TK-650

Keypad Installation Manual

Designed and Manufactured in the United Kingdom

www.orisec.co.uk

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1. Introduction

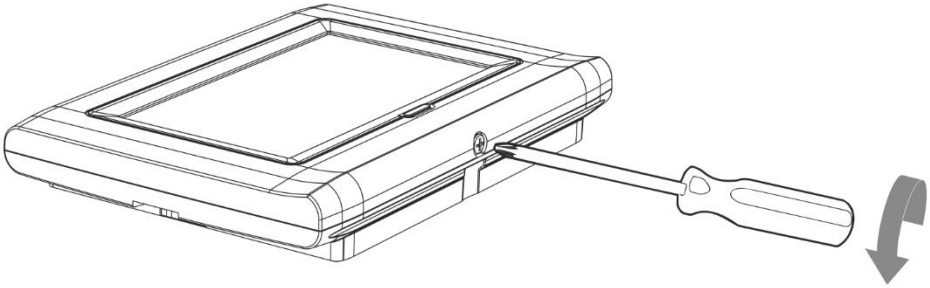
This manual describes how to install the following Orisec keypads:

Orisec RK-650

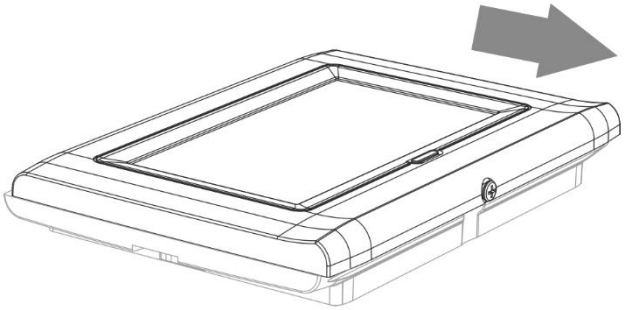
For detailed programming instructions please see the control panel installation manual.

2. How to disassemble & assemble the keypad

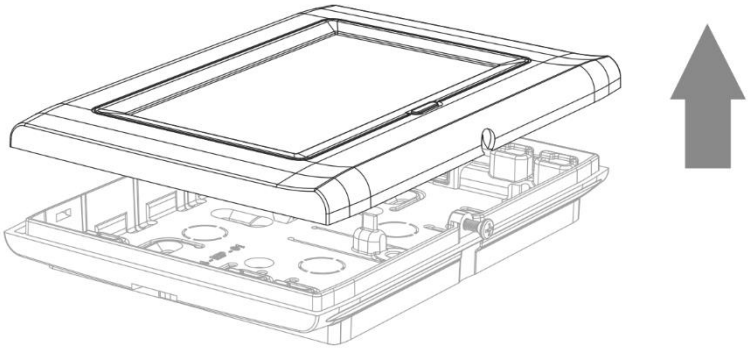
Loosen the screw on the underside of the Keypad:



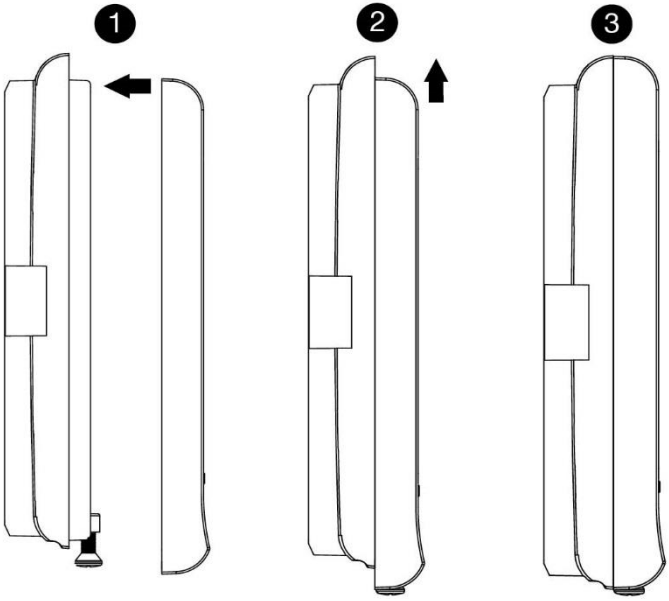
Slide the front cover down:



Lift the front cover off the back, noting that the PCB is attached to front cover:



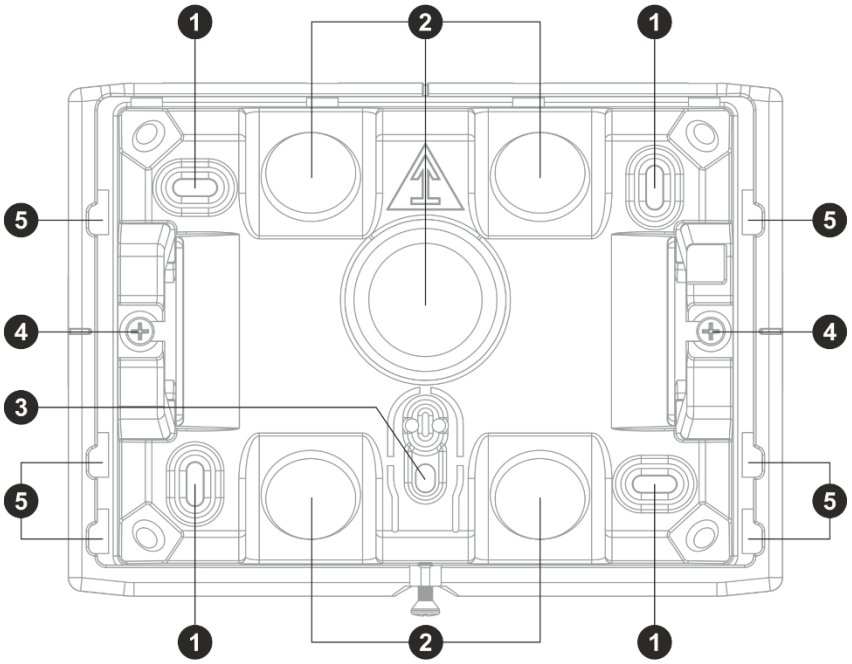
To assemble the keypad follow the same procedure in reverse:



Scan for video:

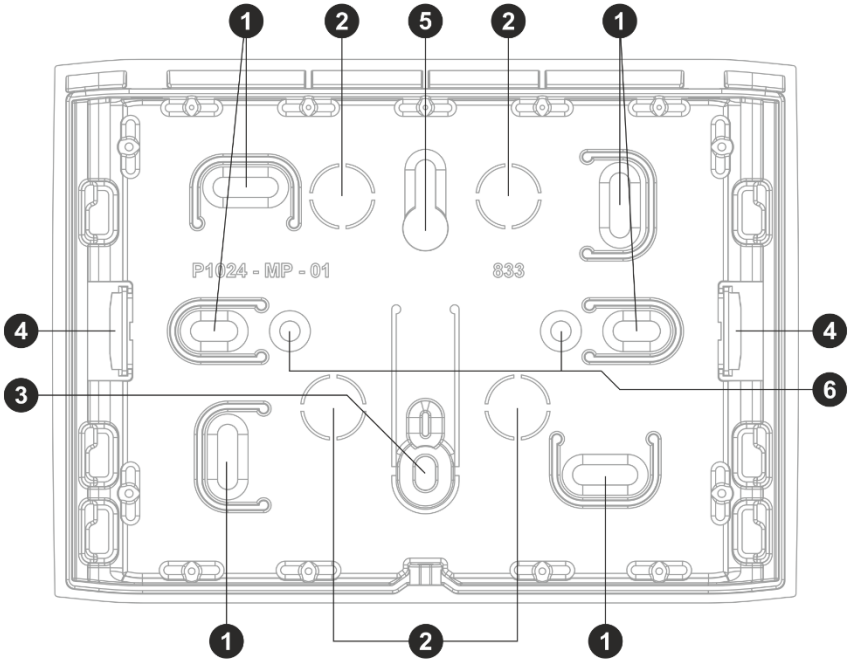
3. Fixing the Keypad to wall

Flush Mount



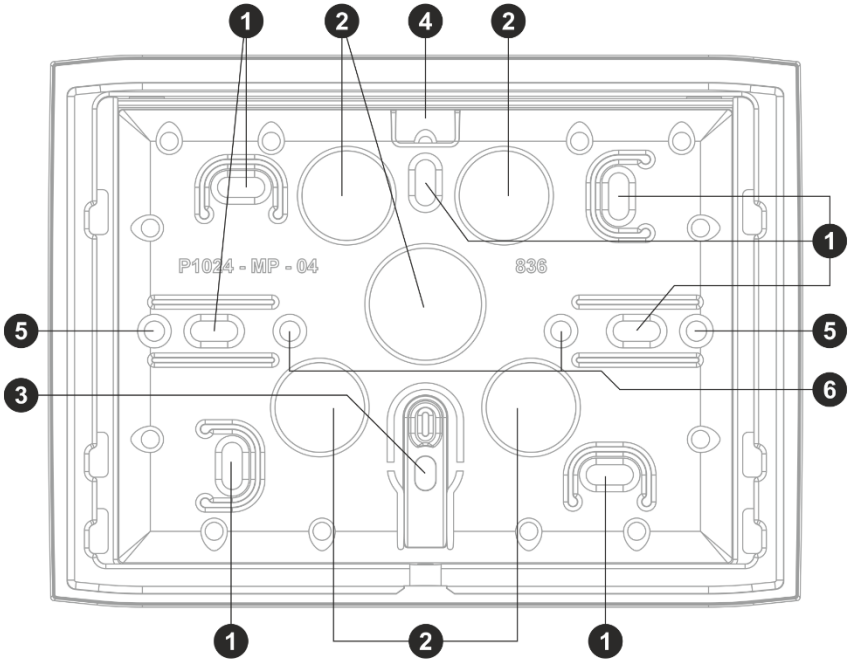
1. Screw mounting holes
2. Cable entry holes
3. Breakaway rear tamper
4. Screw clamps
5. Front cover sliding clip locking holes. Keep clear from debris to ensure the keypad can easily hook onto the flush mount.

Low Profile Mount



1. Screw mounting holes
2. Knock-out cable entry holes
3. Breakaway rear tamper
4. Removable tabs for cable trunking
5. Keyhole
6. MK single gang back-box mounting holes

Surface Mount

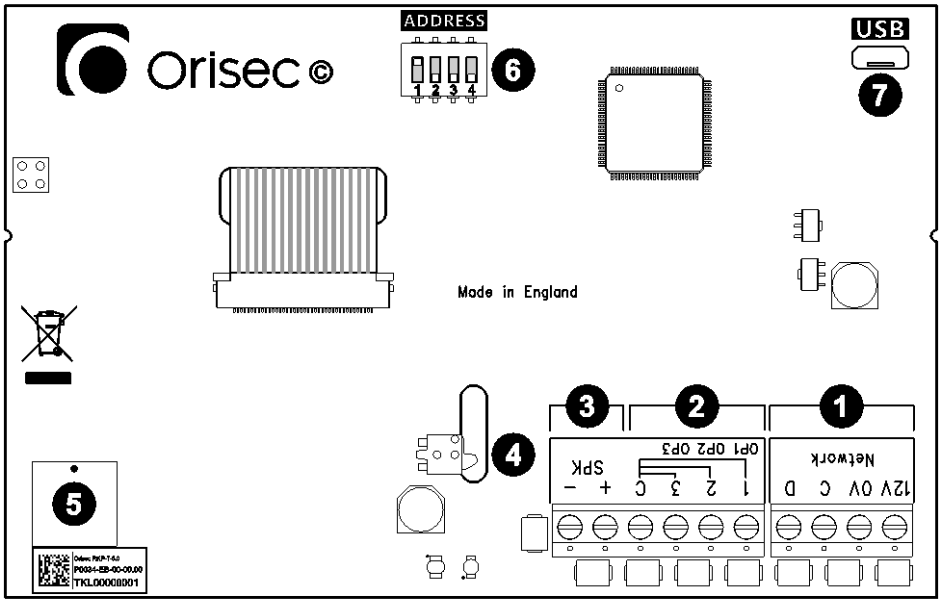


1. Screw mounting holes
2. Cable entry holes
3. Breakaway rear tamper
4. Knock-out cable entry hole
5. MK double gang back-box mounting holes
6. MK single gang back-box mounting holes

