

ROLLER DOOR OPENER

FBR180

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.**



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IMPORTANT SAFETY INSTRUCTIONS

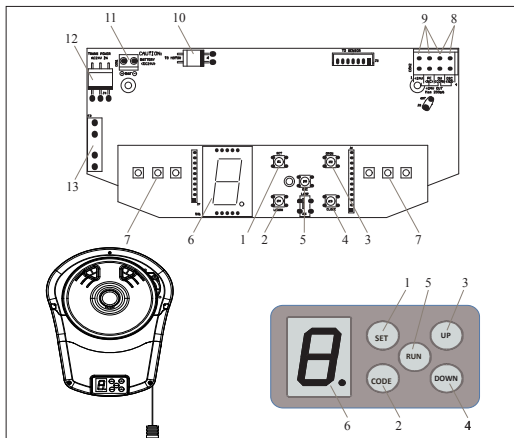
**PLEASE READ THESE IMPORTANT SAFETY INSTRUCTIONS.
FAILURE TO COMPLY WITH THE FOLLOWING SAFETY
INSTRUCTIONS MAY RESULT IN SERIOUS PERSONAL INJURY,
DEATH AND/OR PROPERTY DAMAGE.**

1. The installation of your new roller door opener (Opener) must be carried out by a technically qualified or licensed person. Attempting to install your new opener without suitable technical qualification may result in severe personal injury, death and/or property damage.
2. Only install the Opener on a properly balanced and aligned, well functioning garage door. An improperly balanced or malfunctioning garage door could cause serious injury. Have a qualified person check and if required, make repairs to your garage door before installing the Opener. As a general rule, your garage door is deemed to be well balanced and aligned if it:
 - a. requires an equivalent amount of applied force to manually open or close the garage door.
 - b. requires no more than 150N of applied force to either manually open or close the garage door.
 - c. does not rise or fall more than 100mm when stopped at any position between fully open or fully closed positions.
 - d. does not rub on or make contact with any supporting or surrounding structures.
3. Repairs to Garage Doors must only be carried out by technically qualified persons. Attempting to repair the Garage Door without suitable technical qualification may result in severe personal injury, death and/or property damage.
4. Remove or render inoperative all existing locks and ropes prior to installation of the Opener.
5. Adjust the Manual Release Cords so that they hang approximately 1.8 meters from the ground.
6. Do not connect the Opener to the power source until this manual instructs you to do so.
7. The Opener must be connected to a properly earthed general purpose 240V outlet which has been installed by a qualified electrical contractor.
8. Locate the wall control panel/push button:
 - a. within site of the garage door
 - b. at a minimum height of 1.5 m above the ground so that it remains out of the reach of small children
 - c. away from all moving parts of the door.
9. Affix the Entrapment Warning Label in a prominent position adjacent to the Garage Door.
10. The Manual Release Instruction Tag must remain attached to the Manual Release Cord.
11. After installing and correctly adjusting the Opener, the Garage Door must stop and reverse direction when it comes into contact with a 40mm high solid object placed on the floor under the garage door.
12. The correct function of the Safety Obstruction Reversing System should be checked on a monthly basis. Make sure that the garage door reverses when it makes contact with an obstruction.
13. Never use the Opener unless the garage door is in full view and free from objects such as cars, children and/or adults.
14. Never allow children to operate the Opener.
15. Never operate the Opener when children/persons are under or near the path of the door. Children must be supervised at all times when near the garage door and when the Opener is in use.
16. Never attempt to disengage the Opener to manual operation when there are children/persons or and other objects including motor vehicles under or near the path of the garage door.
17. For additional safety we strongly recommend the fitment of Photoelectric Sensors. Although the Opener incorporates a pressure sensitive safety obstruction system, the addition of Photoelectric Sensors will greatly enhance the operating safety of an Automatic garage door and provide additional peace of mind. In some countries it is mandatory by law to fit Safety Beams. It is the sole responsibility of the owner/installer to fit Safety Beams in those countries which so require.
18. Removal of the Opener's protective covers must only be performed by a technically qualified person. Attempting to remove the protective covers or repair the Opener without suitable technical qualification may result in severe personal injury, death and/or property damage.
19. Always ensure that the garage door is fully open before driving into or out of the Garage.
20. Always ensure the garage door is fully closed before leaving the driveway.
21. Adjustments to the Safety Obstruction Force settings must only be carried out by a technically qualified person. Attempting to adjust the Safety Reverse Force setting without suitable technical qualification may result in severe personal injury, death and/or property damage.
22. Keep hands and loose clothing clear of the garage door at all times.
23. In order for the Safety Obstruction Force System to function it must first encounter an object/person on to which some force must be exerted. As a result the object/person/door may suffer damage or injury.
24. The Safety Obstruction Force System is designed to work on stationary objects only. If the garage door encounters a moving object during an Open or Close Cycle, serious personal injury, death and/or property damage may occur.

