

SECTIONAL GARAGE DOOR OPENER

FBD180/200/220/240

Installation and Users Manual

WARNING

**ONLY QUALIFIED AND EXPERIENCED TECHNICIANS
SHOULD ATTEMPT INSTALLATION OR SERVICE TO THIS
UNIT, OTHERWISE, SERIOUS PERSONAL INJURY, DEATH,
OR PROPERTY DAMAGE MAY OCCUR.
SAVE THESE INSTRUCTIONS.**



Total Door Automation (Australia) Pty Ltd

www.totaldoorautomation.com.au

sales@totaldoorautomation.com.au

Technical Support 1800 AUSTDA (1800 287 832)

TABLE OF CONTENTS

Safety Instructions	3
Main Features	4
Technical Parameters	4
Preparation before Installation	5
Packing List	
Tools needed for Installation	
Installation and Adjustment	6
Interface	10
Pushbuttons	
Transmitters	
Programming	11
P1. Open and Close Limit	
P2. Adjusting Obstruction Force Sensitivity	
P3. Infrared Photocell	
P4. Automatic Closing	
P5. Door Lock Mode	
Light Function	
Adding Extra Transmitters	
Delete Transmitters	
External Terminal Connections	19
Maintenance	20
Troubleshooting	20

1. Safety Instructions

THESE ARE IMPORTANT SAFETY INSTRUCTIONS. FOLLOW ALL INSTRUCTIONS AS INCORRECT INSTALLATION CAN LEAD TO SEVERE INJURY OR DEATH



The door opener should be installed and put into operation by qualified personnel. Otherwise, serious personal injury or property damage may occur.



Locate any fixed control: within sight of door but away from all moving parts of the door and at a height of more than 1.4m above the ground to avoid children reaching it. Keep remote controls away from children, to prevent the door opener from being activated involuntarily.



Before installation of the door opener, the door should be carefully checked for being kept well balance. The door must be in good working order. Open and close the door manually, make sure the door can be moved smoothly.



The operator should be disconnected from mains power to avoid electrical shock before repairing it or opening its cover.



Installation and wiring must be in compliance with your local building and electrical codes. Connect the power supply cord only to properly earthed mains.



When opening or closing the door, do not attempt to walk or drive through the door.



No one or vehicle is allowed to enter or leave the garage while the remoter is being installed, do not allow children to play near the door.



The door should only be operated when it can be observed to avoid accidents.



Install and adjust the manual release so that the handle hangs less than 1.5m above the floor.



The operator may only be repaired with the door closed.

TDA recommend the photo electric beam to be installed on all garage door openers. Safety sensor provides an additional measure of safety against entrapment and is strongly recommended for home owners with young children. Photo electric beam must be used for all installation where the closing force as measured on the bottom of the door is over 400N(40kg). Excessive force will interfere with the proper operation of the Safety Reverse System or damage the garage door. Installers must ensure that the doors are installed in a compliant manner as per AS/NZS 60335-2-95.



Failure to comply with the instructions above may result in personal injury or property damage. Our company does not accept responsibility for damage or injury resulting from installing this operator.



When using auto close mode, a photo electric beam must be fitted correctly and tested for operation at regular intervals. Extreme caution is recommended when using auto close mode. All safety rules must be followed.

WARNING: Important safety instructions. It is important for the safety of persons to follow all instructions. **SAVE THESE INSTRUCTIONS.**

2. Main Features

- The door opener is designed for garage door.
- The control unit regulates all the necessary functions include automatic lighting control, automatic memory, automatic close, automatic reverse and photocell protection etc.
- Courtesy light will turns on and off after 3 minutes.
- The operator memorizes the limit positions and unique braking system that slows the unit down at the end of its travel. Soft start and soft stop control guarantees extremely smooth and quiet operation.
- Automatic reversion on obstruction during closing procedure.
- The controller has a security LOCK function which prevents operation of the door from transmitter.
- In the event of power failure, the release device makes it possible to open and close the door manually.
- Hopping code remote control with max. 30 pcs hand transmitters.
- Wiring terminals for battery, button switch, infrared photocell etc.

3. Technical Parameters

Model	FBD180	FBD200	FBD220	FBD240
Motor Power	80 W	100 W	120 W	180 W
Lifting Capacity	800 N	1000 N	1200 N	1800 N
Max. Door Size	10 m ²	12 m ²	14 m ²	16 m ²
Power Supply	AC240V 1ph			
Motor	DC24V			
Ambient Temperature	-20°C ~ +45°C			
Working Humidity	≤90%			
Courtesy Light Time	3 minutes			
Radio Frequency	433.92 MHz			
Transmitter Type	Rolling code			
Transmitter battery	27A AC12V			
LED Light	AC240V, 12W			

4. Preparation before Installation

- After receiving the product, you should make an unpack-inspection, in which you should check whether the product was damaged. If you have any problem please contact your dealer.
- Packing list:

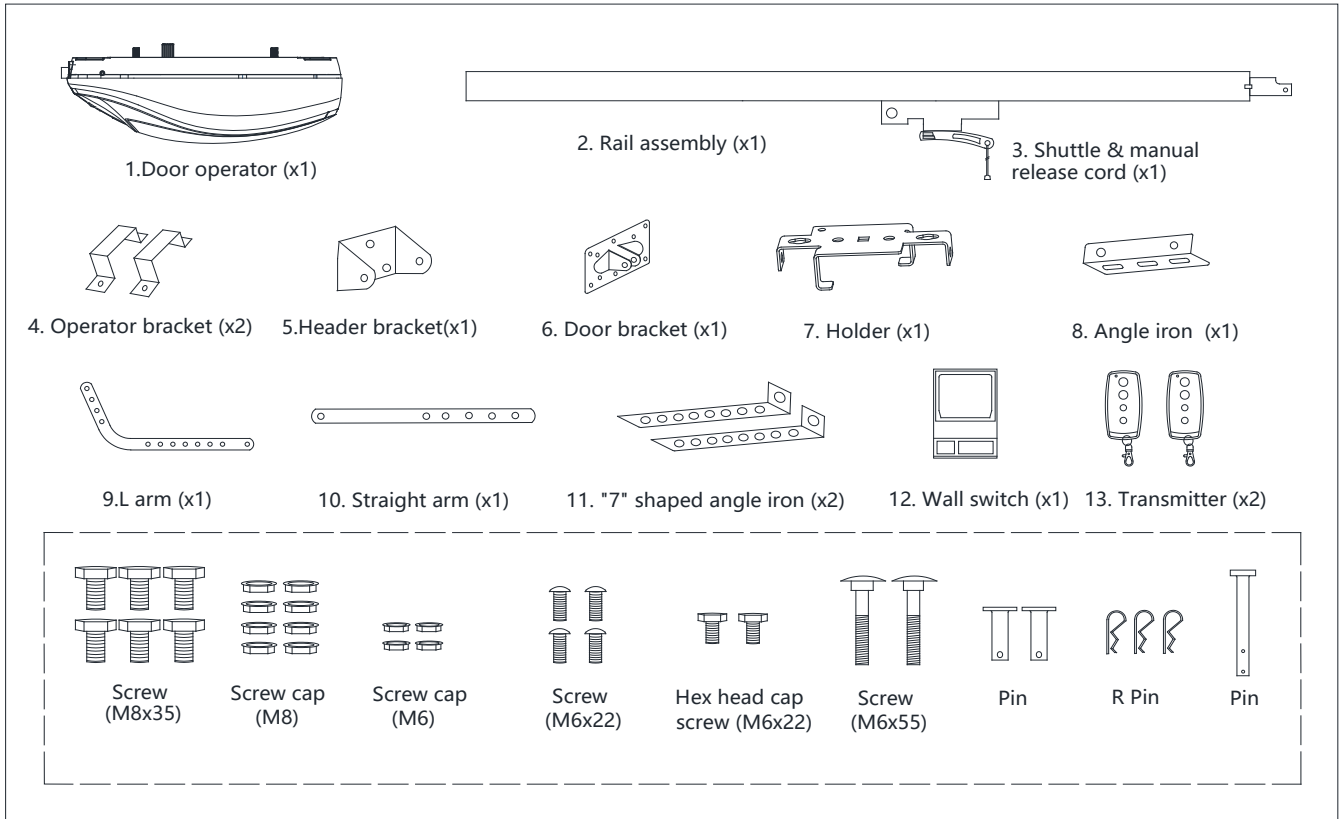


Fig.1

- **Tools Needed for installation**

1	Electric drill and assorted drill bits
2	A ladder
3	Spanner / Wrench
4	Tape Measure and Level Ruler
5	Slotted Screwdriver and Philips Screwdriver
6	Pliers
7	Multimeter / Test pen
8	Hacksaw / Cutter
9	Hammer

5. Installation and adjustment

Step 1

- Before installation of the door opener, the door should be carefully checked for being kept well balance.
- The door must be in good working order. Open and close the door manually, make sure the door can be moved smoothly.
- Check if there is a solid frame in the wall in the center of the door.
- Close the door.
- Locate the centre of the door
- Fit in the drive rail least 40mm space above the highest point of the garage door. There should be a minimum clearance of 80mm between the drive rail and the ceiling.
- Ensure the header bracket is being installed in the centre position.

