BHD-8000 Access Control Keypad and Card Reader

Wiring Diagram

Wiring Diagram

Lock Relay Output — COM / NC / NO

AUA-COM / NC / NO — Alarm Relay Output

+12V GND PUSH/NO OPENSW DOOR1 BELL BELL AUX-IN GND +12V GND DATA0 DATA1

Power Supply +12V −
BATT
+12V
GND
PUSH
NC
NO

Fail Safe
Fail Secure

Exit Button
Door Contacts
Door Bell
Alarm Input
Wegand Connector Input

6
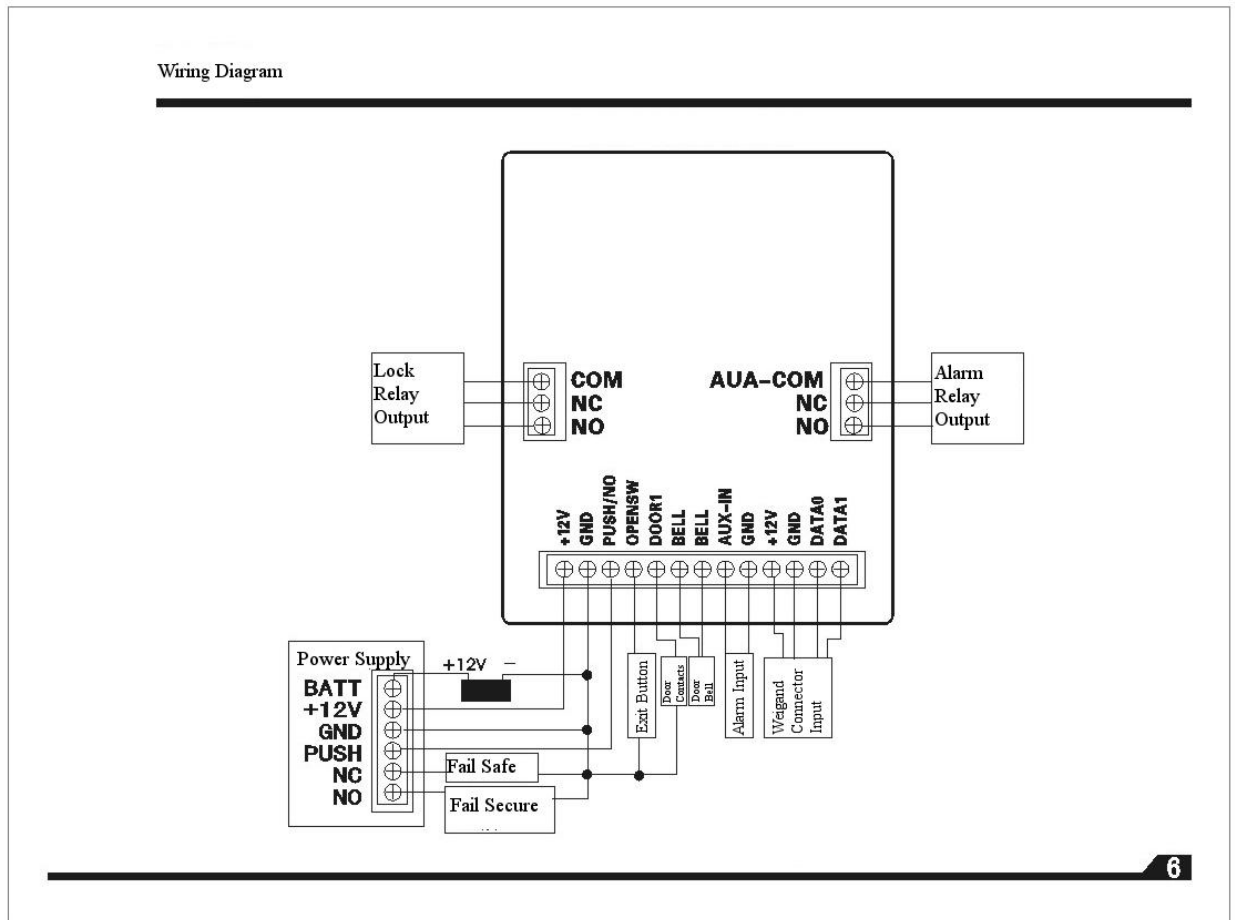
Frontal View
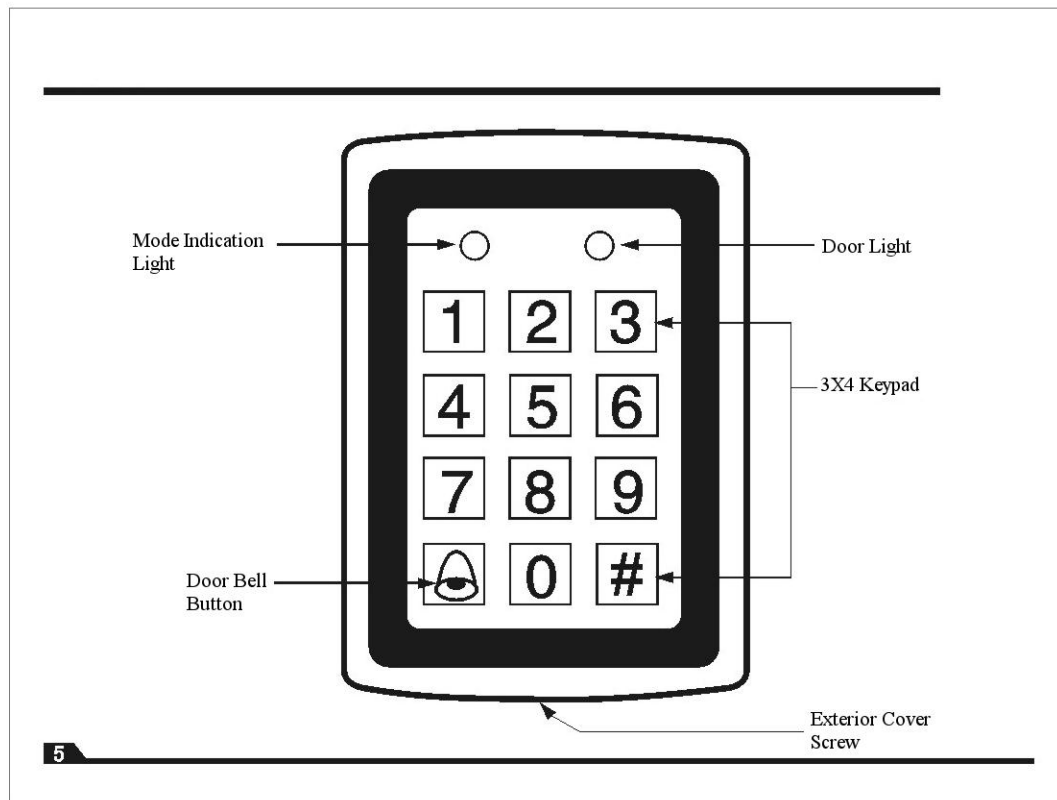
Main Technical Specifications

