



BC-2000
Digital Keypad

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Introduction

The BC-2000 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 BC-2000 can store 1000 prox cards and user 4 digit password codes. Each 4 digit password code has 10,000 possible combinations. The unit has one relay output with 5 Amp changeover contacts.

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 Push Switch

Magnetic Contacts

Alarm

4:Keypad:

12 keys

5:Programming memory:

Non volatile Eeprom memory

IMPORTANT INFORMATION

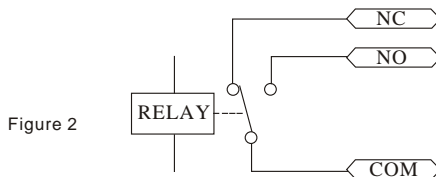
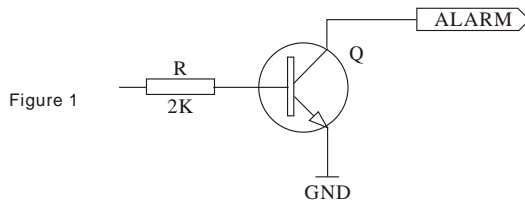
There are no user serviceable parts contained within the BC-2000 access control keypad.

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.

Internal Interface Circuit

1.Alarm output interface (See Figure 1)

2.Electric lock interface (See Figure 2)



NOTE:

Please Read These Instructions Carefully Before Attempting To Install The Bc-2000

Mounting

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.

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

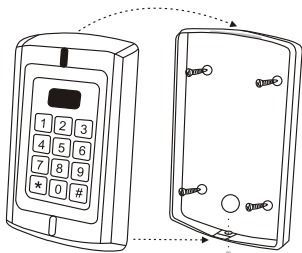


Figure 3

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

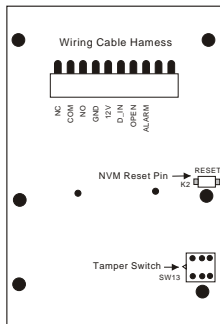


Figure 4

Wiring

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

NOTE:

Do not plug the power supply or transformer into the mains until all wiring has been completed and the front cover secured.

Terminal Wire Connector 1 Function

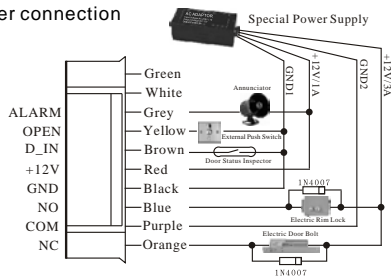
10		Green	
9		White	
8	ALARM	Grey	Alarm Switched negative when active
7	OPEN	Yellow	To Door EXIT Request Button Then Negative
6	D_IN	Brown	To Door Contact Then To Negative
5	12V	Red	(+) 12Vdc Positive Regulated Power Input
4	GND	Black	(-) Negative Regulated Power Input
3	NO	Blue	Door Strike Relay N/O
2	COM	Purple	Door Strike Relay Com
1	NC	Orange	Door Strike Relay N/C

Special power connection

Figure 5



BC-2000

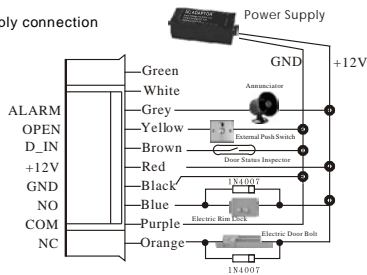


Common power supply connection

Figure 5



BC-2000



Power Up

After all wiring is complete and the unit face plate is attached to the

back plate, apply 12Vdc power to the unit. The red LED will be flashing.

Engineer Programming Mode

To enter programming mode

Press: quickly and within 5 seconds, The red and green LED will flash rapidly then slowly. If no key is pressed in 30 seconds the unit will exit programming mode. (Note: * button is the same as door 'bell' symbol button)

NOTE:

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

Changing Master Code

In engineer programming mode:

To change Master code

Press:

Upon acceptance the red & green (yellow) LED lights and stops flashing. After pressing the button the keypad will exit programming mode and the red LED will flash. Note: the master code must be 4-8 digit number.

Adding User ID Codes & Cards

To Add User cards & codes

Press: **1** **read card** **user identification number (000 to 999)** **#**

Note: the user identification must be a unique 3 digit number, this is not their access password, it is just for user ID. The keypad will automatically give each user an access password code of 1234. Each user can change the default password code later using their card.

To add more than 1 card at a time... Read the next card after inputting the 3 digit ID code for the previous card, when you have finished adding all cards press the **#** key.

Delete User Card or Cards

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

a.) Press: **2** **0000** **#** 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 option used is common to all users.

Press: **3** **00** **#** valid card only

Press: **3** **01** **#** valid card and password

Press: **3** **02** **#** valid card or password

Setting Door Output Relay Strike Time

The door relay output can be operated as either normally opened or normally closed, a maximum current of 10 amps can pass through the relay if used as normally opened or 5 amps 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** **00** **#** to disable this function (factory setting)

Press: **6** **01** **#** 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 is not closed after opening, the keypad buzzer sounds.
 b.) If the door is forced open, keypad buzzer sounds and activates the alarm signal output.

Setting Security Arrangement

There are two levels of keypad security available for the BC-2000.

Press: to read 10 invalid cards or enter 4 wrong passwords in succession, the keypad is locked for 10 minutes.

Press: to read 10 invalid cards or enter 4 wrong passwords in succession, the keypad activates buzzer and alarm signal output.

To disable this feature:

Press: 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 off the power and placing the jumper connector onto the pins 1 & 2 as per figure 2. After switching power on remove jumper, the BC-2000 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 is 1234, this can be modified so that each user has a unique individual 4 digit code.

Press:

Using Password Code to release the door

Press:

Technical Specification

DC Supply Voltage:	Low voltage input $12 \pm 10\%$ 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, 3LED status indicators
Card Types:	EM or EM compatible
Induction Distance:	5-8cm
Wiring Connections:	Electric lock
	Remote Request to Exit
	Door open detection
	External Alarm
Memory:	Non volatile eeprom memory
Operating Temperature:	0°C to 60°C (32°F to 140°F)
Keypad Housing:	Metal
Dimensions:	82mm x 128mm x 28mm
Weight:	500g

Package Listing

Name	Model No.	Qty	Remark
Digital Keypad	BC-2000	1	
User Manual	BC-2000	1	
Flat Head Screws	$\Phi 3\text{mm} \times 6\text{mm}$	1	Used for front case and back case
Wall Fixing Plug	$\Phi 6\text{mm} \times 27\text{mm}$	4	Used for fixing
Self Tapping Screws	$\Phi 3.5\text{mm} \times 27\text{mm}$	4	Used for fixing