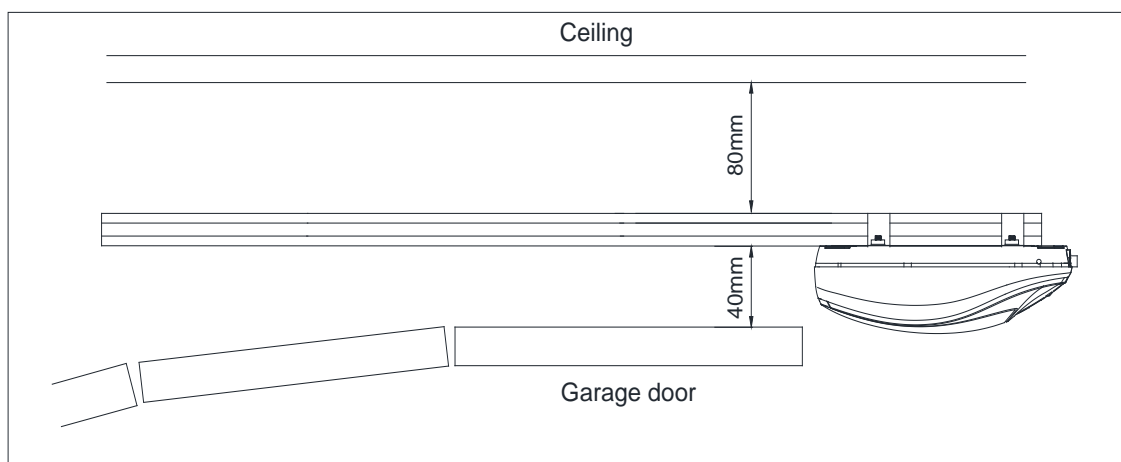


Fig.2

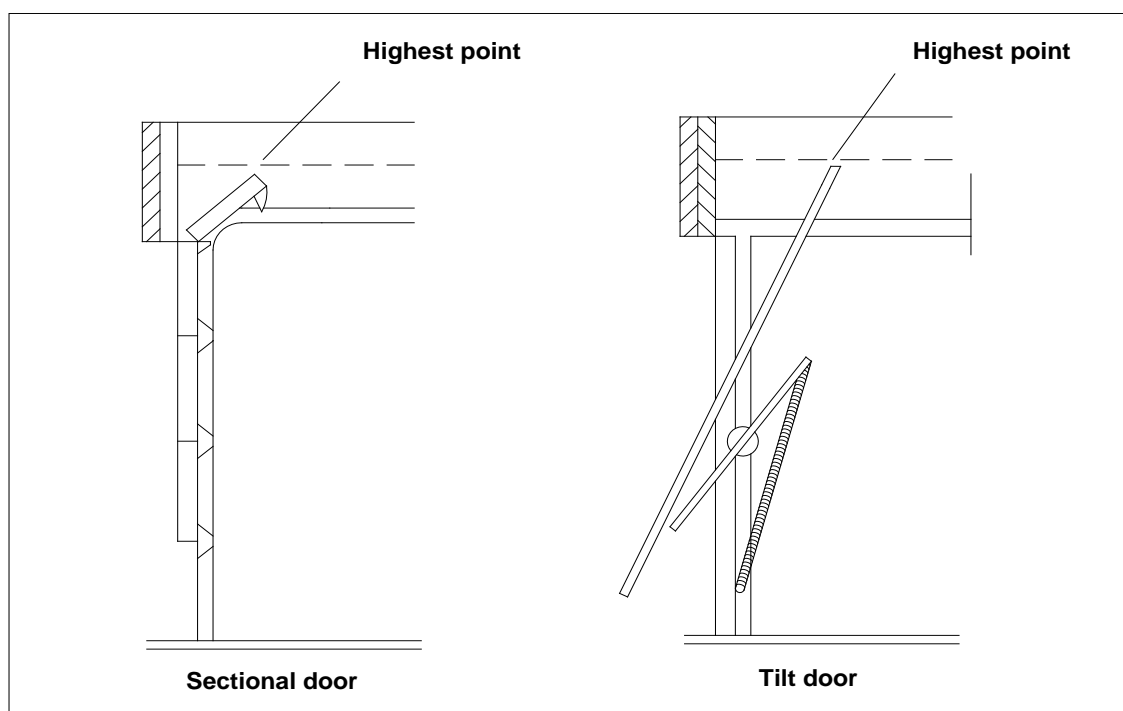


Fig.3

Step 2

- Insert the shuttle into the groove of the chain drive rail. Ensure it faces the right direction (the release arm on the shuttle towards the door opener). Fasten the four screws (M6x22mm).

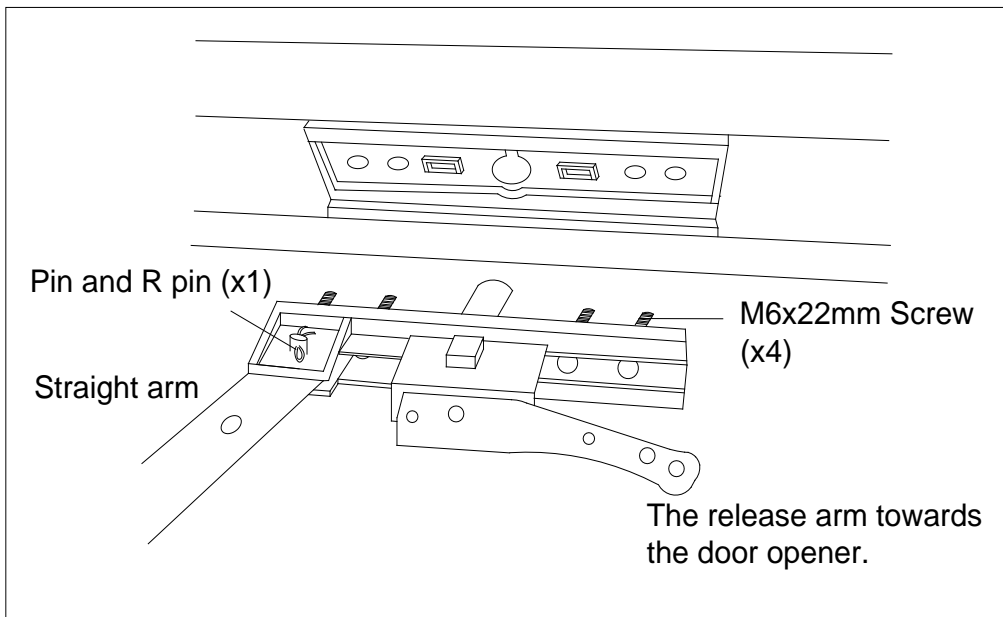


Fig.4

Step 3

- Place the opener on the floor. Attach the opener to the chain drive rail, make sure the spindle is inserted into the chain drive, and then fix the brackets.

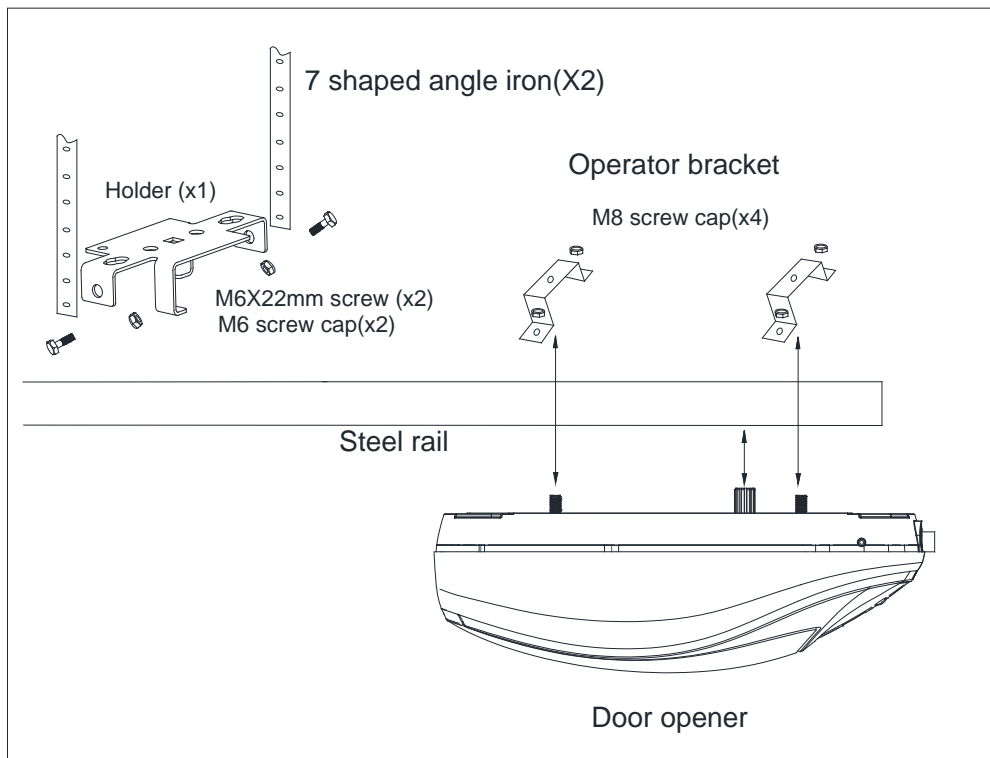


Fig.5

Step 4

- Close the door.
- Place the opener in the center of the floor. Lift the front end of the rail up to the header bracket that has been mounted above the garage door, insert the bolt and secure it with nut.

