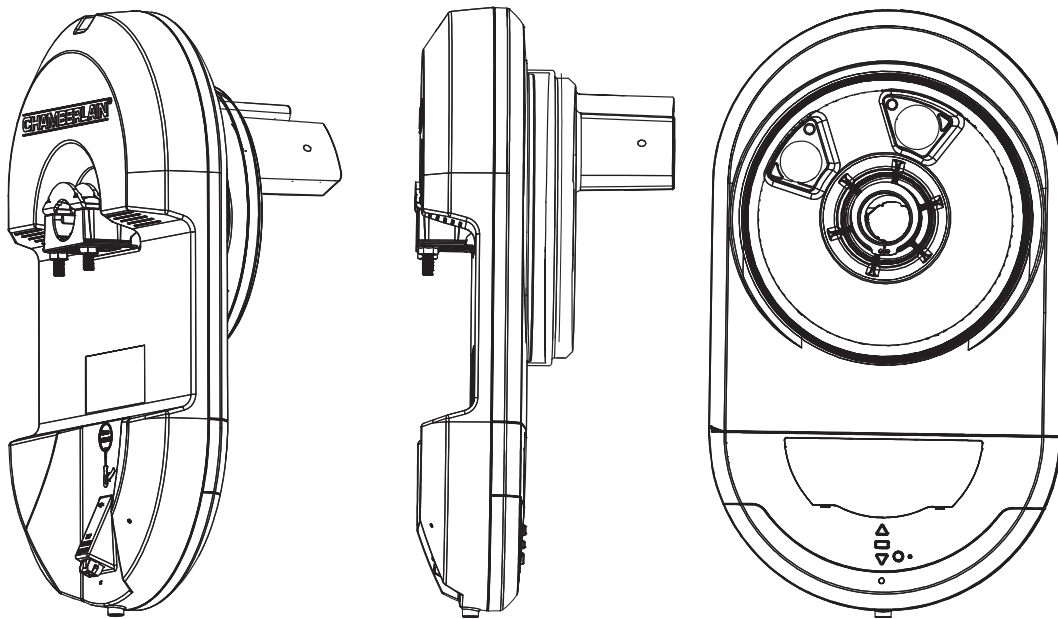


# merlin®

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## *Silent Drive™*

with Security<sup>+</sup> 2.0

### **MR850EVO/MR650EVO Rolling Garage Door Opener**

## **Installation and Operating Instructions**

Owners Copy: Please keep these instructions for future reference



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



**N2966**

# START BY READING THESE IMPORTANT SAFETY INSTRUCTIONS

## WARNING

- 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.



**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 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.



**Automatic Drive** - Keep away from the area of the door as it may operate unexpectedly.



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



**The opener must not be used on a wicket door (door within a door).**



**The 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.



**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 manual release mechanisms 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.**



**Do not allow children to play near the door, or door controls.**



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.



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

## KEEP THESE INSTRUCTIONS

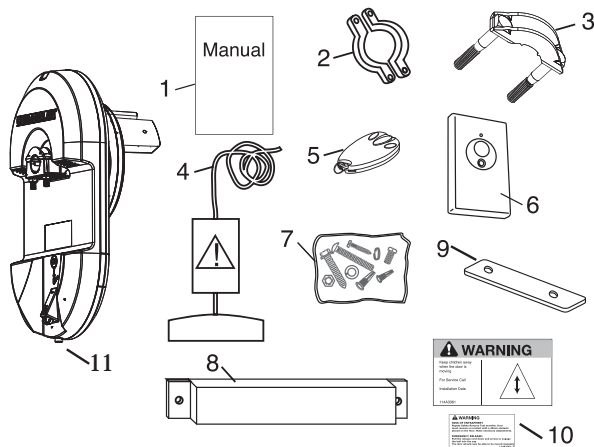
**NOTE:** If your garage has no service entrance door, a CM1702 outside quick release must be installed. This accessory allows manual operation of the garage door from outside in case of power failure.

CONTENTS	PAGE
SAFETY INSTRUCTIONS	1
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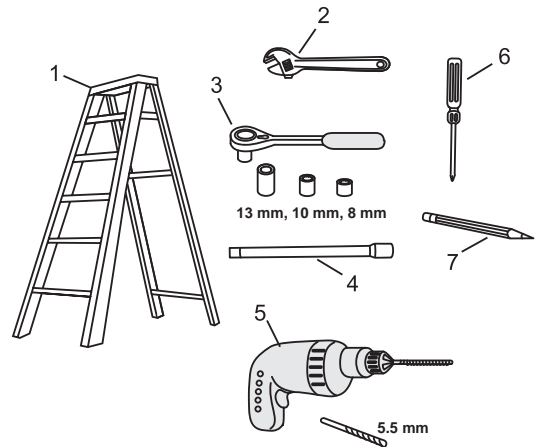
## 1 CARTON INVENTORY

1. Instruction manual (this document)
2. Stop collar
3. Clamp bracket
4. Release handle, cord and risk of entrapment card
5. Transmitters (2)
6. Wireless wall button
7. Hardware bag
8. Weight bar
9. Clamp plate
10. Warning label and risk of entrapment label
11. Opener



## 2 TOOLS REQUIRED

1. Ladder
2. Adjustable wrench for U-bolts already installed on the door
3. 8 mm socket, 10 mm socket and 13 mm extended socket and socket wrench
4. 300 mm socket extension (for minimum side-room installations)
5. Drill and 5.5 mm drill bit
6. Philips-head screwdriver
7. Marker pen
8. Door stand or similar device to safely support door (not shown)

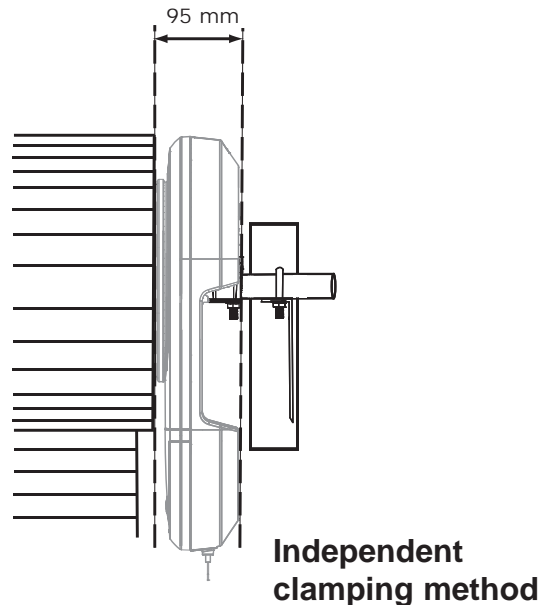
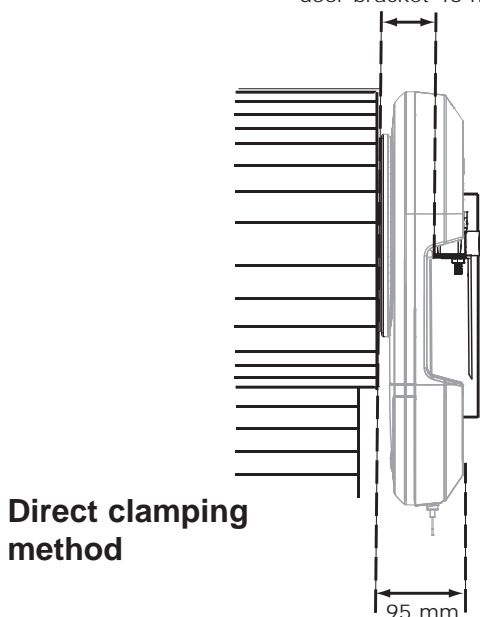


## 3 DOOR REQUIREMENTS

The maximum allowable door height is 4.5 m with a maximum curtain area of 16.5 m<sup>2</sup>\* (MR650EVO) -18 m<sup>2</sup>\* (MR850EVO) (door height in metres multiplied by the width in metres). The door must be spring balanced.

\*The Protector System™ (IR Beams) must be installed if the force at the edge of the closing door exceeds 400 N (40 kgf). Door axle diameter must not exceed 35 mm.

Minimum distance from edge of curtain to edge of door bracket 45 mm



Ensure that there is at least 45 mm from the edge of the curtain to the edge of the bracket. If the roller door drum is on the edge of the curtain or is a smaller diameter, additional clearance may be required.

