



# **STEEL-LINE**

**www.steel-line.com.au**  
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## **ST50EVOB** **ST50EVOC**

**Sectional Garage Door Opener**

### **Installation and Operating Instructions**

**Owners Copy: SAVE THESE INSTRUCTIONS for future reference**



**This manual contains IMPORTANT SAFETY information**  
**DO NOT PROCEED WITH THE INSTALLATION BEFORE READING THOROUGHLY**



# WARNING!

## START BY READING THESE IMPORTANT SAFETY INSTRUCTIONS

- Failure to comply with the following instructions may result in serious personal injury or property damage.
- Read and follow all instructions carefully.
- The garage door opener is designed and tested to offer safe service, provided it is installed and operated in strict accordance with the instructions in this manual.



These safety alert symbols mean **WARNING** : A possible risk to personal safety or property damage exists.



**Keep garage door balanced.** Do not let the garage door opener compensate for a binding or sticking garage door. Sticking, binding or unbalanced doors must be repaired before installing this opener.



**Do not wear rings, watches or loose clothing** while installing or servicing a garage door opener. Wear gloves, safety goggles and suitable protective clothing where appropriate.



**Frequently examine the door installation**, in particular cable, springs and mountings for signs of wear, damage or imbalance. Do not use if repair or adjustment is needed since springs and hardware are under extreme tension and a fault can cause serious personal injury.



To avoid serious personal injury from entanglement, **remove all ropes, chains and locks connected to the garage door** before installing the door opener.



**Installation and wiring** must be in compliance with your local building and electrical codes.



**The safety reverse system test is very important.** Your garage door **MUST** reverse on contact with a 40 mm high obstacle placed on the floor. Failure to properly adjust the opener may result in serious personal injury from a closing garage door. **Repeat the test once a month and make any necessary adjustments.**



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.



Use the **Manual Release** only for the separation of the carriage from the drive and - if possible - ONLY with the door closed. Do not use the red handle to push the door up or pull it down. Operation of the emergency release can lead to uncontrolled movements of the door, if springs are weak or broken or if the door is unbalanced. Mount the release handle of the emergency release at a height less than 1.8 m from the floor.



**The optional Protector System™ must be used for all installations where the closing force as measured on the bottom of the door is over 400 N (40 kgf).** Excessive force will interfere with the proper operation of the Safety Reverse System or damage the garage door.

**SPECIAL NOTE: Steel-line strongly recommends that The Protector System™ be installed on all garage door openers.**



**After installation, ensure that the parts of the door do not extend over public footpaths or roads.**



Install the wireless wall control (or any additional wall control) **in a location where the garage door is visible, at a height of at least 1.5 m and out of the reach of children. Do not allow children to operate push button(s) or transmitter(s).** Serious personal injury from a closing garage door may result from misuse of the opener.



**Permanently fasten the Warning Labels in Prominent Places**, adjacent to Wall Controls and on manual release mechanism as a reminder of safe operating procedures.



**Activate opener only when the door is in full view, free of obstructions and the opener is properly adjusted. No one should enter or leave the garage while the door is in motion.**



**Automatic Door-** The door may operate unexpectedly, therefore do not allow anything to stay in the path of the door.



**Do not allow children to play near the door, or with door controls. Keep remotes away from children.**



**Disconnect electric power to the garage door opener before making repairs or removing covers.**



If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid hazard.



**This opener should not be installed in a damp or wet space exposed to weather.**



To avoid damage to very light doors (such as fibreglass, aluminium or steel doors), an appropriate reinforcement should be added. To do so, contact the door manufacturer or your local Steel-Line branch.

**SAVE THESE INSTRUCTIONS**

**Warning: If your garage has no service entrance door, an E1702M outside quick release must be installed. This accessory allows manual operation of the garage door from outside in case of power failure.**

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## BEFORE YOU BEGIN:

1. Check the wall and ceiling above the garage door. (The opener and lintel bracket **must** be securely fastened to structural supports.)
2. Do you have a finished ceiling in your garage? If so, a support bracket and additional fastening hardware (not supplied) may be required.
3. Do you have an access door in addition to the garage door? If not, model E1702M Outside Quick Release Accessory is required. This accessory allows manual operation of the garage door from outside in case of power failure.
4. Complete the following test to make sure your garage door is balanced and is not sticking or binding:
  - Lift the door about halfway. Release the door. If balanced, it should stay in place, supported entirely by its springs.
  - Raise and lower the door to see if there is any binding or sticking, 15 kgf is the absolute maximum allowable force to raise or lower the door in any position. If your door binds, sticks, or is out of balance, call a trained door technician or your local Steel-Line branch.

## 1 DOOR TYPES

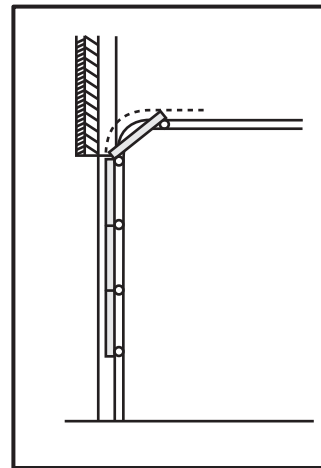
### A. Sectional Door with curved track

To suit spring balanced Residential Sectional doors :

Max Door Area : up to 13.0 m<sup>2</sup>

Max. Door Weight : 100 kg

Max. Spring Balanced Weight : 15 kg



### *Electrical Connection*

*A 240 V General Purpose Outlet (GPO / Power Point) must be available in close proximity to the powerhead.  
This fitting is not part of the Opener hardware and must be supplied by the consumer.*

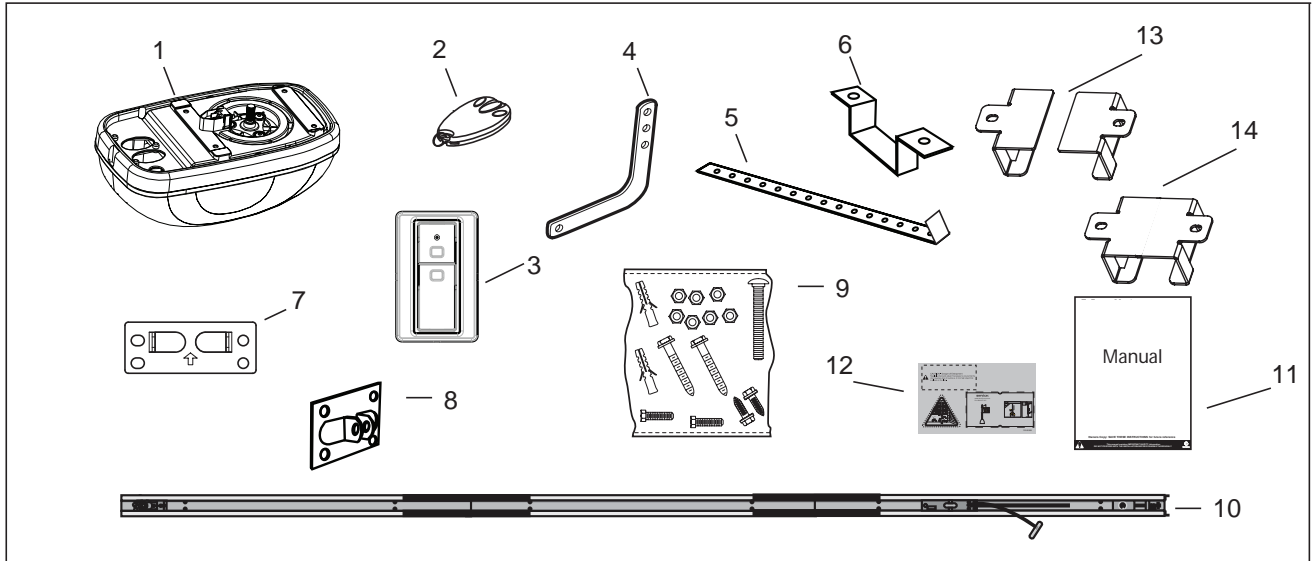


*In the event of a power outage or the unit being disconnected from the power source, the door **MUST** be operated and supervised so that it completes a full UP and DOWN cycle with no obstructions in place to ensure that the unit automatically checks that the safety force settings are correct. It is also recommended to complete a safety reversal test.*

## 2 CARTON INVENTORY

Your garage door opener, rail and hardware are packed in a single carton.

