

# **FB200**

## **Garage Door Operator (Kit)**

### **Operations Manual**

**This document is for information only and unless indicated, is not to form part of any contract. In accordance with our policy of continued product improvement, specifications contained herein are subject to alteration without notice.**



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## 1. Safety Information

Carefully read and follow all of the safety precautions and warnings before and during the Installation and operation of the FB200 Garage Door Operator. Failure to do so could result in severe injury!

- This equipment should be installed by qualified and experienced technical personnel.
- Before installing ensure that the door is in a mechanically sound condition and balanced correctly. Ensure that the door operates smoothly and easily.
- Prior to **any** work being undertaken on this equipment the main power supply should be isolated, locked off and proven dead.
- Do not attempt to alter or modify this product in any way. Failure to comply with this could result in serious injury or damage to property.
- The garage door should only be operated automatically when it is in full view.
- Under no circumstances should the door be operated electrically without the counterweight springs.
- Before installation remove all unnecessary wires and disable the locks.
- Locate any control boxes within sight of the garage door and at a height of no less than 1.5M, to avoid children tampering with them.
- Install the manual release so that the handle is within easy reach, we recommend within 1.8M of the floor.
- Service and repairs must be undertaken by experienced and qualified technicians.
- The manufacturer reserves the right to alter any or all of the design and specification of this equipment without prior notification.
- The manufacturer will not accept any liability for damage or injury resulting from poor Installation or maintenance of this equipment.

## 2. Introduction

The Garage door operator is intended for the automation of domestic overhead sectional and tilt garage doors only and is not suitable for industrial purposes. The product has the advantages of ease of maintenance and safe and reliable performance.

Additional features include a unique braking system which slows the door down towards the end of its travel and a manual release mechanism which allows operation of the door in a power failure.

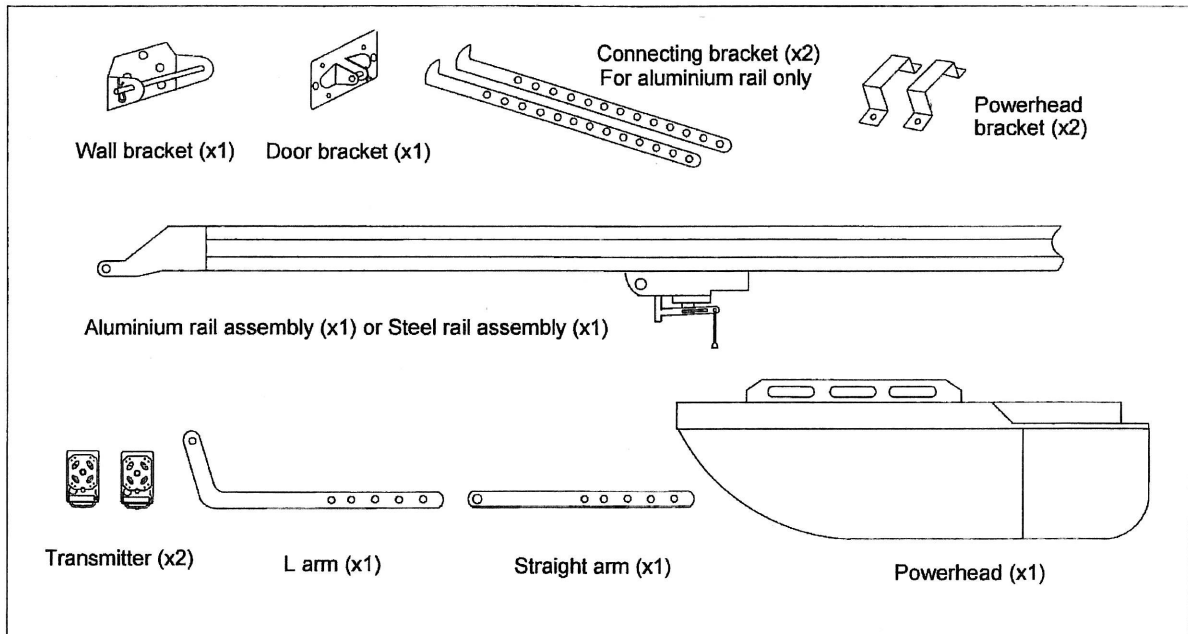
## 3. Technical Specifications

Model	FB200
Motor	24V DC, 120W
Open/Close force	1000N
Max. Door size	14m <sup>2</sup>
Power requirement	220V AC, 50 Hz
Radio frequency	433.92MHz
Working temperature	-20°C ~+50°C
Transmitter battery	12V 23A
Courtesy bulb	220V 25 Watt E14



## 4. Parts list

Ensure that all parts have been included before commencing installation of this barrier. If any part appears to be missing or damaged please contact the dealer immediately.



