The above intruder systems are designed to comply with the installation requirements of BS 4737 1986/87.

This manual provides information on Installation design, panel fixing, wiring, power up and programming of the intruder panels.
## Features

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<td>Battery capacity of up to: 2.1Ah in Accenta/Optima G3 mini enclosure 7Ah in Accenta/Optima G3 enclosure</td>
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<td>Optima G3 and Optima G3 mini are supplied with built in keypad</td>
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Installation Design

The purchase of this alarm system represents a major step forward in the protection of the property and its occupants. It is important to plan the installation before proceeding and follow the procedures and advice contained in this manual.

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

All of the system wiring is connected directly to the panel. The Accenta panel may be concealed inside a cupboard or loft space, but it must be installed within the protected premises and in a position which is convenient for a mains supply. The Optima panel may be installed near an entry/exit point.

The Remote keypads (RKPs) should be mounted in positions which allow ease of operation for the system users, typically within the entry/exit route close to the final door and the master bedroom.

Additional internal sound speakers are recommended, these will provide high volume alarm tones and low volume entry/exit tones. Speakers should be positioned to provide good sound distribution throughout the building and so that the exit tone is audible outside the main entry / exit door. This will enable the system operator to check that the system is setting correctly.

Finally note that the total current output of this control system (in alarm condition) is 1Amp when supported by a fully charged battery. Calculate the total current consumption of every part of the system including the panel, remote keypads.

Fixing

Caution: When positioning the control panel ensure that it is located in a dry place away from damp areas.

The Accenta mini G3 enclosure is illustrated here, however the procedures for the other panels are similar.

a. Remove the front cover(s) from the panel.

Disconnect the transformer wires from the transformer marked AC terminals on the board. Carefully remove the PCB by gently pushing down the holding clips on the bottom edge of the PCB and withdraw it from the base.

Depending on which area you live, you may be required, by law to notify the Local Authority and Police of the new security alarm installation. The local authority requirements may differ from area to area, therefore, it is advisable to contact local environmental officer to obtain full details of your area requirements.
Note: When replacing the PCB align 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 terminal.

b. Fit the panel to the wall with suitable fixings. Ensure the wall surface is flat to prevent base distortion. There are cable entry holes 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.

c. The hole provided adjacent to the mains transformer is a dedicated mains cable entry point.

Board
There are four fuses mounted on the circuit board, all are 20mm quick blow.
F1 1.6A - to protect the +ve line of 12V battery
F2 1A - to protect the RKP 13V supply
F3 1A - to protect the Speaker 13V supply
F5 1A - to protect the Bell and Strobe supply

As supplied, wire links are fitted across the PA and Tamper terminals to represent a closed circuit.
**Wiring the system**

**Caution:** Always power-down the panel when wiring external circuits, to prevent damage to the panel electronics.

Systematically wire and test each circuits:
- Zone, Tamper circuit and PA circuits
- Finish by wiring any additional extension speaker sounders, external bell/sounder, strobe and the 13V supply.

**Tamper network**

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

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

**Connect Remote Keypads / Lighting controllers**

**Note:** Where an Accenta G3 or Accenta mini G3 panel is being installed ensure there is at least one remote keypad wired to the panel before first power up.

A combination of up to four remote keypads and lighting controller can be connected to the panel.

**Security zones**

**Note:** The G3 range of panels are not supplied with wire links for unused zones. All unused zones must be programmed out by setting them to disabled using the Zone Type function see page 19.

It is recommended that no more than 10 magnetic contacts are connected to the same zone.
Push to set zone

Any zone can be wired and configured as a Push to Set input. This can be a standard door bell push located outside the premises. After starting the exit timer the building is vacated. As the switch is then momentarily closed, a chime tone is produced and the system Sets. Sometimes referred to as 'Terminate Set' this facility is mandatory for communicating systems installed to NACOSS guidelines.

Remote keyswitch zone

Any zone can be wired and programmed as a keyswitch input and used with a remote keyswitch or lock switch. For security reasons it is recommended that a tamper proof switch is used and that the switch wiring is not accessible from outside the premises.

Fire zone

Any zone may be programmed as a fire zone. This will automatically exclude the availability of the zone from programs and normal security applications.

There are two types of fire zone, Standard and 24 hour type. The Standard fire zone detects fires only when the system is Set, whereas the 24 hour fire zone detects fires all the time and will operate whether the system is Set or Unset. A fire will cause a distinctive internal sounder tone. The external sounders will pulse on and off at 2 second intervals and all RKP indicators will flash the affected zone.