Item	Value
Operating Voltage	12VDC+12%/1.2A
Unlock Relay	12VDC/2A
Operating Temperature	Normal Operation: 32ºF~113ºF (0ºC~45ºC) Memory : 14ºF~131ºF (-10 ºC~55 ºC)
Relative Humidity	Normal Operation: 40%~90%RH Memory : 20%~90%RH

Max Card Capacity	1000
Password	Common ; Single ; Personal ; 1000
Internal Card Reader Proximity Frequency	ID type: 125KHz IC type: 13.56MHz
Proximity Card Compatibility	ID type: EM or EM compatible IC type: MF1 or MF1 compatible
Induction Distance	ID type : 5-15 CM IC type: 3-5CM
Electric Lock Connection	Relay or Level Output (selectable)
Exit Button	1
Door Bell Connection	1
Door Contacts Connection	1
Alarm Connection	1 (Level)
External Card Reader Connection	1 Weigand26 Connection (not applicable on certain models)

Product Factory Setting Values

Type	Factory Default Value
Programming Password	881122 (Recommend changing)
Unlock	Card or Common Password (1234)
User Personal Password	0000
Unlock Period	3 seconds
Tamper Detection Alarm	Enabled
Door Contact Alarm	Disabled
Check for door contact status when unlocking	Disabled

Alarm Delay	0 seconds
Change personal password	Disabled

Programming Operation

1. Audio and Visual Indication
1.1 Under Normal Operation Mode:
1.1.1. Valid Command: Short beep
1.1.2. Invalid Command: Long beep
  1.2. Under programming mode:
1.2.1. Green light constantly on
1.2.2. Valid Command: 2 beeps
1.2.3. Invalid Command: 3 beeps
2. Cancel incomplete command
    To cancel an incomplete, press the [#] key before completing the command
3. Function and Settings
  3.1. Enter programming mode:
    [#] + [6 digit programming code] followed by 2 beeps, default: 881122

  3.2 Changing the programming code

    [0]

    + [enter the new 6 digit programming code]

    + [re-enter the new 6 digit programming code]

3.3 Adding user cards

[5] + [enter 3 digit user code] followed by 2 beeps

+ Card 1] followed by one beep, and then 2 beeps

+ [Card 2] followed by one beep, and then 2 beeps

+……

+ [Card N] followed by one beep, and then 2 beeps

+ [#] followed by 2 beeps, adding user cards complete

3.3.1.   3 digit user code: Between 001-999. This code is important for deleting a user card when it gets lost or stolen, please make sure the administrator keep the list of user code at a safe location.