- |                               |                                 |
|-------------------------------|---------------------------------|
| (1) Opener / powerhead        | (8) Door bracket                |
| (2) Hand held transmitter (2) | (9) Hardware bag                |
| (3) Wireless wall control     | (10) Rail assembly (belt/chain) |
| (4) Curved door arm           | (11) Manual                     |
| (5) Hanging bracket           | (12) Warning Labels             |
| (6) Rail brackets (2)         | (13) Rail centre bracket        |
| (7) Lintel bracket            | (14) Rail mounting bracket      |

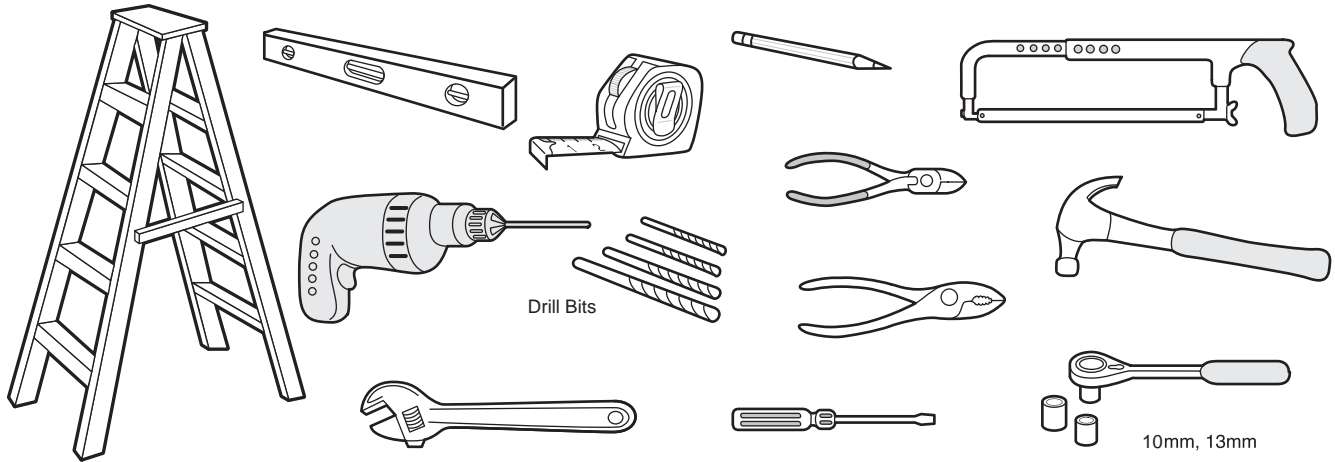


## 3 RAIL SIZES AVAILABLE

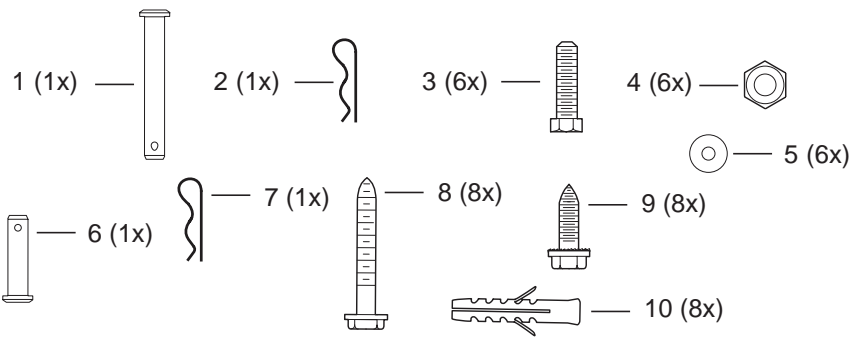
DOOR HEIGHT: Sectional Doors	RAIL LENGTH:	CEILING FIXING POINT: (standard)	OVERALL LENGTH:
Up to 2.5 m	3300 mm Segmented	3150 mm	3450 mm

**NOTE:** The Ceiling Fixing Point is measured back from the lintel (see section 6 item 7 of “completed installation”). Also allow 300 mm back from the fixing point for installation of the powerhead.

## 4 TOOLS REQUIRED



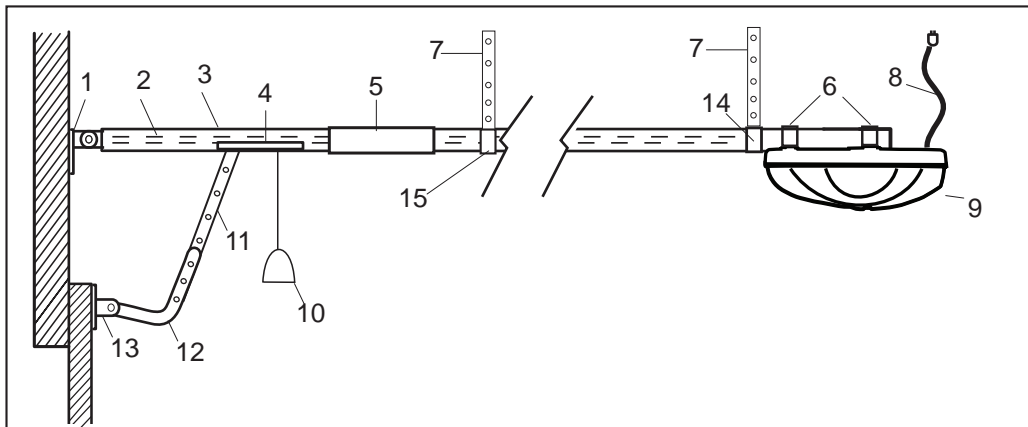
## 5 HARDWARE PROVIDED



- (1) Clevis pin 80 mm
- (2) R clip
- (3) Hexagonal head screw M8
- (4) Nut M8
- (5) Flat washer M8
- (6) Clevis Pin
- (7) R clip
- (8) Screw ST6 x 50 mm
- (9) Screw ST6 x 18 mm
- (10) Wallplug 8mm

## 6 COMPLETED INSTALLATION

As you proceed with the assembly, installation and adjustment procedures in this manual, you may find it helpful to refer back to this illustration of a completed installation.



- (1) Lintel bracket
- (2) Belt/chain (hidden)
- (3) Rail
- (4) Trolley
- (5) Rail connecting piece
- (6) Rail bracket
- (7) Hanging bracket
- (8) Power cord
- (9) Opener
- (10) Manual release rope & handle
- (11) Straight door arm
- (12) Curved door arm
- (13) Door bracket
- (14) Rail mounting bracket
- (15) Centre rail bracket

## 7 CONTROL PANEL (located under the lens cover)

1. **Terminal Block:** used for external accessories (see chart below).

No	Function	Polarity	Comment
1	Push button	+ve	Dry contact input for push button wired wall controls:
2	Common	-ve	Common terminal for push button and IR Beams:
2	Common	-ve	Common terminal for push button and IR Beams:
3	IR Sensor	+ve	IR Beam Input: (pulsing type only)

2. **S Button:** used to "SAVE" the REMOTE CONTROLS.

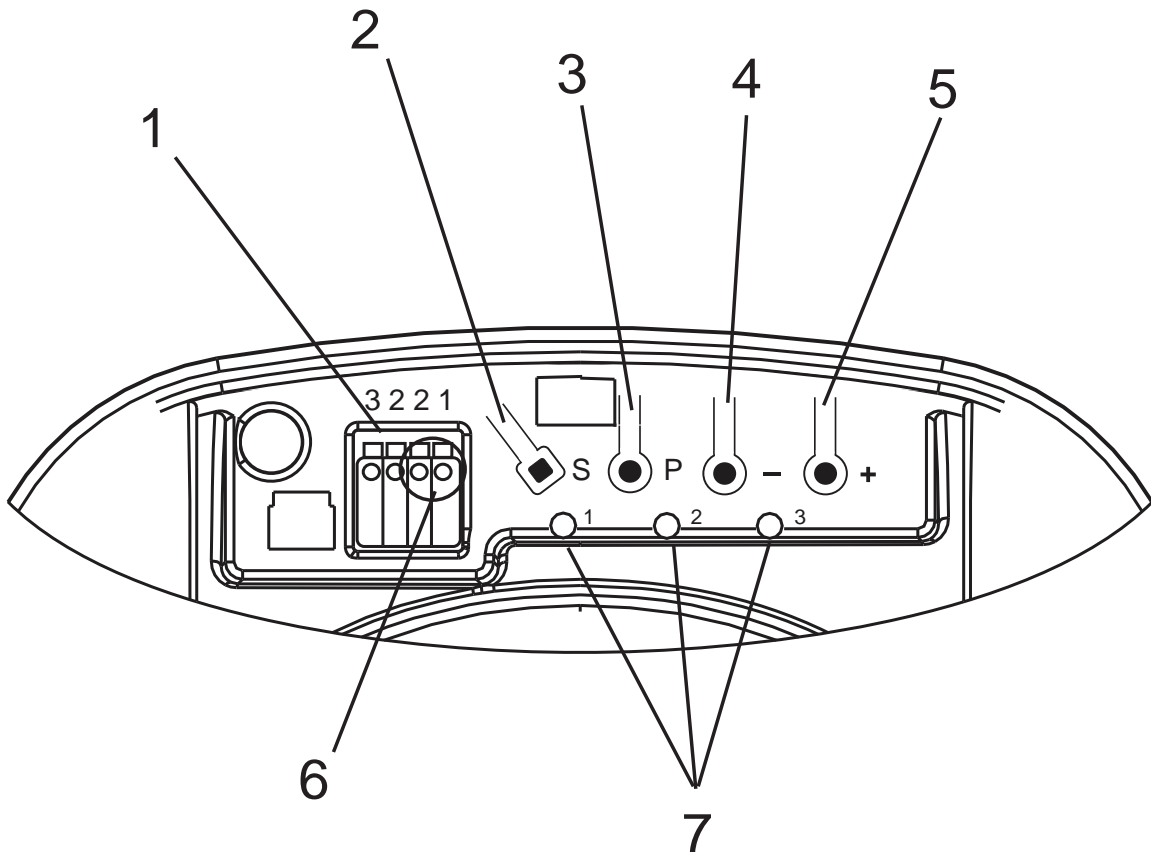
3. **P Button:** used to "PROGRAM" the DOOR LIMITS.

4. **- Button:** used to drive door DOWN.

5. **+ Button:** used to drive door UP.

6. **Blue Button:** used to activate the door when remote controls are not available. Open - Stop - Close.