PA circuit

Any quantity of normally closed type personal attack button 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.
PA buttons may be fitted near the front door, or in a bedroom.

**Extension speaker**

Extension speaker may be connected to the loudspeaker terminals to produce high volume alarm tones and low volume entry/exit fault tones.

Up to two 16 ohm extension speakers may also be wired across the speaker terminals. 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.

**Bell Output (External sounder)**

The bell is usually installed in a high position from where the bell could be seen and heard. Terminal 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

For ease of installation, ADE sounders and modules use the same markings.

Where a discrete bell sounder is used, it should be connected to terminals D & B. Terminals T &
Remote signalling Input and Outputs

These outputs are not applicable to the Optima compact G3 panel.

These terminals have been provided for connection to remote signalling equipment such as a digital communicator, Red Care STU or speech dialler.

**Note:** The operating polarity of the Communicator output terminals are programmable.

L/FAIL This is a telephone line fail input which is held at approximately 6V by the panel circuitry. The input is activated when pulled to 0V by the telephone line fault output of the communicator. This is usually a voltage free relay or open collector transistor.

When a telephone line fault occurs in the Day mode the panel provides an audible double beep every 10 minutes. This indication is automatically cleared when the fault is removed.

A telephone line fault which occurs while the system is Set will not cause an alarm condition but any bell delay which is programmed will be cancelled and any intruder alarm which is triggered will operate instant sounders.

**13V Supply output**

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 350mA.

**Set**

The 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 valid user code.

**13V 0V** These terminals provide a 13V supply for the communicator up to a total load of 200mA. The output is protected by a 250mA thermal fuse. If this fuse operates it may be reset by removing the load and allowing a few seconds for it to recover.

**OUTPUT PORT** By default these outputs are programmed as active low output. They are held at 13V and fall to 0V when active, it can source or sink 10mA. The output polarity can be programmed.
These outputs would normally be connected directly to the input channels of wire in type communicators and STUs.

Alternatively each output can be used to drive a relay (coil resistance > 1200 Ω) connected between the output terminal and the 13V supply terminal. The relay will energise when the output port operates. It is recommended that a back EMF protection diode is used in parallel with the relay coil.

**FIRE** The fire output operates when the fire zone is triggered.

**PA** The PA output operates when a PA alarm is triggered or a duress code is used.

**INT** The intruder output is operated when an intruder condition is triggered whilst the system is set.

**SET** The Set output operates whenever the system becomes set and is used to indicate opening and closing.

**ABORT** Operates when an intruder alarm condition is switched off.

**CONF** The confirmed alarm output operates when 2 independent zones are activated during the same alarm condition.

Important Notes

a. Each output has been configured as active low and will normally require the EPROM or NVM for the communicator or STU to be programmed as active low or positive removed. However there may be differences between some pieces of equipment and some Alarm Receiving Centres (ARCs).

b. Where the communicator is powered from an external source, not the panel and the outputs are being used without relays, the panel and external power supply will require a commoned negative supply rail.

c. If the communicator is not fitted inside the panel and abort is being used, care should be taken to ensure that the abort connection cannot be damaged or severed as this could cause the ARC to incorrectly filter an alarm signal.

d. It is very important that communicating systems are fully tested and that all signals are correctly received at the ARC when the system is installed and serviced.

**Filtering of Intruder alarms**

A condition of most police Force Policies and under the guidance of NACOSS NACP 14 (Code of Practice for intruder Alarm Systems Signalling to Alarm Receiving Centres) is that all intruder alarm signals received by an Alarm Receiving Centre (ARC) must be filtered to establish their validity before passing to the police.

The exact method of filtering should be decided according to the regional Police Force Policy and ARC procedures.

In general, the panels offer the following methods which could be used to filter an alarm.

**Abort Output** The abort output operates whenever a user code is entered or a keyswitch is used to switch off an intruder alarm condition. When an abort signal is received by ARC at or around the same time as an intruder signal, the alarm can be filtered.

**Set/Unset** A Set or Unset signal which is received by the ARC at around the same time as an intruder signal can be used to filter the alarm.

