STAND ALONE PROXIMTY ACCESS CONTROLLER OPERATION MANUAL

MODEL: HA3020

VERSION: 3.60

HEART ENTERPRISE CO. LTD.

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FEATURES

1. Proximity type reader, read range up to 10cm
2. Proximity card are less prone to physical damage or loss
3. Memory capacity store up to 5000 card holders
4. LCD display ,16 characters×2 lines with back light
5. Access mode selectable
   (1). Card data
   (2). Card data + password personal password or main password
   (3). Card data or main password
6. Anti-duress function available
7. Patrol function available
8. Security function available
9. Personal password function
10. User card can be registered /deleted in batch mode
11. Authorize card to be removed once incorrect password key-in five times consecutively.
12. Alarm to be activated once incorrect password key-in five times within four minutes.
13. Last ten transaction history records available
14. Force entry alarm function available
15. Tamper alarm function available
16. Audible key tone available
17. Strike, alarm and duress relay drive time selectable (1-255 seconds)
18. Door left open time selectable (1-255 seconds)
19. Two-piece enclosure design the reader is patted for weather and hazard proofing
20. A separate relay module design, high security provided
21. With power saver function, the back light of LCD turn of f once there minutes

SPECIFICATION

Reader range	:	Up to 70mm (EM ISO-chip card 125 KHZ)
Display	:	16 characters * 2 lines LCD with back light
Keypad	:	12 key (0-9, *, #)
Memory Buffer	:	5,000 card holders
Indicator	:	Bi-color LED (Green / Red)
Case Material	:	ABS (UL 94V-0)
Dimension	:	150 (H) * 110 (W) * 45 (D) mm
Weight	:	380 g
Working voltage	:	DC 10- 15 volts
Power Consumption	:	300mA MAX
Operating temperature	:	0℃~50℃
Humidity	:	5%~95%(condensation)

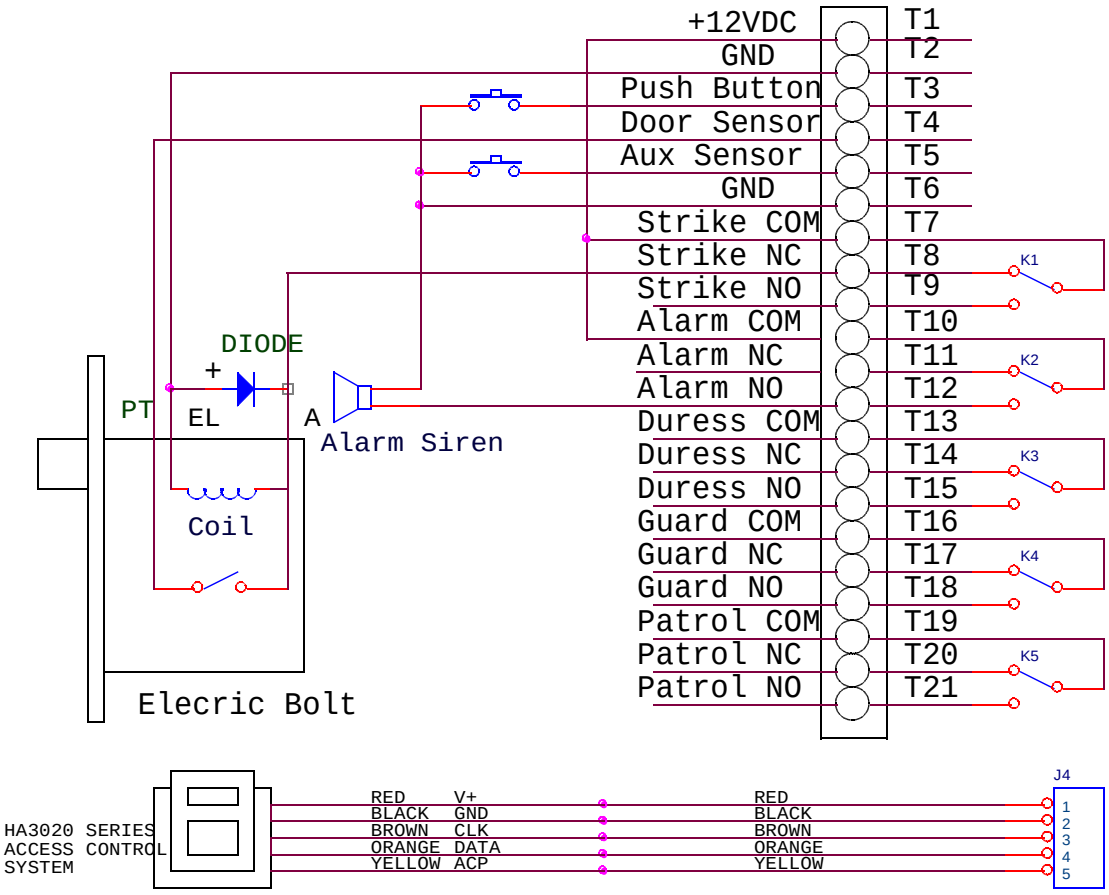
Approved : IEC 529 IP34, CE, FCC

WIRING DESCRIPTION

Color	Name	Description
Red	V+	+12VDC input from Controller
Black	GND	Ground
Brown	CLK	Clock signal to Controller
Orange	DATA	Data Signal to Controller
Yellow	ACP	AC Power failure input acknowledge from Controller. If your system wiring to HB0312 no use in this line.