TECHNICAL SPECIFICATIONS

INPUT VOLTAGE:	220V-240VAC, 50-60 Hz
OUTPUT VOLTAGE:	24 VAC
TRANSFORMER:	100 VA
RATED CURRENT:	3.4 A
MAX DOOR HEIGHT:	4 m
MAX DOOR WIDTH:	5 m
MAX DOOR AREA:	15 m ²
MAX LIFTING CAPACITY:	800 N
MOTOR TYPE:	DC 24V
SAFETY OBSTRUCTION FORCE SYSTEM:	Electronically Adjusted
DOOR TRAVEL ADJUSTMENT:	Electronically Adjusted
RECEIVER CODE STORAGE CAPACITY:	30 Individual Transmitters
TRANSMITTER FREQUENCY:	433.92 MHz Hopping Code
LIGHT GLOBE:	LED Lighting
DOOR TRAVEL SPEED:	182 mm/sec
AUTO CLOSE:	Electronically Adjusted
PHOTO BEAMS:	Optional
COURTESY LIGHT TIME:	3 m 20 sec

CONNECTION DIAGRAM



- | | |
|----------------------|--------------------------------|
| 1 Set Button | 8 Wired Wall Switch Terminals |
| 2 Code Button | 9 Photo Beam Terminals |
| 3 Up Button | 10 Motor Output Terminals |
| 4 Down Button | 11 Battery Backup Terminals |
| 5 Run Button | 12 Transformer Input Terminals |
| 6 LED Screen | 13 Fuse Holder |
| 7 LED Courtesy Light | |

INSTALLATION INSTRUCTIONS

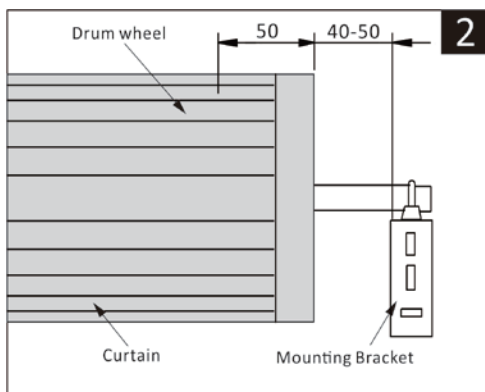
The procedures outlined in this manual require a degree of technical and mechanical skill. It is not recommended that the Opener be installed by a home handyman. The Opener should be installed and adjusted by a technically qualified person. Never install the Opener on a poorly adjusted or worn garage door.

1. Check Correct Function of the garage Door

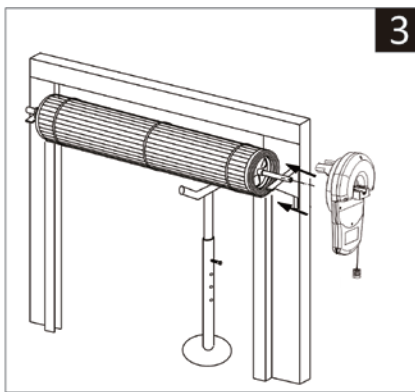
- Before commencing installation of the Opener check that the garage door is functioning correctly. It must be well balanced and operate smoothly and freely and not bind or stick in the side tracks.
- When released from any position it should not rise or fall more than 100mm. The effort required to open or close the door by hand should not exceed 150N (15kg).

2. Check Side Room Requirements

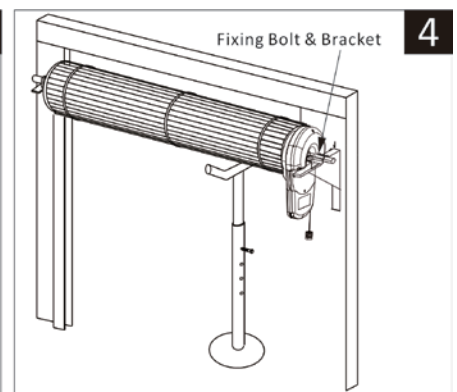
- The min and max mounting positions, as measured from the edge of the door curtain to the inner edge of its mounting bracket are 40 and 50mm. (Fig. 2)
- If the distance is less than 40mm or more than 50mm then door bracket must be moved so as to fall within the bounds of these 2 dimensions.