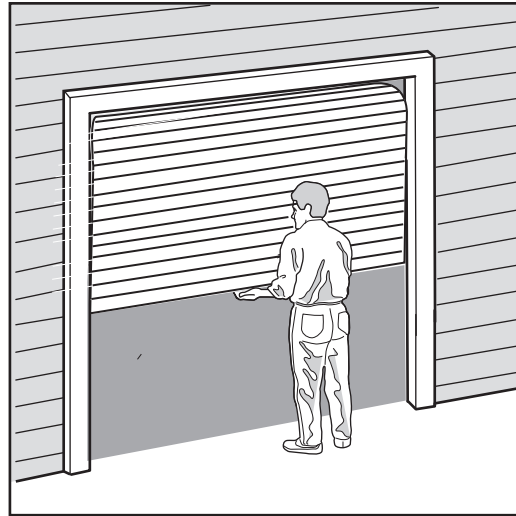
**If the drum is more than 60 mm from the curtain edge or of a smaller diameter, an extension pole kit may be required.**

Different drum and bracket types may result in the minimum side room clearance not being possible and extension poles being required. Ensure there is a power point near the opener.

#### 4 TESTING THE DOOR

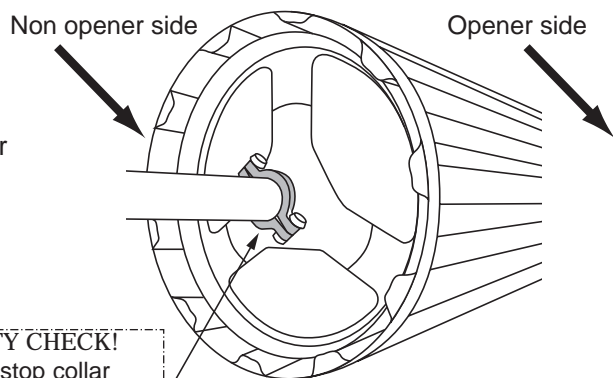
Complete the following test to ensure your door is well balanced, and not sticking or binding:

- Disable all locks and remove any ropes connected to the garage door.
- Lift the door to about halfway and then release it. The door should remain spring balanced.
- Raise and lower the door to determine if there are any sticking or binding points (20 kgf is the absolute maximum allowable to raise or lower the door in any position).
- If your door does not hold in place or the door binds or sticks, call a qualified door technician before installing the opener.



#### 5 INSTALLING THE STOP COLLAR

- Install the stop collar on the opposite end to where the opener is to be installed.
- Fit the stop collar hard against the boss of the door drum. Ensure the U-bolt holding the door shaft to the door bracket is tightly secured.

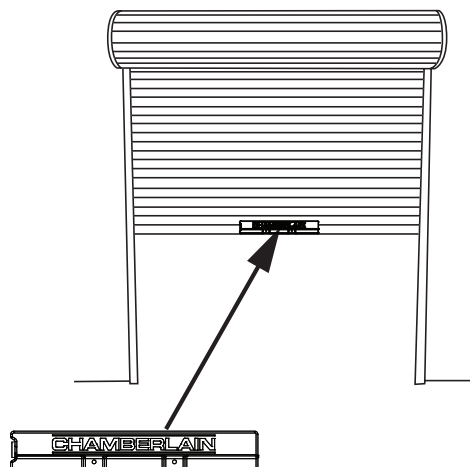


**SAFETY CHECK!**  
Is the stop collar installed?  
YES: proceed to the next step  
NO: install the stop collar before proceeding

#### 6 INSTALLING THE WEIGHT BAR (PROVIDED)

- Place the weight in the centre of the door (as shown).
- Use a pencil to mark the two hole positions.
- If the door curtain does not have a handle you will need to drill two 5.5 mm holes through the two marked positions, then place the weight bar on the inside of the door.
- Use the bolts, washers and nuts (provided) to fasten the weight bar in place.

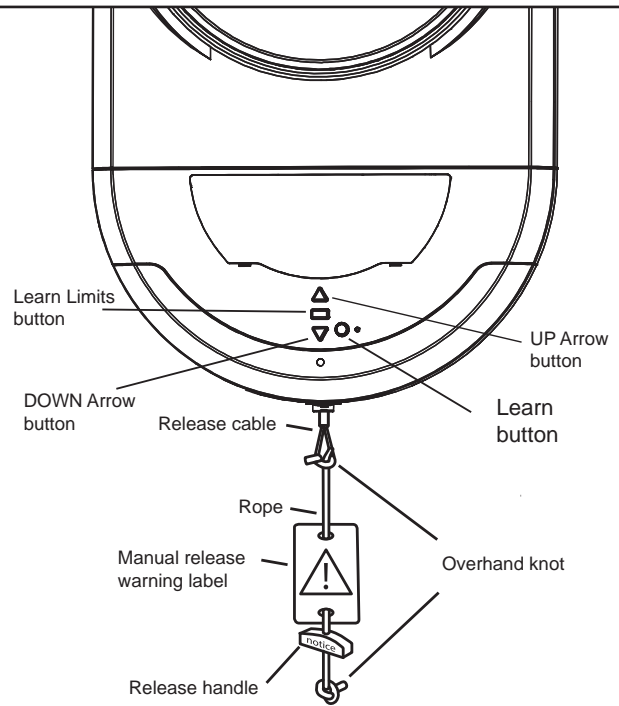
**NOTE:** If the door has a lifting handle, remove the handle, nuts & bolts. Place weight bar over the handle holes, insert extended bolts through the weight bar & fasten handle back in place.



## 7 THE RELEASE HANDLE & CORD

- Thread one end of the rope through the hole in the top of the red release handle so that "NOTICE" reads right side up as shown.
- Secure with an overhand knot at least 25 mm from the end of the rope to prevent slipping.
- Thread the other end of the rope through the loop of the manual release cable.
- Adjust rope length so the handle (when installed) will be no higher than 1.8 m above the floor. Secure with an overhand knot. If the door is greater than 2.5 m in height the release cord extension kit accessory is required.

**NOTE: Final adjustment of handle height should be completed after the opener is installed. If it is necessary to cut the rope, heat seal the cut end to prevent unravelling (refer section 16).**



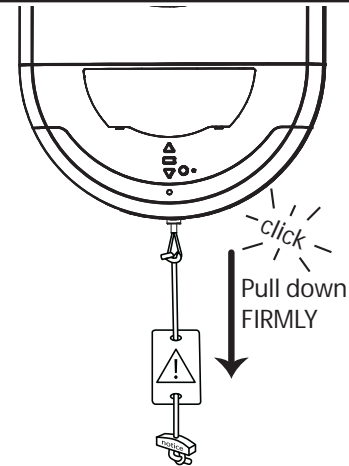
## 8 OPERATING THE MANUAL RELEASE

### To disengage the opener

Pull the release cord down firmly, (opener will make a clicking noise).

### To re-engage the opener

Pull the release cord down firmly, (opener will make a clicking noise).



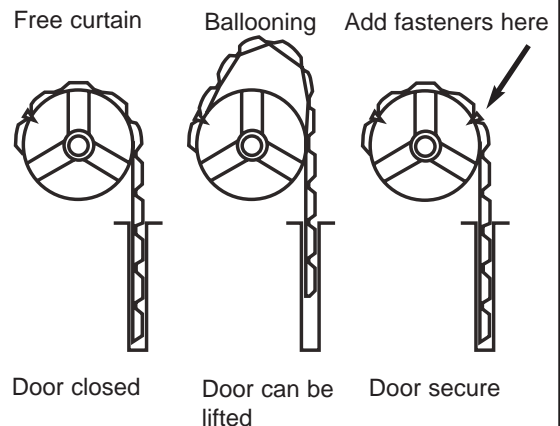
**Disable all locks and remove any ropes connected to the garage door.**

**Take care when operating the manual release as an open door may fall rapidly due to weak or broken springs, or being out of balance.**

