

# MATRIX 6/816

Control Panel with Remote Keypads

Software Version 1.34

USER MANUAL



EN50131-1  
PD6662:2004  
Security Grade 2  
Environmental Class 2

RINS545-7

 **Pyronix**

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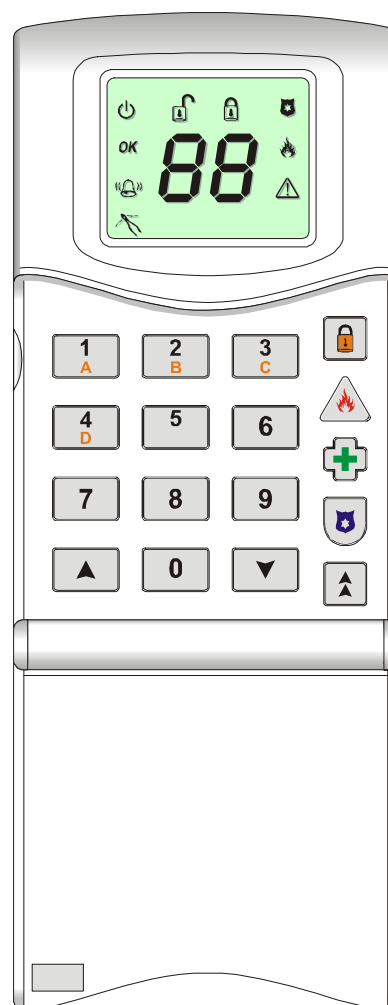
## 1. GENERAL OVERVIEW

Thank you for purchasing the Matrix control panel which has been designed and manufactured using the latest technology. This manual has been written to help you become familiar with all the available functions, enabling to get the best out of your alarm system.

### 1.1 Keypad Buttons

<div> <div>1 A</div> <div>2 B</div> <div>3 C</div> </div> <div> <div>4 D</div> <div>5</div> <div>6</div> </div> <div> <div>7</div> <div>8</div> <div>9</div> </div> <div> <div>0</div> </div>	<b>Numerical buttons</b> To enter user codes and other digital values
<div> <div>1 A</div> <div>2 B</div> </div> <div> <div>3 C</div> <div>4 D</div> </div>	<b>A, B, C and D</b> To select A, B, C or D arm modes
<div> <div>▲</div> <div>▼</div> </div>	<b>Directional buttons</b> To scroll through the display
<div> <div>🔒</div> </div>	<b>Arm button</b> To change arm modes and on/off options in User and Engineer functions
<div> <div>🔥</div> </div>	<b>Fire button</b> To activate a fire alarm
<div> <div>+</div> </div>	<b>Medical button</b> To activate a medical alarm
<div> <div>🛡️</div> </div>	<b>Personal Attack button</b> To activate a PA alarm
<div> <div>⬆️</div> </div>	<b>Function button</b> Used during User and Engineer programming procedures.









#### ICON Keypad



#### Note:

**There are no user serviceable parts inside this equipment**

## 1.2 Keypad Display

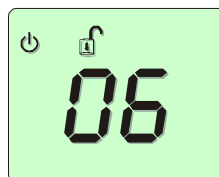
<b>Supply</b> 		<b>Rest Of The World</b>	<b>Denmark, Finland, Norway &amp; Sweden</b>
	Illuminated	Correct AC & DC power sources	AC power is OK
	Blinking	Indicates DC source (battery) fault	Indicates an AC fault
	Extinguished	Indicates AC fault / no power to panel	No power to the panel
<b>Ready OK</b>	Illuminated	OK to arm, no open zones	
	Blinking	Programming function is active	
	Extinguished	One or more zones are open	
<b>Alarm</b> 	Illuminated	In log / FTA mode – zone activation	
	Slow Blinking	Active alarm in FTA mode	
	Fast Blinking	A latched alarm or fault needs clearing – View the Log	
	Extinguished	No active alarms	
<b>Tamper</b> 	Illuminated	Indicates a tamper condition (used in log display)	
	Blinking	Indicates a tamper condition in FTA mode	
	Extinguished	No active tamper alarms	
<b>P.A.</b> 	Illuminated	Indicates a PA alarm condition (used in log display)	
	Blinking	Indicates a PA alarm condition in FTA mode	
	Extinguished	No active PA alarms	
<b>Fire</b> 	Illuminated	Indicates a fire alarm condition (used in log display)	
	Blinking	Indicates a fire alarm condition in FTA mode	
	Extinguished	No active fire alarms	
<b>Fault</b> 	Illuminated	Indicates a system fault	
	Blinking	Keypad is in Engineer mode	
	Extinguished	No active faults	
<b>Armed</b> 	Illuminated	The panel is armed	
	Blinking	Indicates the panel is arming with one or more omitted zones	
	Extinguished	The panel is disarmed	
<b>Disarmed</b> 	Illuminated	The panel is disarmed	
	Blinking	Keypad is in user menu mode	
	Extinguished	The panel is armed	

## 1.3 Common Keypad Indications



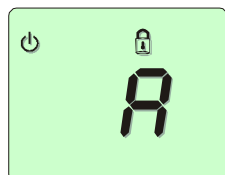
### **Disarmed Mode**

The premises are not armed. All zones are closed (detectors are not activated). System is ready to be armed.



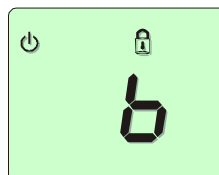
### **Disarmed Mode**

The premises are not armed. There are open zones. For example, Zone 6. The system is not ready to be armed



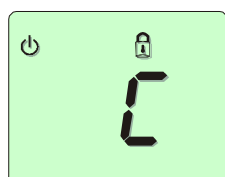
### **Armed in Arm Mode A**

For example, fully armed mode, when all the premises is armed.



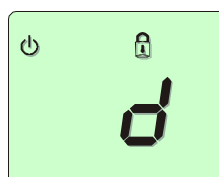
### **Armed in Arm Mode B**

For example, partly armed, when only part of the premises is armed



### **Armed in Arm Mode C**

For example, partly armed, when only part of the premises is armed



### **Armed in Arm Mode D**

For example, partly armed, when only part of the premises is armed



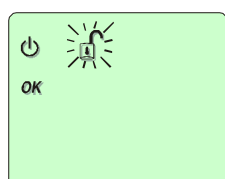
### **Armed + Alarm**

The number of the zone in alarm is displayed. For example, Zone 2 is in alarm.