**Restore of the Intruder Output** The intruder alarm output is restored to 12V whenever a user code is entered or a keyswitch is used to switch off an intruder alarm condition. Where an intruder alarm is shortly followed by a restore at the ARC, this can be used to filter the alarm.
Factory set condition

User code 1 - 0123
User code 2 - Not programmed
Duress Code - Not programmed
Engineer Code - 9999
Bell Duration - 20 minutes
Bell Delay - No delay

Program 1
Zone 1 - Timed
Zone 2 - Time Inhibited
Zones 3…8 - Immediate
Exit time - 30 seconds
Entry time - 30 seconds
Exit mode - timed

Program 2
Zone 1 - Timed
Zone 2 - Time Inhibited
Zone 3…8 - Immediate
Exit time - 30 seconds
Entry time - 30 seconds
Exit mode - Disabled

Program 3
Zone 1 - Timed
Zone 2 - Time Inhibited
Zone 3…8 - Immediate
Exit time - 30 seconds
Entry time - 30 seconds
Exit mode - Disabled

Security Zones - Zones 1…8
Standard Fire zones - None programmed
24 hour Fire zones - None programmed
Push to set zones - None programmed
Keystwitch zones - None programmed
Double Knock zones - None programmed
Omit prevent zones - None programmed
Zone debounce period - 300mS ALL zones

Flag A
Silent PA - No
RKP PA Enable - Yes
Engineer Reset - No
Anti Code Reset - No
Door bell on push to set - No
Single key setting - No
Strobe on setting - No
External bell on Fire - No

Flag B
Note: The entries marked # are not applicable for Optima compact G3 panel.

#Communicator Output
active high - No (active low)
#Line Fail
active high - No (active low)
User Reset PA - No
User Reset Fire - No
#Program 1 to report - Yes
#Program 2 to report - Yes
#Program 3 to report - Yes
Rearm counter - 3 (re-arms)
Service counter - Off
Site Code - 00

Light Controller
Light Threshold - 50%
Light Hold Time - 30 seconds
Light Channel 1 - No zones assigned
Light Channel 2 - No zones assigned
Light Channel 3 - No zones assigned
Light Channel 4 - No zones assigned
Light Channel 5 - No zones assigned
Light Channel 6 - No zones assigned
Light Channel 7 - No zones assigned
Light Channel 8 - No zones assigned
First Power up

Before power up for Optima compact only - fit the top cover on to the base and connect the speaker wires. Leave the cover in position throughout the reset of the installation.

a. Check that the factory fitted links are connected to terminals PA, TAMP and T-A.

b. Fit the battery wires to the BATT terminals on the PCB, Red to + and Black to -.

c. On connecting the battery the system will now go into alarm condition and Tamper is indicated and there is an audible indication.

d. Fit the cover to hold down the tamper spring at the bottom centre of the PCB.

e. Enter the user code: 0123 (factory set at 0123). The alarm condition will cease and the system will go to Day mode.

f. Immediately enter the engineer code 99999. The system is now in Engineer program mode and can be programmed. Note the Tamper indicator is lit.

Mains Connection

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

Note: The mains range of panels are not supplied with wire links for unused zones. All unused zones must be programmed out by setting them to disabled using the Zone Type function see page 19.

Note: The mains supply must be connected by a technically competent person and according to current IEE regulations.

CAUTION: 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 rating: 125mA, 250V type T (anti surge) and of a type approved to IEC 127 part 2 sheet III.

On connecting the mains supply to the panel the power indicator is lit.
Testing the system

Complete the wiring of the system and then:
- Fully test the system and ensure it is fault free.
- Fully program the system
- Fill in the installation log at the back of the manual and retain if for future reference.
- Finally explain the operation of the system to the end user. The Operating Instructions are attached to the centre of this manual. Detach them and leave them with the user.

Engineer program mode

The panel may be programmed to suit a wide variety of installations.

Once the engineer program mode has been accessed, each configuration may be changed in any order. As each configuration is completed the system will automatically return to top level of engineering program mode.

Before entering engineer program mode the system should be in the Day mode, with the Day and Power indicators lit.

Key

To exit

Reset
Leave program menu
Down one menu level

Accenta/Optima G3 Intruder system

System indications

- Unset system indication
- Set system indication

To enter Engineer program mode

Note: The factory configured engineer’s access code is 9999. If however this code is changed then enter the appropriate code.

To Exit Engineer program mode

To reset panel to Factory set conditions

CAUTION: All configurations of the panel are restored to factory ‘default’ conditions.

Within 5 seconds of powering up the panel

Reset

Reset beeps
Access Codes

There are four codes used in the system, all are 4 digit and can be set to any number from 0000 to 9999. The access codes ensure that only authorised users can operate the system.

User 1 and 2 codes
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 and duress code.

