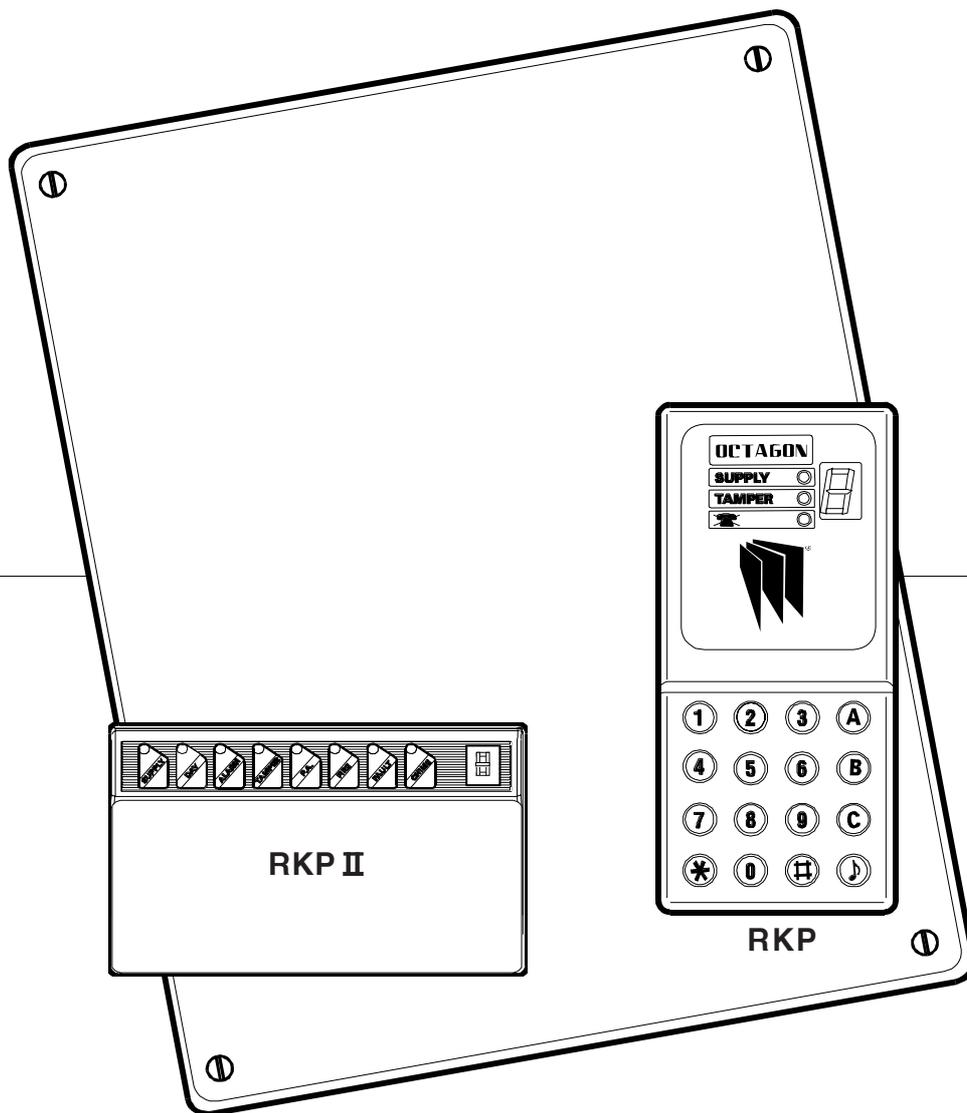


# OCTAGON<sup>TM</sup>

## USER INSTRUCTIONS



PYRONIX LIMITED  
MAY 1997



**This product is approved for use in the  
Residential, Commercial and Light Industrial Environment.**





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# 1 INTRODUCTION

The Octagon is a full featured intruder alarm control panel, based around a microprocessor with 8 fully programmable zones and 2 dedicated '24-hour' zones (Personal Attack alarm and a System-Tamper alarm.). It is operated via a 16 - key remote keypad and has an arrangement of 3 LEDs and LED display to show the status of the system.