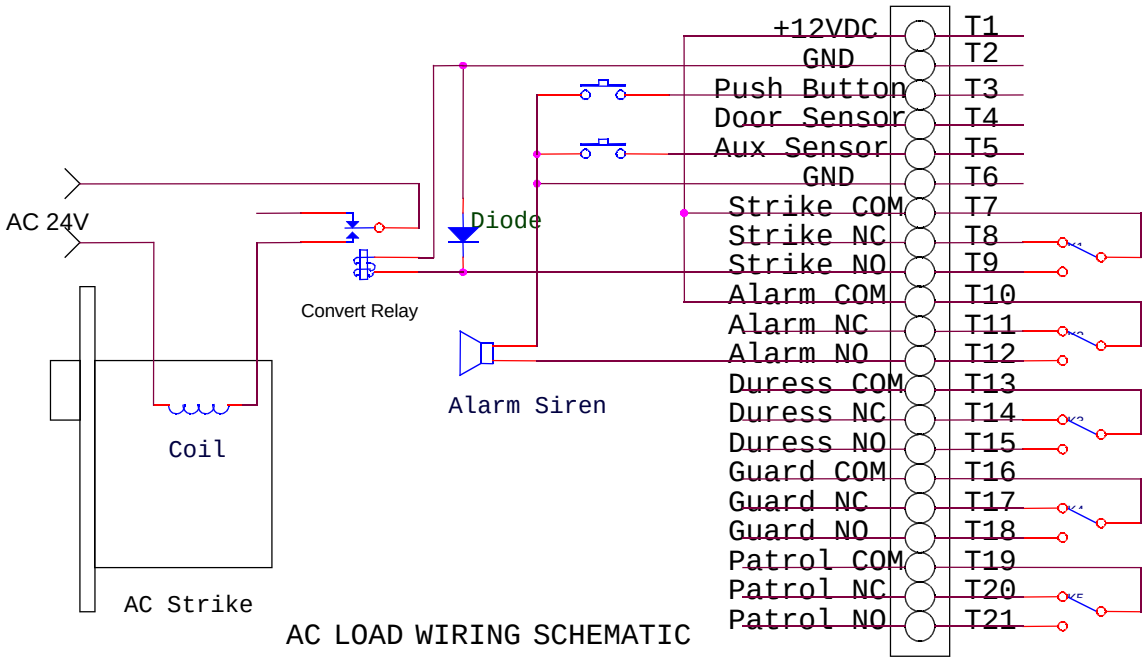
INSTALLATION

1. Wiring diagram of HA3020 to HP1506 power pack.



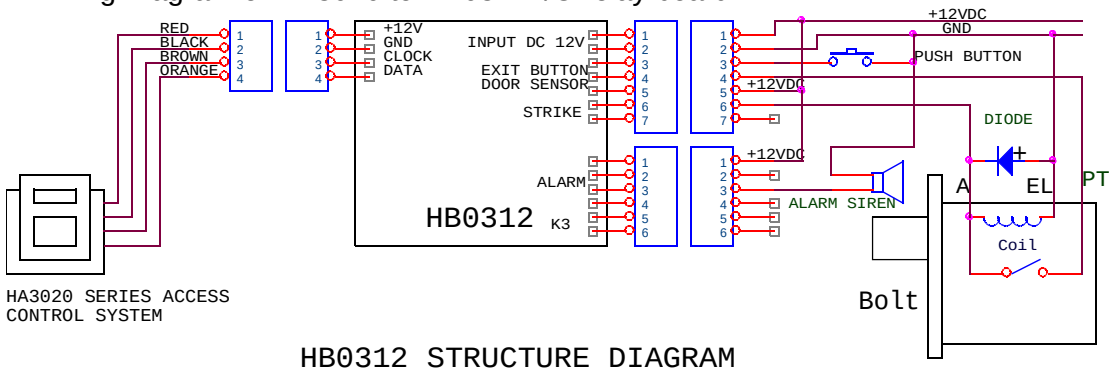
HP1506 WIRING DIAGRAM

In general, fix the power pack at the top of the door ceiling. Connect the main unit and power pack with a five-conductor strand, distant not larger then 150 meter.



AC LOAD WIRING SCHEMATIC

2. Wring Diagram of HA3020 to HB0312 I/O relay board



HB0312 STRUCTURE DIAGRAM

MAIN FUNCTION DESCRIPTION

1. Basic operation

HA3020 system use non-contact, proximity RF technology, just place the proximity card approach the main unit to access the door.

2. Access modes: three access modes selectable:

(1) Card data only ”MODE 0” --- place the card approach the main unit to access the door.

(2) Card data or with main password or personal password ”MODE 1” --- place the card approach the main unit AND then key-in the main password or personal password to access the door.
(3) Card data or main password “MODE 2” --- place the card approach the main password to access the door.

3. Enrolment

Only the authorized card to be permitted to access the door, all new card should be enrolled before used.

4.Operation anti-duress

With the anti-duress function provided, you no longer kidnap by thief. Key-in a preset code to the rear of the regular password with ‘9’, the duress relay will be activated to drive the require device, other then the door opened normally.

ACCESS MODE	PROCEDURE	LCD DISPLAY	REMARK
MODE 0	Default Display	READY FOR CARD	DC POWER ON
	Press"12349#"	CARD PLEASE	Default the main password is 1234,
	Present proximity card	WELCOME	K3 activated LED turn green
MODE 1	Present proximity card	PASSWORD:	
	Press"12349#"	WELCOME	K3 activated LED turn green
MODE 1	Press"12349#"	CARD PLEASE:	
	Present proximity card	WELCOME	K3 activated LED turn green
MODE 2	Press"12349#"	WELCOME	K3 activated LED turn green

5.ARM/DISARM

HA3020 equipped a guard relay, which can arm or disarm the connected security system. Use guard password or guard password plus card data to activate this function, and guard password or regular access procedure to deactivate this function.