## 9 PINNING THE DOOR

**Note: A ballooning door may delay the safety reversal response and can compromise garage door security.**

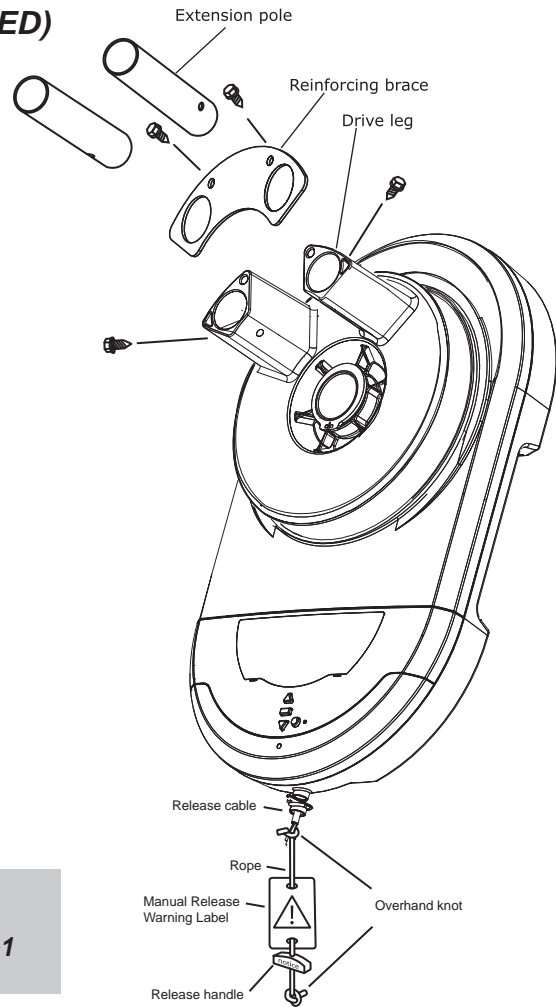
- To remedy any ballooning place self tapping metal screws or rivets where the curtain leaves the roll. Secure these through the curtain into the drum wheel at each end of the roll.
- After determining the correct fastener location as shown, lift the door approximately half a turn from the closed position to allow access for drilling.



## 10 ATTACHING EXTENSION POLES (IF REQUIRED)

### Optional accessory not provided

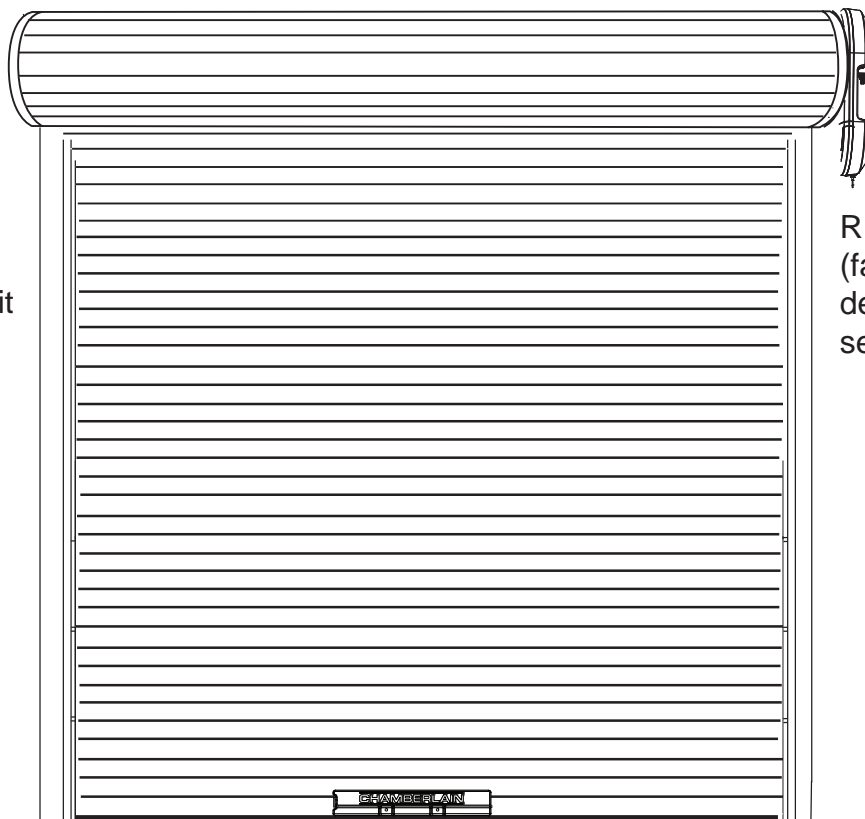
- Align the extension pole holes with the drive legs.
- Insert the extension poles into the drive leg and fix in place using screws provided.
- Slide the reinforcing brace over the poles and fix in place using the screws provided.



**Reinforcing brace must be used. Use extension pole kit part number 001B6449-1**

## 11 LEFT / RIGHT HAND INSTALLATION

**LEFT**  
(handing must be changed during limit setting, section 13)



**RIGHT**  
(factory default setting)

Inside garage looking out

## 12 INSTALLATION PROCEDURE

**!** Do not allow people to walk under or around the door during the installation process as serious injury can occur.

**NOTE:** The opener can be installed on either side of the door. The following instructions are for **RIGHT HAND INSTALLATIONS** (as illustrated i.e. inside the garage looking out). For left hand installations, reverse the instruction terminology (eg LEFT for RIGHT etc).

### Preparation:

- Place the opener in manual release mode (refer section 8).
- Open the roller door fully. For safety, tie a rope around the door.
- Ensure the door axle U-BOLT and door mounting bracket on the left hand side (non opener side) are securely fastened.
- Support the door with a door stand or similar device to safely support the door.
- Mark the position of the door shaft on the right hand door bracket (for reassembly purposes).
- While the door is supported, remove the right hand axle U-Bolt and door mounting bracket from the wall.

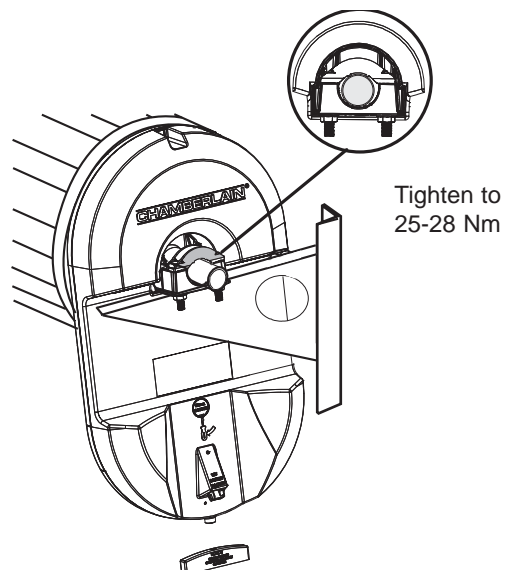
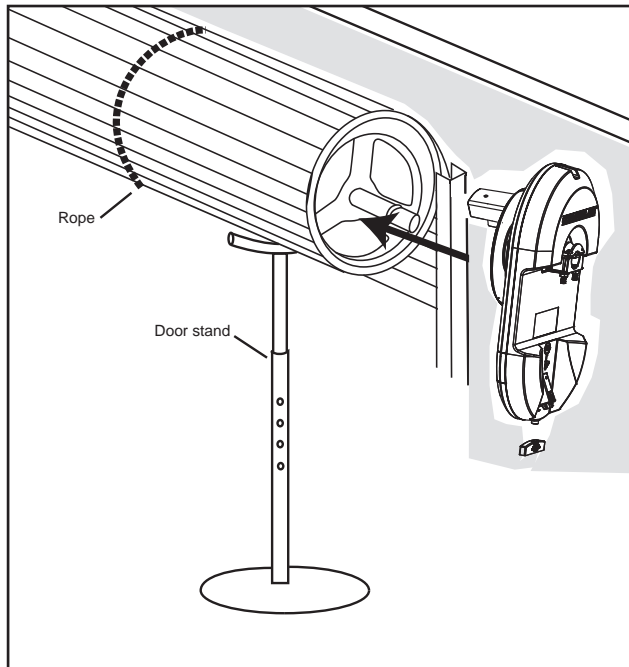
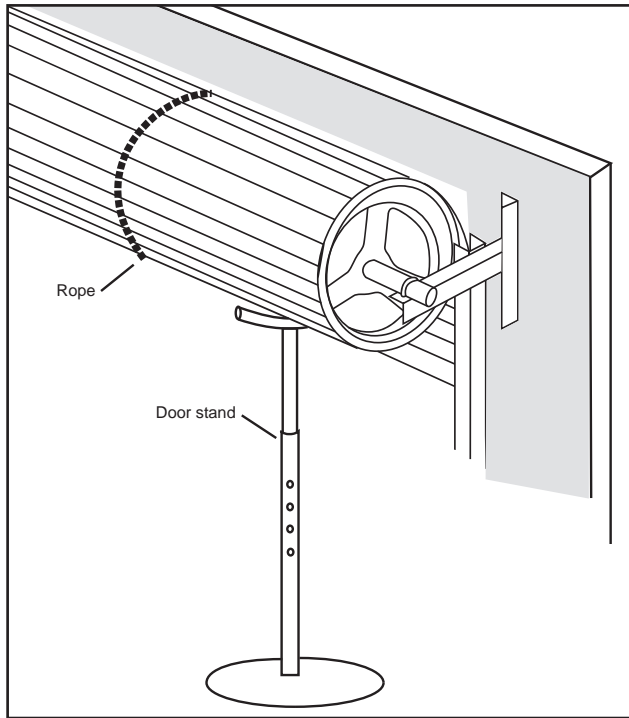
### Install the opener:

- Slide the opener over the door axle and engage the drive legs into the door drum wheel, either side of a spoke. Extensions may be necessary (refer section 10).
- Refit the door mounting bracket to the wall. If the door bracket needs to be relocated due to opener width, refer section 3.
- Clamp the opener on the door axle and door bracket in the marked position using the clamp assembly supplied (tighten to 25 – 28 Nm).
- If side room exceeds 95mm clamp independently to the door axle as illustrated in section 3.
- Remove all ropes and the support stand.
- Check the operation of the door in manual mode by raising and lowering by hand. It should operate smoothly without sticking or binding. The disengage handle should already be attached less than 1.8m above the floor (refer section 7).



