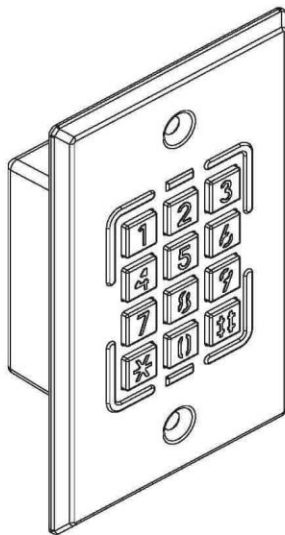
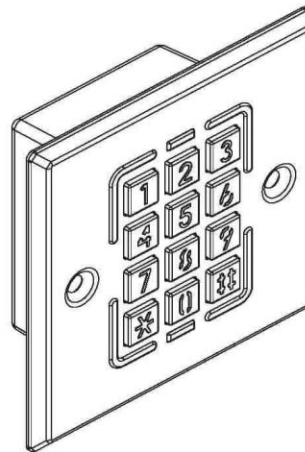


**ST-200 Series**  
**Stainless Steel Proximity**  
**Access Control System**  
**Installation Manual**



**ST-226**

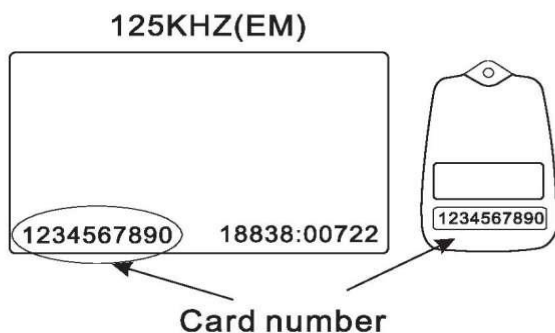


**ST-228**

# CONTENTS

|   |    |
|---|----|
| Special Features                        | 1  |
| Front Panel And Types Of Cards          | 2  |
| Installation Procedures                 | 3  |
| Setting Modes And Functions             | 4  |
| 1.Add one card                          | 4  |
| 2.Delete card                           | 4  |
| 3.Change of 8 sets of user's password   | 5  |
| 4.Door lock time setting                | 5  |
| 5.Setting identification modes          | 6  |
| 6.Batch registration                    | 6  |
| 7.Anti-tamper output setting            | 7  |
| 8.Change system password                | 7  |
| 9.Deletion of 8 sets of user's password | 7  |
| 10.Delete all cards                     | 8  |
| 11.Use of system password to open door  | 8  |
| 12.Add anti-duress function             | 8  |
| Installation of proximity reader        | 9  |
| 1.Reader connections                    | 9  |
| 2.Wiring of electric lock               | 9  |
| 3.Anti-tamper and Alarm wiring          | 10 |
| 4.LED(Orange Wiring)                    | 11 |
| 5.Door Open point with external RELAY   | 11 |
| Precautions                             | 11 |
| Troubleshooting                         | 11 |
| Installation of the unit                | 13 |

Card number in the back of the card.



Example of the card:

The last 6-digit number of 1234567890 is 567890.

## Special Features

1. Waferproof proximity reader with #304 stainless steel panel and luminous buttons which glow .
2. Embedded type of installation to prevent rough surface of the wall which may cause damage to the unit.
3. ST-226 ANSI style box, ST-228 British style box.
4. Panel's red LED indicator, POWER light and luminous buttons are on with one beep sound when it is installed and power is on.
5. Standalone proximity, single card number entering or bath entering to enter.  
Cards are distributed before use.
6. Anti-tamper design and alarm will activate when the unit is tampered or move with force.
7. Adding or deleting specific card.
8. Door opening time can be set between 01-99 seconds. Setting 99 seconds as normal output for anti-theft unit.
9. Four sets of door opening modes:
  - (1) Enter 4-digit password, mode number is 1.
  - (2) Proximity card door opening, mode number is 2.
  - (3) Proximity card and 4-digit password (total of 8 sets of door open password), mode number is 3.
  - (4) Proximity card or 4-digit password, mode number is 4.
10. System password (default system password is 4567) is required to enter system setting modes to set any system setting functions. Enter \* # before system password and then # to enter system setting modes (for example , \* #4567).
11. All proximity cards or key tags have to be registered before use.
12. All proximity cards or key tags have 8-digit card numbers.  
(Use only the last six numbers)
13. 8 set of different door opening password to integrate with proximity card.
14. Maximum capacity of 1000 cards.
15. Use fo special memory, data will be kept for permanent even power cut occurred.
16. Power supply: DC 12V. Power consumption: 80mA (Standby), 110mA (Active).
17. According to the model, there are:
  - A. Built-in one set of door open RELAY version (1A@DC12V) ◦
  - B. To coordinate with AP-50 to control 3 sets of RELAY  
(Door open, alarm, anti-duress).

## Front Panel And Types Of Cards

### FRONT PANEL

⊙ Power Indicator Light: Standby (Red), Corret (Green).

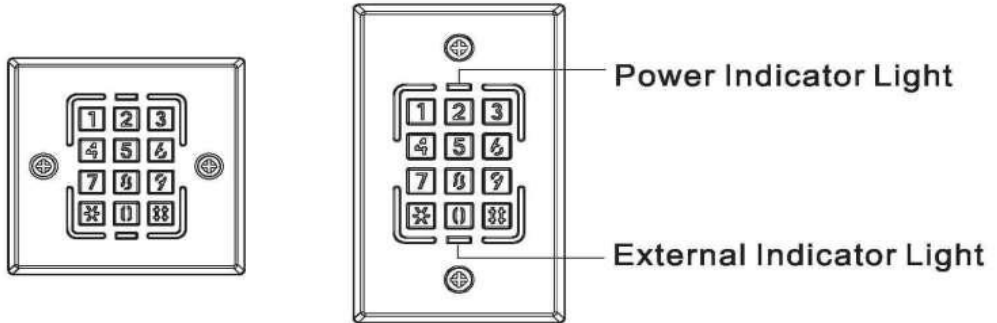
⊙ External Indicator Light: Activate-low (Orange).