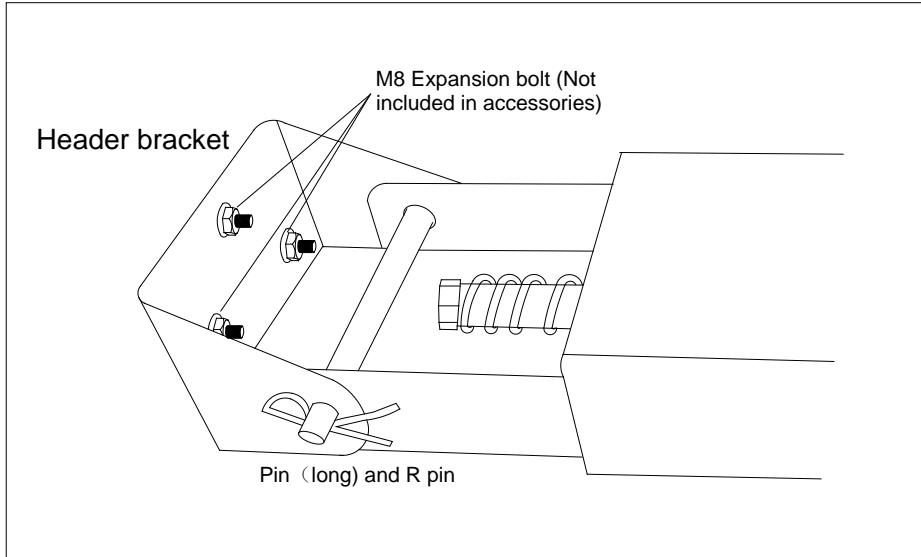


Fig.6

Step 5

- Raise and support the opener with a ladder and line up the rail with the centerline marked on the door. The rail must be level.
- Fix the rail to ceiling with mounting brackets and angle iron see Fig.6, make sure that the rail is level. Ensure the door does not touch any part of the rail by opening or closing it.

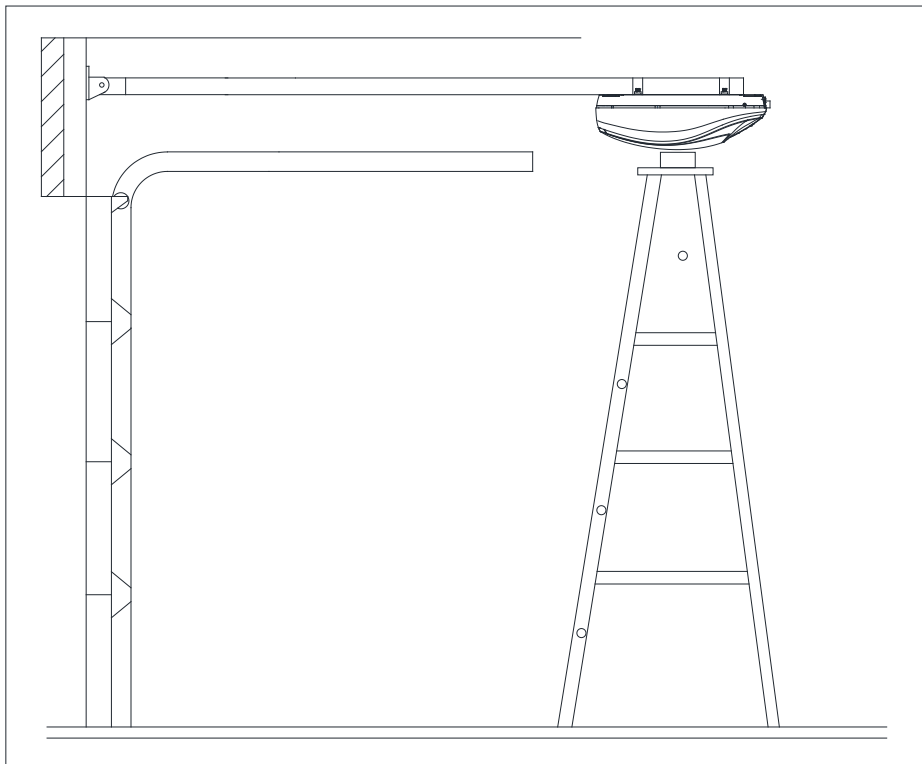


Fig.7

Step 6

- Align the door bracket on the centre line, measure down 100-300mm from the door top edge, secure the bracket in this position with screws (M6X55) and screw caps (M6).
- Link the L arm to the door bracket with pin and R pin. Link the straight arm to the shuttle with pin and R pin, then connect L arm to straight arm with two screws (M8X16) and screw caps (M8), ensure the door arm can be moved freely.