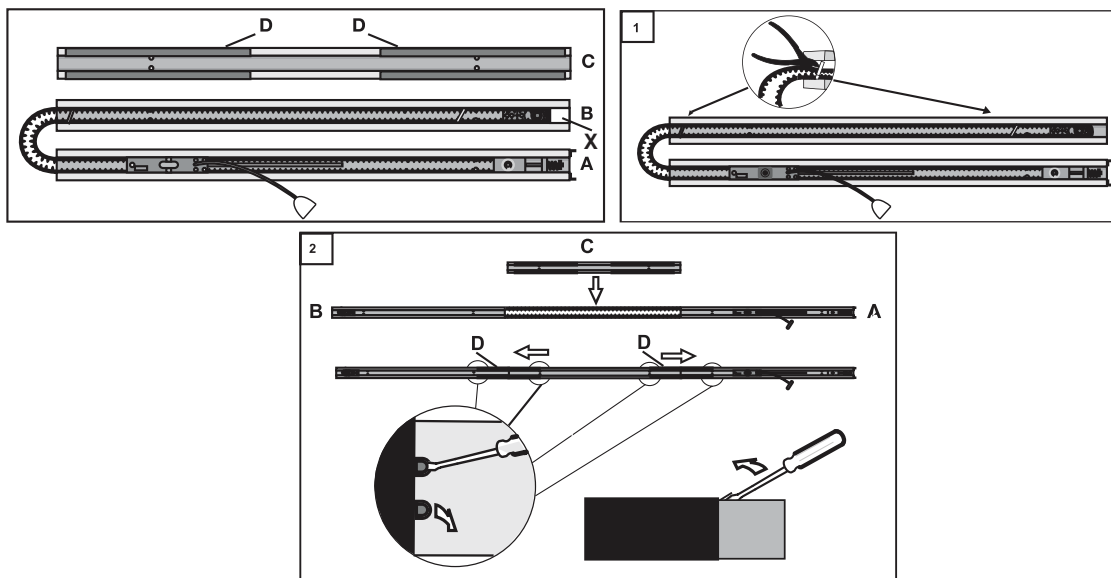
7. **LEDs:** 1. Remote Control Indicator  
 2. Program DOWN indicator, Door Operating & Passpoint indicator  
 3. Program UP indicator



## 8 ASSEMBLING THE 3 PIECE SEGMENTED RAIL

The segmented rail is largely preassembled and consists of 3 parts. The carriage, push rod, release handle, the guide pulley and the lintel bracket with belt/chain tensioner are in the front part (A). The seating for the drive shaft and the sprocket are in the rear part (B). Hardware items are placed in the rails during transportation - remove these. Lay the front and rear rail sections one behind the other.

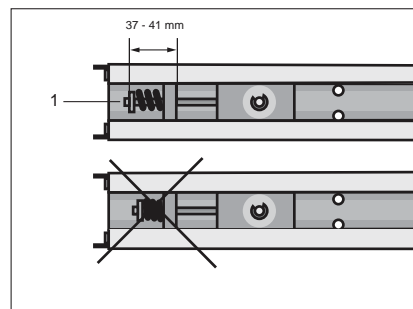
1. Remove cable ties that secure belt/chain. On chain rails leave the transport lock (X) still in position until instructed to remove it in section 9.
2. Pull apart the two rail sections completely in order to create a gap for the middle section (C). This rail is designed in such a way so as to easily add the middle section. Slide the 2 connecting pieces (D) over the seams of the rail sections up to the markings. To secure the connecting pieces, **bend the sheet metal lugs outwards with a suitable tool.** The assembly of the rail is complete.



## 9 TIGHTEN THE BELT/CHAIN

**Note: The spring must be able to compress and bounce during operation. Final tensioning can be performed after installation if necessary. Over tightening the belt/chain may overload the system and cause excessive wear.**

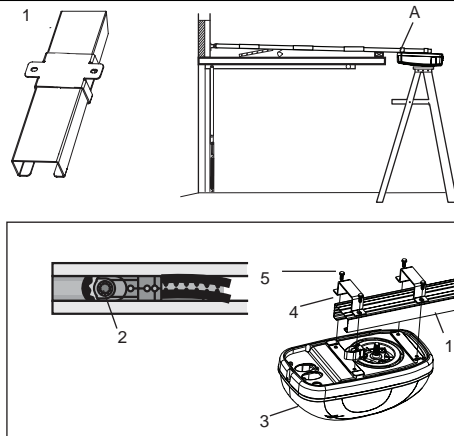
1. On chain rails remove the transport lock (X) and ensure the chain is seated on the gear wheel.
2. Tension the belt/chain by adjusting the nut (1), on the pulley assembly, clockwise until the spring is engaged.
3. Continue tightening to compress the spring and remove all the slack in the belt/chain. **DO NOT OVERTIGHTEN** but ensure belt/chain is firm.
4. As indicated in the diagram 37-41 mm is normal.



## 10 FASTEN RAIL TO OPENER

1. Slide the RAIL BRACKET (1) onto the powerhead end of the rail (A) around 200 mm.
2. Position the rail drive sprocket (2) over the opener motor shaft (3) and push down to install.
3. Secure the rail on the opener with two rail brackets (4) and the hex head fixing 6 mm x 18 mm screws (5).

This completes the assembly of the powerhead to the rail.



## INSTALLATION SECTION



**Wear protective goggles when working overhead to protect your eyes from injury.**

**Disengage all existing garage door locks to avoid damage to the garage door.**

**To avoid serious personal injury from entanglement, remove all ropes connected to the garage door before installing the opener.**

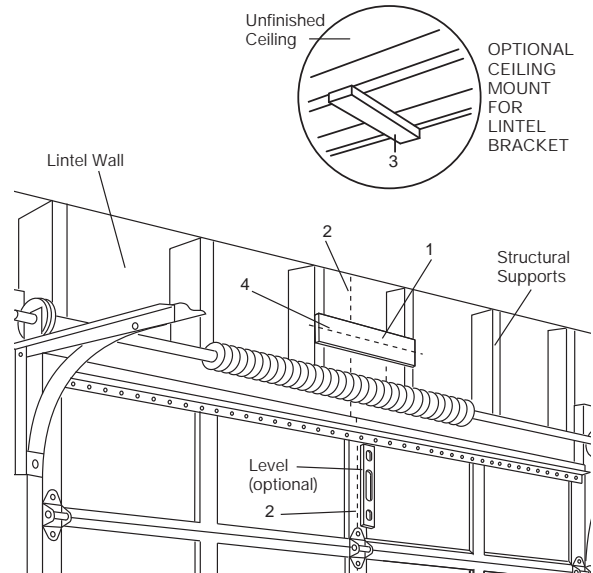
### 11 LINTEL BRACKET POSITIONING

The lintel bracket must be rigidly fastened to a structural support of the garage. Reinforce the wall or ceiling with a 40 mm (1-1/2") board if necessary. Failure to comply may result in improper operation of safety reverse system.

You can attach the lintel bracket either to the lintel wall (1) or to the ceiling (3). Follow the instructions which will work best for your particular requirements.

With the door closed, mark the vertical centre line (2) of the garage door. Extend line onto lintel wall above the door.

Open door to highest point of travel. Draw an intersecting horizontal line (4) on lintel wall at least 50 mm above high point to provide travel clearance for top edge of door.

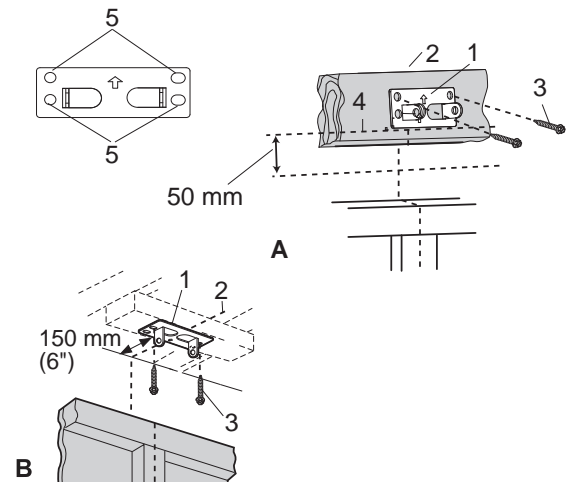


### 12 INSTALL THE LINTEL BRACKET

**NOTE: Refer to vertical centre and horizontal lines created in the previous section for proper placement of lintel bracket.**

**A. Wall mount:** centre the lintel bracket (1) on the vertical centre line (2) with the bottom edge of the lintel bracket on the horizontal line (4) (with the arrow pointing toward the ceiling). Mark all of the lintel bracket holes (5). Drill 4.5 mm (3/16") pilot holes and fasten the lintel bracket with hex head fixing 6 mm x 50 mm wood screws (3).

**B. Ceiling mount:** extend vertical centre line (2) onto the ceiling. Centre the lintel bracket (1) on the vertical mark no more than 150 mm (6") from the wall. Make sure the arrow is pointing toward the opener. Mark all of the lintel bracket holes (5). Drill 4.5 mm (3/16") pilot holes and fasten the lintel bracket with hex head fixing 6 mm x 50 mm wood screws (3). For concrete ceiling mount, use concrete anchors provided.



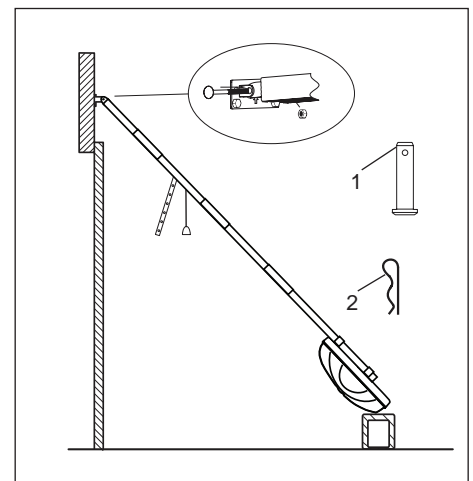
### 13 ATTACH RAIL TO LINTEL BRACKET

#### Attach the Rail to the Lintel Bracket

- Position the assembled opener on the garage floor below the lintel bracket. Use foam packing material as a protective base.

**NOTE: If the door spring is in the way you'll need help. Have someone hold the opener securely on a temporary support to allow the rail to clear the spring.**

- Position the rail bracket against the lintel bracket.
- Align the bracket holes and secure with the 80 mm clevis pin (1) and R-clip (2).





