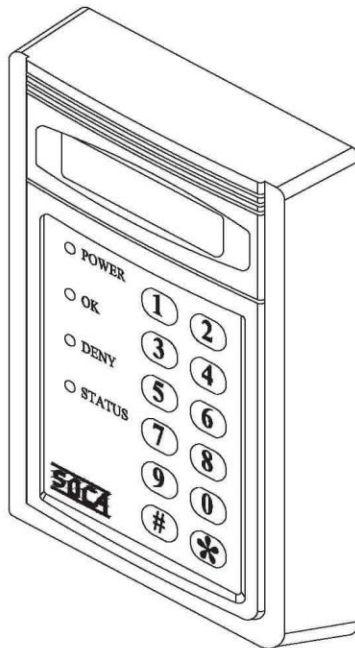




ST-660 Series

PROXIMITY ACCESS CONTROL SYSTEM OPERATION AND INSTALLATION MANUAL



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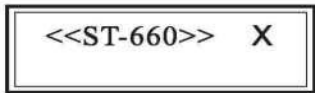
CONTENTS

I SPECIAL FEATURES	1
II FRONT PANEL AND TYPES OF CARDS	1
III INSTALLATION PROCEDURES.....	3
IV SETTING MODES AND FUNCTIONS	4
01. Registration of card (Add one card)	4
02. Deletion and loss of card (Delete one card).....	5
03. Change 8 sets of door opening passwords	6
04. Door opening time setting (Shunt time)	6
05. Setting identification modes	7
06. Entire batch entering (Add series cards).....	8
07. Anti-tamper output setting	9
08. Change system password (command).....	9
93. Deletion of 8 sets of the door opening passwords.....	10
99. Deletion of entire batch registration (Delete all cards).....	10
00. Door opening (using system password).....	10
10. BEEP Switch	11
11. Duress Code Setting.....	11
12. Select Door Open or Security Mode	11
13. Inquiry Proximity Reader's version	12
14. Alarm Time Setting.....	12
15. Door Check Time Setting.....	12
16. Inquiry number of registered cards.....	13
V INSTALLATION OF PROXIMITY READER.....	13
1. Reader connections.....	13
2. Installation of electric lock and exit push button.....	14
3. Installation of door sensor, external relay and siren.....	15
VI PRECAUTIONS	16
VII TROUBLESHOOTING	17
APPENDIX.....	18

ST-660 Mode Setting

I SPECIAL FEATURES:

1. One set stand alone design.
2. When proximity reader is installed and connected to power, red POWER light will be on and a beep sound after two seconds. The display of the front panel as follows:



X means door open mode. Default setting as 2 ~ Door open by proximity card.

3. 4 types of door opening modes:
 - (1) Enter 4-digit door opening password; identification code as 1.
 - (2) Proximity card door open; identification code as 2.
 - (3) Proximity card plus 4-digit door opening password (8 sets of 4-digit door opening passwords); identification code as 3.
 - (4) Proximity card or enter 4-digit door opening password; identification code as 4.
4. When entering into system setting mode, 4-digit system password is used to enter functional selection of system setting mode. Default System Password is set as **5678**. To enter into the system to set up mode, press ***#** first and then enter password and press **#** again to complete (such as ***#5678#**).
5. All proximity cards or proximity key tags must be registered before use.
6. Proximity card or key tag has 8-digit number code.
7. 8 sets of door opening passwords.
8. Maximum storage capacity of 10,000 cards (ST-660S is 2,000 cards).
9. Data memory feature in case of power failure.
10. LCD backlight display panel which enables user to have a better vision and operate easily.

II FRONT PANEL AND TYPES OF CARDS:

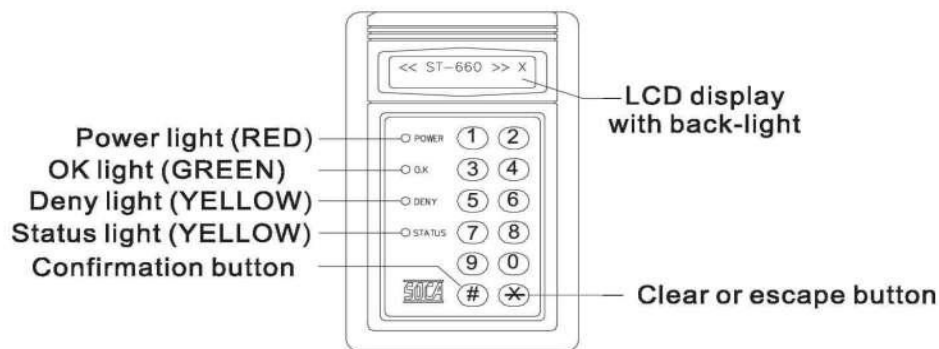
FRONT PANEL

1. Indicator lights:

- (1) Power light (red) : power indicator light.
- (2) OK light (green) : door open indicator light.
- (3) Deny light (yellow) : operation error or unregistered card.
- (4) Status light (yellow) : enter into setting mode indicator light.

2. Ten-digit input, two functional buttons : "#", " *".

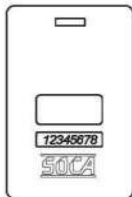
- # button: Confirmation button.
- * button: Clear or escape button.



Types of proximity cards



SC-10 : Thin card , thickness 0.8 mm, ISO standard card. It can be printed directly from card printer. Read range : EM 125KHz : 10~15cm, Mifare 13.56MHz : 3~7cm.



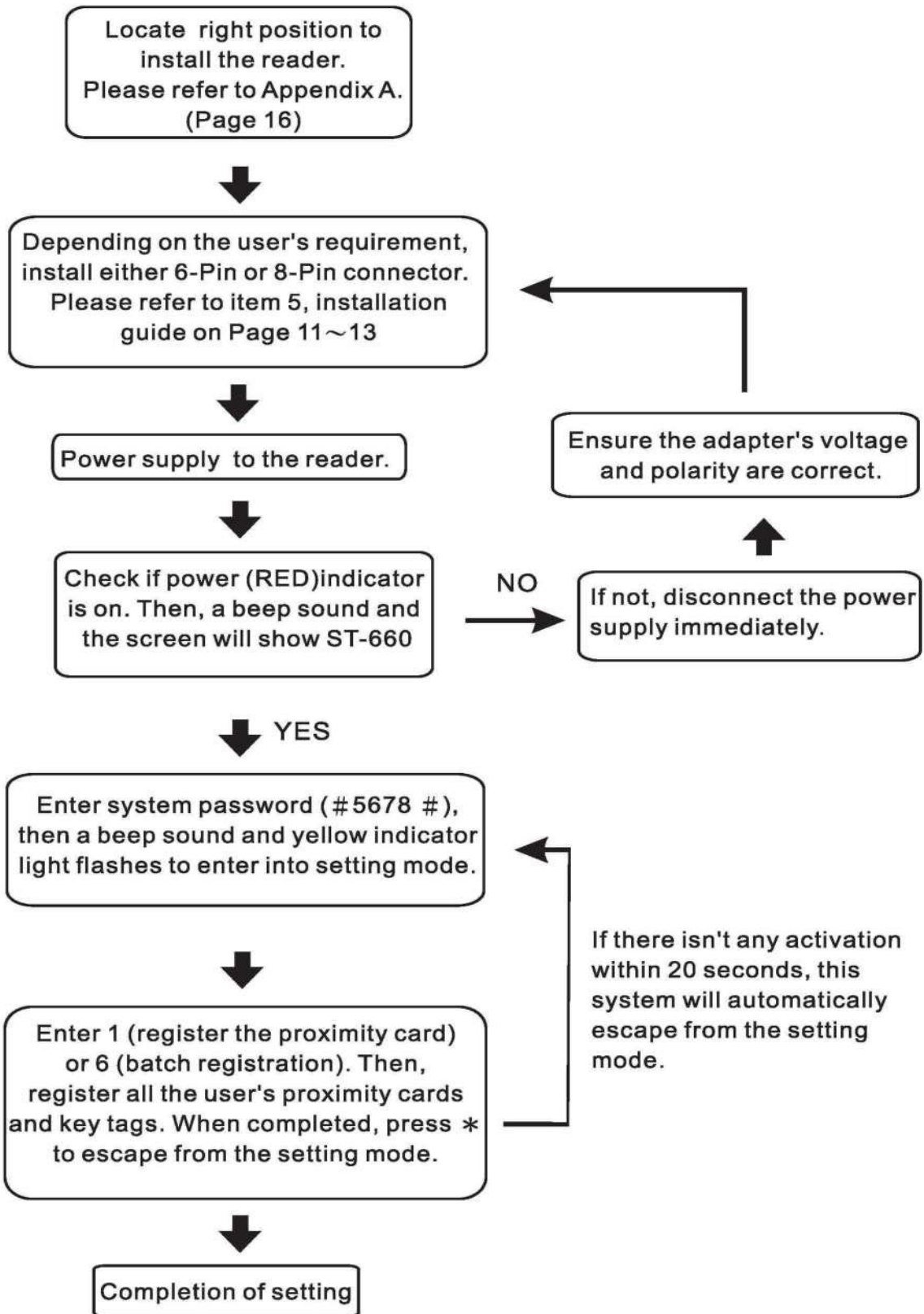
SC-20 : Thick card , thickness 1.8 mm, ISO standard card. Read range: EM 125KHz : 10~15cm