⊙ Luminous keypas: Standby (Blue light is on)

10 entry (buttons), two function keys: "#" & "\*".

# : Confirmation key (ENTER).

\* : Clear or escape key (CLR/ESC).



### Series model

ST-226: 125KHz Em, ANSI style (115\*70mm).

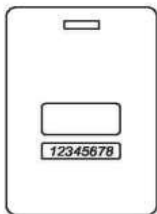
ST-228: 125KHz Em, British style (86\*86mm).

### Types of proximity card



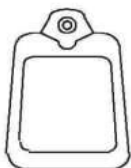
SC-10:

Thin card, thickness of 0.8 mm, ISO standard card dimensions. It can be printed directly from card printer. Read range : 2cm



SC-20:

Thick card, thickness of 1.78 mm, ISO standard card dimensions. Read range : 2cm



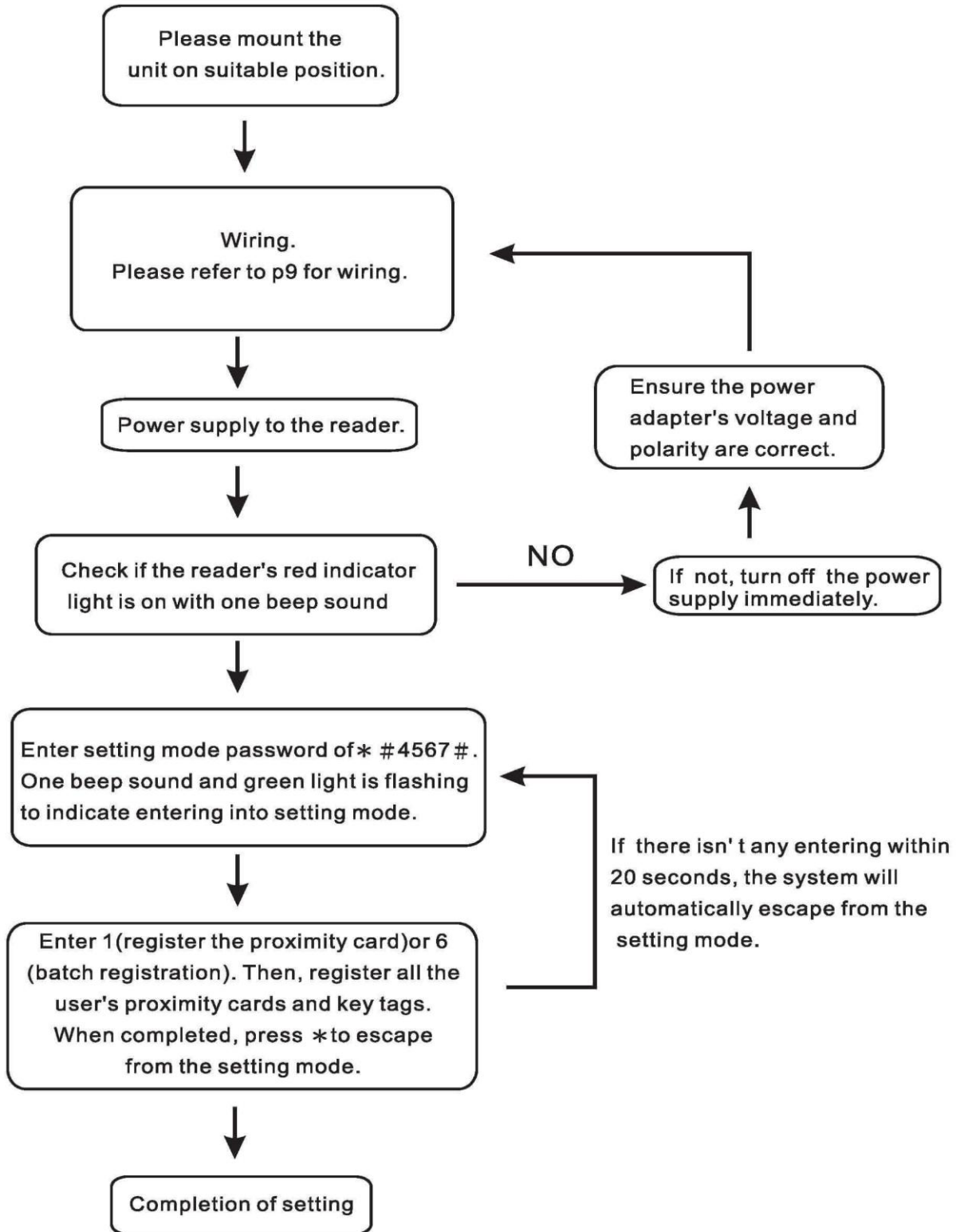
SC-30:

Key tag, dimensions: 5.1L X 7.8H X 3.2W (mm). Ultrasonic connection, waterproof, shockproof. Read range : 1cm