6.Patrol function

This function provides the facility to monitor the watchman who patrols a

certain district. HA3020 equipped a patrol a relay which can activated the connected recording system, you cannot access the door neither use the patrol card or patrol password.

7. Locate the last ten records

The HA3020 store the last ten records in the memory use the following procedure to retrieve the necessary data.

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Review the last ten records	Default Display	READY FOR CARD	DC POWER ON
	PRESS '#'	1.CHECK CARD NO. 2.RECORD CHECK	Press '＊' to abort
	PRESS '2'	LAST 1 11223344 Press' 1 '→Scroll	
	PRESS '1'	LAST 2 11223344 Press' 1 '→Scroll	
	PRESS '#' Or time out in 15 sec	READY FOR CARD	End of operation

8. Review card data

Function provided to read the internal code of card, procedure show below.

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Review the card data	Default Display	READY FOR CARD	DC POWER ON
	PRESS '#'	1.CHECK CARD NO. 2.RECORD CHECK	Press '＊' to abort
	PRESS '1'	CARD PLEASE 000256 11223344	
	PRESS '#' Or time out in 15 sec	READY FOR CARD	End of operation

9. Version check

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Version check	Default Display	READY FOR CARD	DC POWER ON

	PRESS '#'	1.CHECK CARD NO. 2.RECORD CHECK	Press '＊' to abort
	PRESS '0'	HEART ENTERPRISE HA3020 V: 3.60	

10. Door bell function

The HA3020 including doorbell function when you install with HP1506 power pack it will active at relay K5.

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Door bell	Default Display	READY FOR CARD	DC POWER ON
	PRESS '0'	READY FOR CARD DOOR BELL ON	K5 activated

PARAMETER LISTING

The hierarchy diagram shows the relationship of each function

Main function	Function 1	Function 2	Function 3	Function 4	Function 5
1.ENROL	1.ACCESS CARD	1.S-ADD 2.S-DEL 3.B-ADD 4.B-DEL			
	2.PATROL CARD	1.S-ADD 2.S-DEL			
2.PASSWD	1.MASTER 2.MAIN 3.PATROL 4.GUARD				
3.TIMER	1.STRIKE 2.ALARM 3.DURESS 4.DB				
4.SYSTEM	1.ALARM	1.TAMPER			
		2.FORCE			
		3.D-OPEN	1.FUNCTION 2.K2 ACTIVE		
		4.P-ERR			
	2.FORMAT	1.DELETE LOT NO 2.CHANGE			

		FORMAT			
	3.MODE	1.ACCESS MODE			
		2.DI MODE	1.EXIT BUTTON 2.DOOR 3.PAUSE		
		3.READER			
		4.RESET			
	4.OTHER	1.TONE			
		2.PIN			
		3.DURESS			
		4.MORE	1.GUARD	1.FUNCTION	
				2.ARM	
				3.DISARM	1.CARD USE 2.STRIKE ACTIVE
			2.PATROL		
			3.PAUSE		
			4.A-DEL		

PARAMETER SETTING

1. Enrollment

Only the authorized card to be permitted to access the door; all new cards should be enrolled before used. There are two categories: the access card which to be used to access the door, up to 5000 cards can be stored and put into operation; the patrol card use to monitor the watchmen who patrol a certain district, more then 20 cards to be assigned neither patrol card or patrol password can not access the door. Other then enrolls the card one by one, HA3020orivuded a batch mode operation to simplify the procedure, just key-in the code of first and the total number of cards only. The code of cards should be connected series. Example:

13480008
13480009
13480010
13480011
13480012

Add a new card (access card in MODE 0&2)

The following example assume the master code as "111111" (factory default) and no card in the memory.

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Add a new card in access MODE0&2	Default Display	READY FOR CARD	DC POWER ON
	PRESS ’111111#’	1.ENROLL 2.PASSWD 3.TIMER 4.SYSTEM	Default master code’111111’
	PRESS ’1’	1.ACCESS CARD 2.PATROL CARD	
	PRESS ‘1’	1.S_ADD 2.S_DEL 3.B_ADD 4.B_DEL	
	PRESS ‘1’	AMOUNT :0 CARD NO.:	
	Present proximity card	AMOUNT: 1 CARD NO.: 13480008	
	PRESS ‘#’ Or time out in 15 sec	READY FOR CARD	End of operation

Add a new card (access card in MODE 1)

The following example assume the master code as "111111" (factory default) and no card data in the memory. You need to enable PIN function before enroll a new card in access mode 1.

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Enable PIN function in access MODE 1	Default Display	READY FOR CARD	DC POWER ON
	PRESS ’111111#’	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code’111111’
	PRESS ’4’	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS ‘4’	1.TONE 2.PIN 3.DURESS 4.MORE	
	PRESS ‘2’	CURRENT: DISABLE Press’1’→ Change	
	PRESS ‘1’	CURRENT: ENABLE Press’1’→ Change	Enable PIN function
	PRESS ‘#’	READY FOR CARD	
Add a new card in access MODE 1		READY FOR CARD	DC POWER ON

	PRESS ’111111#’	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code’111111’
	PRESS ’1’	1.ACCESS CARD 2.PATROL CARD	
	PRESS ‘1’	1.S_ADD 2.S_DEL 3.B_ADD 4.B_DEL	
	PRESS ‘1’	AMOUNT :0 CARD NO.:	
	Present proximity card	AMOUNT: 1 CARD NO.: 13480008	
		Amount: 1 PASSWORD:	
	PRESS ‘1666’	Amount: 1 PASSWORD: 1666	
	PRESS ‘#’ Or time out in 15 sec	READY FOR CARD	End of operation

Add the cards in batch mode

Example: the cards to be enrolled from 13480001 to 13480007 in batch mode.