SC-30 : Key tag, dimensions: 5.1L X 7.8H X 3.2W (mm). Ultrasonic connection, water-proof, shock- proof. Read range: EM 125KHz : 6~10cm, Mifare 13.56MHz : 1.5~4cm

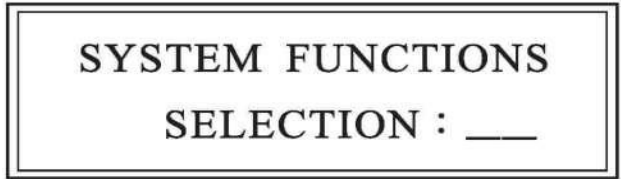
★ The above read range stated is for reference and it is varied according to different environment it is used.

III INSTALLATION PROCEDURES



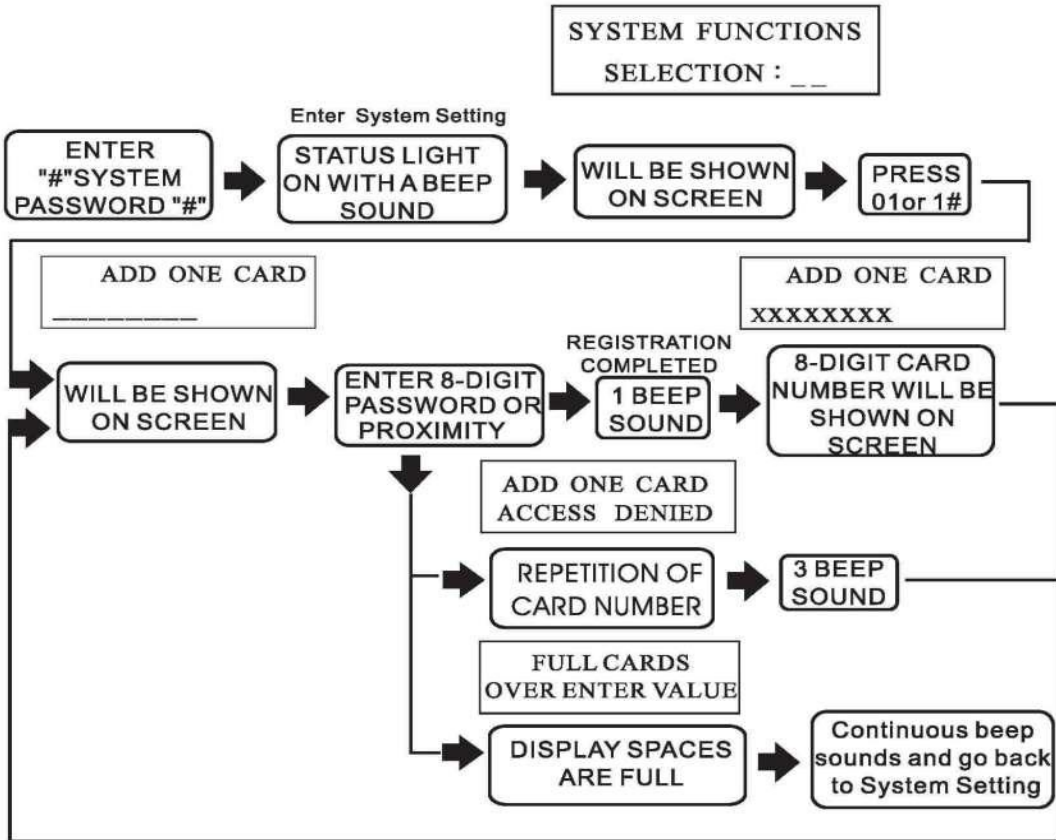
IV SETTING MODES AND FUNCTIONS :

To enter into the system setting mode, press *# and enter system password (4-digit password) and press # to enter into system setting mode. When entering into system setting mode, the STATUS light (yellow) on the panel will be on and the display panel will show as below:



Proximity Reader is now ready for user to enter functional selection. If user does not enter anything after 20 seconds, the proximity reader will automatically terminate the system setting mode function. 2 Beep sounds when error occurring, press * or # to escape from system setting mode.

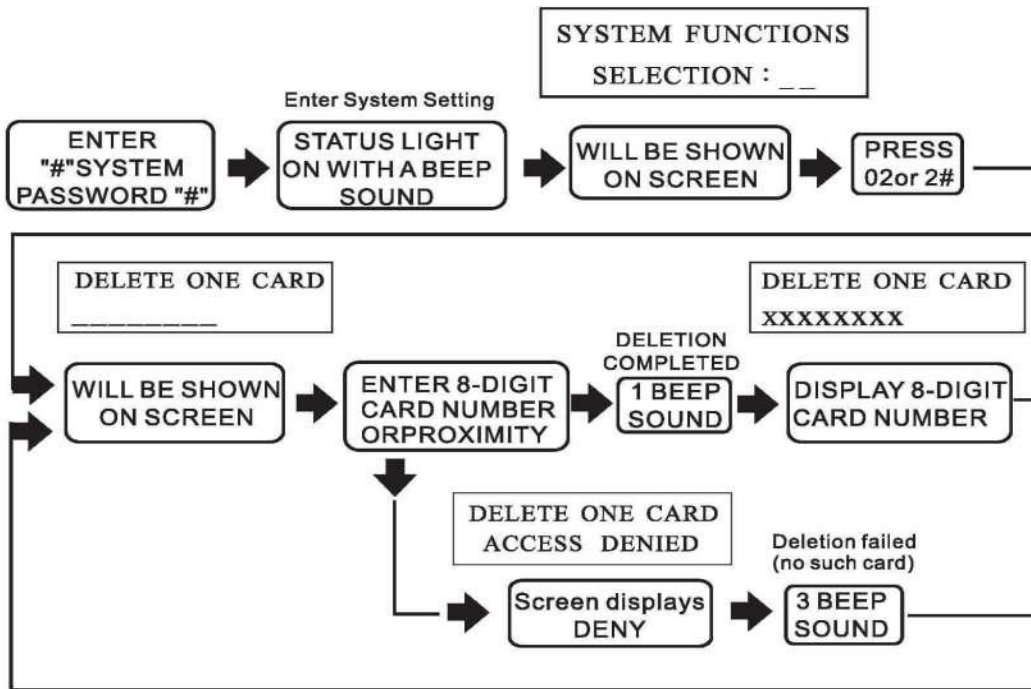
1. Add one card : Register user card. Enter 8-digit card number or proximity to register before use.



Press "*" button:

- (1) Escape from Register Card when no card number is entered.
- (2) Delete one number when card number is entered; please continue to enter the full 8-digit card number.

2. Delete one card : Deletion of user's card (such as loss of card), card number is the 8-digit password indicated on the proximity card. Card is unable to be used when it is deleted.



