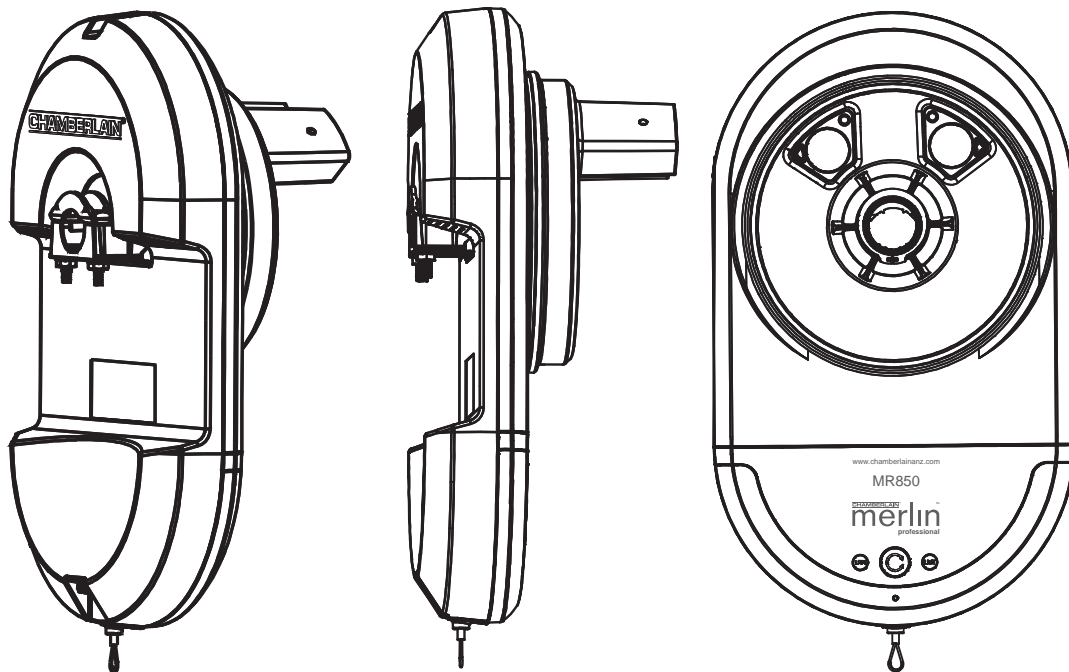# CHAMBERLAIN™

merlin ™

professional

www.chamberlainanz.com

MR850/MR650
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 40mm 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 capablities, 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.

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 400N (40kgf). 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 1.5m 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.

Disconnect electric power 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.

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
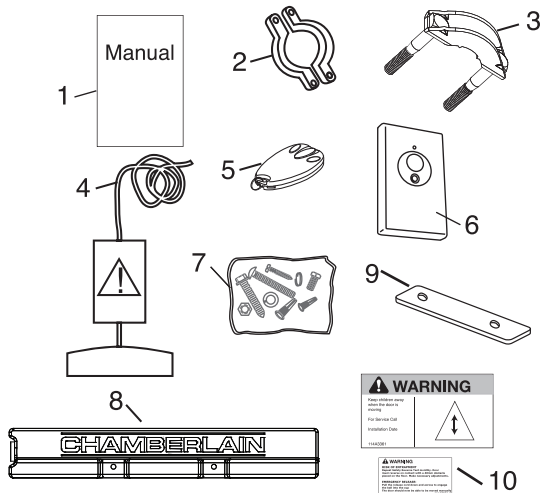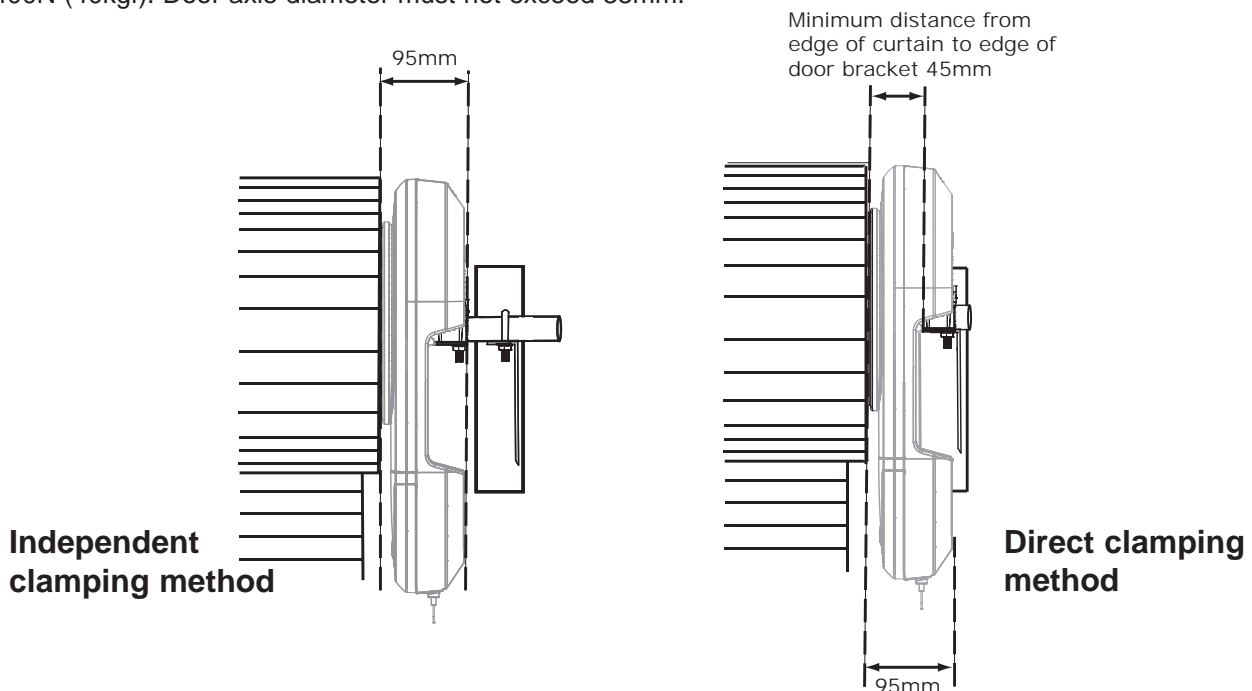
2 TOOLS REQUIRED

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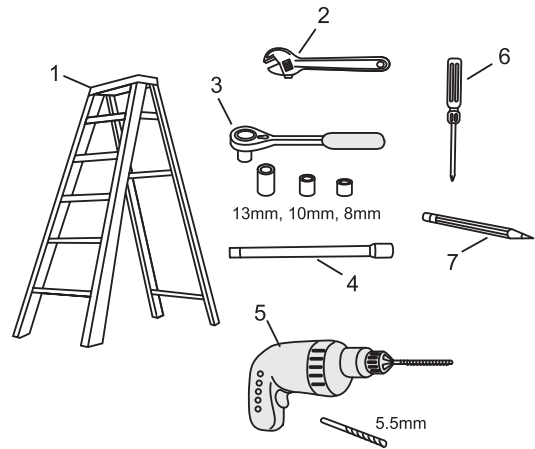
3 DOOR REQUIREMENTS

The maximum allowable door height is 4.5m with a maximum curtain area of 12.5m²* (MR650) -16.5m²* (MR850) (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 400N (40kgf). Door axle diameter must not exceed 35mm.