All features are fully programmable and there are three levels of access to the system :

Master User (user 1)	factory default (1 2 3 4)	
Limited User (user 2)	factory default (5 6 7 8)	(if enabled)
Cleaner Code	factory default (7 8 9 0)	(if enabled)
Engineer	factory default (9 9 9 9)	

The Master User code gives access to all settings and unsetting facilities and also allows the changing of code numbers and testing of the system.

The Limited User code gives access to the basic functions needed for everyday setting and unsetting the system.

The Cleaner code can only set and unset the panel in programmed areas.

The Engineer code gives total access to the system programming during day mode.

## 2 ACCESS LEVELS

**Master User** (user 1) enables:

- 1.Chime programming.  
pass code
2. Alteration of all access codes except engineers.
3. Test mode
4. All user code 2 facilities  
facility

**Cleaner level** enables:

1. Panel setting and unsetting with a unique pass code

**Limited User** (user 2) enables:

1. Panel setting and unsetting with a unique
2. Changing user code 2
3. Omitting zones
4. Setting and unsetting of the door chime

**Engineer level** enables:

1. Changing engineers code
2. All system programming
3. Panel setting and unsetting, providing the panel is in day mode

## 3 FEATURES

- 2 User-Level Codes, cleaner code and engineers code, all programmable
- Fast-set facility
- 8 Programmable alarm zones
- 8 Zone Tamper
- 4 Full set / Part set configurations
- Personal Attack alarm zone
- 16 key backlit keypad
- 3 LEDs and LED display on RKP for immediate indication of panel status
- Walk Test facility
- System Test Function
- Extension speaker volume control with alarm override
- Separate Bell and Strobe outputs
- Zone omit facility on exit
- Part sets programmable as silent, time or instant
- Digital Communicator outputs
- Optional communicator delay / activation polarity
- Customer / engineer reset
- Two individual keyswitch inputs
- Soak zones, Fire zones and 24hour zones
- Non omitable zones
- Up to four remote keypads
- Additional zone on each keypad
- Duress code
- 100 event memory
- Push to set input
- Final door exit option

## 4 FUNCTIONAL DESCRIPTION

### 4.1 Operating modes

**Day Mode** This is the state of the panel when unset (not armed). Personal Attack and Tamper inputs, however, remain active 24 hours a day. (These are referred to as 24 hour zones). Day mode is identified by the U (unset) on the LED display.

**Set Modes** When the panel is set (armed) an activation of any Access, Immediate or 24 hour zone will cause an alarm condition. When an alarm is generated the internal and external sounders will operate for the length of time programmed. The strobe will also be activated and will continue to operate after the bell time has expired, until the panel is reset.

#### Fullset / Partset

At the time of setting the control panel, any one of four set modes can be selected. i.e. Full set: tem armed; nobody on premises.

Whole sys	}	All Part sets may be
Part set A:		configured as fast set
Part set B:		
Part set C:		timed exit or night set

### 4.2 Entry / Exit modes

**Entry** When the panel is set and an entry zone is triggered the entry timer will begin to count down. During this period an entry tone (single repeated bleep) will be produced by the internal sounder. The tone will change to a dual repeated bleep when half the entry time has been reached.(two ply).

Any zones which are programmed as Access zones will be ignored. If the user code is entered before the end of the count down period the panel will return to 'day' mode. If the timer is allowed to elapse before the user code is entered the panel will go into an alarm state. In this case the system needs to be 'Unset' then reset.

**Exit** With the panel in 'day' mode if a user code is entered the exit timer will begin. If all the Immediate zones are clear, then the exit tone will be heard. Leave the protected area by the predetermined exit route.

As you trigger access and entry / exit zones the tone will change to a high tone. When all the zones are clear, the exit tone will continue again until the end of the time-out period and the panel will arm. If the exit time is reached before all access and entry / exit zones are clear a warbling tone will be heard. The panel will arm when the entry / exit zone is clear.

## 5 ZONES

### 5.1 Engineer Programming Zones

**Entry / Exit** This is a zone which allows limited-time access to the premises in order to set or unset the system.

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

**Immediate** This is a zone which will create an immediate alarm when the panel is set.

**Omitted** If a zone is programmed as an Omitted zone by the Engineer, then it is ignored by the panel. Zone 9 omits the RKP remote zone. It also allows the user to continue to use the alarm system even if a fault has been discovered on one or more zones. Omitted zones are only programmable for part set modes.