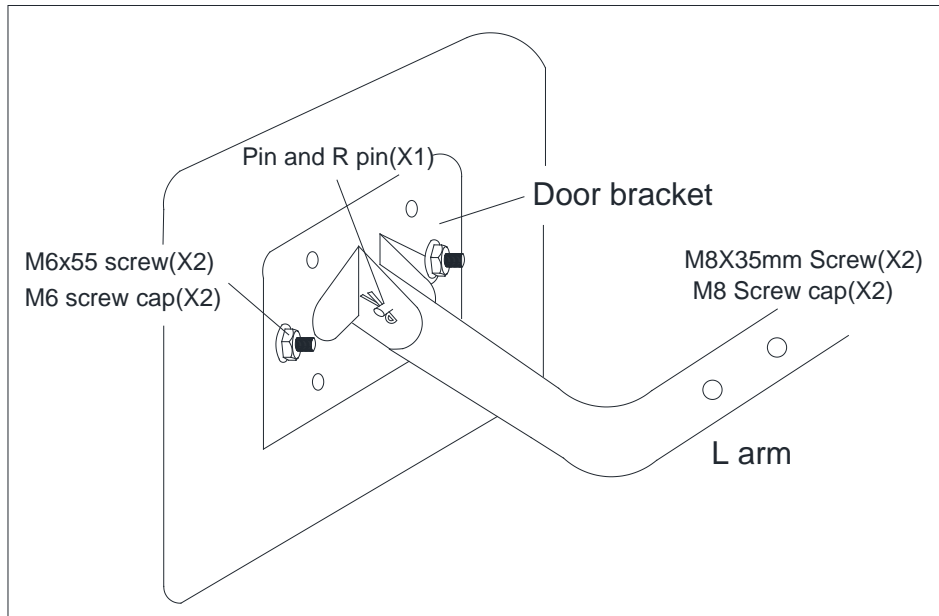


Fig.8

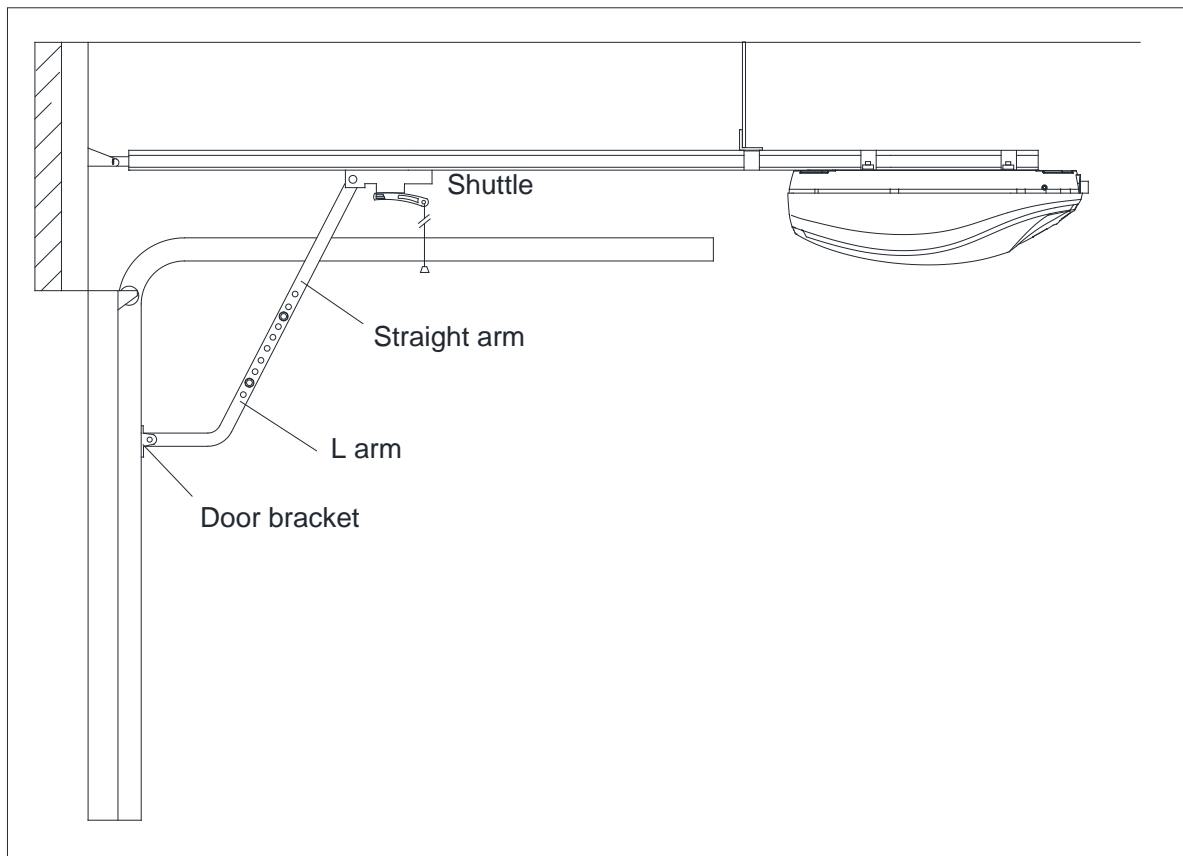


Fig.9

Manual operation

If the door has to be operated manually due to a power failure, pull the release rope, open and close the door manually. To reconnect the door, move the door by hand until it engages into the chain shuttle.

6. Interface

Pushbuttons

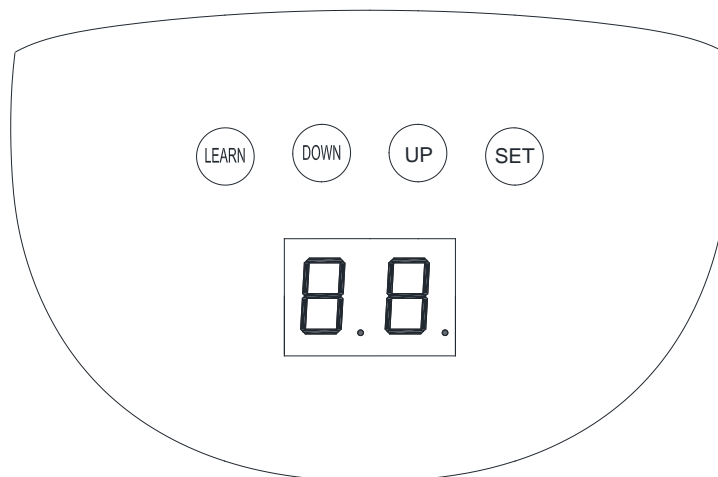


Fig.10

“SET” button: initiates programming modes & saves the settings.

“UP” button: opens the door; Increase settings in programming mode.

“DOWN” button: closes the door; decreases settings in programming mode.

“LEARN” button: Transmitter coding and clearing function.

Transmitter

- Button 1, button 2, button 3: The transmitter works in a single channel mode. With each press of the remote control button which has been programmed, the gate will open, stop, close or stop cycle.
- Button 4: LOCK /LIGHT button

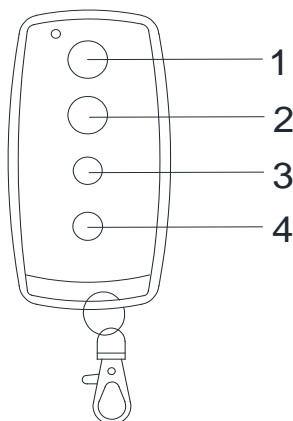


Fig.11

7. Programming

Once the opener is connected to power, the number "88" will be displayed on the LED. And ' . ' indicates the opener is now on normal status.

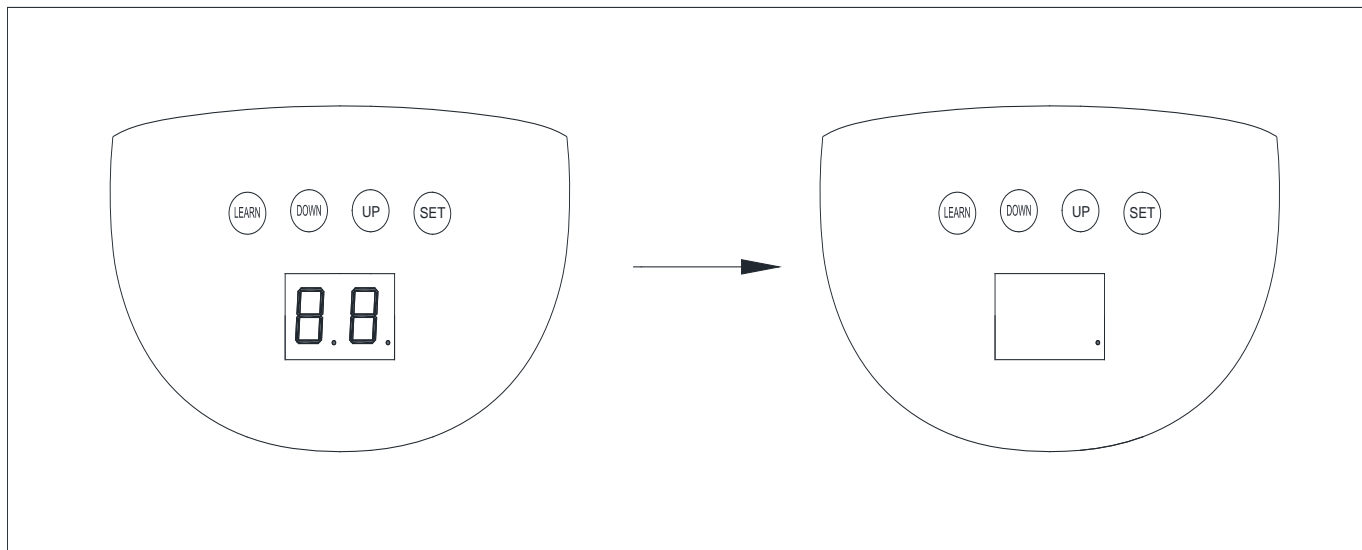


Fig.12

P1. Open and Close Limit (Fig.13)

1. Press and hold "SET" button for 4 seconds until 'P1' is displayed.
2. Press "SET" again, 'OP' will be displayed.
3. To set open limit, Press and hold "UP" button, 'OP' on the LED display will be flashing, release the button until the door has reached desired position.
4. Press "SET" to confirm the open limit position. the LED will now indicated the 'CL'.
5. To set close limit, press and hold "DOWN" button, 'CL' will be flashing, release the button until the door has reached desired position.
6. Press SET to confirm the close limit position.
7. Limit setting complete.

NOTE:

- **Photo electric beam** must be used for all installations where the closing force as measured on the bottom of the door is over **400 N (40 kg)**. Installers should ensure that the doors are installed in a compliant manner as per AS/NZS 60335-2-95.

