to acknowledge the program number. The exit tone will start and you should leave by the approved route. The system will Set as the tone stops.

It is important that you follow the correct procedure when setting the system. After leaving the protected area it is absolutely essential that you wait until the exit tone stops, before assuming the system has Set.

FAULTS DURING SETTING

If the system is not clear when you try to Set it, the sounder will produce an open zone tone and the fault will be displayed. Either re-enter your code to turn off and investigate or omit the faulty zone(s) from the system.

TO UNSET THE SYSTEM (Turn Off)

Enter your code. If the system has not been previously activated, the green **Day** indicator will come on. If the system has been activated, then entering the code will turn the alarm off and the cause of the alarm will be displayed.

Press **Reset** to clear the indication.

TO OMIT A ZONE

During the exit period (after entering your code and selecting a program) press **OMIT**, the exit tone will stop and the zones that are about to be

armed will be displayed. Key in the zone number(s) to be omitted which will flash to confirm selection. Zone indicators which show steady are still about to be armed. When the selection is complete press **Set** and the exit tone will start.

If a zone refuses to be omitted, it may be because the engineer has programmed the control system to prevent you from turning off the zone. If in doubt ask for advice.

QUICK SET

During the exit period (after entering your code) the system may be Set quickly by pressing **Set**. This removes the time period usually allowed for exit and would be used if you are not leaving the premises.

If you omit zones and require Quick Set, you will need to press **Set** twice.

CHIME

Chime is a low security monitoring system for use when the system is Unset. When a zone that is set to chime is operated, the internal sounder will produce a low volume two stage warning tone and the **Zone** indicator will show. The Indicator may be cancelled by pressing **Reset**.

Chime is particularly useful in a shop to warn of a customer's presence or in a house to warn that a door or a particular area has been accessed.

Any zone may set to be on or off chime by pressing the **CHIME** key and then keying in the required zone number(s). Key **0** to cancel all zones from chime. After a few seconds the system will automatically return to the Day mode.

POWER INDICATOR

The red **Power** indicator on the control panel or RKP's should be showing at all times. If the indicator goes off, the mains supply has failed or been disconnected. If in doubt consult the Engineer.

FAULTS/PROBLEMS

If any faults occur, or if any fault indicators remain on, contact the Engineer for assistance.

SEVICE/MAINTENANCE

It is important that you fully understand the operation of your alarm system and that it is regularly serviced and tested by the Engineer.

If the **Tamper** indicator starts to flash this means that your system may require servicing. It will not prevent the system from being used but you should call the engineer for advice.

To test your alarm system, change your code or recall the alarm memory, follow the instructions below. Before you begin check that the **Day** and **Power** indicators are showing and that they show again when you have finished programming or testing.

CODE CHANGE

Press **PROG** All indicators will show.

Enter your code

[?] [?] [?] [?]

Tamper Indicators show.

Press **8** Zone indicators 1, 2, 3 and 4 show.

Now enter your new code (4 digits)

[?] [?] [?] [?]

A series rapid blips will be heard and the Tamper indicator will show.

The new code is now in the memory.

Press **RESET** Day indicator shows.

Adding - Deleting - Changing User Code 2

User code 1 (generally considered as the system managers) can add, delete or change user code 2.

Follow the information above, but use Key 7 instead of 8 to change user code 2. To delete the code press **Omit** instead of entering a new code.

ALARM MEMORY RECALL

Press **PROG** All indicators will show.

Enter your code

[?] [?] [?] [?]

Tamper indicator shows.

Press **CHIME** The indicators will now scroll to show the last 8 alarm conditions. The sounder will beep as each new condition is shown.

Press **1** To view the last (newest) event

Press **2** To view the previous event etc.

Press **8** To view the oldest event

Press **Chime** To continue scrolling events

Press **Reset** To stop the memory recall or wait for the scrolling to stop automatically.

Press **Reset** Day indicator shows

Notes

- 1 If the **Day** indicator shows in any of the alarm events, that alarm condition occurred in the Day mode.
- 2 If the alarm event shows as a blank display then that event is 'empty'

ALARM TESTS

Press **PROG** All indicators will show.

Enter your code

Tamper indicator shows.

Press **0** **Tamper** and **Attack** indicators show.

The system is now in the test routine

Press **1** To Test Set +Output

Press **0** to stop

Press **2** To test the strobe.

