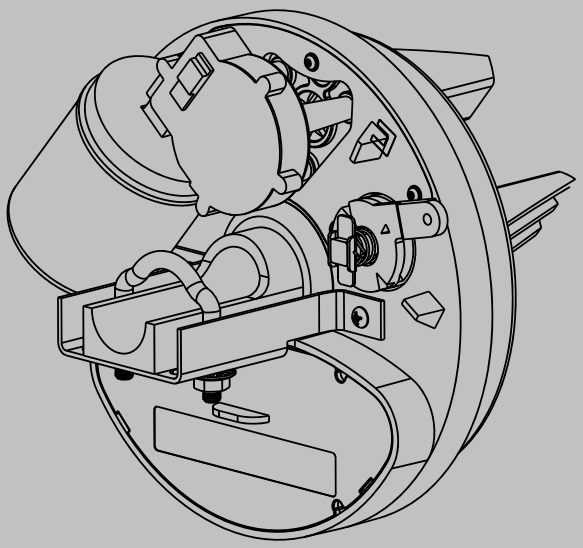
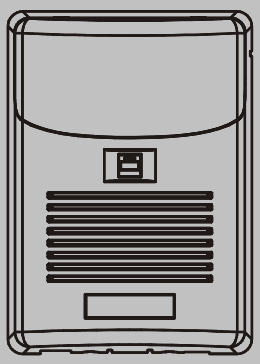
SUPERLIFT





Rolling Door Opener

Safety Obstruction Detection

Rolling Code Security

Anti Theft Security System

Automatic Closing

Automatic Courtesy Light

801-001-01 C

IMPORTANT SAFETY RECOMMENDATIONS

FAILURE TO COMPLY WITH THE FOLLOWING SAFETY RECOMMENDATIONS MAY RESULT IN

SERIOUS PERSONAL INJURY AND/OR PROPERTY DAMAGE.

1. For **ADDITIONAL SAFETY** we **STRONGLY** recommend the fitment of Photo Electric Safety Beams. In most countries the fitment of Photo Electric Safety Beams is mandatory on all garage doors fitted with Automatic Openers. recommends that Photo Electric Safety Beams be installed with the Automatic Opener ensuring additional safety and peace of mind.
2. **DO NOT** operate the Garage Door Opener unless the Garage Door is in full view and free from objects such as cars, children or adults.
3. **DO NOT** operate the Garage Door Opener when children/persons are near the door. Children must be supervised at all times when near the garage door and when the Door Opener is in use.
4. **DO NOT** allow children to operate the Garage Door Opener.
5. Make sure that the **SAFETY OBSTRUCTION FORCE** is working correctly, and is **TESTED** and set as per the Installation Instructions Manual. This test must be carried out 6 monthly and the necessary adjustments made if required.
6. **DO NOT** disengage the Door Opener to manual operation with children/persons or and other objects including motor vehicles under the doorway.
7. Install the wall switch or wall mounted transmitter in a location/position where the garage door is visible and **OUT OF REACH OFF CHILDREN**.
8. The Garage door must be **WELL BALANCED**. Sticking, binding or out of balance doors must be repaired by qualified garage door installer prior to Opener installation.
9. **DO NOT** attempt to repair door yourself as hardware is under extreme tension and can cause **SERIOUS PERSONAL INJURY** and/or property damage.
10. **REMOVE OR DISSABLE** all garage doors locks and mechanisms prior to installation of the Opener.
11. Connect the Garage Door opener to a properly **EARTHED** general purpose 220V outlet installed by a qualified electrical contractor.
12. **ALWAYS DISCONNECT THE POWER CORD** from main power before making any repairs or removing covers. Only **EXPERIENCED** service personnel can remove covers from the Opener.
13. Keep hands and loose clothing CLEAR of the door and Door Opener at all times.
14. When using auto close mode a **PHOTOELECTRIC BEAM** must be fitted and tested for correct operation at regular intervals. **EXTREME CAUTION** is recommended when using auto close mode. **ALL SAFETY RULES** must be observed.
15. In order for the Garage Door Opener to **SENSE** an object obstruction, some **FORCE** must be exerted on the object/person and the door. As a result the object/person/door may suffer **DAMAGE OR INJURY.**
16. Make sure that the door is fully open before driving into or out of the garage.
17. Make sure the door is fully closed before leaving the driveway.

FEATURES

Your Automatic Roller Door Opener has many features which you will appreciate. The components and materials used in this Automatic Opener are of the latest technology and highest quality. Below are listed a few of the many features.

OPERATION

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

HOPPING CODE.

Every time a transmission is made from the Remote Transmitter a new security code is generated. The number of possible code combinations is over 4.29 billion.

INTELLIGENT SAFETY OBSTRUCTION SYSTEM.

If the door encounters an obstruction during the Closing Cycle it will automatically reverse. The amount of force the door should encounter before reversing, is user adjustable and should be determined, during the initial installation of the automatic door opener. If the door encounters an obstruction during the Opening Cycle it will stop. The Safety Obstruction Force should be checked at least once a month. (Refer to installation manual for further instructions.)

SECURITY CODE STORE

The opener uses state of the art technology in storing your selected Transmitter Security Code. Up to 6 different codes can be stored . To store any code simply press and hold the Door Code button on the Opener and press the Transmitter button twice. Each or all codes can be deleted and changed at any time. (Refer to installation manual for further instructions)

AUTO COURTESY LIGHT

A Courtesy Light on the Opener is activated automatically wherever the door commences an opening or closing cycle. The light will stay on for approximately three minutes.