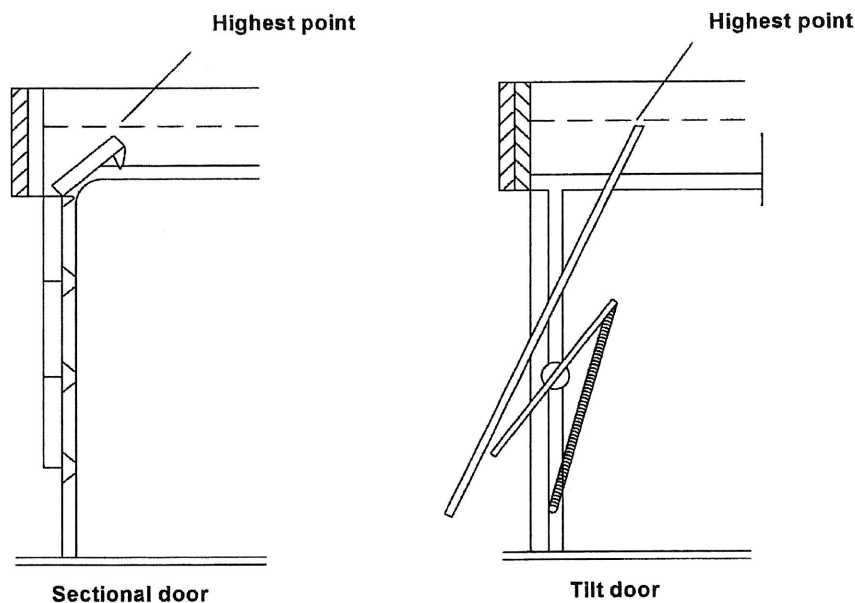
## 5. Installation

Please read these instructions in conjunction with the drawings below and the Safety notes at the beginning of the manual.

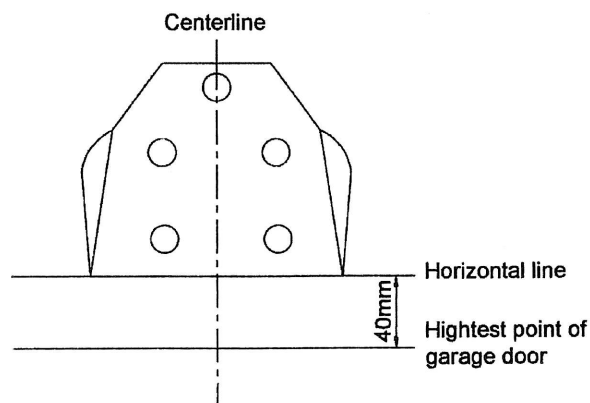
### Step 1;

- Check that the door is in good working order, manually open and close the door to make sure the door operates smoothly and freely.
- The door must be well balanced. Check for wear on the springs/wires.
- Check to see if there is a solid fixing point above the centre of the door.
- Close the door and measure the centreline of the door. Mark the centreline with a pencil and extend the line down to the door surface and up the wall above the door.

- To check the installation height of the operator. Slowly open the garage door and look for the highest point of the door when moving. Close the door again and mark the high point on the wall above the door. Make a horizontal line across the centreline 40mm above the high point. (This should leave a gap of at least 80mm from this horizontal line to the ceiling. If there is not enough headroom then use the maximum height possible to allow for the wall bracket to be fitted properly).