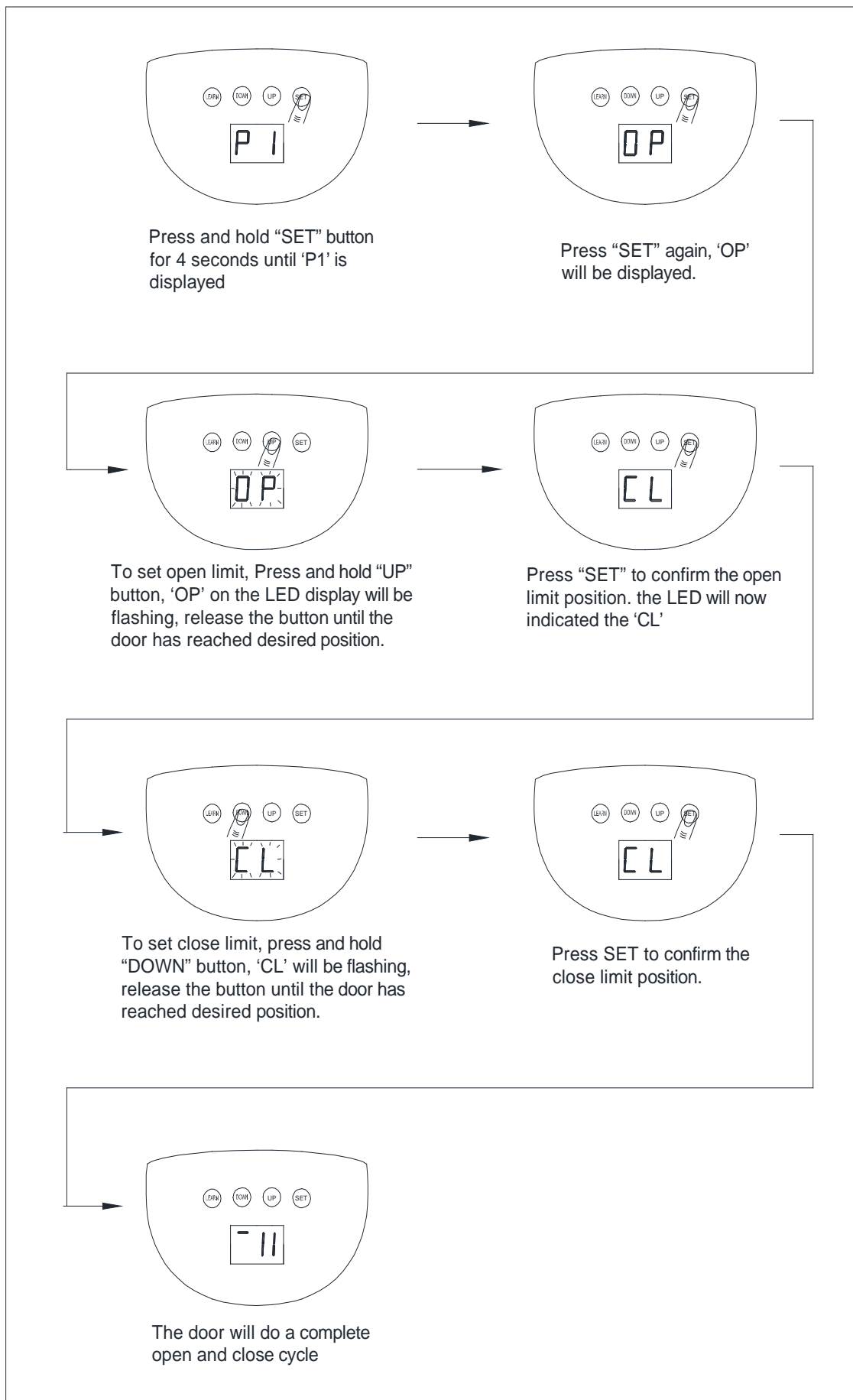


Fig.13

P2. Adjusting Obstruction Force Sensitivity (Fig.14)

If the door meets an obstruction during closing, it will stop and reverse about 15cm~20cm.

1. Press and hold "SET" button for 4 seconds until 'P1' is displayed on LED.
2. Press "UP" button, 'P2' will be displayed.
3. Press the "SET" button, the opener is now in force adjustment mode.
4. Press "UP" button to increase force setting, maximum force setting is level 9 (F9). Press "DOWN" button to decrease force, minimum force setting is level 1 (F1).
5. Press "SET" button to confirm the setting.

NOTE:

- **Regularly check** the obstruction force and make sure it is working correctly, and is TESTED (by placing a **50mm** high object on the floor) Failure to follow the manual could result in serious personal injury and/or property damage.
- **Photo electric beam** must be used for all installations where the closing force as measured on the bottom of the door is over **400 N (40 kg)**. Installers should ensure that the doors are installed in a compliant manner as per AS/NZS 60335-2-95.

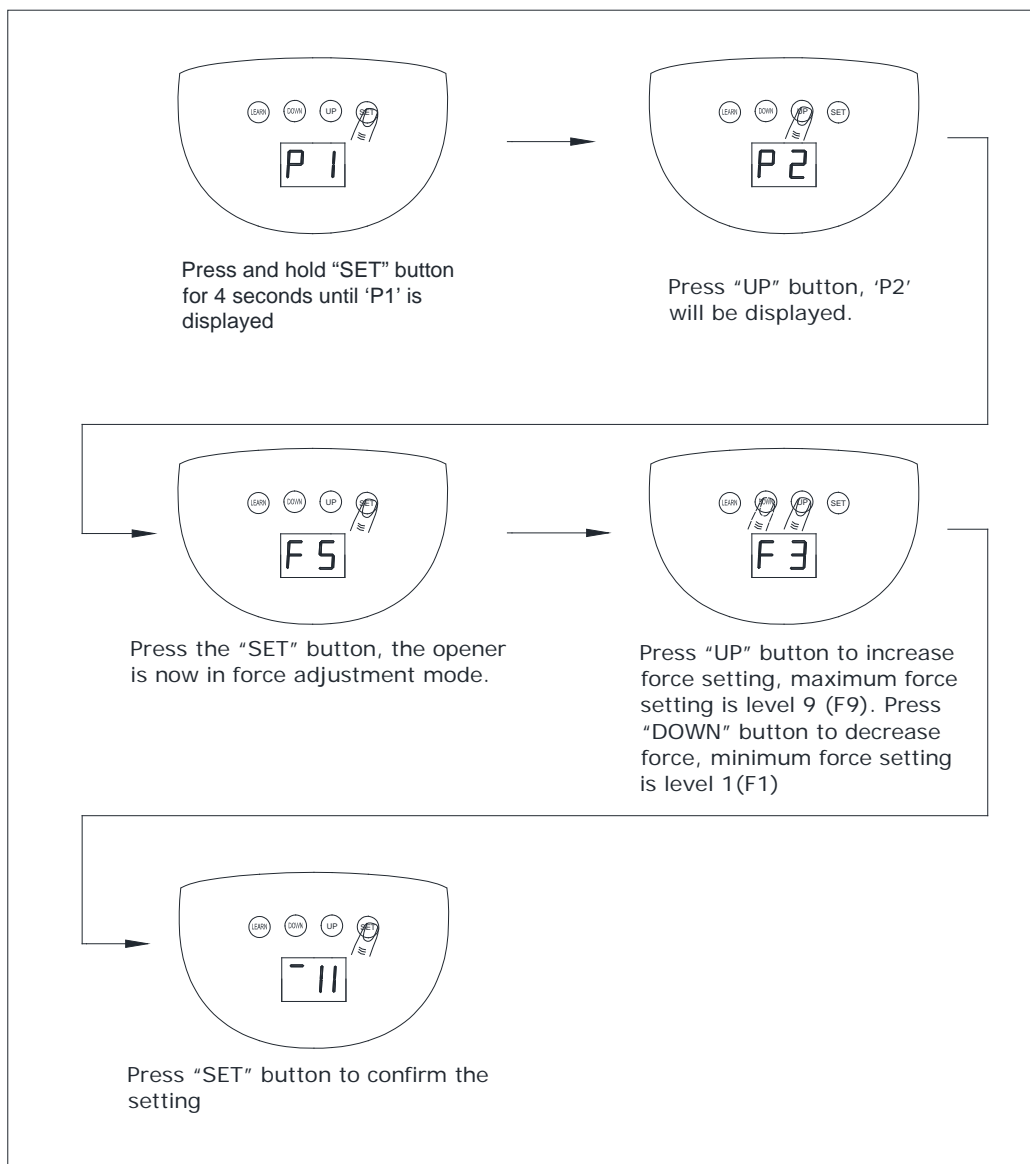


Fig.14

P3. Infrared Photocell (Fig.15)

1. Press and hold "SET" for 4 seconds until 'P1' is displayed.
2. Press "UP" button twice until 'P3' is displayed. Press "SET" button to confirm.
3. Press "UP" button ('H1' will display) to enable the photocell. Press "DOWN" ('H0' will display) to disable the photocell.
4. Press SET to confirm the setting.