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



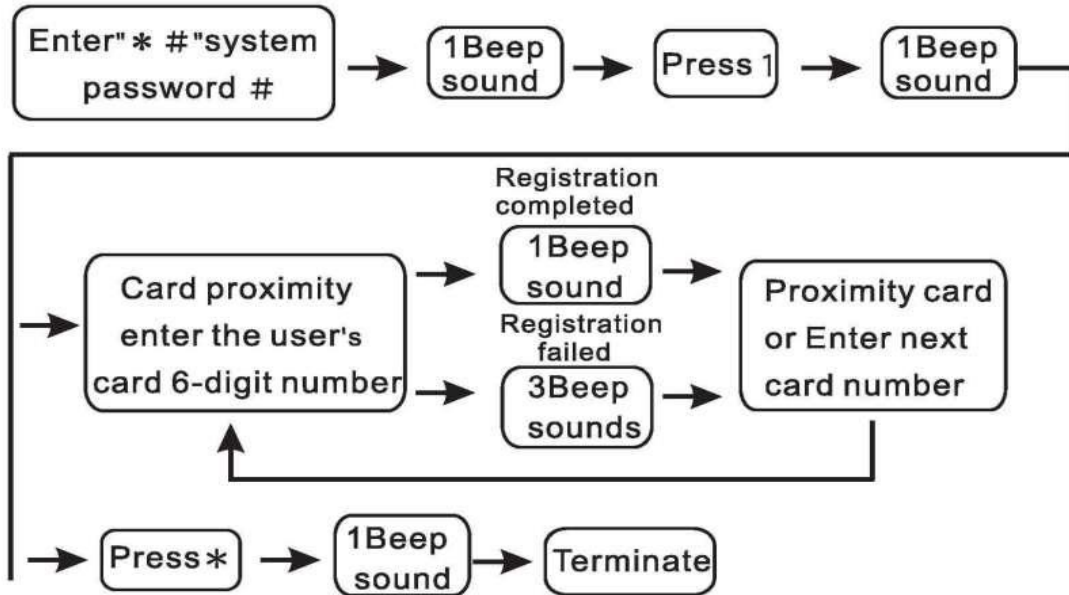
# Installation Procedures



## Setting Modes And Functions

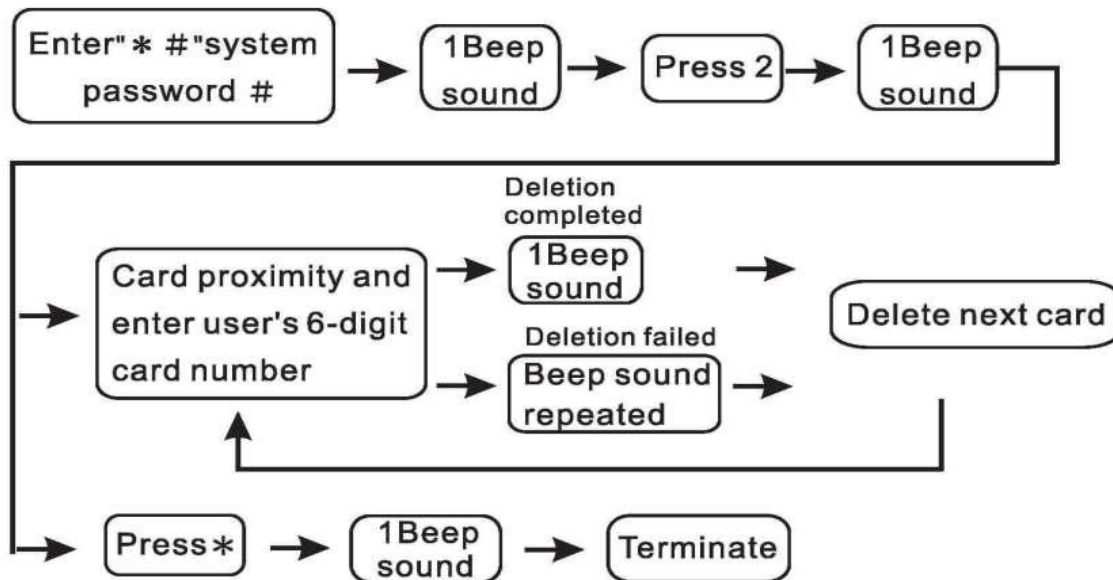
System password (default system password is 4567) is required to enter system setting modes. The reader will send a beep sound to indicate entering system setting modes. If there isn't any action or entering within 20 seconds, the system will automatically escape from the setting mode.

1. Add one card: To register users card and utilize proximity to register.



If \* is being pressed, during the procedures, the card registration will be terminated.

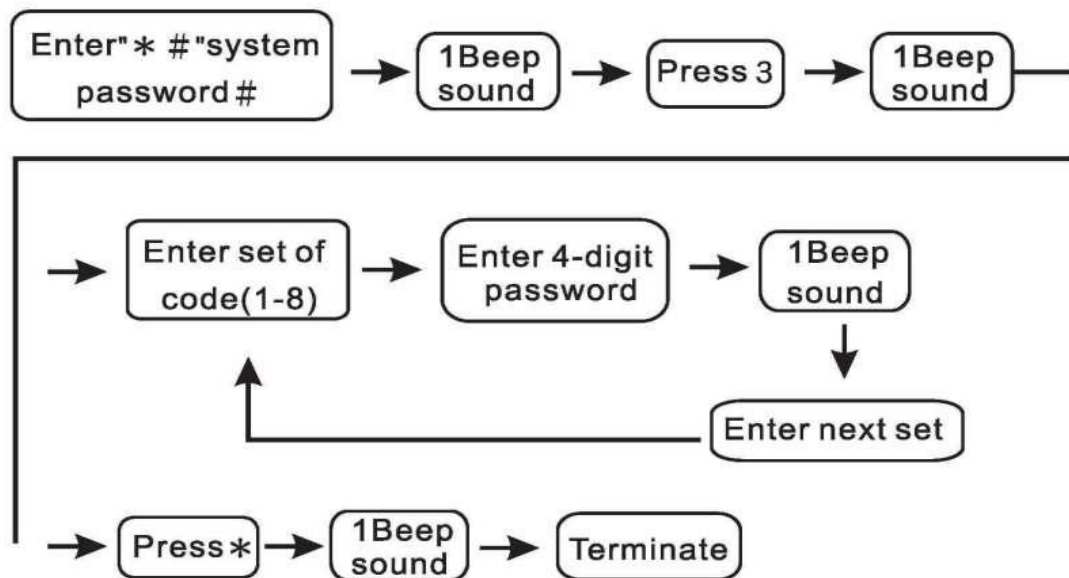
2. Delete card: Deletion of user's card (such as loss of card). Card number is the 6-digit number indicated on the proximity card.



