



# C Prox Ltd (inc Quantek)

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## Double Relay Access Control Keypad & Reader

### KPN-2

### User Manual



**Please read the manual carefully before installing this unit**

## 1. Packing list

Name	Quantity	Remarks
Keypad	1	
User manual	1	
Screwdriver	1	
Wall plugs	2	Used for fixing
Self tapping screws	2	Φ4mm×25 mm, used for fixing
Diode IN4004	1	For relay circuit protection

Please ensure that all the above contents are correct. If any are missing, please notify us immediately.

## 2. Description

The KPN-2 is a waterproof dual relay access control unit with integrated keypad and card reader. It is suitable for mounting either indoors or outdoors in harsh environments. It is housed in a strong, sturdy and vandal proof zinc alloy powder coated case.

This unit supports up to 999 users in multiple access configurations (card only, PIN only, or card + PIN). The built in card reader supports EM 125KHz cards.

Both relays can operate in pulse mode or toggle mode.

## 3. Features

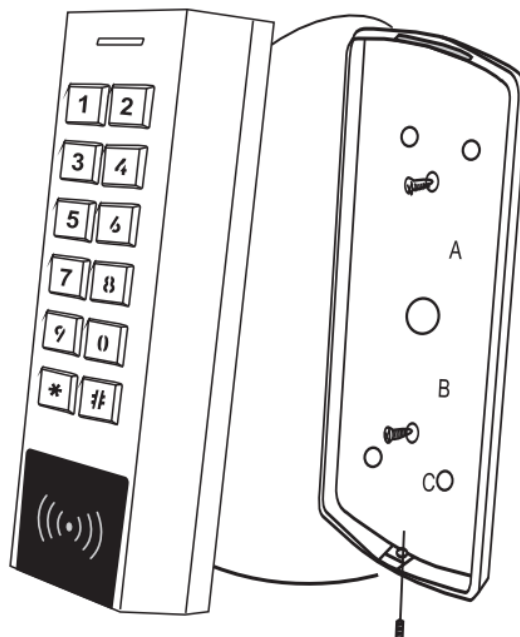
- Supports wide voltage input 12-28Vac/dc
- Waterproof, conforms to IP66
- Strong zinc alloy powder coated anti-vandal case
- All metal keys
- Full programming from the keypad
- 2 relays
- 999 users, supports card, PIN, or card + PIN
- PIN length 1-8 digits
- Backlit keys, set always on, always off, or automatically off after 60 seconds
- Multi-colour LED status display
- Integrated alarm and buzzer output, can set volume level 0 - 5
- Pulse or toggle mode
- Built in light dependent resistor (LDR) for anti-tamper
- Pre-wired with 1 metre of cable

## 4. Specification

<b>Operating voltage</b>	<b>12-28Vac/dc</b>
Idle current consumption Max current consumption	<70mA @ 12Vdc, <40mA @24Vdc <130mA @12Vdc, <80mA @24Vdc
<b>User capacity</b>	<b>999</b>
<b>Proximity card reader</b>	<b>EM</b>
Frequency Card reading distance	125KHz 1-6 cm
<b>Wiring connections</b>	<b>Relay output (x2), exit button (x2), alarm, door contact</b>
<b>Relay</b>	<b>Two (Common, NO, NC)</b>
Adjustable relay time Relay maximum load	1-300 seconds (5 seconds default), or Toggle mode 2 Amp
<b>Environment</b>	<b>Meets IP66</b>
Operating temperature Operating humidity	-40 to 60°C 0%RH to 98%RH
<b>Physical</b>	<b>Zinc alloy</b>
Colour Dimensions Unit weight	Silver 134 x 55.5 x 21mm 340g