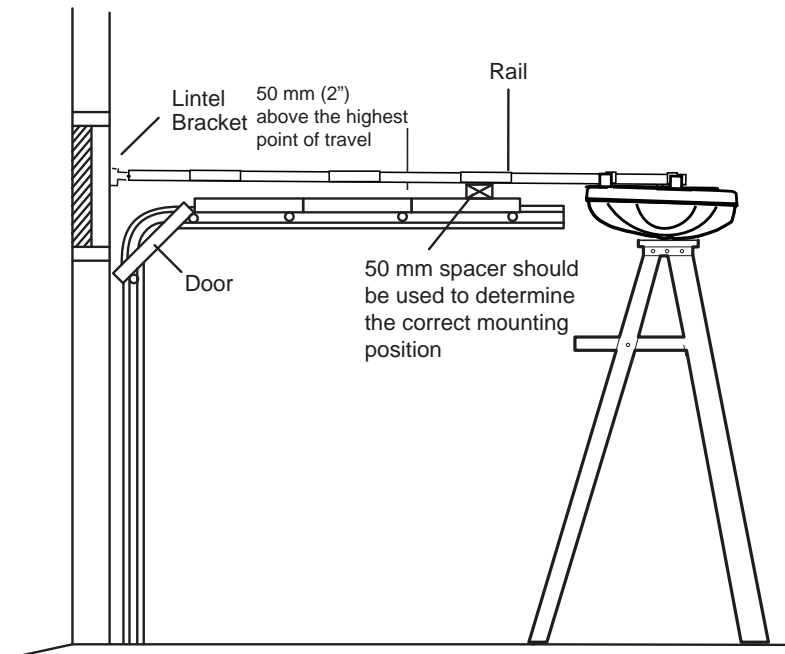
## 14 POSITION THE OPENER

Disengage the trolley mechanism (see section 18 “Operating the manual release”) and slide it back towards the powerhead. Secure the hanging push arm up into the rail assembly temporarily using tape or rope, to avoid a hazard.

### SECTIONAL DOOR

You will need a 50 mm piece of timber or similar spacer to gauge the distance between door and rail.

1. Raise the opener onto support.
2. Open the door completely, place a 50 mm spacer between the door and the rail (as shown).
3. The final positioning of the rail should be relatively parallel to the horizontal door panels.



## 15 HANG THE OPENER

The opener must be securely fastened to a sound structural support above the opener.

1. Position the opener as in the previous step. Check the rail is centred over the door.

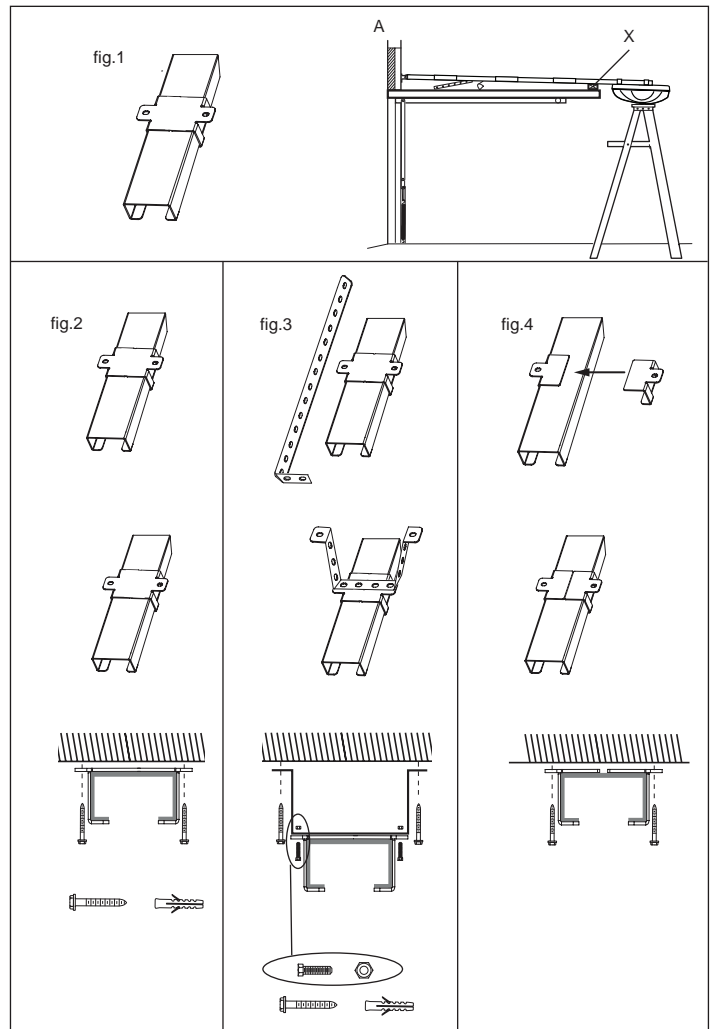
Ensure the rail brackets (fig.1) is on the Powerhead end of the rail in a position as close to the opener as possible (X).

2. If mounting directly onto the ceiling, (fig.2) screw the bracket directly into a structural support on the ceiling.

3. If hanging the opener below the ceiling, (fig.3) bend the hanging brackets provided, and secure to both the ceiling and the rail bracket.

4. If installing a segmented rail, a centre rail bracket is supplied for installation in the mid position of the rail. Simply slip both halves over the top of the rail (fig.4), and secure to the ceiling, either directly or with hanging strips.

5. Check the opener is securely centred over the door. Remove the 50 mm spacer, and any other assembly tools. Operate the door manually and check for unrestricted operation.

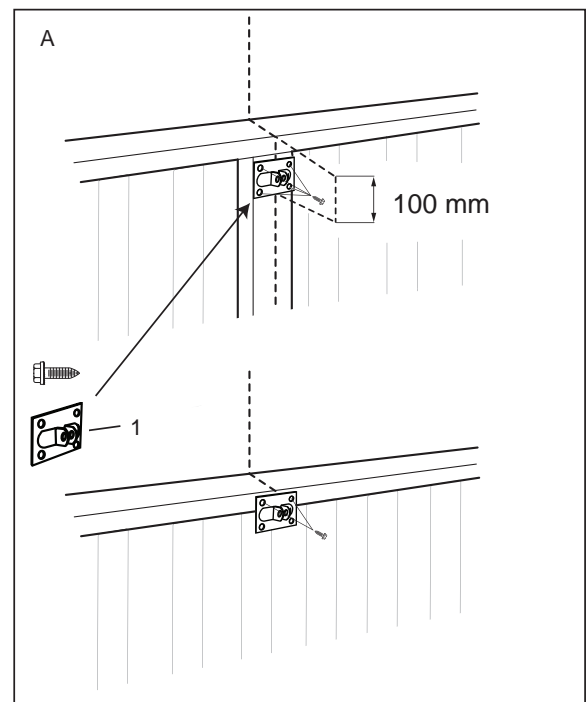


## 16 FASTEN DOOR BRACKET

The door bracket must be securely fastened to the frame or a structural support on the door.

### Mounting position for Sectional Doors

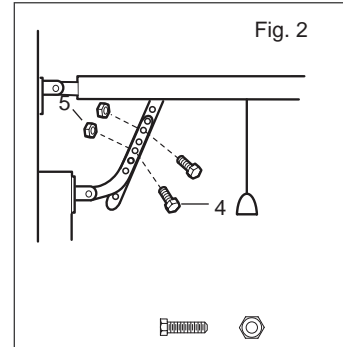
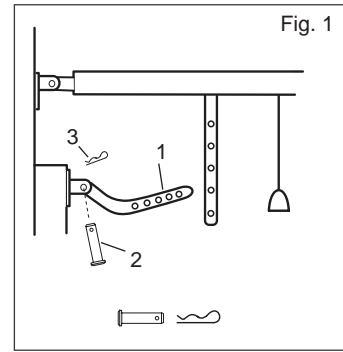
1. For doors fitted with a strut, mount the bracket just above the strut.
2. For doors without a strut align the bracket on the centre line, measure down 100 mm from the door top edge.
3. Secure the bracket with hex head fixing 6 mm x 18 mm screws in this position on a structural support of the door, using the most suitable variation of holes available.



## 17 ATTACH DOOR ARM TO TROLLEY

Make sure the garage door is fully closed. Pull the manual release cord to disengage the trolley. Slide the trolley to around 300 mm from the lintel bracket.

1. The straight door arm is already preassembled to the trolley.
2. Install the curved arm (1) onto the door bracket using the 23 mm Clevis pin (2) and R-Clip (3) supplied.
3. Move the straight and curved arms together and secure using two bolts and nuts provided (4). Ensure the angle of the straight arm is around 20 degrees from vertical, when the door is fully closed.



## 18 OPERATING THE MANUAL RELEASE



**DO NOT DISENGAGE THE OPENER TO MANUAL OPERATION WITH CHILDREN, PERSONS OR OTHER OBJECTS INCLUDING MOTOR VEHICLES WITHIN THE DOORWAY (The door is under significant tension and if the door has developed a fault or incorrect tension, it may be unsafe and may fall rapidly.)**

The manual release mechanism enables the door to be manually operated during power outages or in an emergency.

The RED Manual Release cord is preassembled to the trolley. When the opener is installed the handle should be no higher than 1.8 metres from the floor. The cord may need to be extended.

Attach the manual release **Instruction Label** to the cord as indicated in fig 1.