If \* key is pressed during the above procedures:

- (1) Deletion of card function will terminate when no card number is entered.
- (2) Re-enter card number when card number is already entered.

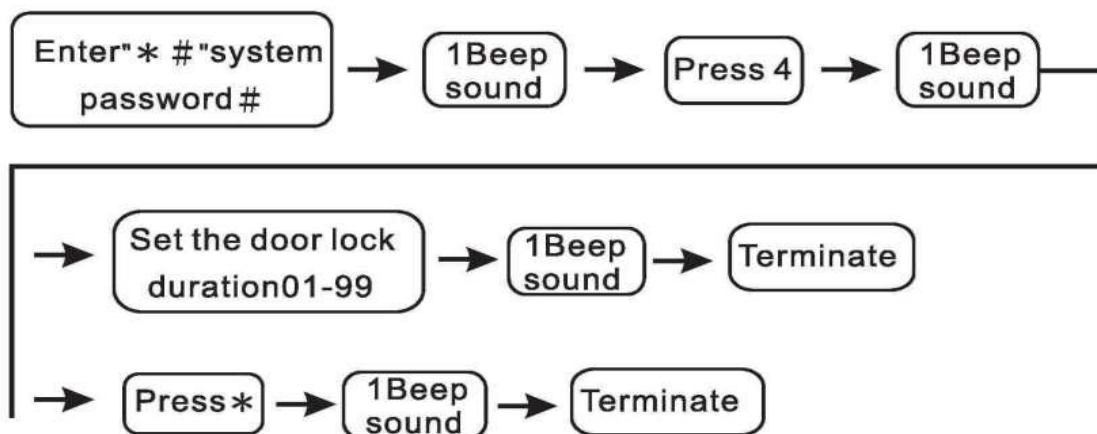
### 3. Change of 8 sets of user's password



If \* key is pressed during the above procedures:

- (1) Re-enter the set of password when number of set of password is not entered.
- (2) Re-enter 4-digit password when number of set of password is entered.

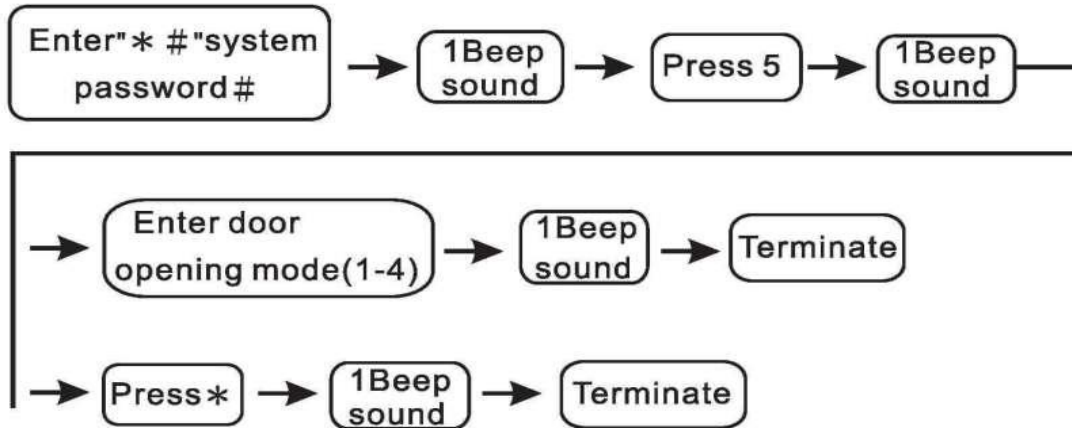
4. Door lock time setting : Setting door lock time from 01-99 seconds. All time setting is in 2-digit manner such as enter 01 for 01 second. Setting 99 seconds as normal state (suitable for security system) and 00 second as single punch (suitable for automatic door).



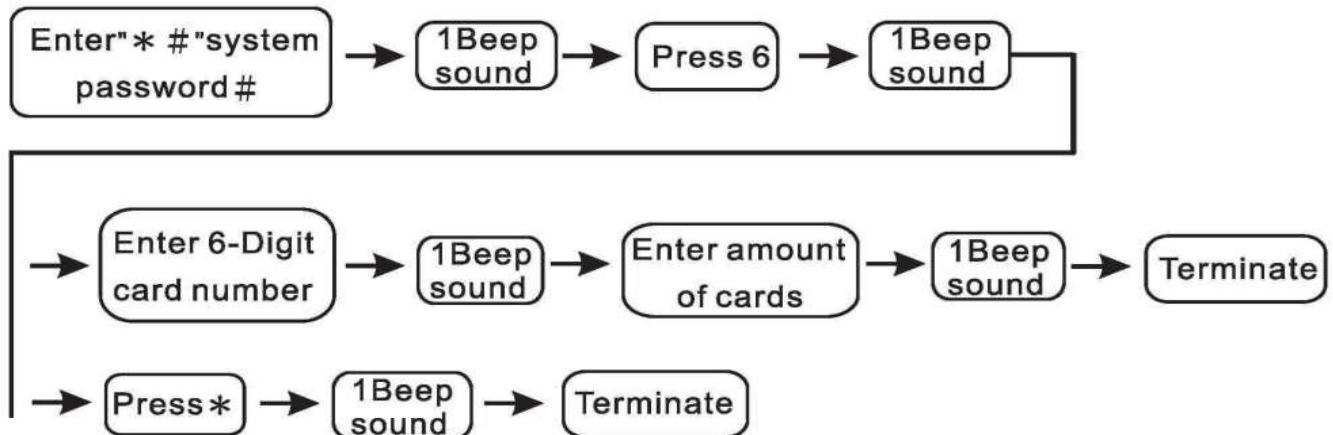
## 5 · Setting identification modes:

There are 4 sets of door-opening modes. Users could only set one of the door-opening modes for access control. Default door opening mode is proximity card door-opening.