95mm

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

Independent clamping method

Direct clamping method

95mm

Ensure that there is at least 45mm 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 60mm 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.
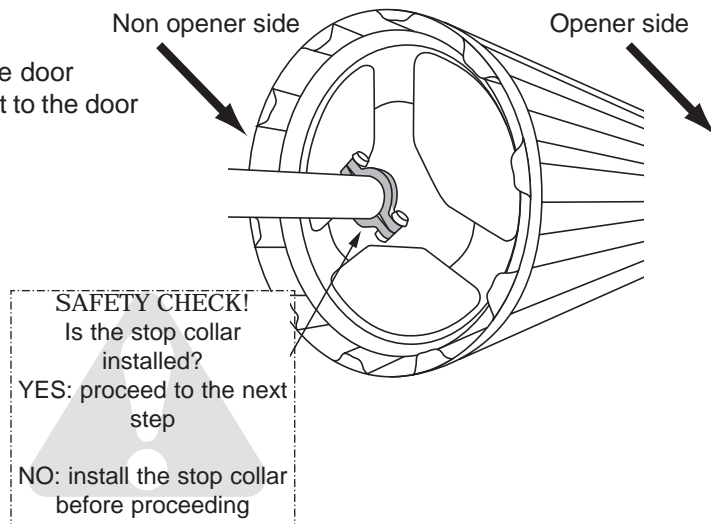
4   *TESTING THE DOOR*

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.

• If your door does not hold in place or the door binds or sticks, call a qualified door technician before installing the opener.
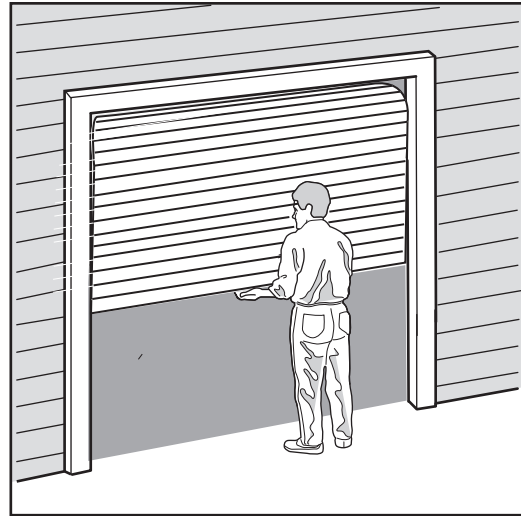
5   *INSTALLING THE STOP COLLAR*

• 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.

Non opener side   Opener side

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 5.5mm holes through the two marked positions, then place the weight bar on the inside of the door.

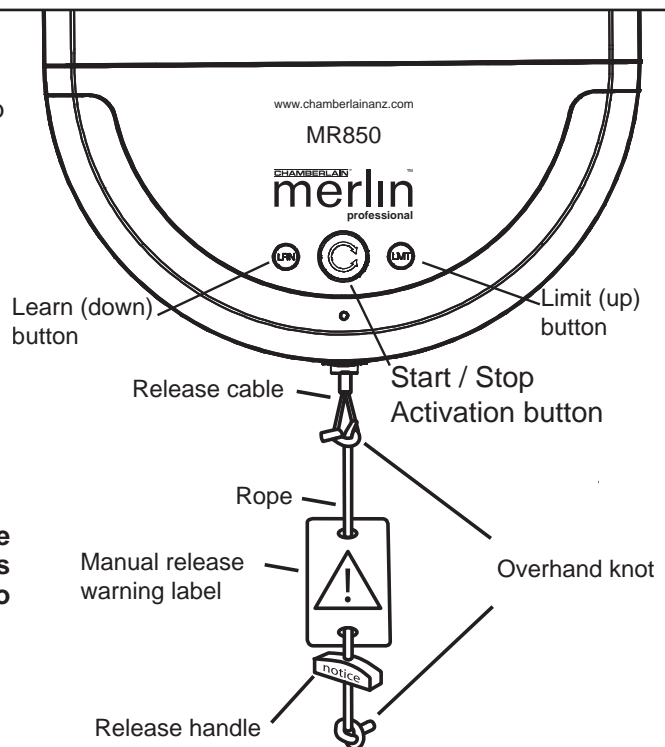• Use the bolts, washers and nuts (provided) to fasten the weight bar in place.

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.

CHAMBERLAIN
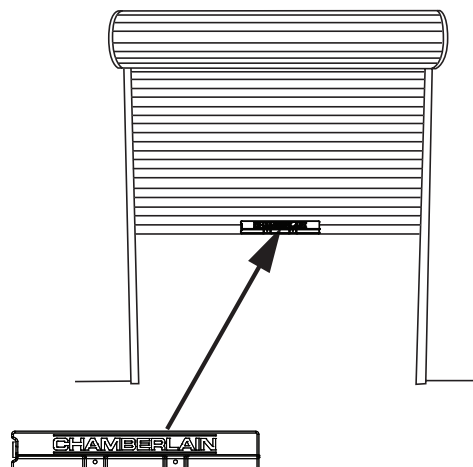
7 THE RELEASE HANDLE & CORD

- 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 25mm 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 1.8m above the floor. Secure with an overhand knot. If the door is greater than 2.5m 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).

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Learn (down) button

Limit (up) button

Release cable

Start / Stop Activation button

Rope

Manual release warning label

Overhand knot

Release handle

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).

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click

Pull down FIRMLY
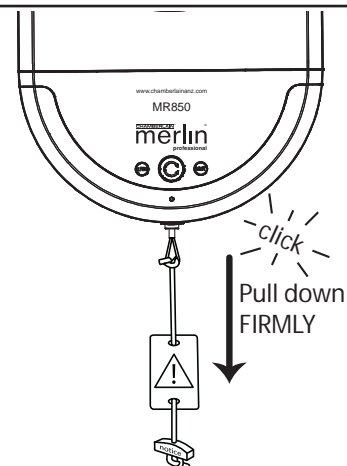
⚠ *Disable all locks and remove any ropes connected to the garage door.*
Take care when operating the manual release as an open door may fall rapidly due to weak or broken springs, or being out of balance.

9 PINNING THE DOOR

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

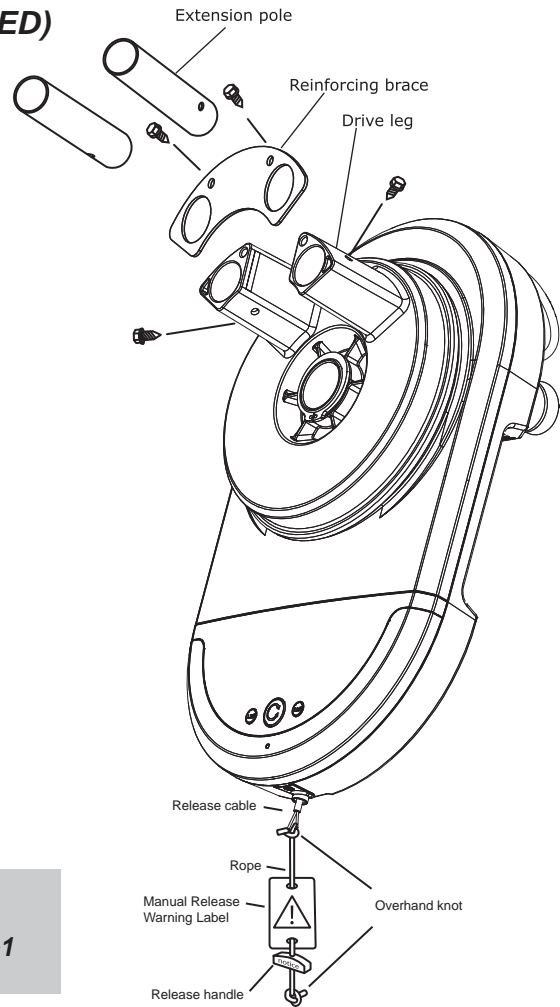- To remedy any ballooning place self tapping metal screws or rivets where the curtain leaves the roll. Secure these through the curtain into the drum wheel at each end of the roll.