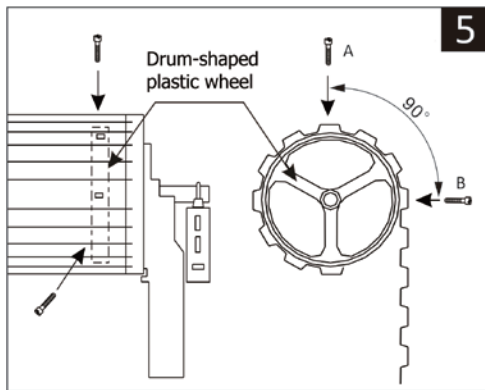
(Fig. 2)



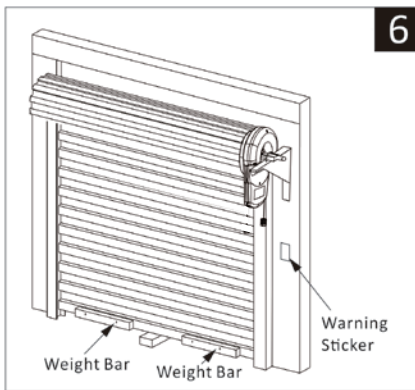
(Fig. 3)



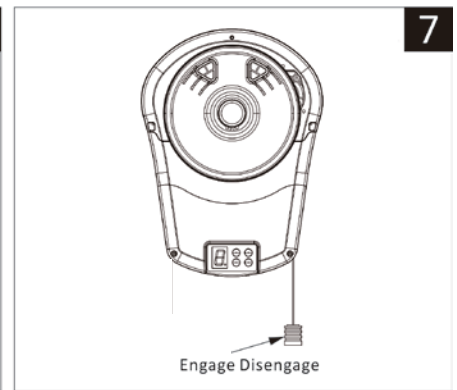
(Fig. 4)



(Fig. 5)



(Fig. 6)



(Fig. 7)

3. Select Installation Side

- Determine to which side of the door the Opener will be installed, right or left. Right side depicted. (Fig. 3)
- You will find setup instructions in the Settings and Adjustments section of this manual.

4. Pin Curtain to Drum Wheel

- The door curtain must be secured to the drum wheel with self drilling screws at both sides of the door.
- With the door **fully** closed, mark the curtain at points "A" and "B" ensuring that the fixing points are at least 90 deg apart. Open the door slightly so as to have access to the marked positions then secure the curtain to the drum wheel as depicted. Ensure screws do not interfere with the running of the door or operator. (Fig. 5)

INSTALLATION INSTRUCTIONS

5. Fit Opener to Door (Right Side Installation Depicted)

- Remove or render inoperative all existing door locks.
- Select the side of the door to which the Opener will be fitted.
- Ensure that the door bracket to which the Opener will be installed is the correct distance from the edge of the curtain.
- Check and ensure that the fastening U-bolt is securely tightened on the opposite end of the door.
- Open the door fully and ensure that the door stoppers have engaged with track stoppers.
- Place a prop under the door as close to the edge as possible. Adjusted so that it sits firmly under the garage door. (Fig. 3)
- Remove the U-bolt from the door bracket and then remove the door mounting bracket from the wall, motor side.
- Orient the Opener so that its 2 forks line up with the narrowest of the garage door drum wheel spokes.
- Slide the Opener onto the door axle and push it fully into the door so that it sits against the drum wheel.
- Refit the door mounting bracket to the wall making sure to tighten the mounting bracket screws securely.
- Insert the fixing bolts and bracket supplied through the Opener and door bracket slots and then secure with the nuts and washers provided. (Fig. 4)
- Check the manual operation of the door by fully raising and lowering it several times and ensure it runs smoothly and does not catch on any part of the Opener.

6. Fit Weight Bar

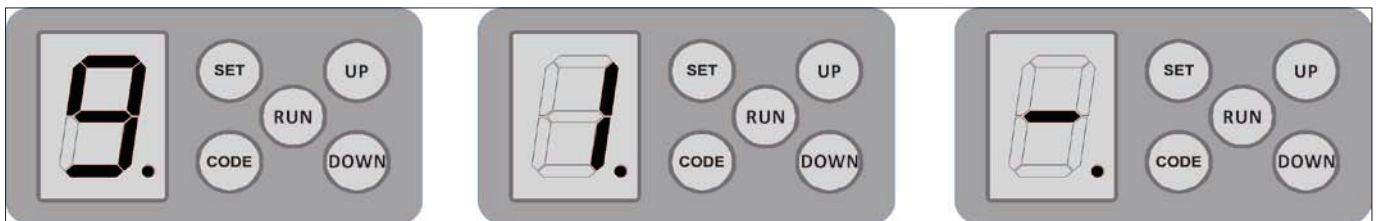
- Securely fix the weight bar to the top edge of the door rail with the screws and nuts provided. (Fig. 6)