Press **0** to stop

Press **3** To test the external bell/sounder.

Press **0** to stop

Press **4** To test low volume internal sounder.

Press **0** to stop

Press **2** **4** To test high volume internal sounder.

Press **0** to stop

Press **5** **To enter walk test.** During walk test the internal sounder will beep and the respective **Zone**

Press **0** to stop **indicator** will show as each circuit is tested

Press **RESET** **RESET** **Day** indicator shows.

Engineer Details

Alarm Company Name

Tel. No.

Account No.

Date of Installation

Area Protected	Prog 1	Prog 2	Prog 3
Zone 1			
Zone 2			
Zone 3			
Zone 4			
Zone 5			
Zone 6			

CHLORIDE SAFETY SYSTEMS

Due to continuous product development, ADI reserve the right to change specifications as and when required without prior notice.



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5.

FAULTS

Fault conditions are often the result of minor installation errors or misinterpretation of the equipment being installed. The following points outline the most common installation and commissioning faults.

- 1) As supplied the user code is 0123 and the engineer code is 9999. Both codes will revert back to these default settings on clearing the NVM.
- 2) The Engineer Programme is accessed directly from Day mode via the engineer code.
- 3) If a tamper or PA fault is present on the system, it will go to a lock out condition (showing the appropriate indication). The keypad will not produce any audible responses and the system will not operate until the fault has been found and rectified.
- 4) The most common cause of a zone not responding to detectors is incorrect wiring. Normally closed detectors must be wired together in a series loop before connecting into the appropriate ZONE terminals. Tamper is series wired in the same manner.
- 5) Where a permanent zone fault is showing and the loop resistance is found to be in order, the most probable cause is a short circuit between the zone wiring and the tamper wiring. When measured with a multi-meter the resistance between the zone and tamper wiring should be infinitely high.
- 6) If totally lost as to the cause of a fault, remove ALL wiring from the PCB. Re-fit the 10 service links and test the system. Never fit links to any positions other than those marked on the PCB.
- 7) Before testing or replacing any fuses, ALL power must be removed. Fuses which fail continually are almost certainly the result of a short circuit or low resistance across the 13V supply (terminal 21), strobe output (terminal 19) or the external bell supply (terminal D).

Remove all wiring and test for low resistances with a multimeter, by cross checking between each wire. Blown fuses are very seldom caused by faulty equipment.

- 8) Finally, whenever working close to the mains supply or connector, you should exercise extreme caution.

Always isolate the mains supply before removing the control panel covers.

Specifications

Indicators (Control Panel or RKP)	Zones 1-6, Power, Attack, Tamper, Day
6 Zones	+Ve loop, programmable functions in each Program
Tamper	-Ve loop, internal sounders in Day - Full alarm in Set
PA	+Ve loop, always active
Bell Output	12V, adjustable timer (1-99 mins) or continuous
Strobe Output	12V latching
Extension Speaker	16Ω (2 max) 130mA each
Exit/entry Timers seconds	Programmable 10-990
Zone Input Delay	250mS
Set +Ve Output	0V In Day (Sinking 40mA) 12V in Set (Sourcing 10mA)
Current Consumption Control Panel	Standby 80mA Alarm 250mA
Current Consumption RKP	Standby 40mA - Alarm 70mA
Low Voltage Output	13.8V dc stabilised (+/- 5%) up to 350mA
Rechargeable Battery Optima Compact Optima	12V, 1.2 or 2.1 Ah 12V, up to a 7ah
Charge Voltage	13.8V dc (+/- 5%)
PCB Fuses	1.6A & 1A 20mm quick blow
Mains Input Fuse	125mA, 250V type T (anti- surge) type approved to IEC 127, part 2 sheet III
Total Current Output	1 Amp when supported by a fully charged battery
Mains Supply Voltage	230V (+/-10%) 50Hz max load 0.2A
Ambient Operating Temperature	0° - 40°C
Cabinet Construction	3mm Polycarbonate
Dimensions Optima Compact CPU	H 200mm W 253mm D 55mm
Optima CPU	H 230mm W 290mm D 80mm
RKP	H 85 mm W122mm D28mm

Engineer Programming

Follow the instructions below to change any of the engineering programme or test the system. Before you begin, check that the system is in Day mode with the green **Day** indicator showing. Once you are in engineering any section may be changed in any order. Once you have finished exit from the engineering mode and check that the system is back in Day.