### **First To Alarm Mode**

The cause of the first alarm event will be displayed after entering the user code. For example, Zone 2 in alarm.



### **User Mode**

This mode gives access to user operations.



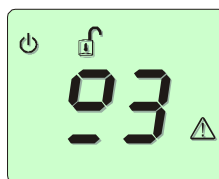
### **Engineer Mode**

This mode is for system configuration programming and should only be used by a qualified engineer.

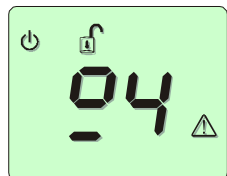
## 1.4 System Fault Indications



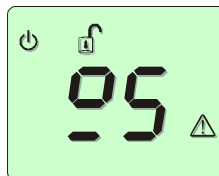
**System Fault 2**  
**Auxiliary Fuse Fail**



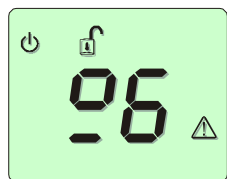
**System Fault 3**  
**Battery Missing**



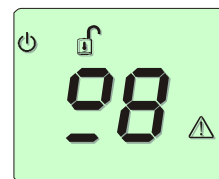
**System Fault 4**  
**Battery Low**



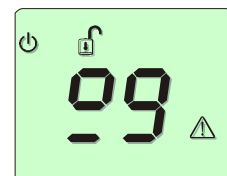
**System Fault 5**  
**Mains Fail**




**System Fault 6**  
**Telephone Line Fail**



**System Fault 8**  
**Failed To Report**



**System Fault 9**  
**Battery Cut Off  
(Matrix 816 Only)**

**NOTE:** If a fault occurs, the system will generate a descending frequency two-tone sound (error tone), and the event will be displayed. System fault warnings are generated in Disarmed mode only and do not conflict with the operation of the system. After restoral, the system fault warning will turn off automatically. To turn off the sounder before restoral, press .

## 2. YOUR PANEL DETAILS

The Matrix control panel is supplied with the factory default configuration. However, the panel configuration is flexible and can be changed to meet your requirements.

Ask your engineer to fill in the following tables, noting any changes he might have made to the default settings.

### 2.1 Zone Configuration

Zone ?	Guarded area	Programmed Zone Type				Default Zone Type
		Arm Mode A	Arm Mode B	Arm Mode C	Arm Mode D	
1						Entry/Exit
2						Access
3						Immediate
4						Immediate
5						Immediate
6						Immediate
7						Immediate
8						Immediate
9						Immediate
10						Immediate
11						Immediate
12						Immediate
13						Immediate
14						Immediate
15						Immediate
16						Immediate

**NOTE: Zones 7-16 are only available on the Matrix 816.**

## 2.2 Timers

	Programmed	Default
Entry Time		20 sec
Exit Time		20 sec
Final Exit Delay		7 sec
Bell Time		4 min


## 2.3 Arm Options

	Programmed	Default
Arm Option For Mode A		Timed Exit
Arm Option For Mode B		Timed Exit
Arm Option For Mode C		Timed Exit
Arm Option For Mode D		Timed Exit

## 2.4 Your Servicing Company Details

Company Name	Contact Person	Telephone



## 2.5 Fault tones

While system faults are being displayed the keypad sounder periodically emits a low tone. This is to alert you to the fault. Once you are aware of the fault you can silence the low tones by pressing the  key once while the fault is being displayed. If the fault is not cleared for a period of time then the sounder will re-start.

In hidden display mode the fault sounder cannot be silenced.

## 2.6 Open zones

This is only applicable if the keypad is not in hidden display mode.

To view open zones at any point whilst in disarmed mode use the  or  keys.

If enabled by the engineer, all activated zones can also be viewed while the panel is armed and disarmed, if the zone is currently open the number will flash on the Icon or LCD keypad.



## 2.7 Hidden Display Mode

The Matrix alarm panel incorporates a hidden display (confidential mode) feature that can be enabled / disabled by your installation engineer. This feature hides all of the panel information from the keypad display if the keypad has not been used for the last 20 seconds. In hidden display mode only the supply symbol will be visible. The keypad will remain in hidden display mode until a valid user code has been entered on the keypad.

Depending in which state the alarm panel is currently in, the first valid user code entry whilst in hidden display mode will have the following effects on the panel.

### 2.7.1 When Disarmed

If there are no system faults then the panel will come out of hidden display mode and automatically start the arming process. If there are any system faults pending then the keypad will drop out of hidden display mode and allow the system fault to display. The panel will not start the arming process until you re-enter your user code again.

### 2.7.2 When Armed

The panel will leave hidden display mode and start the disarm process.

### 2.7.3 When in Alarm

The panel will leave hidden display mode and drop into First To Alarm (FTA) mode.

### 2.7.4 When in First To Alarm (FTA) mode

If the keypad is allowed to drop back into hidden display mode whilst in FTA mode, then simply enter your user code again to re-display the FTA information.

**NOTE: When in User Menu mode the keypad will drop into hidden display mode if no keys are pressed for 20 seconds. As long as a key is pressed at least once every 20 seconds then user mode will remain active. Care must be taken not to keep pressing invalid keystrokes as the alarm panel may interpret this as a key tamper attempt and force the panel into a tamper alarm.**

## 2.8 Latching Alarms – Denmark, Norway, Finland & Sweden only

After each and every alarm event the panel will display a latched alarm indicator, until you reset the latched alarm yourself, by either viewing the event log or by re-arming the panel. Latched alarms are only displayed in disarmed mode, and are indicated by a fast flashing bell symbol on the keypad.

To clear the latched alarm indicator, you can either view the event log using the View Event Log user function, or alternatively by fully re-arming the panel again. If hidden display mode is enabled the keypad will not hide until the latched alarm is cleared.

## 2.9 System Faults – Norway, Denmark, Finland and Sweden

### 2.9.1 Latching System Faults

All system faults are latched. This means that once a system fault has been triggered, the display will continue to display the fault even if the fault is eventually removed from the system. To clear the latched fault, first remove the fault then view the event log.

