Rolling Door Opener



INSTALLATION INSTRUCTION AND OWNERS MANUAL

IMPORTANT SAFETY INFORMATION

FAILURE TO COMPLY WITH THE FOLLOWING SAFETY RECOMMENDATIONS MAY RESULT IN SERIOUS PERSONAL INJURY, DEATH AND / OR PROPERTY DAMAGE.

PLEASE READ CAREFULLY AND ADHERE TO ALL SAFETY AND INSTALLATION RECOMMENDATIONS.

- 1. The opener is designed and manufactured to meet local regulations. The installer must be familiar with local regulations required in respect of the installation of the opener.
- 2. Unqualified personnel or those persons, who do not know the occupational health and safety standards being applicable to automatic gates and other doors, must in no circumstances carry out installations or implement systems.
- 3. Persons who install or service the equipment without observing all the applicable safety standards will be responsible for any damage, injury, cost and expense or claim whatsoever any person suffered as a result of failure to install the system correctly and in accordance with the relevant safety standards and installation manual whether directly or indirectly.
- 4. For additional safety we strongly recommend the inclusion of Photo Beam. Although the opener incorporates a pressure sensitive Safety Obstruction Force system, the addition of Photo Beam will greatly enhance the operating safety of an automatic rolling door and provide additional peace of mind.
- 5. Make sure that the rolling door is fully open & stationary before driving in or out of the garage.
- 6. Make sure the rolling door is fully closed & stationary before leaving.
- 7. Keep hands and loose clothing off the opener and rolling door all the time.
- 8. No one should cross a moving door. The Safety Obstruction System is designed to work on STATIONARY objects only. Serious personal injury, death and / or property damage may occur if the rolling door comes into contact with a moving object
- 9. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.



- 10. Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority or retailer for recycling advice.
- 11. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- WARNING: Important safety instructions. It is important for the safety of persons to follow all instructions. Save these instructions.
- Do not allow children to play with door controls. Keep remote controls away from children.
- Watch the moving door and keep people away until the door is completely opened or closed.
 Take care when operating the manual release since an open door may fall rapidly due to weak or broken springs, or being out of balance.
- Do not disengage the door opener to manual operation when children /persons or any other objects including motor vehicles are within the doorway.
- The rolling door must be well balanced. Sticking or binding doors will falsely trigger the obstruction sensing of the unit.
- All maintenance should be carried out by suitably qualified person.
- Frequently examine the installation, in particular check springs and mountings for signs of wear, damage or imbalance. Don't use if repair or adjustment is needed since a fault in the installation or an incorrectly balanced door may cause injury.
- Test the door opener monthly. The rolling door MUST reverse on contact with a 5 to 10cm high object on the floor. The amount of force that the door should encounter is adjustable. Failure to adjust the opener properly may cause severe injury or death
- Details on how to use the manual release.
- Information concerning the adjustment of the door and drive.
- Disconnect the supply when cleaning or carrying out other maintenance.
- The installation instructions shall include details for the installation of the drive and its associated components.

FEATURES

Your Automatic Rolling Door Opener has many features which you will appreciated. The components and materials used in this control board are of the latest technology and highest quality. Below lists some of the features.

OPERATION

To operate the door simply press the handheld transmitter or the wall mounted switch for two seconds and the door will automatically open or close. The door can be stopped during opening or closing cycle by pressing the wall switch or handheld transmitter. The next actuation will move the door in the opposite direction.

SAFETY OBSTRUCTION REVERSE

While the door is doing a closing cycle and if it hits an obstacle or be restricted in some manner, it will automatically reverse. The amount of force that the door should encounter before reversing is adjustable. And if restricted whilst opening, the door will stop. The Safety Obstruction Forces should be checked at least once a month. International instance SOFT ST The function

AUTOMATIC COURTESY LIGHT

The Courtesy Light on the Opener comes on automatically whenever the door is activated to do an opening or closing cycle. The light will stay on for approximately three minutes, then turns off automatically. The Light can also be switched on and off without operating the door. This is done by pressing the Light button on the Wall Switch or the handheld transmitter. The Light turns off after three minutes.

MULTIPLE PROTECTION

Over-time protection, low voltage protection, speed fluctuation protection.

SECURITY CODE STORE

The Opener uses Microchip® technology in storing your Rolling Code Transmitter Security Code. Up to 30 different transmitters can be

stored in the non-volatile memory device. To store any code simply press the LEARN button on the Opener and press the transmitter button twice. The codes can be deleted at any time. Security is enhanced because the fixed and encrypted sections combined increase the number of combinations to 4.29 billion. There are no dip switch on the opener which can be visually seen and copied.

