



RK-720, RK-850, RK-920 & RK-1050

Keypad Installation Manual



**Designed and Manufactured
in the United Kingdom**

www.orisec.co.uk

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1. Introduction

Features Include:

- ▶ Integrated Wireless Expander
- ▶ 8 Line Menu Display*
- ▶ 2x Programmable Soft Keys*
- ▶ Voice Annunciation
- ▶ Optional 16 Ohm Speaker Kit
- ▶ On-board Prox
- ▶ Soft Close Cover Mechanism**
- ▶ 16 Ohm Speaker Output

*On vertical keypads

** On keypads with cover

This manual describes how to install the following Orisec keypads:

- ▶ RK-720
- ▶ RK-850
- ▶ RK-920
- ▶ RK-1050

For detailed programming instructions please see the control panel installation manual.

NOTE

On the CP-200 series of control panels, wireless receivers inbuilt on the Keypad (RK-720, RK-850, RK-920 & RK-1050) should **not** be enabled, if installed on network 2.

For information on where to enable/ disable the wireless receiver please see page 19.

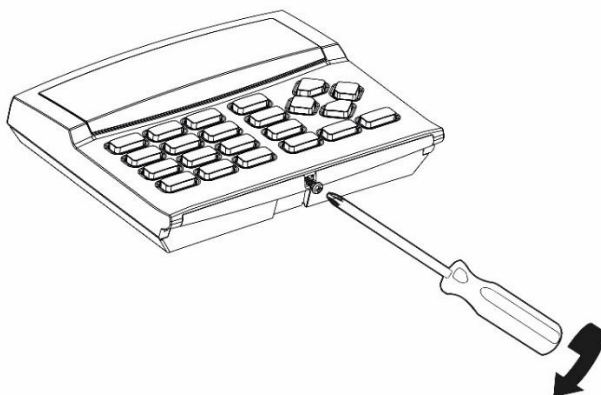
Keypad	Finishes	Wireless Connectivity	Keys
RK-720 	Black or White No Cover	Wired Keypad with Wireless Receiver	Black Keys without Keycaps
RK-850 	White with Hinged Cover	Wired Keypad with Wireless Receiver	White Keys with Keycaps
RK-920 	Black or White No Cover	Wired Keypad with Wireless Receiver	Black Keys without Keycaps
RK-1050 	White with Hinged Cover	Wired Keypad with Wireless Receiver	White Keys with Keycaps

Patent Nos GB2554744 & GB2554700

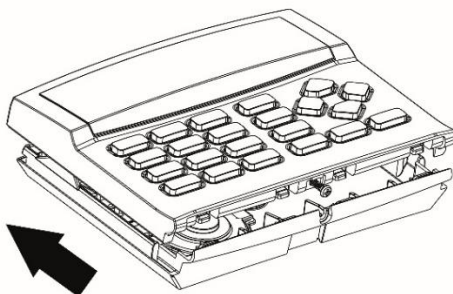
2. How to open the keypad

RK-720 keypads

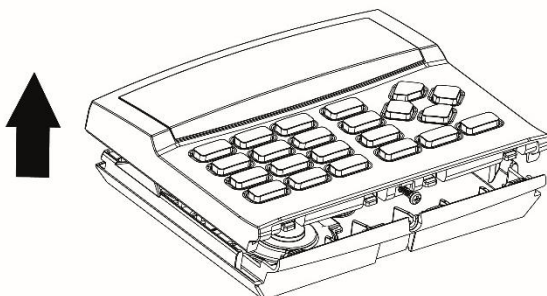
Partially loosen the screw on the underside of the Keypad:



Slide the cover up:

