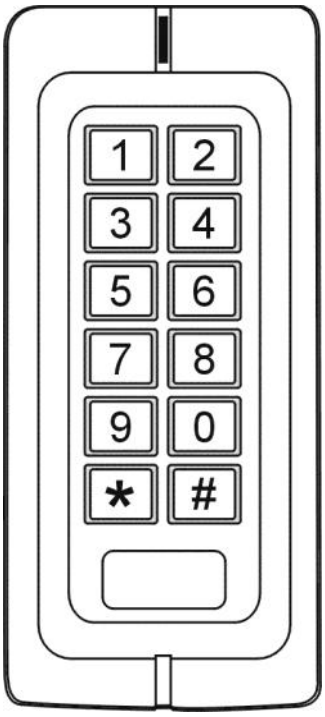
K2
Digital Keypad



old hardware revisions

Introduction

The K02 uses the latest microprocessor technology to operate door strikes and security systems that require a momentary (timed) or latching dry contact closure.
All programming is done through the keypad. Codes and operating parameters are stored within the microprocessor and can not be lost due to power failure.

The K02 can store 1000 prox cards and user 4 digit codes. Each 4 digit code has 10,000 possible combinations. The unit has one relay with 5 Amp contacts.

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Specifications

1. **Programmable Functions**
   Relay latching or momentary
   Relay activate independently or together
   Change Codes 1 master, 1000 users & prox cards
   Door open detection

2. **Programmable Timers**
   Door relay time 00-99 seconds
   Door open detection 00-99 seconds
   Alarm time 00-99 minutes

3. **Wiring Connections**
   Electric lock
   External bell
   External Push Switch
   Magnetic Contacts
   Alarm

4. **Keypad:**
   12 keys

5. **Programming memory:**
   Non volatile Eeprom memory

IMPORTANT INFORAMTION
There are no user serviceable parts contained within the K2 access control keypad.

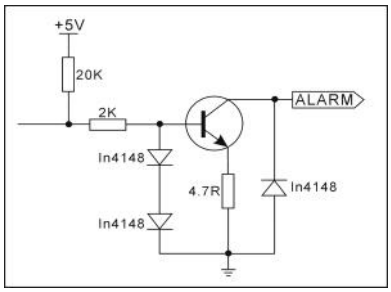
If holes are to be drilled before mounting onto a wall, check for hidden cables and/or pipes before drilling. Use safety goggles when drilling or hammering in cable clips.

Every effort has been made to provide accurate information, however slight variations can occur. We also reserve the right to make changes for product improvement at any time

NOTE
PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING TO INSTALL THE K2

Intramural Interface Circuit

1. **Alarm output interface (See Figure 1)**
2. **Electric lock interface (See Figure 2)**



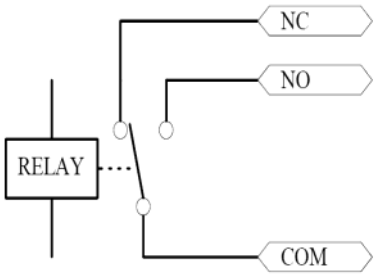


Figure 1 **Figure 2**

Mounting

1. Attach the rear plate to a single or double gang electrical box or secure to the wall firmly with at least three flat head screws.

2. When wiring has been completed, attach the front cover to the rear plate.

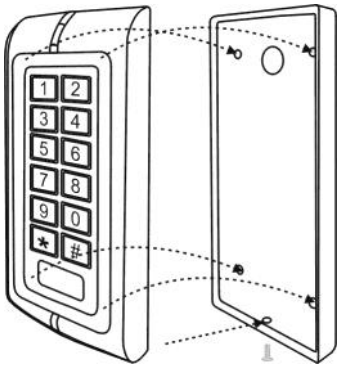


Figure 3

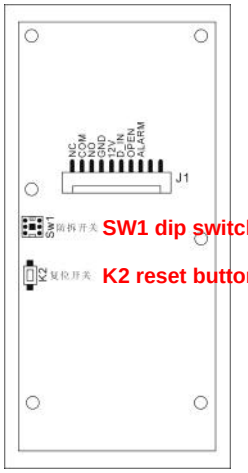


Figure 4

The front cover can be permanently secured by using the short screw supplied

K2 Printed Circuit Board

Wiring

1. Unplug the cable harness and connect the necessary cables, (See Figure 5).
2. Tape any wires that are unused.
3. Plug the cable harness , (See Figure 5)
4. Attach the front cover, (See Figure 3).