Press "*":

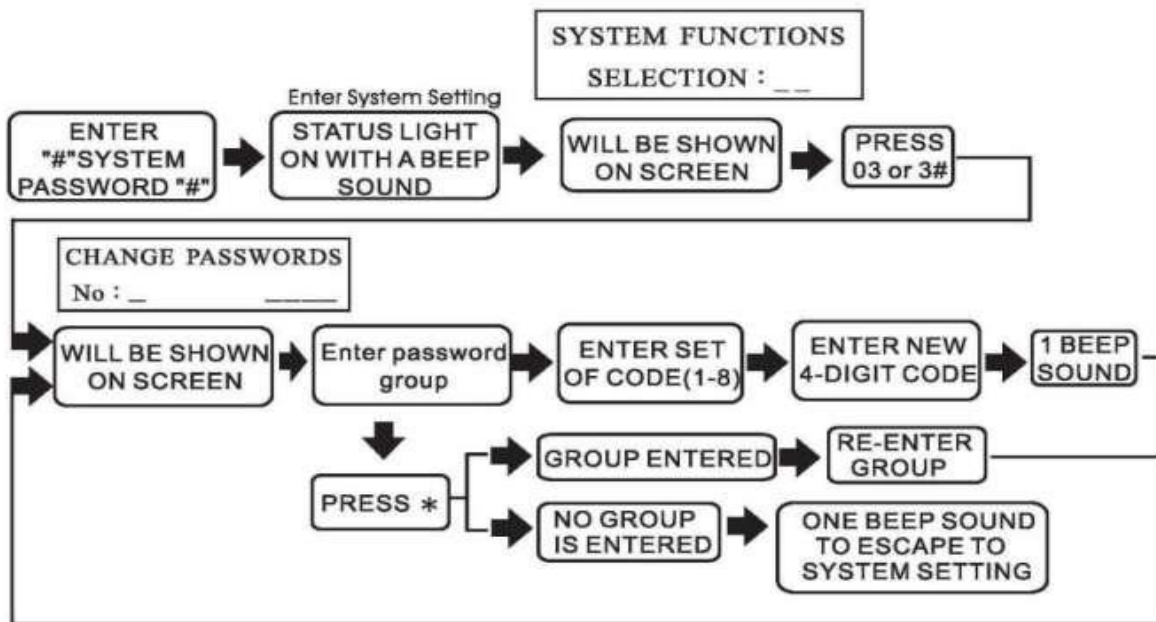
- (1) Escape from Delete Card function when no card number is entered.
- (2) Delete one number when card number is entered, enter the full 8-digit card number.

Example:



Count from left to right:
 2 as the first digit of the 8-digit number.
 4 as the first digit of the 6-digit number.

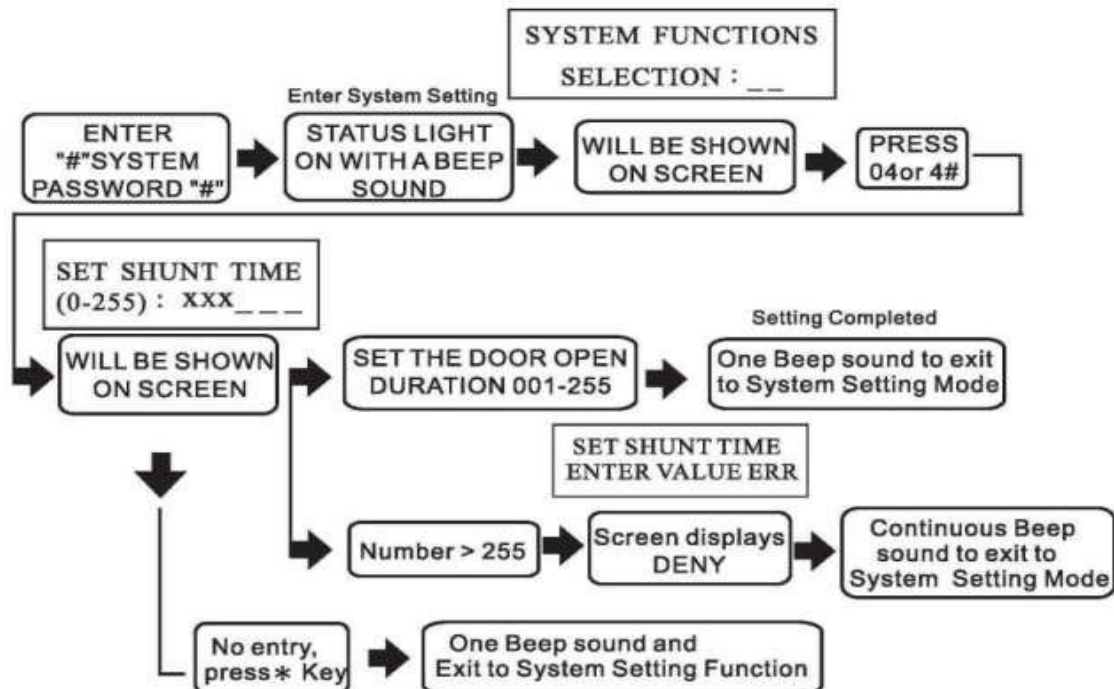
3. Change 8 sets of door opening passwords :



Delete one digit when "*" is pressed · enter the full 8-digit password.

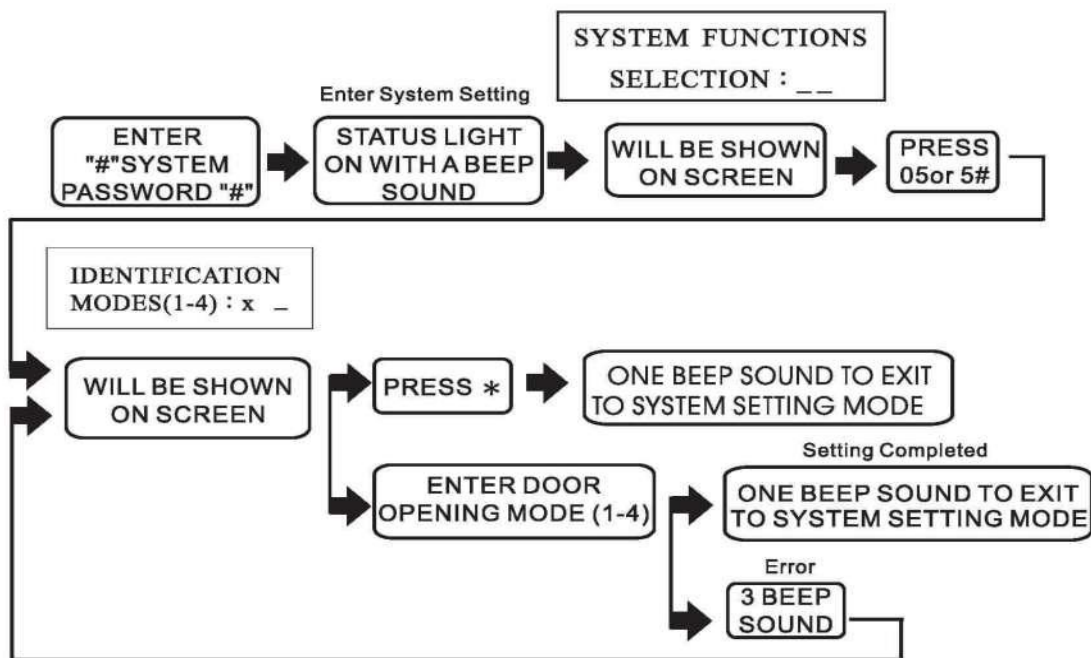
*Display door open's password (if it is being set for the group) when group number is entered.

4. Door opening time setting : Setting Relay's ON/OFF time of the proximity reader, time can be set from 01-255 seconds. Set 255 seconds as Toggle state (suitable for security system). Set 00 second to provide 0.5 second door opening time for automatic door or trigger function.