To Enter Engineer programming

From Day mode **Day** indicator showing
Press **PROG** All indicators show

Enter the engineer code (9999)

? **?** **?** **?** **Day** and **Attack** indicators show

The system is now in the engineer programming mode.

Alarm Tests

Press **0** **Day, Tamper and Attack** indicators show
The system is now in the test routine

Self + Press **1** **0** To stop

Strobe Test Press **2** **0** to stop

External Bell/Sounder Test Press **3** **0** to stop

Low Volume Internal Sounder Test Press **4** **0** to stop

High Volume Internal Sounder Test Press **2** **4** **0** to stop

Walk Test **0** Press **5** **0** to stop

During the walk test the internal sounder will beep and the respective **Zone, Tamper, Attack** indicators will show as each circuit is tested.

Press **RESET** to return to programming mode

Exit Timer

Press **1** **Zone 1** and **Zone 2** indicators show

Enter the required time in 10 second increments, divided by 10.

Eg 10 seconds ÷ 10 = 1, so enter 01.

10 seconds = 01, 20 seconds = 02, 30 seconds = 03 etc.

On entering the 2 digits, the system returns to programming mode.

Entry Timer

Press **2** **Zone 1** and **Zone 2** indicators show

Enter the required time as for exit.

On entering the 2 digits, the system returns to programming mode.

External Bell/Sounder Timer

Press **3** **Zone 1** and **Zone 2** indicators show

Enter the required time in minutes.

01 = 1 minute, 20 = 20 minutes, 99 = 99 minutes, 00 = continuous sounder operation

On entering the 2 digits, the system returns to programming mode.

Service Timer

Press **5** **Zone** indicators 1 to 6 flash momentarily
The current setting of the timer is then displayed.

Zone 1 indicator = 200 set / unset events (key 1)

Zone 2 indicator = 400 set / unset events (key 2)

Zone 3 indicator = 1200 Set / unset events (key 6)

No zone indicators = Timer Disabled (Key 0)

Select the required timer setting by pressing the appropriate key and checking the indication.

Press **RESET** to return to service mode.

To reset the service timer during maintenance visits, follow the instructions above

To Reset the Service Timer

to disable the timer and then reset it to the required settings.

User 1 Code Change

Press **8** **Zone** indicators 1, 2, 3, 4 show

Enter new code (4 digits) **?** **?** **?** **?**

A series of rapid blips will be heard and the system will return to programming mode.

User 2 Code Change

Press **7** **Zone** indicators 1, 2, 3 and 4 show

Press **OMIT** to remove the code from the system.

Or enter the new code (4 Digits) **?** **?** **?** **?**

A series of rapid blips will be heard and the system will return to programming mode.

Engineer Code Change

Press **9** **Zone** indicators 1, 2, 3, 4 show

Enter new code (4 digits) **?** **?** **?** **?**

A series of rapid blips will be heard and the system will return to programming mode.

Omit Prevent Zones

Press **OMIT** The **Zone** indicators will show the zones currently set up as omit prevented

Key in each zone number to select or de-select the zone as Omit prevent. Key in 0 to de-select all zones.

Press **RESET** to return to programming mode.

Alarm Memory Recall

Press **CHIME** The last 8 alarm events will now be scrolled and displayed.

The sounder will beep as each new condition is shown.

Press **1** To view the last (newest) event

Press **2** To view the previous event etc.

Press **8** To view the oldest event

Press **CHIME** To continue Scrolling events

Press **RESET** To stop the events being scrolled and return to the

programming mode, or wait for the scrolling to stop and automatically return to programming mode.

Notes

1. If the **Day** indicator shows in any of the alarm events, that alarm condition occurred in the Day mode.
2. If the alarm event shows as a blank display then those events are empty.

To Exit from Engineer Programming

After completing tests and programming, the **Day** and **Attack** indicators should be showing:

Press **RESET** The system will return to Day mode with the **Day** (and **Power** indicators showing).

Reset to Factory Set Conditions

From Engineer programming mode - with the **Day** and **Attack** indicators showing:

Press **SET** Twice

The system will return to Day mode with factory set conditions re-instated.

Programs & Zones Set Up

Important Notes

1. Immediate zones are set up by making the zone used, but not Timed or Time Inhibited.
2. The Exit mode cannot be set up if there are no used zones in the program.