Rear Tamper Break out Section (Grade 3)

Insert a screw into the rear tamper break out section (3). If the keypad casing is forced off the wall, the break out section will stay fixed, and a tamper activation will occur. This is required for Grade 3 installations.

4. PCB Layout



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 16ohm 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 Port

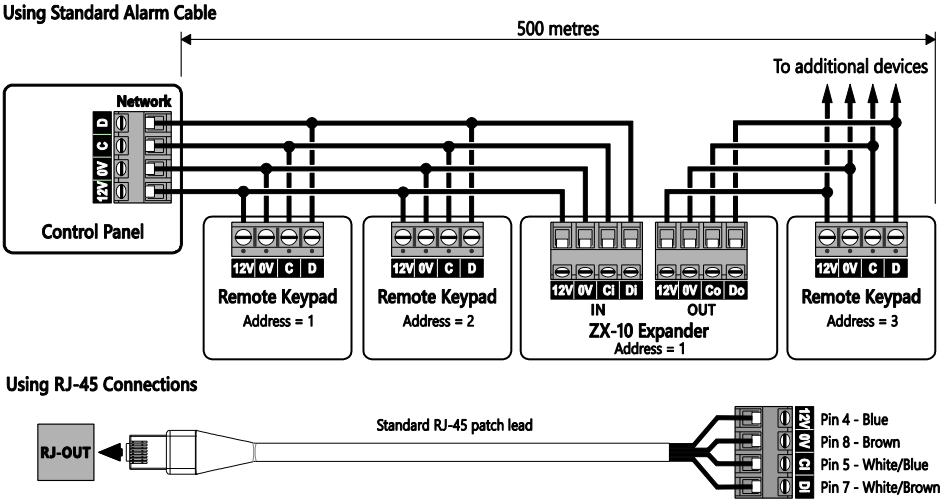
USB communication port that can be used to flash update the TK-650 firmware or edit the company logo screen via Orisec RKP Logo Editor software.

5. Wiring

Network Connections

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

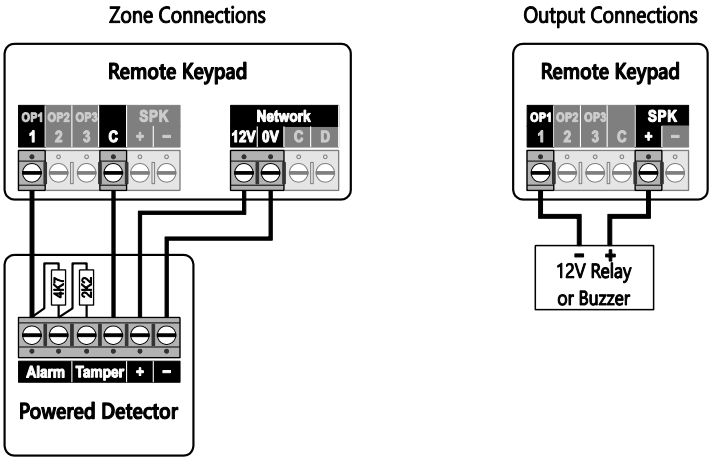
The keypads can be networked in a star or daisy chain pattern, or a combination of the two. They can also be connected to the RJ-45 connections on both the control panel and on expanders.