PHOTO ELECTRIC BEAM (OPTIONAL)

The Opener has an input for a Photo Electric Beam to be connected for additional safety protection and for use in conjunction with the Auto Close Mode.

SAFETY AUTO RUN TIME

If the Opener does not complete its cycle within 30 seconds the Opener will - stop if on the Opening Cycle, or reverse back to the fully open position if on the Closing Cycle.

MANUAL OPERATION

The Opener is equipped with a Manual Disengaging Device. If the power supply is disrupted the door can be put into Manual Mode by pulling down once on the release cord/ handle and releasing. This will allow you to manually open or close the door. When power is restored the Opener can be re-engaged by pulling down once more on the release cord/lever.

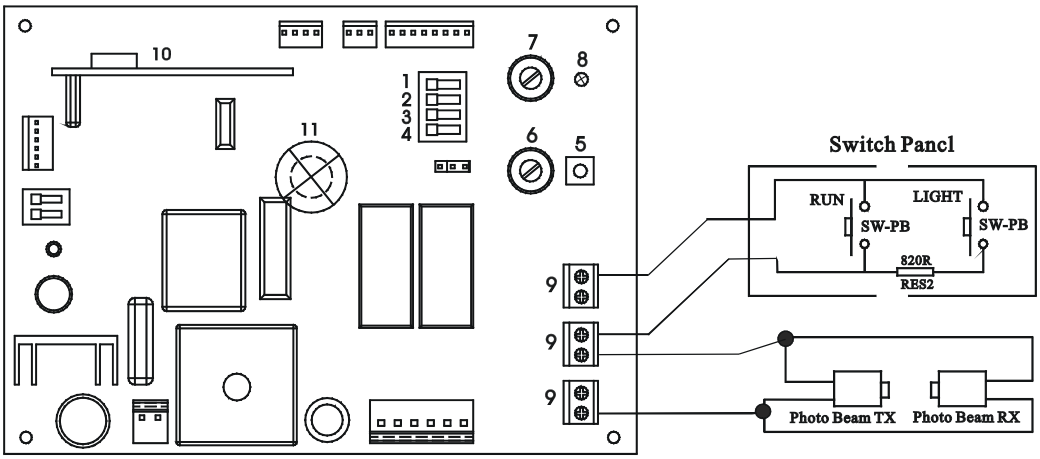


Fig 1
RDO Logic Board

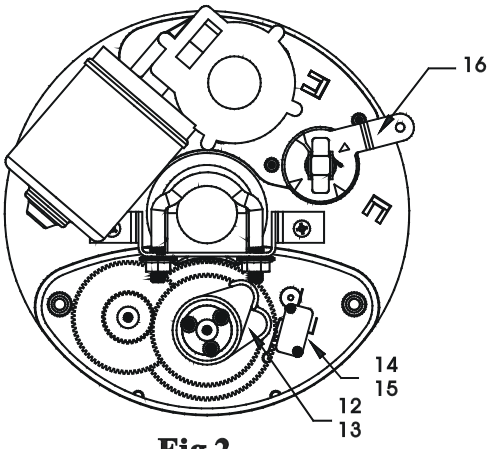
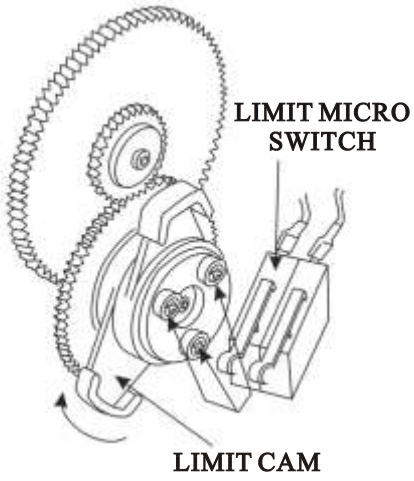


Fig 2
Drive Unit



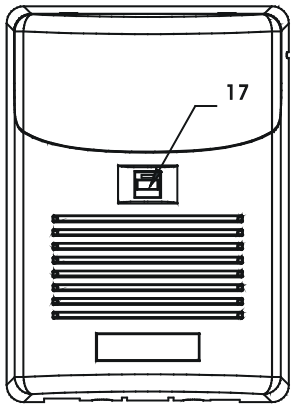
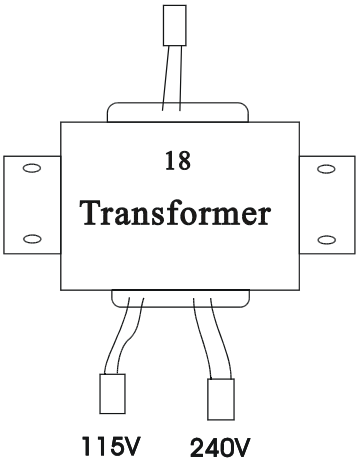


Fig 3
Control Box



OPERATING CONTROLS

1. **PHOTO BEAM ENABLE DIP SWITCH.**

2. **AUTO CLOSE ENABLE DIP SWITCH.**

3. **AUTO CLOSE DELAY DIP SWITCHES** are used to adjust the time to auto close.

4. **SAME AS ABOVE**

5. **TRANSMITTER CODE BUTTON** used for storing or erasing the transmitter button code

6. **DOWN FORCE SCREW** is used to change the force pressure required to make the door DOWN, if the door encounters an obstruction.

7. **UP FORCE SCREW** is used to change the force pressure required to make the door UP, if the door encounters an obstruction.