Once you have entered and then left the View Event Log function, and if the system fault is no longer active, the system fault message will be removed from the display.

### 2.9.2 Latching Battery Faults

Battery faults may be latched if enabled by your installation engineer. This means that once a battery fault has occurred, the display will continue to display the fault even if the cause of the fault has been removed from the system. In this case you will need to contact your installation engineer to clear the battery fault from the display.

If your installation engineer has allowed you to reset battery faults, then the Latching System Faults procedure above will allow you to clear the fault.

### 3. ARMING AND DISARMING THE PANEL

#### 3.1 Arm Modes Explained

The panel can be armed in one of 4 different arm modes. These arm modes are identified as **A**, **B**, **C** or **D**. The default arm mode is **A**.

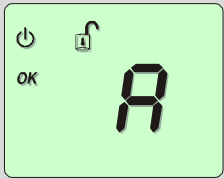
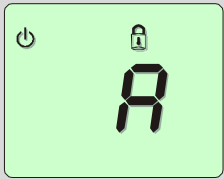
Your installation engineer may have programmed certain zones so that they behave differently in each arm mode. For example, the panel might be programmed so that arming in arm mode **B** causes the rear entry door and side gate to be un-protected. You might want to do this if you are working in the rear garden but want the rest of the house protected.

Arm modes in effect allow zones to be re-configured to your requirements. Your installation engineer can program up to 4 different zone settings through the 4 different arm modes, **A**, **B**, **C** or **D**.

In order to operate the system you must enter a valid user code. Up to 15 user codes are available with the Matrix panel. A user code may contain 4, 5 or 6 digits which are entered on a remote keypad. User 1 is the Master User, and the factory default code is 1234. Codes for Users 2 - 15 are not set. It is advisable to change the factory default Master User code (see section 4.7 on page 14).

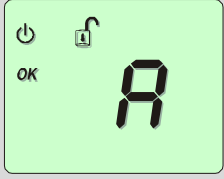

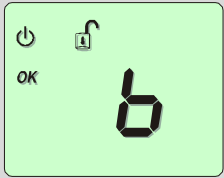
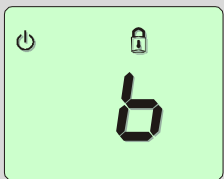
#### 3.2 Arming the Panel

##### 3.2.1 Arming in Arm Mode A

Enter your user code <div>X X X X (default 1234)</div>	This starts the arming procedure	
After the exit timer expires, the panel will be armed		

To cancel the arming procedure, enter your user code before the exit timer expires.

##### 3.2.2 Arming in Arm Modes B, C or D


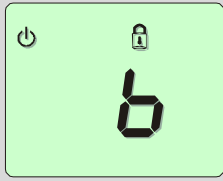
Enter your user code <div>X X X X (default 1234)</div>	This starts the arming procedure	
Press the  key followed by the relevant arm mode <div>B</div> , <div>C</div> or <div>D</div>	Example shows Arm Mode B	
After the exit timer expires, the panel will be armed		

To cancel the arming procedure, enter your user code before the exit timer expires.

**NOTE: Four arm options are available with the Matrix panel. They are: Timed Exit, Final Zone, Silent Arm and Forced Arm (see page 19). The procedure for arming your panel will depend on the settings made by the engineer. Timed Exit is the default setting.**

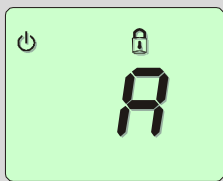
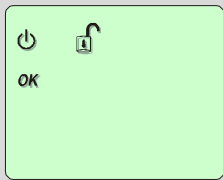
### 3.2.3 Quick Arming

It is possible to arm the panel in any of the four arm modes simply by pressing a key (if enabled by the engineer). Follow the procedure below.

Hold down the arm mode key <b>A</b> , <b>B</b> , <b>C</b> or <b>D</b> for two seconds	This starts the arming procedure. Example shows Arm Mode B	
After the exit timer expires, the panel will be armed		

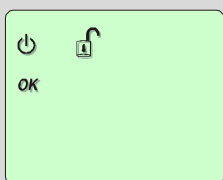
## 3.3 Disarming the Panel

### 3.3.1 Keypad Inside the Premises

Open the Entry/Exit door to enter the premises	This starts the entry timer.	
Before the exit timer expires, enter your user code <b>X X X X</b>	This will disarm the system.	



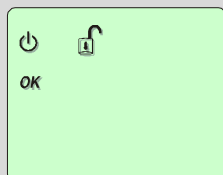
**NOTE:** If you do not enter your user code before the end of entry time, the panel will go into alarm.

### 3.3.2 Keypad Outside the Premises



Enter your user code <b>X X X X</b>	This will disarm the system.	
--	------------------------------	---

**NOTE:** In order to protect the premises from unauthorized attempts to match a user code, the sixteenth wrong key press will generate an alarm.

### 3.4 Disarm After Alarm

Open the Entry/Exit door to enter the premises		
Enter your user code <div> <div>X</div> <div>X</div> <div>X</div> <div>X</div> </div>	This will disarm the system. The system enters FTA (First To Alarm) mode. Example shows Zone 2 was the first zone to activate.	
Enter your user code again	This disarms the system.	

#### 3.4.1 Viewing Events in FTA Mode


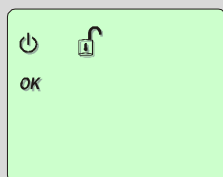
After entering FTA mode, you may use the  and  keys to scroll through all the alarm events that occurred whilst the panel was armed.

**NOTE 1: In case of an alarm, sounders will turn off automatically either within a predetermined time or after entering a user code.**

**NOTE 2: The number of the last zone in alarm will not be displayed if this option is disabled by engineer.**

If the keypad goes into hidden display mode whilst you are in FTA mode, enter your user code again to re-display the FTA message.

### 3.5 Resetting the Alarm When the Panel is Disarmed

Enter your user code <div> <div>X</div> <div>X</div> <div>X</div> <div>X</div> </div>	This will disarm the system. The system enters FTA (First To Alarm) mode. Example shows tamper activation of Zone 6	
Enter your user code again	This disarms the system.	