Duress code
Should be used in a hold up situation where there is pressure to Set or Unset the system. Entry of the code will allow the system to work normally but also generate a silent PA type alarm by operating the PA communicator output.

Engineer code
Accesses the Engineer Program mode to allow the system to be programmed. The engineer code will not set or unset the system.

If configured the Engineers access code can be used to reset the system after an alarm.

**Note:** Entering an invalid user code will operate the code tamper. After nineteen incorrect key pushes a full alarm condition will be generated.
## Programs

The panel 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.

**Note**: The above are purely examples. The installer must program the panel to configure all the circuits to the customer’s exact requirements.

### Zone Function per Program

- **Timed**: This function would be used to protect the main entry/exit door of the entry route.

- **Time inhibited**: This is a zone which, on setting the panel, allows access to the Entry / Exit zone. However, if the panel is set and an time inhibited zone is triggered before an Entry / Exit zone then an alarm will be generated immediately.

- **Immediate**: This is a zone which will, when entered, go into alarm when the panel is set.

- **Unused**: A zone that is programmed as an Unused zone by the Engineer, then is ignored by the panel. Primarily used for Part set options.

## Exit Modes program

### Timed

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

### Terminated Set

This sets an infinite time out, which will only set once the PTS input is operated.

### Final Door

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

### Silent Set

This operates exactly the same as ‘Timed’ but completely silent without the internal sounder signal.

**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.
Programs 1, 2 and 3

Example: To configure Program 1 Exit mode to Final door set, Press:

```
Prog 1
Reset
Prepare

Zone n selected

Zone n deselected
```

Enter Engineer program mode

1. Used Zones
   * All Zones
   * Press number button to select / deselect

2. Timed Zones
   * Zone 1
   * Zone 2
   * Zone 3

3. Time inhibit zones
   * Zone 1
   * Zone 2
   * Zone 3

4. Entry time
   * Day
   * Factory default

5. Exit time
   * Day
   * Zone 1
   * Zone 2
   * Zone 3

6. Exit mode
   * Day
   * Press a number button to select / deselect

Factory defaults

- For Programs 2 and 3
- Zone 1 for Program 1
- Zone 2
- Zone 3
- Zone 4

Example zones:

- Zone 1
- Zone 2
- Zone 3
- Zone 4

Appropriate Zone indicator is lit to show selected zones

Input Entry/Exit time respectively

- 0 10 seconds duration
- 0 20 seconds duration
- 0 30 seconds duration (factory default)

Acknowledged

Exit to Program and complete used zone set up

Exit to Setup program

Exit Setup program

Exit Set up program

Exit to Program and reset

Exit to Program and reset

Leave engineer mode

Tamper
Alarm and Walk tests

The alarm test function allows you to test the Strobe, Bell, Low and high volume sounders of the system.

The walk test function allows each detector to be checked in order to verify that they are functioning correctly.
Communicator tests

Note: These tests are not applicable to Optima compact G3 panel.

Example: To test intruder output and thereafter stop the test.

Press

Enter Engineer program mode

Communicator Tests

Press number button to select / deselect flag setting

Flag A descriptions:

Silent PA: When this flag is set and on operating PA will cause a Silent PA alarm.

RKP PA Enable: When this flag is set the keypad PA buttons are enabled.

Engineer Reset: When this flag is set an Engineer code must be entered to reset the system after a full alarm. When the flag is clear the system can be reset by the user.

Anti-code Reset: When this flag is set it enables the anti code reset function.

Enable Door bell on PTS: When this flag is set it allows a zone circuit programmed as PTS to operate as a door bell.

Enable single key setting: When this flag is set it allows the panel to be set by pressing the SET button (ie code entry is not needed), however a 4 digit code is needed to Unset the panel.

Enable strobe on setting: When this flag is set the external strobe will flash for 3 seconds once the panel has successfully set.

Enable external Fire bell: When this flag is set the system bell will sound 3 seconds On / 3 seconds Off during a fire alarm.

Example: To set the panel for engineer reset, Press:

Enter Engineer program mode

Example: To test intruder output and thereafter stop the test.

Press

Communicator fault

Stop the tests

Exit current level

Leave engineer mode

Day Acknowledge Tamper

Zone 1

Zone 2

Zone 3

Zone 4

Zone 5

Zone 6

Zone 7

Zone 8

The Zone 8 LED is lit to show there is a communicator line fault.
Flag B descriptions:

**Communicator output active high:** When this flag is set it configures the polarity of communicator outputs to active high, that is output is held at 0V rising to 12V in alarm.