7. Attach Entrapment Warning Label

- Attach the Entrapment Warning Label to the wall in a prominent position adjacent to the Opener. (Fig. 6)

8. Connect to Power Supply

- Connect to a properly earthed power supply using the power cord provided
- Important Note: Ensure that the power cord does not touch the moving door and that no excess cord hangs below the Opener when it is plugged in.
- The Opener is now installed and ready for adjustment.
- Switch the power on at the power supply. The courtesy light will glow for several seconds, at the same time the LED displays the number from 9 to 1. When the screen shows “-” the opener is in standby. (Fig.8)



(Fig. 8)

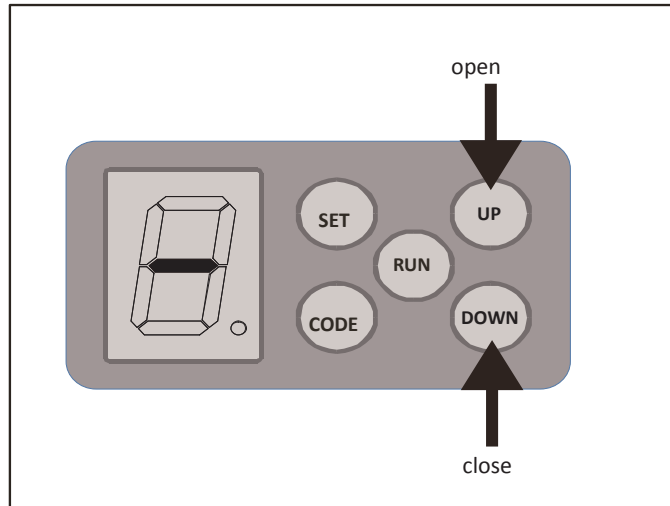
9. Engaging & Disengaging the Opener

Important Note: Always disengage the Opener with the door in the fully closed position. If disengaging from any position other than the door fully closed, ensure that there are no persons or property near or directly under the path of the door.
(Fig. 7)

Pull the clutch when the power is off, to open/close the door by manually mode. And when the power is on, pull the clutch again, then change the automatic mode to open/close the door.

SETTINGS & ADJUSTMENTS

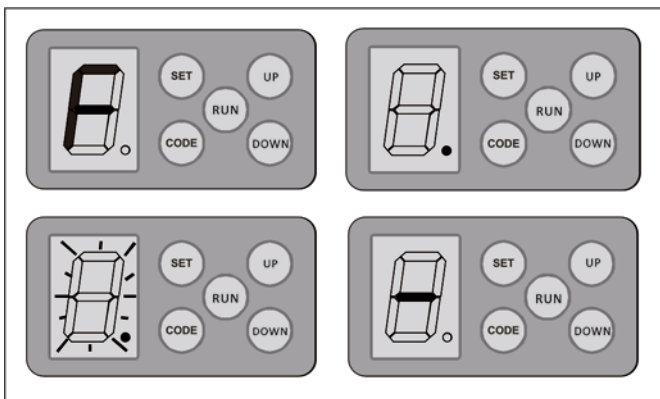
The following section outlines the selectable options and features which are available to the user.



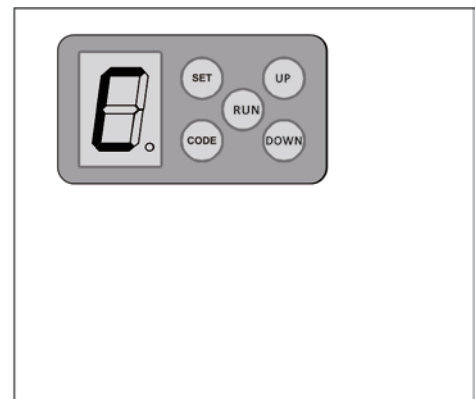
Programming the Operator

10. Coding and Deleting Transmitters

- The Opener can store up to 30 transmitter codes. When the Opener is full, the LED display will flash "F".
- To code a new transmitter, momentarily press the "Code" button. "." will be displayed on the bottom right hand side of the LED screen. Momentarily press the button you wish to code on the transmitter. Momentarily press the same button on the transmitter a second time. The screen will flash on the LED display then change to "-". This indicates the transmitter code is now stored. (Fig. 9)
- To code additional transmitters repeat step this step.
- To delete codes from the Opener press and hold the "Code" button for approx 8 seconds. "C" will display on the LED screen indicating all transmitter codes have been deleted. (Fig. 10)



