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Professional Sliding Gate Opener Installation Manual and Owner's Guide



BM800 / BM1000



PLEASE READ THE MANUAL CAREFULLY
BEFORE ASSEMBLING AND OPERATING



CAUTION!
important personal safety instructions:
READ CAREFULLY!

1. Required a qualified and professional person to install, and maintain.
2. For your safety, photocells must be installed together with the gate opener.
3. Keep car and people away when the door is being operated.
4. It is strictly prohibited to play within the scope of activities of the door, don't let your children play with the control system, put remote control where children can not reach.
5. Keep equipment in good grounding.
6. This appliance can be used by children aged from 8 years and above and persons.
7. With reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
8. Children shall not play with the appliance.
9. Cleaning and user maintenance shall not be made by children without supervision.
10. The drive cannot be used with a driven part incorporating a wicket door (unless the drive cannot be operated with the wicket door open).
11. Before installing the drive, check the driven part is in good mechanical condition, correctly balanced and opens and closes properly.
12. Always cut the power when cleaning or performing maintenance.
13. Stay clear of the gate's area of operation when in motion.
14. Do not resist the direction of movement of the gate; this may present a safety hazard.
15. The gate may move at any time without warning.
16. It is STRICTLY FORBIDDEN for users to perform OPERATIONS THEY ARE NOT EXPLICITLY REQUIRED AND ASKED to do in the manuals. For repairs, adjustments and extraordinary maintenance, CONTACT THE SPECIALIST TECHNICAL SERVICE CENTRE.

7. Technology parameters

Reference	BM800	BM1000
Input voltage (Vac)	110V/DC24V	110V/DC24V
Max. gate weight (kg)	600	900
Rated load (N)	600	900
Input power (W)	190	210
Duty cycle (ED)	30mins continuous working	30mins continuous working
Protection class (IP)	44	44
Rotating speed (rpm)	3000±200	3000±200
Moving speed (cm/s)	18~22	18~22
Ambient temperature range (°C)	-25~+50	-25~+50

8. Common faults and solutions

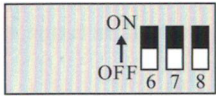
Users need to frequently check whether the sliding gate is moving smoothly, and need to add suitable amount of lubricant on the track.



(P.S.: To avoid injury, only a professional technician is allowed to deal with the wires and components on the main board.)

Fault	Causes	Solutions
The gate does not move when pressing the transmitter	<ol style="list-style-type: none"> 1.The plug is not securely connected. 2.The clutch is disengaged. 3.Photocell malfunction. 4.The fuse is blown. 5.The memory of the transmitter code has been deleted. 6.The transmitter's battery power is not enough, or without power. 	<ol style="list-style-type: none"> 1.Have the power supply connected securely by a qualified technician. 2.Engage the clutch with the release key. 3.Check the photocell. If the photocell is damaged, replace with a new pair. If no photocells installed, connect the terminal GDN and IR with a short cable. 4.Replace with a new fuse. 5.Recode the transmitter again. 6.Replace the transmitter battery.
When opening or closing the gate, the gate does not stop when the block touches the limit switch.	<ol style="list-style-type: none"> 1.The terminals SW1 and SW2 are connected reversely. 2.The motor wires are connected reversely. 	<ol style="list-style-type: none"> 1.Exchange the connection of terminals SW1 and SW2. 2.Exchange the connection of motor wires.
The gate does not reverse when meeting obstacles.	<ol style="list-style-type: none"> 1.The gate closing direction has been set reversely. 2.The force is set at too high level. 	<ol style="list-style-type: none"> 1.Push switch 5 on SW1 to the other position. 2.Turn the force setting button anti-clockwise to adjust the force to a proper level.
The gate opens automatically during the closing procedure.	The force has been set at a too low level.	Turn the force setting button clockwise to adjust the force to a proper level.
The gate opens automatically when the door is completely closed.	The gate closing direction has been set reversely and the automatic closing gate function has been set on.	Push switch 5 on SW1 to the other position.
The gate can not open completely.	The user control the gate by pedestrian access button in error.	Control the gate by pressing full opening/closing button.

6. Automatic closing selection

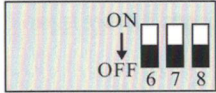


Dip switch 6, 7 and 8 control automatic closing time. And the automatic closing time is as follows:

Dip switch 6=10s,
Dip switch 7=20s,
Dip switch 8= 40s.