MANUAL OPERATION

The opener is equipped with a manual disengaging device .If the power to the opener is disrupted for any reason, the door can be put into manual mode by simply pulling down the RED string handle (19, page 3). When power is restored ,by pulling down the GREEN string handle on the other side (20, page 3),the opener is put back into automatic mode.

IN-BUILT BEEPER

The in-built beeper beeps each time the door is activated.

SOFT START SOFT STOP

The function can effectively decrease the start and stop induced impact to the door.

AUTO CLOSE MODE

The Opener can be programmed to automatically close approximately three minutes after the door has full opened. A Photoelectric Beam must be installed if this mode is selected.

AUTO RUN TIME

The door will automatically stop if the opening cycle doesn't complete within 60 seconds. The door will automatically reverse if the closing cycle doesn't complete within 60 seconds.

PHOTO ELECTRIC BEAM (Optional)

The Opener has an input for a Photoelectric Beam to be connected for extra safety protection. This Beam must be installed during Auto close Mode.

CONTROL DEFINATIONS



- 1. DOOR CLOSE FORCE SET (VI)
- 2. DOOR OPEN FORCE SET (V2)
- 3. EXTERNAL WALL BUTTON INPUT (CON2)
- 4. P.E. INPUT
- 5. OPEN LIMIT
- 6. CLOSE LIMIT
- 7. LEARN LED
- 8. LEARN CODE BUTTON
- 9. SET BUTTON
- 10. IN-BUILT BEEPER
- 11. AUTO CLOSE SHUNT
- 12. AUTOMATIC COURTESY LIGHT
- 13. OPEN /CLOSE LIMIT SWITCH INPUT

- 14. MOTOR POWER OUTPUT
- 15. POWER INPUT
- **16. BACKUP BATTERY INPUT**
- 17. DOOR OPEN LIGHT
- 18. DOOR CLOSE LIGHT
- 19. DISENGAGEMENT HANDLE
- 20. ENGAGE HANDLE
- 21. CLOSE LIMIT CAM
- 22. OPEN LIMIT SWITCH
- 23. CLOSE LIMIT SWITCH
- 24. OPEN LIMIT CAM
- 25. 24V POWER FUSE

CONTROL DEFINATIONS

1. DOOR CLOSE FORCE SET (VI) is for the force margin adjustment of the door close.

2. DOOR OPEN FORCE SET (V2) is for the force margin adjustment of the door open.

3. EXTERNAL WALL BUTTON INPUT (CON2) is for the O/S/C of door opener by wall button control.

4. P.E. INPUT is for connection of photo electric beams (optional) for extra safety obstruction protection, or compulsory when using with Auto close mode.

Note: P.E. shunt must not be removed, otherwise the opener will not function correctly, remove only after a P.E. beam is connected.

5. OPEN LIMIT button is for the open limit of the opener.

6. CLOSE LIMIT button is for the close limit of the opener.

7. LEARN LED is used for storing or erasing the transmitter button (code), it flashes when receiving the signal from the transmitter.

8. LEARN CODE button is used for storing or erasing the transmitter button (code),press any button of the transmitter, then release, press this button again, the LEARN LED flashes then off, it indicates the success of transmitter coding, repeat same procedure for more transmitter coding (max 30 transmitters). To delete the code, press and hold the LEARN CODE button and the LEARN LED on, it will be off after about 8 seconds, which indicates all the stored codes deleted.

9. SET BUTTON is to set the position of soft start and soft stop at the first installation.

10. IN-BUILT BEEPER the in-built beeper beeps each time when the door is activated.

11. AUTO CLOSE SHUNT is removed to activate door auto close, connect the shunt to avert auto close.

12. AUTOMATIC COURTESY LIGHT Refer to page 2 –AUTOMATIC COURTESY LIGHT.

13. OPEN /CLOSE LIMIT SWITCH INPUT is to control open/close limit of door, closed contact of the switch is the default setting.

14. MOTOR POWER OUTPUT is used to connect 24V DC motor ,the door open/close is in compliance with the forward/reversal rotating of the motor.

15. POWER INPUT is to connect transformer secondary 24V AC input.

16. BACKUP BATTERY INPUT is to connect backup battery.

17. DOOR OPEN LIGHT is on when door opens.

18. DOOR CLOSE LIGHT is on when door closes.

19. DISENGAGEMENT HANDLE see page 2 manual operation.

20. ENGAGE HANDLE: see page 2 manual operation.

21. CLOSE LIMIT CAM is used to set the close limit stop position.

22. OPEN LIMIT SWITCH is pressed down to stop the door when the door reaches open limit.

23. CLOSE LIMIT SWITCH is pressed down to stop the door when the door reaches close limit.

24. OPEN LIMIT CAM is used to set the open limit stop position.

25. 24V POWER FUSE 15A.