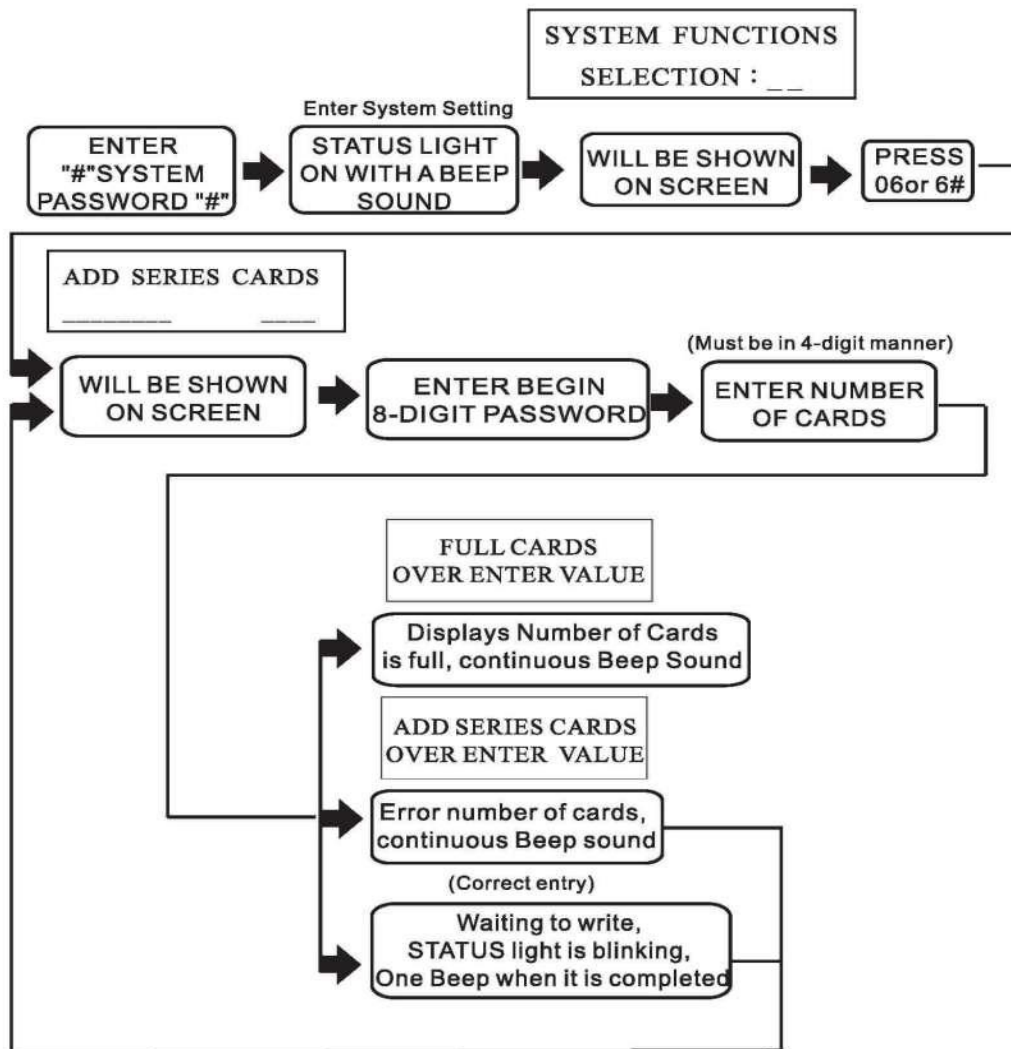


5. Setting identification modes : There are 4 sets of door-opening modes. User could only set one of the identification modes for access control. Its identification mode has been preset as proximity card door-opening.

- (1) Open door based on 4-digit password (There are a total of 8 sets of door opening passwords), mode number as 1.
- (2) Card proximity door opening. Door will open when the card is sensed, mode number as 2.
- (3) Card proximity and enter 4-digit password door opening, mode number as 3.
- (4) Proximity card or enter 4-digit password door opening, mode number as 4.



6. Entire batch entering: It is used for registering multiple cards and cards in series. Enter 8-digit card number, then enter card quantity, in 4-digit manner (must be in full 4 digits, such as 100 purchase, enter 0100). Do not exceed 2000 cards. In addition, this system can also apply to single card entry.



Press "*":

- (1) Delete one number while entering card number. Please continue to enter full 8-digit card number.
- (2) Delete one number while entering number of cards. Please continue to enter full 4-digit card number.

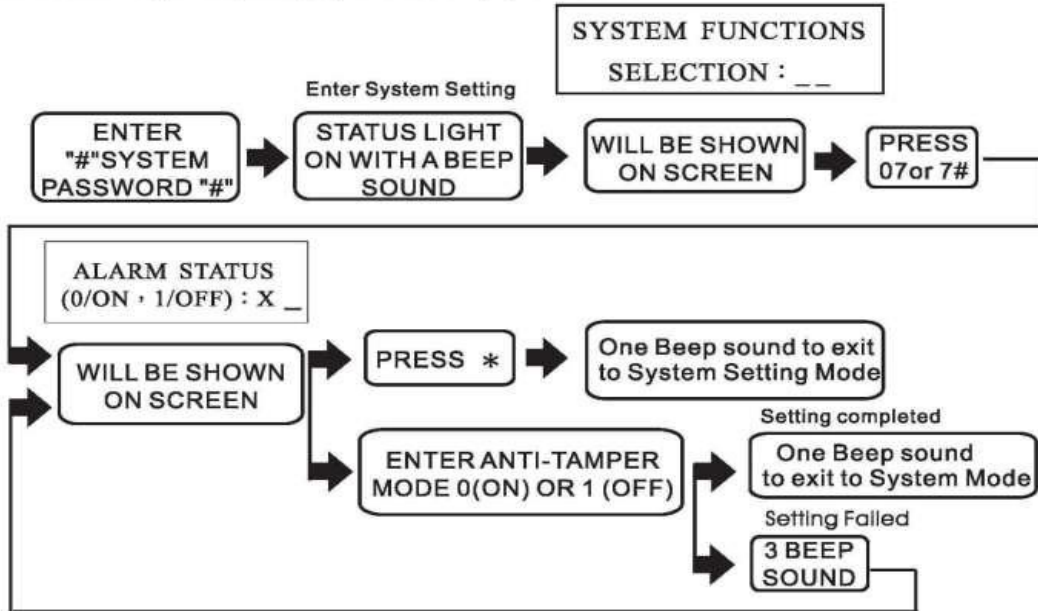
7. Anti-tamper output setting : This reader has an anti-damage output connecting point.

There are two detection sources:

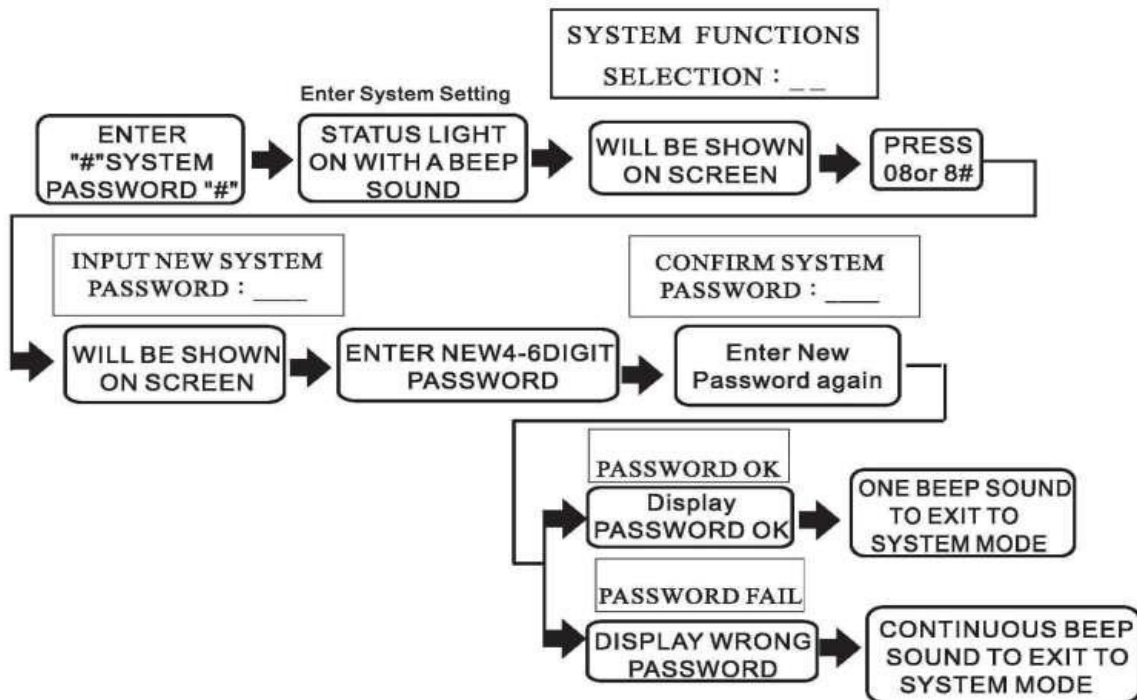
(1) Damage to the proximity reader(tamper switch).

(2) Damage to the door (must add detection wiring such as reed switch).

This function can be set whether door detection point is applied to activate the anti-damage output: (1) 0 : ON (2) 1 : OFF

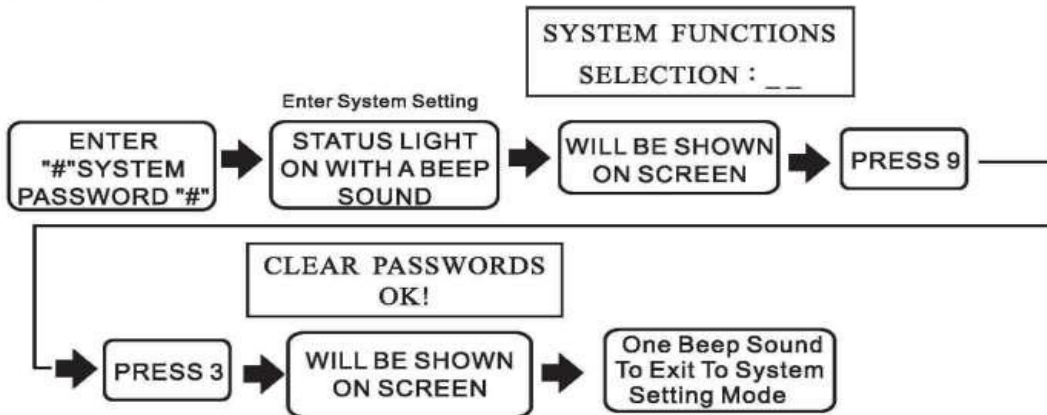


8. Change system password : To change system password, the reader's default password is 5678. Please note that this password is necessary to enter into the system setting mode.