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Add new card in batch mode	Default Display	READY FOR CARD	DC POWER ON
	PRESS ’111111#’	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code’111111’
	PRESS ’1’	1.ACCESS CARD 2.PATROL CARD	
	PRESS ‘1’	1.S_ADD 2.S_DEL 3.B_ADD 4.B_DEL	
	PRESS ‘3’	AMOUNT: 0 CARD NO.:	
	Present proximity card	CARD NO.: 13480001 TOTAL:	
	PRESS ‘7’	CARD NO.: 13480001 TOTAL: 7	
		Processing…7	Count down from 7 to 1
		1.S_ADD 2.S_DEL 3.B_ADD 4.B_DEL	
	PRESS ‘#’ Or time out in 15 sec	READY FOR CARD	End of operation

Delete a cards data
The following example assume the master code as "111111"(factory default), 7 cards pre-enrolled already.

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Delete a card data	Default Display	READY FOR CARD	DC POWER ON
	PRESS ’111111#’	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code’111111’
	PRESS ’1’	1.ACCESS CARD 2.PATROL CARD	
	PRESS ‘1’	1.S_ADD 2.S_DEL 3.B_ADD 4.B_DEL	
	PRESS ‘2’	AMOUNT: 7 CARD NO.:	
	Present proximity card	AMOUNT: 7 CARD NO.: 13480001	
		AMOUNT: 6 CARD NO.:	
	PRESS ‘#’ Or time out in 15 sec	READY FOR CARD	End of operation

Delete the cards in batch mode
The following example assume the master code as "111111"(factory default), 7 cards pre-installed already .The cards to be input from 13480001 to 13480007, seven cards total

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Delete card data in batch mode	Default Display	READY FOR CARD	DC POWER ON
	PRESS ’111111#’	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code’111111’
	PRESS ’1’	1.ACCESS CARD 2.PATROL CARD	
	PRESS ‘1’	1.S_ADD 2.S_DEL 3.B_ADD 4.B_DEL	
	PRESS ‘4’	AMOUNT: 7 CARD NO.:	

	Present proximity card	CARD NO.: 13480001 TOTAL:	
	PRESS '7'	CARD NO.: 13480001 TOTAL: 7	
		Processing…7	Count down from 7 to 1
		1.S_ADD 2.S_DEL 3.B_ADD 4.B_DEL	
	PRESS '#' Or time out in 15 sec	READY FOR CARD	End of operation

Add the patrol card

This example assume the master code as "111111" (factory default) and zero card data in the memory:

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Add a new patrol card	Default Display	READY FOR CARD	DC POWER ON
	PRESS '111111#'	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code'111111'
	PRESS '1'	1.ACCESS CARD 2.PATROL CARD	
	PRESS '1'	1.S_ADD 2.S_DEL 3.B_ADD 4.B_DEL	
	PRESS '1'	AMOUNT :0 CARD NO.:	
	Present proximity card	AMOUNT: 1 CARD NO.: 13480008	
	PRESS '#' Or time out in 15 sec	READY FOR CARD	End of operation

Delete a patrol card

The following example assume the master code as "111111" (factory default) eight cards enrolled already:

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Delete a card data	Default Display	READY FOR CARD	DC POWER ON
	PRESS '111111#'	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code'111111'

	PRESS '1'	1.ACCESS CARD 2.PATROL CARD	
	PRESS '2'	1.S_ADD 2.S_DEL 3.B_ADD 4.B_DEL	
	PRESS '2'	AMOUNT: 8 CARD NO.:	
	Present proximity card	AMOUNT: 8 CARD NO.: 13480001	
		AMOUNT: 7 CARD NO.:	
	PRESS '#' Or time out in 15 sec	READY FOR CARD	End of operation

2. Password Setting

Master password

In order to protect the internal parameter of the device, a master code is required when you want to change some parameter inside, factory default is "111111", you can change the code through the following procedure:

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Master password	Default Display	READY FOR CARD	DC POWER ON
	PRESS '111111#'	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code'111111'
	PRESS '2'	1.MASTER 2.MAIN. 3.PATROL 4.GUARD	
	PRESS '1'	CURRENT: 111111 NEW:	
	PRESS '123456'	CURRENT: 111111 NEW: ＊＊＊＊＊＊	
	PRESS '#' Or time out in 15 sec	READY FOR CARD	End of operation

Main password

The main password (4 digits) used as a access code to access the door during the second (card data plus password) access mode (MODE 1) default is "1234", you can change the code through the following procedure:

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Main password	Default Display	READY FOR CARD	DC POWER ON

	PRESS ’111111#’	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code’111111’
	PRESS ’2’	1.MASTER 2.MAIN. 3.PATROL 4.GUARD	
	PRESS ‘2’	CURRENT: 1234 NEW:	
	PRESS ‘5678’	CURRENT: 1234 NEW: ＊＊＊＊	
	PRESS ‘#’ Or time out in 15 sec	READY FOR CARD	End of operation

Patrol password

The patrol password can be used to activated the equipped patrol relay (3 seconds) factory default is " 1234567”, you can change the code through the following procedure:

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Patrol password	Default Display	READY FOR CARD	DC POWER ON
	PRESS ’111111#’	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code’111111’
	PRESS ’2’	1.MASTER 2.MAIN. 3.PATROL 4.GUARD	
	PRESS ‘3’	CURRENT: 1234567 NEW:	
	PRESS ‘7654321’	CURRENT: 1234567 NEW: ＊＊＊＊＊＊＊	
	PRESS ‘#’ Or time out in 15 sec	READY FOR CARD	End of operation