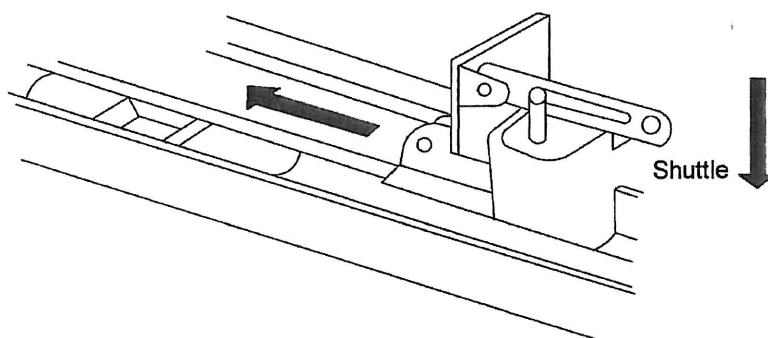


- Fit the wall bracket to the wall above the garage door, the centreline of the door aligns with the centre of the bracket. The bottom edge of the bracket should line up with the horizontal line.



*Step 2;*

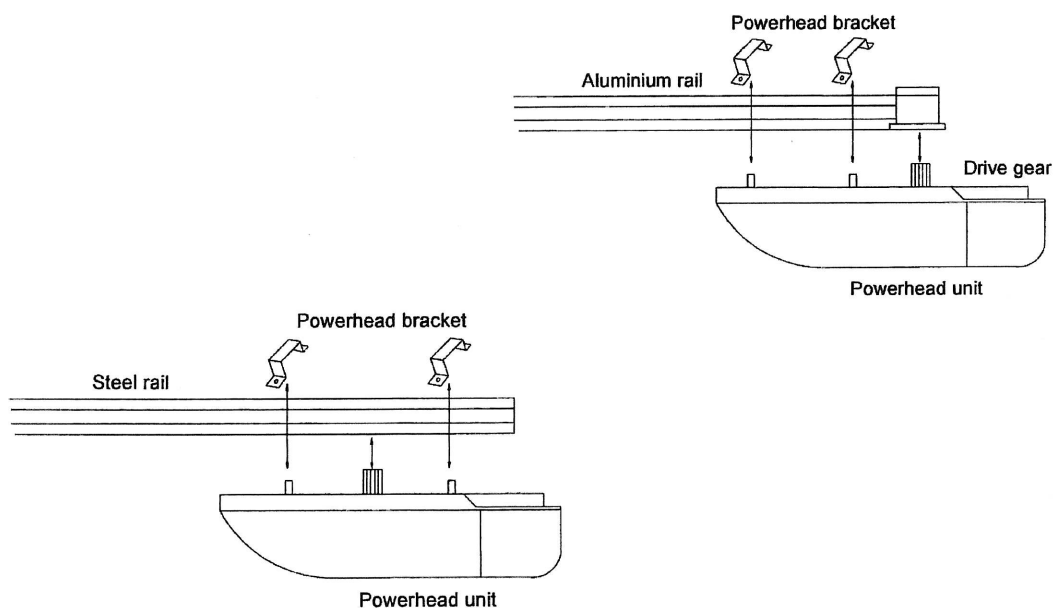
- Aluminium rail: Insert the shuttle into the groove at the end of the rail. Be sure the release lever on the shuttle faces towards the Powerhead. Slide the shuttle along the rail until it locks into the chain connector.



- Steel rail: The shuttle has already been fitted into the rail at the factory.

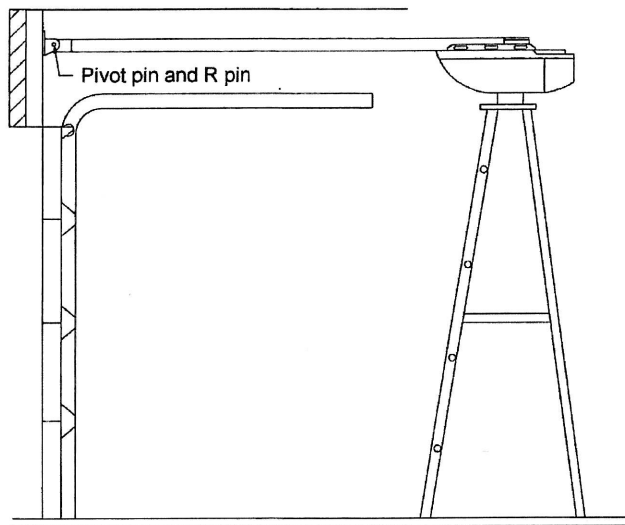
*Step 3;*

- Place the powerhead on the floor, use the cardboard packaging to protect the head from scratches. Attach the Power unit to the rail, making sure that the spindle is inserted into the chain drive then fix the two clamping brackets.



