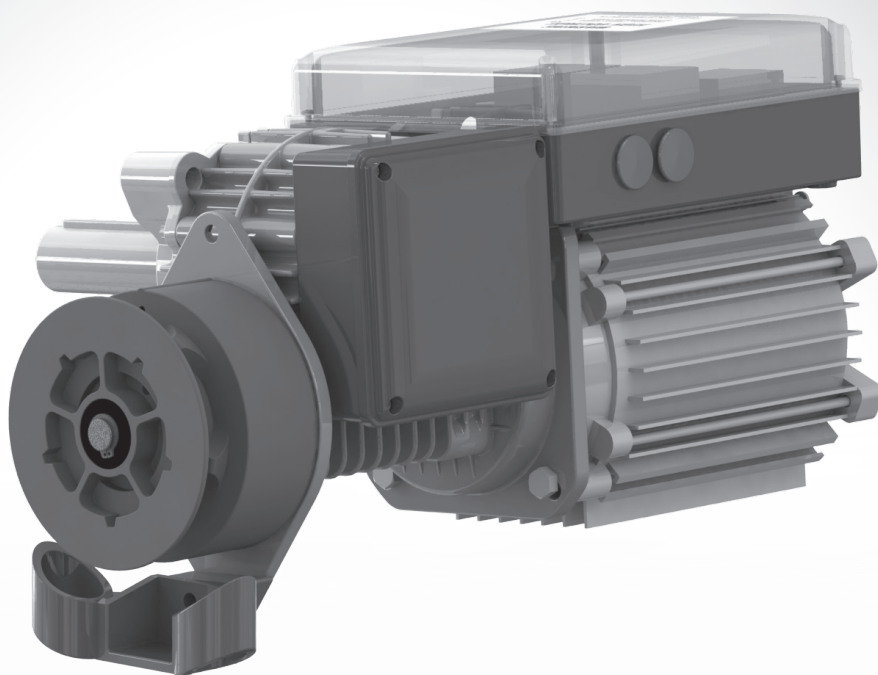




# INSTRUCTION MANUAL



**Security+ 2.0**



**Reflective  
Safety Beam  
Compatible**

## E-Drive

- ML Series
- Compatible with Security+ 2.0<sup>®</sup> accessories

Chamberlain Australia Pty Ltd  
Unit 1, 75 Epping Rd  
North Ryde NSW 2113

Chamberlain Middle East Dubai  
Lease office building LOB  
FZJOA, Jebel Ali, Dubai, UAE  
[www.liftmaster-me.com](http://www.liftmaster-me.com)

Ref: D-M-RDO-006A\_C



# LiftMaster<sup>®</sup>

# SAFETY INSTRUCTIONS



**WARNING: THESE ARE IMPORTANT SAFETY INSTRUCTIONS.**  
**FOLLOW ALL INSTRUCTIONS AS INCORRECT INSTALLATION CAN LEAD TO SEVERE INJURY OR DEATH**  
**SAVE these instructions**

This commercial roller door operator has been designed and tested to offer safe service provided it is installed, operated, maintained and tested in strict accordance with the instructions and warnings contained in this manual.



## WARNING

Mechanical

When you see this Safety Symbol and Signal Words on the following pages, they will alert you to the possibility of serious injury or death if you do not comply with the warnings that accompany them. The hazard may come from something mechanical.