**Line fail active high:** When this flag is set it configures the polarity of line fail input.

**User Reset PA:** When this flag is set it permits the user code to reset the system after a PA alarm, even if Engineer reset flag is set.

**User Reset Fire:** When this flag is set it permits the user code to reset the system after a Fire alarm, even if Engineer reset flag is set.

**Program n to Report:** When this flag is set it allows program n to activate the intruder and confirmed outputs. (Main use is to prevent a night time program from communicating).

**Entry deviate:** When this flag is set it permits an immediate zone to be activated during the entry period without causing a full alarm.
Zone Type

The G3 range of panels are not supplied with wire links to terminate unused zones. Therefore all unused zones must be programmed out by setting them to disabled using the Zone Type function.

Example: To disable an unused zone 8, Press:

```
Prog 9 9 9 5 8 0 Reset Reset Reset
```

Enter Engineer program mode

```
5 Zone Configuration
```

```
1 Zone 1 type
2 Zone 2 type
3 Zone 3 type
4 Zone 4 type
5 Zone 5 type
6 Zone 6 type
7 Zone 7 type
8 Zone 8 type
```

Press a number button to select Zone to be configured

```
Day
```

Press a number button to select zone type

```
0 Disabled
1 Security
2 Fire
3 24h Fire
4 PTS
5 Keyswitch
```

Appropriate Zone indicator is lit to show Zone type

Factory default

```
Zone 1
Zone 2
Zone 3
Zone 4
Zone 5
```

Acknowledge

Reset

Exit to zone type

Day

Exit zone configuration

Attack

Leave engineer mode

Tamper

Example: To disable an unused zone 8, Press:
Zone Attributes

Double Knock: The panel will require 2 activations of the same detector before causing an alarm condition. This setting is used as a false alarm measure.

Note: Double knock must not be used on zones having magnetic door/window contacts.

Omit Prevent: The panel will prevent the zone from being omitted by the user when setting the system.

Zone Delay: The panel programs a zone delay to 800mS to give extra immunity to false alarms.
**Bell and Service Timers**

Example: To set bell timer for 10 minutes duration, Press:

![Image of bell timer diagram]

1. Bell timer
2. Bell delay timer
3. Service timer
4. Re-arm counter (00 to 99)
5. Anti-code reset site code

**Timers and Counters**

- **Zone 1**
- **Zone 2**
- **Zone 3**
- **Zone 4**
- **Zone 5**
- **Zone 6**
- **Zone 7**
- **Zone 8**

**Bell timer**

- **Zone 1**
- **Zone 2**

**Bell delay timer**

- **Zone 1**
- **Zone 2**

**Service timer**

- **Zone 1**
- **Zone 2**

**Service timer disabled** (Factory default)

- **Zone 1**
- **Zone 2**

**Re-arm counter (00 to 99)**

- **Zone 1**
- **Zone 2**

**Anti-code reset site code**

- **Zone 1**
- **Zone 2**

**Press a number button to select Service timer**

- **Zone 1**
- **Zone 2**
- **Zone 3**
- **Zone 4**
- **Zone 5**
- **Zone 6**
- **Zone 7**
- **Zone 8**

**Appropriate Set / Unset values LED is lit**

- **Zone 1**
- **Zone 2**
- **Zone 3**
- **Zone 4**
- **Zone 5**
- **Zone 6**
- **Zone 7**
- **Zone 8**

**Lit when selected**

- **Day**

**Exit Timer and counters**

- **Attack**
- **Tamper**

**Exit Engineer program mode**

- **Attack**

**Leave engineer mode**

- **Attack**
- **Tamper**

**Example:** To set bell timer for 10 minutes duration, Press:

![Image of bell timer diagram]
Re-arm and Anticode reset code

Example: To set panel re-arms to 10 times before panel is shut down, Press:

Enter Engineer program mode

1. Bell timer
2. Bell delay timer
3. Service timer
4. Re-arm counter (00 to 99)
5. Anti-code reset site code

Re-arm

After an alarm the panel will automatically reset itself when the bell timer has expired. Any zones which still remain open at that time will be omitted automatically.

Note: By default there are 3 automatic re-arms before the panel is shut down.

Anti-code reset (Engineer reset)

If the system has been programmed to be engineer reset, after an alarm it will lock out and the RKP will continually display the cause of the alarm. The engineer would then be required to attend the site and use the engineer code to reset the system.