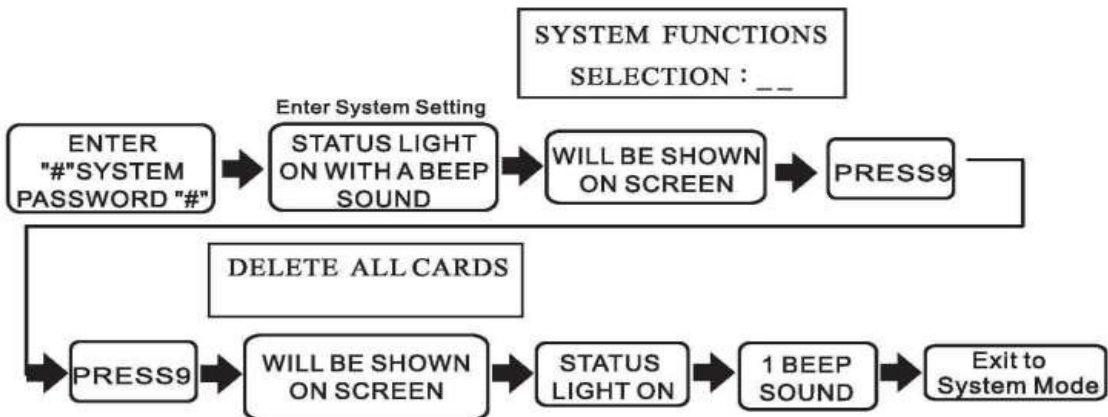


Exit to system mode when nothing is enter on Enter New 4-Digit Password column and "*" is entered.

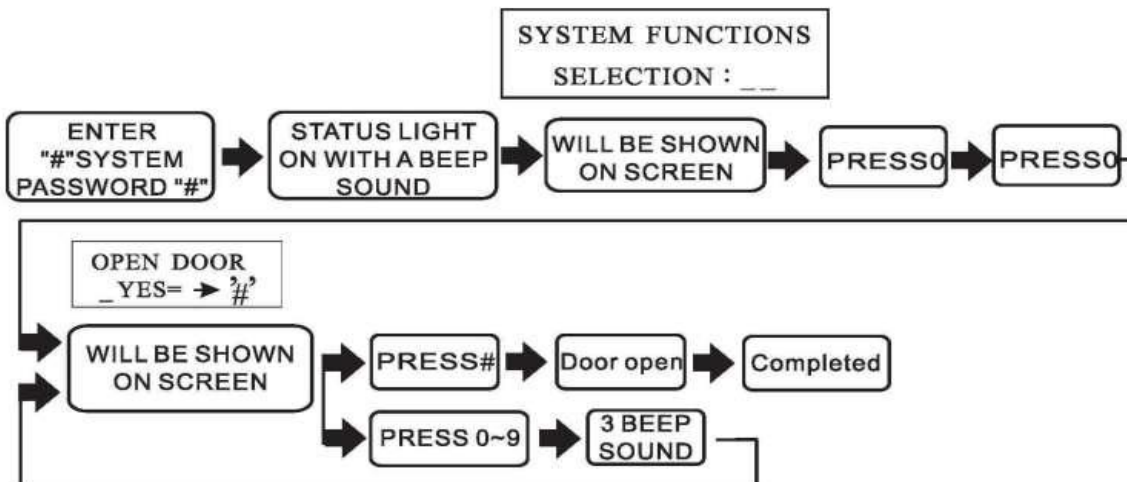
9. Deletion of 8 sets of the door opening passwords : Please note that this function will delete all the 8 sets of door opening passwords and cannot be retrieved.



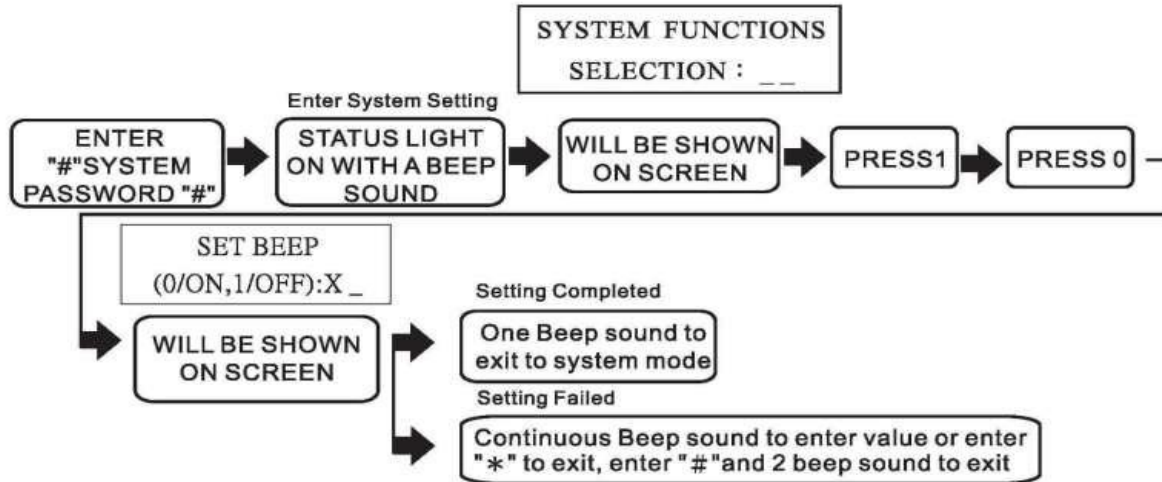
10. Delete all cards : Please note that this function will delete all registered card and cannot be retrieved.



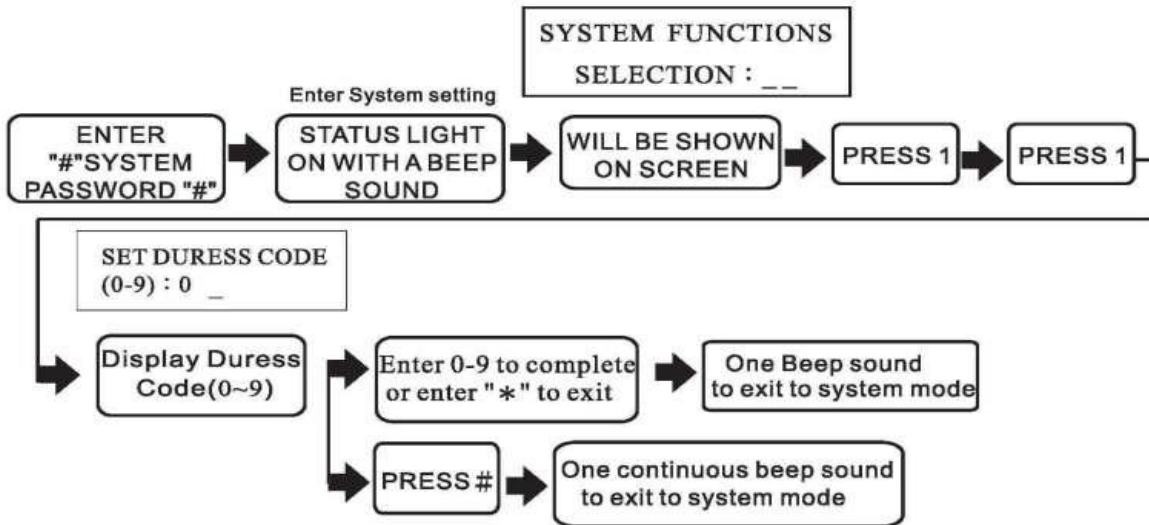
11. Door opening (using system password) :