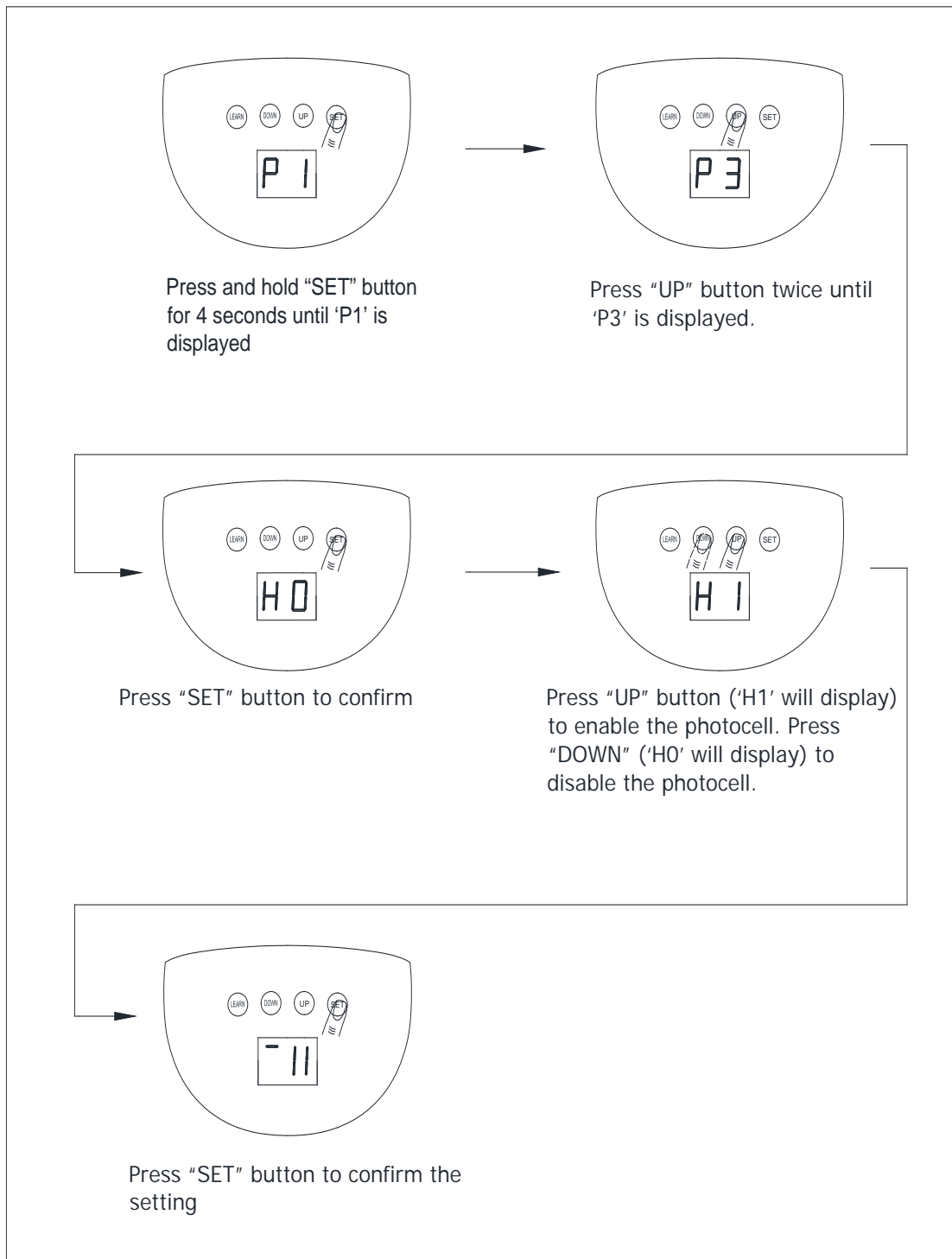


Fig.15

P4. Automatic Closing (1~9 minutes adjustable) (Fig.16)

1. Press and hold "SET" button for 4 seconds until 'P1' displayed.
2. Press "UP" button three times until 'P4' is displayed on the LED.
3. Press the "SET" button.
4. Press "UP" or "DOWN" to set auto close time (b0-b9). Press "UP" to increase timer, press "DOWN" to decrease timer.
 Note: Set timer to 'b0' to disable auto close function.
5. Press SET to confirm the setting.

NOTE:

- When using auto close mode, a **photo electric beam** must be fitted correctly and tested for operation at regular intervals. Extreme caution is recommended when using auto close mode. All safety rules must be followed.
- Automatic closing is available only when the door is in **fully opened position**.

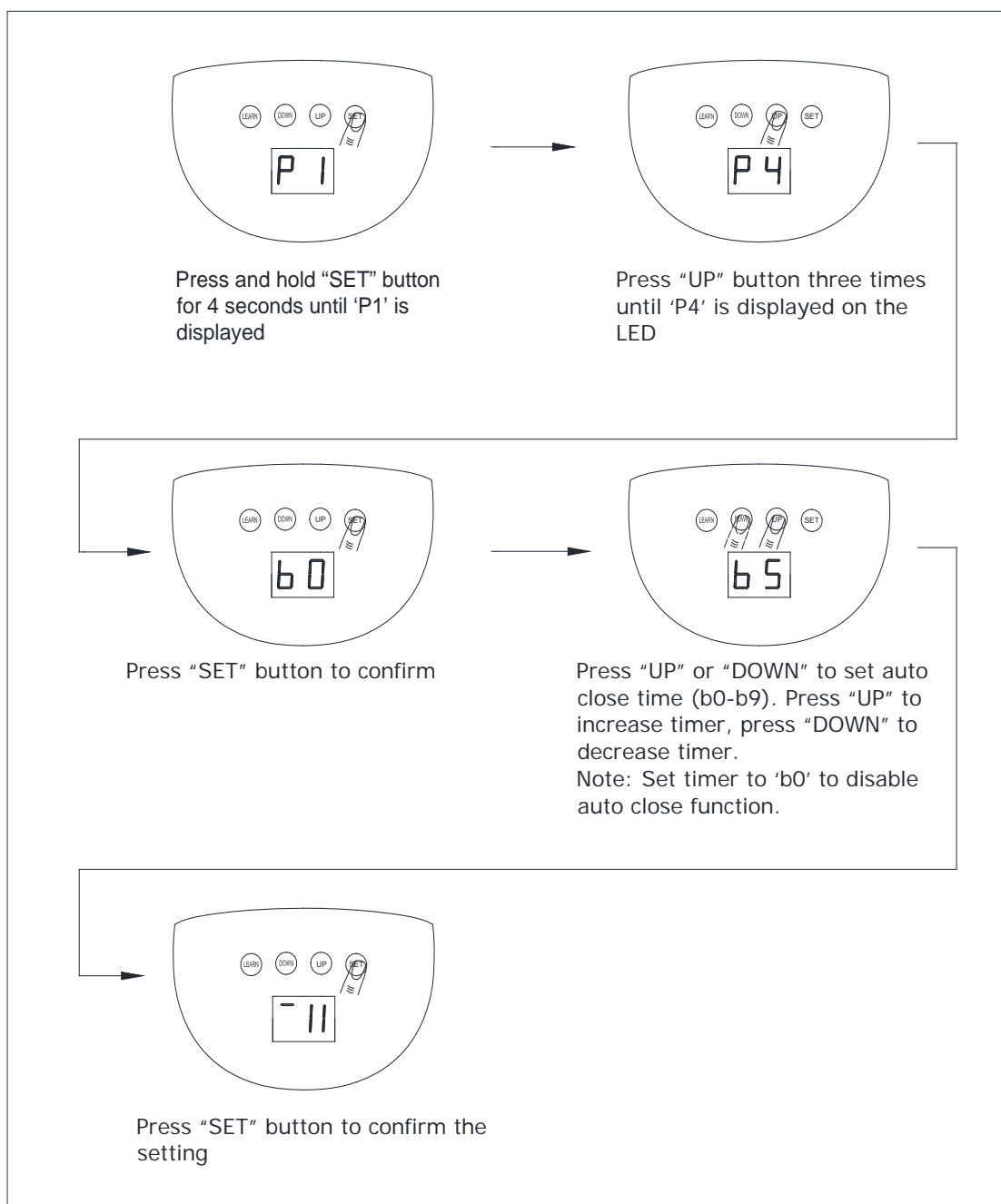


Fig.16

P5. Door Lock Mode (Fig.17, Fig 18)

1. Press and hold "SET" for 4 seconds until 'P1' is displayed.
2. Press "UP" button for four times until 'P5' is indicated on the LED display. And press the "SET" button.
3. Press "UP" to enable the door lock ('LC' will be displayed). Press "DOWN" to disable the door lock ('UL' will be displayed).
4. Press SET to confirm the setting.

NOTE:

- DOOR LOCK function is available only when the door is in **fully closed position**.
- Once the DOOR LOCK function is set, the transmitter will also be locked. To operate the garage door, you need to unlock the transmitter first by pressing the button 4 of the transmitter.