### Connect the power:

- Position the power cable away from the door curtain and any moving parts.
- Plug the opener into a nearby power point and turn ON.
- The opener courtesy LEDs should turn ON.
- The opener must now be programmed for:-
  - DOOR TRAVEL LIMITS (Section 13)
  - RIGHT OR LEFT HAND OPERATION (Section 13)
  - FORCE SETTING (Section 14)



## 13 SETTING THE LIMITS FOR RIGHT OR LEFT HAND OPERATION AND FORCE

Travel limits set how far your door goes up and down. Your opener must be configured correctly for right or left hand installation to operate correctly, if not the door will rotate in the reverse direction.

**NOTE: The MR850EVO/MR650EVO opener is factory configured for right hand installation.**

**⚠ The opener will operate during this procedure. Make sure the door is clear of obstruction. Ensure your hands are away from any moving parts before activating the door.**

### Setting right or left hand operation:

- Ensure the door is positioned halfway and the opener is engaged.
- Turn the power ON. After 2 seconds the Courtesy LEDs will flash 5 times.
- Press and hold the black (Limit) button until the orange indicator LED starts flashing, and then release. Either right or left courtesy LEDs will light up.
- For right hand installations, the right side bank of LEDs must light up, and for left hand installations, the left hand bank must light up.
- If the incorrect bank of LEDs is illuminated, simply press the Yellow learn button until the opposite bank lights up.
- Press and release the Black limit set button to accept hand. UP button will flash.

### Setting the open (UP) limit:

- Press and hold the "UP" button, until the door reaches the desired open position, and then release. You can adjust the door by using the DOWN button and UP button to adjust as necessary. Make sure there is enough room for your vehicle to pass under.
- Press and release the Black limit set button to acknowledge the Up position.
- Courtesy light flashes twice and DOWN button will flash.

### Setting the bottom (DOWN) limit:

- Press and hold the "DOWN" button until the door reaches the desired closed position. If the door closes too hard against the floor, use the UP and DOWN button to adjust.
- Press and release the Black limit set button to acknowledge the down position.
- Courtesy light flashes twice and UP button will flash.

### Setting the FORCE:

- Press and release the UP button. The door will travel to the UP limit and the DOWN button will flash.
- Press and release the DOWN button. The door will travel to the DOWN limit.
- The indicator LED will stop flashing indicating the force has been learned.

**NOTE: The courtesy LEDs will go out after 2.5 min.**

- The door must travel through a complete cycle, UP and DOWN, in order for the force to be set properly. If the opener cannot open and close your door fully, inspect your door to ensure that it is balanced properly and is not sticking or binding.

Press and hold until **FLASHING LED**

Right bank will light up

(IF REQUIRED) To change press and hold until correct bank lights up

Left bank will light up for Left hand installation

Press & release to accept selected hand.

Press and hold to drive door up to open  
If required: Use DOWN button to adjust

Press & release to set the UP limit

Press and hold to drive door down to closed  
If required: Use UP button to adjust

Press & release to set the DOWN limit

Activate door to open

Orange LED ON & Courtesy LEDs on Dim

Close the door to test limits

Motor will make a click & FULL BRIGHT courtesy LEDs will turn on

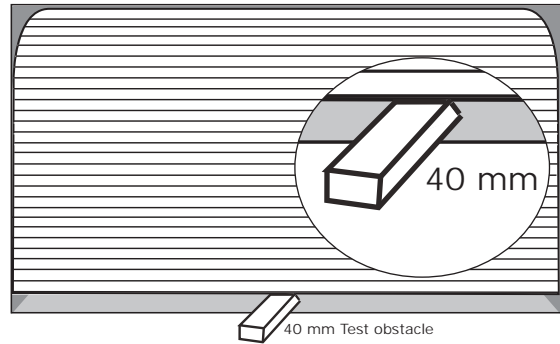


## 14 TESTING THE SAFETY REVERSE SYSTEM

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

Operate the door in the down direction. The door must reverse upon contact with the obstacle. If the door stops on the obstacle, remove obstacle and repeat limit and force setting (refer section 13).

**Repeat test of the safety reverse system.**



## 15 FIXING WARNING LABELS

Once you have completed your installation and successfully carried out the safety reverse system test (outlined above), install the warning labels provided with your opener as shown.

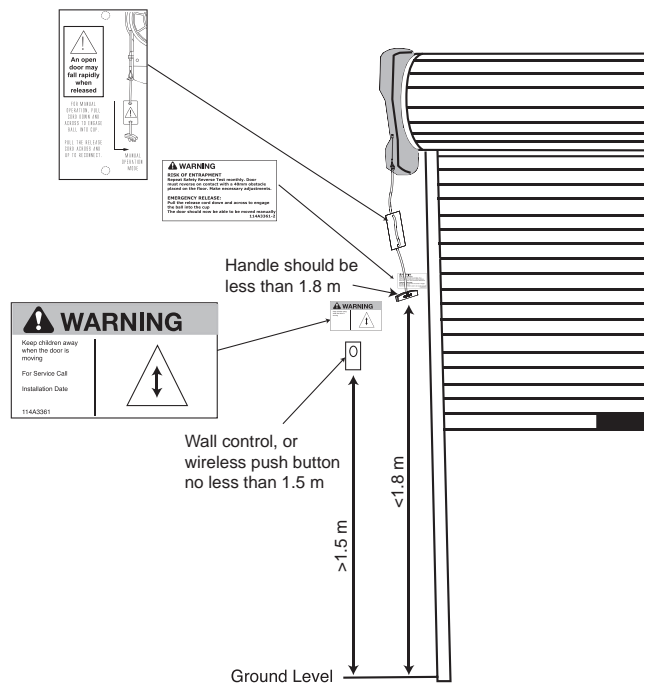
The **risk of entrapment label** must be installed adjacent to the release handle at a height of less than 1.8 m from the floor.

The **WARNING** label must be installed in a prominent place near any fixed control.

Any fixed wall control or wireless door control must be mounted at a height of no less than 1.5 m **out of the reach of children**.

Ensure the manual release instruction card is attached to the rope as detailed in section 7.

Read the safety instructions (page 1) for further details concerning safety.



**STANDARD INSTALLATION COMPLETE**

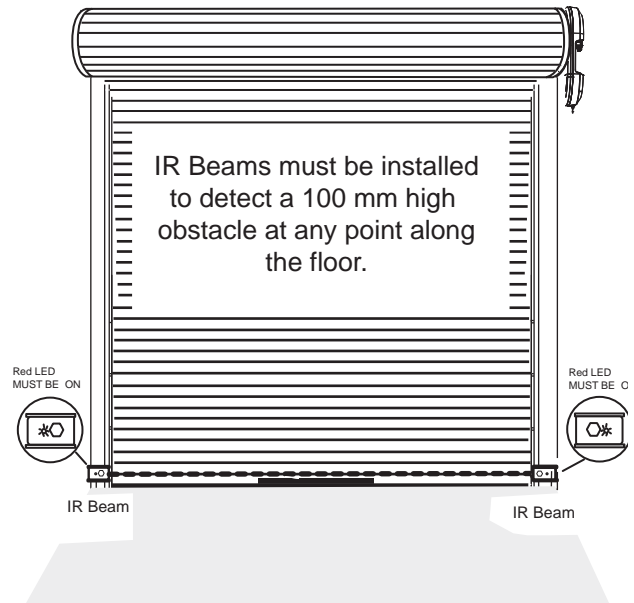
## 16 INSTALL THE PROTECTOR SYSTEM™ (IR BEAMS) OPTIONAL ACCESSORY

**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).

After the opener has been installed and adjusted, the Protector System™ accessory can be installed. Instructions are included with this accessory.

