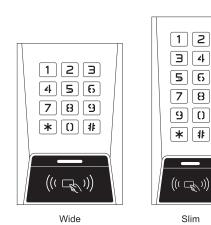


Standalone/Controller/Reader



User Manual

INTRODUCTION -

The BK Series Device is fashionable multi-function Access Controller with integrated Keypad, Card reader and Bluetooth, It is designed and manufactured to perform in a wide range of indoor, outdoor and harsh environments. (office buildings, factories, warehouses, laboratories, banks, stores, houses, prisons)

This series devices support up to 1010 users (1000 common users + 10 group of duress users), all user data can be copied from one to another. And they have one relay output, which can be operated in Pulse Mode or Toggle Mode.

Features and Benefits

- Bluetooth Module (BK3, BK4), Mobile app to operate and access
- > Fashionable & patent design
- Metal Case Anti-vandal
- > One relay, keyboard programmer
- > Waterproof, conforms to IP66 > 1010 users (1000 common users + 10 group of Anti-duress users)
- Card type:
- FM version: 125KHz FM card
- HID & EM version: 125KHz HID & EM cards
- > PIN length: 4~6 digits > Wiegand 26~ 37 bits input & output
- > Kevs output: 4 bit. 8 bits or 10 digits virtual card number Can be used as Wiegand reader with LED & buzzer output
- > Card block enrollment
- > Tri-color LED status display
- > Wide range voltage: 12-28V AC/DC
- > Integrated alarm & buzzer output > Pulse mode, Toggle mode
- > User data can be transferred
- 2 devices can be interlocked for 2 doors
- > Built in LDR (light dependent resistor) for anti-tamper
- > Backlit keypad > Low temperature resistance(-40°C)

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Specifications

opeemedions	
User Capacity	1010 (10 group of Anti-duress users)
Operating Voltage	12V~28V AC/DC
Idle Current	<35mA
Card Type	125KHZ EM or 125KHZ HID & EM
Read Range	3~10 cm
PIN length	4 – 6 digits
Wiegand Input/output	26-37 bits (Factory default: Wiegand 26 bits)
Keys Output	4bits,8bits,10 digits virtual card number (Default
Relay	One relay (NO/NC/COM)
Waterproof	Conforms to IP66
Metal Casing	Zinc-Alloy
Operating Temperature	-40°C ~ 60°C (-40°F ~ 140°F)
Operating Humidity	0~98%RH
	134*55*22mm(L*W*H) (Slim case)

Shipping Weight **Carton Inventory**

Dimensions

Unit Weight



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380a(Wide), 360a(Slim

460g(Wide), 440g(Slim)

115*75*23mm(L*W*H) (Wide case)

Admin Add Card Admin Delete Card Admin Card

INSTALLATION -

- > Remove the back cover from the unit
- > Drill holes (A, C) on the wall for the screw and one hole for the cable > Knock the supply rubber bungs to the screw holes ((A, C)
- > Fix the back cover firmly on the wall with 4 flat head screws
- > Tread the cable through the cable hole(B)



Wire Colour	Function	Notes
Basic S	asic Standalone Wiring	
Red	AC&DC+	12~28V AC/DC Regulated Power Input
Black	AC&DC-	12~28V AC/DC Regulated Power Input
Pink	GND	Negative Pole
Blue	Relay NO	Normally Open Relay Output (install diode provided)
Purple	Relay COM	Common Connection for Relay Output
Orange	Relay NC	Normally Closed Relay Output (install diode provided)
Yellow	OPEN	Request to Exit (REX) Input

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Pass-Through Wiring (Wiegand Reader or Controller) Programming Step Green Data 0 Wiegand Input/ Output Data 0 White Data 1 Wiegand Input/ Output Data 1 1.Enter Program Mode 2.Standalone/Controller Mode 6 0 # (Factory default) Advanced Input and Output Features Alarm Output Negative contact for alarm Brown | Contact Input | Door/Gate Contact Input (Normally Closed 3.Exit

Sound and Light Indication

Operation Status	LED	Buzzer
Stand By	Red light bright	_
Enter into programming mode	Red light shines	One beep
n the programming mode	Orange light bright	One beep
Operation error	Red light shines twice quickly	Three beeps
Exit from the programming mode	Red light bright	One beep
Open lock	Green light bright	One beep
Alarm	Red light shines quickly	Beeps

Basic configure

Enter and Exit Program mode

Programming Step	Keystroke Combination
Enter Program Mode	*(Admin Code) #
	(Factory default is 666666)
Exit Program Mode	*