**NOTE: In case of a tamper alarm (e.g., detector case has been opened) it is recommended to make sure that the activated zone is restored after you reset the panel. Otherwise, an attempt to arm the system may generate an alarm.**

#### 3.5.1 Latched Alarm Indication (Denmark, Norway, Finland & Sweden only)

A special indication will appear on the display after any valid alarm has been successfully disarmed. The keypad will flash the bell symbol at twice the normal rate. Whilst this display is active, the keypad will not enter hidden display mode (if hidden display mode is enabled).


## 3.6 Activating Alarms from the Keypad

### 3.6.1 Personal Attack

Hold down the  button for 2 seconds.


The Personal Attack alarm will either activate all sounders or will be silent (the event will only be reported to the Central Monitoring Station) depending on how the system is programmed by the engineer.

### 3.6.2 Fire Alarm

Hold down the  button for 2 seconds.

The Fire alarm will activate all sounders. External sounders will emit an intermittent tone and keypad sounders will emit a series of three rising tones.

### 3.6.3 Medical Alarm

Hold down the  button for 2 seconds.

The Medical alarm will activate all sounders. Keypad sounders will emit a high frequency repeated tone.

## 3.7 Duress Arming / Disarming

### 3.7.1 What is a Duress Code?

A duress code is a personal user code that the alarm panel recognises as being entered under duress. By this we mean that the user has been forcibly made to enter their user code to disarm or arm the panel by another person.














The alarm panel treats this code like a proper user code and behaves as normal. The duress code will arm or disarm the system as normal. However, an emergency message is sent to your central monitoring station indicating that the panel was armed/disarmed under duress.

Method 1 | Reverse the 3<sup>rd</sup> and the 4<sup>th</sup> digits of your user code when entering it into the keypad. For example, enter 1 2 4 3 instead of 1 2 3 4.

Method 2 | Enter the duress code as programmed on your system.

When you enter the duress code, the panel will act normally, however the duress event will be reported to the Central Monitoring Station.

## 3.8 Display Event in FTA Mode






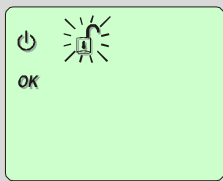

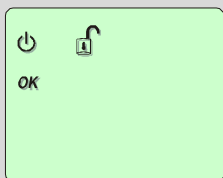
Fragment	Indicator	Meaning
EE		Entry time expired after Entry/Exit or Shunt Keypad zone triggered. The system has not been disarmed within the predetermined time.
0 1... 16		Zone ? <b>01...16</b> triggered: Access, Immediate or 24Hr type.
0 1... 16		Zone ? <b>01...16</b> triggered: Personal Attack type.
0 1... 16		Zone ? <b>01...16</b> triggered: Fire type.
PA		PA alarm activation from keypad.
F		Fire alarm activation from keypad
17		Medical alarm activation from keypad.
L		Telephone line fail alarm
0 1... 16		Zone ? <b>01...16</b> triggered: Tamper type.
t4		Expander tamper – the expander module is no longer detected (Matrix 816 only).
t5		Siren tamper – the siren connected to PGM7 is no longer detected (Matrix 816 only).
t8		Key press tamper – 16 wrong key presses in armed mode.
 = Flashing Icon		

**NOTE: The numbers of the activated zones which are still open while viewing in FTA mode will be flashing.**

## 4. USER MENU






Most of the user operations (except for arm, disarm and reset alarm) are only accessible from the user menu. User 1 is the Master User and has access to all user menu items, while access for Users 2 to 15 is limited.

### 4.1 Enter/Exit User Menu







Press  followed by your user code    	The disarmed icon flashes to signal you are in the user menu.	
To exit, press  0	You will be returned to normal disarmed mode.	

**NOTE:** You can enter the user menu only if the panel is disarmed. The panel will exit the user menu automatically in 2 minutes if no operation on the keypad is acknowledged.





#### 4.1.1 Menu Items (for all users)

 1 1	<b><u>Chime On/Off</u></b> The system will emit a short warning tone each time an Entry/Exit zone is activated.
 1 2	<b><u>Arm with Omits (Bypass)</u></b> This function allows you to arm the panel in Arm Mode A, B, C or D with one or more zones omitted (bypassed). The omitted zones will not be armed during the arm period.
 1 3	<b><u>View Event Log</u></b> This enables you to view the last 500 system events.
 1 4	<b><u>Adjust Keypad Volume</u></b> This enables you to adjust the keypad sounder volume (alarm signals volume is fixed).
 1 5	<b><u>Adjust Keypad Brightness</u></b> This enables you to adjust the brightness of the keypad backlight.




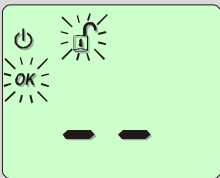



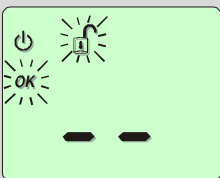




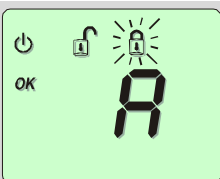
#### 4.1.2 Menu Items (Master User Only)

 2 1	<b><u>Change System Time</u></b> This enables you to set and adjust the system time used for event log recording.
 2 2	<b><u>Change System Date</u></b> This enables you to set and adjust the system date used for event log recording.
 2 5	<b><u>Change User Code</u></b> This enables you to change user codes and attributes.
 2 7	<b><u>Activate PGM from the Keypad</u></b> This function enables you to activate a designated output for 15 seconds. For example, this could be used to unlock an external electronic door or reset certain types of detectors.
 2 8	<b><u>Open 1 Hour Download Window</u></b> This function allows you to open a one hour time window to allow the panel to answer the first incoming telephone call. This is used if your engineer wishes to remotely access your panel.
 5 0	<b><u>System Test</u></b> This allows you to perform some basic system tests.