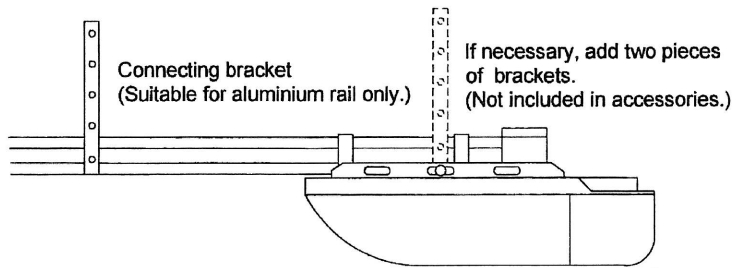
*Step 4;*

- Close the Garage door.
- Place the Power unit in the centre of the floor. Lift up the front end of the rail and fix to the wall bracket with the pivot pin and retaining clip.
- Raise and support the power unit with a ladder and line up the rail with the centre line marked on the door. The rail must also be level.

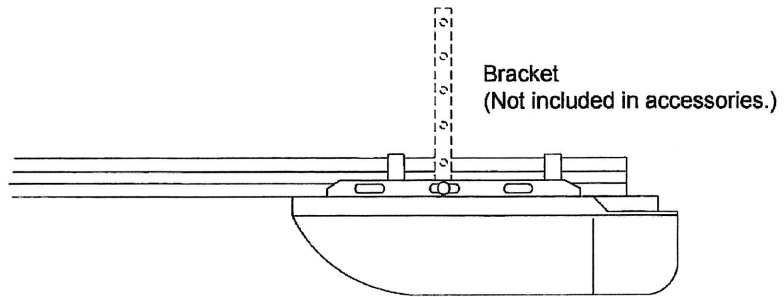
*Step 5;*

Aluminium rail: Attach the two connecting brackets to the rail and ensure that the rail is level, then fix the aluminium rail brackets to the ceiling with the. Additional brackets may be added if required but these are not included in the kit of parts. Check that the door does not touch any part of the equipment when opening or closing. Try this manually before attaching the door to the Operator.

Steel rail: Fix the steel rail to the ceiling with two brackets, not supplied.



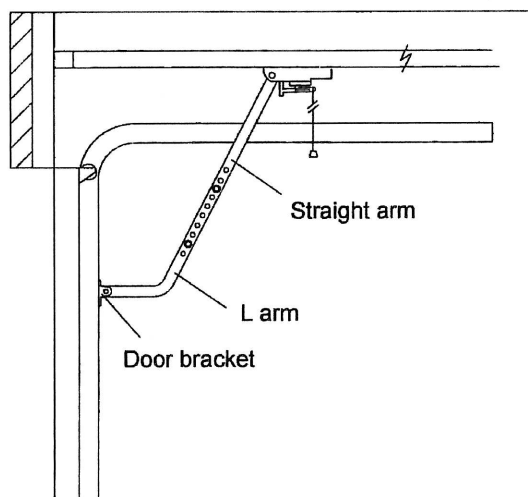
Aluminium rail



Steel rail

**Step 6;**

Fix the door bracket onto the top edge of the door. Link arm L to the door bracket with the pin and retaining clip. Link the straight arm to the shuttle with a third pin and retaining clip. Connect the L arm and straight arm together and ensure that the door can be moved freely.