- Keep commercial door balanced. Sticking or binding doors must be repaired. Commercial doors, door springs, pulleys, brackets and their hardware are under extreme tension and can cause serious personal injury. Do not attempt to loosen, move or adjust them. Call for commercial door service.
- Do not wear rings, watches or loose clothing while installing or servicing a commercial door operator.
- To avoid serious personal injury from entanglement, remove all ropes connected to the commercial door before installing the door operator.
- After the installation a final test of the full function of the system and the full function of the safety devices must be done.
- When operating a biased-off switch, make sure that other persons are kept away.
- The operator cannot be used with a driven part incorporating a wicket door (unless the operator cannot be operated with the wicket door open).
- Operator may become hot during operation. Appropriate clearance and/or shielding should be supplied by the installer to ensure any cabling, wiring and/or other items cannot come in contact with the operator. If temperature rise exceeds 50°C all fixed wiring insulation must be protected, for example, by insulating sleeving having an appropriate temperature rating.
- Do not allow children to play with operator wall controls or remote controls. Keep remote controls away from children.
- Permanently fasten all supplied labels adjacent to the wall control as a convenient reference and reminder of safe operating procedures.
- Disengage all existing commercial door locks to avoid damage to commercial door. Install the wall control (or any additional push buttons) in a location where the commercial door is visible during operation. Do not allow children to operate push button(s) or remote transmitter(s). Serious personal injury from a closing commercial door may result from misuse of the operator.
- Activate operator only when the door is in full view, free of obstructions and operator is properly adjusted. No one should enter or leave the building while the door is in motion.
- The actuating member of a biased-off switch is to be located within direct sight of the door but away from moving parts. Unless it is key operated, it is to be installed at a minimum height of 1500mm and not accessible to the public.
- Make sure that people who install, maintain or operate the door follow these instructions. Keep these instructions in a safe place so that you can refer to them quickly when you need to.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
- Use the operator for its intended purpose. The operator is designed to operate spring-balanced roller doors and roller shutters.
- Automatic Drive - Keep away from the area of the door as it may operate unexpectedly.
- Ensure that entrapment when operating the door in the open direction is avoided.



## WARNING

Electrical

When you see this Safety Symbol and Signal Words on the following pages, they will alert you to the possibility of serious injury or death if you do not comply with the warnings that accompany them. The hazard may come from electric shock.

- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Installation and wiring must be in compliance with your local building and electrical codes. Connect the power supply cord only to properly earthed mains.
- Moisture and water can destroy the electronic components. Make sure under all circumstances that water moisture or storage moisture cannot penetrate the electronics. The same applies for openings and cable entries.
- An electrician must disconnect electric power to the commercial door operator before making repairs or removing covers.

## CAUTION

When you see this Signal Word on the following pages, it will alert you to the possibility of damage to your commercial door and/or the commercial door operator if you do not comply with the cautionary statements that accompany it.

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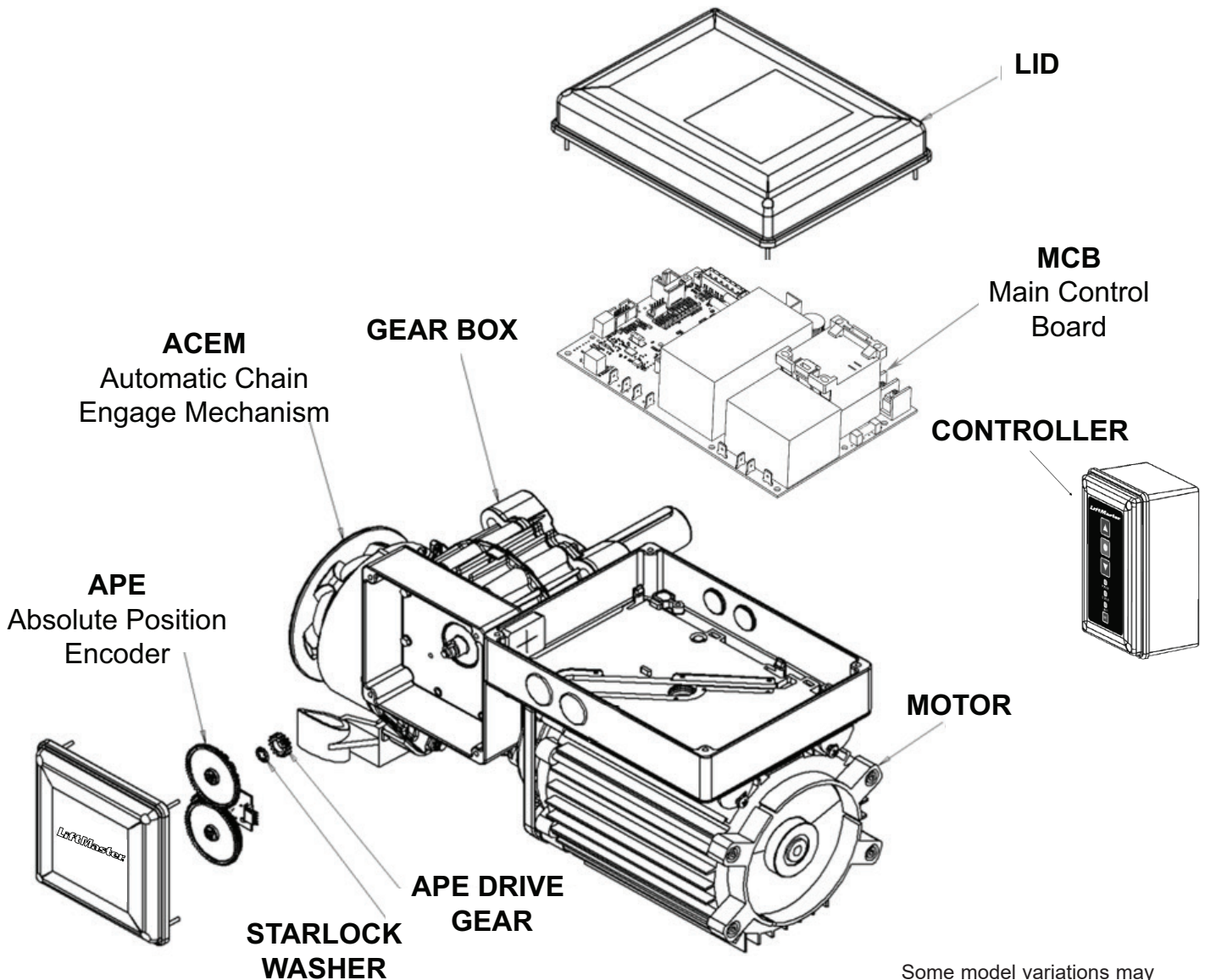
# INTRODUCTION