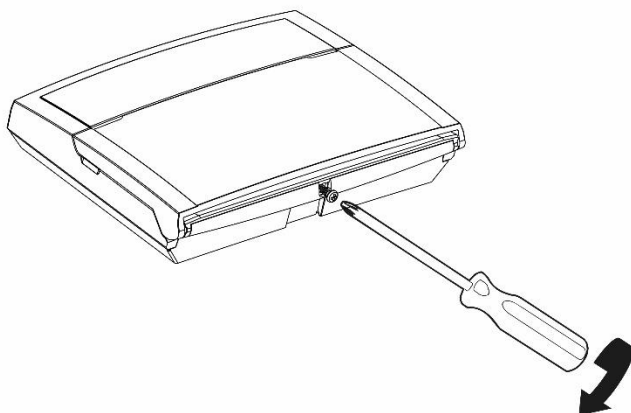


Lift the cover off the back:

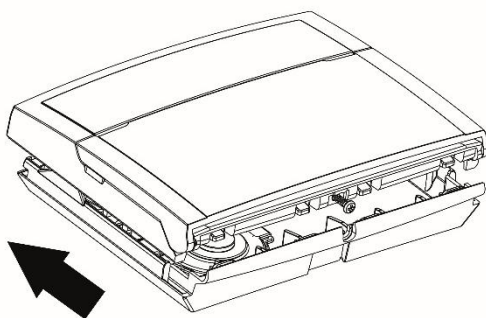


RK-850 keypads

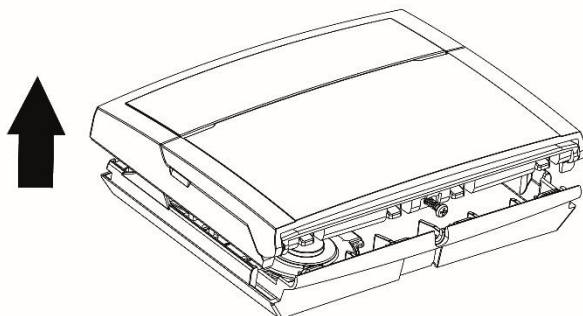
Partially loosen the screw on the underside of the Keypad:



Slide the cover up:

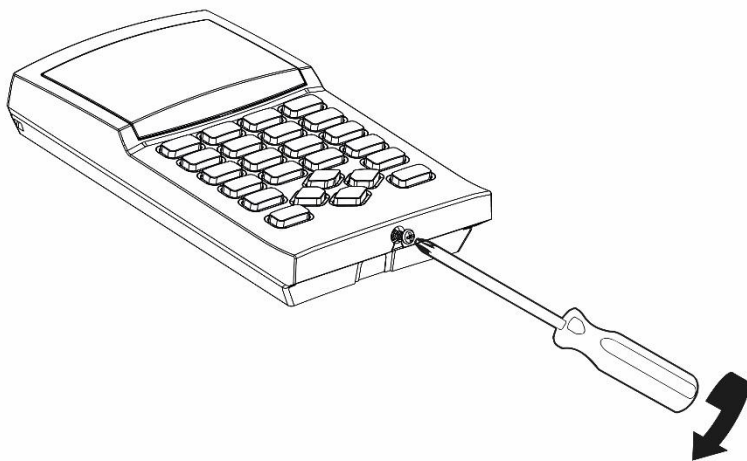


Lift the cover off the back:

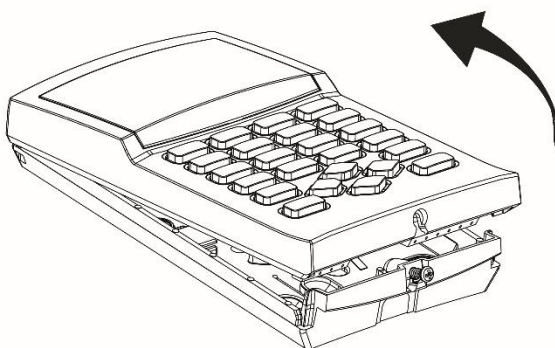


RK-920 keypads

Partially loosen the screw on the underside of the Keypad:

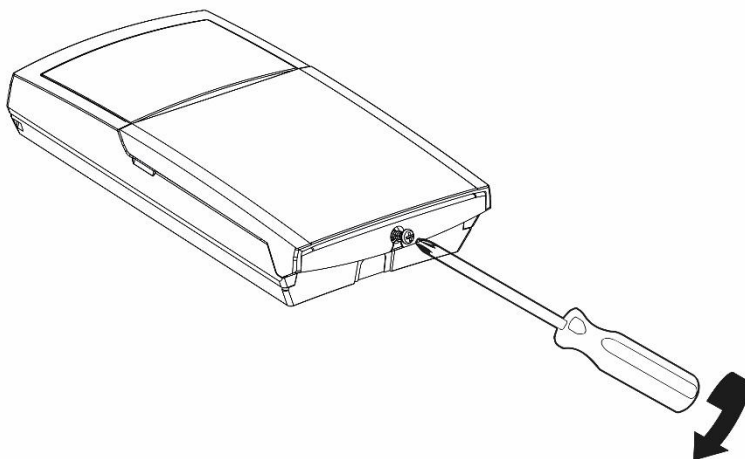


Lift the cover:

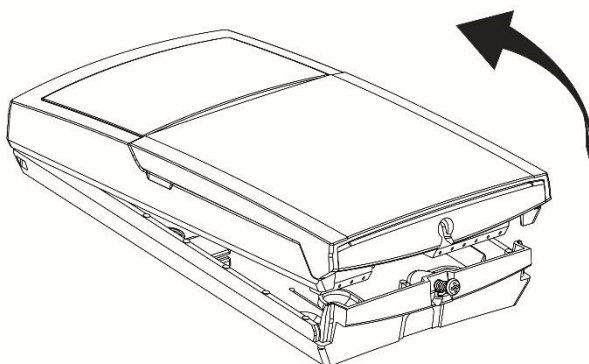


RK-1050 keypads

Partially loosen the screw on the underside of the Keypad:

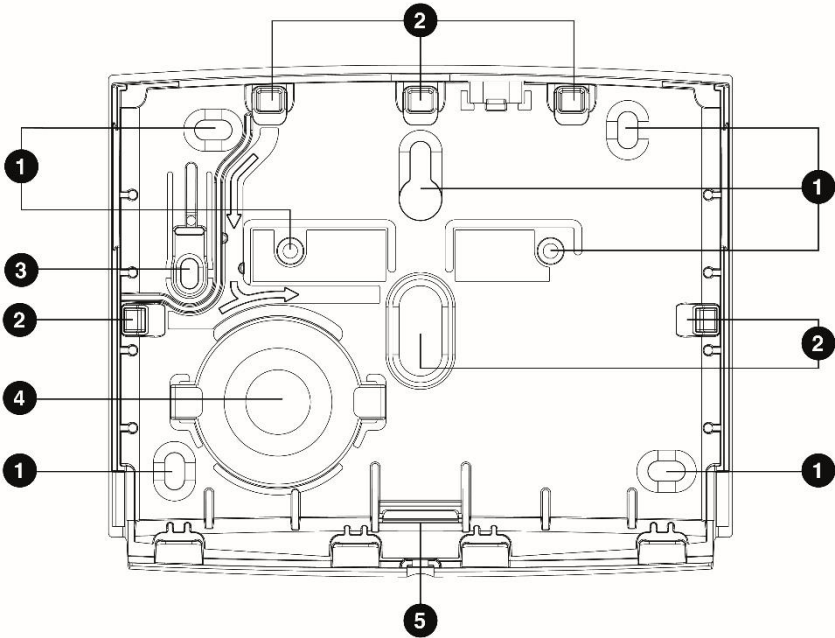


Lift the cover:



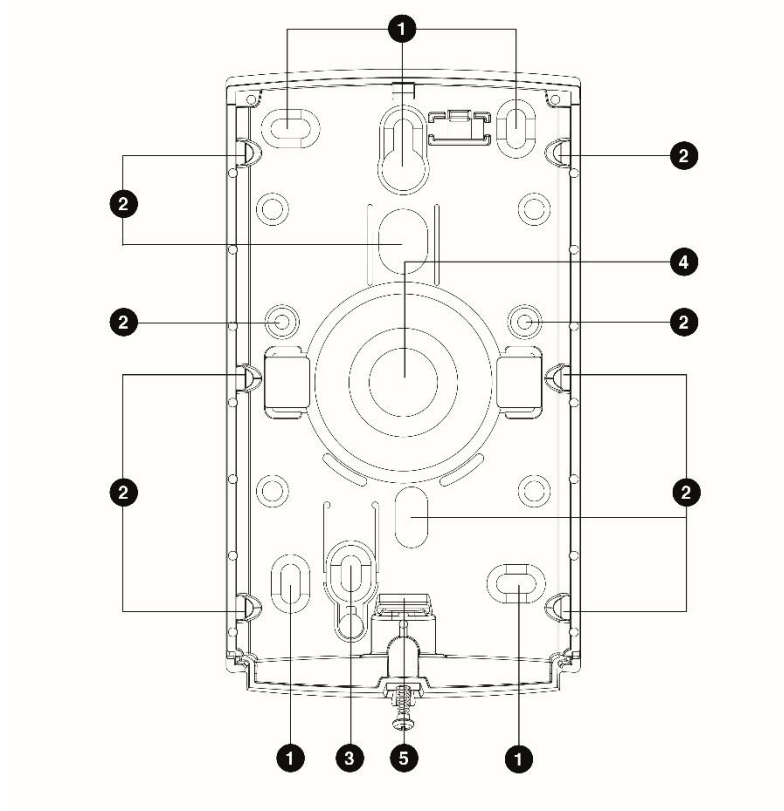
3. Fixing the Keypad to wall

Horizontal – Low Profile Mount



1. Screw mounting holes
2. Cable entry holes
3. Breakaway rear tamper
4. Optional Speaker
5. Knock through that can be used with trunking / conduit for cable entry