Where anti-code reset has also been enabled, the RKP will still show the alarm cause and also display a 4 digit ‘quote code’ by sequentially flashing zone indicators 1-8.

At this point the end user would contact the engineer. After determining the cause of the alarm and deciding that an engineer call was not necessary, a 6 digit anti-code would be given to the user which would reset the system.

This anti-code is generated from a small computer program which is installed at most UK Alarm receiving Centres, or alternatively can be run on a PC by the engineer.

Security of the anti-code reset system is maintained by a 2 digit site code which is set up in the anti-code generator programme. The same 2 digit site must also be set up in the control panel during installation.
Lighting controller

Example: To assign zones 1 and 2 to lighting controller channel 1, Press:

| 9 | 9 | 9 | 9 | 1 | 1 | 2 | Reset | Reset | Reset |

Enter Engineer program mode

- Press a number button to select the appropriate light channel.
- To assign zones to channel press to select and again to deselect zone (Factory default: No zones are selected).
- Appropriate Zone indicator is lit to identify its assignment to channel.

- Zone n assigned to the channel
- Zone n not assigned to the channel

Set the light threshold level (0 - 99%)

- Hold time (0-99 seconds) (20 seconds factory default)

Enter Engineer program mode

- Example: To assign zones 1 and 2 to lighting controller channel 1, Press:

| 9 | 9 | 9 | 9 | 1 | 1 | 2 | Reset | Reset | Reset |

Exit Lighting controller

- Exit current level
- Day
- Attack
- Acknowledge
- Tamper

Leave program mode

- Day
- Attack
- Acknowledge
- Tamper
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.

a. 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.

b. The Engineer Program is accessed directly from Day mode via the engineer code.

c. If a tamper, PA or 24Hr fire 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.

d. The most common cause of a zone not responding to detection is incorrect wiring. Normally closed detectors must be wired together in a series loop before connecting into the appropriate ZONE terminals. Tampers are series wired in the same manner.

e. 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 multimeter the series resistance between the zone and tamper wiring should be infinitely high.

f. If totally lost as to the cause of a fault, remove ALL wiring from the PCB. Refit the 4-links and test the system. Never fit links to any positions other than those marked on the PCB.

g. 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 or external bell supply (terminal D).

h. 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.

i. Where normally open detectors are connected to adjacent zones two pull-up resistors (not supplied) of value 33kohms must be installed.

The example below shows how to wire normally open detectors on zones 3 and 4.
Where **Pressure mats** are being used these must be connected to a zone in the manner shown. The example below shows pressure mats connected to zones 3.

### Specification

<table>
<thead>
<tr>
<th>Indicators on Control panel or RKP</th>
<th>Zone 1-8, Power, Attack, Tamper and Day</th>
</tr>
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<tr>
<td>8 Zones</td>
<td>+ve loop, programmable function in each program</td>
</tr>
<tr>
<td>Tamper</td>
<td>-ve loop, internal sounders in Day – Full alarm in Set</td>
</tr>
<tr>
<td>PA</td>
<td>+ve loop, always active</td>
</tr>
<tr>
<td>Bell Output</td>
<td>12V, adjustable timer (1-99 mins) or continuous</td>
</tr>
<tr>
<td>Strobe Output</td>
<td>12V latching</td>
</tr>
<tr>
<td>Extension Speaker</td>
<td>16 ohms (2 maximum) 130mA each</td>
</tr>
<tr>
<td>Exit/Entry timers seconds</td>
<td>Programmable (10-990 seconds)</td>
</tr>
<tr>
<td>Zone Input Delay</td>
<td>300 or 800mS</td>
</tr>
<tr>
<td>Set +ve Output</td>
<td>0V in Day (sinking 40mA)</td>
</tr>
<tr>
<td>Current Consumption</td>
<td>Standby 80mA</td>
</tr>
<tr>
<td>Control panel</td>
<td>Alarm 250mA</td>
</tr>
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### Engineering Information

| Current consumption RKP          | Standby 40mA |
| Low voltage output              | Alarm 70mA |
| Rechargeable Battery            | 13.8V dc stabilised (+/-5%) up to 350mA |
| Charge Voltage                  | Accenta/Optima G3 mini/compact - 12V, 1.2 or 2.1Ah |
| Mains Input fuse                | Accenta/Optima G3 - 12V, up to 7Ah |
| Total Current Output            | 13.8V dc (+/-5%) |
| PCB Fuses                       | 1.6A & 1A 20mm quick blow |
| Mains Supply Voltage            | 125mA, 250V type T (anti-surge) type approved to IEC 127, part 2 sheet III |
| Total Current Output            | 1Amp when supported by a fully charged battery |
| Mains Supply Voltage            | 230V (+/-10%) 50Hz max load 0.2A |
| Ambient Operating temperature   | 1Amp when supported by a fully charged battery |
| Enclosure construction          | 230V (+/-10%) 50Hz max load 0.2A |
| Dimensions                      | 0 – 40degC |
|                                  | 3mm Polycarbonate |