Put all the switches to ON position,
the automatic closing time is 70s.


When automatic closing function is available, and the gate is at closing position, the opener is going to count down from the setting time, and close the door automatically when the countdown is finished.




Put all the three switches to OFF, the gate will not close automatically.

7. Protection when meeting resistance

The gate will stop when it meets a resistance in opening, and will reverse to open when closing. If the force is set too weak, the gate can not work normally, while if the force is set too strong, it may lead to serious injury or property damage.

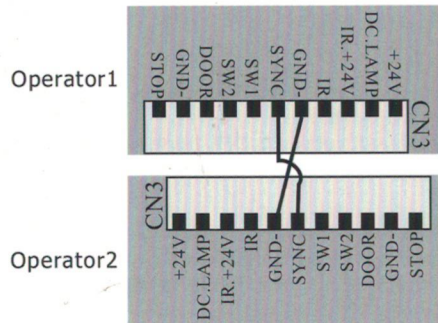
Force can be adjusted by  switch.

Turn it clockwise , the force will become stronger.

Turn it anticlockwise , the force will become weaker.

8. Double gate

Connect the two ports of IR2 / SYNC and GND on the control boards of two openers with 2 x 0.75 m² cables (see figure). Then double gate opening can be achieved. But be noted that the remote control just only need to code with one of the openers.



NOTE:

1. When connecting the double door, the short circuit wires of GND and IR2 / SYNC of the two openers must be removed. One of the opener's DIP switch SW1 must be turned to ON in the fifth position, and the other opener's DIP switch SW1 must be turned to OFF in the fifth position.
2. When connecting infrared device, remove the short circuit wires of IR1 and GND.

17. Check that there is no vegetation in the area of operation of the photocells and that there are no obstacles in the area of operation of the operator. Perform functional tests on photocells and sensitive edges every six months. To check that the photocells work, pass an object in front of them during closing. If the operator reverses the direction of movement or comes to a halt, the photocells work correctly. This is the only maintenance operation that must be carried out while the operator is live. Ensure that the glass on the photocells is kept clean (use a cloth slightly moistened with water; do not use solvents or any other chemicals as these could damage the devices)

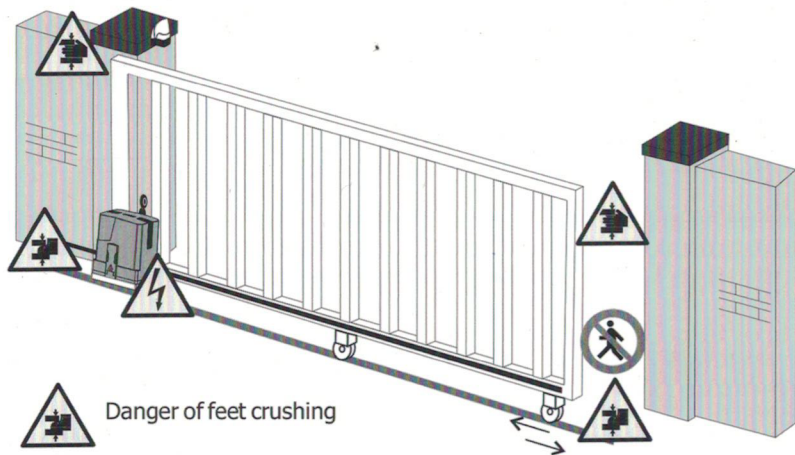
18. Before delivering to the user, check that the system is EN 12453 (ESPE test) standard compliant. Make sure that the operator has been properly adjusted and that the safety and protection devices as well as the manual release are working properly.





19. Compliant with EN 12453: 2014 & EN 60335-2-103: 2015, you must install Photocell.

20. If the power cable is damaged, it must be replaced by the manufacturer or the technical assistance service or by a person with a similar qualification so as to prevent any risks.

21. Install the RCD or GFI unit for the power of the Sliding Gate Opener to ensure safe operation. After installation, make sure that the cable of the Sliding Gate Opener power cord and its accessories can not be bare and can not be touched.