- After determining the correct fastener location as shown, lift the door approximately half a turn from the closed position to allow access for drilling.

Free curtain

Ballooning

Add fasteners here

Door closed

Door can be lifted

Door secure
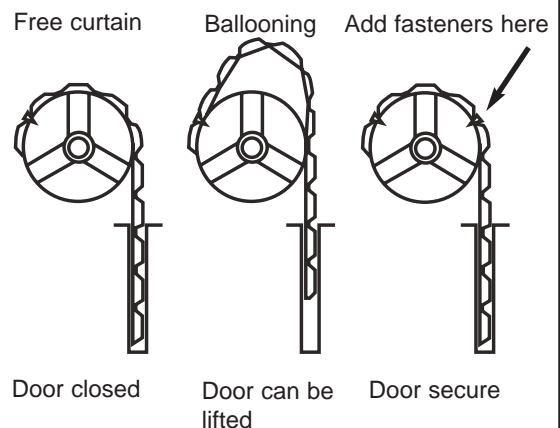
10 ATTACHING EXTENSION POLES (IF REQUIRED)

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.

Extension pole

Reinforcing brace

Drive leg

Release cable

Rope

Manual Release Warning Label

Overhand knot

Release handle

⚠️ *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)
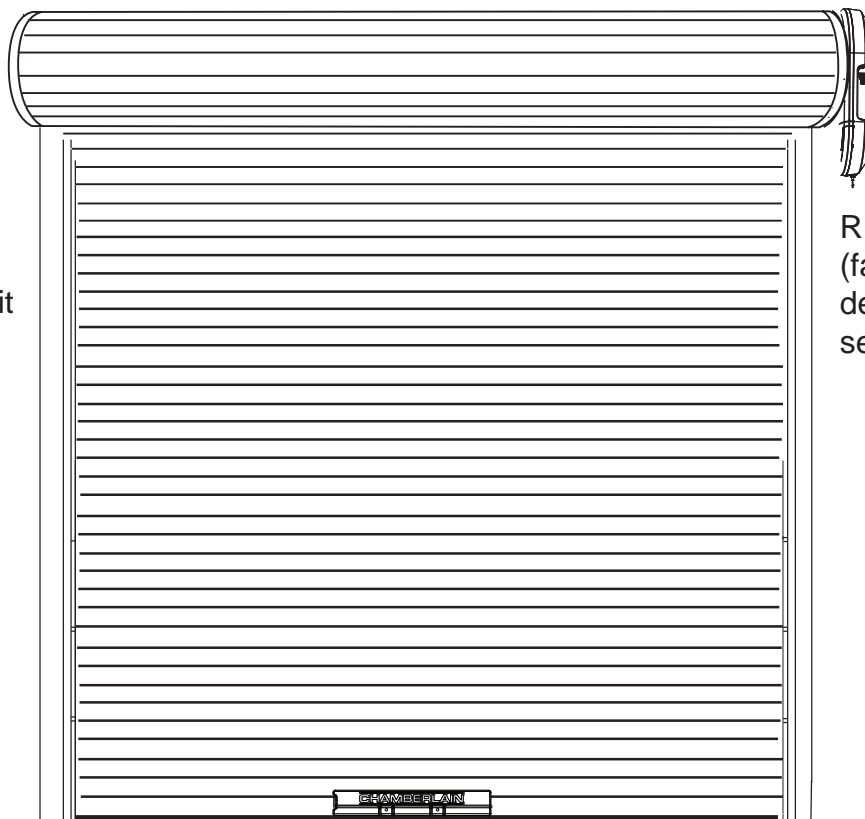
RIGHT
(factory default setting)

Inside garage looking out

5

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 – 28Nm).
• 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)

Rope

Door stand

Rope

Door stand

Tighten to 25-28Nm
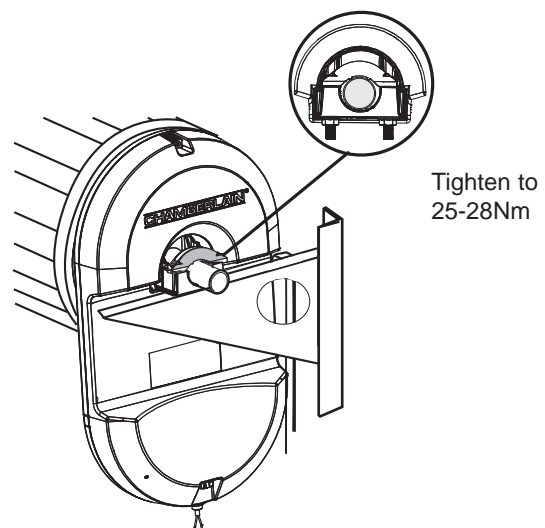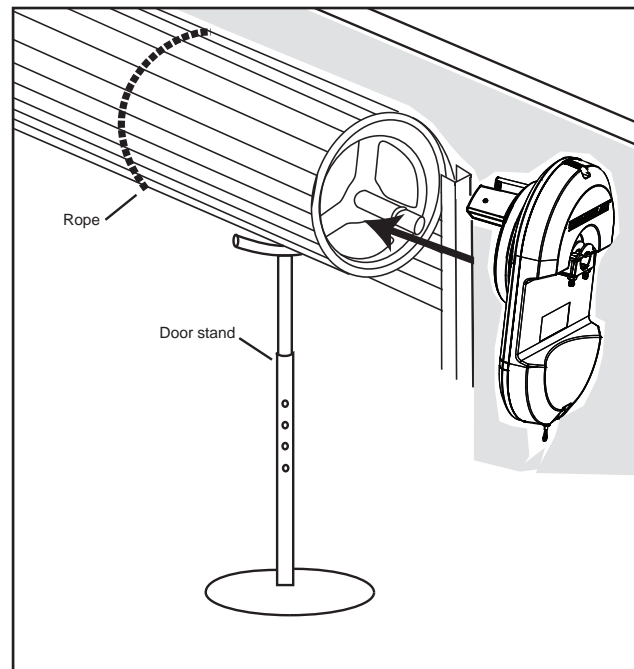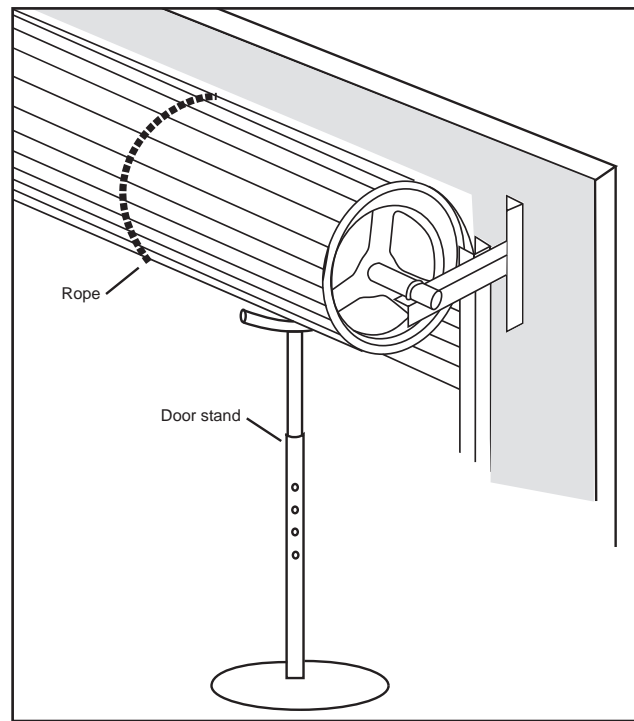
13 SETTING THE LIMITS & RIGHT OR LEFT OPERATION