(Fig. 9)

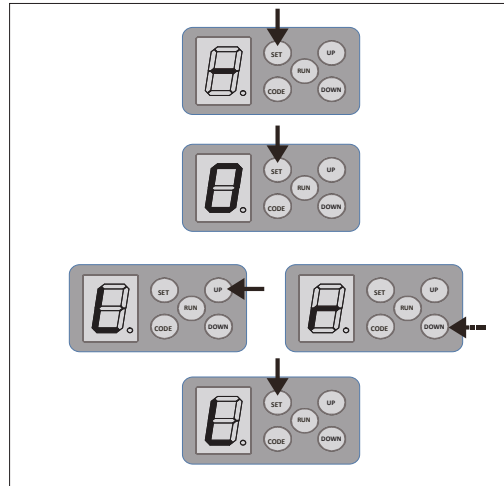


(Fig. 10)

SETTINGS & ADJUSTMENTS

11. Selecting Installation Side (Right or Left)

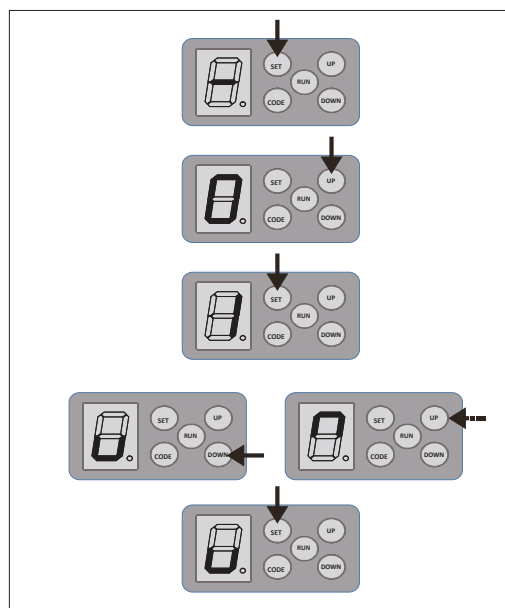
- Note – Installation side is determined by viewing the door from inside looking out.
- The opener is setup as a “right” installation as factory default, indicated with an “r” on the LED display screen.
- To change to a “Left” installation, press and hold down the “set” button for 4 seconds until “0” is displayed on the LED screen.
- Press the “Set” button again momentarily and “r” will display on the LED screen, which indicates a “right” side installation.
- Press the “up” or “down” button to show an “L” on the LED screen indicating a “left” side installation.
- Press the “Set” button momentarily to confirm the change. (Fig. 11)



(Fig.11)

12. Setting Door Travel

- Move the door manually to the half open position.
- Pull the “Green” knob to engage the door into auto mode.
- Press and hold down the “Set” button for 4 seconds until “0” is displayed on the LED screen.
- Momentarily press the “Up” button until “1” is displayed on the LED screen.
- Momentarily press the “Set” button until “U” is displayed on the LED screen.
- Press and hold the “Down” button. The garage door will begin to close. Release the button when the door reaches the floor. Fine tuning the close position is possible using the “Up” or “Down” buttons.
- Momentarily press the “Set” button and “n” will display on the LED screen.
- Press and hold the “Up” button. The garage door will begin to open. Release the button when the door reaches the desired height. Fine tuning the open position is possible using the “Up” or “Down” buttons.
- Momentarily press the “Set” button. The door will automatically run to the close position to complete mapping for force sensitivity requirements. (Fig. 12)



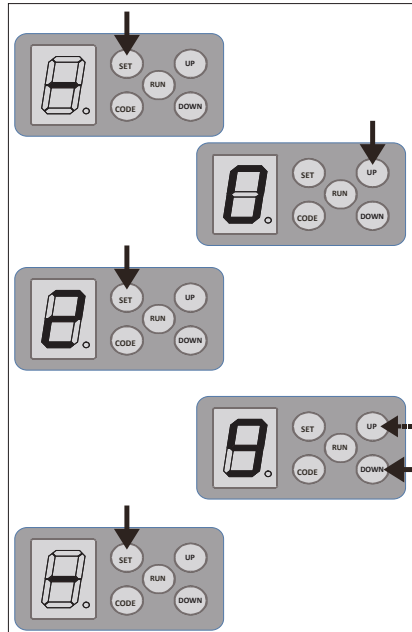
(Fig. 12)