The Protector System™ provides an additional measure of safety against a small child or animal being trapped under a garage door. It uses an infra-red beam, which when broken by an obstruction, causes a closing door to open and prevents an open door from closing and is **strongly recommended for homeowners with young children.**

**NOTE:** The opener will automatically detect the Protector System™ when it is installed and operating for 5 minutes (during this time the beams must remain unobstructed). The opener will not close unless the beams are aligned.



### SAFETY FIRST!



Whilst Chamberlain have engineered safety features into your garage door opener, we urge you to consider fitting IR Beams to your new garage door opener. In many countries these devices are compulsory to assist in preventing serious injury or property damage. For your own peace of mind and the safety of others please install this inexpensive safety device.

### Timer to close feature (TTC)



**Auto close is NOT recommended for households with young children.**

The Timer-to-close feature allows the door to automatically close after a specified time period. Prior to the door closing, the garage door opener lights flash for 8 seconds before the door begins to close.

If the door encounters an obstruction while closing, the opener will make a second attempt to close the door. If an obstruction occurs on the second attempt, the garage door opener will open, stop and **WILL NOT** close until the obstruction has been cleared and the opener has been operated again.

**NOTE:** The Protector System™ **MUST** be installed and operating for 5 minutes to enable this feature.

### Installing and adjusting:

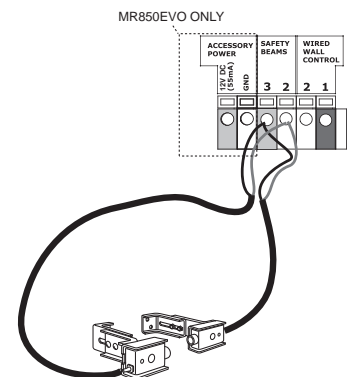
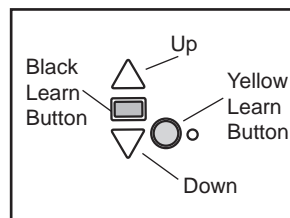
- Turn the opener off
- Install the Protector System™ using the brackets, wires and instructions™ provided with the product. Twist the two white (only) wires together and terminate them into the white (2) terminal. Twist the two white/black wires together and terminate them into the grey (3) terminal.
- Turn the opener on

With the door at the down limit, press and hold DOWN arrow until orange LED starts blinking.

Yellow LEARN button is used to cycle through the TTC settings:

- 1 x long blink = TTC OFF
- 1 x short blink = TTC 1 min
- 2 x short blink = TTC 5 min
- 3 x short blink = TTC 10 min

Press black rectangle button to set and exit.



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

## 17 INSTALLING YOUR E128M WIRELESS WALL BUTTON



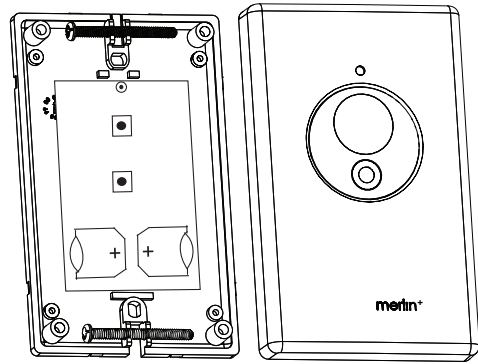
**Disconnect power to the opener whilst installing this accessory to prevent accidental activation. Locate minimum 1.5 m above the floor**

### To install:

- Carefully pry open the E128M and locate the two screws for mounting.
- Attach to the wall using the two screws and wall anchors provided if mounting to a plaster wall. If using a recessed wall box do not use anchors.

**NOTE: Do not overtighten screws.**

**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 section 18.**



## 18 WIRELESS PROGRAMING (OPTIONAL ACCESSORIES)

**NOTE: Transmitter(s) and wall button supplied with your opener are factory programmed.**



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



**Fix any wall control at a height of at least 1.5 m and within sight of the door but away from any moving parts.**

**NOTE: If adding an installed wall control (E128M) you will need a second person to press and hold the desired button. If not installed, program the wall button into the opener before mounting.**

### ADDING transmitters using the LRN "LEARN" button

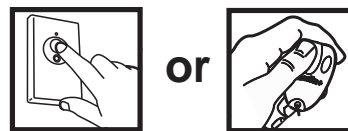
- Press and hold down the button you wish to program to the opener.
- The orange LED will flash to indicate it is receiving signal from the transmitter.
- Press and release the "LRN" button.
- The courtesy LEDs will flash once.
- Ensure the door is clear of obstruction, then test the transmitter.

### Deleting ALL transmitter codes

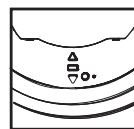
**NOTE: This deletes all transmitters and codes**

- Press and hold the LRN learn button until the orange indicator light goes out (approximately 9 sec).

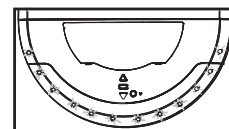
### TO ADD Transmitters / Wireless wall button



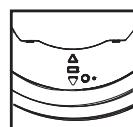
**Press and hold down the desired Button.**



**Press LEARN**



**Release LRN button when Courtesy LEDs flashes once**



### TO DELETE ALL REMOTES

**Press LEARN for 9 seconds**



**After 9 seconds all remotes are deleted and LED will go out.**

## 19 KEYLESS DEVICE PROGRAMMING (OPTIONAL ACCESSORIES)



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

### Wireless Keypad E840M

#### To set the keyless entry PIN:

1. Locate the Yellow Learn button on the garage door opener.
2. Press and release the Yellow Learn button on the garage door opener. The LED will light.
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 blinks. Release the ENTER button after the light bulb blinks.

#### 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 light bulb blinks twice.
3. Enter the new 4-digit PIN of your choice, then press the ENTER button. The light bulb will blink once.
4. To test, enter the new PIN, then press the ENTER button. The garage door opener will activate.

1



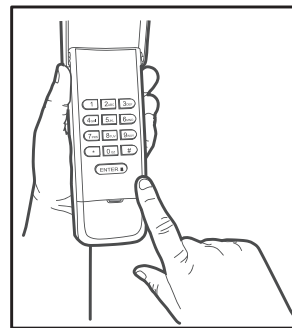
Locate the yellow learn button

2



Press and release the yellow learn button

3

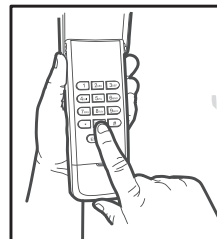


Enter a 4-digit PIN of your choice  
? ? ? ?  
- - - -

4



Press and hold the enter button  
Opener light bulbs blink



After the lights blink release the ENTER button

## OPERATION OF YOUR OPENER

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

- **The ACTIVATION button**  
Press the button until door starts to move.
- **The wall control, outside keyswitch or keyless entry system** (if you have installed any of these accessories).
- **The Transmitter or Wireless Wall Control (E128M)**  
Hold the push button down until the door starts to move.

### When the opener is activated by transmitter, ACTIVATION button or wall 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.

### Obstruction behaviour:

- If an obstruction is encountered while closing, the door will reverse.
- 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.



**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.**

### Opening the door manually:

The door can be opened manually by pulling the release cord down firmly.  
To re-engage the door, pull the release cord down firmly.

### The opener light will turn on:

- when opener is initially plugged in;
- when the power is briefly interrupted;
- when the opener is activated.
- when IR Beams are triggered with the door in the Open position.  
(the light turns off automatically after 2-1/2 minutes.)

## CARE OF YOUR OPENER

When properly installed, your opener will operate with minimal maintenance. The opener does not require additional lubrication.

**Limit and Force Settings:** These settings must be checked and properly set when the opener is installed. Weather conditions may cause some minor changes in the door operation, requiring some re-adjustments, particularly during the first year of operation. Refer to limit and force setting in, section 13.

### Follow the instructions carefully and repeat the safety reverse test after any adjustment.

**Transmitter:** Additional transmitters can be purchased at any time. Refer to Accessories. Any new transmitters must be programmed into the opener.

**Transmitter battery:** If transmission range decreases, replace the battery.

## MAINTENANCE OF YOUR OPENER

### Once a Month:

- Repeat safety reverse test.  
Make any necessary adjustments (section 13).
- Manually operate door. If it is unbalanced or binding, call for professional garage door service.
- Check to be sure door opens and closes fully.  
Set limits and/or force if necessary.