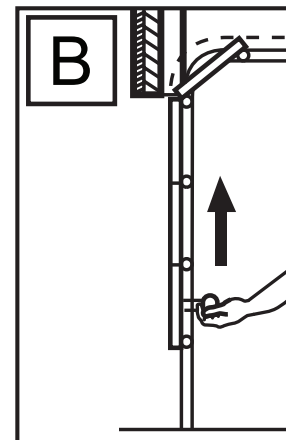
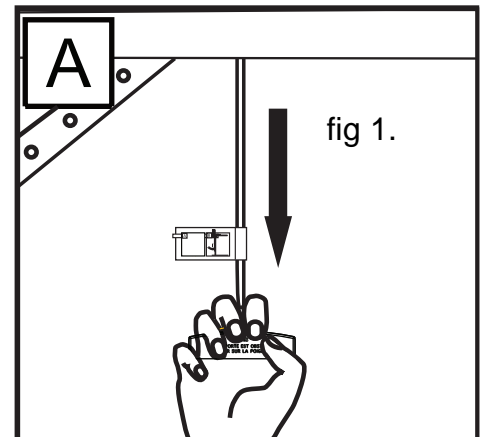
**DO NOT USE THE RED MANUAL RELEASE HANDLE TO OPEN AND CLOSE THE DOOR.**

### To operate the Manual Release:

1. The door should be fully closed if possible.
2. Pull and hold the manual release rope down, (fig A) at the same time lift the door slightly (fig B). This will disengage the door from the trolley.
3. Release the rope and the door can now be opened by hand.

### To Re-engage the Door:

1. If power is available, operate the opener with the remote control. When the trolley passes the door position it will automatically re-engage the opener and move the door.
2. If no power is available, manually operate the door to the original "position of disengagement", and the door will automatically lock in that position.





### Connect Electric Power

TO AVOID INSTALLATION DIFFICULTIES, DO NOT RUN THE GARAGE DOOR OPENER UNTIL INSTRUCTED TO DO SO.

Connect to properly fused and earthed power outlet.

- Ensure all ropes and installation tools have been removed from the door.
- When the opener is switched ON, the operator light flashes a number of times and then remains ON.

## ADJUSTMENT SECTION

### 19 PROGRAM THE TRAVEL LIMITS AND FORCE SETTINGS

Travel limits regulate the points at which the door will stop when moving UP or DOWN. The travel limit buttons are located under the light cover (1).

**NOTE:** The opener will MOVE AUTOMATICALLY after setting the DOWN limit at step 6. A complete UP DOWN cycle is performed in order to "Set the Force" automatically. If the door is interrupted during this process, the force will not be set and the process will have to be repeated.

#### REFER TO THE DIAGRAMS:

1. Turn the Power ON and open the light cover. (The courtesy LEDs will be on during this operation, and you may need to cover these in order to see the program buttons clearly).
2. Press the "P" button until LED 3 starts flashing and release.
3. Press and hold the "+" button until the door moves to the desired UP position. The "+" and "-" buttons can be used to move the door UP and DOWN if required.
4. Press the "P" button to set the UP limit. LED 2 starts flashing and release.
5. Press and hold the "-" button until the door moves to the desired DOWN position. The "+" and "-" buttons can be used to move the door UP and DOWN if required.
6. Press and release the "P" button to set the DOWN limit. At this point the opener will operate a complete cycle AUTOMATICALLY. This will set the force of the motor, all LED indicators will be off after this operation.

#### LIMITS AND FORCE ARE NOW SET.

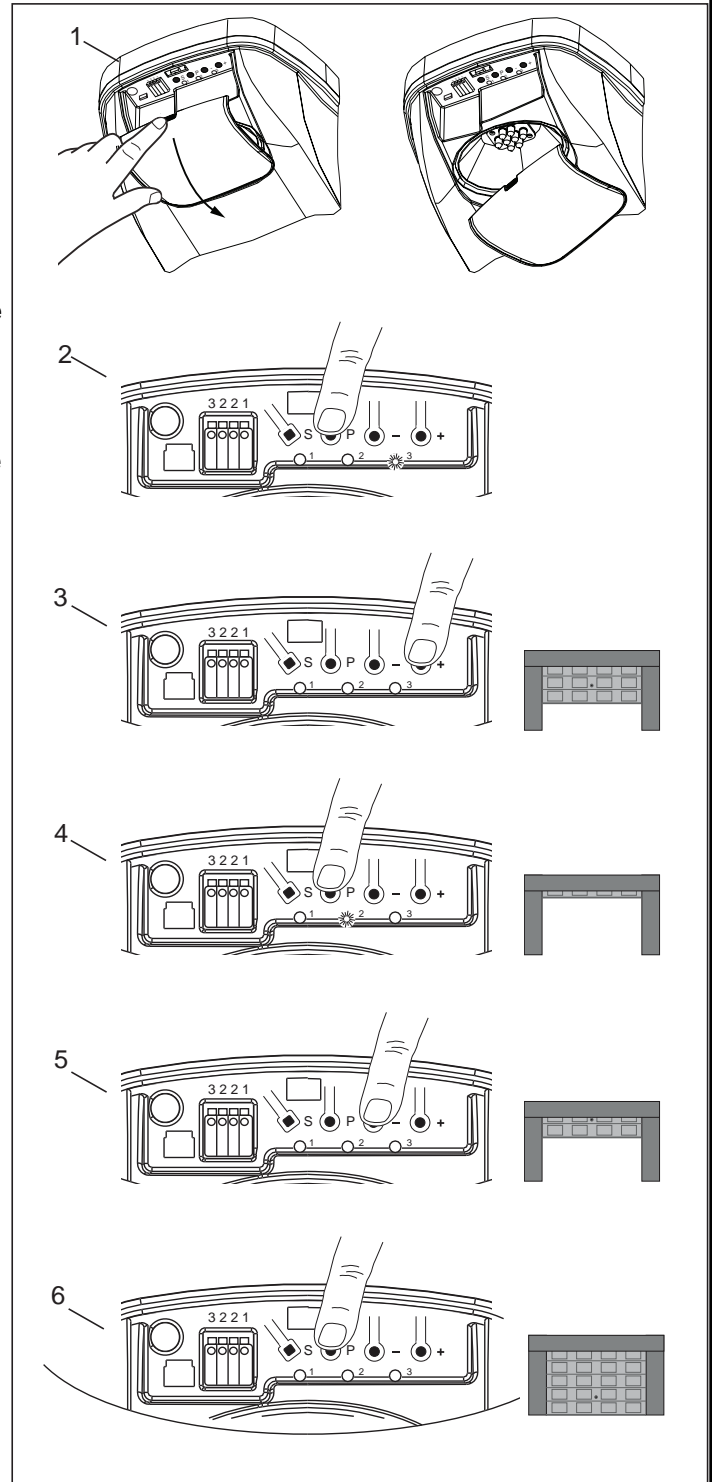


**Without a properly installed safety reversal system, persons (particularly small children) could be SERIOUSLY INJURED or KILLED by a closing door.**

- **Incorrect adjustment of garage door travel limits will interfere with proper operation of safety reversal system.**
- **NEVER use force adjustments to compensate for a binding or sticking garage door.**
- **After ANY adjustments are made, the safety reversal system MUST be tested. Door MUST reverse on contact with 40 mm high object laid flat on floor.**

## CAUTION

To prevent damage to vehicles, be sure fully open door provides adequate clearance.



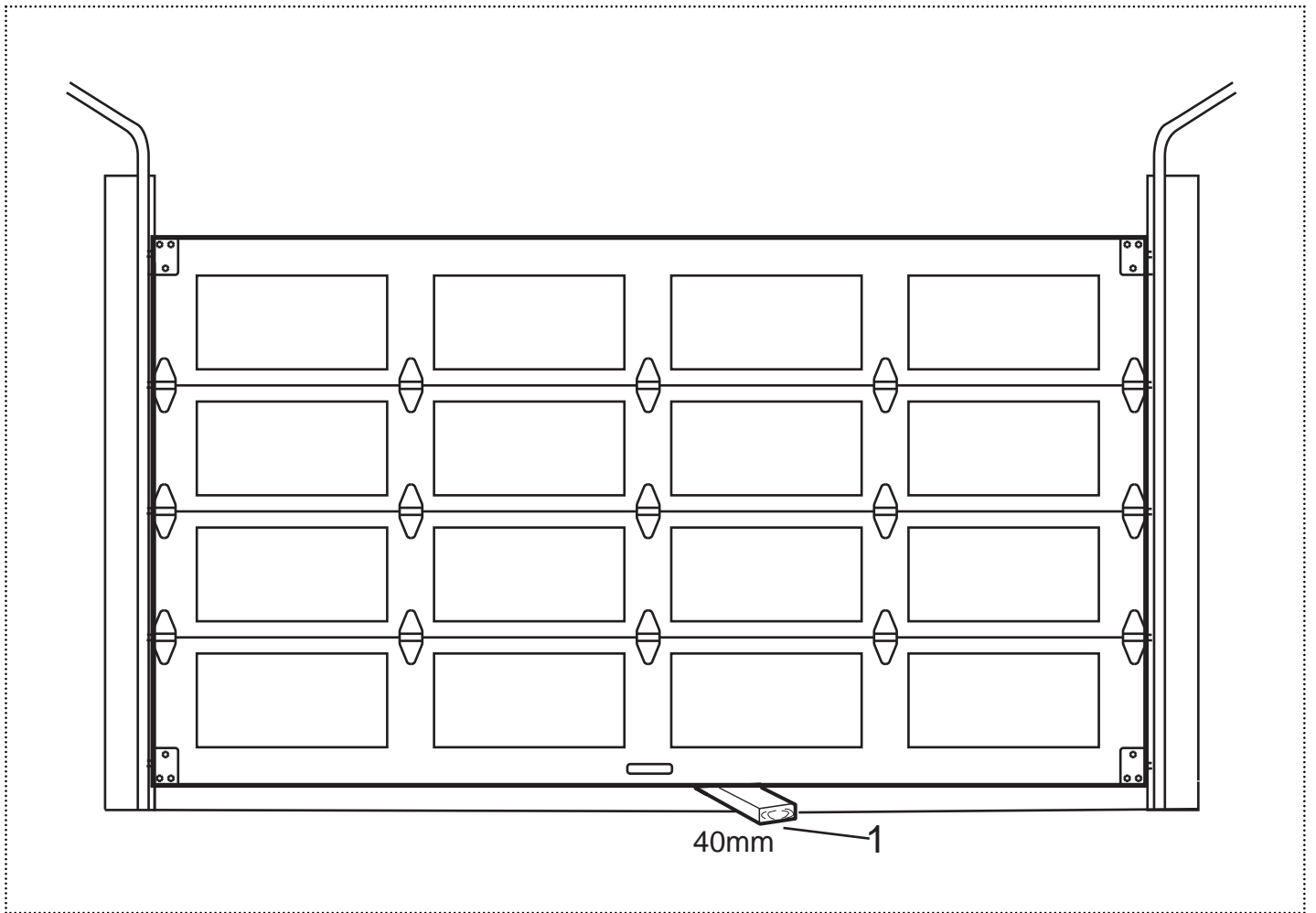
## 20 TEST THE SAFETY REVERSE SYSTEM



*The safety reverse system test is important. Garage door must reverse on contact with a 40 mm high obstacle laid flat on the floor. Failure to properly adjust opener may result in serious personal injury from a closing garage door. Repeat test once a month and adjust as needed.*

**Procedure:** With door opened place a 40 mm high obstacle (1) laid flat on the floor under the garage door. Operate the door in the down direction. The door must reverse off the obstacle after contact. If the door stops on the obstacle, remove obstacle and repeat Program the Limits and Force Steps, then repeat safety reverse test.