Hazard identification example:



-  Danger of feet crushing
-  Danger of hand crushing
-  Danger - live parts
-  No transit during the manoeuvre

Caution :

Design, installation of the door, the extrusion or cutting edge to stay sufficient space.

(for the fingers > 25mm, for the limb > 50mm, for the body > 300mm)

Correct disposal of this product:

This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources.

To return your used device, please use the return and collection systems or contact the retailer where the product was purchased.

They can take this product for environmental safe recycling.





One GP 23AE, alkaline battery was used in remote control unit. Remove batteries from the remote control unit when it is out of service for long periods and is to be disposed of safely.

Warning: After 2008-9-26, following batteries will be prohibited to use.


- Containing more than 0.0005% mercury;
- Containing more than 0.002% cadmium;
- Containing more than 0.004% lead.

2. Travel limit setting

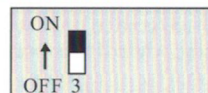
Start the learning when the gate is fully closed or fully opened. Press and hold the button  for 5 seconds, DL5 will flash, then push the transmitter button or  button, the gate

begins to open and stop when the switch spring reaches travel limit  switch.

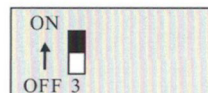
And the PCB will save the setting information and exit the program automatically.

 The PCB will exit the program automatically after 30 seconds if there is no further operation.


3. Soft stop setting




Dip switch 3 at ON position is with soft stop function. The gate stops softly before the opening/closing motion is almost finished.



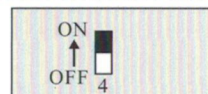
Switch 3 at OFF position is without soft stop function.

Soft stop speed can be adjusted by  button.

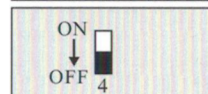
Turn it clockwise, the soft stop length will become longer: 

Turn it anticlockwise, the soft stop length will become shorter: 

4. Limit switch setting

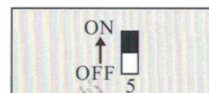


Dip switch 4 at ON position means the travel limit switch normal close(NC).



Dip switch 4 at OFF position means the travel limit switch normal open(NO).
(The default setting is OFF, normal open)

5. Identify opening/closing direction



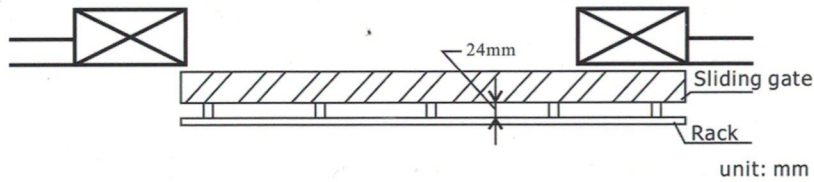
Correct: When the gate is closing, and the photocell beam is interrupted or the gate meets an obstacle, the gate will reverse to open immediately.

Fault: When the gate is closing, and the photocell beam is interrupted or the gate meets an obstacle, the gate stops immediately or continue to close.

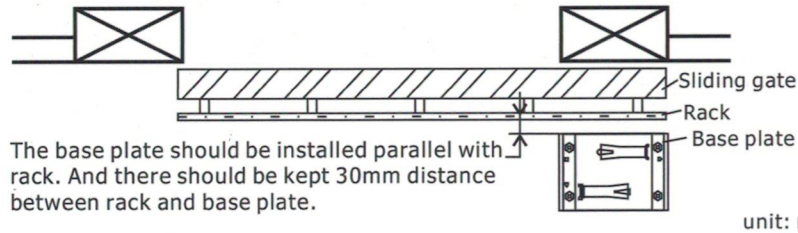
When you find the mistake, please put the dip switch 5 at ON or OFF again to reset the correct position.

2. Rack installation

The installation distance between rack and gate should be 24mm.