## SPECIFICATIONS MR850EVO

Input Voltage:	230-240 VAC, 50 Hz, 170 W
Rated Load:	32 Nm
Max. Pull Force:	550 N @ Ø300 mm
Standby Power:	<1 Watt
Drive:	DC gearmotor permanent lubrication
Max. Drum Rotations:	4 <sup>1</sup> / <sub>2</sub>
Memory Registers:	64
Operating Frequency:	433.30/433.92/434.54 MHz

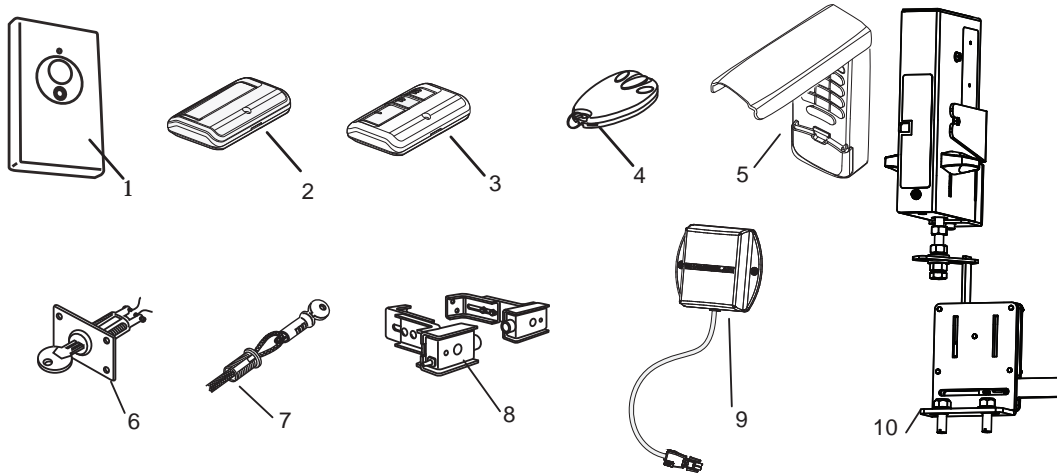
## SPECIFICATIONS MR650EVO

Input Voltage:	230-240 VAC, 50 Hz, 100 W
Rated Load:	25 Nm
Max. Pull Force:	500 N @ Ø300 mm
Standby Power:	<1 Watt
Drive:	DC gearmotor permanent lubrication
Max. Drum Rotations:	4 <sup>1</sup> / <sub>2</sub>
Memory Registers:	64
Operating Frequency:	433.30/433.92/434.54 MHz

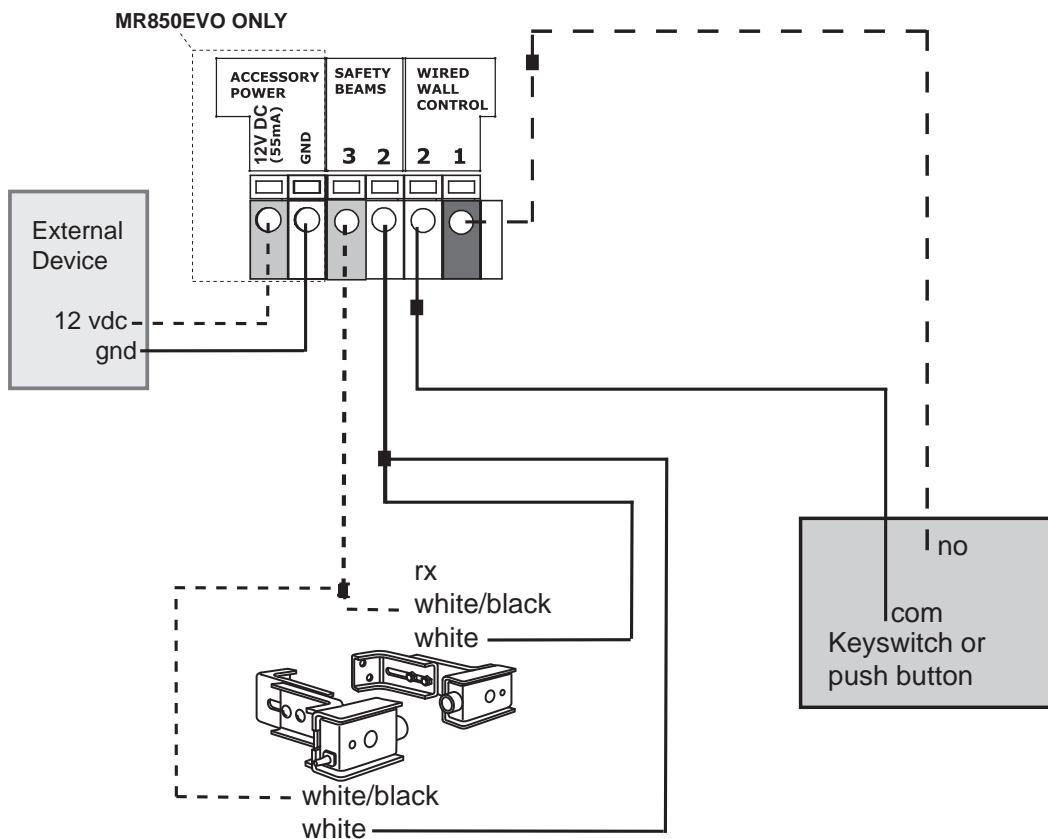
**SPECIAL NOTE:** Chamberlain strongly recommends that the Protector System™ be installed on all garage door openers.

## 20 ACCESSORIES

1. Model E128M 2 Channel wireless wall button
2. Model E940M 1 Channel transmitter
3. Model E943M 3 Channel transmitter
4. Model E945M 3 Channel mini transmitter
5. Model E840M Keyless entry system
6. Model 760 Outside keyswitch
7. Model CM1702 Outside quick release
8. Model C77 The Protector System™ (IR Beams)
9. Model E475M-12 V Standby Power Unit (battery backup) - (MR850 only)
10. Model SRDLK01-12 V Solenoid roller door lock - (MR850 only)