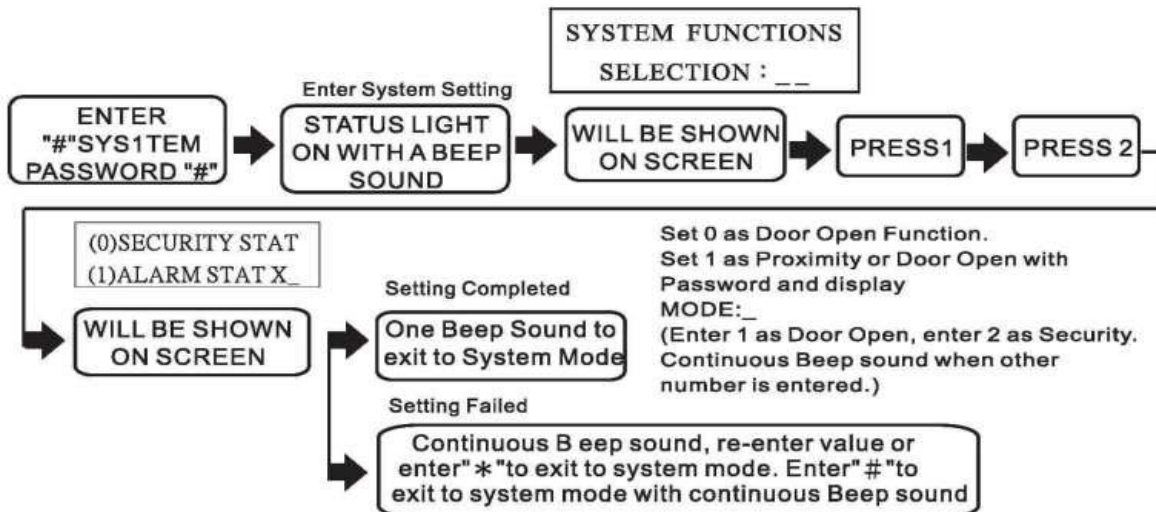
12. Setting Beep



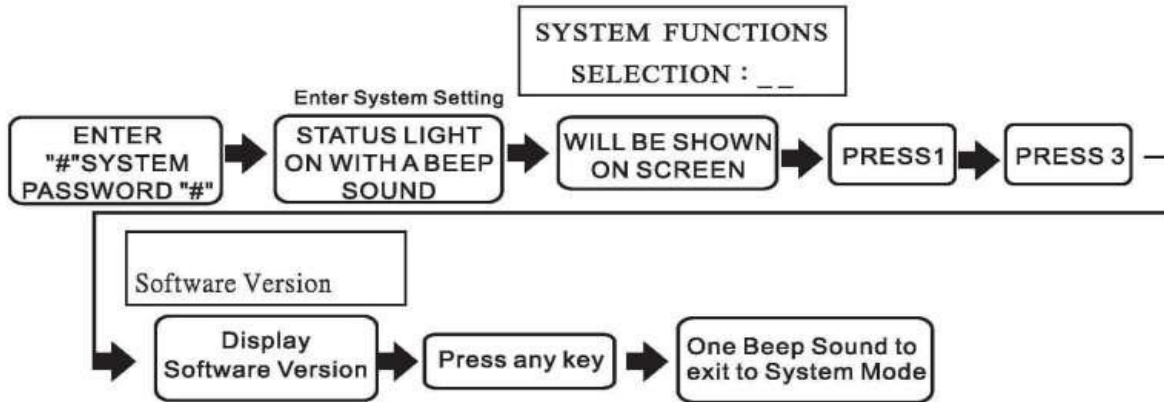
13. Change Duress Code



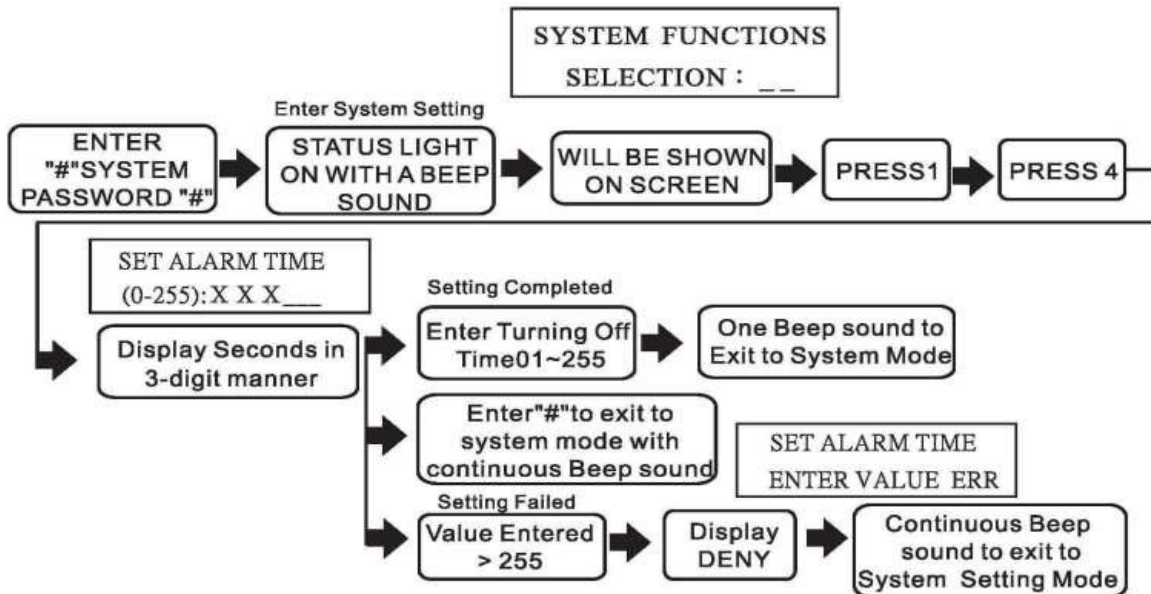
14. Select Door Open or Security Mode



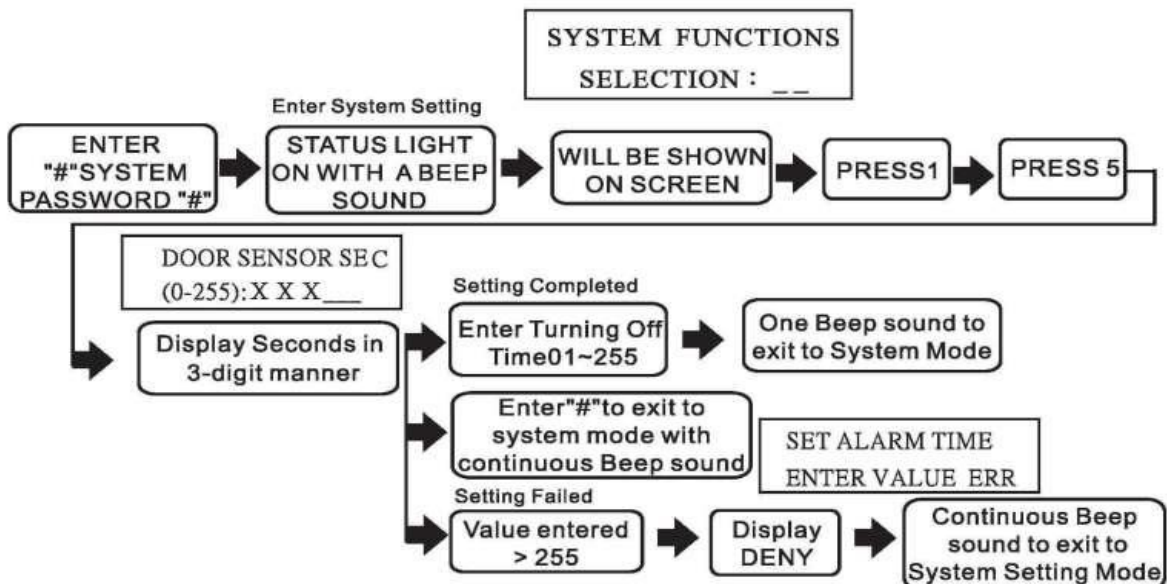
15. Inquiry Proximity Reader's Version



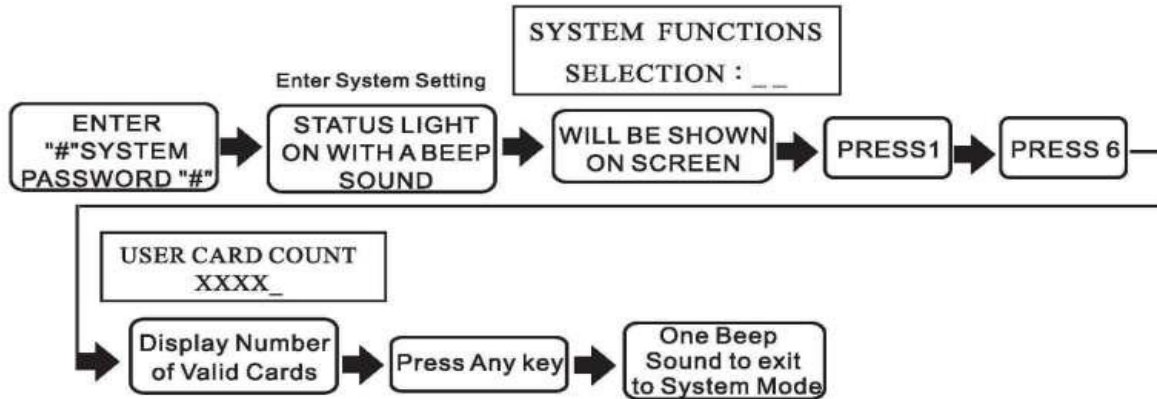
16. Setting Anti-tamper time: 255 as Normal State, 00 as Single Hit (Turning it off when door opens again or enter system mode).