### Dimensions

- **Accenta/Optima G3**: mini/compact
  - H 200mm W 253mm D 55mm
  - H 230mm W 290mm D 80mm
  - RKP H 85mm W 122mm D 28mm

- **Current Consumption Control panel**: Standby 80mA Alarm 250mA

---

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## Engineering information

### Accenta/Optima G3 Intruder system

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</tbody>
</table>
## Accenta/Optima G3 Intruder System

### Engineering Information

#### Servicing Organisation Details

<table>
<thead>
<tr>
<th>Servicing organisation name:</th>
<th>telephone number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>____________________________</td>
<td>____________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date of installation:</th>
<th>Account Number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>______________________</td>
<td>________________</td>
</tr>
</tbody>
</table>

### Parts

Below is a list of approved parts and accessories.

- 8SP 401 Accenta G3 panel
- 8SP 400 Accenta mini G3 panel
- 8EP 395 Optima G3
- 8EP 396 Optima compact G3 panel
- 8EP 219 Accenta LED RKP
- 8EP 332 Accenta LCD RKP
- 8EP 336 Accenta Speech Dialler
- 8EP 276 Informa
- 8EP 289 Extension Speaker
- 8EP 372 Opti-Cam Lighting Controller

A range of detectors are also available, for more information contact your supplier.

<table>
<thead>
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<th>Area protection and equipment used (e.g., PIR, Contacts..)</th>
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<td>Zone 4</td>
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</tr>
<tr>
<td>Zone 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zone 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zone 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zone 8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
These operating instructions cover the following intruder system:

- 8SP 401 Accenta G3 panel with remote LED keypad
- 8SP 400 Accenta mini G3 panel with remote LED keypad
- 8EP 395 Optima G3 panel with built-in keypad
- 8EP 396 Optima compact G3 panel with built-in keypad

For Clarity, the information given on setting the system, assume that all Programs use a timed or final door setting routine.

Unset system indications

An unset system will have both Day and Power indicators lit. This is a normal indication when the system is disarmed.

Note: If the Power indicator goes off at any time then there is a mains supply failure at the security panel, consult your servicing organisation.

Set System indication

An active ‘Set’ system will have only the Power indicator lit. This is an armed system indication.
Access codes

There are two User codes used in the system, all are 4 digit and can be set to any number from 0000 to 9999, signified by:

- User 1 code
- User 2 code

The user 1 and 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 and Duress code.

- User 1 code - 0123 factory set
- User 2 code - not programmed.

How to operate Personal Attack

Personal Attack buttons on the keypad are used to activate the alarm, irrespective of whether the system is armed or not.

Press Simultaneously:

Access codes

- 4
- 9

Operating instructions

Contents
- Unset system indications
- Set System indication
- Access codes
- How to operate Personal Attack
- How to unset system in alarm
- Programs 1, 2 and 3
- How to set the system (on program 1)
- Push to Set Switch
- Keyswitch Set
- Faults during setting
- How to unset the system (turn off)
- How to set program 1, 2 or 3
- How to Quick set
- How to Omit zone(s) on setting system
- Fire Alarm
- How to set Chime zone
- Operator’s Program mode
- To exit operation at any time
- How to enter Operator’s program mode
- How to view the event log
- How to create/omit User 2 code
- How to change current user code
- How to create/change/omit the Duress code
- How to carry out Alarm and Walk tests
- Servicing organisation details
- Quick Reference

Accenta/Optima G3 Intruder system

How to unset system in alarm

Enter your code. Entering the code will turn the alarm off and the cause of the alarm will be displayed. After investigation press Reset to clear the indication.

- Bell
- Alarm

First Zone in Alarm
Other Zones in Alarm

Investigate the Alarm

- Strobe Off
- Day

Note: If the alarm indication does not clear, then the system may need to be reset by the installation engineer, contact your installer for further information.

Programs 1, 2 and 3

The panel 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 silently.

The above are purely examples. The installer has the ability at the programming stage to configure all the circuits to the customer’s exact requirements.
**How 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 beep tone stops.