8. **CODE LED** signals the stages of the transmitter code learning process

9. **OUTPUT TERMINALS** used for connection of photo safety beams or external push button.

10. **RADIO RECEIVER** processes the signal from the hand held transmitter.

11. **AUTO COURTESY LIGHT** is activated automatically each time the opener commences an open or close cycle and remains on for approx 3 minutes

12. **OPEN LIMIT CAM** is used to adjust the open limit stop position. (Refer to installation manual for correct use)

13. **CLOSE LIMIT CAM** is used to adjust the close limit stop position. (Refer to installation manual for correct use.)

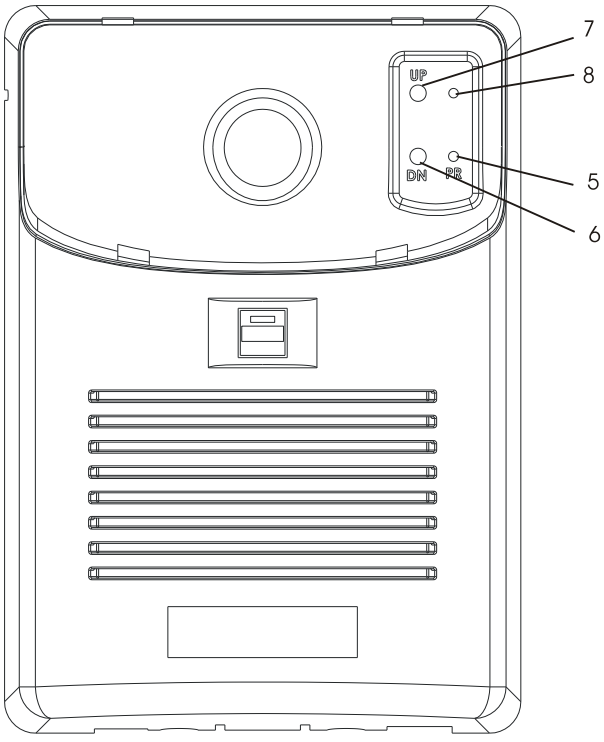
14. **OPEN LIMIT MICRO SWITCH** is used to stop door in the fully open position.

15. **CLOSE LIMIT MICRO SWITCH** is used to stop the door in the fully closed position.

16. **ENGAGE/DISENGAGE LEVER**. Alternatively engages/disengages opener from the door.

17. **EXTERNAL PUSH BUTTON** alternatively opens, closes or stops the door when activated.

18. **VOLTAGE SELECTION TERMINALS** switches the input voltage between 115 and 240 volts



FORWARD

Your opener is comprised of 2 major individual components being, Drive Unit and Control Box**.** This section of the manual deals with the basic fitting requirements which should be met **before** you attempt to install your opener. Study them carefully to ensure that your door and surroundings are suitable for such an installation.

IMPORTANT NOTE:

Some of the procedures outlined in this manual require a degree of technical and mechanical skill. It is not recommended that your Opener be installed by a Home Handyman. The Opener should always be fitted and adjusted by an experienced, qualified Garage Door Opener Installer.

1. SIDE ROOM REQUIREMENTS

Fig 4 shows and maximum the minimum amount of side room that is required between the face of the drum wheel and the edge of the door mounting bracket. The ideal distance should be between 85~125mm as indicated.

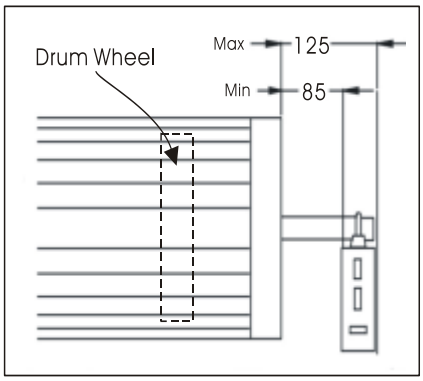


Fig4

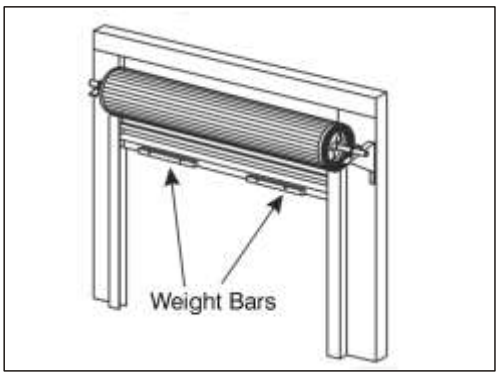


Fig 5

2. CHECK OPERATION OF THE DOOR

Before beginning the installation of the Opener, check the operation of the door. The door must be well balanced and operate smoothly and freely. When opened to between 900~1200mm from the floor and released, the door should remain in one fixed position and not rise or fall. The door should not bind or stick in the guide tracks. The ideal operational effort, required to open or close the door, should not exceed a force of 10kg. **Superlift does not recommend the installation of an Automatic Opener to a badly worn or damaged door.**

3. FIXING OF WEIGHT BARS (Optional – Not Supplied)

Weight bars are generally only required on very light weight doors. Their main purpose is to eliminate the possibility of the door curtain "ballooning" on start-up from the fully open position. If your door "balloons" on initial start-up, after installing your new opener, we recommend that you fit one or two weight bars to the bottom edge of your door (total weight 3~5kg) as detailed below.

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 appropriate fasteners. **Fig 5** Once the weight bars have been fitted the door should have a natural tendency to lightly free fall from the mid open position.