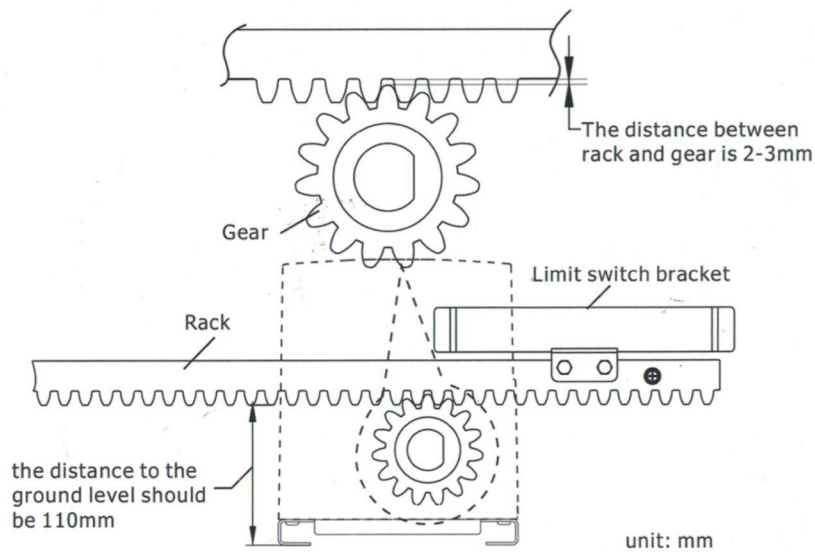
3. Base plate installation



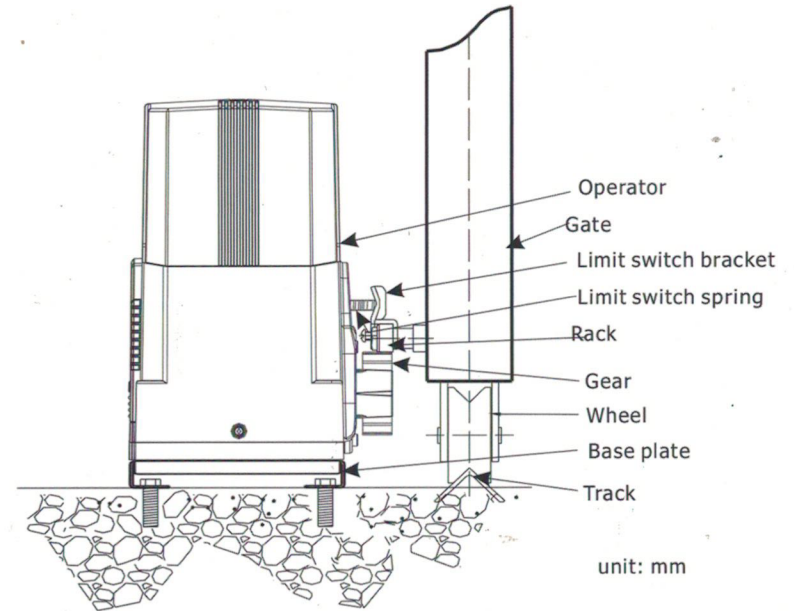
The base plate should be installed parallel with rack. And there should be kept 30mm distance between rack and base plate.

4. Operator installation

⚠ Please check whether the sliding gate can be moved smoothly before installation.

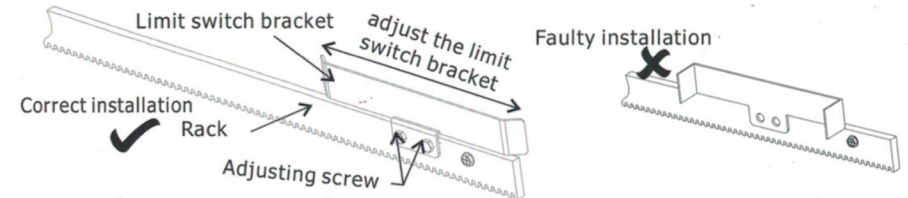


⚠ There must be a clearance between rack and gear as shown above, otherwise the motor function and manual operation may be effected.



5. Limit switch bracket installation

Put the limit switch bracket on the rack, and fix it with adjusting screw. Be noticed to install the limit switch bracket correctly. If the installation is wrong, the gate can not reach to correct travel limit.