SETTINGS & ADJUSTMENTS

13. Adjusting Safety Force Sensitivity

Setting the Opening Force

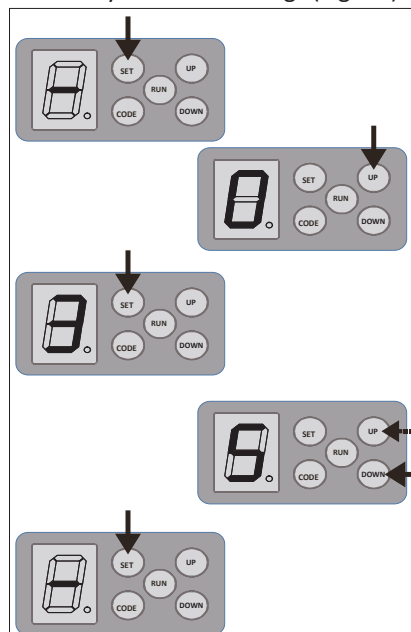
- Press and hold down the “Set” button for 4 seconds until “0” is displayed on the LED screen.
- Momentarily press the “Up” button until “2” is displayed on the LED screen.
- Momentarily press the “Set” button. The factory setting “9” will display on the LED screen.
- Press “Up” to increase force and “Down” to decrease force.
- Force range from 1 to 9.
- Momentarily press the “Set” button to confirm your force setting. (Fig. 13)



(Fig. 13)

Setting the Closing Force

- Press and hold down the “Set” button for 4 seconds until “0” is displayed on the LED screen.
- Momentarily press the “Up” button until “3” is displayed on the LED screen.
- Momentarily press the “Set” button. The factory setting “5” will display on the LED screen.
- Press “Up” to increase force and “Down” to decrease force.
- Force range from 1 to 9.
- Momentarily press the “Set” button to confirm your force setting. (Fig. 14)



(Fig. 14)

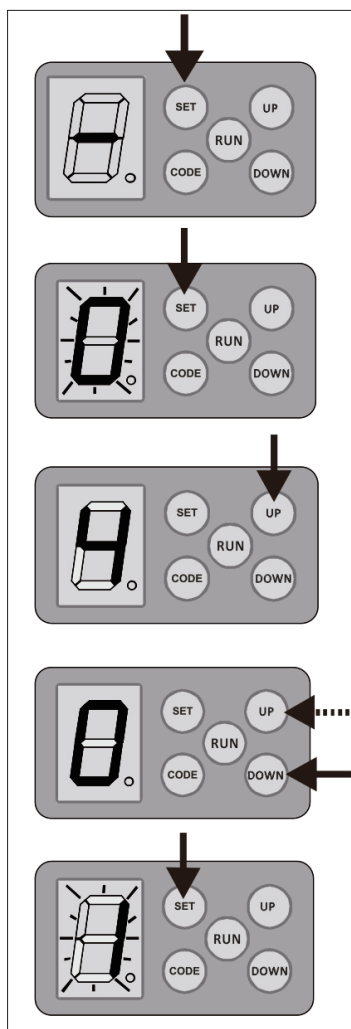
SETTINGS & ADJUSTMENTS

14. Testing Close Direction Force

- With the garage door in the Fully Open position stand inside the garage just behind the path of the garage door close to its middle position
- Place a 40mm thick block of wood perpendicular to, and under the line of the door.
- Press the “Run” button or transmitter button so that the garage door begins to close .
- If the Safety Obstruction Force Adjustment is correct when the garage door hits the block of wood, the Opener will stop and then reverse direction.
- If the Opener stops but does not reverse then adjust the “Close Force” setting down.

15. Auto Close Mode

- In Auto Close Mode the Opener will automatically close at a pre set time after it reaches the fully open position.
- To enable the auto close function press and hold down the “Set” button for 4 seconds until “0” is displayed on the LED screen.
- Momentarily press the “Up” button until “4” is displayed on the LED screen.
- Momentarily press the “Set” button. The factory setting “0” (Off) will display on the LED screen.
- Press “Up” to increase the time the opener will stay in the open position before auto closing.
- Each number above zero is a minute increment. e.g. “1” Auto close after 1 minutes. (Fig. 15)



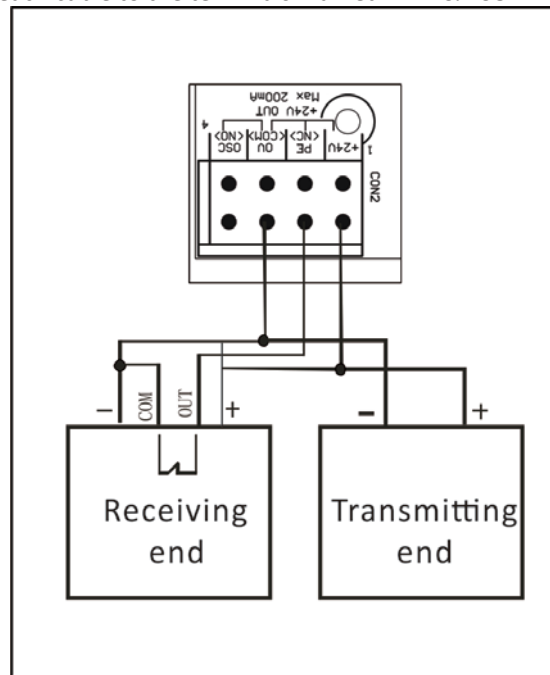
(Fig. 15)