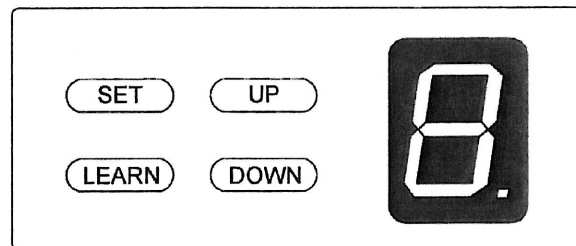
## 6. Adjustments

Programming buttons:- **SET** – Mode set and Confirm function

**LEARN** – Transmitter set and clear.

**UP** button – Upper limit

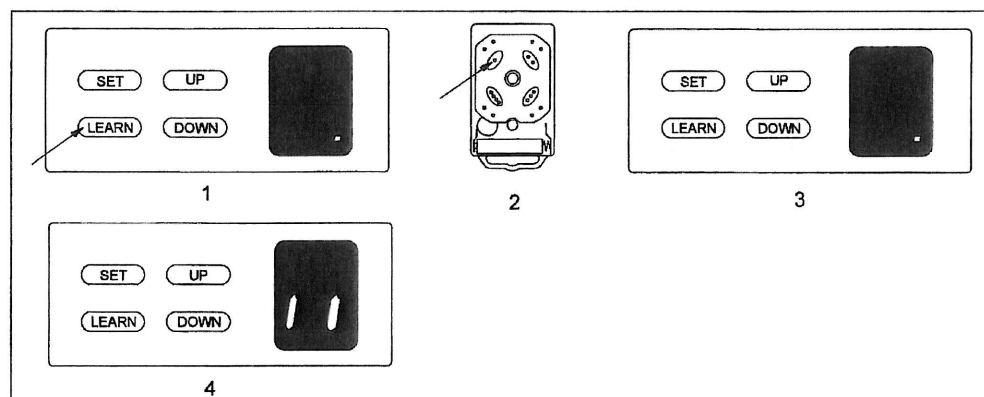
**DOWN** button – Lower limit



### *Adding additional transmitters:*

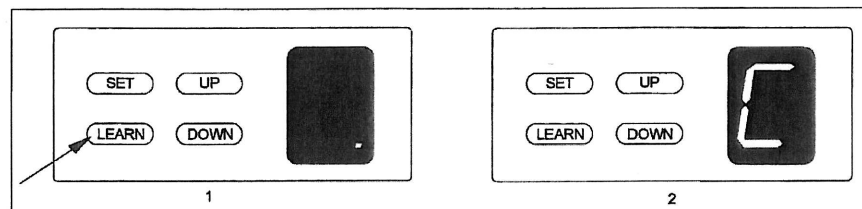
1. Press and hold **LEARN**, a will appear on the LED.
2. Press the transmitter button that you want to use (1,2 or 4) twice.
3. The dot on the LED will flash and then turn off.
4. 'II' is illuminated on the LED when the learning process is finished.

Up to 20 transmitters may be programmed into the drive unit.

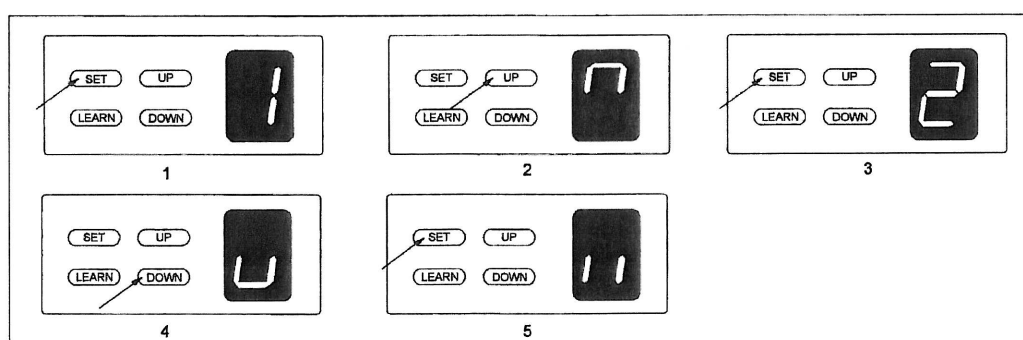


*Erasing a transmitter:*

1. Press and hold **LEARN** until 'C' flashes on the display. This indicates that all of the transmitters have been erased.