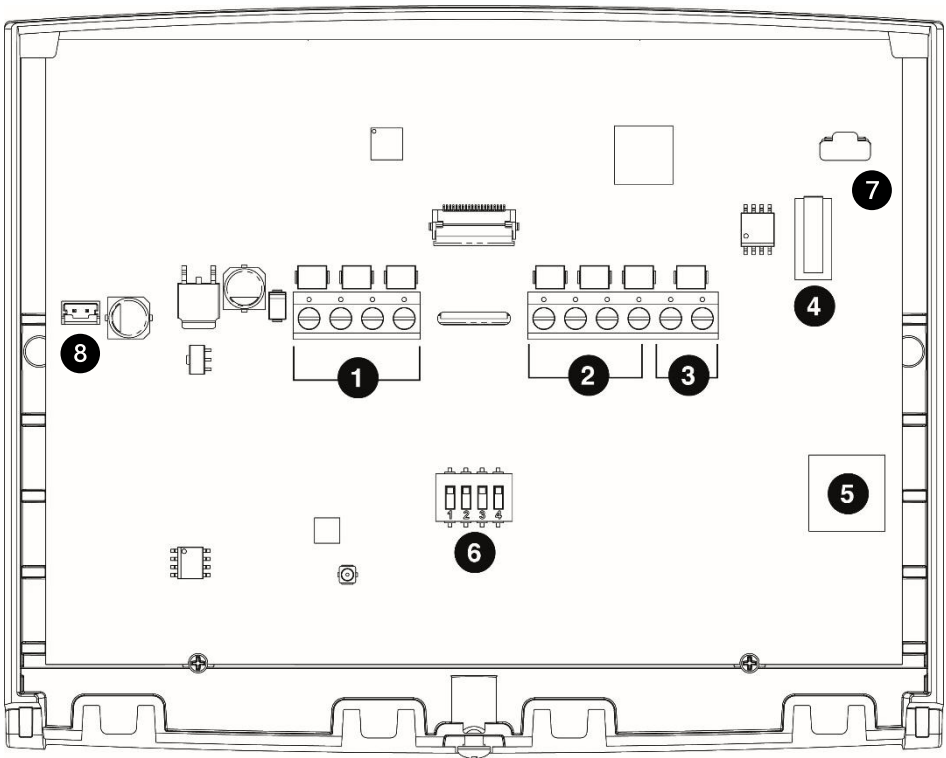
Vertical – Low Profile Mount



- 1. Screw mounting holes
- 2. Cable entry holes
- 3. Breakaway rear tamper
- 4. Optional Speaker
- 5. Knock through that can be used with trunking / conduit for cable entry

4. PCB Layout

Horizontal



1. Network Connections

The Orisec Keypads network connection.

2. Zone Input or Output Terminals 1-3

These terminals can be independently programmed from the main control panel to be detection devices OR outputs. If using one or more terminals as zone inputs each zone can be independently programmed for type, wiring, areas and options. If using one or more terminals as outputs each output (rated at 100ma) can be independently programmed.

3. Loudspeaker Terminals

These terminals are used for driving 16 Ohm extension loudspeakers. Each type of tone can be enabled or disabled for each keypad.

4. Tamper Switch

The patented combined lid, screw and wall tamper switch will signal a tamper condition if the front cover locking bolt is undone or if the front cover is removed. On Grade 3 installations it will also signal a tamper if the unit is removed from the mounting surface.

5. Piezo Sounder

The piezo sounder generates low level alarm, key press, and warning tones. Each type of tone can be enabled or disabled for each Keypad.

6. Address DIP Switch

Each keypad must be assigned a different address using the Address DIP switch. Set the DIP switch to the required position. If addressed as 0, the address is defined by software utilising the Keypad programming menu.



Address 0
(Software address)



Address 1



Address 2



Address 3



Address 4



Address 5



Address 6



Address 7



Address 8



Address 9



Address 10

7. Micro USB

The Micro USB connection is used for flash updating the keypad (utilising 'Orisec Flash Programmer') and adding custom voice messages. (Utilising 'Orisec Voice Message Editor'). Both software programs can be downloaded from the installer portal; www.orisec.co.uk/installer

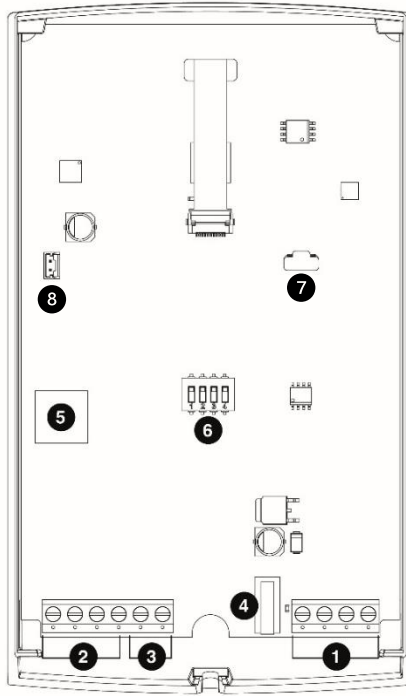
8. Onboard Speaker

The optional 16 Ohm speaker kit (SPK-7) is connected to JP4 and provides all standard tones (Alarm/ Entry/ Exit/ Fault/ Chime). Tones can be altered via the control panels programming menus:

Programming Menu > Keypad setup > Sounds

NOTE! If the optional 16 Ohm speaker kit is being utilised DO NOT use the Loudspeaker terminals for any additional speakers (See Section 3).

Vertical



1. Network Connections

The Orisec Keypads network connection.