#### Non Omitable Zone

This is a zone that is programmed by the engineer. A zone programmed as a non omittable zone may not be omitted by the user. This enables vital areas to be protected at all times.

**Soak Zone** A Soak zone is a zone which will not cause an alarm if triggered. However the activation will be saved in the log.

**Fire Zone** If activated this will cause a pulsed bell and sounder activation in day or set modes. The fire LED will illuminate on RKP II.

**24 Hour Zone** Will cause an instant alarm when the panel is in day or set modes.

**Cleaner Zone** If the panel is disarmed using the cleaner code these zones will remain active and cause an alarm if violated.

**Push to set.** A push to set zone will force the entry / exit timer to terminate to prevent the user from having to wait for the entry / exit period to finish.

## 5.2 24 Hour Zones

**Personal Attack** Triggering of the Personal Attack (P.A) zone will always cause a full alarm activation regardless of whether or not the panel is set. If silent P.A. is programmed, only the communicator will be activated. The P.A LED will illuminate on RKP II when the P.A is activated

**Tamper** If a tamper fault is present in day mode a high tone will be heard. When a user code is entered the tamper LED will illuminate and the zone causing the tamper will be shown on the LED display. If the tamper was caused by activation of the universal tamper zone then only the tamper LED will illuminate. If a user code is not entered before the bell time expires the internal speaker and bell will turn off and the system will rearm.

**Tamper** If the panel has been set and a tamper fault occurs the system will go into full alarm condition. When a user code is entered the tamper LED will illuminate and the zone violated will be displayed. After the bell time has expired any further tamper faults will also cause alarm activation. The strobe will remain on until the panel is unset. A tamper alarm will also occur if the correct user code is not entered after three attempts.

**Tamper (Keypad)** If the code is not entered successfully after the third attempt, the keypad will not accept anymore entries for 3.5 mins and a tamper will be generated. The tamper LED will flash on the RKP II when the keypad is locked out.

### EXPORT ONLY

**Tamper LED** Reset The tamper LED will remain on after a zone tamper, or system tamper. This can only be reset by entering engineer mode.

## 6 CONTROLS AND FUNCTIONS

**Auto Rearm** After an alarm the panel will automatically reset itself when the bell timer has expired. Any zones which are still not clear after the bell time has expired will be omitted automatically.

**Walk test** The walk test function verifies that all the intruder detectors on the alarm system are functioning correctly. When the walk test mode is enabled any activated zone will cause a chime and the LED display will indicate the relevant zone. In engineer walk test the alarm zones, tamper zones and personal attack zone activations will be recorded in the event log.

**Event log** The Octagon panel incorporates a memory log of the last 100 events and is accessible in master user mode. It will record panel setting personal attack alarms and will show which tamper and alarm zones have been triggered. Soak zones, user omitted zones and zones activated by the engineer walk test will also be displayed. The event log may be cleared by the User if he is permitted to do so by the engineer. All zone activations after an alarm event are recorded in the log.

**Keyswitch inputs** Two Keyswitch inputs are available and these may be used for full setting and part setting the system.

## 7 USING THE OCTAGON AFTER PROGRAMMING

### 7.1. Cleaner Functions

#### 7.1.1 Full Setting The Panel

To full set the system enter the cleaner code    .

The full set symbol  will be displayed until the panel sets.

#### 7.1.2 Part Setting the Panel

To part set the system enter the cleaner code     followed by

  for part set A

  for part set B

  for part set C

A part set symbol  ,  OR  will be displayed until the panel sets

#### 7.1.3 Unsetting The Panel

To unset the system enter the cleaner code.

The keypad display will show  which indicates that the system is not completely unset. Any cleaner zones which are activated at this time will create a full alarm.

#### 7.1.4 Activating Personal Attack (PA) Alarm

To activate the PA alarm enter   or  

#### 7.1.5 Turning Chime ON and OFF

With the panel in day mode enter  .

As this feature is turned on a two tone chime will be given by the remote keypads and any extension speakers (if fitted), the chime LED will illuminate on the RKP II.

With chime enabled any zones programmed to chime by the Master user will cause the same two tone chime to be given by the remote keypads and speakers. The chime zone number will also be displayed on the RKP. A chime caused by a

RKP remote zone will be displayed as  To turn off the chime facility enter  

## 7.2 LIMITED USER FUNCTIONS (user 2)

### 7.2.1 Cleaner Functions

The limited user has access to all the cleaner functions as well as those listed below. The Octagon control panel has to be in day mode for these additional features to be accessed.