## 4.2 Chime On/Off








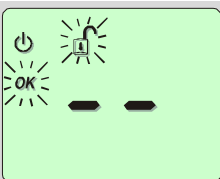

Press   	The keypad will sound an acknowledgement tone each time, signalling the chime has been toggled on or off. However, there is no visual indication if the chime is on or off.	
---	---	---

## 4.3 Arm With Omits (Bypass)

Press   	This starts the Arm with Omits function.	
Select the zone to be omitted, and press  to confirm. Repeat for all zones.	Example shows Zone 6.	
When all required zones have been omitted, press  to proceed	System asks for Arm Mode.	
Press  ,  ,  or  to select Arm Mode required	Example shows Arm Mode A.	


The panel starts arming as normal

## 4.4 View Event Log

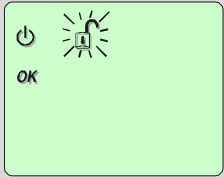
Press   	The log shows the last event. Example shows disarm event.	
Use the  and  keys to scroll through the log events	Example shows Zone 6.	
When the display shown is seen, you have reached the end of the log		
Press  to exit the log		

**NOTE:** To interpret the event log indication see the table on page 20.

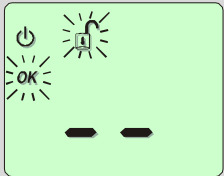


## 4.5 Change Keypad Volume

Press <b>▲</b> <b>1</b> <b>4</b>	The keypad sounder volume will increase or decrease with each button press.	
Use the <b>▲</b> and <b>▼</b> keys to adjust the volume		
Press <b>▲</b> to save the settings		

## 4.6 Change Keypad Brightness




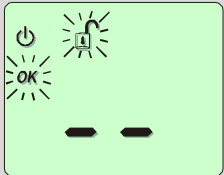





Press <b>▲</b> <b>1</b> <b>5</b>	The keypad backlight brightness will increase or decrease with each button press.	
Use the <b>▲</b> and <b>▼</b> keys to adjust the volume		
Press <b>▲</b> to save the settings		

## 4.7 Change System Time (Master User Only)




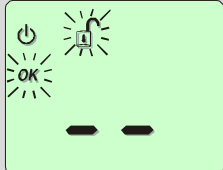

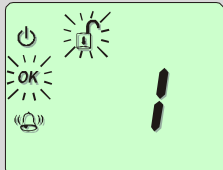








Enter <b>▲</b> <b>2</b> <b>1</b>	This starts the function.	
Enter the hours in 24Hr format	Example shows 2PM.	
Enter the minutes		
Press <b>▲</b> to save		



## 4.8 Change System Date (Master User Only)



Enter   	This starts the function.	
Enter the day	1 = Monday 2 = Tuesday 3 = Wednesday 4 = Thursday 5 = Friday 6 = Saturday 7 = Sunday	
Enter the year as a 2-digit number	Example shows 2004.	
Enter the month as a 2-digit number	Example shows June.	
Enter the date as a 2-digit number	Example shows the 23 <sup>rd</sup> .	
Press  to save		

## 4.9 Change User Code (Master User Only)




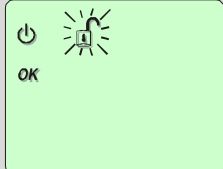
Press   	The panel requests a user number.	
Enter the user to be edited.†	Example shows User 2.	
If you wish to change the user code, enter the new code twice. If you wish to edit the user attributes only, enter the current code twice.*	The system shows attribute option 1.	
Use the  and  keys to select the option you wish to edit, or select it directly using the numeric keys	Example shows option 3.	
Toggle the option on or off using the  key. If the option is on, the  icon is visible. If the option is off, the  icon is not visible.	Example shows option 3 off.	
Repeat for all options as required		
Press  to save the changes		

†**NOTE:** To delete an existing user code and return to the user menu, press  after entering the user number.


\***NOTE:** For four- and five-digit user codes, you must press  after entering the code to proceed. For a six-digit code, the code is accepted automatically.

?	option: User Code Attributes	 OFF	 ON
1	Omit (Bypass) Zones	Disable	[Enable]
2	Duress Code Only	[Disable]	Enable
3	Duress Enabled	[Off]	On
			[default]

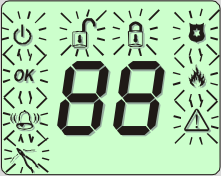
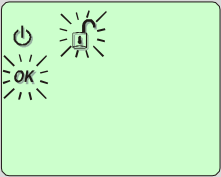
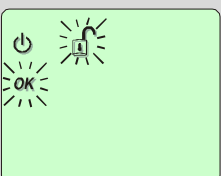
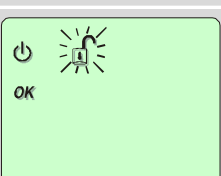
## 4.10 Activating PGM from the Keypad (Master User Only)

Press   	Any PGM output programmed as "RKP Controlled" will switch on for 15 seconds. Which PGM output is controlled by the keypad is determined by your engineer.	
---	---	---

### 4.11 Open 1Hr Download Window (Master User Only)

Press <b>▲</b> <b>2</b> <b>8</b>	The one-hour window for remote access is opened.	
----------------------------------	--	---

### 4.12 System Test (Master User Only)

Press <b>▲</b> <b>5</b> <b>0</b>	All the symbols will flash.	
Press <b>0</b> to start the sounder test	The Entry/Exit tones will sound.	
Press <b>0</b> to start the outputs test. All PGMs programmed as "External Bell" will be activated. Press <b>0</b> , All PGMs programmed as "Strobe" will be activated.		
The test will end when all outputs programmed as "External Bell" or "Strobe" have been tested. Alternatively, press <b>▲</b> to end the test at any time.		

## 5. DETAILED DESCRIPTION

This section is devoted to a more detailed description of the main panel features. If you require any information beyond the present manual, please contact your servicing company or the installer of your alarm system.

### 5.1 Operation modes

The panel is in operation for 24 hours a day. Two basic operation modes are distinguished: ARMED mode and DISARMED mode.

#### **DISARMED**



In disarmed mode all zones are disarmed, apart from Fire, Personal Attack, 24 Hr and Tamper, which are active for 24 hours a day. Wiring and PIR detector integrity can be supervised by the panel (if programmed by the engineer) to monitor. This function is helpful to promptly detect intruder's attempts to deactivate the system even when the panel is not armed.