Guard password

The Guard password (3 digits) can be bused to arm or disarm the connected security system, factory default is "123" you can changed the code through the following procedure:

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Guard password	Default Display	READY FOR CARD	DC POWER ON
	PRESS ’111111#’	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code’111111’

	PRESS ’2’	1.MASTER 2.MAIN. 3.PATROL 4.GUARD	
	PRESS ‘4’	CURRENT: 1234 NEW:	
	PRESS ‘321’	CURRENT: 123 NEW: ＊＊＊	
	PRESS ‘#’ Or time out in 15 sec	READY FOR CARD	End of operation

3. **Relay Time Setting**

NOTICE: In order to protect the connected equipment, please consult the technical people before adjust these following function.

Strike active time

This relay connected to the electric once somebody accesses the door. The active time depends on the characteristic of the strike.
Please consult the technical people before adjust the relay time:

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Strike time delay	Default Display	READY FOR CARD	DC POWER ON
	PRESS ’111111#’	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code’111111’
	PRESS ’3’	1.STRIKE 2.ALARM 3.DURESS 4.DB	
	PRESS ‘1’	CURRENT: 5 SEC NEW:	
	PRESS ‘10#’	CURRENT: 5 SEC NEW: 10	
	PRESS ‘#’	CURRENT: 10 SEC NEW:	
	PRESS ‘#’ Or time out in 15 sec	READY FOR CARD	End of operation

Alarm active time

The alarm relay can be activated by the following event:

1. Front panel destroyed by vandal
2. Forced entry
3. Door opened over the preset time
4. Incorrect password input five time

Please consult the technical people before adjust the relay time:

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Alarm time delay	Default Display	READY FOR CARD	DC POWER ON
	PRESS ’111111#’	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code’111111’
	PRESS ’3’	1.STRIKE 2.ALARM 3.DURESS 4.DB	
	PRESS ‘2’	CURRENT: 5 SEC NEW:	
	PRESS ‘10#’	CURRENT: 5 SEC NEW: 10	
	PRESS ‘#’	CURRENT: 10 SEC NEW:	
	PRESS ‘#’ Or time out in 15 sec	READY FOR CARD	End of operation

Anti-duress active time

In general this relay connected to the alarm system, which for away the scene, For example, the building management office, police, station. Etc. Please consult the technical people before adjust the relay time:

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Anti-duress active time delay	Default Display	READY FOR CARD	DC POWER ON
	PRESS ’111111#’	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code’111111’
	PRESS ’3’	1.STRIKE 2.ALARM 3.DURESS 4.DB	
	PRESS ‘3’	CURRENT: 5 SEC NEW:	
	PRESS ‘10#’	CURRENT: 5 SEC NEW: 10	
	PRESS ‘#’	CURRENT: 10 SEC NEW:	
	PRESS ‘#’ Or time out in 15 sec	READY FOR CARD	End of operation

An interval time of door left open (AJAR)

In general, the door could be closed within a preset time; otherwise the alarm system

will be activated. Please consult the technical people before adjust the relay time.

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
AJAR time setting	Default Display	READY FOR CARD	DC POWER ON
	PRESS '111111#'	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code'111111'
	PRESS '3'	1.STRIKE 2.ALARM 3.DURESS 4.DB	
	PRESS '4'	CURRENT: 5 SEC NEW:	
	PRESS '10#'	CURRENT: 5 SEC NEW: 10	
	PRESS '#'	CURRENT: 10 SEC NEW:	
	PRESS '#' Or time out in 15 sec	READY FOR CARD	End of operation

4. **System Setting**

To set up the following function through this sub-menu:

1. Enable or disable the alarm function that activated from difference reason.
2. Select the cards' formal
3. Access mode selection
4. Others (key tone, personal password, duress function selection…etc)

Tamper alarm enable setting

HA3020 equipped a tamper switch for vandal resistance, use the following procedures to Enable this function if require:

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Tamper alarm enable setting	Default Display	READY FOR CARD	DC POWER ON
	PRESS '111111#'	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code'111111'
	PRESS '4'	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS '1'	1.TAMPER 2.FORCE 3.D_OPEN 4.P_ERR	
	PRESS '1'	CURRENT: DISABLE Press'1'→ Change	

	PRESS '1'	CURRENT: ENABLE Press'1'→ Change	
	PRESS '#' Or time out in 15 sec	READY FOR CARD	End of operation

Force entry setting (Enable / Disable)

The alarm will be activated when entry by force without regular access, card data or password, use the following procedures to enable this function if require:

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Force entry enable setting	Default Display	READY FOR CARD	DC POWER ON
	PRESS '111111#'	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code'111111'
	PRESS '4'	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS '1'	1.TAMPER 2.FORCE 3.D_OPEN 4.P_ERR	
	PRESS '2'	CURRENT: DISABLE Press'1'→ Change	
	PRESS '1'	CURRENT: ENABLE Press'1'→ Change	
	PRESS '#' Or time out in 15 sec	READY FOR CARD	End of operation

Door not close within a present time alarm (Enable/Disable)

The alarm will be activated when the door could not close within a preset time, use the following procedures to Enable this function if require.