## E-DRIVE COMPONENTS

Your standard E-Drive includes:

- Opener (including cable and UK plug)
- Mounting bolts
- Controller (containing controller cable)

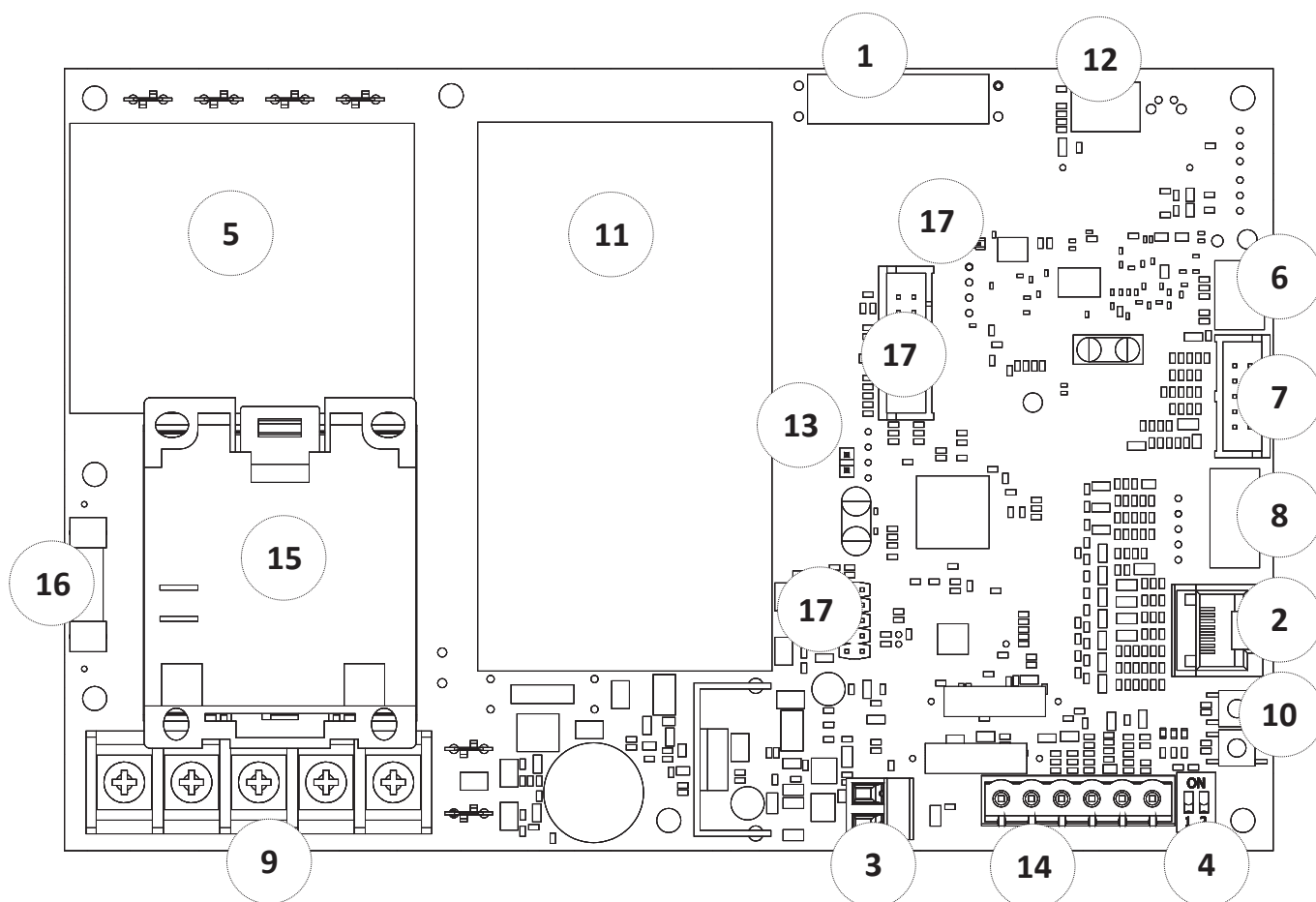
*\*Appearance may vary with different motor, gearbox and controller configurations*