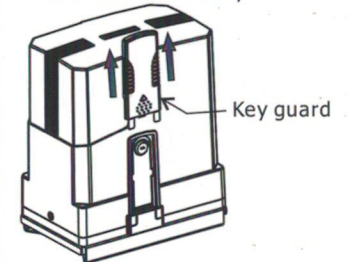


6. Operation of release key

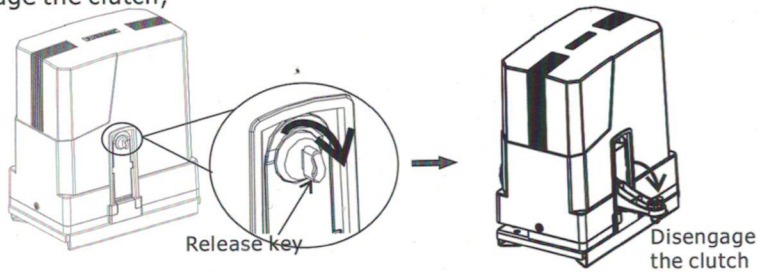
The clutch can be disengaged in the following 3 cases:

1. In case of power failure, we need open or close the gate manually.
2. It need to reset the functions.
3. opener breaks down and needs maintenance

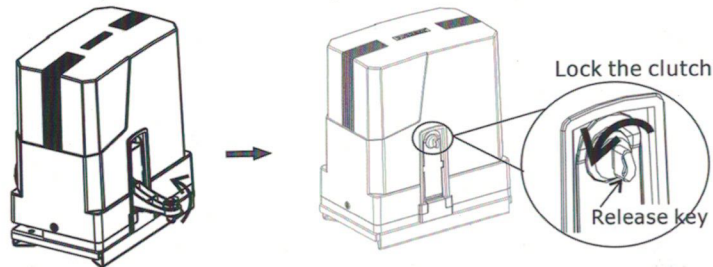
a. Pull out the key guard as the arrow shows;



- b. Turn anti-clockwise and pull out the release key as the arrow shows, and disengage the clutch;



- c. Close the clutch, and turn the release key clockwise as the arrow shows and lock the clutch.

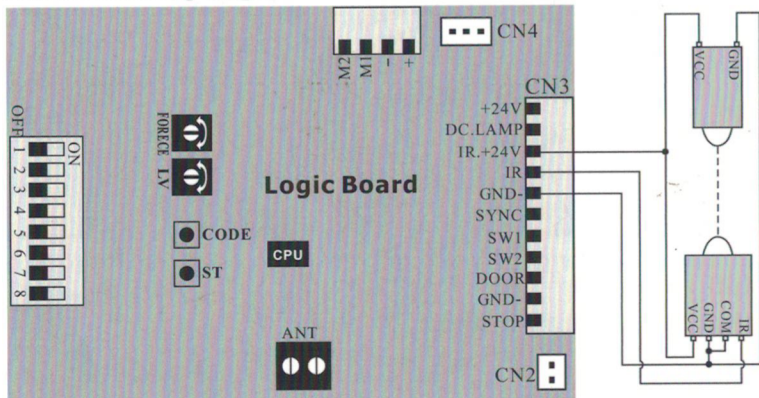


⚠ Note: Remember to lock the clutch after finishing all the operations.

7. Photocell connection

⚠ Photocell installation from the ground 200mm, can not exceed this height. After installation, use EN 12453: 2014 obstacle test.

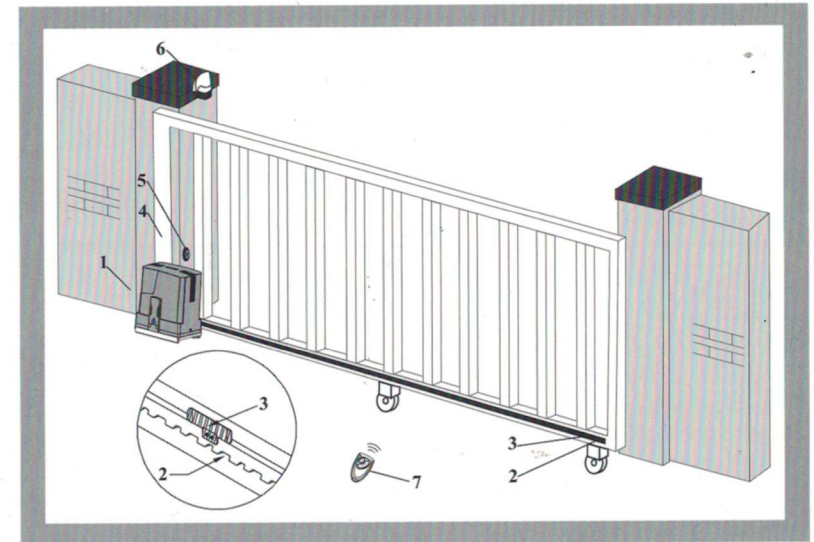
a. Photocell wiring diagram



b. Photocell instruction:

When the photocell are wired correctly, the DL1 LED will be ON, and DL1 LED will flash when the photocell beam is interrupted. When the gate is closing and the photocell beam is interrupted, the gate will stop and reverse to open immediately. If the photocell is not installed, please connect terminal GND and IR with a short cable.