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
AJAR function enable setting	Default Display	READY FOR CARD	DC POWER ON
	PRESS '111111#'	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code'111111'
	PRESS '4'	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS '1'	1.TAMPER 2.FORCE 3.D_OPEN 4.P_ERR	
	PRESS '3'	1.FUNCTION 2.K2 ACTIVE	

	PRESS '1'	CURRENT: DISABLE Press'1'→ Change	
	PRESS '1'	CURRENT: ENABLE Press'1'→ Change	
	PRESS '#' Or time out in 15 sec	READY FOR CARD	End of operation

Alarm relay to be activated when door not closed within a preset time

The built-in buzzer will activate, a "door opened" message shown on LCD when door would not closed within a present time. Enable this function in if external alarm is required.

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
AJAR relay enable setting	Default Display	READY FOR CARD	DC POWER ON
	PRESS '111111#'	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code'111111'
	PRESS '4'	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS '1'	1.TAMPER 2.FORCE 3.D_OPEN 4.P_ERR	
	PRESS '3'	1.FUNCTION 2.K2 ACTIVE	
	PRESS '2'	CURRENT: DISABLE Press'1'→ Change	
	PRESS '1'	CURRENT: ENABLE Press'1'→ Change	
	PRESS '#' Or time out in 15 sec	READY FOR CARD	End of operation

Alarm activated when incorrect password key-in five times within four minutes

Use the following procedure to Enable or Disable this function:

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Pin error alarm enable setting	Default Display	READY FOR CARD	DC POWER ON
	PRESS '111111#'	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code'111111'
	PRESS '4'	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS '1'	1.TAMPER 2.FORCE 3.D-OPEN 4.P-ERR	

	PRESS '4'	CURRENT: DISABLE Press'1'→ Change	
	PRESS '1'	CURRENT: ENABLE Press'1'→ Change	
	PRESS '#' Or time out in 15 sec	READY FOR CARD	End of operation

Delete lot number

If 40 Bits format selected (refer to section "Change Format" HA3020 store the whole effective length in to two parts, the higher bit group (16Bits) and lower bit group (24Bits) Use the following procedures to delete the higher bit group if require

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Card lot number delete setting	Default Display	READY FOR CARD	DC POWER ON
	PRESS '111111#'	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code'111111'
	PRESS '4'	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS '2'	1.DELETE LOT NO 2.CHANGE FORMAT	
	PRESS '1'	AMOUNT: 2 LOT NO.:	
	Present would like to delete card	AMOUNT: 1 LOT NO.:	
	PRESS '#' Or time out in 15 sec	READY FOR CARD	End of operation

Change card format

The effective bit length of proximity card is 40Bits, the sample to take by HA3020 are as follows:

1. Lower 24 Bits only (Factory default)
2. 2.whole 24Bits

More then sixteen million combination staff no be used when lower 24 Bits to be selected. Use the following procedures to adjust the standard.

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Change card format	Default Display	READY FOR CARD	DC POWER ON
	PRESS '111111#'	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code'111111'

	PRESS ’4’	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS ’2’	1.DELETE LOT NO 2.CHANGE FORMAT	
	PRESS ‘2’	CURRENT: 24 BITS Press’1’→ Change	
	PRESS ‘1’	CURRENT: 40 BITS Press’1’→ Change	
	PRESS ‘#’ Or time out in 15 sec	READY FOR CARD	End of operation

Door access mode selection

HA3020 has three-access mode selection

1. Card data only (Mode 0)
2. Card data plus password; main password or personal password (Mode 1)
3. Card data or main password (Mode 2)

Choose the second when higher security requires; use the following procedure to make your selection:

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Door access MODE 1 selection	Default Display	READY FOR CARD	DC POWER ON
	PRESS ’111111#’	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code’111111’
	PRESS ’4’	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS ’3’	1.ACCMOD2.DI_M 3.READER 4.RESET	
	PRESS ‘1’	CURRENT: MODE 0 Press’1’→ Change	Default Mode 0
	PRESS ‘1’	CURRENT: MODE 1 Press’1’→ Change	
	PRESS ‘#’ Or time out in 15 sec	READY FOR CARD	End of operation

Polarity of three input point selection

HA3020 provides three input points which function show as following:

1. Egress button point
2. Door state detection point
3. Pause control point

The polarity of these point can be changed when require (NO→ normal open ; NC→ normal close)

Polarity of egress button selection (NC/NO)

The following example assume the master code as “111111”, egress button point as “NO” state (factory default)

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Egress button polarity selection	Default Display	READY FOR CARD	DC POWER ON
	PRESS ’111111#’	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code’111111’
	PRESS ’4’	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS ’3’	1.ACCMOD2.DI_M 3.READER 4.RESET	
	PRESS ’2’	1.EXIT BUTTON 2.DOOR 3. PAUSE	
	PRESS ‘1’	CURRENT: NO Press’1’→ Change	
	PRESS ‘1’	CURRENT: NC Press’1’→ Change	
	PRESS ‘#’ Or time out in 15 sec	READY FOR CARD	End of operation

Polarity of door detector selection (NC/NO)

The following example assume the master code as “111111”door detector point as “NO” state (factory default)

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Door sensor polarity selection	Default Display	READY FOR CARD	DC POWER ON
	PRESS ’111111#’	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code’111111’
	PRESS ’4’	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS ’3’	1.ACCMOD2.DI_M 3.READER 4.RESET	
	PRESS ’2’	1.EXIT BUTTON 2.DOOR 3. PAUSE	

	PRESS '2'	CURRENT: NO Press'1'→ Change	
	PRESS '1'	CURRENT: NC Press'1'→ Change	
	PRESS '#' Or time out in 15 sec	READY FOR CARD	End of operation

Polarity of pause contact selection (NC/NO)

The following example assume the master code as "111111" pause contact point as "NO" state (factory default):