4. LEFT OR RIGHT HAND END INSTALLATION

Your opener has been factory set to be installed on the right hand end of your door (when viewed from inside the garage looking out) If you will be installing your Opener to the right hand side of then ignore the instructions outlined in Point 5. If the left hand side is your selected side for installation then you must carry out the procedure outlined in Point 5**.**

5. CONVERTING OPENER FROM RIGHT HAND TO LEFT HAND INSTALLATION

Locate the red and black motor wires. **Fig 6** The standard connection (Black to Black and Red to Red) must be reversed. Unplug the wires at the connectors and reverse them so that they are connected Red to Black and Black to Red. You can now proceed to step 1 of the Installation Instructions.

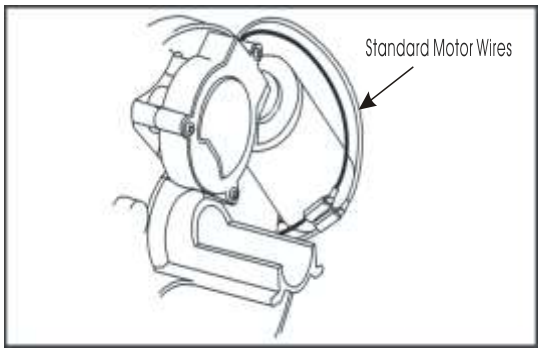


Fig 6

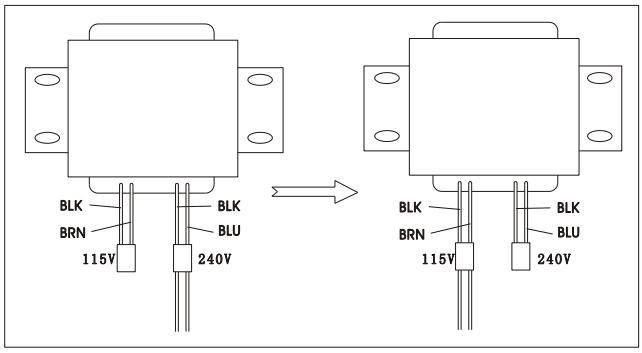


Fig 7

6. CONTROL BOX

Mount the control box on a smooth flat surface. The area must be completely free of exposure to water, either direct (rain, garden hose, sprinklers etc) or indirect (seepage either through or down the internal face of the wall). The control box contains sensitive electronics which will sustain damage as a result of **any** water intrusion. Water damaged electronics are not covered under the terms of the opener warranty. **Important Note: The control box is not water proof!**

7. VOLTAGE SELECTION (For non 240 volt markets only)

For certain markets your RDO1 Opener will have been fitted with a **switch able dual voltage transformer. All transformers have been factory pre-set to suit a 220~240 volt power supply**. If your local power supply is 110~115 volt you will be required to switch the transformer power supply leads inside the Control Box as depicted in **Fig 7**. To switch the power supply leads, remove the Control Box cover. Locate and un-plug the plastic connectors marked "240V" (Black and Brown coloured wires) and plug-in to the connectors marked "115V" (Black and Blue) coloured wires). The switch to 115 volts is now complete.

1. FITTING DRIVE UNIT ASSEMBLY (Right Hand Installation Depicted)

Check that the door U-bolt is securely tightened on the opposite end of the door to where you want to fit the Drive Unit.

Open the door fully.

Place a suitable prop under the door as close to the edge (to which the drive unit is being fitted) as possible. **Fig 8** The prop should be adjusted so that it sits firmly under the door. **Important Note: The door curtain can become damaged quite easily once the full weight of the door is imparted on the prop. The prop must be strong enough to sustain the full weight of the door but at the same time have enough padding that it will not damage the door curtain**

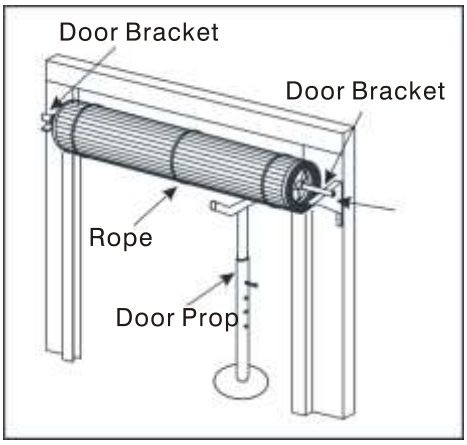


Fig 8

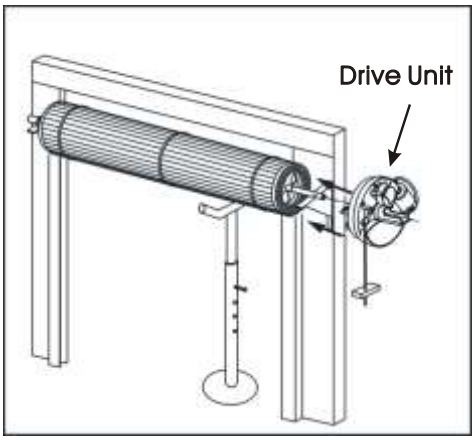


Fig 9

Remove the U-bolt from the end of the door to which the Drive Unit will be fitted.

Having ensured that the prop is stable and firmly in position, remove the Door Mounting Bracket from the wall.