Terminal Wire Connector 1 Function			
10		Green	Invalid
9		White	Invalid
8	ALARM	Grey	Alarm output
7	OPEN	Yellow	To Door Remote Control Button Then Negative
6	D_IN	Brown	To Door Contact Then To Door In
5	12V	Red	(+) 12Vdc Positive Regulated Power Input
4	GND	Black	(-) Negative Regulated Power Input
3	NO	Blue	Door Strike Relay N/O
2	COM	Purple	Door Strike Relay Com
1	NC	Orange	Door Strike Relay N/C

DO NOT PLUG ADAPTOR OUR TRANSFORMER INTO MAINS UNTIL ALL WIRING HAS BEEN COMPLETED AND THE FRONT COVER SECURED.

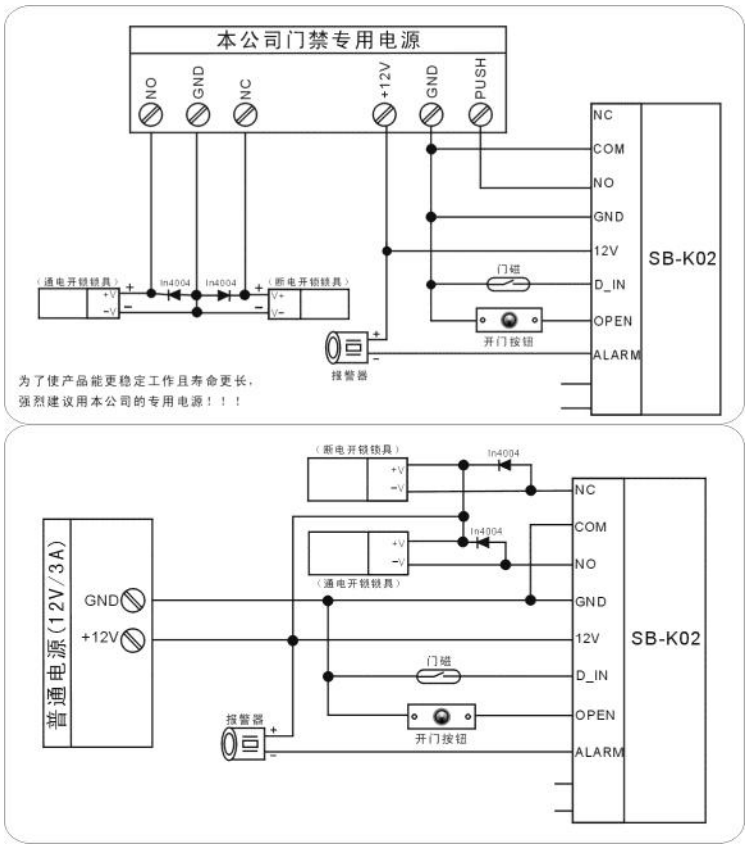


Figure 5

Power Up

1. After all wiring is complete and the unit face plate is attached to the back plate, apply 12Vdc power to the unit. Accept LED(the yellow LED) flashing.

Engineer Programming Mode

To enter programming mode
Press: ***** **9999** **#** within 5 seconds, Ready(the green LED) and Accept LED illuminated, Open LED flashing.

Note
Press: **#** to save changes and exit engineer programming, when all programming has been completed otherwise changes will not be saved.

Changing Master & User Codes

In engineer programming mode:

To change Master code
Press: **0** **new master code** **#** **re-enter new master code** **#**
Upon acceptance Open LED illuminates and stops flashing. Press ***** after changing the master code, otherwise unit will disregard the new code and revert back to the factory default code.
Note: the master code must be 4-8 digit number.