- (1) Enter 4-digit password (There are 8 sets of door opening password), mode number is 1.
- (2) Proximity card. Door opens when the card is sensed, mode number is 2.
- (3) Proximity card and enter 4-digit password, mode number is 3.
- (4) Proximity card or enter 4-digit password, mode number is 4.



6. Batch registration: Registering multiple cards and cards in series. Enter 6-digit card number, then enter amount of cards in 4-digit manner (must be in full 4 digits, such as 100pcs, enter 0100).



If \* key is pressed during entering card number:

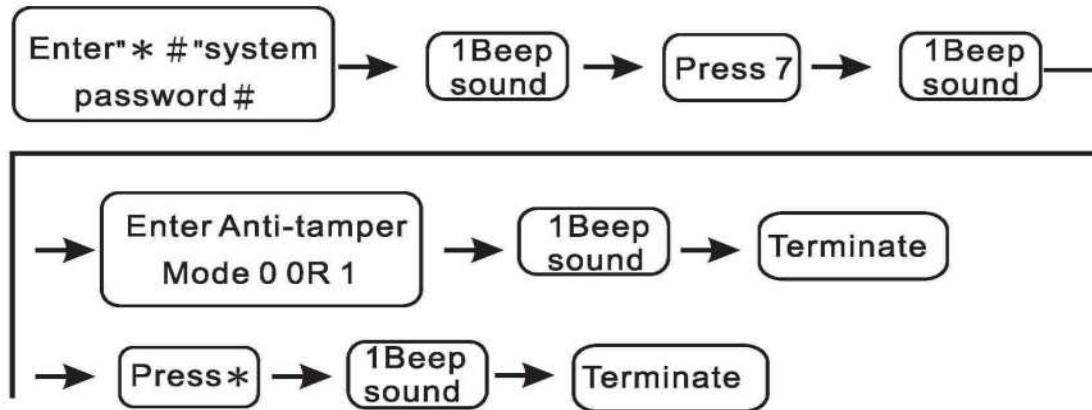
- (1) Terminate Batch Registration function when nothing is entered.
- (2) Re-enter card number again when card is entered.

If \* key is pressed during entering amount of cards:

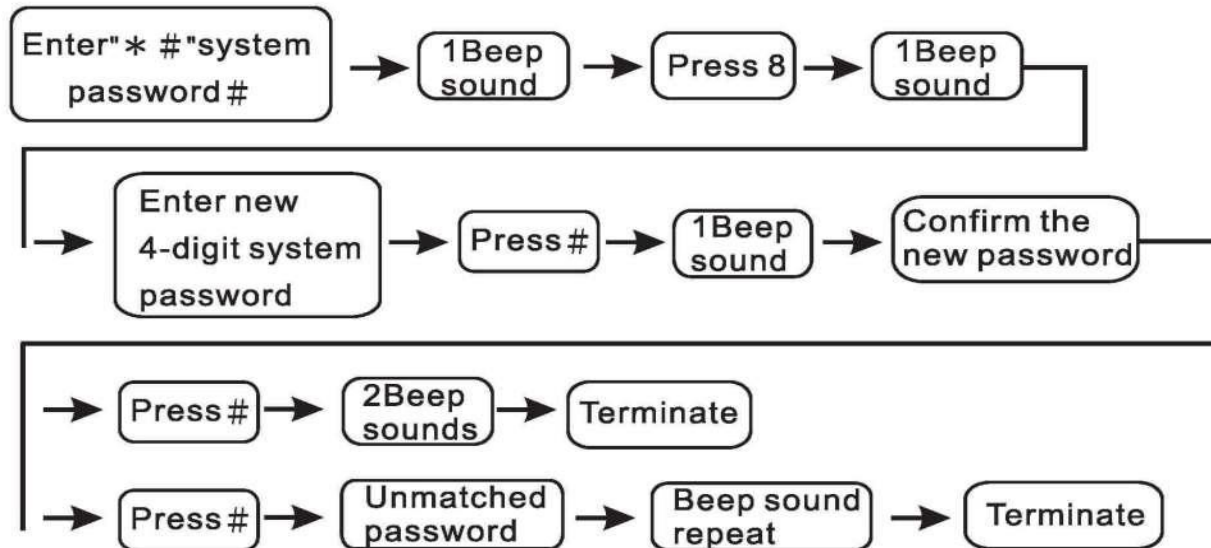
- (1) Re-enter card number again when amount of cards is not entered.
- (2) Re-enter 4-digit amount of cards again when amount of cards is entered



7. Anti-tamper output setting: 0:ON 1:OFF



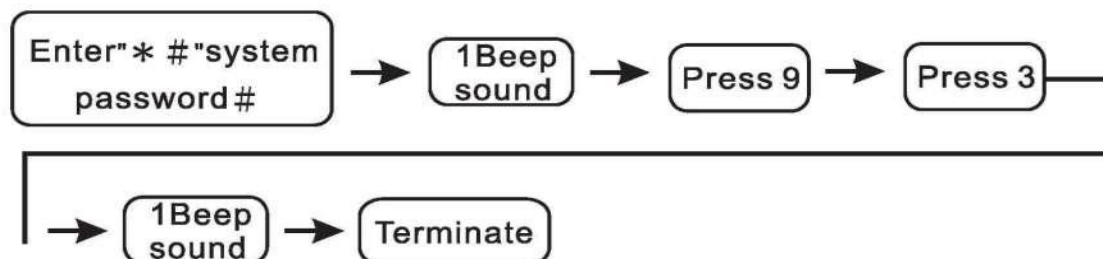
8. Change system password: Default system password is 4567. Please remember the default system password or else user is unable to enter system setting mode.