17. Setting Door Check Time



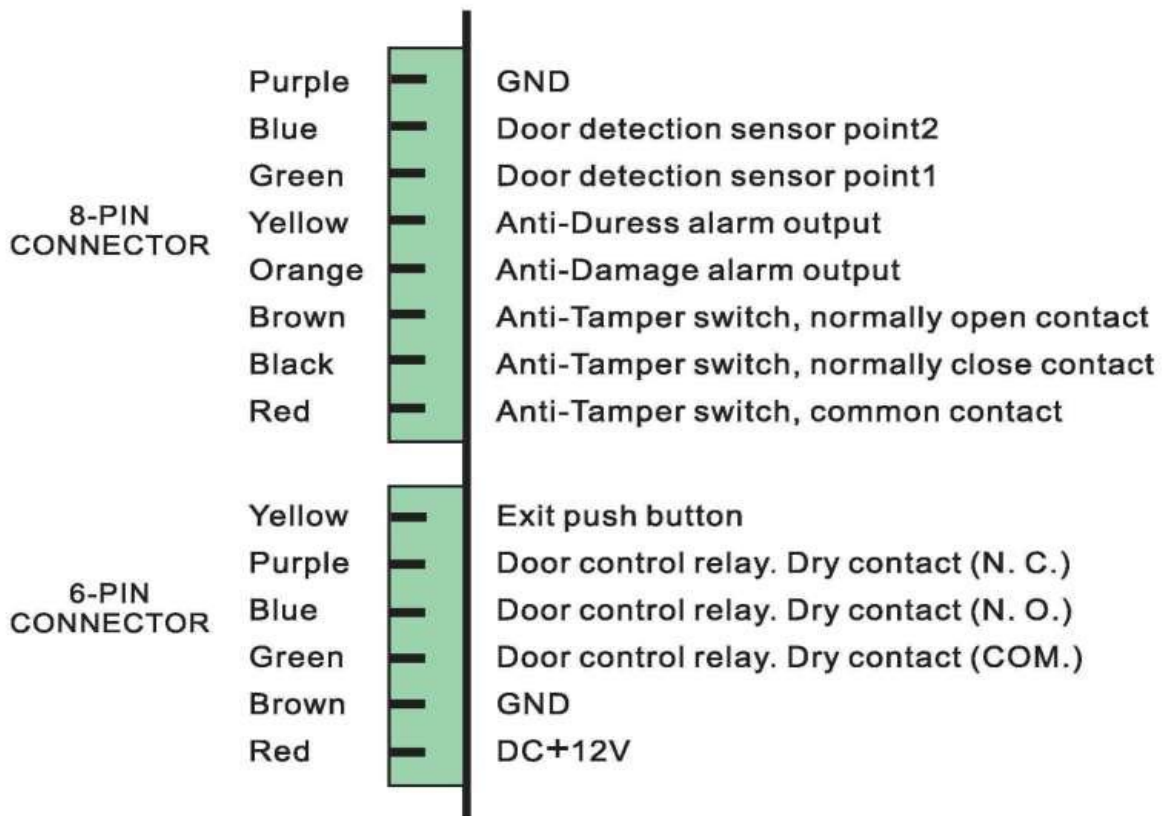
18. Number of registered cards.



V. INSTALLATION OF PROXIMITY READER :

1. Reader connections :

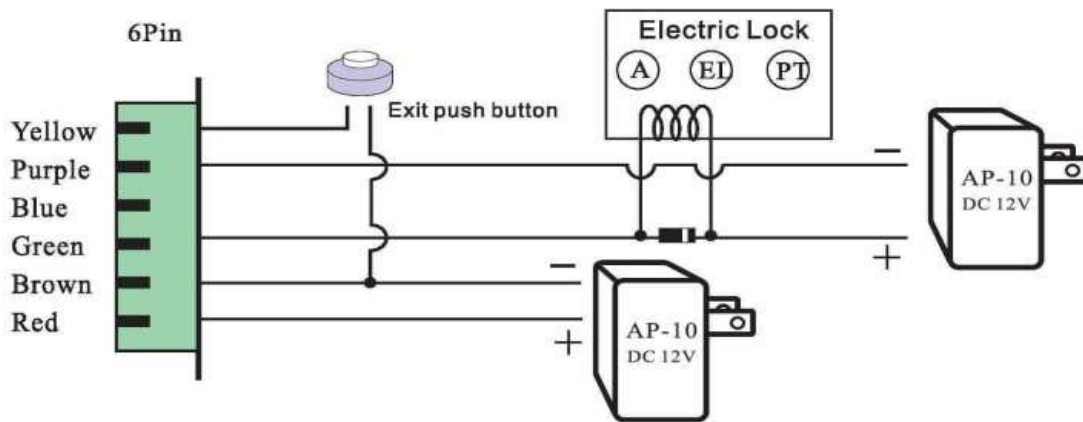
ST-660 Wiring diagram



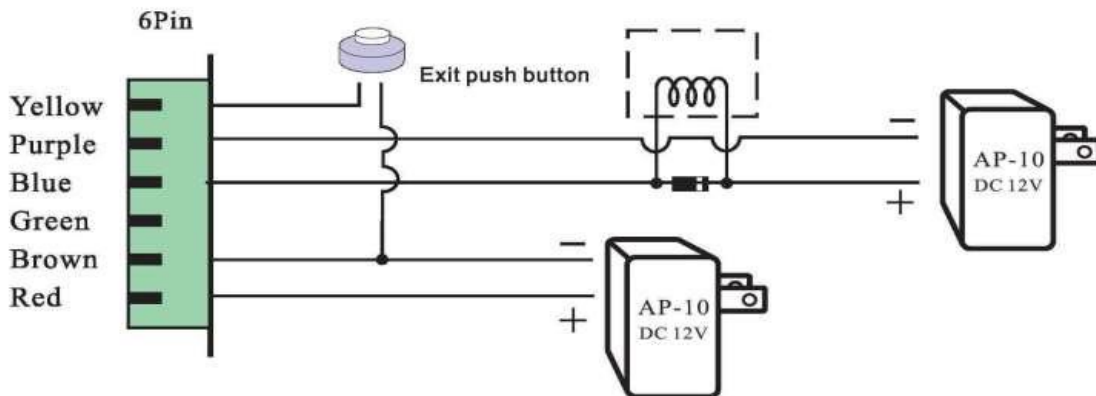
- * Open door relay contact rating DC12V 2A
- * Tamper switch contact rating DC24V / 0.5A

2. Installation of electric lock and exit push button :

A. Power to Open Series: Connect Purple and Green points of the 6-Pin Connector for Dead Bolt Lock, Automatic Door and Strike Lock.

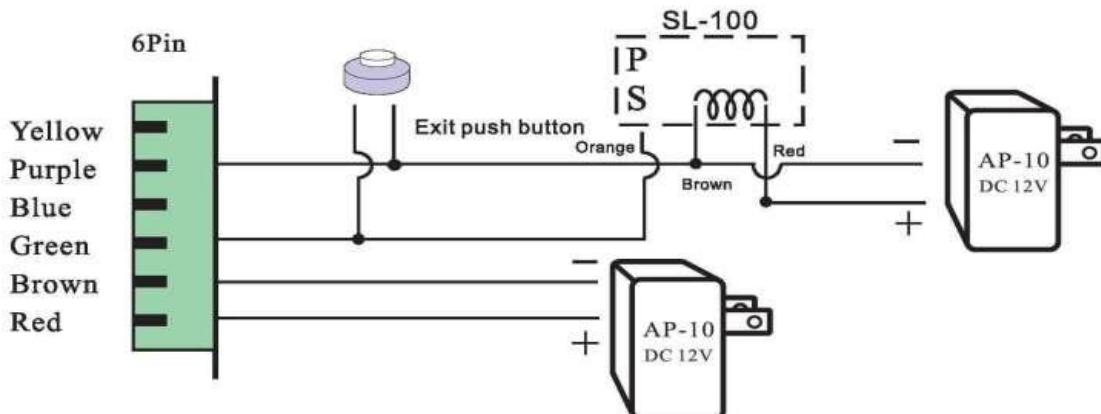


B. Power to Lock series: Connect Purple and Blue points of the 6-Pin Connector for Electromagnetic Lock and SDC Dead Bolt Lock (for 180° Glass Door).