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Door sensor polarity selection	Default Display	READY FOR CARD	DC POWER ON
	PRESS '111111#'	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code'111111'
	PRESS '4'	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS '3'	1.ACCMOD2.DI_M 3.READER 4.RESET	
	PRESS '2'	1.EXIT BUTTON 2.DOOR 3. PAUSE	
	PRESS '3'	CURRENT: NO Press'1'→ Change	
	PRESS '1'	CURRENT: NC Press'1'→ Change	
	PRESS '#' Or time out in 15 sec	READY FOR CARD	End of operation

Reader format selection

HA3020 can be changed proximity reader to HID 26 bits format wiegand reader setting as following example assume the master code as "111111" pause contact point as "NO" state (factory default):

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Reader format selection	Default Display	READY FOR CARD	DC POWER ON
	PRESS '111111#'	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code'111111'

	PRESS ’4’	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS ’3’	1.ACCMOD2.DI_M 3.READER 4.RESET	
	PRESS ‘3’	CURRENT: HEART Press’1’→ Change	
	PRESS ‘1’	CURRENT: HID_W26 Press’1’→ Change	
	PRESS ‘#’ Or time out in 15 sec	READY FOR CARD	End of operation

Clear all of stored card data

NOTICE: In order to protect the connected equipment, please consult the technical people before adjust this function.

If you have to clear all of stored card data setting as following example assume the master code as “111111” pause contact point as “NO” state (factory default):

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Clear all stored card data	Default Display	READY FOR CARD	DC POWER ON
	PRESS ’111111#’	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code’111111’
	PRESS ’4’	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS ’3’	1.ACCMOD2.DI_M 3.READER 4.RESET	
	PRESS ‘4’	PRESS 1 TO RESET UNIT	
	PRESS ‘1’	PASSWORD:	
	PRESS ’111111#’	PRESS 1 TO RESET UNIT	Default master code’111111’
	PRESS ‘1’	EEPROM EARSING	
		READY FOR CARD	End of operation

Beeper sound of keys selection (Enable / Disable)

A beeper sound comes out when a key being pressed (factory default → enable), use the following procedure to disable this function when require:

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK

Beeper tone enable	Default Display	READY FOR CARD	DC POWER ON
	PRESS ’111111#’	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code’111111’
	PRESS ’4’	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS ’4’	1.TONE 2.PIN 3.DURESS4.MORE	
	PRESS ‘1’	CURRENT: DISABLE Press’1’→ Change	
	PRESS ‘1’	CURRENT: ENABLE Press’1’→ Change	
	PRESS ‘#’ Or time out in 15 sec	READY FOR CARD	End of operation

Personal password function selection (Enable / Disable)

The personal password to be used in the second access mode 2 in which means card data with password.

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
PIN function enable	Default Display	READY FOR CARD	DC POWER ON
	PRESS ’111111#’	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code’111111’
	PRESS ’4’	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS ’4’	1.TONE 2.PIN 3.DURESS4.MORE	
	PRESS ‘2’	CURRENT: DISABLE Press’1’→ Change	
	PRESS ‘1’	CURRENT: ENABLE Press’1’→ Change	
	PRESS ‘#’ Or time out in 15 sec	READY FOR CARD	End of operation

Anti-Duress function selection (Enable / Disable)

The following example assume the master code as "111111”, anti-duress function as Disable state (factory default), use the procedures below to enable this function:

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK

Anti-Duress function enable	Default Display	READY FOR CARD	DC POWER ON
	PRESS ’111111#’	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code’111111’
	PRESS ’4’	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS ’4’	1.TONE 2.PIN 3.DURESS4.MORE	
	PRESS ‘3’	CURRENT: DISABLE Press’1’→ Change	
	PRESS ‘1’	CURRENT: ENABLE Press’1’→ Change	
	PRESS ‘#’ Or time out in 15 sec	READY FOR CARD	End of operation

Guard function selection (Enable / Disable)

HA3020 equipped a guard relay to activate the connected security system. Use the following procedures to enable this function if require:

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Guard function enable	Default Display	READY FOR CARD	DC POWER ON
	PRESS ’111111#’	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code’111111’
	PRESS ’4’	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS ’4’	1.TONE 2.PIN 3.DURESS4.MORE	
	PRESS ’4’	1.GUARD 2.PATROL 3.PAUSE 4.A_DEL	
	PRESS ’1’	1.FUNCTION 2.ARM 3.DISARM	
	PRESS ‘1’	CURRENT: DISABLE Press’1’→ Change	
	PRESS ‘1’	CURRENT: ENABLE Press’1’→ Change	
	PRESS ‘#’ Or time out in 15 sec	READY FOR CARD	End of operation

Card plus password to activate (ARM) guard function selection (Enable / Disable)

To active (ARM) the security system within the guard password or guard password with card data (any registered access card) to use the following procedures to

enable this function for higher security reason:

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
ARM function enable	Default Display	READY FOR CARD	DC POWER ON
	PRESS ’111111#’	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code’111111’
	PRESS ’4’	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS ’4’	1.TONE 2.PIN 3.DURESS4.MORE	
	PRESS ’4’	1.GUARD 2.PATROL 3.PAUSE 4.A_DEL	
	PRESS ’1’	1.FUNCTION 2.ARM 3.DISARM	
	PRESS ‘2’	CURRENT: DISABLE Press’1’→ Change	
	PRESS ‘1’	CURRENT: ENABLE Press’1’→ Change	
	PRESS ‘#’ Or time out in 15 sec	READY FOR CARD	End of operation

Card with password to deactivate (Disarm) guard function selection (Enable / Disable)

In general, use guard password to deactivate (Disarm) the connected security system. Enable this function if higher security required, HA3020 will ask guard password and one registered access card at that moment.