PACKING LIST

ITEM	QUANTITY
OPENER	1 SET
TRANSMITTER	2 PCS
U BOLT	1 SET
INSTALLATION INSTRUCTION	1 PC

INSTALLATION DIAGRAM



SIDE ROOM REQUIREMENTS

Fig 1 shows the minimum side room that is required.

The distance between the edge of the door curtain and the inside of the bracket is 85mm, and the distance between the edge of the door and the outside of bracket is 135mm.

Fig 2 shows the recommended side room. The distance between the edge of the door curtain and the inside of the bracket should be 110mm minimum, and the distance between the edge of the door and the outside of bracket is 160mm minimum.

1. CHECK OPERATION OF DOOR

BEFORE BEGINNING THE INSTALLATION OF THE EASY ROLLER AUTOMATIC OPENER, CHECK THE OPERATION OF THE DOOR.

The door must be well balanced and be in a reasonable operating condition. You should be able to lift the door smoothly and with little resistance. It should stay open around 900mm to 1200mm above the floor. The door should not stick or bind in the guide tracks.

2. FIXING THE DOOR WEIGHT BARS

Move the door manually to the mid open position.

Place the weight bars equally apart on the bottom rail of the door and secure them with the fasteners provided (see Fig 3). Check the operation of the door again. If the door feels heavy, it may require extra tension to be added to the door springs. Refer to the door Installation manual from manufacturer on how to tension the door.





3. FIXING DRIVE UNIT TO DOOR

The drive unit can be fixed to the Roll Up Garage Door in a variety of ways. Below we will describe one method of fixing. Make sure there is enough room (135mm from end of door shaft to the wall) to slide drive unit onto shaft.

NOTE: THE INSTRUCTION FOR FIXING OF THE DRIVE UNIT TO THE DOOR IS FOR RIGHT HAND INSTALLATION. FOR LEFT HAND INSTALLATION, JUST EXCHANGE THE WIRE CONNECTION OF THE MOTOR (Fig 5)

FIXING DRIVE UNIT TO DOOR (See Fig4, 5, 6, 7). (a) Check that the door shaft U bolt is securely tightened on the left hand side of the door.

(b) Raise the door and tie a rope around the centre to secure the roll.

(c) Support the right hand end of the door with a suitable prop and soft padding to protect door surface. WARNING: DO NOT ALLOW CHILDREN /PERSONS AROUND THE DOOR WHEN PROPPED. SERIOUS PERSONAL INJURY AND/OR PROPERTY DAMAGE CAN RESULT FROM FAILURE TO FOLLOW THIS WARNING.

(d) Check that step (a) was completed. Careful loosen and remove the right hand door shaft U bolt.

(e) Make sure that the door supporting prop is secure. While the door is supported, remove the right hand door mounting bracket from wall.

(f) Remove the Drive Unit from packaging. Try and rotate the drive gear by pushing on the fork. If the gear does not rotate, then the manual mode has to be selected. To pull on the RED string handle downwards, the drive gear should now rotate.

(g) Slide Drive Unit over the door axle, make sure that the fork extends into and over one of the spokes of the door drum wheel.

(h) Refit the door mounting bracket to the wall.

In some cases the bracket may have to be repositioned. Re-tighten the door shaft U bolt.

(I) Straighten the Drive Unit and position as per Fig 7. Tighten the two locking bolts firmly to secure Drive Unit.

(j) Check the manual operation of the door by raising and lowering the door. The door should run smoothly and not catch on any part of the Drive Unit.



4. SETTING LIMIT SWITCH

4. 1 SETTING LIMITS FOR RIGHT HAND INSTALLATION (Fig.9)

(a) With Drive Unit in manual mode (disengage, see Fig.11), move the door up by hand to desired position.

(b) Remove the Switch Cover (see Fig.8). Rotate the OPEN LIMIT CAM by hand clockwise until the cam clicks the open limit switch.

(c) Move the door down by hand to the desired closed position.

(d) Rotate the CLOSE CAM by hand anticlockwise until the cam clicks the close limit switch.

(e) Connect power lead from the Drive Unit into a general purpose power outlet installed by a licensed qualified electrical contractor. Turn the Power On.

(f) Re-engage the drive gear by pulling down the GREEN string handle (see Fig 11).

OPEN LIMIT ADJUSTMENT

(g) Press the OPEN Button on the PANEL, the door should start opening. If the door stopped and the desired limit position has been reached, then the limit adjustment is complete. If the door has not reached, or has gone past the desired position, you have to adjust the OPEN CAM.