3.3.2   When adding multiple user cards, each user code increases by 1 after the preceding user card's user code. For example, if the user code 015 is entered, the next card's code will be 016 and so on and so forth.

3.3.3.   Default user code: 0000

3.4.   Deleting user card:

3.4.1.   Delete using user code

[7]

+ [enter 3 digit user code 1] followed by 2 beeps

+ [enter 3 digit user code 2] followed by 2 beeps

+…..

+ [enter 3 digit user code N] followed by 2 beeps

+ [#] followed by 2 beeps, deleting user cards complete

3.4.2.   Delete using user card

[7]

+ [swipe user card 1] followed by 1 beep, and then 2 beeps

+ [swipe user card 2] followed by 1 beep, and then 2 beeps

+…..

+ [swipe user card N] followed by 1 beep, and then 2 beeps

+ [#] followed by 2 beeps, deleting user cards complete

3.4.3.   Delete all user cards:

Please use the same method as factory reset

3.4.4.   Deleting user card will also delete the password associated with that card

3.5.   Exiting programming mode:

[#] followed by 2 beeps

3.6. Setting method of unlock

3.6.1. User card or password:

[1] + [0] followed by 2 beeps (default)

3.6.2. User card + user password: [1] + [1] followed by 2 beeps

3.7 Password

3.7.1 "User card or password" means: Each user card's personal password (max 999 user passwords) and 1 common password.

3.7.2 Disable user password change:

[1] + [2] followed by 2 beeps (default)

3.7.3 Enable user password change:

[1] + [3] followed by 2 beeps

3.7.4 Change user password: When not under programming mode

[#] long press for 3 seconds followed by 1 beep and 2 more beeps. If after pressing [#] for 3 seconds and you hear 1 beep followed by 3 more beeps, it means user password change has been disabled.

+ [user card] followed by 1 beep and then 2 more beeps

+ [enter 4 digit old password] (default 0000) followed by 2 beeps

+ [enter 4 digit new password]

+ [re-enter 4 digit new password] followed by 2 beeps

3.7.5 Change common password:

[3] + [4 digit common password] (default 1234)

Under the "User card or password" mode, common or user password of 0000 will be invalid.

3.8 Set unlock period:

[2] + [TT]

TT indicate the unlock period in seconds, for example, to set unlock period of 3 seconds, set TT as 03

3.9   Set tamper detection alarm:

5.9.1   Disable tamper detection alarm: [4] + [0]

5.9.2   Enable tamper detection alarm: [4] + [1]

3.10   Check for door contact status when unlocking :

3.10.1   Disable check for door contact status when unlocking: [6] + [1] (unlock with valid command)

3.10.2   Enable check for door contact status when unlocking: [6] + [1] (unlock with valid command and door contacts in position). This function is suitable for multi door locks, or to prevent sneaking in before the door shuts.

3.11   Door contact alarm status:

3.11.1   Disable door contact alarm: [8] + [0]

3.11.2   Enable door contact alarm: [8] + [1]. When enabled, if the door is not shut or if the door is not opened by the controller, the monitor will sound alarm in the form of long and continuous beeps.

3.12   Alarm delay time:

[82] + [TT]

TT indicates the alarm delay time in seconds. For example, TT of 03 will set the alarm delay as 3 seconds. If the door is locked after the time indicated by TT, and the door (door contacts) is not in position, the alarm will sound until the door is shut. This command needs to be used in conjunction with the door contact alarm.

4.   Factory reset:

[86] Followed by 2beeps, and then 3 more beeps. 3 more beeps will sound after 5 seconds, indicating that the controller has been reset to factory setting.