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
DISARM card function enable	Default Display	READY FOR CARD	DC POWER ON
	PRESS ’111111#’	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code’111111’
	PRESS ’4’	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS ’4’	1.TONE 2.PIN 3.DURESS4.MORE	
	PRESS ’4’	1.GUARD 2.PATROL 3.PAUSE 4.A_DEL	
	PRESS ’1’	1.FUNCTION 2.ARM 3.DISARM	

	PRESS '3'	1.CARD USE 2.STRIKE ACTIVE	
	PRESS '1'	CURRENT: DISABLE Press'1'→ Change	
	PRESS '1'	CURRENT: ENABLE Press'1'→ Change	
	PRESS '#' Or time out in 15 sec	READY FOR CARD	End of operation

A regular access to deactivate (Disarm) Guard function selection (Enable / Disable)
Except the guard password, make a regular access to deactivate (Disarm) the connected security system, just use the registered access card to access to which is usually alone.

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
DISARM strike enable	Default Display	READY FOR CARD	DC POWER ON
	PRESS '111111#'	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code'111111'
	PRESS '4'	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS '4'	1.TONE 2.PIN 3.DURESS4.MORE	
	PRESS '4'	1.GUARD 2.PATROL 3.PAUSE 4.A_DEL	
	PRESS '1'	1.FUNCTION 2.ARM 3.DISARM	
	PRESS '3'	1.CARD USE 2.STRIKE ACTIVE	
	PRESS '2'	CURRENT: DISABLE Press'1'→ Change	
	PRESS '1'	CURRENT: ENABLE Press'1'→ Change	
	PRESS '#' Or time out in 15 sec	READY FOR CARD	End of operation

Patrol function selection (Enable / Disable)
To monitor the watchmen who patrol a certain district, HA3020 equipped a patrol relay to activate the connected time recording system. Use the following procedures

to enable this function if require:

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Patrol function enable	Default Display	READY FOR CARD	DC POWER ON
	PRESS ’111111#’	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code’111111’
	PRESS ’4’	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS ’4’	1.TONE 2.PIN 3.DURESS4.MORE	
	PRESS ’4’	1.GUARD 2.PATROL 3.PAUSE 4.A_DEL	
	PRESS ‘2’	CURRENT: DISABLE Press’1’→ Change	
	PRESS ‘1’	CURRENT: ENABLE Press’1’→ Change	
	PRESS ‘#’ Or time out in 15 sec	READY FOR CARD	End of operation

Pause function selection (Enable / Disable)

When the third input point (DI-3) and GND make a close loop, HA3020 will not accept any instruction, and keep in pause state until DI-3 and GND points released. Enable this function if require:

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Patrol function enable	Default Display	READY FOR CARD	DC POWER ON
	PRESS ’111111#’	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code’111111’
	PRESS ’4’	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS ’4’	1.TONE 2.PIN 3.DURESS4.MORE	
	PRESS ’4’	1.GUARD 2.PATROL 3.PAUSE 4.A_DEL	
	PRESS ‘3’	CURRENT: DISABLE Press’1’→ Change	

	PRESS '1'	CURRENT: ENABLE Press'1'→ Change	
	PRESS '#' Or time out in 15 sec	READY FOR CARD	End of operation

Remove card function selection when incorrect password key-in five times consecutively (Enable / Disable)

HA3020 will delete the associate access card once incorrect password key-in more then five times. Use the following procedures to enable this function if require.

FUNCTION	PROCEDURE	LCD DISPLAY	REMARK
Patrol function enable	Default Display	READY FOR CARD	DC POWER ON
	PRESS '111111#'	1.ENROLL 2.PASSWD. 3.TIMER 4.SYSTEM	Default master code'111111'
	PRESS '4'	1.ALARM 2.FORMAT 3.MODE 4.OTHER	
	PRESS '4'	1.TONE 2.PIN 3.DURESS4.MORE	
	PRESS '4'	1.GUARD 2.PATROL 3.PAUSE 4.A_DEL	
	PRESS '4'	CURRENT: DISABLE Press'1'→ Change	
	PRESS '1'	CURRENT: ENABLE Press'1'→ Change	
	PRESS '#' Or time out in 15 sec	READY FOR CARD	End of operation

FACTORY DEFAULT LIST

Description	Factory Default
Access mode	Mode 2 (Card data or password)
Effective bits	24 Bits (HEART format)
Master code	111111
Anti-duress function	Disable
Patrol function	Disable
Guard function	Disable

Tamper alarm	Disable
Force entry alarm	Disable
Door left open alarm (AJAR)	Disable
Alarm relay activated of door left open	Disable
Incorrect password key-in five times	Disable
Auto delete card of incorrect password key-in five times	Disable
Personal password function	Disable
Beeper key tone	Enable
Door relay active when door left open more then the preset time	20 seconds
Anti-duress relay active time	10 seconds
Alarm relay active time	10 seconds
Strike relay active time	10 seconds
Patrol relay active time	3 seconds

ERROR/ALARM MESSAGE

With self-diagnosis function, HA3020 provides some error message for your further Information. Please consult technical people when require:

【 E01】INVALID LOT NO
The effective bit length of proximity card is 40 bits, the sample to take by HA3020 are as follow:

1. Lower 24 bits only (Factory default)
2. Whole 40 bits

The error message E01 indicates that the higher sampling data (16 bits) was deleted.

【 E02】INVALID PASSWORD
For the second (card data + password) or third (card data or password) access mode selected, you are requested to input the password when enter the door. The error message E02 indicates that the incorrect password being used.

【E04】INVALID CARD
All proximity cards should be registered before being used to enter the door.

The error message E04 indicates that the card has not recorded.