Adding User Codes & Cards

To Add User cards & codes
Press: **1** **read card** **user identification** **#**
Note: the user identification must be 3 digit number, if adding more than 1 card, read the next card after inputting the 3 digit code for the previous card, when you have finished adding all cards press the **#** key. 1st card must be 000 up to 999.
Then the BC-2000 control station added a user card it was auto added a user code with 1234.

Delete User Card or Cards

There are 3 options to delete a user card or cards, in engineering mode.

a.) Press: **2** **0 0 0 0** **#** to delete all user cards
b.) Press: **2** **read card** **#** to delete individual user card
c.) Press: **2** **user identification number** **#** to delete individual user card

User Operation Mode

There are 3 different options for user operation mode, card only, card and password, valid code. The optioned used is common to all users.

Press: **3** **0 0** **#** valid card only
Press: **3** **0 1** **#** valid card and password
Press: **3** **0 2** **#** valid card or password

Setting Door Relay Strike Time

The door relay output can be operated as either normally opened or normally closed, a maximum current of 10 ampere can pass through the relay if used as normally opened or 5 ampere if normally closed. The door relay time can be set from 0 seconds to a maximum of 99 seconds. The factory default setting is 6 seconds and can be changed through the keypad.

Press: **4** **new time from 00-99 seconds** **#**

Setting Alarm Signal Output Time

Press: **5** **new time from 00-99 minutes** **#**

Setting Door Open Detection

Press: **6** **0 0** **#** to disable this function (factory setting)
Press: **6** **0 1** **#** to enable this function.

In order for this feature to work, door contacts must be connected. There are 2 programming functions that work together in this mode.

a.) If door not closed after opening, keypad buzzer sounds.
b.) If door forced open, keypad buzzer sounds and sends alarm signal.

Setting Security Arrangement

There are two levels of keypad security available for the K2.

Press: **7** **0 1** **#** to read 10 invalid cards or valid cards, then enter 4 wrong passwords in succession, the keypad is locked for 10 minutes.

Press: **7** **0 2** **#** to read 10 invalid cards or valid cards, then enter 4 wrong passwords in succession, the keypad activates and alarm signal.

To disable this feature:
Press: **7** **0 0** **#** factory default setting.

Resetting To Factory Default Setting

To revert all settings to the factory default values then the Non Volatile Memory (Eeprom) must be reset.

Reset Non Volatile Memory by switching of the power and placing the jumper connector onto the pins 1 & 2 as per figure 2. After switching power on remove jumper, the K2 will give a beep and is now reset to factory default values.

Changing User Password Code

The factory default setting for each user password code 1234, this can be modified so that each user has a unique individual 4 digit code.

Press: ***** **read user card** **user passoword** **#** **new password** **#** **re-enter new password** **#**

Using Password Code to release the door

Press: **user passoword** **#**

Technical Specification

DC Supply Voltage:	Low voltage input 12 ±10**%** Vdc unregulated
Current Consumption:	100mA @ quiescent maximum
Door Relay:	5Amp 12Vdc
Alarm output load:	150mA pull current
Tamper Protection:	Negative loop, normally closed
Codes :	1 Master, 1000 cards and 1000 codes .
Keypad:	12 keys, 3 LED status indicators
Card Types:	EM or EM compatible
Induction Distance:	5-8cm
Wiring Connections:	Electric lock Remote door control Door open detection External door bell External Alarm
Memory:	Non volatile eeprom memory
Operating Temperature:	0°C to 60°C (32°F to 140°F)
Keypad Housing:	Metal
Dimensions:	128mm x 82mm x 28mm
Weight:	500g

Package Listing

Name	Model no.	Quantity	Remark
Digital Keypad	K2	1	
User Manual	K2	1	
Flat Head Screws	Φ3mm×6mm	1	Used for front case and back case
Pastern Stopper	Φ6mm×27 mm	4	Used for fixing
Self Tapping Screws	Φ3.5mm×27 mm	4	Used for fixing