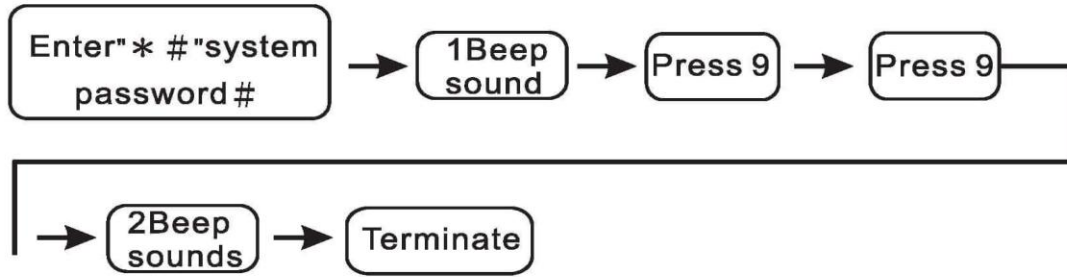
Press \* key when no number is entered during the procedures will terminate Change System Password function.

Re-enter the new password again when \* key is pressed during confirmation of the password.

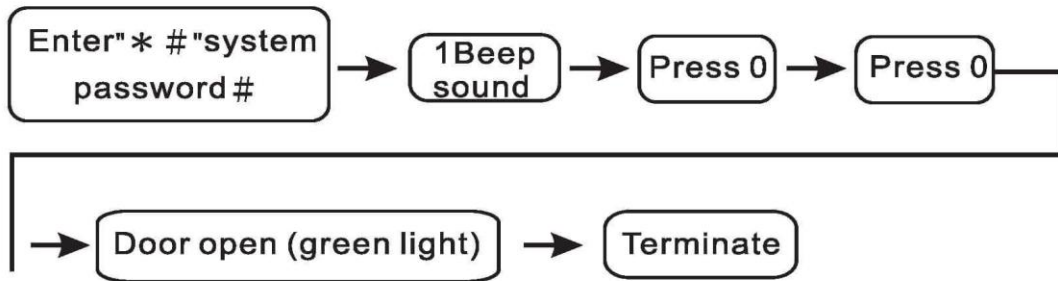
9. Deletion of 8 sets of user's password: Please note that this function will delete all the 8 set of user's passwords and cannot be retrieved.