*Set the Open and Closed positions:*

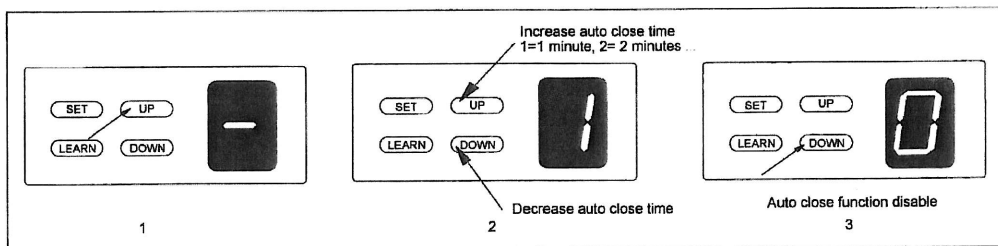
1. Press and hold **SET** until number '1' is displayed in the LED.
2. Press and hold **UP** to set the open position, release the button once the door has reached the desired position. (You can also press **DOWN** to move the door downwards. **UP** and **DOWN** can also be used for fine adjustment to the door position.)
3. Press **SET** to confirm the open position, now number '2' will be displayed on the LED.
4. Press and hold **DOWN** to set the close position, release the button once the door has reached the desired position. (You can also press **UP** to move the door up. **UP** and **DOWN** can be used for fine adjustment to the door position.)
5. Press **SET** to confirm the close position.
6. The door will do a complete open and close cycle.



### Set the automatic close time (0-9 minutes):

1. Press and hold **UP** until '-' is shown on the LED.
2. Press **UP** to increase the delay time, press **DOWN** to decrease the time.
3. Setting the timer to '0' will disable the function.

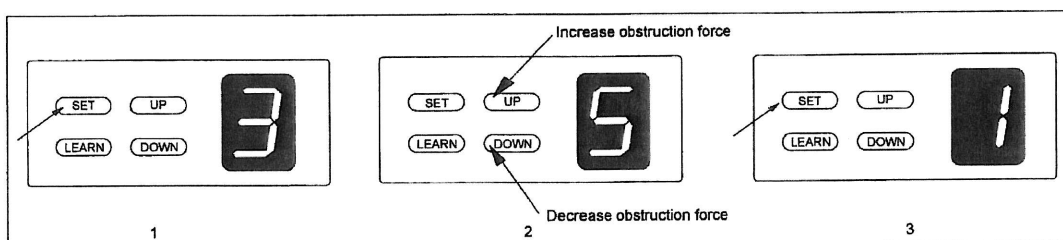
**NOTE:** Automatic close function is only available when the door is in its fully opened position.



### Set the Obstruction torque:

If the door meets an obstruction during closing it will stop and reverse approx. 15-20cm.

1. Press and hold **SET**. The LED will display numbers 1-4, when number 3 appears on the LED release **SET**.
2. Press **UP** to increase the torque setting (Max. Torque is level 9) Press **Down** to decrease the force.
3. Press **SET** to confirm the setting.