Fig 9

Remove the Drive Unit from the packaging. Rotate the forked drive gear by pushing the fork. If the drive gear does not rotate, turn the Lock/Release leaver. **Fig 2** (For more instructions on how to "Lock" and "Release" the Drive Gear refer to Section 11)

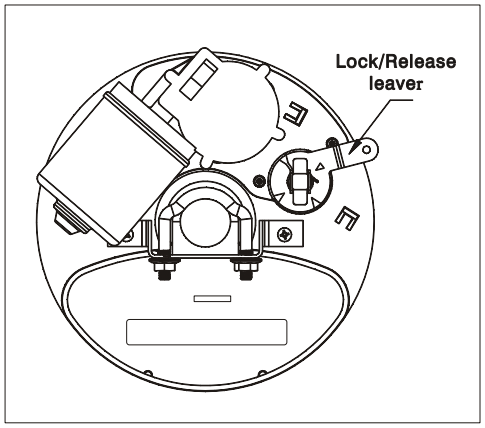


Fig10

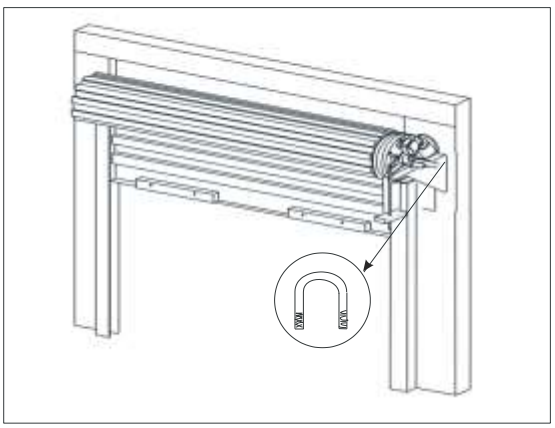


Fig 11

Slide the center of the Drive Unit over the door axle. Push the Drive Unit fully into the Door and ensure that the Drive Forks engage into one of the door drum wheel spokes. **Fig 11**

Refit the door mounting bracket to the wall. The U-Bolt slots in the door bracket must align with the U-bolt mounting slots in the Drive Unit. **Fig 12** Note: In some cases the door mounting bracket may need to be re positioned in order that the U-Bolt holes align.

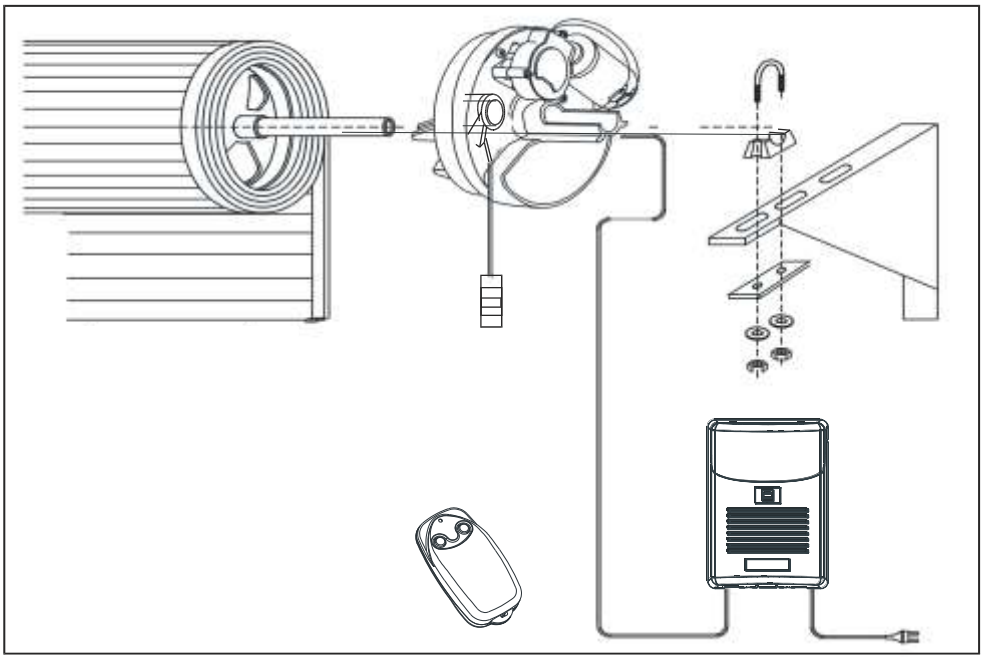


Fig 12

Fully insert the specially supplied U-bolt through the Drive Unit and Wall Bracket slots.

Affix and firmly tighten the U-Bolt securing nuts.

Check the manual operation of the door by fully raising and lowering the door. The door should run smoothly and should not catch on any part of the drive assembly.

2. FIXING OF DOOR CURTAIN TO DRUM WHEEL

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

2.2 With the door in the fully closed position, mark the curtain at points (A) and (B) **Fig 13**

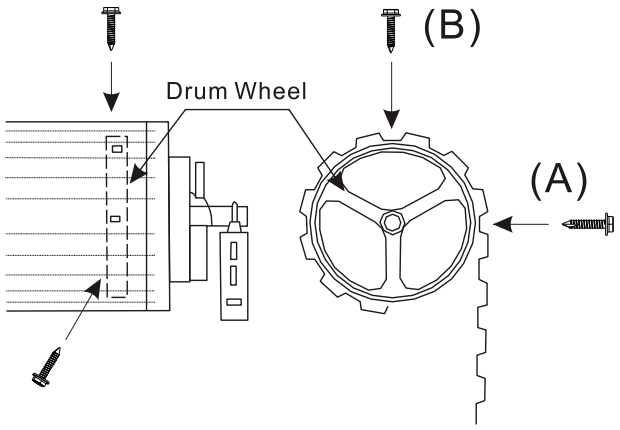


Fig 13

2.3 Open the door slightly so as to have access to the marked positions. Secure the curtain to the drum wheel using self drilling screws or pop rivets. The fixing point should be at least 90 degrees apart.