2. Zone Input or Output Terminals 1-3

These terminals can be independently programmed from the main control panel to be detection devices OR outputs. If using one or more terminals as zone inputs each zone can be independently programmed for type, wiring, areas and options. If using one or more terminals as outputs each output (rated at 100ma) can be independently programmed.

3. Loudspeaker Terminals

These terminals are used for driving 16 Ohm extension loudspeakers. Each type of tone can be enabled or disabled for each keypad.

NOTE! If the loudspeaker terminals are being utilised DO NOT use the optional 16 Ohm speaker kit for any additional speakers (See Section 8).

4. Tamper Switch

The patented combined lid, screw and wall tamper switch will signal a tamper condition if the front cover locking bolt is undone or if the front cover is removed. On Grade 3 installations it will also signal a tamper if the unit is removed from the mounting surface.

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The Micro USB connection is used for flash updating the keypad (utilising 'Orisec Flash Programmer') and adding custom voice messages. (Utilising 'Orisec Voice Message Editor'). Both software programs can be downloaded from the installer portal;

www.orisec.co.uk/installer

8. Onboard Speaker

The optional 16 Ohm speaker kit (SPK-9) is connected to JP4 and provides all standard tones (Alarm/ Entry/ Exit/ Fault/ Chime). Tones can be altered via the control panels programming menus:

Programming Menu > Keypad setup > Sounds

NOTE! If the optional 16 Ohm speaker kit is being utilised DO NOT use the Loudspeaker terminals for any additional speakers (See Section 3).

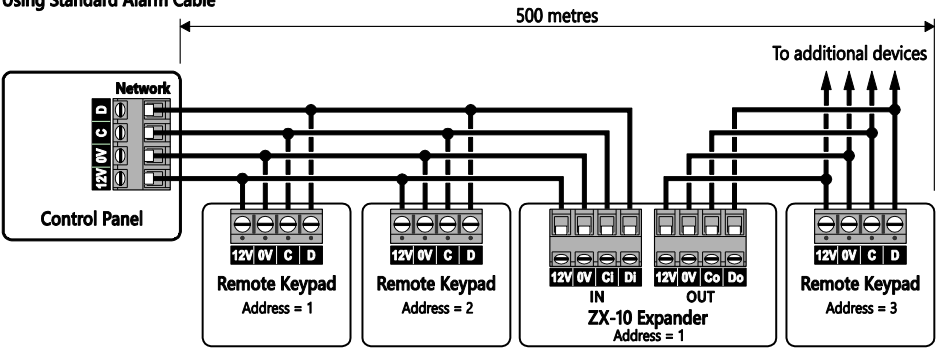
5. Wiring

Network Connections

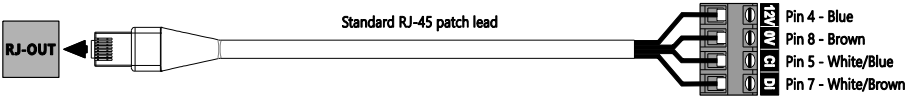
Ensure the system is powered down and the battery is disconnected before wiring the Keypad.

The keypads can be networked in a star or daisy chain pattern, or a combination of the two. They can also be connected to the RJ45 connections on both the control panel and on expanders.