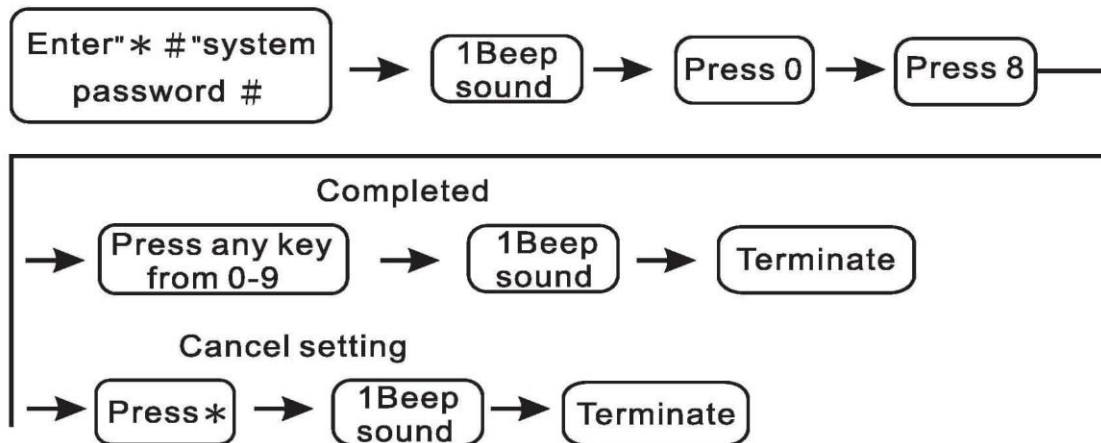
10.Delete all cards



11.Use of system password to open door



12.Add anti-duress function



# Installation of proximity reader

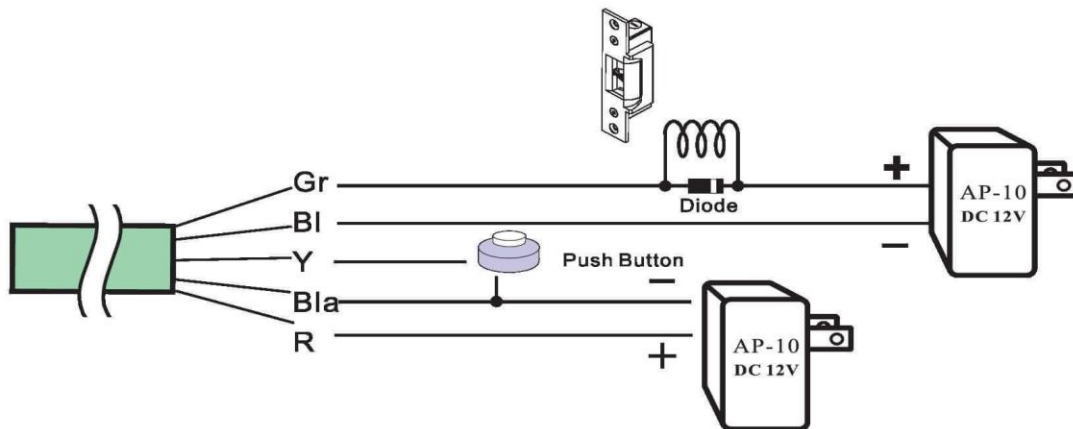
## 1. Reader connections



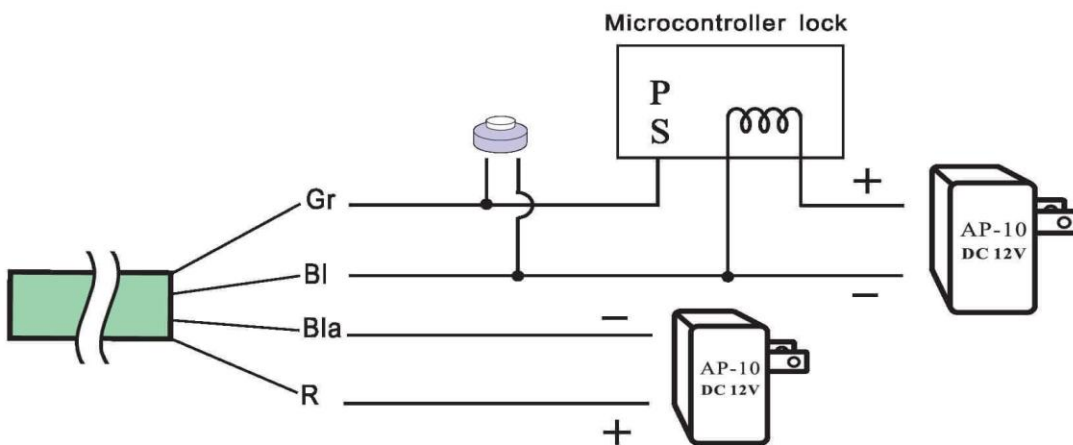
## 2. Wiring of electric lock

### A. "N.O." connector:

Suitable for: Fail-secure electric lock or any electric lock that requires N.O. Connector.

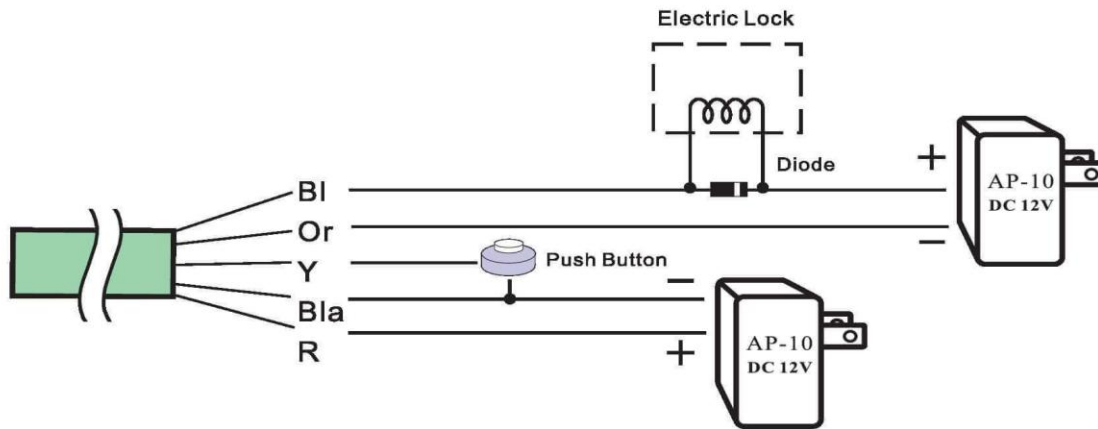


Example: Micro-computer Fail-safe electric lock (use of N.O. point to trigger).



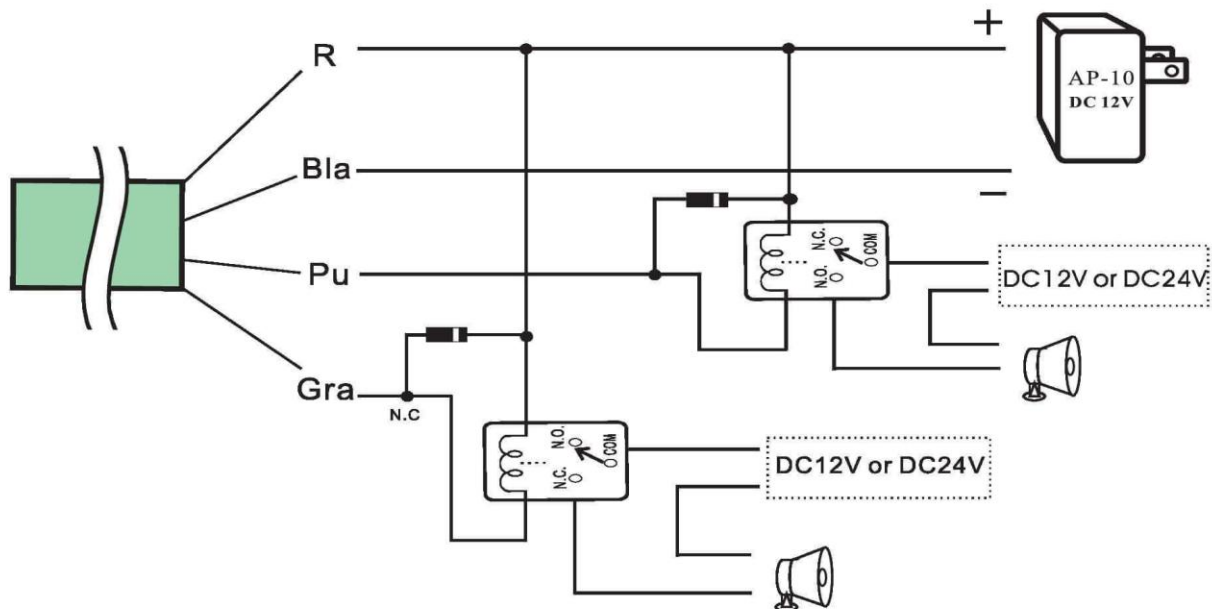
## B. "N.C" Connector

Suitable for: Fail-safe electric lock such as electromagnetic lock.