3. SETTING THE LIMIT SWITCHES

3.1 With the Drive Unit in release mode move the door up by hand to the desired fully open position.

3.2 Remove the limit cover **Fig 2** and slightly loosen the 3 cam locking screws (to the extent that you can rotate the cam by hand with a firm push). Rotate the Open Limit Cam by hand, in the direction of the Open Limit Switch, until you hear the Switch "click" **Fig 2**. Once the Open Limit Switch "clicks" continue to rotate the cam a further 5 degrees or so.

3.3 To check the Open Limit Switch adjustment - Move the door down by hand and then slowly back up again. The limit switch should "click" before the door stops make contact with the rail stops. If not then adjust the Open Limit Cam accordingly.

3.4 To set the Close Limit Switch - Move the door down by hand to the desired fully closed position.

3.5 Rotate the Close Limit Cam by hand, in the direction of the Close Limit Switch, until you hear the Switch "click". Once the Open Limit Switch "clicks" continue to rotate the Cam a further 5 degrees or so.

3.6 To check the Down Limit Switch adjustment, raise the door by hand and then slowly lower again. The Down Limit Switch should "click" just before the door touches the ground. If not then adjust the Close Limit Cam accordingly.

3.5 Slightly re-tighten the 3 Cam Locking Screws **Fig 2**

3.6 Pull the Red Lock/Release Chord to engage the drive and the Opener is ready to be used in automatic mode once the Control Box **Fig 3** has been installed

4. MOUNTING THE CONTROL BOX

4.1 Establish a location, at approximately chest height, on the same wall face as that of the Door Mounting Bracket which secures the Drive Unit. Make sure that the Control Cable running from the Drive Unit is long enough to reach the bottom of the Control Box for the location you have selected.

4.2 Drill a 6mm hole, to an appropriate depth, in the wall and insert a green wall plug and screw provided

4.3 Remove the top cover of the Control Box by bending the flexible tab along the bottom edge taking care to unplug the external push button wire from it's respective terminal.

4.4 Locate the recessed mounting slot on the center back of the Control Box base plate and "hook" the base plate onto the screw (Point 4.2)

4.5 Using a marking pen or nail, place 2 marks on the wall at the location of the remaining 2 mounting screw holes

4.6 Remove the Base Plate from the wall and drill to an appropriate depth at the 2 marks on the wall.

4.7 Insert the green wall plugs provided and re-hang the Base Plate onto the wall.

4.8 Insert and tighten the 2 remaining mounting screws.

4.9 Refit the Control Box Cover onto the Base Plate remembering to reconnect the external push button wire to the appropriate terminal **Fig 1**

4.10 Plug the Control Cable into the bottom of the Control Box.

4.11 Fix the Control Cable to the wall using the Cable Clips provided.

4.12 Plug the Power Cable into a power socket.

5. CODING THE TRANSMITTERS

5.1 Remove the hand held transmitter from the packing boxes

5.2 Remove the light cover from the Control Box by pulling at the top edge.

5.3 Locate the transmitter coding button located in the recessed panel within the light cover enclosure **Fig**

5.4 Press and release this button and the adjacent red LED will glow solid.

5.5 Momentarily press and release the White Button on the Hand Transmitter and the red Led will extinguish

5.6 Momentarily press and release the White Button again and the red LED will flash. Once the flashing stops the transmitter has been successfully coded.

5.7 Repeat steps 5.3~5.5 to code additional transmitters

6. DELETING PREVIOUSLY STORED CODES

6.1 Switch the power off at the power supply.

6.2 Whilst **holding down** the transmitter coding button, **Fig 3** switch the power back on.

6.3 Continue to hold down the transmitter coding button and the red LED will begin to flash. All of the previously stored codes will have been deleted once the LED stops flashing.

6.4 To re coded new transmitters follow the sequence outlined in points 5.3~5.6

7. OPEN & CLOSE LIMIT FINAL ADJUSTMENT

7.1 Test the door open and close positions by pressing either the white button on the coded transmitter or the red external push button located on the front face of the Control Box.

7.2 Check that the door opens and closes to the required positions. If not then re-adjust the Open and/or Close Limit Cams accordingly.

7.3 Once finally adjusted, firmly tighten the 3 Limit Cam Locking Screws and refit the Limit Cover Plate.

8. OPEN AND CLOSE SAFETY OBSRUCTION FORCE ADJUSTMENT

8.1 Locate the 2 Safety Obstruction Force “SOF” adjustment screws in the recessed panel within the light cover enclosure. **Fig 3** Both of the screws have been factory pre set to the maximum setting (clockwise direction).

8.2 The upper screw adjust the “SOF” in the OPEN direction of the door travel, while the lower screw adjusts the “SOF” in the CLOSE direction of door travel.

8.3 Open Direction “SOF” adjustment - With the door in the fully open position - Press the red button located on the face of the Control Box. As the door commences to close, slowly begin to turn the LOWER “SOF” screw in an ant clockwise direction until the door stops and reverses towards the Open direction. Now turn the adjustment back 10 degrees in a CLOCKWISE direction. Note: The door must reverse before it reaches the ground.