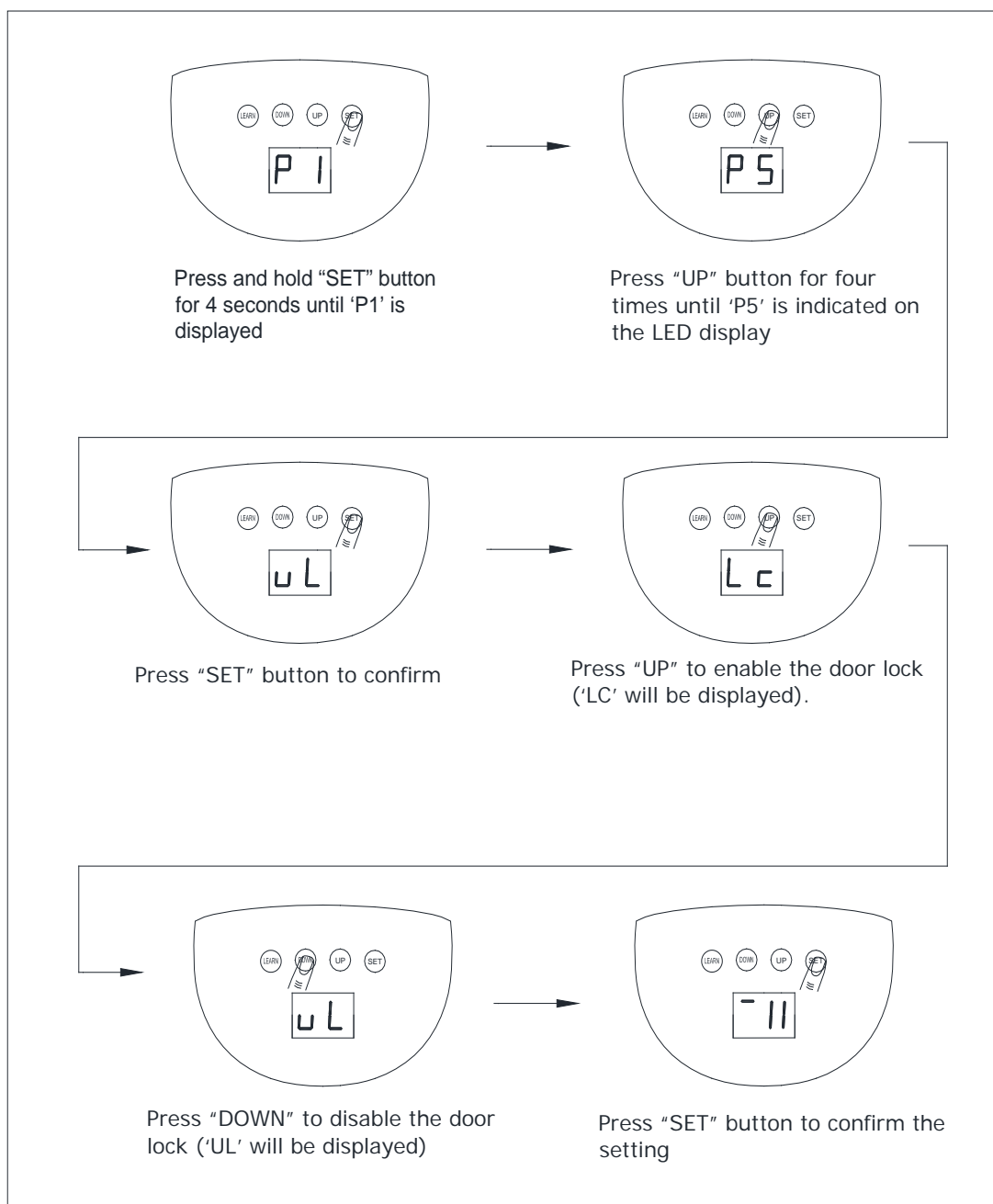


Fig.17

Light function

Press button 4 twice, the LED light on opener will turn on, and press the button 4 once, the light will turn off.

Note:

- Light function is available only when the Door Lock Mode is disabled.

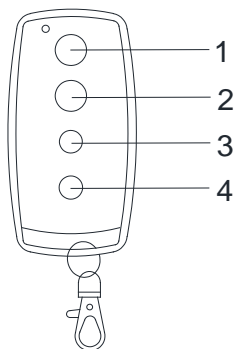


Fig.18

Adding Extra Transmitter (learn) (Fig. 19)

1. Press “LEARN” until “Su” is displayed.
2. Press the same new transmitter button twice.
3. “Of” will be flashing.
4. Learning process is completed when “- 11’ is displayed.

Up to 30 transmitters can be added.

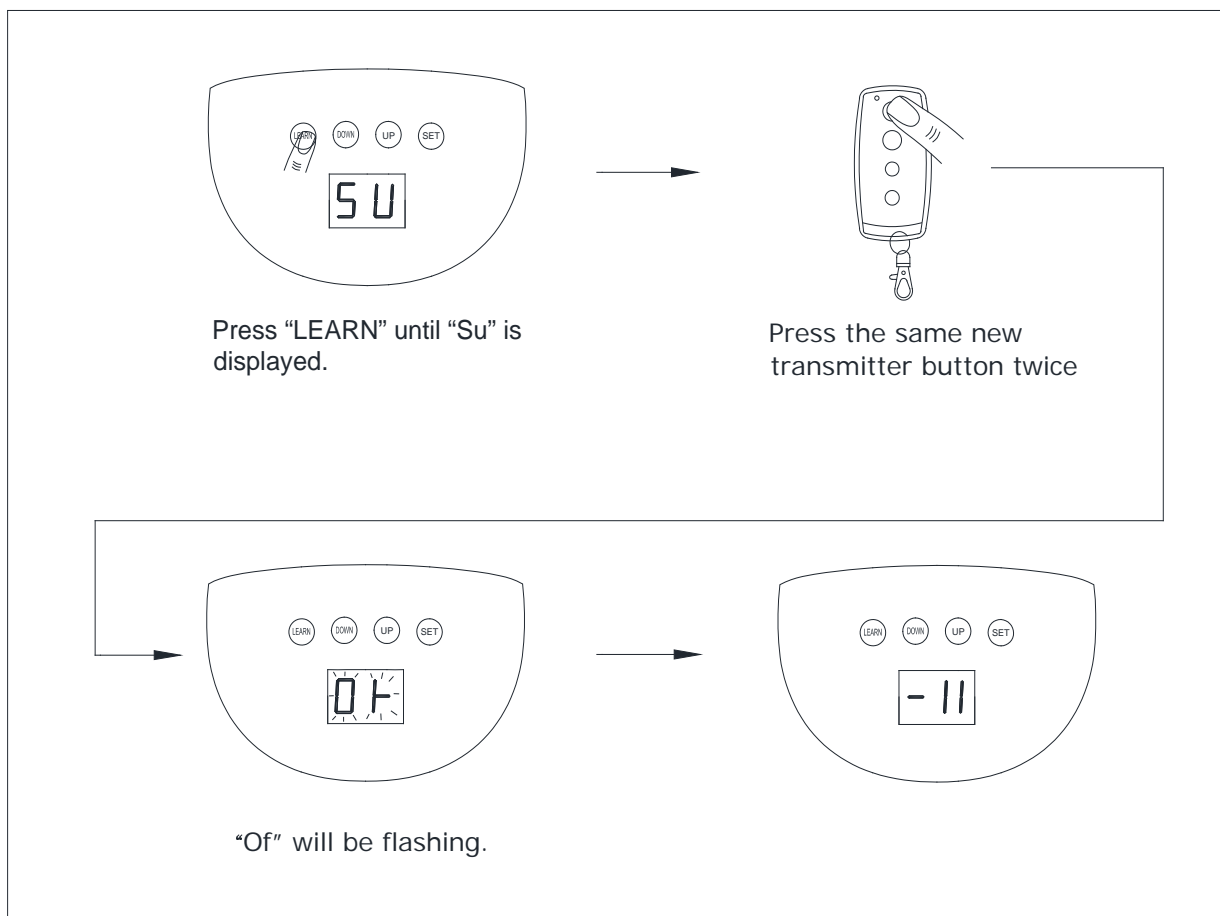


Fig.19

Delete Transmitters(Fig.20)

1. Press and hold **"LEARN"** button
2. **'-11'** will be displayed, keep holding the **"LEARN"** button for 8 seconds until 'dL' is flashing.
3. All stored transmitters are being deleted.