5.   Usage:

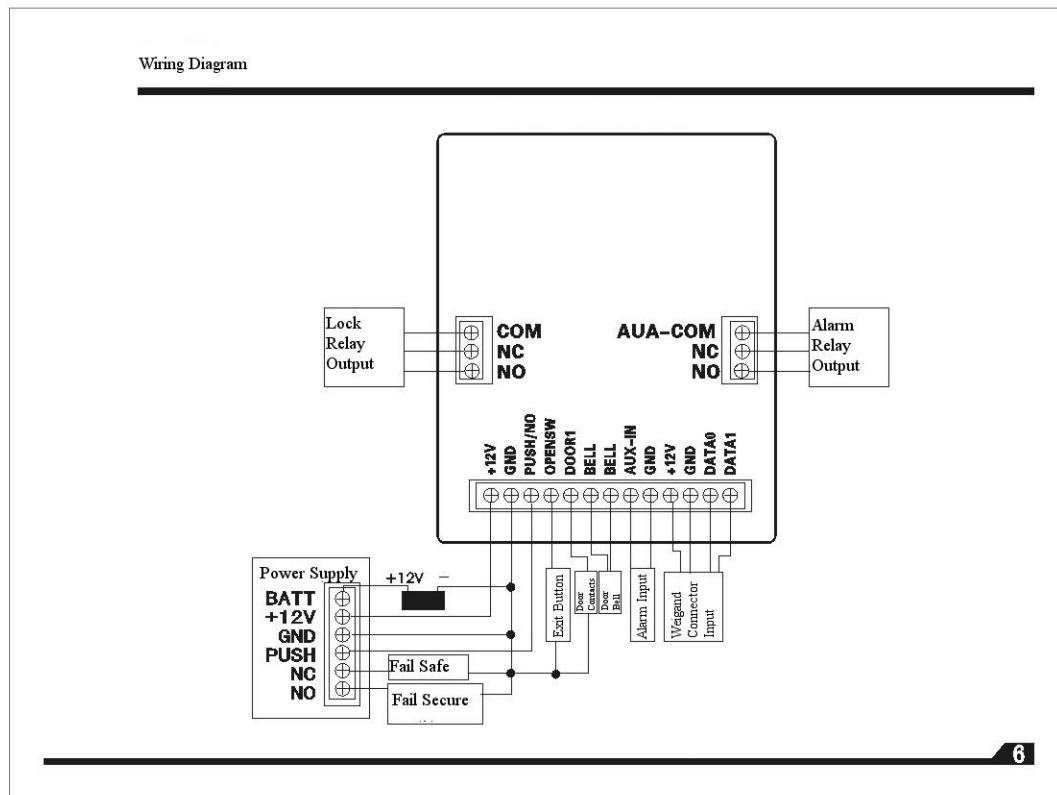5.1   "User card or password" mode:

5.1.1   Interval between entering the digitals in the password should be shorter than 2 seconds.

5.1.2   To cancel password entry, press [#] before completion of the 4 digit password.

5.2   Card and user password mode:

5.2.1   [Swipe user card] followed by 2 beeps + [user password], door unlocks

5.2.2 To make correction, press [#] before completion of the 4 digit user password, then enter the correct password.

6. Force factory password reset:

Short the J2 pins (See wiring diagram)

7. Alarm output:

Enabled if more than 1 condition below is satisfied:

1. Alarm AUX_IN low power;

2. Tamper detection alarm is enabled;

3. Door contact alarm enabled.

Wiring Diagram

8. Frequently asked questions

Symptom	Possible cause and solution
Keypad works, does not acknowledge card; 8 beeps when locking and unlocking	Insufficient DC voltage, causing the controller to malfunction. Add another DC power supply or replace with one with higher current. Re-add user cards after adding or replacing power supply.
Keypad works, short contact range or low sensitivity	1. Controller installed on metallic surface, adjust installation location 2. Insufficient power, adjust power supply
A single beep followed by 2 beeps, failure to unlock after swiping card	1. Set to card and user password mode, enter password or adjust method to open door 2. Press [#] before swiping, wait 5 seconds before swiping
A single beep, failure to unlock after swiping card	Door contacts not installed or door has not been properly shut after Check for door contact status when unlocking has been enabled. Disable Check for door contact status when unlocking or make sure the door contacts are in position.
Long beep after [#] + [programming password], does not enter programming mode	A button has been pressed before [#], continue to press and hold [#], press [#] + [programming password] after long beep.
Beep after [#], unable to change user password	A button has been pressed before [#], continue to press and hold [#], press [2] for 2 seconds after long beep and wait for (beep, followed by 2 more beeps).
[5], followed by 3 beeps	Controller has reached its max card capacity
[5] + [user code] followed by 3 beeps	This code is already in use, press [5] + [another 3 digit code to continue]
[5] + [user code] followed by 2 beeps + [user card] followed by 3 beeps	Card is already registered, user code can be assigned to another card
Inactivity under programming mode, controller exit out of programming mode	If no command is assigned for 20 seconds under programming mode, the system will exit programming mode automatically and go into

	normal operating mode.