3. Installation drawing

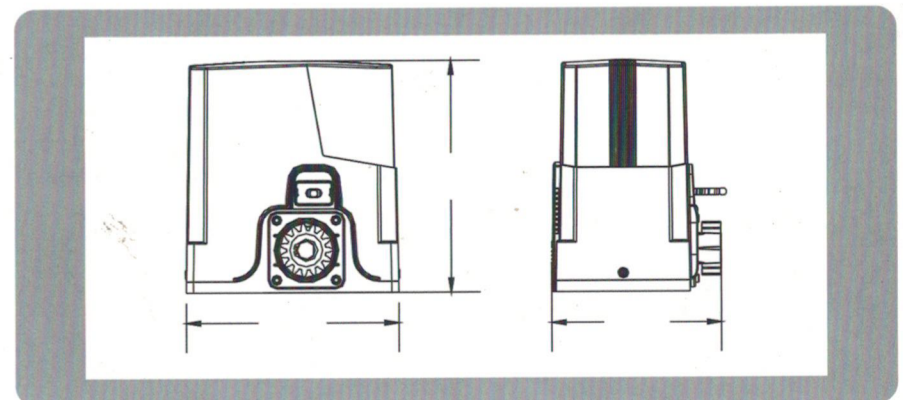


1. BM 800 / BM1000 operator
2. Rack
3. Limit switch bracket
4. Gate
5. Photocell
6. Flashing light
7. Transmitter









Notice:
(power cord specification)
For input power: 3x1.5mm²
For flashing light: 2x1.5mm²
For photocell: 5x0.5mm²




4. Assembly of operator

1. Operator outlines and dimensions (mm)



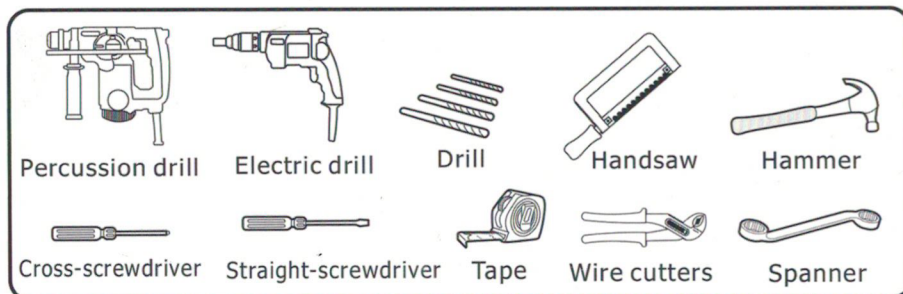
1. Packing list

	Name	Quantity
	Sliding gate opener / BM(800/1000)	1pcs
	User manual	1pcs
	Transmitter / FR36	2pcs
	Base plate	1pcs
	Release key	2pcs
	M8x80 Expanding screw	4pcs
	M8 X40 Screw with hexagon nut and plain washer	4 sets
	Limit switch bracket	2pcs

	Name
	Photocell (optional)
	Flashing light (optional)
	Keypad (optional)

2. Installation tools

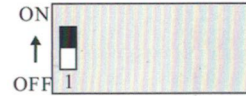
(Make sure that you have the following tools and comply with latest safety technical standard.)



5. Code and decode

1. Code

Multi-button coding function: More than one button in a transmitter for full opening /closing can be memorized. When one button in a transmitter is coded successfully, the second button in the same transmitter can also be coded. If pressing the second button, it can also control the full opening /closing of the gate.



Put dip switch 1 at ON position, more than one button in a transmitter can be memorized.