#### 7.2.2 Deactivating Cleaner Zones

If the control panel has been reset using the cleaner code the cleaner zones will still be active. If the limited user code is entered the display will change from  to  and all cleaner zones will be deactivated. The Cleaner cannot reset the panel if there has been an alarm activation.

#### 7.2.3 Omitting Zones

If one or more "immediate" zones are triggered whilst in exit mode a warning tone will be produced and the zone number will be displayed. If the zone clears the warning tone will change to an exit tone and the full set / part set indicator will be displayed.

If the zone does not clear and the warning tone continues the faulty zone can be omitted. If this is not done the system will not set.

To omit a zone enter any user code    

followed by   for part set A

  for part set B

  for part set C as required.

During the exit period enter **\* 0** . The display will clear and a rapid tone will be produced. Now enter the numbers of any zones which need to be omitted. Zone 9 will omit the remote RKP zone. Note: All remote keypad zones will be omitted by entering number 9. The control panel will acknowledge these by displaying the zone number(s) selected. Now enter **\*** to allow the exit period to continue.

#### 7.2.4 Changing Limited User Code

In day mode enter **\* 5** followed by the existing Limited user code **X X X X** . The keypad will beep to acknowledge that this code is correct. Then enter the new Limited user code twice. After each input the keypad will give an acknowledgement beep. If a code is not entered correctly the keypad will give an error tone and return to day mode.

### 7.3 Master User Functions (USER 1)

The master user has access to all the Limited user and cleaner functions as well as those listed below.

#### 7.3.1 Changing Cleaner Code

In day mode enter **\* 4** followed by the Master user code **X X X X** . The keypad will beep to acknowledge that the code is correct. Then enter the new Cleaner code twice. After each input the keypad will beep. If the code is not entered correctly the keypad will emit an error tone and return to day mode.

#### 7.3.2 Changing Limited User Code

In day mode enter **\* 5** followed by the Master user code. Then enter the new Limited user code twice.

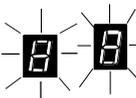
#### 7.3.3 Changing Master User code

In day mode enter **\* 6** followed by the Master user code . Then enter the new Master user code twice.

### 7.4 System Test Mode

This function performs a number of system tests which are listed below. In day mode enter **\* 7**

The "unset" display will now flash  Now enter user code . **X X X X**

All display LEDs on the keypad will all turn on and the number display will show a flashing 

- Now press **7** The strobe output will be activated
- press **7** The strobe output will turn off and the bell output will switch on
- press **7** The bell output will turn off and any extension speakers fitted will sound
- press **7** The extension speakers will turn off and the panel will return to day mode

#### 7.4.1 Walk Test

To verify the operation of all detectors in the alarm system a user walk test feature has been included.

To perform a walk test enter **\* 8 \* 8**

The unset display will now flash  Now enter the Master user code **X X X X** .

If any zones are active a high tone will be generated from the keypad and the zone numbers will be displayed on the keypad.

If all zones are inactive then a low tone will be heard.

Enter **\*** to end walk test.

Note: Unlike the Engineer walk test the Master user walk test will not enter zone activations into the event log.

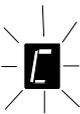
#### 7.4.2 Chime Programming

In order to increase system flexibility the chime programming may be performed by the Master User. Four chime options are available on the Octagon control panel and these are: Day mode.

- Part set A
- Part set B
- Part set C

In day mode, any of the eight standard zones may be programmed to chime. In addition to this when the system is part set any omitted zones can also be programmed to chime. This allows the chime to operate at any time except when the control panel is full set. Chime is programmed as follows:

In day mode enter \* 1 .

The keypad display will change to  (flashing) to indicate that chime programming has been selected.

Now enter the Master User code X X X X , the keypad will beep to acknowledge that the code is correct.

Next enter

- 0 for Day mode
- A for Part set A
- B for Part set B
- C for Part set C

The keypad will beep to acknowledge a key press. Now enter the numbers of the zones you wish to chime. Pressing 0 will clear all chime zones and should be used if reprogramming is necessary. When all zone numbers have been entered press \* to return to day mode. Programming of another mode to chime will require the above sequence to be repeated.