Set Admin Code

Programming Step	Keystroke Combination
1.Enter Program Mode	*(Admin Code) #
2.Update Admin Code	0 (New Admin Code) #(Repeat New
	Admin Code)# (Admin Code is any 6 digits)
3.Exit Program Mode	*

Notes: the BK Series Device has 3 working modes: Standalone Mode. Controller Mode, Wiegand Reader Mode, choose the mode you use. (Factory default is Standalone Mode/Controller Mode)

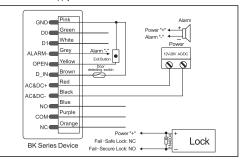
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Keystroke Combination *(Admin Code)#

STANDALONE MODE -

The BK Series Device can work as Standalone Reader for single door. (Factory default mode) --60 #

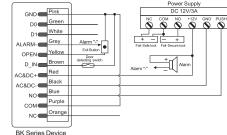
Connection Diagram Common Power Supply:



Install a 1N4004 or equivalent diode is needed when use a common power s upply, or the keypad might be damaged. (1N4004 is included in the packing)

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Access Control Power Supply:



rogramming will vary depending on access configuration. Follow the instructions according to your access configuration.

> User ID number: Assign a user ID to the access Card/PIN in order to track it. The common user ID number can be any number from 1-1000, the Anti-duress user ID is from 1001-1010.

IMPORTANT: User IDs do not have to be proceeded with any leading zeros. Recording of User ID is critical. Modifications to the user require the User ID be available.

> Proximity Card:

EM version: 125 KHz industry standard 26bits EM card HID & EM version: 125 KHz industry standard 26bits HID & EM cards

> PIN: Can be any 4~6 digits except 1234 which is reserved.

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Add Common Users **Programming Step**

(The BK Series Device assign

next available User ID to card

(System Admin assign a

specific User ID to associate

Note: When you adopt that

method, read card, and then

input a pin, the pin will be

special belongs to the card

(not independent pin).

2.Add card: Using Auto ID 1 (Read Card) #

2.Add Card: Assign User ID 1(User ID)#(Read Card)#

2.Add Card: by Card Number 1(Input 8/10 digits Card number) #

2.Add Card: Block Enrollment 1(User ID)# (The first card number)

1000 cards to the machine in | Cards' number must be consecutive

a single step) Takes 2 minutes
Card quantity=number of cards to be

1(User ID) # (PIN)#

The User ID is any number from 1-1000

(Allows Admin to add up to #(Card quantity)#

Add Card User

Keystroke Combinatio

The cards can be added continuously

(User ID is any number from 1-1000)

1(User ID)#(Read Card)(PIN)#

2.Add Card: 1(User ID) # (Read Card)# / Input 8/10 digits Card number # 2.Add PIN: 1(User ID) #(PIN)# (User ID is any number from 1001~1010) Note: The best choice for adding users: inputting the User ID Number. It will

be helpful when you want to delete the specific users.

Change PIN

Programming Step	Keystroke Combination
Note: Below is done outside programming mode, users can undertake this themselves	
1.Change Card's PIN: By Card. It will allocate PIN (1234) automatically to the card when adding card users.	*(Read Card) (Old PIN) # (New PIN) # (Repeat New PIN) #
2.Change Independent PIN: By User ID	*(User ID) # (Old PIN) # (New PIN) # (Repeat New PIN) #
3.Exit	*

Delete Anti-Duress User

higher-level security is required.

ALARM. Grey

BK Series Device

D1 ⊕ Green

D1 ⊕ White

Programming Step

2.Interlocked-OFF

2.Interlocked-ON

3.Exit

1.Enter Program Mode

Programming Step	Keystroke Combination
1.Enter Program Mode	*(Admin Code) #
Delete Card User-Common	
2.Delete Card - By Card OR 2.Delete Card - By ID number OR 2. Delete Card - By Card number	2(Read Card) # The cards can be deleted continuously 2(User ID) # 2(Input 8/10 digits Card number) #
Delete PIN User-Common	
2.Delete PIN - By User ID	2(User ID) #

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Add Anti-Duress Users

PIN users)

3.Exit

to program.

Add PIN User

2.Add PIN: Assign User ID

(System Admin assign a

specific User ID to associate

ADVANCED APPLICATION -

Programming Step	Keystroke Combination
1.Enter Program Mode	*(Admin Code)#
	7

Programming Step	Keystroke Combination
1.Enter Program Mode	*(Admin Code)#
	7

The BK Series Device supports the Interlock function. It is of two keypads for

two doors, and mainly used for banks, prisons, and other places where a

Remarks: The Door Contact must be installed and connected as the diagram.