**Push to Set Switch**

In some systems a Push to Set switch may be fitted outside the premises near to the main exit door. This should be used to complete the setting procedure once the building has been vacated. As the switch is operated, the exit beep tone will stop and a chime tone will be produced to acknowledge setting.

**Keyswitch Set**

Your system may have been fitted with a remote keyswitch. This can be used as an alternative to arming the system with a code and will set Program 1. Where a keyswitch is used it may be necessary on occasions to allow it to catch up with the system. For example if the alarm was set with a code, to Unset with the keyswitch, it would have to be momentarily turned to Set then returned to Unset.

**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.

**How to unset the system (turn off)**

On entering the premises an entry beep tone comes on. Enter your code, the green Day indicator is lit. The system is unset and disarmed.

**How to set program1,2 or 3**

The green Day indicator should be showing. Enter your code number and the exit beep 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 beep tone will start and you should leave by the approved route. The system will Set as the beep 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.
How to Quick set

During the exit period (on entering User code) the system may be Set quickly by pressing Set. This removes the exit time period.

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

How to Omit zone(s) on setting system

During the exit period after entering User code and selecting a program press OMIT, the exit tone will stop and 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 panel to prevent you from turning off the zone. If in doubt ask your installer for advice.

Fire Alarm

The fire zone will operate on detection of a fire, whether the system is Set or Unset, when configured as a 24 hour zone, and cause a distinctive internal sounder tone. The external sounders will pulse on and off at 2 second intervals and all keypad indicators will flash to attract attention.

How to set Chime Zones

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 presence or in a house to warn that a door or 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.
Operator's Program mode

The information below shows the programmable options available and how to change them.

Once the programming mode has been accessed, each section may be changed in any order. As each operation is completed the system will automatically return to top level of program mode.

**Note:** When programming the system should be in the Day mode, with the Day and Power indicators lit.

### To exit operation at any time

On pressing the Reset key you will quit the current level of operation.

- **Reset** Quit the current function
- **Prog** Leave Engineering menu
- **Zone** Down one menu level

### How to view the event log

The panel can hold up to 8 previous events which can be scrolled automatically or manually. The automatic scroll starts with the newest event (number 8) to the oldest one (number 1).

To manually scroll:
- **1** View event 1 (oldest event)
- **2** View event 2
- **3** View event 3
- **4** View event 4
- **5** View event 5
- **6** View event 6
- **7** View event 7
- **8** View event 8 (Newest event)

To stop event scroll / view:

- **Prog** Resume automatic scroll
- **Reset** Stop event scroll / view

**Example:** To view up to 8 previous events and thereafter to stop the event scroll, Press:

- **Prog**
- **1**
- **2**
- **3**
- **Reset**

---

**Zone, PA and Tamper indicators**

- Zone, PA and Tamper indicators will be lit to show zone in alarm.
- Flashing indicates the first zone in alarm.
- Day indicates status of panel at the time of alarm.

---

**Leave program mode**

- **Day**
- **Acknowledge**
- **Tamper**
How to create/omit User 2 code

User 1 code which is usually considered to be the Managers code has the authority to add, change or delete the user 2 code.

How to change current user code

You can change the current user 1 or user 2 code for security reason.

How to create/change/omit the Duress code

The Duress code is used in a hold up situation where there is pressure to Set or Unset the system. Entry of the code will allow the system to work normally but also generate a silent PA type alarm by operating the PA communicator output. The duress code is not preprogrammed and can be created.
How to carry out Alarm and Walk tests

The alarm test function allows you to test the Strobe, Bell, Low and high volume sounders of the system.

The walk test function allows each detector to be checked in order to verify that they are functioning correctly.

Servicing organisation details

Servicing organisation name: ______________________________________

Telephone number: ____________________________________________

Date of installation: __________________________________________

Account Number: ______________________________________________

Installation Date: _____________________________________________

Bell Time: __________________________

Bell delay _________________________

Area protected | Program 1 | Program 2 | Program 3
--- | --- | --- | ---
Zone 1 | | | |
Zone 2 | | | |
Zone 3 | | | |
Zone 4 | | | |
Zone 5 | | | |
Zone 6 | | | |
Zone 7 | | | |
Zone 8 | | | |

T = Timed (Entry/Exit - Zone)
TI = Time Inhibited (Access zone to keypad)
I = Immediate (All zones armed to give full alarm)
The panels conform to the requirements of the European EMC and Low Voltage directives, and carries the CE mark.