When the door reverses off the 40 mm high obstacle, remove the obstacle and run the opener through a complete travel cycle. Door must not reverse in closed position. If it does, repeat Program the Limits and Force then repeat safety reverse test. If continuous reversals occur, contact your local Steel-line branch.



## 21 INSTALLING THE PROTECTOR SYSTEM™ (OPTIONAL IR BEAMS)

**NOTE:** This accessory must be used for all installations where the closing force as measured on the bottom of the door is over 400 N (40 kgf).

**SPECIAL NOTE:** Steel-Line strongly recommends that The Protector System™ (IR BEAMS) be installed on all garage door openers.

**The Protector System™ (IR BEAMS):** By installing The Protector System™ (IR BEAMS), an open door is prevented from closing if a person or object is located in the beam area. If the door is already closing, it will return to the open position. A closed door is not prevented from opening.

If The Protector System™ (IR BEAMS) is installed and needs to be removed, the opener will need to be reprogrammed (refer to paragraph 4 of the troubleshooting section).

### Assembly Process:

The Protector System™ (IR BEAMS) is supplied preassembled, complete with two sensors, wiring and wall brackets. (**figure 1 & figure 2**)

Install the mounting brackets and sensors to either side of the inside of the garage door, and at a height of no greater than 100 mm off the garage floor.

The brackets are designed to be used for Wall (view 1) or Floor (view 2) fixing, with a variety of hole combinations to achieve the desired results.

Drill the required holes and install the brackets with wall plugs and screws provided. Ensure they do not obstruct the door movement.

### Wiring Process:

Align the sensors to face each other and tighten if necessary. The wiring should exit from the bottom of the housing to maintain the correct IP rating and continued operation.

One sensor is a Sending Eye, the other is a Receiving Eye. Try to avoid positioning these in direct sunlight as this may interfere with the operation of the beams.

Run both sets of wire back to the power head CONTROL PANEL (refer page 5). Ensure the wire is well supported and does not interfere or get damaged by movement of the door panels or spring hardware.

### Disconnect Power from the Unit:

At the power head end, cut the wires to the correct length and strip each back around 10 mm.

Twist both **White** wires together and install into “quick release” terminal 2 (white) (**fig 3**)

Twist both **Black/White** wires together and install into “quick release” Terminal 3 (Grey) (**fig 3**)

(The sensors are a 2 wired system connected in a parallel configuration).

### Reconnect Power to the Unit:

When aligned correctly the Red LED on each sensor will remain “ON” constantly.

If incorrectly aligned both LED will “flash”.

Correct the alignment if necessary.

The opener is now ready to be checked for correct IR BEAM operation.

**Note:** Refer to installation and test instructions as included in The Protector System™ (IR Beam) kit.



To prevent entrapment, install The Protector System™ (IR BEAMS) no higher than 100 mm above the floor.

Disconnect power to the garage door opener before installing The Protector System™ (IR BEAMS).

figure 1

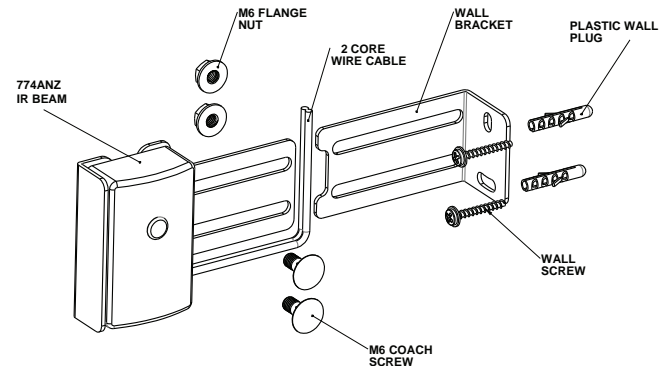


figure 2

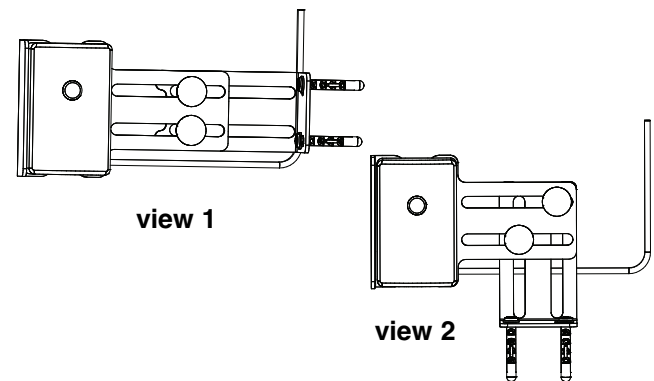
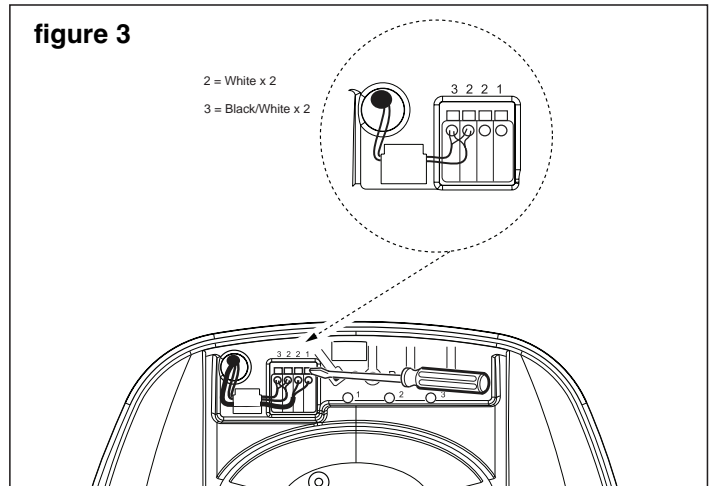


figure 3



## 22 INSTALLING YOUR E138 WIRELESS WALL BUTTON

**NOTE:** The wall control supplied with your opener should be pre-programmed by the factory. If adding a new wall control, program into the opener before mounting the unit as detailed in **Wireless Programming**.



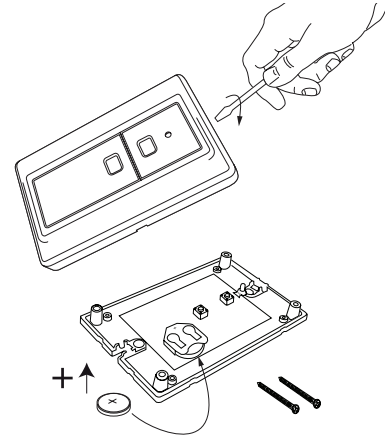
**Disconnect power to the opener before installing this accessory to prevent accidental activation. Locate minimum 1.5 m above the floor.**

### To install:

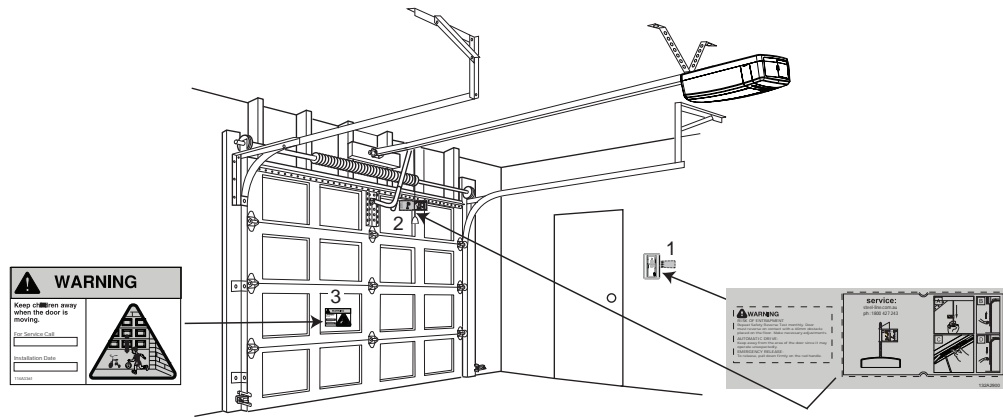
- Carefully pry open the E138 and locate the two screws for mounting.
- Attach to the wall using the two screws provided. If mounting to a plaster wall, wall plugs may be required.

**NOTE: Do not overtighten screws.**

- Replace the front cover plate.



## 23 INSTALL WARNING LABELS



Three warning labels are provided with this opener: attach as indicated in dwg 1.