Using Standard Alarm Cable



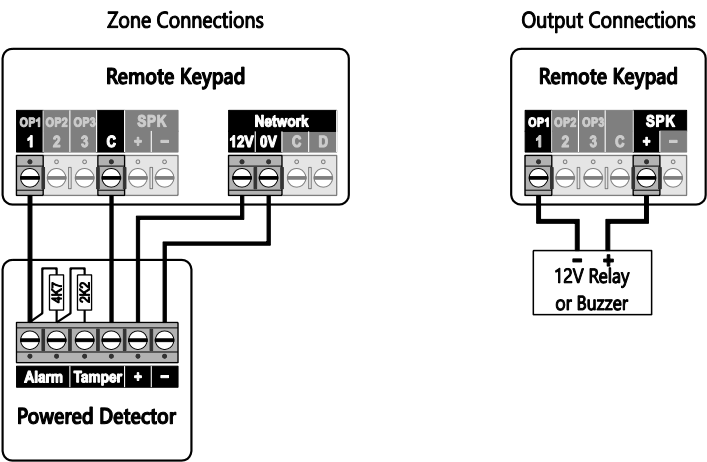
Using RJ-45 Connections



Wiring can be done using any 4-core alarm cable, however it is recommended that 6-core or higher is used to double up the power if required.

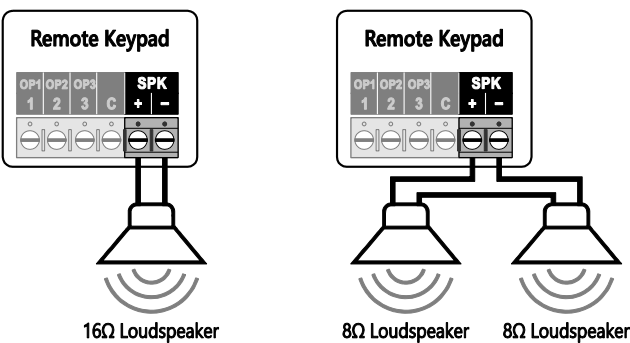
Zone and Output Connections

The keypads have three input/output terminals. They can be used as required and their operation is defined via the control panel's programming menus. Example of wiring types:



Loudspeaker Connections

The keypads have a 16 Ω loudspeaker output, the wiring options are as follows:



6. Setup Menu

To enter the Setup Menu, press both the 'Back' key and 'Enter' key and hold for 3 seconds. Use the 'up' and 'down' arrow keys to select the option, then use the 'left' and 'right' arrow keys to change the value of the selected option.



Address

Use this option to set the network address, all dipswitches must be in the 'off' position to utilise this feature. The highlighted number shows the current address, the numbers that are displayed in the smaller font are Keypads that are already on the system.

Contrast

Use this option to set the contrast on the LCD display.

B/ Adjust:

Use this option to set the LCD backlight brightness.

Dim Level

The keypad screen will dim when left idle. Dim Level adjusts the light level of the keypad screen when in this mode.

With the DIM Level set at 10, or lower, once the keypad has dimmed and the ambient light level has dropped the keypad keys will illuminate.

Play*

Allows any saved voice recordings to be played back locally. A 16 Ohm speaker is required. Voice messages are uploaded to the keypad from the 'Voice Message Uploader' program (Requires version 1.1 onwards).

All PC software can be downloaded from; www.orisec.co.uk/installer

Keypad Light On

If enabled, the keypad keys will be permanently illuminated.

Toggle this option ON and OFF with the  key.

Piezo Disabled

If enabled, the onboard piezo is disabled. Only connected speakers will create tones (Alarm, Entry, etc).

PA enabled*

If enabled, the  and  soft keys are utilised as an audible PA if pressed together.

Disable Radio

If enabled, the onboard wireless expander is switched off and will not be used for wireless devices.

Remote Control*

The onboard  and  soft keys can be programmed to trigger 'Remote Controls'.

Any physical outputs programmed on the system as 'Remote Control X' can be triggered by a simple press of the  or  soft key.

To assign the  and  key to a remote control, navigate to the required remote control via this menu (i.e. 1) and press the required soft key. A matching symbol will be shown to the left of the option to indicate which soft key has been assigned.

Exit Menu

Press the  key or scroll down to select, then press  to exit the Setup Menu.

**Vertical keypads only.*

7. NFC Reader

The NFC reader allows NFC devices to be used for arming and disarming of the system. These can be assigned to users in the User Codes section of the Programming Menu.