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 MR850/MR650 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, the opener is engaged, and the power is turned on.

• Press and hold the LMT (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 both LRN and LMT buttons simultaneously until opposite bank lights up.

Setting the open limit:

• Press and hold the LMT (Limit) button, until the door reaches the desired open position, and then release. You can adjust the door by using the LRN (down) button and LMT (up) button to adjust as necessary. Make sure there is enough room for your vehicle to pass under.

Setting the bottom limit:

• Press and release the ACTIVATION button, this sets the UP limit, and begins closing the door. IMMEDIATELY press and hold the LRN (Learn) button until the door reaches the desired closed position. If the door closes too hard against the floor, use the LMT (up) and LRN (down) button to adjust.

• Press and release the ACTIVATION button, this sets the DOWN position and begins opening the door to the fully open position.

Test the door:

• Close and open the door 3 or 4 times using the ACTIVATION button to confirm the limit settings.
• If the door does not complete the test cycle proceed to section 14 to set the force.
• Leave the door in the up position.

NOTE: The force must now be set in order to complete your installation (refer section 14).

LMT — Press and hold until
FLASHING LED

Right bank will light up

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

Left bank will light up for Left hand installation

LMT — Drive door UP to desired height
If required: Use LRN (DOWN)
Activate door

Immediately the door starts down
LRN — Press and hold to drive door down to closed
If required: Use LMT (UP) to adjust
Activate door to open

Orange LED ON & Courtesy LEDS on Dim

Close the door to test limits

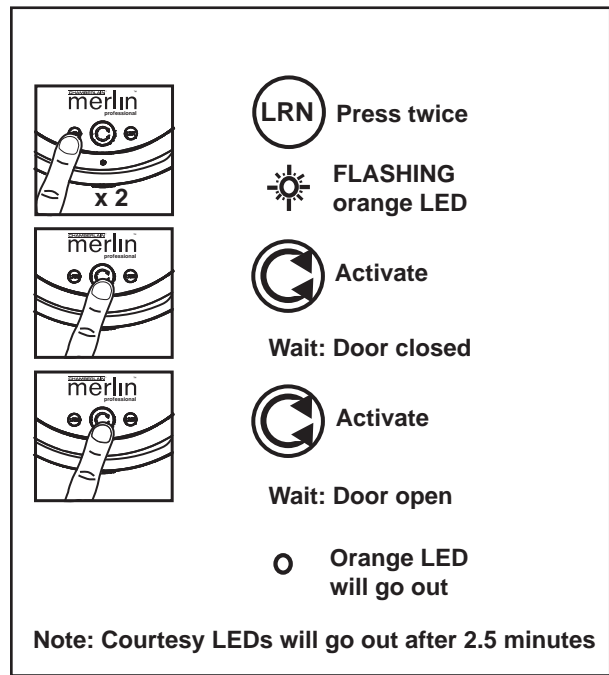Motor will make a click & FULL BRIGHT courtesy LEDs will turn on

14 *SETTING THE FORCE*

The force, as measured on the closing edge of the door, should not exceed 400N (40kgf). If the closing force is measured to more than 400N, the Protector System™ (IR Beams) must be installed (refer section 17).

- Press the LRN button twice to place the opener into force adjustment mode. The indicator LED will flash quickly.

- Press the ACTIVATION button on the front of the opener. The door will travel to the DOWN limit. Press the ACTIVATION button again, the door will travel to the UP limit. The indicator LED will stop flashing when 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.

LRN	**Press twice**
	FLASHING orange LED
	Activate
	Wait: Door closed
	Activate
	Wait: Door open
O	**Orange LED will go out**

Note: Courtesy LEDs will go out after 2.5 minutes

---

15 *TESTING THE SAFETY REVERSE SYSTEM*

⚠ **The safety reverse system test is important. The garage door must reverse on contact with a 40mm 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 sections 13 and 14).

Repeat test of the safety reverse system.

40mm

40mm Test obstacle

---
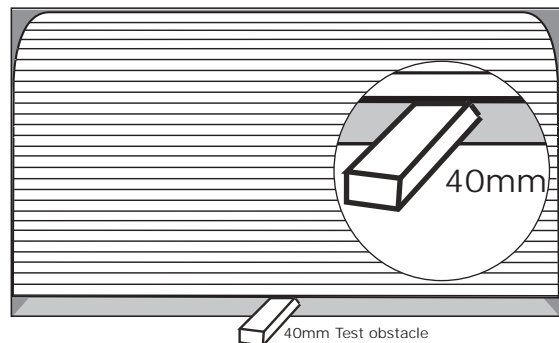
16 *FIXING WARNING LABELS*

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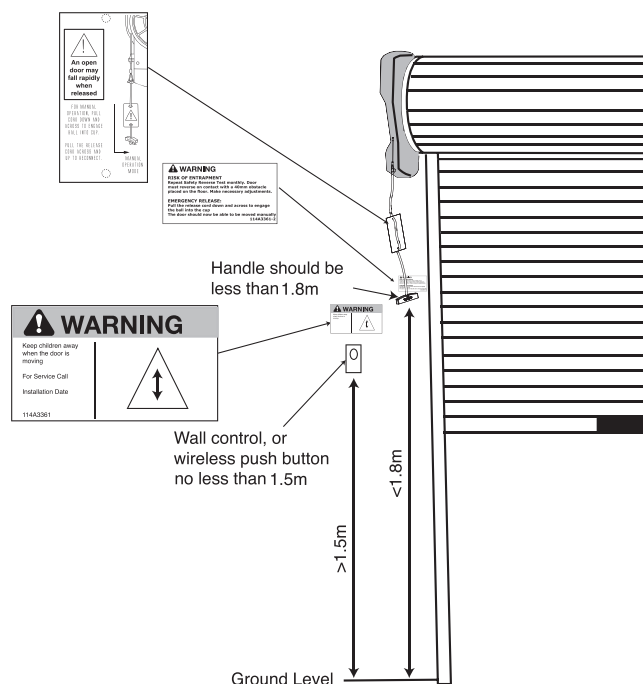
The **risk of entrapment label** must be installed adjacent to the release handle at a height of less than 1.8m from the floor.

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 1.5m **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.