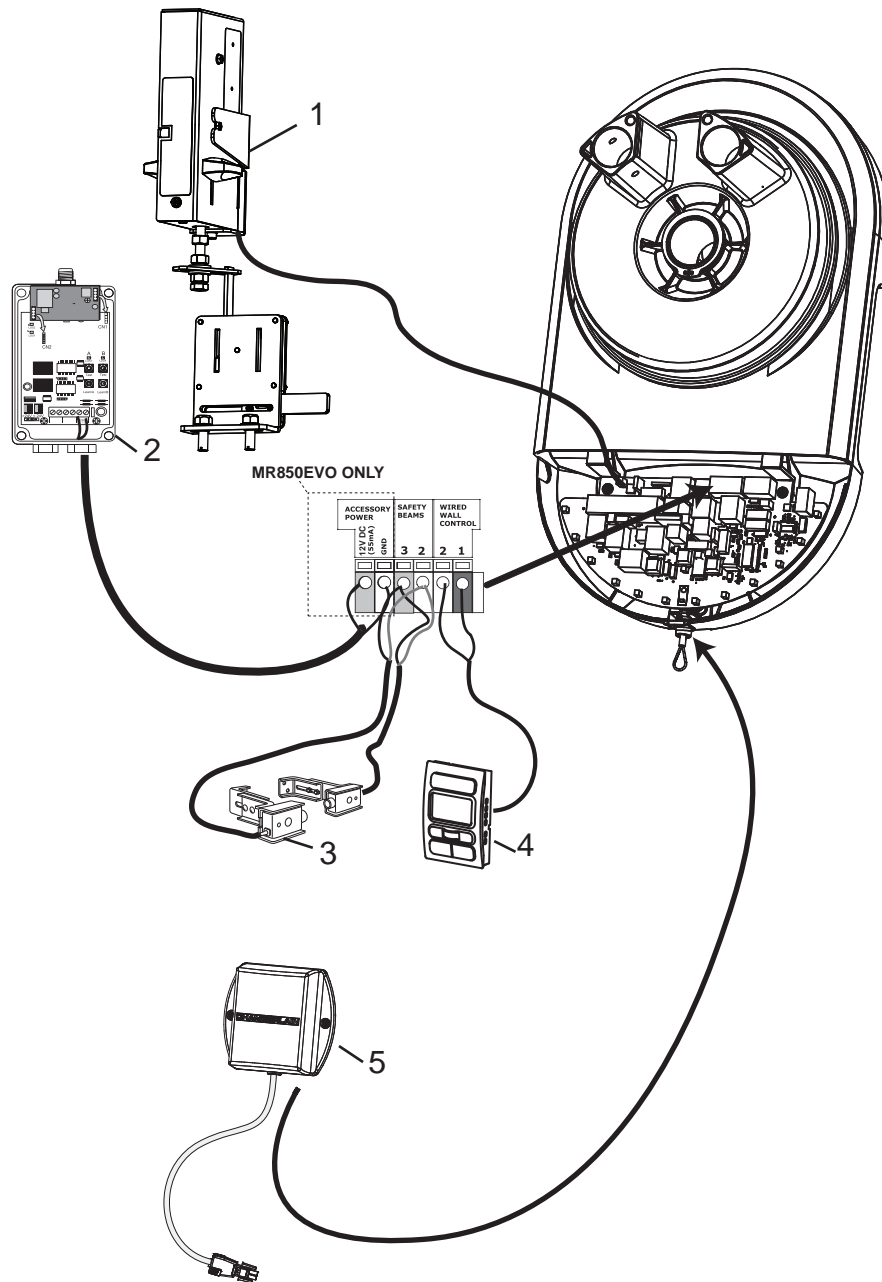


## 21 TYPICAL WIRING DIAGRAM MR850EVO/650EVO - Information for Service Personnel

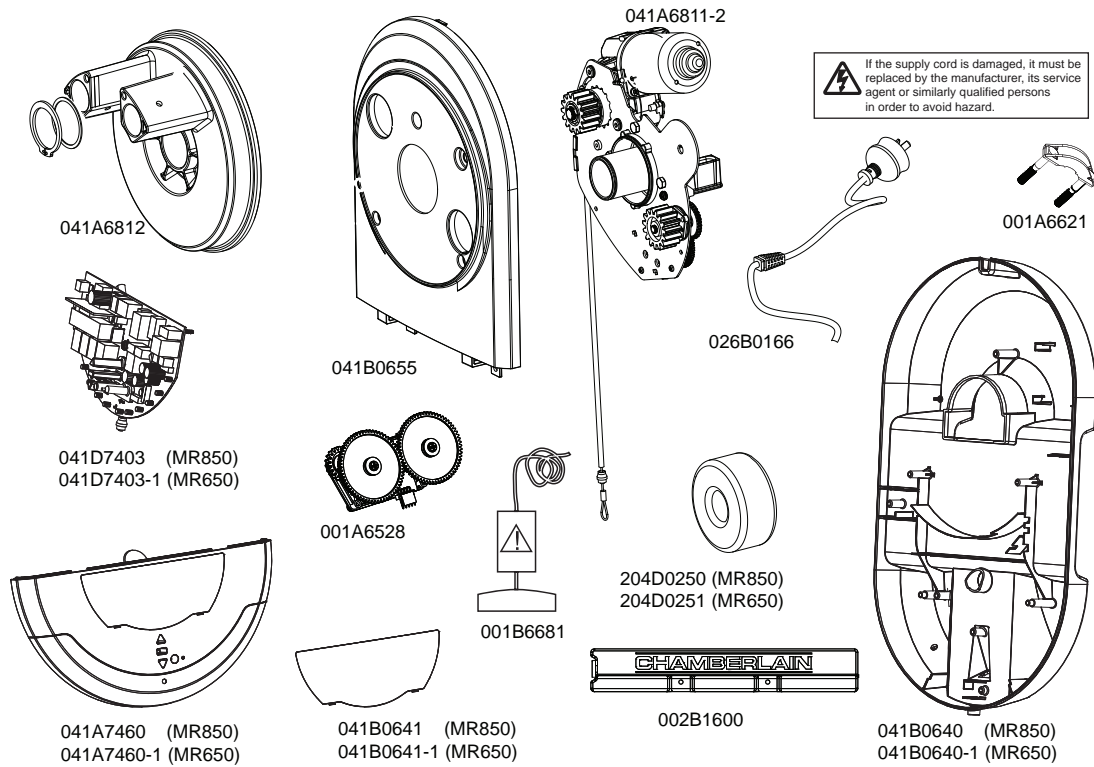


**22 SPECIAL FEATURES - Information for Service Personnel  
(OPTIONAL ACCESSORIES)**

1. Solenoid roller door lock (SRDLK01-12 V) - (MR850EVO only)
2. 12 VDC power output for external devices - (MR850EVO only)
3. The Protector System™ IR Beams - C77
4. LCD Motion detecting control - C198
5. Standby Power Unit (battery backup E475-12 V) - (MR850EVO only)



## 23 SPARE PARTS - Information for Service Personnel



041A6811-2	Mount plate sub assembly MR850 (including motor)
041A6812	Sungear kit
041B0655	Front upper housing
041B0640	Base housing MR850
041B0640-1	Base housing MR650
041D7403	PCB for MR850
041D7403-1	PCB for MR650
041A7460	Front cover sub assembly MR850
041A7460-1	Front cover sub assembly MR650
041B0641	Hinged access cover MR850
041B0641-1	Hinged access cover MR650
204D0250	230V 105VA transformer for MR850
204D0251	230V 80VA transformer for MR650
001A6621	Clamp & bolt assembly
001B6681	Handle & pull rope assembly
001A6528	Absolute Position Encoder (APE)
002B1600	Weight Bar
026B0166	Power Cord



# DIAGNOSTIC CHART

Your garage door opener is programmed for self-diagnostic capabilities. The UP and DOWN arrows on the garage door opener flash the diagnostic codes.

DIAGNOSTIC CODE	UP ARROW	DOWN ARROW	SYMPTOM	POSSIBLE CAUSE	POSSIBLE RESOLUTION
1-1	1 FLASH	1 FLASH	The garage door opener will not close and the lights will flash	The Protector System™ is not installed, connected, or wires may be cut	Check the Protector System™ is installed and aligned correctly, both LEDs are ON with no obstruction between the beams.
1-2	1 FLASH	2 FLASHES	The garage door opener will not close and the lights will flash	The Protector System™ wire shorted or reversed	Check the Protector System™ is installed and aligned correctly, both LEDs are ON with no obstruction between the beams.
1-3	1 FLASH	3 FLASHES	Wall mounted door control will not function	The wires for the door control are shorted or the door control is faulty	Check the door control wiring is correct
1-4	1 FLASH	4 FLASHES	The garage door opener will not close the door and the lights flash	Misaligned or obstructed Protector System™	Check the Protector System™ is installed and aligned correctly, both LEDs are ON with no obstruction between the beams.
1-5	1 FLASH	5 FLASHES	The garage door opener clicks but no movement  The opener runs approximately 150-200 mm and stops and/or reverses	Internal fault  Communication error to travel module	Contact service centre  Contact service centre

DIAGNOSTIC CODE	UP ARROW	DOWN ARROW	SYMPTOM	POSSIBLE CAUSE	POSSIBLE RESOLUTION
3-3	3 FLASHES	3 FLASHES	The garage door opener fails to operate and the battery LED is constantly flashing green	Battery LED flashing green, charging circuit stops and starts to drain causing battery charging status	Recharge Battery, contact service centre
4-1	4 FLASHES	1 FLASH	Door is closing, stops and reverses	Obstruction, binding or sticking door	Remove obstruction, service door.
4-2	4 FLASHES	2 FLASHES	The door stops while opening for no apparent reason	Obstruction, binding or sticking door	Remove obstruction, service door.
4-3	4 FLASHES	3 FLASHES	The door reverses for no apparent reason or after touching the floor	Obstruction, binding or sticking door	Reset limits & force, service door.
4-4	4 FLASHES	4 FLASHES	The door reverses for no apparent reason or after touching the floor	Obstruction, binding or sticking door	Reset limits & force, service door.
4-5	4 FLASHES	5 FLASHES	The opener runs approximately 150-200 mm and stops and/or reverses	Communication error to travel module	Reset limits & force contact service centre
4-6	4 FLASHES	6 FLASHES	The door reverses for no apparent reason while travelling down	Safety sensors were temporarily obstructed or misaligned	Remove obstruction, or realign sensors

These are additional troubleshooting issues that will not show up in the diagnostic codes:

**My garage door opener beeps every 30 seconds:**

Refer to *Battery Status LED* section.

**My remote control will not activate the door:**

\* Verify the Lock feature is not activated on the door control.

\* Reprogram the remote control.

\* If the remote control will still not activate the door check the diagnostic codes to ensure the garage door opener is working properly.

\* Ensure the antenna wire is hanging down from the garage door opener.