#### 7.4.3 Engineer Code Arming

The engineer may arm and reset the panel from day mode if the panel has previously been reset by the Master User Code.

To arm panel enter \* 3 . The unset display will now flash 

Now enter the Engineer code X X X X

The panel will now arm

Enter \* A

or \* B

or \* C To part set the panel.

#### 7.5 Cancelling A Power Failure

In day mode if the mains supply is interrupted the tamper LED and  will flash and a tone will be generated by the remote keypad. To cancel this tamper alarm enter any user code.

#### 7.6 Duress Code

If the last two digits of a user code are reversed when arming or disarming the panel, the digital communicator personal attack output is activated. The correct code must be entered to reset the PA communicator output.

e.g. Master code 1 2 3 4

Duress code 1 2 3 4

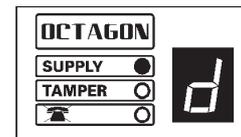
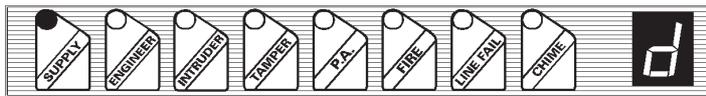
## 7.7 Event Log

The Master User may view the event log. To view the event log enter **\* 2**. The unset display will now flash .

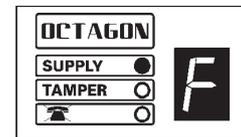
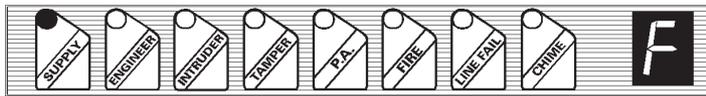
Now enter the Master User code **X X X X**, the last zone activation will be displayed on the RKP.

- Key  to scroll backwards  
 to scroll forwards  
 to clear log (if enabled by engineer)  
 to exit to day mode.

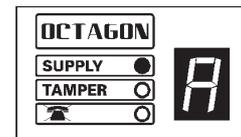
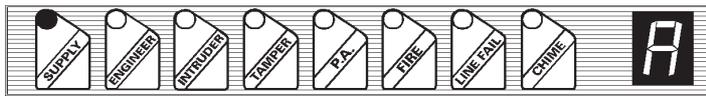
1. Indicates that the next event caused the alarm activation when the panel was in day mode.  
 RKP II LED display layout      RKP display layout



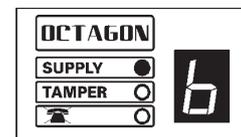
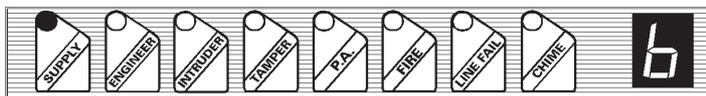
2. Indicates that the next event caused the alarm activation when the panel was full set.



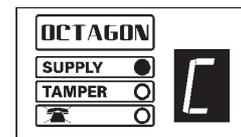
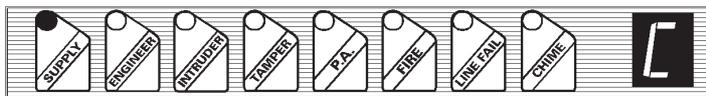
3. Indicates that the next event caused the alarm activation when the panel was part set A.



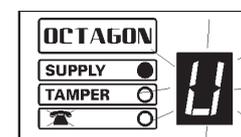
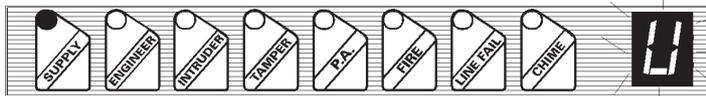
4. Indicates that the next event caused the alarm activation when the panel was part set B.



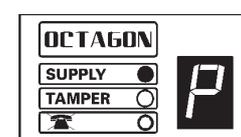
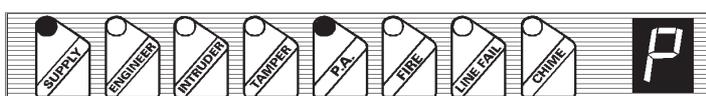
5. Indicates that the next event caused the alarm activation when the panel was part set C.