⚠ **WARNING**
Keep children away when the door is moving
For Service Call
Installation Date
114A3361

Handle should be less than 1.8m

Wall control, or wireless push button no less than 1.5m

<1.8m

>1.5m

Ground Level
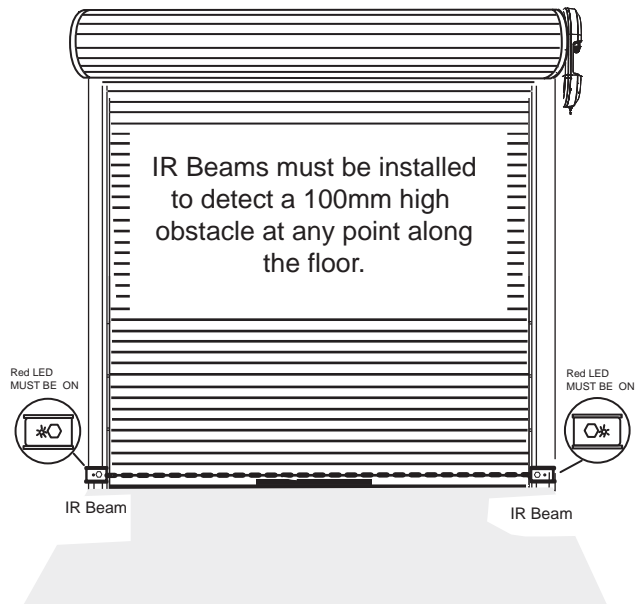
STANDARD INSTALLATION COMPLETE

17 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 400N (40kgf).

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.

IR Beams must be installed to detect a 100mm high obstacle at any point along the floor.

Red LED MUST BE ON

Red LED MUST BE ON

IR Beam   IR Beam

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.

Setting auto close (optional) (MR850 only)

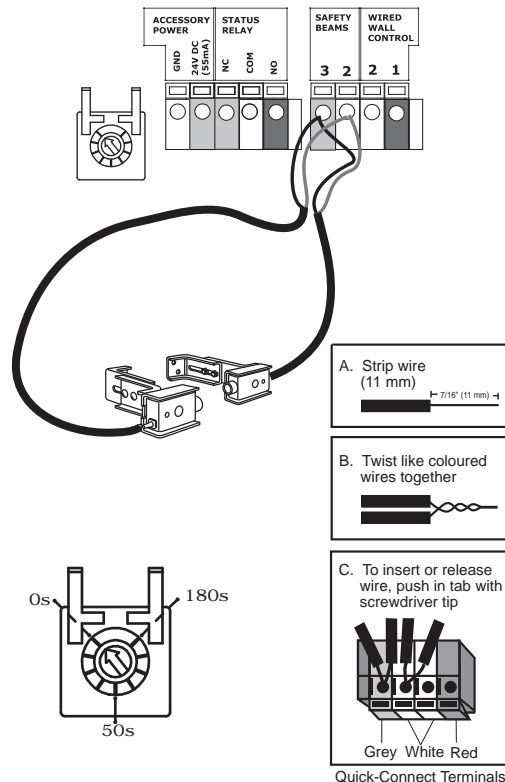**NOTE: The Protector System™ MUST be installed to enable this feature.**

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

The auto close feature will automatically close the garage door after the preset time. The time can be adjusted up to 180 seconds using the trim pot located on the control board. Auto close can be disabled by adjusting the trim pot to 0s.

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.
• Ensure the trim pot on the opener is set to 0s.
• Turn the opener on
• Allow 5 minutes for the beams to self-learn to the unit, (do not walk through the beam during this time).
• Adjust the trim pot to the desired closing time.

ACCESSORY POWER — GND / 24V DC (55mA)
STATUS RELAY — NC / COM / NO
SAFETY BEAMS — 3 2
WIRED WALL CONTROL — 2 1

A. Strip wire (11 mm)
   7/16" (11 mm)
B. Twist like coloured wires together
C. To insert or release wire, push in tab with screwdriver tip

Grey White Red
Quick-Connect Terminals

0s   180s

50s

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

9

## 18 INSTALLING YOUR CM128 WIRELESS WALL BUTTON

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

To install:

• Carefully pry open the CM128 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 19.**
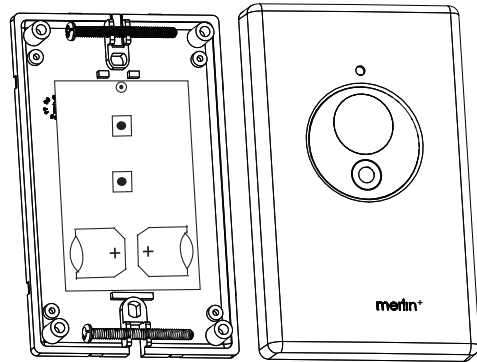
19 WIRELESS PROGRAMING (OPTIONAL ACCESSORIES)

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 1.5m and within sight of the door but away from any moving parts.*

NOTE: If adding an installed wall control (CM128) 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).*
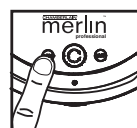
TO ADD Transmitters / Wireless wall button

or
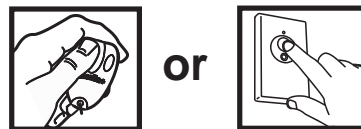
Press and hold down the desired Button.

🔆 **LED will FLASH**

LRN **Press LRN**

Release LRN button when Courtesy LEDs flashes once

TO DELETE ALL REMOTES

LRN **Press LRN for 9 seconds**

🔆 **LED on WILL TURN ON**

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

20 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 C840

Using the "LRN" Button:

1. Press and release the "LRN" button (1) on the opener, the orange LED will light.
2. Within 30 seconds, enter a four digit personal identification number (PIN) of your choice on the keypad (2), then press and hold the ENTER button.
3. Release the button when the opener courtesy LEDs flash once (3), the code is learned.

Alternate programming method using the motion detecting control panel (optional accessory):

NOTE: This method requires two people if the keyless entry is already mounted outside the garage.

1. Enter a four digit personal identification number (PIN) of your choice on the keypad, then press and hold ENTER.
2. While holding the ENTER button, press and hold the LIGHT button on the motion detecting control panel.
3. Continue holding the ENTER and LIGHT buttons while you press the push bar on the motion detecting control panel (all three buttons are held).
4. Release buttons when the opener courtesy LEDs flash once.

Wireless fingerprint access system C379

Full instructions are available with this accessory. Once you have enrolled your user into the C379 you can program the unit into your opener.

Using the "LRN" Button:

1. Press and release the LRN button on the opener, the orange LED will light.
2. Within 30 seconds, slide the cover of the C379 up as illustrated (A). Swipe your finger on the reader head at a steady speed (B) until the yellow led turns on (C).
3. When the courtesy LEDs flash it has learned the code. Ensure there are no obstacles in the path of the door, then press the send button (D) to test the door.