Loosen the three screws, adjust the OPEN CAM anticlockwise to open the door more. To open the door less, adjust the OPEN CAM clockwise.

CLOSE LIMIT ADJUSTMENT

(h) Press the CLOSE Button on the PANEL, the door should start closing. If the door stopped and the desired limit position has been reached, then the close limit switch adjustment is complete. If the door has not reached, or has gone past the desired position, you have to adjust the CLOSE CAM.

Adjust the CLOSE CAM clockwise to close the door more. To close the door less, adjust the CLOSE CAM anticlockwise. Tighten the three Screws.



4 .2 SETTING LIMITS FOR LEFT HAND INSTALLATION (Fig.10)

(a) With Drive Unit in manual mode (disengage, see Fig.11), move the door up by hand to desired position.

(b) Remove the Switch Cover (see Fig.8). Rotate by hand in an anticlockwise direction the OPEN CAM until the cam clicks the open limit switch.

(c) Move the door down by hand to the desired closed position.

(d) Rotate by hand in a clockwise direction the CLOSE CAM until the cam clicks the close limit switch.

(e) Connect power lead from the Drive Unit into a general purpose power outlet installed by a licensed qualified electrical contractor. Turn the Power On.

(f) Re-engage the drive gear by pull down the GREEN string handle (see Fig 11).

OPEN LIMIT ADJUSTMENT

(g) Press the OPEN Button on the PANEL, the door should start opening. If the door stopped and the desired limit position has been reached, then the limit adjustment is complete. If the door has not reached, or has gone past the desired position, you have to adjust the OPEN CAM. Loosen the three screws, adjust the cam clockwise to open the door more. To open the door less, adjust the cam anticlockwise.

CLOSE LIMIT ADJUSTMENT

(h) Press the CLOSE Button on the PANEL, the door should start closing. If the door stopped and the desired limit position has been reached, then the close limit switch adjustment is complete. If the door has not reached, or has gone past the desired position, you have to adjust the CLOSE CAM. Adjust the cam anticlockwise to close the door more. To close the door less, adjust the cam clockwise. Tighten the three screws.

5. SOFT START SOFT STOP TIME SETTING

In engage mode, press SET button on the PCB board about 4 seconds, see(Fig 13), the door has soft start/soft stop function after the door close and open one time automatically.

Newly installed door must have this process, or the soft stop will falsely works.



6. FIXING THE DOOR CURTAIN TO DRUM WHEEL

The door curtain has to be secured to the drum wheel with suitable fasteners.

(a) With the door in the fully closed position mark the curtain (as per Fig.12) on both ends of the door.

(b) Open door slightly to have access to the marked positions. Secure the curtain to drum wheel using self drilling screws (two on each end). The screws should be at least 90 degrees apart as per Fig.12.

7. SETTING OF OPEN AND CLOSE SAFETY OBSTRUCTION FORCE

IMPORTANT: The setting for the open and close obstruction forces is the most important adjustments that made in the whole installation procedure. Make sure that the force (load) is adjusted correctly as per the installation instructions. Failure to adjust these settings correctly could result in serious personal and/or property damage. The end user must be informed that they must test at regular intervals (once a month is recommended) these settings and the necessary adjustments made if required.

Notes: The Open and Close Obstruction Force adjustments procedure is the same for Left or Right Hand installation.

7.1 CLOSE SAFETY OBSTRUCTION FORCE ADJUSTMENT

(a) Fully open the door by pressing the OPEN Button. The door will stop automatically when the open limit position is reached.

(b) Turn the CLOSE FORCE shaft fully clockwise. Press the CLOSE Button, the door should start closing. As the door is closing, turn the FORCE shaft slowly anticlockwise until the door stops momentarily then reverses to the open position.

(c) Turn the CLOSE FORCE shaft 10 degrees clockwise. Press the CLOSE Button again to close the door. If the door reverses by itself, readjust the FORCE shaft a further 5 degrees clockwise. Keep adjusting in this manner until the door can complete the full closing cycle.





7.2 OPEN OBSTRUCTION FORCE ADJUSTMENT

(a) Fully close the door by pressing the CLOSE Button. The door will stop automatically when the close limit position is reached.

(b)Turn the OPEN FORCE shaft fully clockwise. Press the OPEN Button, the door should start opening. As the door is opening, turn the OPEN FORCE shaft slowly anticlockwise until the door stops.