8.4 Test the adjustment by pressing the red button again. This time the door should reach the fully closed position without reversing.

8.5 Close Direction “SOF” adjustment - With the door in the fully closed position - press the red button on the face of the Control Box. As the door commences to OPEN, slowly begin to turn the UPPER “SOF” screw in an ant clockwise direction until the door stops. Now turn the adjustment back 10 degrees in a CLOCKWISE direction. Note: The door must stop before it reaches the fully open position.

9. TESTING THE CLOSE CYCLE FORCE

With the door in the fully open position, place a length of timber measuring 100mm x 50mm on the floor directly under the middle of the door. **Fig 14**

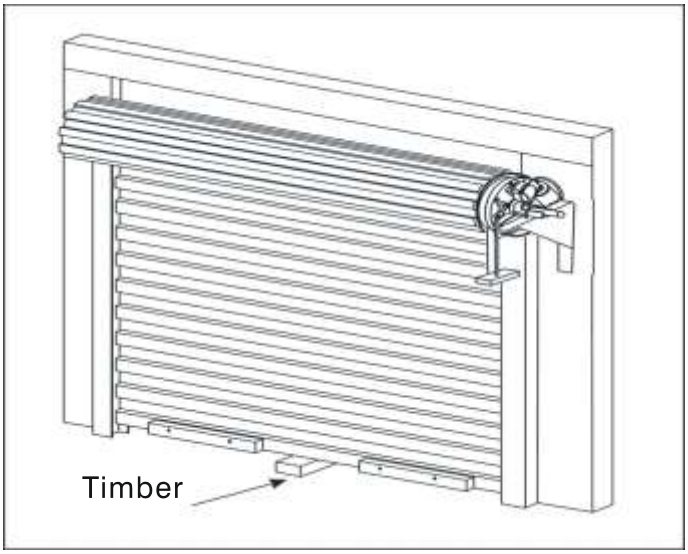


Fig 14

Close the door by pressing the red button. The door should strike the timber and start to re-open.

If the door does not re-open or requires excessive force to re-open, then the Close "SOF" will need to be re-adjusted.

Try turning the Close "SOF" adjusting screw 5 to 10 degrees in an anti-clockwise direction and then repeat steps 8.2 and 8.3 until such time as the door will reverse when it hits the timber.

10. TESTING THE OPEN CYCLE FORCE

10.1 With the door in the fully closed position – press the red button to open the door.

10.2 As the door is opening push down firmly on the bottom rail of the door (from the inside)

10.3 The door should stop without having to exert excessive force.

10.4 If excessive force is required to stop the door then the Open "SOF" will need to be re-adjusted.

10.5 Try turning the Close "SOF" adjusting screw 5 to 10 degrees in an anti-clockwise direction and then repeat steps 8.5 and 10.2 until such time as the door will stop without excessive force.

IMPORTANT NOTE: Upon hitting an obstruction – If the door STOPS on the DOWN CYCLE and REVERSES on the UP CYCLE then the motor wires are incorrectly connected and MUST BE reversed to enable safe and correct operation of the safety reversing system

11. LOCKING AND THE RELEASING DRIVE MECHANISM

11.1 Pull on the Red Release cord, or turn the release handle manually, to alternatively lock/release the drive mechanism

12. FITTING OF PHOTO ELECTRIC (PE) SAFETY BEAMS (OPTIONAL)

12.1 Mount the PE beam brackets in accordance with.

12.2 Fix the PE beams to the mounting brackets with the screws provided

12.3 Strip back a section of wire and attach it to the 2 terminals on each of the PE beams

12.4 Run the wire back to the Control Box and connect to terminals **Fig 1**

12.5 Align the photo beams so that the pilot light, at the top edge of each photo beam, is glowing.

12.6 To enable the photo beams switch dip switch Number 1 to the "ON" position. **Fig 1**

12.7 To test the correct function of the PE beam – with the door in the fully open position – press the red button to commence a closing cycle. As the door is closing pass your hand through the line of the PE beam. The door should stop and then re-open.

12.8 If the door does not stop and/or re-open, check the wiring connections and the PE beam alignment. (Refer points 11.3, 11.5 and 11.6)

13. AUTO CLOSE FUNCTION

To enable the auto close function, switch dip switch "Number 2" to the "ON" position.

IMPORTANT NOTE: The fitment of PE beams is mandatory once the auto close function has been enabled. The Auto Close will not function unless the PE beams have been correctly fitted and adjusted