1 LRN Press LRN

☼ LED will light

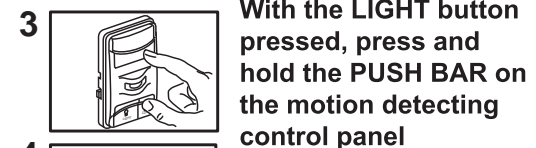**2** Enter 4 digit PIN at keypad (within 30s)

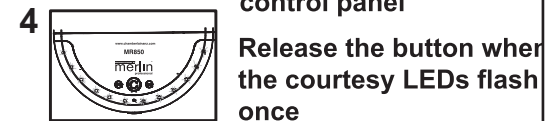**3** Courtesy LEDs will flash once

1 Enter 4 digit PIN at keypad (within 30s)

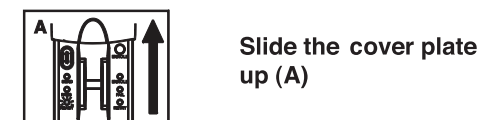**2** Press and hold down LIGHT button on the motion detecting control panel

3 With the LIGHT button pressed, press and hold the PUSH BAR on the motion detecting control panel

4 Release the button when the courtesy LEDs flash once

LRN Press LRN
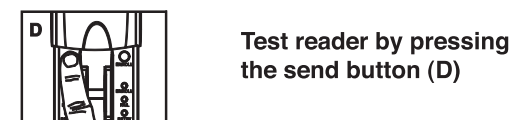
☼ LED will light

A Slide the cover plate up (A)

B Swipe finger at a steady speed (B)

C Yellow LED will indicate successful swipe (C)

Courtesy LEDs will flash once

D Test reader by pressing the send button (D)

21 SPECIAL FEATURES (OPTIONAL ACCESSORIES)

1. Solenoid roller door lock (SRDLK01) - (MR850 only)
2. 24VDC power output for external devices - (MR850 only)
3. Voltage free door monitoring output - (MR850 only)
4. The Protector System™ IR Beams - C77
5. Motion detecting control panel - C98
6. Standby Power Unit (battery backup C475) - (MR850 only)
7. Tear out cable entries (Ø16mm)
8. Flashing light FLA24-2ANZ (door not closed indicator only) - (MR850 only)
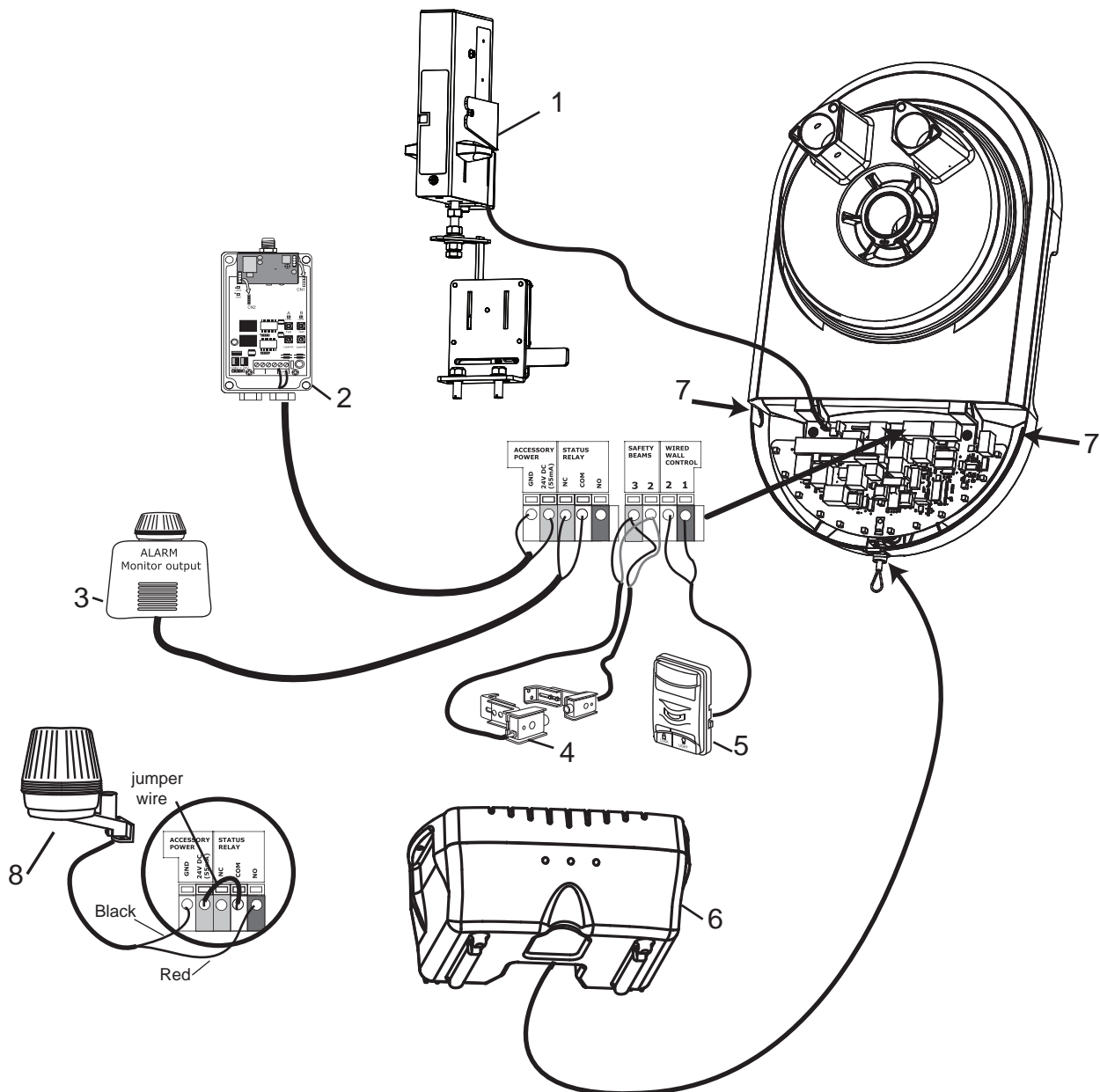
22 *SPARE PARTS*

041A6811

041A6812

041A6813

001A6621

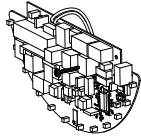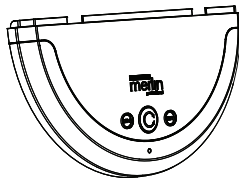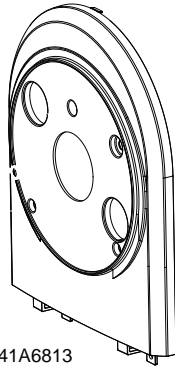If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid hazard.
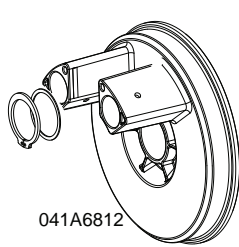
041D6637   (MR850)
041D6637-1 (MR650)

001A6528

041A6815 (MR850)
041A7282 (MR650)

041A6778   (MR850)
041A6778-1 (MR650)

001B6681

CHAMBERLAIN

002B1600
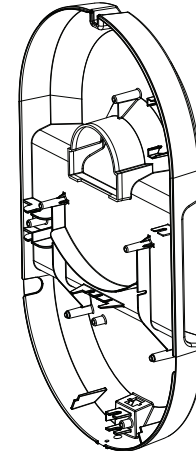
041A6814 (MR850)
041A7292 (MR650)