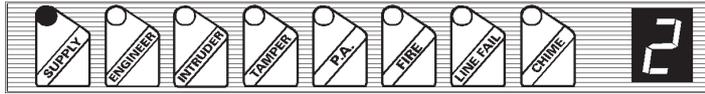
6. Indicates the panel was set



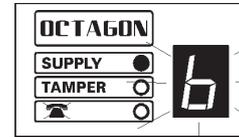
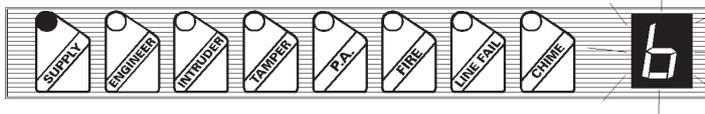
7. Indicates a Personal Attack activation or a flashing 'P' indicates an Engineer walk test activation.



8. A number indicates a zone activation.

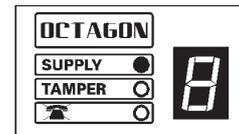
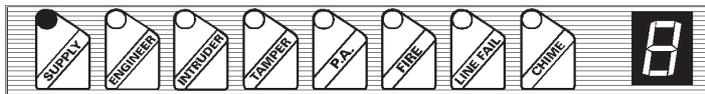


9. A flashing number indicates a soak zone activation



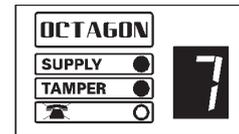
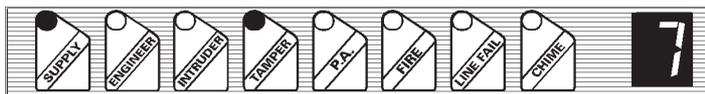
e.g. zone 6

10. **E** Followed by number shows an Engineer walk test activation.



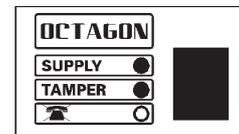
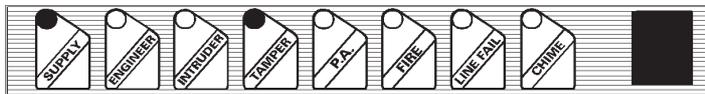
e.g. zone 8

11. A number and the tamper LED indicates a tamper zone activation.

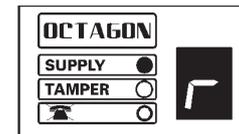
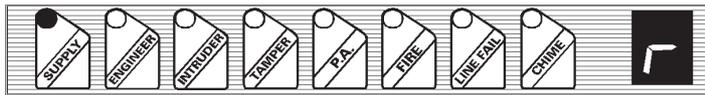


e.g. zone 7

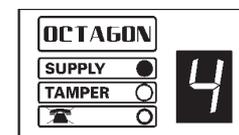
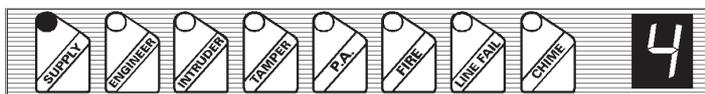
12. The tamper LED indicates a bell or case tamper.



13. Indicates an entry/exit activation of the remote keypad zones.



14. **□** followed by a number shows a user omitted zone (e.g. zone 4 was omitted here during the setting sequence).



## 8 RKP LED FUNCTIONS

Supply LED	:	Indicates a mains and/or battery supply
Tamper LED	:	Indicates a tamper fault
Tamper LED flashing	:	Indicates a keypad lockout for 3.5 minutes
Line Fail LED	:	Indicates a communicator line fault

### 8.1 RKP II LED Functions

All of the above functions, including the following:

Fire LED	:	Indicates a fire alarm
P.A LED	:	Indicates a personal attack alarm
Intruder LED	:	Indicates a zone activation
Engineer LED	:	When illuminated the engineer code is panel
Chime LED	:	Indicates that the chime function is on

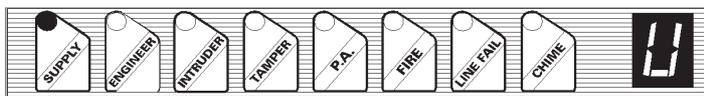
## 9 CLEANING

DO NOT use strong detergents to clean this control panel. To remove any dirt or grime, wipe with a clean damp cloth ONLY

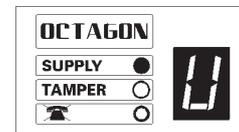
## 10 TROUBLESHOOTING

The following guide shows the most common displays given by the Octagon remote keypad. If an incorrect function code is entered and it is not known what input the control panel is expecting next, please wait. The control panel will only wait for approximately 1 minute before reverting back to either day mode or Engineer mode. If this does not work press , then wait again.