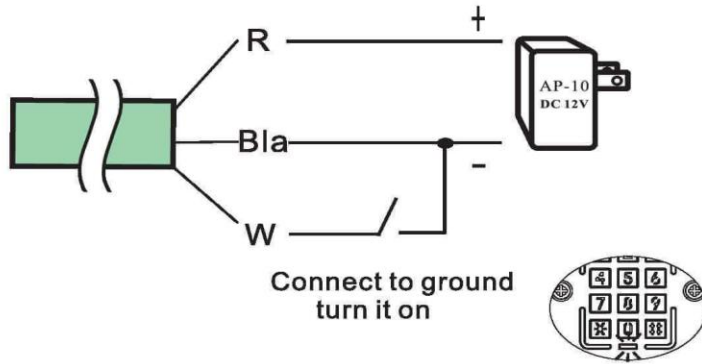
\* External RELAY is connected if overload of electricity occurred (> DC12V/1A).  
Refer to P11.

## 3. Anti-tamper and Alarm wiring

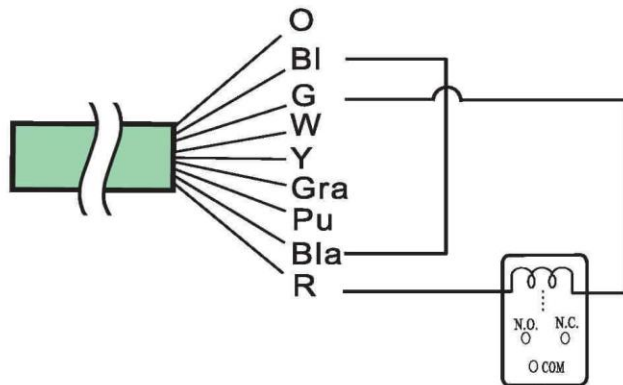




#### 4.LED(Orange Wiring)



#### 5.Door Open point with external RELAY



### Precautions

- 1.Please make sure the voltage and the polarity of the current to avoid causing damage to the unit.
- 2.Do not share electric current with electric lock and reader to avoid interference.
- 3.Do not simple conduct any fixing or modification of the unit without our personnel.
- 4.Warranty period for the reader is 1 year.

### Troubleshooting

- 1.Card sensed but the door lock doesn't work.

Solution:(1)Please check if the power supply of the reader and the panel's POWER light (red indicator light) are on.

(2)Please check the electric lock's power supply and its connecting points when the OK Light is on.

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

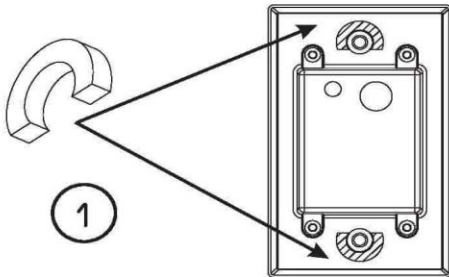
(4)Please check whether the door opening mode is correct.

2. Unable to enter into various functions of setting mode when system password is entered.
- (1) Incomplete system password is entered.
    - \* # XXXX # represents complete system password .
  - (2) Wiring problem that caused key buttons are unable to enter correct data when they are pressed. Please check of all wires are placed well to avoid all wires pressing against the PC board which may cause short circuit or interference.
3. Use of duress code function.
- (1) Change the door opening mode: 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. Terminate anti-tamper or anti-duress output
- Proximity the card and open the door as regular basis to turn it off.
5. Continuous beep sounds (error) occurred during batch registration.
- \* Additional note: Maximum card capacity is 1000. Cards will not be registered when exceeding its maximum card capacity.
- For example: The unit will only register the first 900 cards when 1000 cards are registered with Batch Registration function and the last 100 cards will not be registered if the unit has registered 100 cards previously.
- The system sends continuous beep sounds to indicate the number of card registered is full.

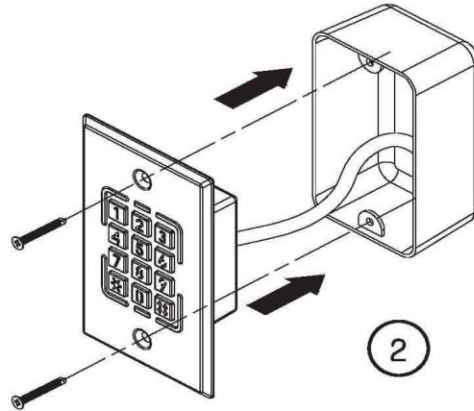
## Installation of the unit

### ST-226 ANSI style

Please take out the template from the screws package and affix it on the correction position according to the diagram shown

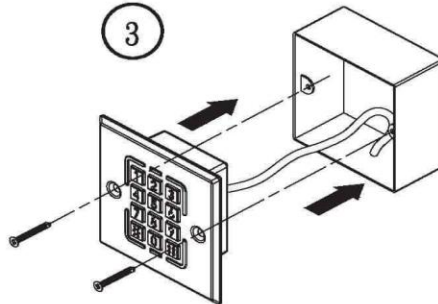
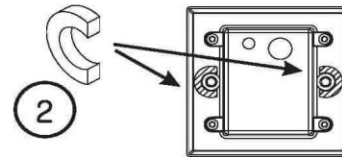
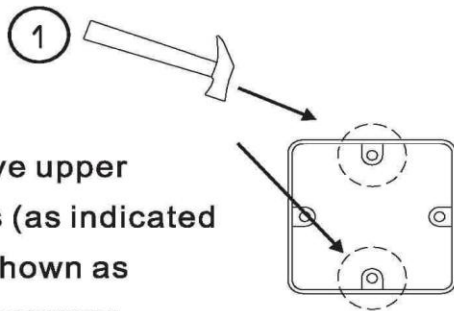


Install in the embedded box.



### ST-228 British style

Knock or remove upper and lower parts (as indicated in the circles) shown as A and B with a hammer before installing it.



Install in the embedded box.