041A6811	**Mount plate sub assembly MR850 (including motor)**
041A6812	**Sungear kit**
041A6813	**Front upper housing**
041A6814	**Base housing MR850**
041A7292	**Base housing MR650**
041D6637	**PCB for MR850**
041D6637-1	**PCB for MR650**
041A6778	**Removable cover sub assembly MR850**
04146778-1	**Removable cover sub assembly MR650**
041A6815	**230V 105VA transformer for MR850**
041A7282	**230V 80VA transformer for MR650**
001A6621	**Clamp & bolt assembly**
001B6681	**Handle & pull rope assembly**
001A6528	**Absolute Position Encoder (APE)**
002B1600	**Weight Bar**

13

23 ACCESSORIES

1. Model CM128 2 Channel wireless wall button
2. Model CM844 4 Channel transmitter
3. Model C940 1 Channel transmitter
4. Model C943 3 Channel transmitter
5. Model C945 3 Channel mini transmitter
6. Model C840 Keyless entry system
7. Model C379 Wireless finger print access system
8. Model C98 Motion detecting control panel

9. Model 760 Outside keyswitch
10. Model CM1702 Outside quick release
11. Model C77 The Protector System™ (IR Beams)
12. Model FLA24-2ANZ Flashing light kit - (MR850 only)
13. Model C475 Standby Power Unit (battery backup) - (MR850 only)
14. Model SRDLK01 Solenoid roller door lock - (MR850 only)
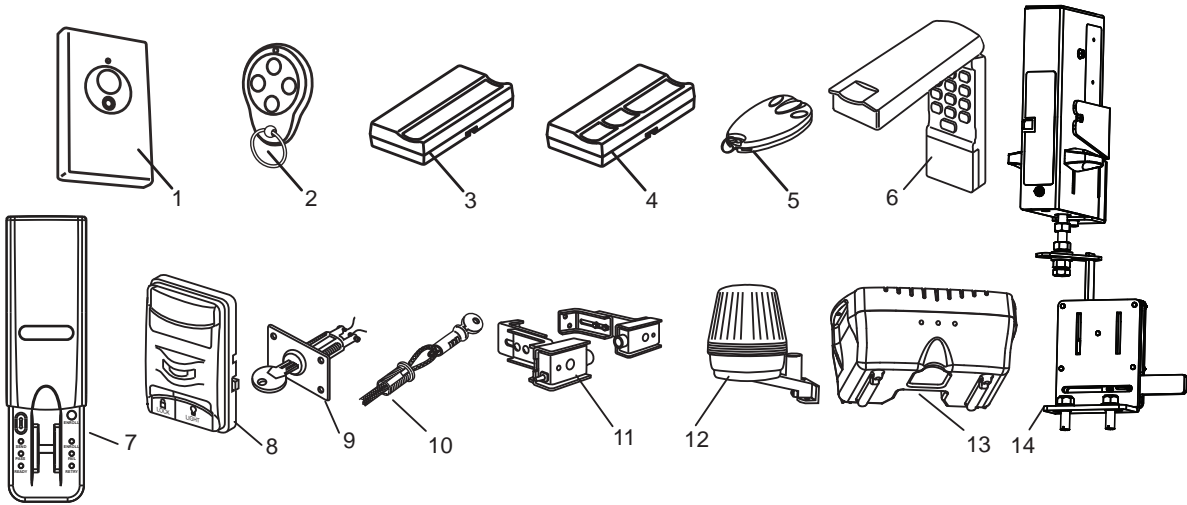
24 TYPICAL WIRING DIAGRAM MR850/650

MR850 ONLY

ACCESSORY POWER — GND, 24V DC (55mA)
STATUS RELAY — NC, COM, NO
SAFETY BEAMS — 3, 2
WIRED WALL CONTROL — 2, 1

External Device
gnd
24vdc

to alarm panel or monitoring device

red
white

rx
white/black
white

white/black
white

no
com
Keyswitch or push button
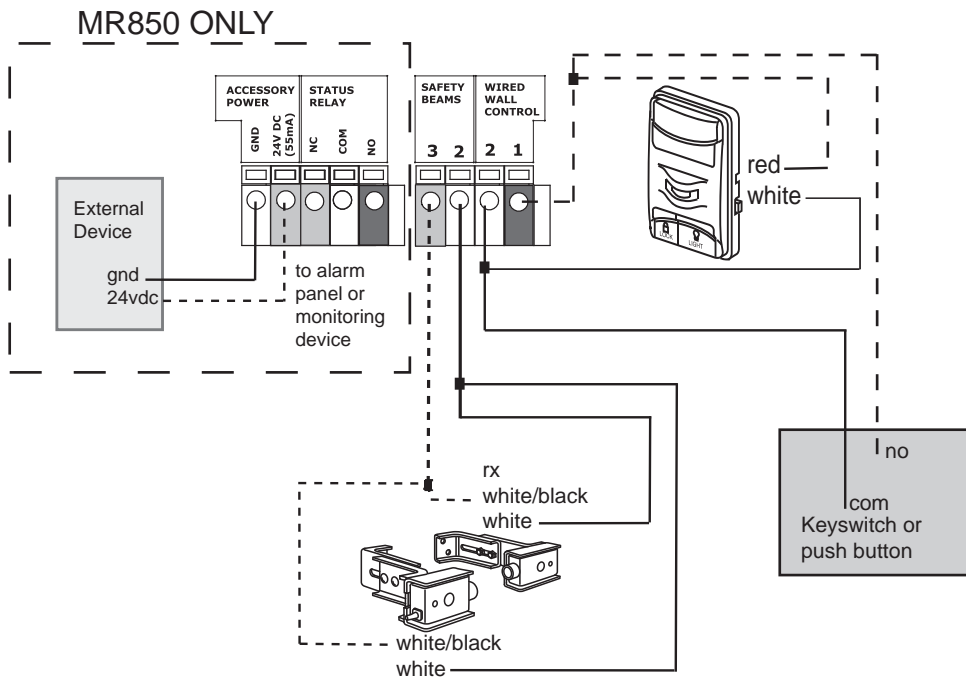
DIAGNOSTIC CHART

1 FLASH

IR Beams wire open
(broken or disconnected).

OR

2 FLASHES

IR Beams wire shorted or
black/white wire reversed.

● *Symptom: One or both of the indicator lights on the IR Beams are not on steadily.*
  • Inspect sensor wires for an electrical short (eg. staple in wire), correct wiring polarity (black/white wires reversed), broken or disconnected wires, replace/attach as needed.
  • Disconnect all wires from the opener.
  • Remove beams from brackets and shorten sensor wires to 30-60mm (1-2") from back each of sensor.
  • Re-attach sending eye to opener using shortened wires. If sending eye indicator light glows steadily, attach the receiving eye.
  • Align beams. If the indicator lights glow, replace the wires for the beams. If the sensor indicator lights do not light, replace the IR Beams.

3 FLASHES

Door control or
wire shorted.

● *Symptom: LED is not lit on door control.*
  • Check polarity of the wire connection to the opener.
  • Inspect door control/wires for an electrical short (eg. staple in wire), replace as needed.
  • Disconnect wires at door control, touch wires together. If opener activates, replace door control.
  • If opener does not activate, disconnect door control wires from opener. Momentarily short across red and white terminals with jumper wire. If opener activates, replace door control wires.

4 FLASHES

IR Beams slightly
misaligned
(dim or flashing LED).

● *Symptom: Sending indicator light glows steadily, receiving indicator light is dim or flashing.*
  • Realign receiving eye sensor, clean lens and secure brackets.

5 FLASHES

Possible RPM sensor
failure. Unplug to reset.