Enroll the users on Keypad A, then transfer the users' information to Keypad B

95#

The interlock operation is finished, When and only door 2 is closed, the user can read the valid card or input PIN on Keypad A, door 1 will open; then when

and only door 1 closed, read valid card or input PIN on Keypad B, door 2 will

Keystroke Combination

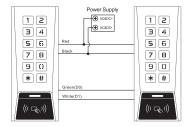
*(Admin Code)#

9 4 # (factory default)

Let's name the two Keypads as "A" and "B" for two doors "1" and "2"

BK Series Device

Unit) to another (let's name it Accept Unit)



BK Series Device

- > Program the transfer operation on Admin Unit only.
- > If the Accept Units already with the users enrolled, it will be covered after

Set Transferring on Admin Unit:

3.Exit -15-

Set both of the two Keypads (A and B) to Interlock function.

2.Delete Anti-Duress Card User 2(Read Card) # 2.Delete Anti-Duress PIN User 2(User ID) # Delete All Users Delete All User 20000#

Set Relay Configuration

his configuration sets the behavior of the relay output on activation.

This configuration sets the behavior of the relay output on activation.	
Programming Step	Keystroke Combination
1.Enter Program Mode	*(Admin Code) #
2.Pulse Mode	4 (1~99) # (factory default is 5seconds)
Or	
2.Toggle Mode	40#
	Set the relay to ON/OFF Toggle Mode
3.Exit	*

Set Access Mode

For multi cards/PINs access mode, the interval time of reading cards/ inputting PINs cannot exceed 5 seconds. Otherwise, the BK series device will exit to standby automatically.

Programming Step	Keystroke Combination
1.Enter Program Mode	*(Admin Code) #
2. Card or PIN access Or	3 0 #(factory default)
2. Card + PIN access Or	31#
2. Card access Or	32#
2. Multi cards/PINs access	3 3 (2~9) # (Only after reading 2~9 cards or inputting 2~9 PINs, the door can be opened)
3.Exit	*

Simplified Instruction Function Description Operation - 666666 - # ode Then you can do the programming (666666 is the factory default admin code 0 - New Code - # -Repeat the new code Change the Admin Code -# (code: 6 digits) 1 - Read card - # Add Card User (can add Cards continuously) 1 - (User ID) - PIN -# Add PIN User 2 - Read Card - # (for Card User) Delete User 2 - (User ID) - # (for PIN User) Exit from the Programming How to release the door Card User Read Card

Mode setting	
ogramming Step	Keystroke Combination
Enter Program Mode	*(Admin Code) #
Common Mode	7 0 # (factory default)
_ockout Mode R	7 1 # Access will be defined for 10 minutes
Alarm Mode	72#
et Alarm time	5(0~3) # (factory default is 1 minute) Enter Admin code # or valid user card / PIN to silence
Exit	*

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Frogramming Step	Reystroke Combination		
1.Enter Program Mode	*(Admin Code) #		
2.Control Keypad Backlit OR	OFF=7 4#	ON=7 5#	
2.Control LED OR	OFF=76#	ON=7 7 #	
2.Control sounds	OFF=7 8 #	ON=7 9 # (Factory defaults are C	
3.Exit	*		

Set Card Regarding Type (This step can be applied to HID & EM Version)

Set Card Regarding Type (This step can be applied to HID & EM ve	
Programming Step	Keystroke Combination
1.Enter Program Mode	*(Admin Code) #
2.Read HID & EM Card OR	9 0 # (factory default)
2.Read EM Card ONLY OR	91#
2.Read HID Card ONLY	92#
3.Exit	*

Admin Cards Usage

sing Admin Cards to add and delete card users		
dd a user	(Read Admin Add Card) (Read user Card) Repeat Step 2 for additional user cards (Read Admin Add Card)	
elete a user	(Read Admin Delete Card) (Read user Card) Repeat Step 2 for additional user cards (Read Admin Delete Card)	

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Users Operation & Reset to Factory Default Set Audible and Visual Response > Open the door: Read valid user card or inputting valid user PIN

og.ag otop	regatione combination		> Remove Alarm: Read valid user card or inputting valid user PIN, or input	
Enter Program Mode	*(Admin Co	de) #	Admin Code#	
Control Keypad Backlit	OFF=7 4#	ON=7 5#	> To reset to factory default & Add Admin Cards: Power off, press the Exit Button, hold it and power on, there will be two beeps, release the exit button,	
Control LED	OFF=7 6#	ON=7 7 #	and the LED light turns into yellow, then read any two 125KHz EM cards or HID cards, the LED will turn into red, means reset to factory defaults	
Control sounds	OFF=78#	ON=7 9 # (Factory defaults are ON)	successfully. Of the two cards reading. The 1st one is Admin Add Card, the 2nd one is the Admin Delete Card.	