(c) Turn the OPEN FORCE shaft 10 degrees clockwise. Press the OPEN Button to open the door. If the door stops by itself, readjust the OPEN FORCE shaft a further 5 degrees clockwise. Keep adjusting in this manner until the door can complete the full opening cycle. (Fig13)

7.3 CLOSE SAFETY OBSTRUCTION TEST

The door now has to be tested for response to an obstruction while it is opening and closing. Press the CLOSE Button with the door in the open position, the door should start closing. When the door reaches half the closing distances (see Fig.14), holding the bottom of the door with your hands. If the door does not reverse open readily, the force may be excessive and need adjusting.

IMPORTANT: If the door is unable to reverse when obstructed, then discontinue to use it. Do not use a door with faulty obstruction setting. Repair fault and retest before using.

8. SETTING OF TRANSMITTER 8.1 LEARNING A TRANSMITTER

The transmitter must be LEARNT before use.

(a) Press the LEARN CODE Button for 2 seconds approximately, the LEARN LED will turn on (See Fig.15).

(b) Press any button on the transmitter 2 seconds, the LEARN LED will flash about 8 times and then turn off.

(c) Then the transmitter has been learnt and the security code stored in the memory on board.Press the transmitter to see if it operates the door.(d) Repeat the step (a)-(c) to learn other transmitters.

(e) Up to 30 transmitters can be learnt. If more than 30 transmitters are learnt, the FIFO (First In First Out) system applies, the first code learnt will be deleted and replaced by the latest learnt code.

8.2 DELETE ALL TRANSMITTERS

If you want to delete all the stored transmitter codes, step as follows:

(a) Press and hold the LEARN BUTTON, the LEARN LED will turn on.

(b) Holding the LEARN BUTTON 8 seconds approximately, the LEARN LED will turn off.

(c) Release the LEARN BUTTON, all the stored transmitter codes will be deleted.

(d) Confirm this by trying to operate the door by pressing one of the deleted transmitters.

IMPORTANT: It is strongly recommend deleting all transmitters and re-learning the transmitters if one of the learnt transmitters lost.





9. AUTO CLOSE SET

Caution: If Auto Close is set, a P.E. beam must be applied, remove the JP1 wire to implement Auto Close function (Fig 16).Only when the door open to the limit and Auto Close time is set, the Auto Close timer begins counting. If P.E beam is blocked , the door will keep status of open. The door will reopen when obstructed or the P.E beam is blocked during closing. Auto close time is 3 minutes.



TECHNICAL SPECIFICATIONS

Input Voltage	220-240V AC 50HZ		
Transformer	Primary Voltage	220V/240V AC	
	Secondary Voltage	24V AC 100VA	
	Controller Voltage	24V DC	
Rated Load	250N		
Opening /closing travel limits	6 turns of door drum wheel		
Opening /closing run time	60 seconds		
Receiver Type	UHF 433.92MHZ, AM Receiver UHF 433.22MHZ, AM Receiver		
Receiver code storage capacity	30 transmitter codes		
Transmitter	Frequency	433.92MHZ 433.22MHZ	
	Coding Type	Hopping Code	
	No. of code combinations	Over 4.29 billion random code	
	Code Generation	Non-linear encryption algorithm	
	Battery Voltage	12V	
Motor Type	Permanent magnet Direct Current	24V DC	
Globe	LED Lighting		

FAULTS AND SOLUTIONS

FAULTS	POSSIBLE CAUSE	SOLUTIONS
	-Main power off	-Turn on the power
Door doesn't operate	-Door is obstructed	-Remove obstruction
	-Door reversing sensitivity not adjusted properly	-Re-adjust reversing sensitivity (Ref installation instruction Step7.1)
	-Fuse blown	-Replace fuse
Door moves downwards and reverses itself upward	Door reversing sensitivity not adjusted properly	Re-adjust reversing sensitivity (Ref installation instruction Step 7.1)
Door operates from drive unit but not from hand transmitter	-Battery flat	-Replace battery
	-Battery leads broken	-Replace transmitter
	-Transmitter has not been learnt	-Refer to installation instructions-Step 8.1
	-Drive unit aerial wire not extended	-Extend aerial wire
Door does not close fully	Close Limit incorrectly adjusted	Re-adjust Close Limit (refer to installation instructions-Step 4)
Door does not open fully	Open Limit incorrectly adjusted	Re-adjust Open Limit (refer to installation instructions-Step 4)
Door stop automatically	Opener inspects overload, door obstructed or springs lose elasticity	Stop using opener to avoid damage
Auto close no react	P.E. Beam faulty,door is blocked Auto close time unset	Inspect P.E. Beam refer to Installation of P.E. Beam Re-set Auto close time
Soft stop time too long/short or none	No setting of soft start/soft stop	See step 5 to set