#### **ARMED**



In this mode all enabled zones are active, and if triggered will generate an alarm condition. If an alarm is triggered, internal and external sounders will operate for a programmed period of time and the alarm event will be reported to the Central Monitoring Station. Upon alarm time expiry the system will automatically rearm.

#### 5.1.1 Available Arm Modes

The system may be armed in four different modes, A, B, C or D.

Arm Mode A | Full arm mode. All zones are armed.

Arm Mode ? | Partial arm mode. Some of the zones are not armed.

Arm Mode C | Partial arm mode. Some of the zones are not armed.

Arm Mode D | Partial arm mode. Some of the zones are not armed.

Your engineer will programme the zones to suit your premises.

#### 5.1.2 Alarm Mode

If the alarm system is triggered, it will generate an alarm state causing the following activations:



The internal keypad sounder will activate for the pre-set period of time.





The external sounder will activate for the pre-set time period, and the strobe lamp will activate until the user resets the alarm.



A message will be reported to the Central Monitoring Station via telephone or other dedicated channels. Voice messages will be sent to the prescribed telephone numbers.

#### 5.1.3 First to Alarm Mode (FTA)

When the system is in alarm it can be reset by entering a valid user code. Entering the user code in this case will allow the panel to enter FTA mode, and the first alarm event will be displayed (any post alarm events may be viewed by pressing the scroll buttons  and , although this feature is not available in Denmark, Norway, Finland or Sweden). **In order to reset the panel to Disarmed mode you must enter the user code once more.**

## 5.2 Entry/Exit Procedure

Follow the procedures below for arming the alarm panel before leaving the premises, and for entering the premises and disarming the alarm panel:

### **ENTRY**



When the panel is armed, entering the premises using the Entry/Exit zone will trigger the Entry timer. The system counts down the preset entry time and the internal sounder warning tone is heard. Access zones triggered during the countdown period will be ignored. If no correct user code is entered before the end of count down period, or entry to the premises has been undertaken by an incorrect route, the panel will go into the alarm state.

### **EXIT**



After entering a user code the system will count down the preset exit time and the internal sounder will beep. After the procedure is complete, the internal sounder beep will cease and the panel will be armed. If any of the zones are opened whilst the panel is arming, the panel will generate an error tone.

### 5.2.1 Available Arm Options

#### **Timed Exit**

You can exit the premises while arming within a specified period of time depending on the condition of the zones. After you start arming the panel the exit time countdown timer will operate for the pre-set time and the internal sounder high tone will be heard. You should leave the premises within this time period by the designated route. Upon the end of countdown, if all zones under arming are closed (not activated), the internal sounder will emit the confirmation tone and the system will be armed. If any of the zones (Entry/Exit, Access and Immediate) are triggered during exit time, the countdown will hold and the internal sounder tone will change to the error (low) tone until the activated zones are closed. After the zones are closed the countdown timer will proceed.

#### **Final Door**

There is no time limitation for leaving premises while arming and the system will be armed at any time when the final door is closed. The internal sounder high tone beep will be heard when arming starts until the door is closed. If the door is opened and/or other zones are activated while arming, the internal sounder tone will change to the error (low) tone. After the door is closed there will be a time delay (0...99 seconds, 7 seconds by default) until the system is armed and the internal sounder will mute. A single confirmation tone will denote the delay time start (ready to arm) and expiry (armed).

#### **Silent Arm**

You may leave premises while arming within a pre-determined period of time by the designated route without any audible indication. Upon expiry of the exit time the system will be armed if all zones under arming are closed. Otherwise, arming of the system will be cancelled and the panel will generate an alarm signalled by internal sounder warning only.

#### **Forced Arm**


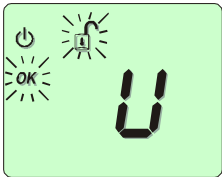



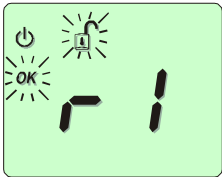



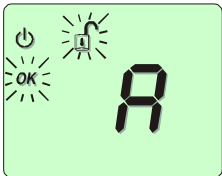


Arming takes place within a pre-determined period of time irrespective of whether all of the zones under arming are closed. After you start arming the panel the internal sounder high tone will be heard. If any of the zones under arming are open (activated) the internal sounder will change to the error (low) tone. Upon expiry of the exit time the panel will be armed and the sounder will turn off. Open zones (if there are any) will be omitted (bypassed) until closed.

6. VIEWING THE EVENT LOG AFTER A ZONE ALARM

Enter user menu mode.

Enter the Log function   .

















Move to the top of the log by pressing the  key until two underscores are displayed.

Keypress	Display	Meaning
		User number <b>01</b> unset (disarmed) the panel
		
		System entered FTA mode
		Zone 3 caused the alarm
		User number <b>01</b> armed the panel
		

The log continues down in the same sequential fashion. Log events are displayed in order with the most recent events being displayed first. When you reach two more underscores, you have reached the end of the log.

## 6.1 Event Log Information

### 6.1.1 Intruder, Panic, Fire and Medical Alarms

Fragment 1	Fragment 2	Indicator	System Event
<i>EE</i>	<i>01...16</i>		Entry time expired after Entry Exit or Shunt Keypad zone triggering
<i>01...16</i>	–		Zone no. <b>01 ... 16</b> Access/Interior, Instant, 24Hr types
<i>01...16</i>	–		Restoral – Zone no. <b>01 ... 16</b> Access/Interior, Instant, 24Hr types
<i>01...16</i>	–		Zone no. <b>01 ... 16</b> Panic type
<i>01...16</i>	–		Restoral – Zone no. <b>01 ... 16</b> Panic type
<i>00</i>	–		Panic alarm activation from remote keypad
<i>01...16</i>	–		Zone No. <b>01 ... 16</b> Fire type
<i>01...16</i>	–		Restoral – Zone No. <b>01 ... 16</b> Fire type
<i>00</i>	–		Fire alarm activation from remote keypad
<i>17</i>	–		Medical alarm activation from remote keypad
<i>01...16</i>	–		Tamper zone no. <b>01 ... 16</b> or tamper state of an EOL zone
<i>01...16</i>	–		Restoral – Tamper zone no. <b>01 ... 16</b> or tamper state of an EOL zone
<i>L</i>	–		Telephone Line Fail
<i>t</i>	<i>04</i>		Expander tamper – module no longer detected (Matrix 816 Only)
<i>t</i>	<i>05</i>		Siren tamper – siren no longer detected (Matrix 816 Only)
<i>t</i>	<i>08</i>		Keypress tamper – 16 wrong key presses in armed mode