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

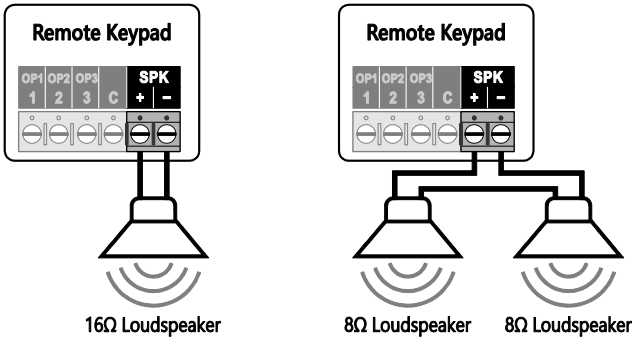
Zone and Output Connections

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:



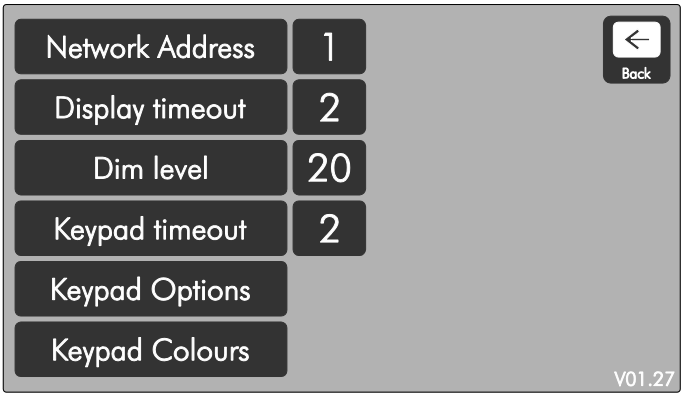
Loudspeaker Connections

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



6. Setup Menu

The 'Setup' icon will only appear when either the system is in engineer's mode or the lid tamper of the keypad is open. To enter the setup menu, press the 'Setup' icon:



Network Address

If software addressing is enabled (DIP switch address set to 0), the network address can be changed using this option.

Display timeout

When the keypad is being used the display brightness is set to maximum. The keypad display brightness will the changes to the 'Dim Level' when it has not been used for the display timeout period in minutes.

Dim Level

The display brightness level that is used after 'Display timeout'.

Keypad timeout

When the keypad has not been used for this period it displays the home screen.

Keypad Options

Use this option to set the following keypad options:

Visual feedback: If enabled button icons are highlighted when touched.

Secure keypad: If enabled the number keypad is scrambled during entry mode.

Quick keys when idle: if enabled the 'Quick Keys' icons are displayed on the bottom of the display after 'Keypad timeout' period.

Show Logo Screen: If enabled the company logo screen is displayed after the 'Keypad timeout' period. The logo can also be displayed by touching the 'Info' icon that is top right on the home screen. The company logo must be downloaded into the keypad via an USB connection and Orisec RKP Logo Editor software.

Sync Colour Theme: If enabled the keypad colour themes are synced to all other TK-650 keypads on the network.

Keypad Colours

Use this option to customise the display colours, there are 20 predefined colour themes to choose from or you can create your own theme.

Back

Touch the 'Back' icon to exit the 'Setup Menu' and return to the home screen.

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:

8. Specifications

Electrical

Input Voltage:	10 – 15Vdc
Current Consumption:	Idle: 50mA; Backlit: 110mA
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
Display:	480 x 272 pixels, 16.7 million colours

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:	Flush: 166mm x 121mm x 11mm Low Profile: 166mm x 121mm x 27mm Surface: 166mm x 121mm x 27mm
Housing:	3mm Acrylonitrile Styrene Acrylate (ASA)
Packed Weight:	Surface or Low Profile Back: 450g; Recessed Back (only): 170g

9. Standards

Security

PD 6662:2017

EN 50131-1:2006+A1:2009

EN 50131-3:2009

Grade 3, Class II

EMC

Conforms to European Union (EU) Electro-Magnetic Compatibility (EMC) Directive 2014/30/EU and EN 50130-4:2011+A1:2014

EMC Environment: Residential / Commercial / Light Industrial / Industrial

CE: You can view the product EC Declaration of Conformity here: www.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 Orisec TK-650 is 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 the Orisec TK-650 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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