14. AUTO CLOSE DELAY TIME

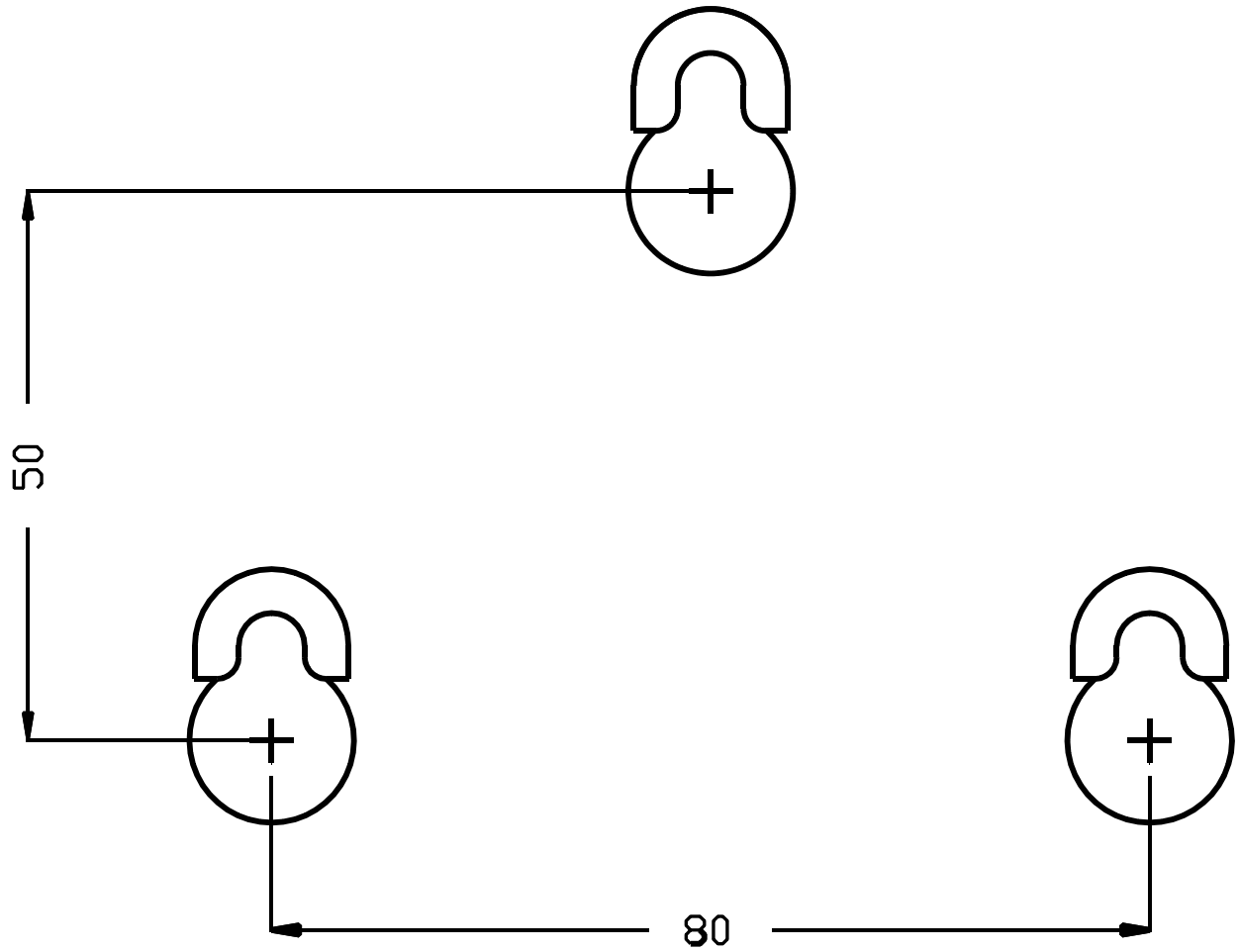
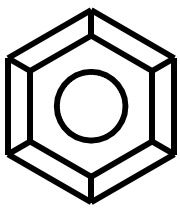
Select the delay time to auto close according to the following schedule

Dip 3	Dip4	Time Delay
OFF	OFF	15 sec
ON	OFF	30 sec
OFF	ON	45 sec
ON	ON	60 sec

TECHNICAL SPECIFICATIONS

CONFIGURATION:	Separate Control Box & Drive Unit
INPUT VOLTAGE:	230V or 115V 50~60 H (Selectable)
SECONDARY VOLTAGE:	24V AC 120 VA
CONTROLER VOLTAGE:	24V DC
OPENER LIFTING FORCE:	300N
OPENER OPENING/CLOSING LIMITS TRAVEL:	4.5 Turns of Door Drum Wheel
RECEIVER TYPE:	UHF 433.92 MHz Hopping Code
RECEIVER CODE STORAGE CAPACITY:	6 x 4 Button Transmitter Codes
TRANSMITTER FREQUENCY:	433 MHz
No. of CODE COMBINATIONS:	Over 4.9 Billion
TRANSMITTER BATTERY VOLTAGE:	12 Volt
MOTOR TYPE:	24 Volt DC Permanent Magnet
GLOBE:	15W 24 V DC Edison screw Type
SAFETY REVERSING SYSTEM:	Pot Adjustable Current Sensing

SYMPTOM	POSSIBLE CAUSES	REMEDY
Door will not operate	Mains power not turned on Door is obstructed	Turn on mains power Remove obstruction
Door is locked or motor jammed	Mechanical door lock has been engaged	Unlock door Inspect door and remove jam
Door will not reverse on hitting an object	Safety Obstruction Force setting is too high and may require adjustment.	Refer to Installation instructions, - Items 8~10
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 Installation Instructions – Items 8 ~ 10
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 to operate the door with an alternative transmitter Refer to installation instruction Item 5. Locate and extend aerial wire Replace battery(12V)
Door does not close fully	Limit micro switch incorrectly adjusted	Re-adjust limit switch - Refer Installation Instruction Item 3
Lights malfunction	globe blown	Replace with 24VDC/3W globe
Door Stops on Upward cycle before reaching the fully open position	Door may be obstructed. Door springs may have lost tension Safety Obstruction Force may need adjustment	Disengage Opener and check door for free movement Call serviceman to affect repairs Refer Section 8~10 of Installation manual.
Auto close not working	P.E. Beam faulty or wiring broken P.E. Beam obstructed Auto close time not set	Repair P.E. or broken wire Remove obstruction from the path of beam. Refer to installation inst. - Items 13 & 14.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