● *Symptom: The RPM Sensor = Short travel 150-200mm (6-8").*
  • Unplug unit to reset. Try to operate opener, check diagnostic code.
  • If it is still flashing 5 times and opener moves 150-200mm (6-8"), the APE (Absolute Positioning Encoder) may need to be replaced, for details contact your Chamberlain Merlin Professional Dealer.

6 FLASHES

Possible APE error on
start up.

● *Symptom: Door will not open or close*
  • Turn the power off and remove the Standby Power Unit (SPU) if installed.
  • Turn power back on and plug the SPU back in. If opener fails to operate correctly after resetting, contact your Chamberlain Merlin Professional Dealer

7 FLASHES

Over current

● *Symptom: Door fails to open all the way*
  • Turn the power off and remove the SPU if installed.
  • Turn power back on and plug the SPU back in if installed. If opener fails to operate correctly after resetting contact your Chamberlain Merlin Professional Dealer.

10 to 15 FLASHES

System Failure

● *Symptom: Opener will not open or close the door*
  • Contact your Chamberlain Merlin Professional Dealer.
  • Report the number of flashes as the fault reference.

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 19). 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 for 5 seconds 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 & 14. 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 Standby Power Unit is connected, the opener should be able to operate up to 20 times without power.

12. Setting the limits manually:

a. Check that the opener is handed correct (refer sections 11 and 13).

b. Press and hold the LMT button until the orange indicator light starts flashing slowly then release.

c. Press the LMT button to move the door UP or the LRN button to move the door DOWN until the door reaches the desired UP limit. Ensuring there is enough clearance for your vehicle.

d. Press the ACTIVATION button. This sets the UP limit and begins closing the door. Immediately press either the LRN or the LMT button. The door will stop. Adjust the desired DOWN limit using the LMT and the LRN buttons. Check to be sure the door is fully closed without applying excessive pressure to the door curtain. Press the ACTIVATION button. This sets the DOWN limit and begins opening the door. NOTE: If neither the LMT or the LRN button is pressed, the door will reverse off the floor and the DOWN travel limit will be set automatically.

e. Open and close the door with the ACTIVATION button, transmitter or wall control 2 or 3 times.

• If the door does not stop in the desired UP limit or reverses before the door stops at the DOWN limit, proceed to Setting the Force (refer section 14).

• If the door still does not stop at the desired limits is something obstructing the door? Disengage the opener. Open and close the door manually. If it is unbalanced or binding, call a trained door systems technician.

• If the door stops at both the desired UP and DOWN limits, proceed to Setting the Force.

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 (CM128)**
  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.
  (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, sections 13 & 14.

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
  (sections 13 & 14).

- Manually operate door. If it is unbalanced or binding, call for professional garage door service.

- Check to be sure door opens and closes fully.

SPECIFICATIONS MR850

Input Voltage:	230-240VAC, 50Hz, 170W
Rated Load:	32Nm
Max.Pull Force:	550N @ Ø300mm
Idle Current:	less than 25mA @ 230VAC
Drive:	24volt DC gearmotor permanent lubrication
Max. Drum Rotations:	$4^{1}/_{2}$
Memory Registers:	64
Operating Frequency:	433.92MHz

SPECIFICATIONS MR650

Input Voltage:	230-240VAC, 50Hz, 100W
Rated Load:	25Nm
Max.Pull Force:	500N @ Ø300mm
Idle Current:	less than 25mA @ 230VAC
Drive:	24volt DC gearmotor permanent lubrication
Max. Drum Rotations:	$4^{1}/_{2}$
Memory Registers:	64
Operating Frequency:	433.92MHz

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

CHAMBERLAIN LIMITED WARRANTY
Merlin Professional MR850/MR650
Roller Door Opener

Chamberlain Australia Pty Limited / Chamberlain New Zealand Limited (Seller) warrants to the original purchaser of the Chamberlain Merlin MR850/MR650 Roller Door Opener (Unit) that it is free from defects in material and/or workmanship for a period of 2 YEARS from the date of first purchase from the Seller. The MR850 DC motor (only) has a 5 year warranty from the date of first purchase from the seller when installed on a domestic door.

Please retain your proof-of-purchase in the unlikely event you require warranty service.

If, during the limited warranty period, the Unit fails due to defects in materials or workmanship Chamberlain will, provided the defective part or Unit is returned freight and insurance prepaid and well packaged to the nearest Chamberlain office or authorised installer, undertake to repair or, at its option, replace any defective part or Unit and return it to the Buyer at no cost. Repairs and replacement parts are warranted for the remaining portion of the original warranty period.

Limited warranty on opener
Chamberlain will furnish a replacement opener free of charge, if it is found to be defective. Labour costs may apply. Where the Unit has been installed by an authorised installer, Chamberlain will furnish replacement parts free of charge through the authorised installer. A service fee for on-site service may apply.

In-warranty service
During the warranty period, if the product appears as though it may be defective, call our toll free service before removal of the unit. A Chamberlain technician will diagnose the problem and promptly supply you with the parts for "do-it-yourself" repairs, or provide you with shipping instructions for a factory repair or replacement. If an authorised installer installed your Unit you must call them for prompt on-site service.

If our service centre determines that a warranty claim has been made in respect of a failure or defect arising out of any exclusion detailed below, we may charge you a fee to repair and/or return the Unit to you.

Exclusions
This warranty does not cover any failure of 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 to repair, dismantle, reinstall or move the Product to another location once the Product is installed by any person other than an authorised installer.
3. tampering, neglect, abuse, wear and tear, accident, electrical storm, excessive use or conditions other than normal domestic use.
This warranty does not cover any 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, any problems caused by electrical faults, replacement of batteries or light bulbs or labour charges for reinstalling a repaired or replaced Units.

Liability – Australia only
Under no circumstances shall the Seller be liable for consequential, incidental or special damages arising in connection with the use, or inability to use, the Unit. In no event shall the Seller's liability for damages or injury arising from breach of law or contract or for negligence, exceed the cost of repairing or replacing the Unit or refunding the purchase price of the Unit.

Under Division 2 Part V of the Trade Practices Act, 1974, certain warranties and conditions (Implied Terms) are implied into contracts for the supply of goods or services if the goods or services are of a kind ordinarily acquired for personal, domestic or household use or consumption. Liability for breach of those Implied Terms cannot be excluded or limited and the limitations and exclusions above do not apply to the Implied Terms.

Except for the Implied Terms and the warranties set out above, the Seller excludes all warranties and conditions implied by statute, at law, in fact or otherwise.

Liability – New Zealand only
Except as set out in the Fair Trading Act 1986 and the Consumer Guarantees Act 1993:

(a) all other guarantees, warranties and representations in relation to the Unit or its supply are excluded to the extent that the Seller can lawfully exclude them; and
(b) under no circumstances shall the Seller 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 attach your sales docket or invoice to this manual to enable you to establish the date of purchase in the unlikely event of a service call being made. Chamberlain reserves the right to change the design and specification without prior notification. Some features or accessories may not be available in certain markets or areas. Please check with your distributor.

CONTACT DETAILS:

Chamberlain service centres:
Australia
Phone toll free 1800 638 234
Fax toll free 1800 888 121

New Zealand
Auckland phone 09 477 2823
Phone toll free 0800 653 667
Fax toll free 0800 653 663

www.chamberlainanz.com

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