- 1 Panel unset (Day Mode)  
RKP LED display layout

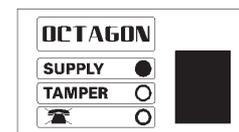
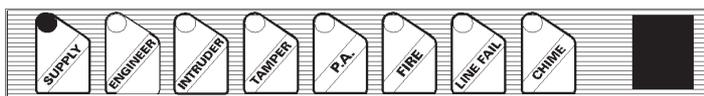


RKP LED display layout

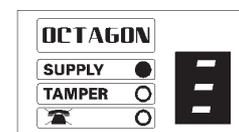
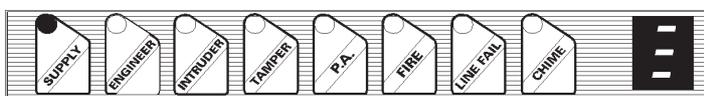


During Exit Mode the following four symbols are displayed flashing

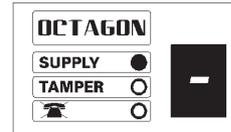
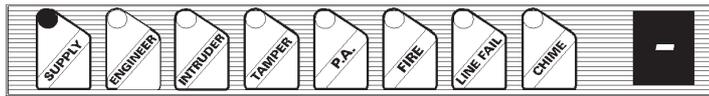
- 2 Full set indication 
- 3 Part set A 
- 4 Part set B 
- 5 Part set C 
- 6 Panel set



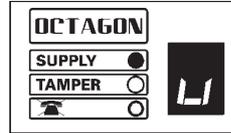
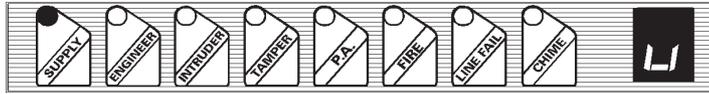
- 7 Programming Mode (Press  to return to day )



8 Programmable functions returned to factory settings ( call Engineer)

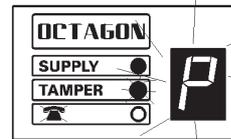
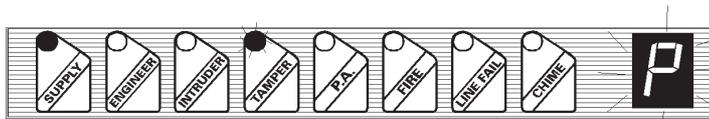


9 When the panel has been unset with the Cleaner Code a small 'u' is displayed.

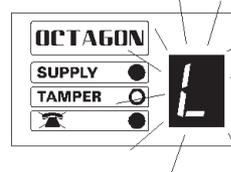
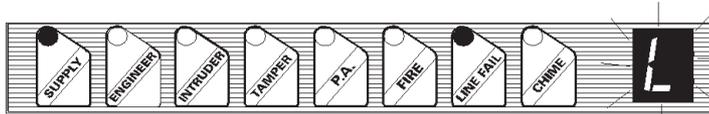


10 Mains Failure in Day Mode - providing system is battery backed a tone will be emitted.

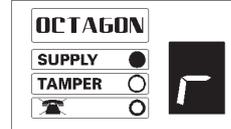
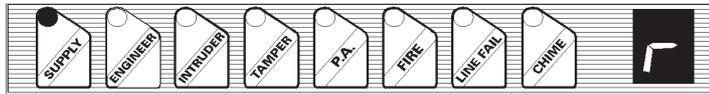
A **P** and the tamper LED will flash for a second when arming the system.