## 5. Installation

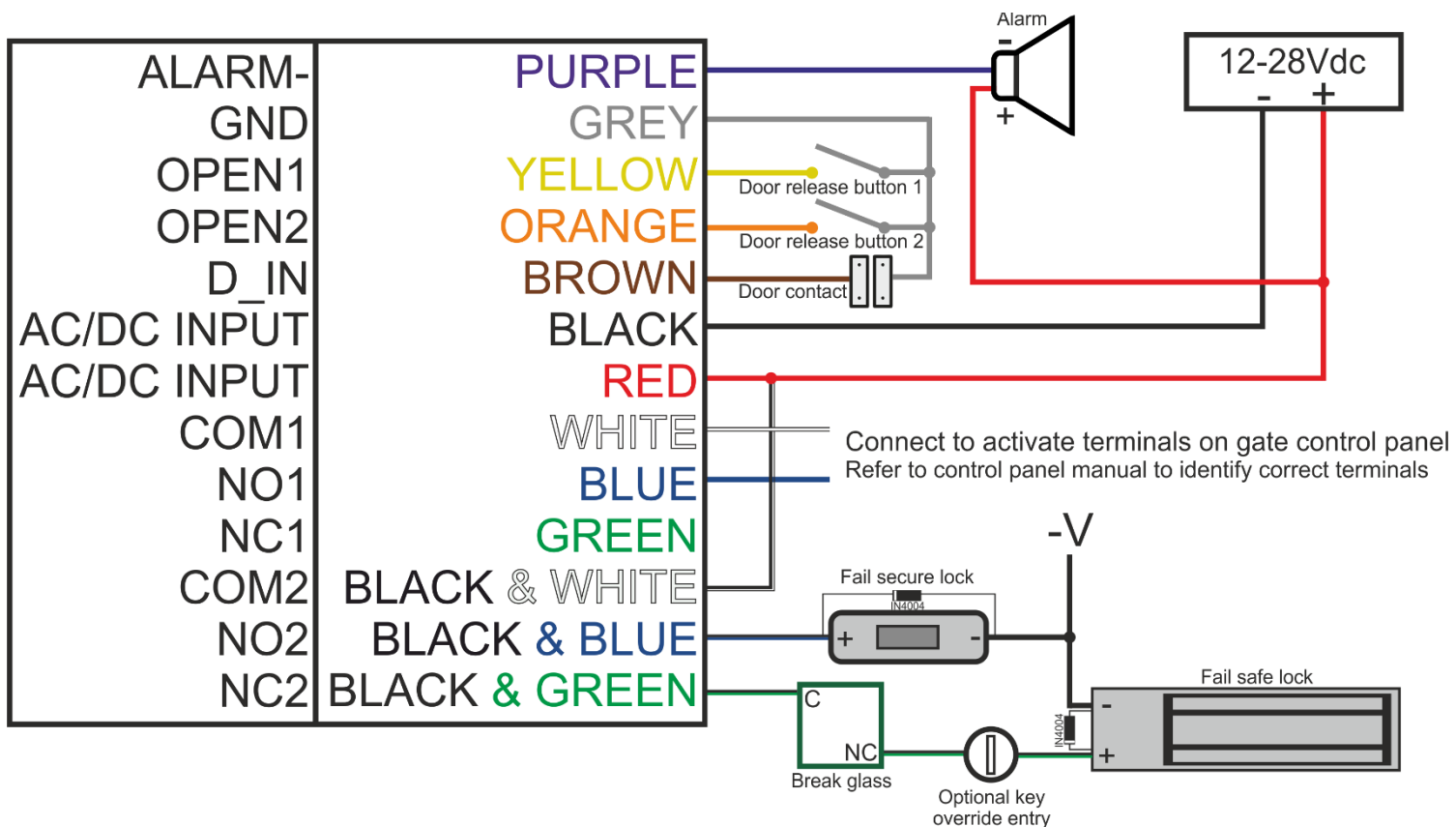
- Remove the back plate from the keypad using the supplied special screwdriver.
- Mark and drill two holes on the wall for the self-tapping fixing screws and one for the cable.
- Put the two wall plugs into the fixing holes.
- Fix the back cover firmly on the wall with the two self-tapping screws.
- Thread the cable through the cable hole.
- Attach the keypad to the back cover.



## 6. Wiring

Colour	Function	Description
Basic standalone wiring		
Red	AC/DC	12-28Vac/dc regulated power input
Black	AC/DC	12-28Vac/dc regulated power input
Green	NC1	Normally closed relay 1
White	COM1	Common relay 1
Blue	NO1	Normally open relay 1
Yellow	OPEN1	Exit button 1 input (other end connects to GND)
Black & Green	NC2	Normally closed relay 2
Black & White	COM2	Common relay 2
Black & Blue	NO2	Normally open relay 2
Orange	OPEN2	Exit button 2 input (other end connects to GND)
Grey	GND	Ground
Advanced input and output features		
Purple	ALARM-	External alarm output negative
Brown	D_IN DOOR CONTACT	Door/gate magnetic contact input (Normally closed, connect other end to GND)

**Tape all unused wires to prevent short circuit.**



The above example shows relay 1 being used to trigger a gate, and relay 2 being used to switch a lock. Wire as necessary.

If connecting locks install IN4004 diode across the lock +V and -V. Ensure voltage is suitable for the lock you are using.