The NFC device (TAG) should be presented to the right-hand side of the keypad screen on a horizontal keypad:

The NFC device (TAG) should be presented to the top middle of the keypad on a vertical keypad:

Horizontal series



Vertical series



8. Onboard Wireless Expander

The RK-720, RK-850, RK-920 & RK-1050 keypads all include an onboard wireless expander.

The onboard wireless expander can be used to communicate with ALL Orisec wireless equipment and provide increased signals for a site.

NOTE! A minimum of one of the following wireless expanders **are required** to operate the onboard wireless expander in the keypad.

- ▶ W-AP
- ▶ W-XP-R
- ▶ W-XP
- ▶ W-XPR-EXT

Please refer to the relevant wireless device installation manual for details on how to learn the device to the system.

9. Flash updating

The RK-720, RK-850, RK-920 & RK-1050 keypads can be flash updated. The flash update process is performed via the Micro USB connection on the reverse of the keypad.

'Orisec Flash Programmer' (Version 1.19.1.3 and above) is required to perform the flash update. All PC software and product firmware can be downloaded from; www.orisec.co.uk/installer.

For further information regards flash updating please refer to 'Flash Programmer Instructions'.

10. Specifications

Electrical

Input Voltage:	10 – 15Vdc
Current Consumption:	Idle: 35mA; Backlit: 60mA
Network:	4-Wire standard 7/0.2mm alarm cable up to 500m
Zone Inputs & Output:	3; Each programmable as zone input or 100mA output
Loudspeaker Output:	Minimum load of 16 Ohm
Proximity Reader:	NFC NTAG203
LCD Display:	128 x 32 pixels, Blue STN

Environmental

Operating Temperature:	-10°C to +55°C
Storage Temperature:	-20°C to +60°C
Max. Humidity:	95% non-condensing
EMC:	Residential, Commercial, Light Industrial & Industrial

Physical

Dimensions:	Horizontal: 119x148x34mm Vertical: 158x93x33mm
Housing:	3mm Acrylonitrile Styrene Acrylate (ASA)
Packed Weight:	RK-720: 310g RK-850: 370g RK-920: 280g RK-1050: 320g
Unpacked Weight:	RK-720: 250g RK-850: 310g RK-920: 220g RK-1050: 260g

11. Standards

Security

PD 6662:2017

EN 50131-1:2006+A1:2009

EN 50131-3:2009

Grade 3, Class II



EMC

Hereby, Orisec Ltd declares that RK-720, RK-850, RK-920 & RK-1050 conform to: RE Directive 2014/53/EU, European Union (EU) Electro-Magnetic Compatibility (EMC) Directive 2014/30/EU EMC Environment: Residential / Commercial / Light Industrial / Industrial.



CE: A copy of the Declaration of Conformity is available at: orisec.co.uk/compliance

WEEE Directive: 2012/19/EU Compliant: This symbol indicates that according to local laws and regulations, this product should not be disposed of as municipal/household waste. Instead, it should be disposed of at the appropriate collection points designated for the recycling of electrical and electronic equipment, or returned to Orisec upon purchase of new replacement products. This will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

RoHS

RoHS Directive: 2011/65/EU Compliant:

Orisec declares that this product complies with and conforms to RoHS legislation that it does not contain more than the agreed levels of: Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent chromium (Cr6+), Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE)

Manufacturer: Orisec Ltd, 1 St Crispin Way, Haslingden, Lancashire. BB4 4PW. United Kingdom.

Warranty

The RK-720, RK-850, RK-920 & RK-1050 are guaranteed against defects in material or faulty workmanship for a period of 2 years from the date of purchase.

Disclaimer: Orisec will not accept any liability based on a claim that RK-720, RK-850, RK-920 & RK-1050 failed to perform correctly as it is a component part of an installation and not a complete intruder alarm system.

www.orisec.co.uk

UK Based Technical Support

t: +44 (0) 1706 398740

e: support@orisec.co.uk

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