Put dip switch 1 at OFF position, only one button in a transmitter for full closing/opening.

a. Full closing / opening button coding:

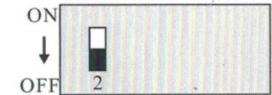
Press **CODE** button for 2 seconds, DL6 LED will be on, press the desired button twice, DL6 LED will be off, which indicates the button is memorized.

※b. Pedestrian access button coding:

⚠ Pedestrian coding will be valid only when the dip switch 1 is at OFF position.



Put dip switch 2 at ON position, it is with pedestrian access.



Put dip switch 2 at OFF position, it is without pedestrian access.

Press **CODE** button for 2 seconds, DL6 LED will be on, and press **CODE** again, DL6 LED will flash. Then press the desired button twice, the DL6 LED will be off, which indicates the button is memorized. If you want to exit the coding in halfway, just need to press **CODE** for one time when the DL6 LED is flashing.

c. Max. 16pcs transmitters can be memorized. When coding with 17th transmitter, the first coded transmitter will be deleted.

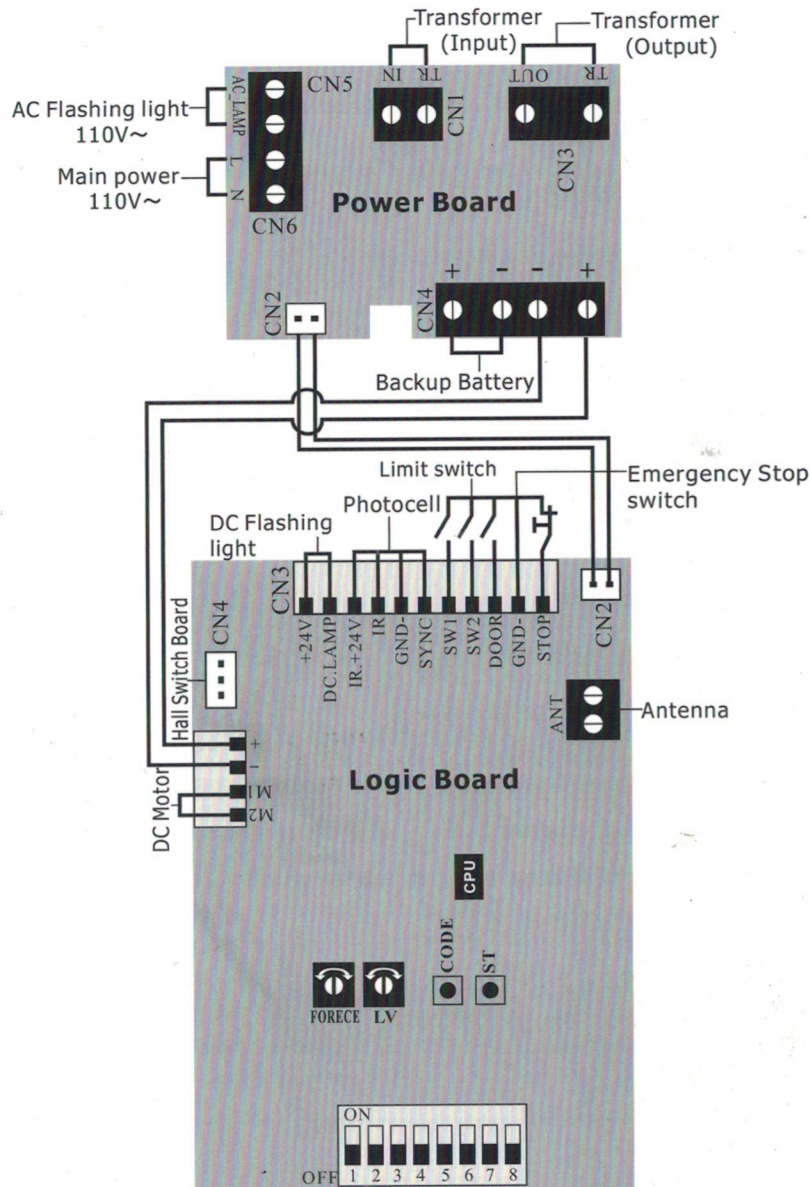
Transmitter working mode: Open⇒Stop⇒Close⇒Stop⇒Open

2. Decoding

Press **CODE** button for about 8 seconds until the DL6 is off, which indicates all the memory and transmitters are deleted.

6. Function selection

1. Wiring diagram



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