Important Note: It is highly recommended that the “Auto Close” function is not enabled unless Photoelectric Sensors have been fitted and correctly aligned.

SETTINGS & ADJUSTMENTS

16. Installation of Photoelectric Sensor

- Locate the Photoelectric Sensor Mounting Brackets provided
- Mark the inside door framing so that the bottom edge of the Mounting Brackets sit 125mm off the floor.
- Use the 2 mounting screws provided to fasten each Mounting Bracket to the wall. Do not over tighten the fixing screws as the Mounting Brackets will need to undergo adjustment at a later time.
- Use the 2 screws and nuts provided to fasten the Photoelectric Sensor s to the Mounting Brackets so that the Indicator Lamp on each Photoelectric Sensor is facing upwards
- Using Figure 8 Cable, strip back and connect the 2 strands of one end of the cable to each of the 2 terminals located on the outer cover of each Photoelectric Sensor
- Securely fix the cable up and along the wall and run one length of each cable adjacent to the Rear Cover.
- Remove jumper wire from “PE” & “COM” terminals on Opener logic board.
- Strip back and connect one strand of each cable to the terminals marked “PE” & “COM”. (Fig. 16)



(Fig. 16)

- **Note: Photoelectric Sensor kits will have full instructions on mounting and connecting.**

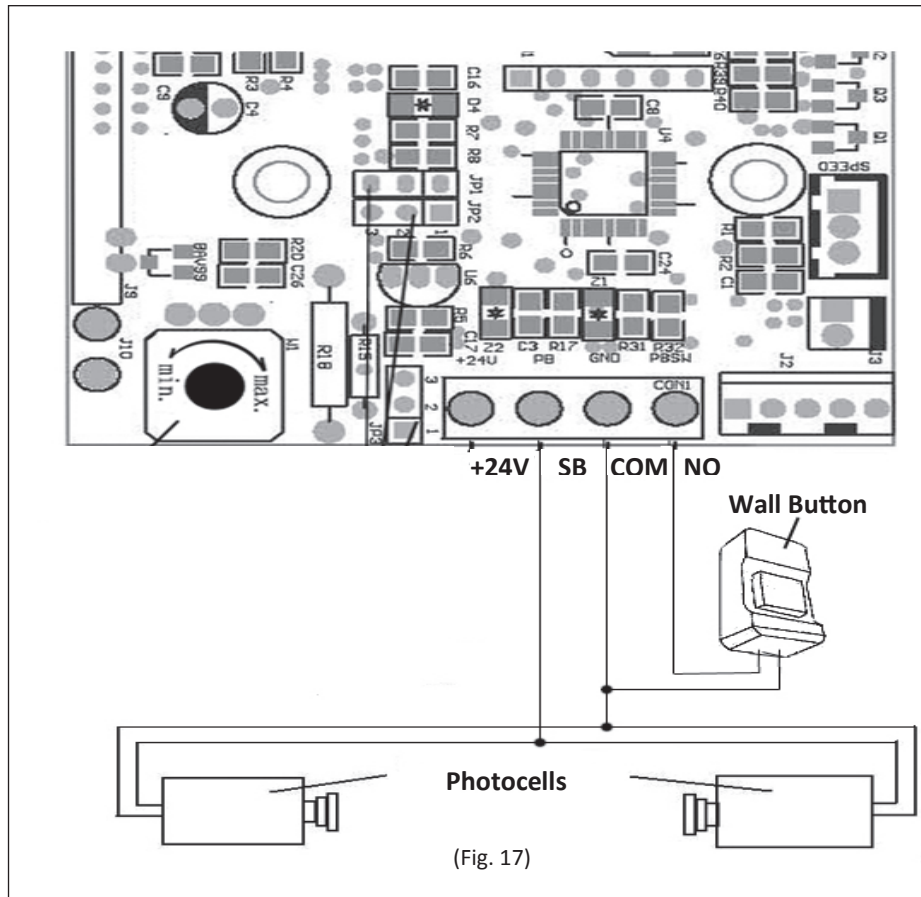
17. Aligning Photoelectric Sensor

- The “Emitter” Photoelectric Sensor indicator lamp should now be glowing green to indicate the beam is receiving power.
- Adjust the “Receiver” Photoelectric Sensor by turning the mounting bracket so that it is aimed directly at the lens of the “Emitter” Photoelectric Sensor. The indicator lamp located along the top edge of the “Receiver” Photoelectric Sensor will glow red once the correct alignment has been achieved
- Test the Photoelectric Sensor alignment several times, each time ensuring that when the Photoelectric Sensor are obstructed the red coloured indicator lamp is extinguished, and when unobstructed the indicator lamp glows a solid red.
- Firmly tighten the Photoelectric Sensor mounting bracket fixing screws
- Installation of Photoelectric Sensor is now complete

18. Enabling and Testing Photoelectric Sensor Function

- Remove jumper wire from “PE” & “COM” terminals on Opener logic board.
- Strip back and connect one strand of each cable from Photoelectric Sensor to the terminals marked “PE” & “COM”. (Fig. 16)
- Photoelectric Sensor s are now enabled.
- Initiate a closing cycle on the Opener and as the garage door is closing pass your hand through the line of the Photoelectric Sensor. If the Photoelectric Sensor are functioning correctly the Opener should stop and then immediately reverse direction.
- If the garage door commences a close cycle but within 1 second stops and reverses, check that the Photoelectric Sensor are aligned correctly as outlined.

SETTINGS & ADJUSTMENTS



19. Output Terminals

- The Opener provides a 24VDC external power supply to support the connection of external accessories. The output terminals are located under the light cover on the logic board marked “24V” & “COM”. (Fig. 17)

20. Transmitter Battery Replacement