- Danger of entrapment: place close to a fixed Wall Control(1).
- Service label: - place on the Manual Release cord (2).
- Caution Child Entrapment: (triangle label) - place on a low inside panel of the door (3).

## 24 WIRELESS PROGRAMMING (OPTIONAL ACCESSORIES)



**Activate the opener only when door is in full view, free of obstruction and properly adjusted. No one should enter or leave garage while door is in motion. Do not allow children to operate push button(s) or remote(s). Do not allow children to play near the door.**

**NOTE:** The transmitter(s) supplied with your opener are preprogrammed by the factory.

If you purchase additional transmitters, the garage door opener must be programmed to accept the new remote code.

### Program the Receiver to Match Additional Transmitter Codes:

#### Using the “S” SAVE Button

1. Press and Hold the button on the hand-held remote or wall button that you wish to use (1).
2. Press and release the “S” button on the opener (2).
3. Release the remote button when the opener light flashes (LED 1). It has learnt the code. If you release the remote control push button before the opener light flashes, the opener has not learnt the code.

Now the opener will operate when the remote control push button is pressed.

#### To Erase all Remote Control Codes

1. Press and Hold the “S” button on the opener until the indicator (LED 1) goes ON, and continue holding for approx. 8 seconds, until the indicator LED goes out.
2. Release the button, all codes are now erased.

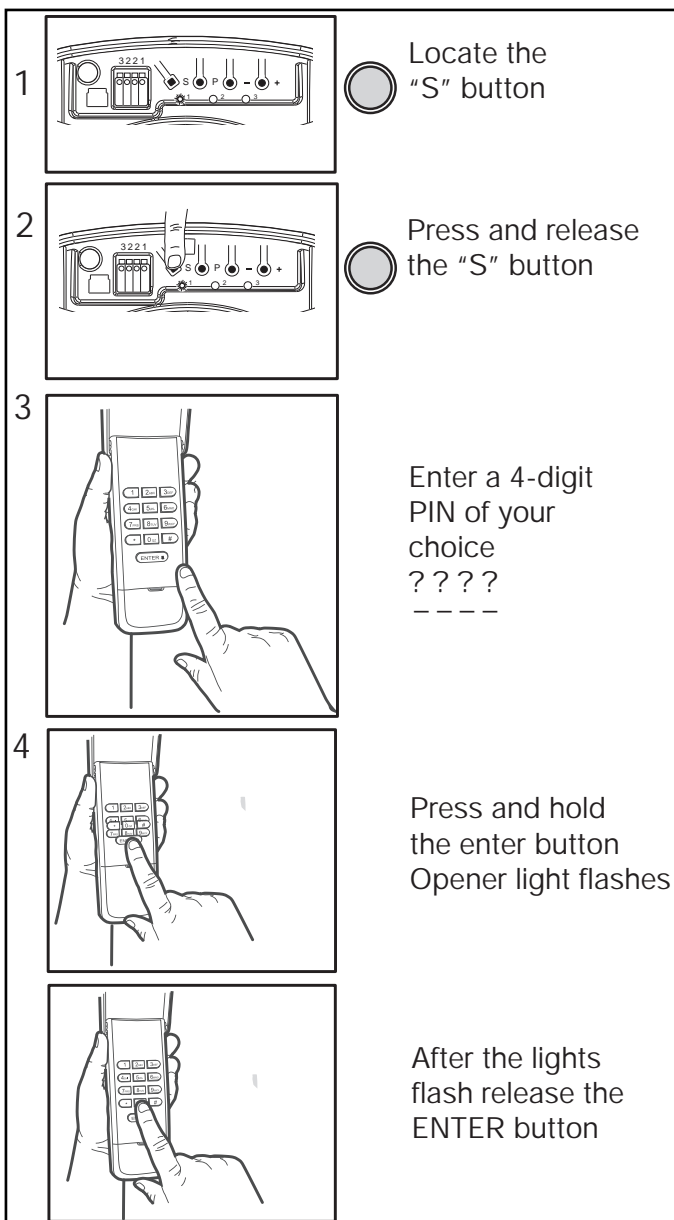
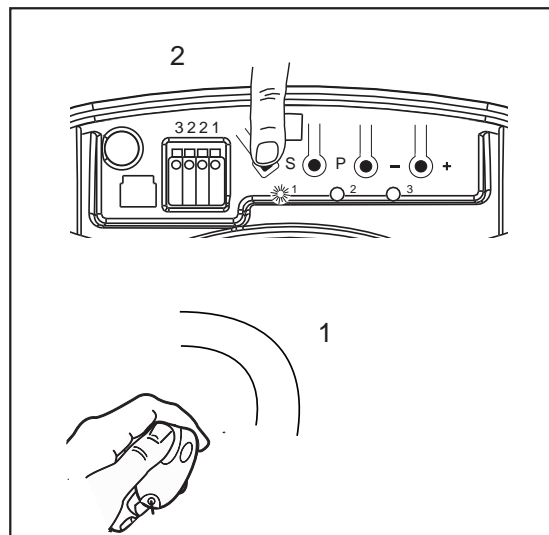
#### Wireless Keypad E840

##### To set the keyless entry PIN:

1. Locate the “S” button on the garage door opener.
2. Press and release the “S” button. The LED 1 indicator light will glow steadily.
3. Enter a 4-digit personal identification number (PIN) of your choice on the keypad.
4. Press and hold the ENTER button. Check to see if the opener light flashes. Release the ENTER button after the light flashes.

##### To change an existing keyless entry PIN:

1. Enter the existing programmed PIN that you want to change.
2. Press and hold the # button until the courtesy light flashes once.
3. Enter the new 4-digit PIN of your choice, then press the ENTER button. The light will flash once.
4. To test, enter the new PIN, then press the ENTER button. The garage door opener will activate.





## 25 USING YOUR OPENER

### 1. Your opener can be activated by any of the following devices:

- **Opener control panel:** UP and DOWN Buttons and Blue Open-Stop-Close.
- **The Outside Keyswitch or Keyless Entry System** (if you have installed either of these accessories).
- **The Remote Control Transmitter.** Hold the push button down until the door starts to move.

**2. Opening the Door Manually:** Door should be fully closed if possible. Weak or broken springs could allow an open door to fall rapidly. Property damage or serious personal injury could result.

**NOTE:** For full instructions on how to operate the door manually refer to section 18.

Do not use the manual release handle to pull the door open or closed.

### 3. When the Opener is Activated by Remote Control:

- If open, the door will close. If closed, the door will open.
- If closing, the door will stop.
- If opening, the door will stop (allowing space for entry and exit of pets and for fresh air).
- If the door has been stopped in a partially open or closed position, it will reverse direction.
- If an obstruction is encountered while closing, the door will reverse to the UP limit.
- If an obstruction is encountered while opening, the door will reverse and stop.
- The optional Protector System™ uses an invisible beam which, when broken by an obstruction, causes a closing door to open and prevents an open door from closing. It is **STRONGLY RECOMMENDED** for homeowners with young children.

### 4. The opener courtesy lights will turn on under the following conditions:

When the opener is initially plugged in; when power is restored after interruption or when the opener is activated.

Lights will turn off automatically after 3 minutes.

## 26 CARE OF YOUR OPENER

### Once a Month

- Manually operate door. If it is unbalanced or binding, call a qualified door technician.
- Check to be sure door opens & closes fully. Adjust limits and/or force if necessary.
- Repeat the safety reverse test. Make any necessary adjustments.

### Once a Year

- Lightly grease the belt/chain and inside the rail assembly where the trolley slides.
- Internally the opener / powerhead does not require additional lubrication.

## 27 REPLACE BATTERIES IN REMOTES

### Battery of the remote control:

The batteries in the remote have an extremely long life. If the transmission range decreases, the batteries must be replaced. Batteries are not covered by the warranty.



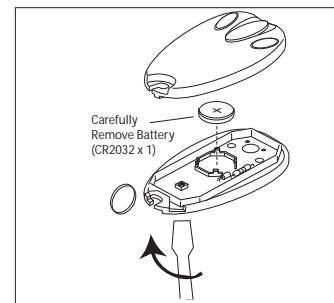
**To prevent SERIOUS INJURY OR DEATH: observe the following instructions for the battery**

- NEVER allow small children near batteries.
- If battery is swallowed, immediately notify doctor.
- Danger of explosion if battery is replaced improperly.
- Replacement only by identical or equivalent type.
- Dispose of old battery properly. Batteries should not be treated as household waste. All consumers are required by law to dispose of batteries properly at the designated collection points.
- Never recharge batteries that are not meant to be recharged.
- Do not short-circuit batteries or take them apart.
- If necessary, clean contacts on batteries and contacts before loading.
- Never expose batteries to excessive heat such as sunshine, fire or the like!

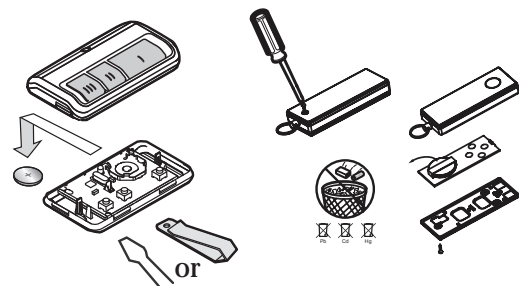
### Replacing battery (CR2032 or equivalent):

To replace battery, turn remote control around and open the case with a screwdriver. Lift cover and lift control board below. Slide battery to one side and remove. Observe polarity of battery!

Assemble again in reverse direction.