### 6.1.2 Open / Close (Disarm / Arm)

Fragment 1	Fragment 2	System Event
<i>A...d</i>	<i>01...15</i>	Armed in Arm Mode <b>A ... D</b> by user code no. <b>01 ... 15</b>
<i>A...d</i>	<i>00</i>	Armed in Arm Mode <b>A ... D</b> by keyswitch zone
<i>A...d</i>	<i>99</i>	Armed in Arm Mode <b>A ... D</b> from Engineer Mode, PC, or by inactivity timer
<i>U</i>	<i>01...16</i>	Disarmed by user code no. <b>01 ... 15</b>
<i>U</i>	<i>99</i>	Disarmed from Engineer Mode or from a PC
<i>o</i>	<i>01...16</i>	Zone no. <b>01 ... 16</b> omitted (Bypass) when armed

### 6.1.3 Restoral

Fragment 1	Fragment 2	System Event
<i>r 1</i>	–	User code after alarm (FTA mode entered)
<i>r 2</i>	–	Bell time expired
<i>r 3</i>	–	Power supply applied (restored) to panel from de-energized state
<i>9r</i>	<i>02</i>	Auxiliary fuse restoral
<i>9r</i>	<i>03</i>	Battery missing restoral (DC voltage on terminals +BAT- restored)
<i>9r</i>	<i>04</i>	Battery low voltage restoral (DC voltage on terminals +BAT- > 11.2V)
<i>9r</i>	<i>05</i>	Mains fail restore
<i>9r</i>	<i>06</i>	Telephone line fail restore
<i>9r</i>	<i>08</i>	Successful transmission to central station (Kiss Off signal received)
<i>9r</i>	<i>09</i>	Battery cut-off restoral (reset pressed and DC voltage on +BAT- > 10.5V) (Matrix 816 Only)

### 6.1.4 System Faults

Fragment 1	Fragment 2	System Event
<i>9</i>	<i>02</i>	Auxiliary fuse fail
<i>9</i>	<i>03</i>	Battery missing (DC voltage missing on terminals +BAT-)
<i>9</i>	<i>04</i>	Battery low voltage (DC voltage on terminals +BAT- < 11.2V)
<i>9</i>	<i>05</i>	Mains fail
<i>9</i>	<i>06</i>	Telephone line fail
<i>9</i>	<i>08</i>	Transmission to central station failed (Kiss Off signal not received)
<i>9</i>	<i>09</i>	Battery cut-off (DC voltage on +BAT- < 10.5V) (Matrix 816 Only)

### 6.1.5 System Events

Fragment 1	Fragment 2	System Event
<i>E 1</i>	–	Engineer mode entered
<i>E 0</i>	–	Engineer mode exited
<i>≡</i>	<i>0 1</i>	Walk test mode entered
<i>≡</i>	<i>0 2</i>	Walk test mode exited
<i>≡</i>	<i>0 4</i>	NVM Reset
<i>dt</i>	<i>0 1</i>	Time and date changed by User no. 1 or from Engineer mode
<i>no</i>	–	Patrol zone opened
<i>no</i>	–	Patrol zone closed



## 6.1.6 Up / Downloading Events

Fragment 1	Fragment 2	System Event
PC	00	Panel answered the telephone
PC	01	Panel hung up the telephone
PC	02	Full configuration data downloaded to panel
PC	03	Data upload from panel
PC	04	Partial configuration data downloaded to panel
PC	05	Configuration data download complete
PC	06	Data upload complete
PC	07	UDL session denied (up/downloading code incorrect)
PC	08	UDL session started (up/downloading code accepted)
PC	09	Time and date changed by PC
PC	10	Local UDL session initiated
PC	11	Arm / Disarm command received from PC
PC	60	System Options configuration data downloaded to panel
PC	61	Zones configuration data downloaded to panel
PC	62	Users configuration data downloaded to panel
PC	64	Devices configuration data downloaded to panel
PC	66	Arm Options configuration data downloaded to panel
PC	67	Timers configuration data downloaded to panel
PC	68	Outputs configuration data downloaded to panel
PC	69	Communicator configuration data downloaded to panel
PC	70	Formats configuration data downloaded to panel
PC	71	Send Options configuration data downloaded to panel
PC	80	System Options configuration data uploaded from panel
PC	81	Zones configuration data uploaded from panel
PC	82	Users configuration data uploaded from panel
PC	84	Devices configuration data uploaded from panel
PC	86	Arm Options configuration data uploaded from panel
PC	87	Timers configuration data uploaded from panel
PC	88	Outputs configuration data uploaded from panel
PC	89	Communicator configuration data uploaded from panel
PC	90	Formats configuration data uploaded from panel
PC	91	Send Options configuration data uploaded from panel