- Remove the fixing screws located on the underside of the Hand Held Transmitter.
- Open the 2 halves of the Transmitter shell and replace the battery with one of identical specification.
- Test that the Red Coloured Indicator lamp illuminates when one of the Transmitter buttons is pressed and then replace the fixing screw.

21. Wall Switch – Wireless

- The wireless wall switch provides ease of installation without the need for running hard wires to the switch and can be mounted in any convenient location.
- The switch can be permanently screwed to the wall through the mounting holes provided, or alternatively “hooked” on the wall, using the convenience of easy demount “hook” holes provided in the base plate.
- Use the mounting template and instructions provided with the wall switch.
- The wireless wall switch may be learned into the Opener as per the procedure outline in, “To code a transmitter”
- **Important Note: The wireless Wall Switch must be mounted within sight of the garage door and a reasonable distance away from moving parts. It should be mounted at least 1500mm above the ground.**

SETTINGS & ADJUSTMENTS

22. Wall Switch-Wireless Battery Replacement

- Remove the cover plate while the unit is still mounted to the wall by sliding and twisting a straight screwdriver in the slot provided on the underside of the wall plate.
- Replace the battery with one of identical specification.
- Test that the Red Coloured Indicator lamp illuminates when one of the Transmitter buttons is pressed and then replace the fixing screw.

ACCESSORIES

- Infrared Photoelectric Sensor
- Retro-Reflective Photoelectric Sensor
- Universal Frequency Receiver
- Wireless keypad
- 4 Button Remote Transmitter

TROUBLE SHOOTING GUIDE

SYMPTOM	POSSIBLE CAUSES	REMEDY
garage door will not operate	* Mains power not turned on * garage door is obstructed	* Turn on mains power * Check for obstruction
Door stops during open cycle before reaching the fully open position	* garage door may be obstructed * springs may have lost tension * Safety Obstruction Force may need adjustment	* Disengage Opener and check door for free movement * Call serviceman to repair door * Refer to item 16 Fig.13
Door will not reverse on hitting an object	* Safety Obstruction Force setting is too high and may require adjustment	* Refer to – item 16 Fig.13
Door moves downwards and reverses itself upwards	* Safety Obstruction Force setting is too light and may require adjustment * Adverse weather conditions (wind or cold) causing door to stiffen and become tight * Possible obstruction under door	* Refer to – Item 16 Fig. 13 * Disengage Opener and check door for free movement * Call serviceman to repair door
Door operates from drive unit but not from hand transmitter	* Transmitter is damaged or broken * Transmitter Code has not been programmed into the receiver * Control Box antenna wire not extended * Battery flat	* Try an alternate transmitter * Refer to “Coding Transmitters” –item 10. * Locate & extend aerial wire * Replace batter -item 20
Door stops before reaching open or closed position	* Door travel needs adjusting	* Refer to Item 12
Transmitter Range	Transmitter range is low	Battery flat and needs replacing