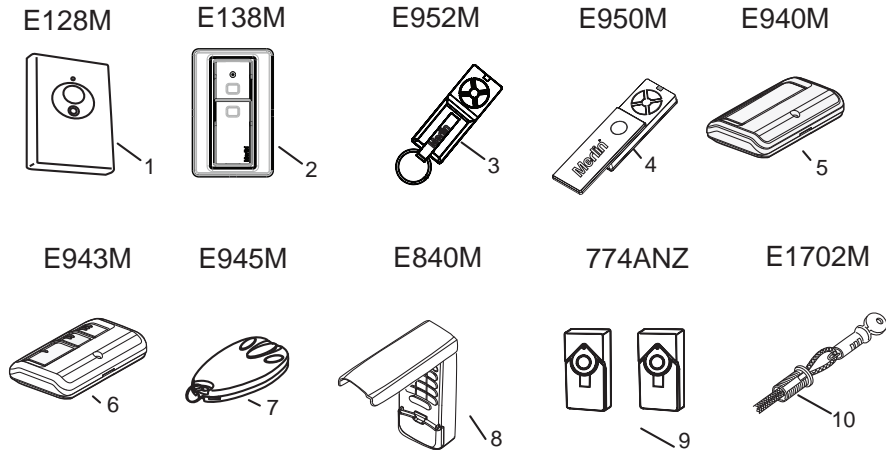


To replace battery for optional remote control transmitters - E943M, E940M, E950M & E952M, use a screwdriver blade to pry open the case as shown. Insert battery positive side up.



## 28 COMPATIBLE ACCESSORIES

(1) Model E128M	Wireless wall button	(6) Model E943M	3 Channel visor remote control
(2) Model E138M	Wireless wall button	(7) Model E945M	3 Channel mini remote control
(3) Model E952M	2 Channel remote control	(8) Model E840M	Keyless entry system
(4) Model E950M	4 Channel remote control	(9) Model 774ANZ	The Protector System™ (IR Beams)
(5) Model E940M	1 Channel visor remote control	(10) Model E1702M	Quick release lock



**NOTE:** Only genuine accessories are approved for use with this opener. Generic compatible accessories are **NOT** approved for use with this opener.

## 29 SPECIFICATIONS - STEEL-LINE - ST50EVOB / ST50EVO C

Input Voltage.....230-240 Vac, 50 Hz  
 Max. Pull Force .....500 N  
 Power .....80 Watt  
 Standby Power .....0.8 Watt (door fully closed)  
 Normal Torque .....4 Nm  
 Max door weight.....100 kg  
 Spring Balanced weight...15 kg  
 Max door area.....Sectional door 13.0 m<sup>2</sup>

### Motor

Type.....DC gearmotor permanent lubrication  
 Noise level.....55 db at 1 metre

### Drive Mechanism

Drive .....Belt/chain with one-piece trolley on steel rail.  
 Length of Travel.....2.5 m  
 Courtesy light.....8 LEDs  
 Light on Time.....3 min

Door Linkage .....Adjustable door arm. Pull cord trolley release.

### Safety

Personal .....Push button stop in **UP and DOWN** direction. Automatic safety reverse in both **UP and DOWN** direction.  
 Electronic.....Automatic force adjustment  
 Electrical .....Transformer overload protector and low voltage push button wiring.  
 Limit Device .....Mechanical Passpoint/RPM sensor  
 Limit Adjustment .....Electronic  
 Soft-start/Soft-stop

### Dimensions

Length (Overall).....3.45 m  
 Headroom Required.....32 mm  
 Hanging Weight .....10 kg

### Receiver

Memory Registers .....16 handset codes  
 1 keypad code

Operating  
 Frequency.....433.30/433.92/434.54 MHz

## **30 TROUBLE SHOOTING**

### **1. Opener doesn't operate from either door control or remote:**

- Does the opener have electric power? Plug lamp into outlet. If it doesn't light, check the fuse box or the circuit breaker. (Some outlets are controlled by a wall switch.)
- Have you disengaged all door locks? Review installation instruction warnings on page 1.
- Is there a build-up of ice or snow under door? The door may be frozen to ground. Remove any obstruction.
- The garage door springs may be broken. Have it replaced.

### **2. Door operates from door control but not from remote:**

- Replace batteries in the remote if necessary.
- If you have two or more remotes and only one operates, review Program Your Opener, Remote and Keyless Entry.

### **3. Remote has short range:**

- Replace batteries in the remote if necessary.
- Change the location of the remote control in the car.
- A metal garage door, foil-backed insulation or metal siding will reduce the transmission range.

### **4. Door reverses for no apparent reason and opener light flashes 10 times:**

- Check The Protector System™ (if you have installed this accessory). If the IR Beam light is flashing, correct alignment.

If the Protector System™ is installed and needs to be removed, the Opener will need to be reprogrammed as follows:

- Remove the IR Beam wiring from the Opener
- Turn the power OFF for 5 seconds
- Turn the power ON for 5 seconds
- Again turn the power OFF for 5 seconds
- Turn the power back on and test the opener for normal operation.

### **5. The garage door opens and closes by itself:**

- Make sure remote push button is not stuck "on".
- Delete all transmitter codes to eliminate possible faulty remotes.
- Reprogram and test each remote to the opener individually as per Wireless Programming Section.

### **6. Door stops but doesn't close completely:**

Repeat Programming the Travel Limits.  
Repeat safety reverse test after any adjustment of door arm length, close force or down limit adjustments.

### **7. Door opens but won't close:**

- Check The Protector System™ (if you have installed this accessory). If the light on the Beams are flashing, correct the alignment.
- If opener light does not flash and it is a new installation, repeat Programming the Travel Limits.

Repeat the safety reverse test after the adjustment is complete.

### **8. Opener strains:**

Door may be unbalanced or springs are broken. Close door and use manual release rope and handle to disconnect trolley. Open and close door manually. A properly balanced door will stay in any point of travel while being supported entirely by its springs. If it does not, call for professional garage door service to correct the problem.

### **9. Opener hums briefly, then won't work:**

- Garage door springs are broken. SEE ABOVE.
- If problem occurs on first operation of opener, door is locked. Disable door lock.

Repeat safety reverse test after adjustment is complete.

### **10. Opener won't activate due to power failure:**

- Pull manual release rope and handle down to disconnect trolley. Door can be opened and closed manually. When the power is restored, the next time the opener is activated, the trolley will re-connect.
- The Outside Quick Release accessory (if fitted) disconnects the trolley from outside the garage in case of power failure.

### **11. The opener runs, but the carriage does not move:**

- Check the carriage is not disengaged from the opener. Operate the opener to reengage the trolley.
- In a new installation, the preassembled Motor Shaft Adapter may have fallen out of the belt/chain sprocket assembly. This adapter is installed during the manufacturing process and may have dislodged.

# **STEEL-LINE** WARRANTY

Steel-Line Garage Door Operators hereafter referred to as the Manufacturer hereby warrants:

1. Garage Door Operators to be free from defects in material and workmanship for a period of two (2) years from date of purchase, if installed by an authorized reseller, other wise if installed by the purchaser one (1) year will apply.
2. Where the garage door operator has been returned to the manufacturer for Warranty repairs, all approved costs incurred in the return will be paid for by the purchaser. If in the opinion of the manufacturer the product is faulty, all defective parts will be replaced at no cost to the purchaser.
3. Proof of purchase must be given to the manufacturer at time of Warranty claim.
4. The manufacturer reserves the right to modify any existing or future products without incurring any obligation to incorporate such modification to products already manufactured or to which this Warranty may relate.
5. Warranty only applies if this product has been installed to the Manufacturers recommendation as outlined in the instruction manual (in the opinion of Steel-Line Garage Door Operators).
6. This is only for goods installed in Australia.
7. This Warranty does not apply to any defect, loss or damage arising or caused directly or indirectly by or as a result of:
  - (i) Any defect (including defects in component parts or accessories) arising from or attributable to the failure to carry out normal preventive maintenance or adjustment itself.
  - (ii) To any additional damage or deterioration arising from attributable to the operation of the Operator after it is known to be defective.
8. Exclusions to Warranty Period:
  - (i) Repair or Warranty Work - three (3) months warranty
9. Not included in Warranty:
  - (i) Batteries,
  - (ii) Fuses,
  - (iii) Globes,
  - (iv) Sensitivity adjustment,
  - (v) Hand Transmitters and receiver range.
10. Note : All Warranties will be void subject to:
  - (i) Water damage condensation,
  - (ii) Power supply black out or surge,
  - (iii) Act of God,
  - (iv) Modification or adjustment by unauthorized persons,
  - (v) Any interference from radio (including citizen band radios and / or other electrical devices),
  - (vi) Preventative maintenance and regular servicing not undertaken,
  - (vii) Account not paid in full by the purchaser.
11. We also provide the following statement required by the Australian Consumer Law; in Australia, in addition to your rights under this limited warranty, our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

#### **Liability - Australia only**

Except as set out in the Australian Consumer Law (being Schedule 2 of the Competition and Consumer Act 2010) (as amended, consolidated or replaced):

1. All other guarantees, warranties and representations in relation to the Unit or its supply are excluded to the extent that Steel-Line can lawfully exclude them; and
2. Under no circumstances will Steel-Line be liable for consequential, incidental or special damages arising in connection with the use, or inability to use, the Unit, other than those which were reasonably foreseeable as liable to result from the failure.

## **WARRANTY**

### **THIS WARRANTY SHOULD BE COMPLETED AT TIME OF INSTALLATION**

This Warranty form should be retained by the purchaser at all times and produced with the purchase docket by the Purchaser as proof of the purchase date.

PURCHASE'S NAME: \_\_\_\_\_

PURCHASE'S ADDRESS: \_\_\_\_\_

INSTALLED BY: \_\_\_\_\_

INSTALLATION DATE: \_\_\_\_\_

INSTALLER'S ADDRESS: \_\_\_\_\_

INSTALLER'S SIGNATURE: \_\_\_\_\_

DRIVE UNIT SERIAL NO: \_\_\_\_\_

Steel-Line Garage Door Operators  
27 Clinker Street, Darra, QLD 4076  
PHONE: 1800 427 243