## 7. Sound & light indication

Operation	LED indicator	Buzzer
Power supply connection	Blue ON 3 sec	ON 3 sec
Standby	Blue flashing every 2 sec	-
Waiting for master code after pressing *	Yellow flashing every 0.5 sec. Timeout = 60 sec	ON 1 x 0.5 sec
In a programming menu	Yellow ON	-
Card read correctly in programming	Green ON 0.5 sec	ON 1 x 0.5 sec
Incorrect step in programming	Red flashes 5 x 0.2 sec	ON 5 x 0.2 sec
Relay 1 activated	Green ON for activation time	ON 1 x 0.5 sec
Relay 2 activated	Blue ON for activation time	ON 1 x 0.5 sec
Relay 1 & 2 activated	Green & blue flashing alternatively 1 sec during activation time	ON 1 x 0.5 sec
Card read and waiting for PIN in Card + PIN mode	Blue flashing every 1 sec. Timeout = 10 sec	-
Alarm	Red flashing every 0.2 sec	ON every 0.2 sec

## 8. Simplified quick programming guide

### For reference:

- User ID is any number 1-999, only one user per ID number.
- Relay selection: 1 = relay 1 only, 2 = relay 2 only, 12 = both relays simultaneously.
- PIN codes can be 1-8 digits long, 0 and 00000000 are not allowed.

**Recording of User ID's & card/fob numbers is critical. Ideally, they should be kept digitally. See last page.**

**PINs can only be deleted or changed by knowing the User ID number.**

**Cards/fobs can only be deleted or changed by knowing either the User ID number or card/fob number.**

Enter programming mode	* 888888 # Now you can perform the programming. 888888 is default master code.
Change master code	0 New Master code # New Master code # The master code is any 4-8 digits, except 00000000
Add card user	11 (User ID) # (Relay selection) # Read card #
Add PIN user	11 (User ID) # (Relay selection) # PIN #
Delete user	2 Read card # for card user 2 (User ID) # for PIN user
Exit programming mode	*
<b>How to release the door</b>	
Card user	Read card
PIN user	Enter PIN #
Card + PIN user	Read card, then enter PIN # within 10 seconds

## 9. Full programming

### Set a new master code

1. Enter programming mode	* <b>Master code #</b> 888888 is default master code
2. Change master code	<b>0 New Master code # New Master code #</b> The master code is any 4-8 digits, except 00000000
3. Exit programming mode	*

### For reference:

- User ID is any number 1-999, only one user per user ID number.
- Relay selection: 1 = relay 1 only, 2 = relay 2 only, 12 = both relays simultaneously.
- PIN codes can be 1-8 digits long, 0 and 00000000 are not allowed.

**Recording of User ID's & card/fob numbers is critical. Ideally, they should be kept digitally. See last page.**

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### Add Users

1. Enter programming mode	* <b>Master code #</b> 888888 is default master code
2. Add a card user by reading card	<b>11 (User ID) # (Relay selection) # Read card #</b>
2. Add a card user by card number	<b>11 (User ID) # (Relay selection) # (Input 8 or 10 digits printed on card) #</b>
2. Add card users continuously	<b>12 First User ID number # (Relay selection) # Read cards one after another #</b>
2. Add a PIN user	<b>11 (User ID) # (Relay selection) # PIN #</b> You can repeat this to add more than one PIN user without exiting programming, e.g. <b>11 1 # 1 # PIN # 11 2 # 1 # PIN # 11 3 # 2 # PIN # etc</b>
2. Add card + PIN user	<b>15 (User ID) # (Relay selection) # PIN # Read card or Input 8 or 10 digits printed on card #</b> You can repeat this to add more than one PIN user without exiting programming.
3. Exit programming mode	*

## Delete users

1. Enter programming mode	* <b>Master code #</b> 888888 is default master code
2. Delete user – by card	2 <b>Read card #</b> Cards can be deleted continuously without exiting programming mode
2. Delete user – by User ID	2 <b>User ID number #</b>
2. Delete user – by card number	2 <b>Input card number #</b>
2. Delete ALL users	2 <b>0000000 #</b>
3. Exit programming mode	*

## Set relay configuration

1. Enter programming mode	* <b>Master code #</b> 888888 is default master code
2. Pulse mode (factory default) Relay 1 Relay 2 <b>OR</b> 2. Latch mode Relay 1 Relay 2	<b>3 1 1-300 #</b> <b>3 2 1-300 #</b> The relay time is 1-300 seconds. (1 equals 50ms). Default is 5 seconds.  <b>3 1 0 #</b> <b>3 2 0 #</b> Sets relay to on/off toggle mode.
3. Exit programming mode	*