## 6.2 Zone Type Descriptions

Display	Type	Description
<b>E</b>	<b>Entry Exit</b>	This is a zone that allows limited-time access to the premises in order to arm or disarm the system. This zone is typically connected to a magnetic door contact.
<b>A</b>	<b>Access/Interior (Access)</b>	This is a zone which, on disarming the panel, allows access through the Entry / Exit zone. However, if the panel is armed and an Access zone is triggered before an Entry / Exit zone then an alarm will be generated immediately.
<b>I</b>	<b>Instant (Immediate)</b>	This is a zone, which when activated; will create an instant alarm when the panel is armed.
<b>O</b>	<b>Omitted/Bypassed</b>	The panel will ignore a zone programmed as an Omitted. It allows the system to be part armed when the user is on the premises.
<b>F</b>	<b>Fire</b>	Triggering the fire zone will always cause an alarm activation regardless of whether or not the panel is armed. A fire alarm is identified by a three note-rising sound, which is easily distinguished from all other tones. The external sounder will operate at 1-second intervals.
<b>P</b>	<b>Panic (Personal Attack)</b>	Triggering the Personal Attack (P.A) zone will always cause an alarm activation regardless of whether or not the panel is armed. The P.A. zone may be programmed as silent. A silent P.A. activation will not cause the bell or strobe to operate, but the central station will be informed of a P.A. activation.
<b>H</b>	<b>24 Hour</b>	Triggering a 24H zone will always cause an alarm activation regardless of whether or not the panel is armed.
<b>n</b>	<b>Patrol (Key Box)</b>	This zone type is for connection to an external box, which when opened will cause an activation of this zone. Activations of this zone are logged and reported to the central monitoring station. It will not affect the bell.
<b>e</b>	<b>Shunt Keypad</b>	This zone type is for connection to an external keypad. During the exit delay an activation of this zone causes the end of the exit time, a programmable settling time (Final exit delay) is commenced before the panel fully arms. An activation of this zone during armed mode causes the entry time to start.
<b>t</b>	<b>Tamper</b>	Triggering a Tamper zone will always cause an alarm activation regardless of whether or not the panel is armed. From system options, it may be programmed to activate the internal siren only or internal and external sounder, in disarmed mode. However in armed mode both sounders will operate.
<b>d</b>	<b>Latch Keyswitch</b>	It is possible by using this type of zone to arm / disarm the system in any arm mode by using an external latched switch.
<b>y</b>	<b>Momentary Keyswitch</b>	It is possible by using this type of zone to arm / disarm the system in any arm mode by using an external pulsed switch.
<b>U</b>	<b>Unused</b>	This zone is completely ignored by the system.

## 7. QUICK REFERENCE

**NOTE:**  $\boxed{X} \boxed{X} \boxed{X} \boxed{X} (\boxed{X} \boxed{X})$  = User Code (Default 1234 - Master)

### Arm/Disarm

Arm the panel in Mode A	$\boxed{X} \boxed{X} \boxed{X} \boxed{X} (\boxed{X} \boxed{X})$
Arm the panel in Mode B	$\boxed{X} \boxed{X} \boxed{X} \boxed{X} (\boxed{X} \boxed{X}) + \boxed{\text{A}} \boxed{B}$
Arm the panel in Mode C	$\boxed{X} \boxed{X} \boxed{X} \boxed{X} (\boxed{X} \boxed{X}) + \boxed{\text{A}} \boxed{C}$
Arm the panel in Mode D	$\boxed{X} \boxed{X} \boxed{X} \boxed{X} (\boxed{X} \boxed{X}) + \boxed{\text{A}} \boxed{D}$
Quick Arm the panel in Mode A, B, C or D	$\boxed{A}, \boxed{B}, \boxed{C}, \boxed{D}$
Disarm	$\boxed{X} \boxed{X} \boxed{X} \boxed{X} (\boxed{X} \boxed{X})$
Disarm after alarm	$\boxed{X} \boxed{X} \boxed{X} \boxed{X} (\boxed{X} \boxed{X}) + \boxed{X} \boxed{X} \boxed{X} \boxed{X} (\boxed{X} \boxed{X})$
Enter FTA mode	+ Reset alarm (disarm)

### Alarm Activation from Keypad

PA Alarm	$\boxed{\text{P}} \boxed{\text{A}}$ (press for 2 seconds)
Fire Alarm	$\boxed{\text{F}} \boxed{\text{I}} \boxed{\text{R}} \boxed{\text{E}}$ (press for 2 seconds)
Medical Alarm	$\boxed{+}$ (press for 2 seconds)

### User Menu

Enter User Menu	$\boxed{\text{A}} + \boxed{X} \boxed{X} \boxed{X} \boxed{X} (\boxed{X} \boxed{X})$
Exit User Menu	$\boxed{\text{A}} + \boxed{0}$

### User Menu Operations (All Users)

Enable / Disable chime	$\boxed{\text{A}} \boxed{1} \boxed{1}$		
Arm with omits (bypass)	$\boxed{\text{A}} \boxed{1} \boxed{2}$	+ $\boxed{X} \boxed{X} \boxed{\text{A}}$ (Number of omitted zone)	+ $\boxed{\text{A}} \boxed{A}$ or $\boxed{\text{A}} \boxed{B}$ or $\boxed{\text{A}} \boxed{C}$ or $\boxed{\text{A}} \boxed{D}$ (Start arming in Mode A, B, C or D)
View event log	$\boxed{\text{A}} \boxed{1} \boxed{3}$	+ $\boxed{\text{A}} \dots \boxed{\text{V}}$ scroll through events	+ $\boxed{\text{A}}$ Exit the event log
Adjust keypad volume	$\boxed{\text{A}} \boxed{1} \boxed{4}$	+ $\boxed{\text{A}} \dots \boxed{\text{V}}$ Adjust volume	+ $\boxed{\text{A}}$ Save the setting
Adjust keypad brightness	$\boxed{\text{A}} \boxed{1} \boxed{5}$	+ $\boxed{\text{A}} \dots \boxed{\text{V}}$ Adjust brightness	+ $\boxed{\text{A}}$ Save the setting

### User Menu Operations (Master User Only)

Change system time	<div><div>▲</div><div>2</div><div>1</div></div>	+ <div><div>X</div><div>X</div></div> Hour	+ <div><div>X</div><div>X</div></div> Minutes	+ <div><div>▲</div></div> Save		
Change system date	<div><div>▲</div><div>2</div><div>2</div></div>	+ <div><div>X</div></div> Day (1-7)	+ <div><div>X</div><div>X</div></div> Year	+ <div><div>X</div><div>X</div></div> Month	+ <div><div>X</div><div>X</div></div> Date	+ <div><div>▲</div></div> Save
Change user code	<div><div>▲</div><div>2</div><div>5</div></div>	+ <div><div>X</div><div>X</div></div> User (01-15)	+ <div><div>X</div><div>X</div><div>X</div><div>X</div><div>▲</div><div>X</div><div>X</div><div>X</div><div>X</div><div>▲</div></div> Enter user code twice	+ <div><div>▲</div></div> Save		
Activate PGM from keypad	<div><div>▲</div><div>2</div><div>7</div></div>					
Open 1 hour download window	<div><div>▲</div><div>2</div><div>8</div></div>					
System Test	<div><div>▲</div><div>5</div><div>0</div></div>					



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