3. Programs which are not given an exit type are **disabled**.

Press **PROG** **Zone** indicators 1, 2 and 3 flash

Press **1** **2** or **3** The program number selected will be displayed by a flashing **Zone** indicator

Used Zones

Press **1** to display the used zones - Key in each Zone number to select or de-select the zone. Key in 0 to de-select all zones.

Press **RESET** to complete the setup of Used Zones.

Timed Zones

Press **2** to display the Timed zones - Key in each zone number to select or de-select the zone. Key in 0 to de-select all zones.

Press **RESET** to complete the setup of Timed Zones

Time Inhibit Zones

Press **3** to display the Time Inhibited zones - Key in each zone number to select or de-select the zone as Time Inhibited.

Press **RESET** to complete the set up of Timed Inhibit zones.

Exit Mode

Press **6** to display the exit mode.

Zone 1 indicator=Timed Exit (Key 1)

Zone 2 indicator=Final door Set (Key 2)

Zone 3 indicator=Immediate Set (Key 3)

No indicators=Program disabled (Key 0)

Select the exit mode by pressing the appropriate key.

Press **RESET** to complete the Exit Mode set up.

As the set up of the zone types or exit mode is completed, the program number will be displayed by a flashing **Zone** indicator

Press **RESET** once to return to the 3 flashing zone indicators and select a different program, or twice to return to the programming mode.

Installation Log

Site Address _____

Contact Name _____

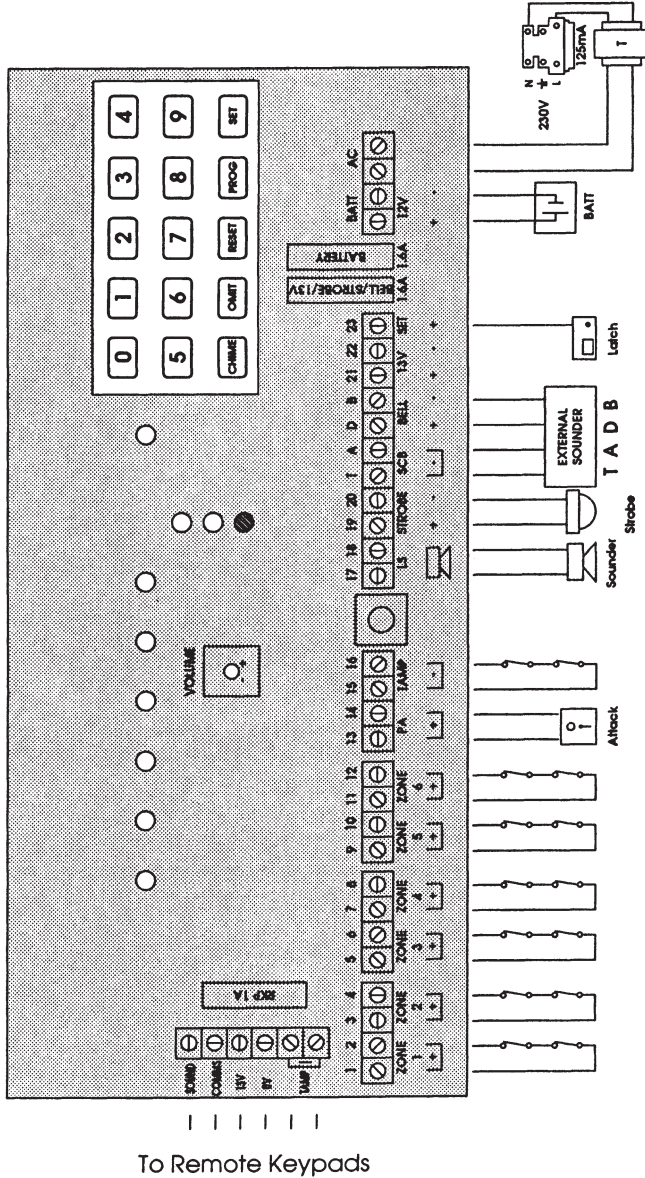
Telephone _____ Date of Installation _____

	RESISTANCE	AREA PROTECTION AND EQUIPMENT USED
ZONE 1		
ZONE 2		
ZONE 3		
ZONE 4		
ZONE 5		
ZONE 6		
PA		
TAMP		

Optima
COMPACT

Optima

PCB LAYOUT



Due to continuous product development, ADE reserve the right to change specifications as and when required without prior notice.

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