## Set keypad backlight

1. Enter programming mode	* <b>Master code #</b> 888888 is default master code
2. Always ON <b>OR</b> 2. Always OFF <b>OR</b> 2. Automatically turn OFF after 60 seconds of inactivity	<b>5 1 1 #</b> (Factory default)  <b>5 1 2 #</b>  <b>5 1 3 #</b>
3. Exit programming mode	*

## Set buzzer volume level

1. Enter programming mode	* <b>Master code #</b> 888888 is default master code
2. Set buzzer volume level	<b>6 1 (0-5) #</b> (Factory default is 3) 0 means the buzzer sound is deactivated
3. Exit programming mode	*

## Set door open too long detection

A magnetic contact needs to be connected, wire 2 in series if you want to use this feature on both doors. If the door(s) stay open too long, the built in and/or external alarm will activate.

1. Enter programming mode	* <b>Master code #</b> 888888 is default master code
2. Enable door open detection	<b>7 1 1 # A # B # C #</b>
2. Disable door open detection	<b>7 1 2 #</b> (Factory default)
<b>Notes:</b> A = 1-300 = The preset door open duration in seconds before the alarm triggers B = 1 = Built-in buzzer ON while alarming B = 2 = Built-in buzzer OFF while alarming C = 1 = External alarm output enabled while alarming C = 2 = External alarm output disabled while alarming	
3. Exit programming mode	*

## Set door forced detection

A magnetic contact needs to be connected, wire 2 in series if you want to use this feature on both doors.

1. Enter programming mode	* <b>Master code #</b> 888888 is default master code
2. Enable door forced detection	<b>7 2 1 # A # B # C #</b>
2. Disable door forced detection	<b>7 2 2 #</b> (Factory default)
<b>Notes:</b> A = 1-300 = Alarm time in seconds. Starts counting when the door is shut again. B = 1 = Built-in buzzer ON while alarming B = 2 = Built-in buzzer OFF while alarming C = 1 = External alarm output enabled while alarming C = 2 = External alarm output disabled while alarming	
3. Exit programming mode	*

**Reset the alarm:** Close the door and wait for time A to expire or input a valid user.



## Set strike-out alarm

The strike-out alarm will engage after 10 consecutive failed PIN/card attempts within 10 minutes.

<b>1. Enter programming mode</b>	* <b>Master code #</b> 888888 is default master code
<b>2. Enable strike out alarm</b>	<b>7 3 1 # A # B # C #</b>
<b>2. Disable strike out alarm</b>	<b>7 3 2 #</b> (Factory default)
<b>Notes:</b> A = 1-300 = Blocking & alarm time in seconds. B = 1 = Built-in buzzer ON while alarming B = 2 = Built-in buzzer OFF while alarming C = 1 = External alarm output enabled while alarming C = 2 = External alarm output disabled while alarming	
<b>3. Exit programming mode</b>	*

**Reset the alarm:** After expiration of the programmed alarm time.

## Set tamper alarm

Keypad will alarm if it is removed from its back plate.

<b>1. Enter programming mode</b>	* <b>Master code #</b> 888888 is default master code
<b>2. Enable strike out alarm</b>	<b>7 4 1 # A # B # C #</b>
<b>2. Disable strike out alarm</b>	<b>7 4 2 #</b> (Factory default)
<b>Notes:</b> A = 1-300 = Alarm time in seconds. Starts counting when the keypad is put back. B = 1 = Built-in buzzer ON while alarming B = 2 = Built-in buzzer OFF while alarming C = 1 = External alarm output enabled while alarming C = 2 = External alarm output disabled while alarming	
<b>3. Exit programming mode</b>	*

**Reset the alarm:** Put the keypad back onto its back plate and wait for the programmed alarm time to expire, or input valid user.

## 10. Factory reset

Power off, press and hold \* button whilst powering up the unit until LED flashes green 4 times and 4 beeps are heard. Settings will be reset, and master code will be 888888. User data is not affected.

**11. Issue record**

**Recording of User ID's & card/fob numbers is critical. Ideally, they should be kept digitally. PINs can only be deleted or changed by knowing the User ID number.**

**Cards/fobs can only be deleted or changed by knowing either the User ID number or card/fob number.**

<b>Site:</b>		<b>Door location:</b>	
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<b>User ID No</b>	<b>User name</b>	<b>PIN</b>	<b>Card number</b>	<b>Issue date</b>
1				
2				
3				
4				