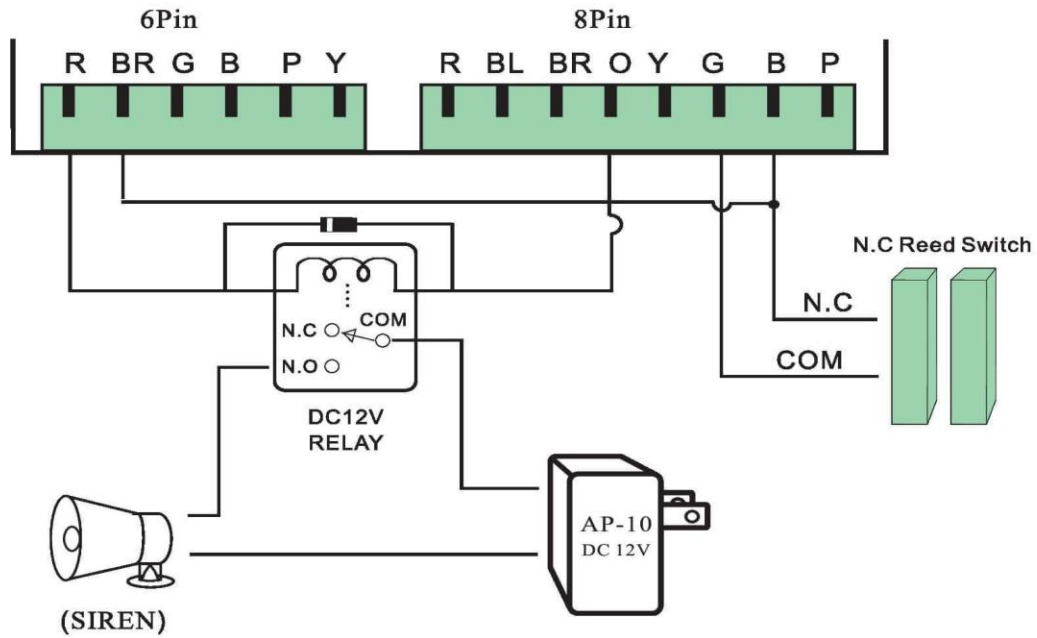
Note: Connect Exit Push Button to Exit Push Button point (Dry Contact).
Do not attempt to connect with other wire to avoid damage to the unit.

C. SOCA SL-100 Power to Lock Electric Lock

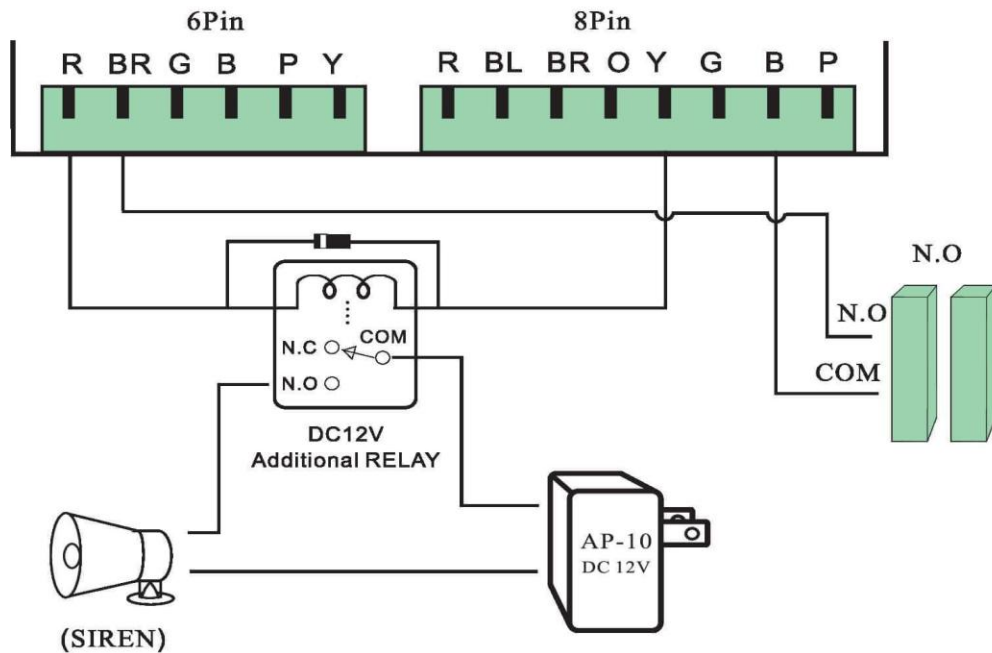


3. Wiring of Proximity Unit with additional Door Detection Switch(Reed Switch) and RELAY:

A. Use of N.C Reed Switch and Anti-Tamper Output with additional RELAY.

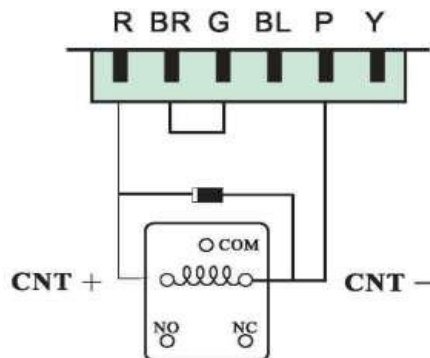


B. Use of N.O Reed Switch and Anti-Duress output with additional RELAY.



- Note: (1) Proximity reader provides two external relay connecting points which are :
- A. Anti-tamper(tamper switch and door sensor)alarm output connecting point(8P orange connecting point).
 - B. Duress alarm output connecting point(8P yellow connecting point).
- (2) If door sensor detecting(such as read switch)connecting point are applied, please set ALARM to ON mode. For setting method, please refer to setting mode functional selection item 7 in the manual.

4.Example: Door Open point with external RELAY



※ External RELAY is connected if overload of electricity occurred (> DC12V)

5. For installation, please secure power supply wire and control wire through the base panel first and then fix the base panel onto the wall.
6. Install the proximity reader on the base panel(power supply wire and control wire must first be inserted and the wires must be arranged correctly), then take the enclosed key wrench and screws to mount it up.
7. Power supply : DC 12V 800mA. Power consumption: standby 100mA, active 160mA.
8. Dimensions:160mm(L)x100mm(W)x30mm(H).

* In order to avoid electric lock and proximity reader to operate together please do not share the power supply of the electric lock with the proximity reader.

VI. PRECAUTIONS:

1. Before installation, please confirm the voltage and polarity of the power supply in order to avoid wrong connection causing damage to the reader.
2. Please do not join the power supply together with the electric lock and the proximity reader.
3. Please do not install metal product or monitor near this equipment in order to avoid distance proximity.
4. Please do not conduct repair or do any modification to the system, unless by qualified personnel.
5. Warranty period for the reader is 1 year. No warranty if security sticker is damaged.

VII. TROUBLESHOOTING

1. Card sensed but the door lock didn't work.

Solution:(1) Please check if the power supply is on the proximity reader and the electric lock.

(2) If (1) is checked, please check the electric lock power supply and if the connecting points are correct.

(3) Please check the card if it is registered when DENY light(yellow) is on.

(4) Continuous proximity. Please remove the card from the reader and try again.

(5) Please check if the door opening mode is being set correctly.

2. System password is entered but unable to enter into various functional selection of the setting mode.

Solution:(1) Incomplete input of system password. Please check if the format has been entered correctly: *#XXXX#(XXXX represents system password).

(2) Bad wiring will affect the system.

Please make sure all power wires and control wires are arranged in the back of the display screen(the space for wiring) to avoid the wires pressing on the PC board which may cause bad connection, short circuit and interference to the system.

3. How to use the duress code setting?

Solution:(1) Change the door opening mode to : press 4-digit password door opening(mode code 1).For proximity card, press 4-digit password door opening(mode code 3). Proximity card or press 4-digit password door opening (mode code 4). Only by adopting one of the door opening mode of these three door opening modes will enable output for duress code function.

(2) After the door opening mode is set(please refer to item 5 of the setting mode functional selection on how to set door opening mode), press"*# The Duress code + 4-digit door opening password #" to execute the duress alarm output function.

4. How to stop anti-tamper or duress alarm activation?

Solution: Enter into the system setting mode or open the door.

5. What is the operation of the door sensor detection(reed switch)?

Solution : If the door sensor detection function is being set at ON (for details, refer to item 7 of the setting mode functional selection in the manual) and if the door is not closed within 30 seconds, then the anti-tamper output function will be activated.

Appendix1: Installing and Mounting the unit