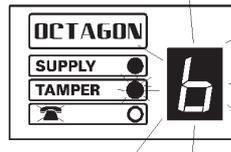
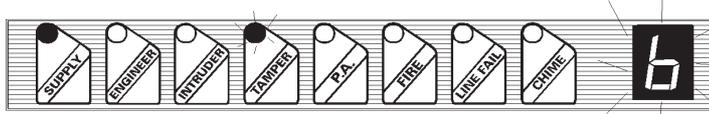
11. Telephone line fail



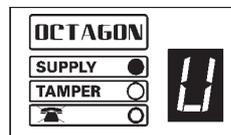
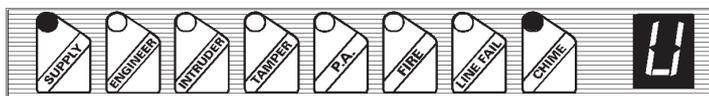
12 Remote Zone open circuit.



13 Battery Low / No Battery ( Day mode)

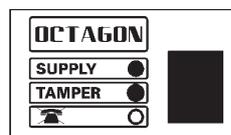
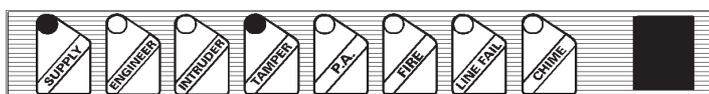


14 Chime function activated



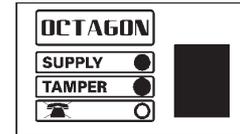
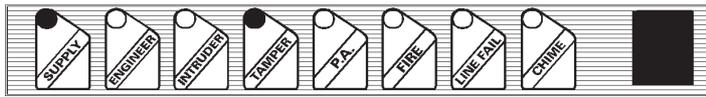
15 No Battery / Low Battery / Power Fail

When trying to arm the panel the tamper LED flashes and the tamper tone is emitted there is no battery / low battery or there is a power failure. If option 48 / 49 is set to 0 (default).

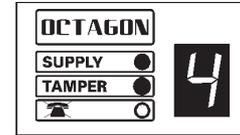
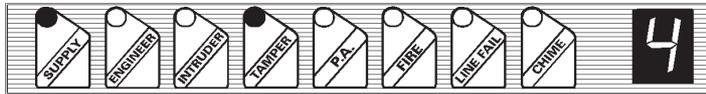


For the following conditions the activation indicated will cause a continuous tone to be heard. Enter any user code once to display the system status. Enter the user code a second time to return to Day Mode (all tamper circuits must be closed before the system can return to Day Mode).

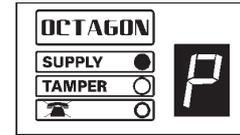
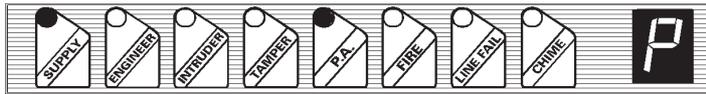
16 Tamper alarm (call Engineer).



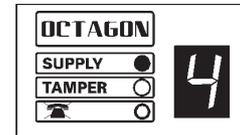
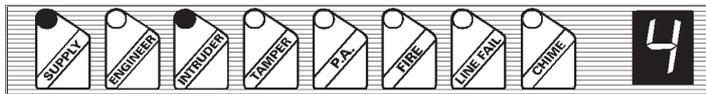
17 Tamper alarm . The LED display shows the number of the zone activated (call Engineer).



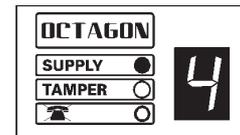
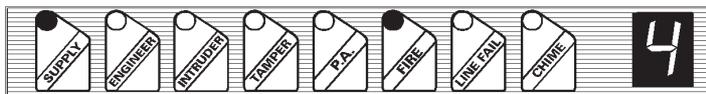
18 PA Alarm. Enter any user code to reset the panel.



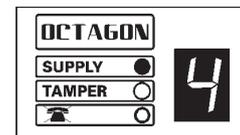
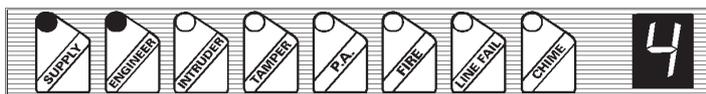
19 Intruder alarm. The LED display shows the number of the zone activated. Enter any user code to reset the panel.



20 Fire Alarm. Enter any user code to reset the panel. The LED display shows the number of the zone activated.



21 Engineer code is required to reset the panel. The LED display shows the number of the zone activated.



## **11 USER QUICK REFERENCE GUIDE**