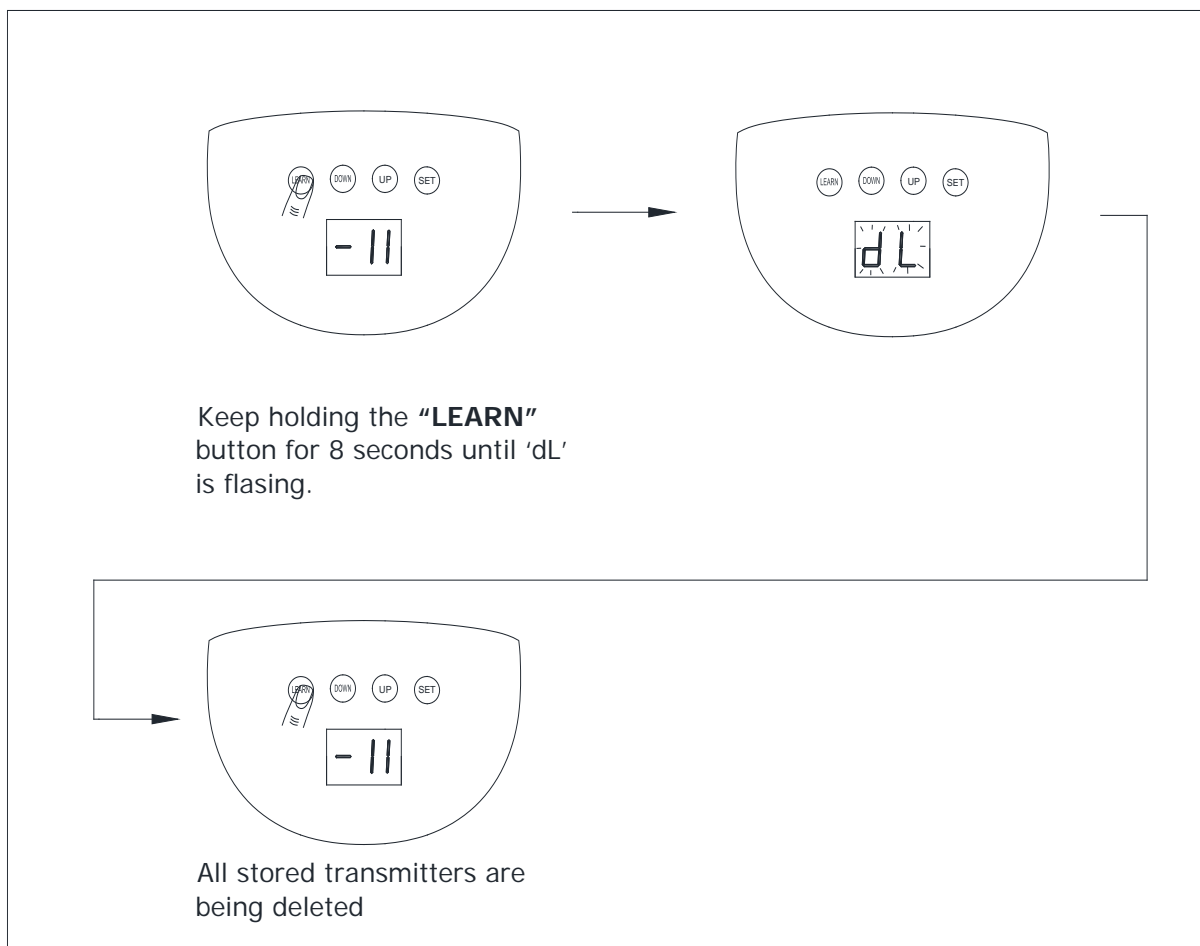


Fig.20

8. External Terminal Connections

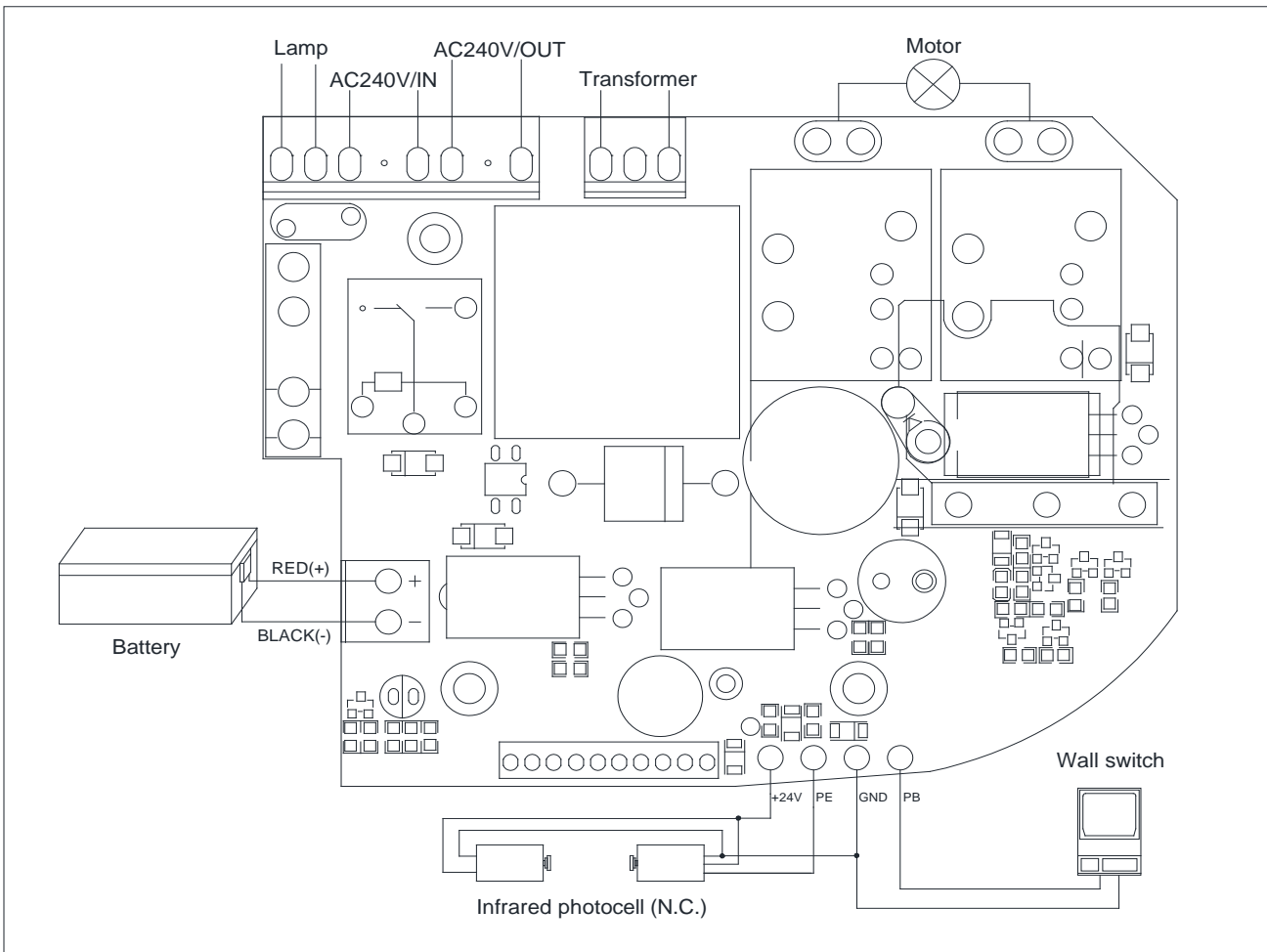


Fig.21

Wicket door(N.C.) and Fire emergency

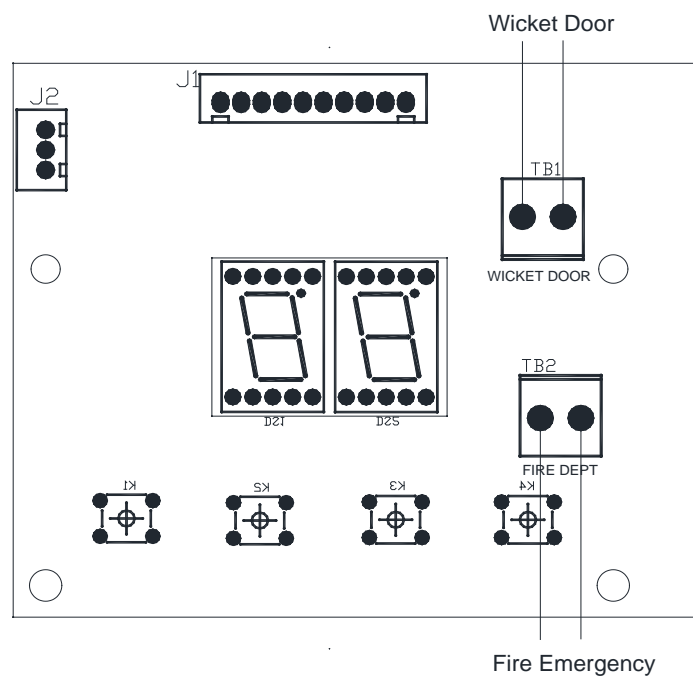


Fig.22

9. Maintenance

- Check the garage door every one month to make sure the door is well balanced and in good working condition.
- The auto-reverse function should be regularly inspected, and adjusted if necessary. For service, call an experienced serviceman. We suggest for safety reasons, photocells should be installed on doors.
- Disconnect from mains power before replacing bulb.
- Be sure to read the entire manual before attempting to perform any installation or service to the door opener.

10. Troubleshooting

Trouble	Possible Causes	Solutions
The door fails to open and close. LED display does not light.	<ol style="list-style-type: none"> 1. Power is OFF. 2. Fuse is blown. 	<ol style="list-style-type: none"> 1. Make sure the power is ON. 2. Replace the fuse.
After programmed the open and close limit, the motor fails to work.	<ol style="list-style-type: none"> 1. The screws on the hall (on motor) are loose. 2. Open and close limit. 	<ol style="list-style-type: none"> 1. Tighten the two screws. 2. Reprogram the open and close limit.
The door can open, but fails to close.	Infrared photocell function is enabled, but the photocell has not been installed or infrared beam is obstructed.	Make sure the infrared photocell function is disabled. Remove obstructions or aligning the transmitter and receiver.
Transmitter does not work.	<ol style="list-style-type: none"> 1. Battery level may be low. 2. Transmitter 	<ol style="list-style-type: none"> 1. Replace the battery inside the transmitter. 2. Re-program the transmitter.
The transmitter operating distance becomes short or indicator light on the transmitter begins to dim.	Battery level may be low.	Replace battery.