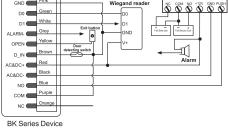
CONTROLLER MODE -The BK Series Device can work as Controller connected with the external Wiegand reader. (Factory default mode) --60 #

Special Power Supply

Reset to factory default, the user's information is still retained.

Connection Diagram

Remarks



Attention: Install a 1N4004 or equivalent diode is needed when use a common power supply, or the reader might be damaged. (1N4004 is included in the packing)

Set Wiegand Input Formats Please set the wiegand input formats according to the Wiegand output format

of the external Reader Keystroke Combination

1.Enter Program Mode	*(Admin Code) #
2.Wiegand input bits	8 (26~37) # (factory default is 26 bits)
3.Exit	*

2.Wiegand input bits

> Basic programming is the same as Standalone Mode > There are some exceptions for your attention:

The BK Series Device connected with external Card Reader If FM card reader or HID card reader; users can be added/deleted on either. the BK Series Device or external reader.

If Mifare reader: users can only be added /deleted on external reader.

The BK Series Device connected with Keypad Reader: The keypad reader can be 4 Bits, 8 Bits (ASCII), or 10 Bits output format.

Choose the below operation according to the PIN output format of your reade Programming Step Keystroke Combination 1.Enter Program Mode *(Admin Code) #

Remarks: 4 means 4 bits, 8 means 8 bits, 10 means 10 digits virtual number. > Add PIN Users:

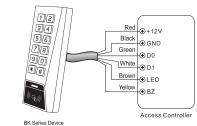
To add PIN users, after enter into programming mode on the BK Series Device, PIN(s) can be input/added on either the BK Series Device controller or the external Keypad Reader. > Delete PIN Users: the same way as add users.

WIEGAND READER MODE -

The BK Series Device can work as Standard Wiegand Reader, connected to the third-party Controller-- 61 #

The EM version reads EM card only, while the HID & EM version can be set to read HID & FM cards, or HID card only or FM card only. Factory default card type of the HID & EM version is HID & EM cards, if you want to change the type. Please set the BK Series Device to Standalone Mode (60#) and then set the type. (See page 11 for setting card type).

Connection Diagram



> When set into Wiegand Reader mode, nearly all settings in Controller Mode will become invalid. And Brown & Yellow wires will be redefined as below: Brown wire: Green LED light control

the input voltage for Buzzer is low, it will sound. Set Wiegand Output Formats

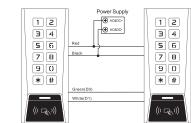
Please set the Wiegand output formats of Reader according to the Wiegand input formats of the Controller.

If you need to connect Brown/Yellow wires:

Programming Step	Keystroke Combination
1.Enter Program Mode	*(Admin Code)#
2.Wiegand output bits PIN output bits	8 (26~37) # (factory default is 26 bits) 8 (4 or 8 or 10) # (factory default is 4 bits)
3.Exit	*
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User Information Transfer The BK Series Device supports the User Information Transfer function, and the enrolled user (cards, PINs) can be transferred from one (let's name it Admin

Conneion Diagram:



BK Series Device

The Admin units and Accept units must be BK Series Device.

When the input voltage for LED is low, the LED will turn into Green; and when

> For full 1010 users enrolled, the transfer takes 3 minutes

	Programming Step	Keystroke Combination
	1.Enter Program Mode	*(Admin Code) #
	2.Set transferring	96#
	Within 3 minutes, Green LED shines, after one beep, the LED will turn in Red, which means the users' information has been transferred successful.	

by "User Information Transfer" function.

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Using Admin Cards to add and delete card users

Set Card Regarding Type (This step can be applied to hib & EW Version		
Programming Step	Keystroke Combination	
1.Enter Program Mode	*(Admin Code) #	
2.Read HID & EM Card	9 0 # (factory default)	
OR		
2.Read EM Card ONLY	91#	
OR		
2.Read HID Card ONLY	92#	
2 Evit	*	

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-13-

8 (4 or 8 or 10) # (factory default is 4 bits