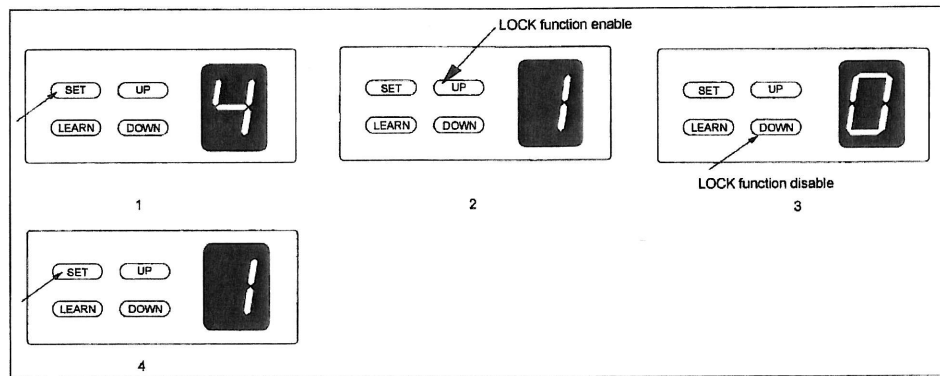




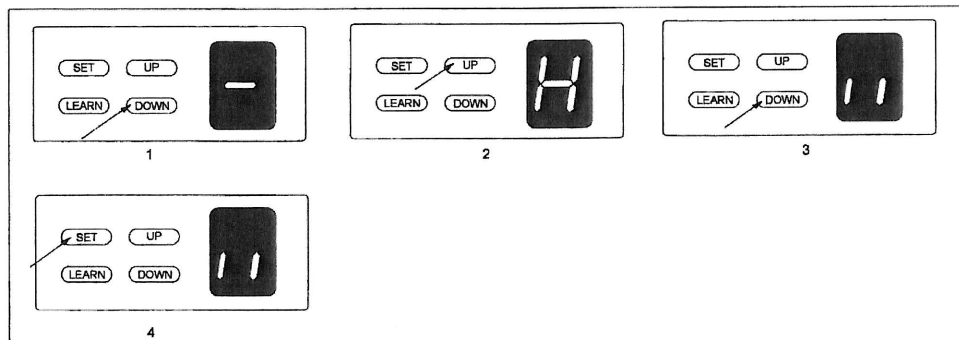
*Setting the LOCK function:*

1. Press and hold **SET**. The LED will display numbers 1-4, when the number 4 is displayed release **SET**.
2. Press **UP**, number 1 will be displayed on the LED, LOCK function enable.
3. Press **DOWN**, number 0 will be displayed, LOCK function disabled.
4. Press **SET** to confirm.

*Note:* LOCK function is only available when the door is in its fully closed position. After setting the LOCK function the door locks, press button 3 on the transmitter to unlock, then press any other button to operate the door.

*Setting IR Photocells:*

1. Press and hold **DOWN** until '-' is indicated on the LED display.
2. Press **UP**, 'H' is indicated on the LED, infrared photocells are enabled.
3. Press **DOWN**, 'II' is displayed on the LED, infrared photocells are disabled.
4. Press **SET** to confirm the setting.



## 7. Electrical controls

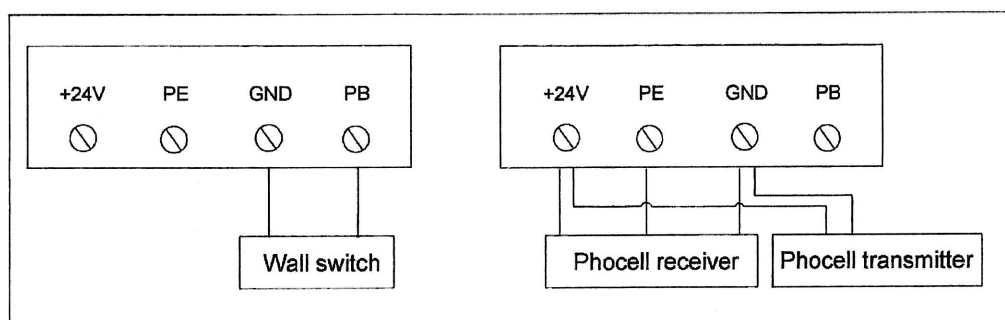
*External connections:*

**PB** – Wall switch (N.O.)

**GND** – Ground/Earth

**PE** – Photocell (N.C.)

**+24** – 24V DC power output



## 8. Maintenance

- Inspect the door once a month. The door should be carefully checked for balance. The door must be in good working order.
- The auto-reverse function should be regularly checked and adjusted, if necessary.
- For safety reasons, it is recommended to fit photocells across the garage door.
- Disconnect the mains supply before undertaking any work on the equipment.
- Be sure to read and understand the entire manual prior to attempting to perform any service works on the door operator

*Manual operation:*

If the door needs to be operated manually due to a power outage or malfunction of the automatic system, pull the release rope to disengage the drive. Open and close the door manually. To reconnect the door, manually operate the door until it engages into the chain shuttle.

Symptom	Cause	Solution
The door fails to open and close. LED does not light.	<ol style="list-style-type: none"><li>1. Power is OFF</li><li>2. Fuse is blown</li></ol>	<ol style="list-style-type: none"><li>1. Turn power on</li><li>2. Replace fuse</li></ol>
The door can open but fails to close.	<ol style="list-style-type: none"><li>1. Infrared beam is obstructed.</li><li>2. Infrared function is enabled but the photocell has not been installed.</li></ol>	<ol style="list-style-type: none"><li>1. Remove obstructions</li><li>2. Make sure the infrared function is disabled or install the photocell.</li></ol>
Remote control does not work.	<ol style="list-style-type: none"><li>1. Battery may be low.</li><li>2. Transmitter program may be corrupted.</li></ol>	<ol style="list-style-type: none"><li>1. Replace battery</li><li>2. Re-program the transmitter.</li></ol>
Transmitter will only operate over a short distance.	Battery level may be low.	Replace battery.