**My garage door opener light(s) will not turn off when the door is open:**

The garage door opener is equipped with a feature that turns the light on when the safety reversing sensors have been obstructed or when the motion sensor on the door control detects movement in the garage. These features can be disabled using the door control, refer to the *Door Control* section.

**My neighbour's remote control opens my garage door:**

Erase the memory from your garage door opener and reprogram the remote control(s).

## **TROUBLESHOOTING**

### **1. The opener will not operate from either the ACTIVATION button or the transmitters :**

- Does the opener have electric power? Plug a lamp into the outlet. If it does not work, check the fuse box.
- Have you disabled all door locks? Review installation instruction warnings on page 1.
- Is there a build-up of ice or snow under the door? The door may be frozen to the ground. Remove any restriction.
- The garage door spring may be broken. Have it replaced.

### **2. Opener operates from the transmitter, but not from the wired wall control (optional accessory):**

- Is the wall control lit? If not, reverse the two wires. If the opener runs, check for a faulty wire connection at the wall control, a short under the staples, or a broken wire.
- Are the wiring connections correct? Refer to wired wall control instructions.

### **3. The door operates from the ACTIVATION button or wired wall control, but not from the wireless wall control or transmitter:**

- If the wired wall control is installed and it is flashing, ensure the lock feature is off.
- Program the opener to match the transmitter code. (Refer to section 18). Repeat with all transmitters.

### **4. The transmitter has short range:**

- Change the location of the transmitter in your car.
- Check to be sure the antenna on the bottom of the opener extends fully downward.
- Some installations may have shorter range due to a metal door, foil backed insulation, or metal garage siding.

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

- Be sure that all transmitter push buttons are off.
- If the wired wall control (optional accessory) is installed, remove the bell wire from the wired wall control terminals and operate from the ACTIVATION button or transmitter . If this solves the problem, the wired wall control is faulty (replace), or there is an intermittent short on the wire between the wired wall control and the opener.
- Clear memory and re-program all wireless wall controls and transmitters.

### **6. The door reverses and stops before opening completely:**

- Is something obstructing the door? Is it out of balance, or are the springs broken? Remove the obstruction or repair the door.

### **7. The door reverses for no apparent reason and opener lights blink 10 times after reversing:**

- Check the Protector System™ (IR Beams), if installed. Correct alignment if the red light on the beam is solid.

### **8. The door opens but will not close or reverses while closing:**

- Is something obstructing the door? Pull the manual release handle. Operate the door manually. If it is unbalanced or binding, call a trained door systems technician.
- Clear any ice or snow from the garage floor area where the door closes.

- Repeat the limit and force setting in section 13. Repeat safety reverse test after adjustments.

### **9. The opener strains to operate door:**

- The door may be out of balance or the springs may be broken. Close the door and use the manual release to disconnect the door. Open and close the door manually. A properly balanced door will stay in any point of travel while being supported entirely by its springs. If it does not, disconnect the opener and call a trained door systems technician.

### **10. The opener motor hums briefly, then will not work:**

- Check that the door is not in manual release mode (refer section 8).
- The garage door springs may be broken. See above.
- If the problem occurs on the first operation of the opener, door may be locked. Disable any door locks.

### **11. The opener will not operate due to power failure:**

- Use the manual release handle to disconnect the door. The door can be opened and closed manually. When power is restored, re-engage the opener (refer section 8).
- If a Battery Back up Unit is connected, the opener should be able to operate up to 20 times without power.

**CHAMBERLAIN LIMITED WARRANTY**  
Merlin Professional MR850EVO/MR650EVO  
Roller Garage Door Opener

Chamberlain Australia Pty Limited / Chamberlain New Zealand Limited (**Chamberlain**), the manufacturer of Merlin® automatic garage door openers, is committed to manufacturing and supplying high quality goods. As part of this commitment, we seek to provide reliable service and support for our goods and are pleased to provide you, the original purchaser, with this Chamberlain Limited Warranty.

We also provide the following statement as required by the Australian Consumer Law: In Australia, in addition to your rights under this Chamberlain 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 reasonably 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.

**Chamberlain's warranty**

Chamberlain warrants to the original purchaser of the following Merlin® Roller Door Openers:

Merlin® MR850EVO Roller Door Opener (Unit) that all parts of the Unit, other than remote controlled transmitters and accessories, globes and batteries, are free from defects in materials and workmanship for a period of 60 months or 15,000 cycles (opening & closing of the garage door) whichever comes first, from the date of purchase when installed in a residential premise with a residential specified garage door that is designed for the sole purpose of domestic domicile.

Merlin® MR650EVO Roller Door Opener (Unit) that all parts of the Unit, other than remote controlled transmitters and accessories, globes and batteries, are free from defects in materials and workmanship for a period of 24 months or 5,000 cycles (opening & closing of the garage door) whichever comes first, from the date of purchase when installed in a residential premise with a residential specified garage door that is designed for the sole purpose of domestic domicile.

Chamberlain warrants that remote controlled transmitters and accessories included with the Unit are free from defects in materials and workmanship for a period of 12 months from the date of purchase.

Batteries and globes are not covered under the Chamberlain Limited Warranty.

It is a condition of this Chamberlain Limited Warranty that the Unit is sold, installed and serviced by a Professional Dealer appointed by Chamberlain. A Merlin® branded garage door opener purchased over the internet and installed by a person other than a Professional Dealer will not be covered by this Chamberlain Limited Warranty. It is also a condition of the Chamberlain Limited Warranty that the Unit is serviced by a Professional Dealer during the period 24 months to 36 months after the initial installation date. The garage door service fee will be at the purchaser's expense.

During the applicable Chamberlain Limited Warranty period, if you are concerned that the Unit may be defective, for prompt on-site service call the Professional Dealer that sold/installed the opener, or our service centre on the toll free number below and a Chamberlain technician will diagnose the problem and arrange for this to be rectified. Once the problem has been diagnosed, subject to your rights under the Australian Consumer Law with respect to major failures, Chamberlain or its Professional Dealer will provide you with:

1. repairs to the Unit  
or
2. a replacement Unit.

Repairs and replacement parts provided under this Chamberlain Limited Warranty are provided free of charge and are warranted for the remaining portion of the original warranty period.

This Chamberlain Limited Warranty provides benefits which are in addition to your other rights and remedies as a consumer.

**Exclusions**

If our service centre determines that a warranty claim has been made in respect of a failure or defect arising under or out of any exclusion detailed below such that the claim is not covered under this Chamberlain Limited Warranty, we may, subject to your other rights and remedies as a consumer, charge you a fee to repair, replace and/or return the Unit to you.

This Chamberlain Limited Warranty does not cover any failure of, or defect in, the Unit due to:

- 1 non-compliance with the instructions regarding installation, operation, maintenance and testing of the Unit or of any product with which the Unit is used;
- 2 any attempt by a person other than a Professional Dealer to repair, dismantle, reinstall or move the Unit to another location once it has been installed;
- 3 tampering, neglect, abuse, wear and tear, accident, electrical storm, excessive use or conditions other than normal domestic use;
- 4 problems with, or relating to, the garage door or garage door hardware, including but not limited to the door springs, door rollers, door alignment or hinges;
- 5 problems caused by electrical faults or replacement of batteries or light bulbs;
- 6 water or moisture ingress that causes corrosion or electrical malfunction;
- 7 corrosion caused by sea air if located near a waterway, beach etc; or
- 8 fitment to a commercial door or in a commercial operating application.

NB: A General Purpose Outlet (GPO) ie: power point must be supplied by the consumer as this electrical fitting does not form a part of the Unit (opener).

If this Chamberlain Limited Warranty does not apply, you may have rights available to you under the Australian Consumer Law.

**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 Chamberlain can lawfully exclude them; and
- 2 under no circumstances will Chamberlain 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.

**Liability – New Zealand only**

Except as set out in the Fair Trading Act 1986 and the Consumer Guarantees Act 1993 (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 Chamberlain can lawfully exclude them; and
- 2 under no circumstances will Chamberlain 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.

**Note**

We request that you retain your sales docket or invoice as proof-of-purchase and attach it to this manual to enable you to establish the date of purchase in the unlikely event of a warranty service being required. Chamberlain reserves the right to change the design and specifications of the Unit without prior notification. Some features or accessories of the Unit may not be available in certain markets or areas. Please check with your distributor.

**Chamberlain service centre contact details**

**Australia**

Phone toll free 1800 638 234  
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Chamberlain Australia Pty. Ltd.  
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Email: [customerservice@chamberlainnz.com](mailto:customerservice@chamberlainnz.com)

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