Some model variations may include optional extras such as a mounting plate, sprockets, chain, beams and transmitter.

# MAIN CONTROL BOARD (MCB)

## MAIN CONTROL BOARD (MCB)



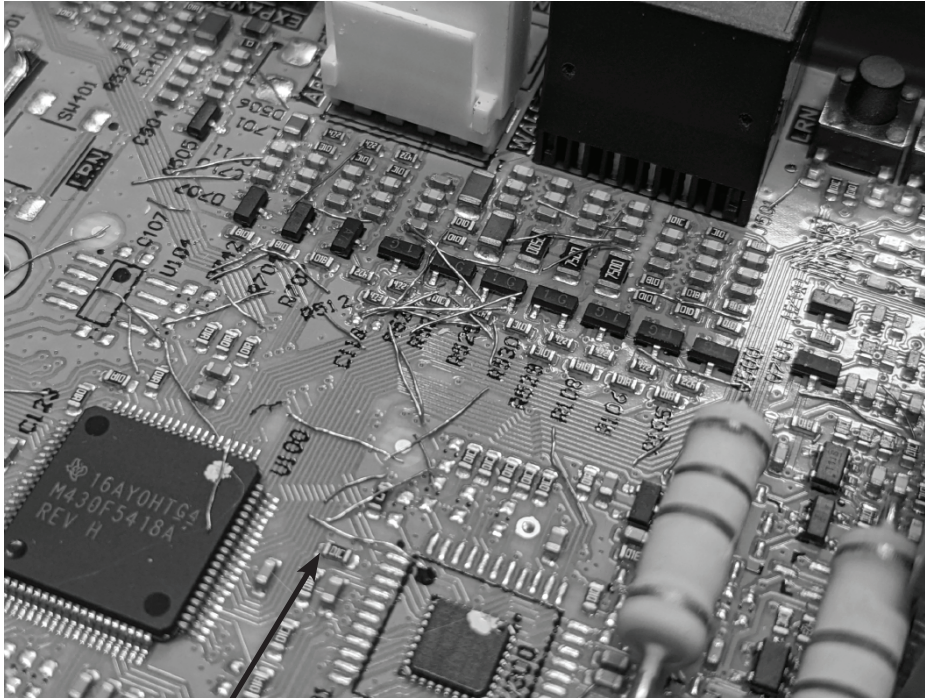
1.	Motor terminals	10.	'Learn' (LRN) and 'Reset' (RST) buttons
2.	Wall Controller connection	11.	Mechanically interlocked contactors
3.	Accessory Power	12.	TEMP or Safety cut-out terminals (N/C)
4.	Door behaviour	13.	Radio lock (jumper fitted to lock)
5.	Transformer	14.	Entrapment Protection Device inputs
6.	Toggle input	15.	Safety isolator contactor
7.	Expansion board input	16.	Replaceable transformer fuse
8.	APE connection	17.	DO NOT USE (for manufacturer use only)
9.	Power supply terminals		

Note: MCB Layout may vary depending on build type.

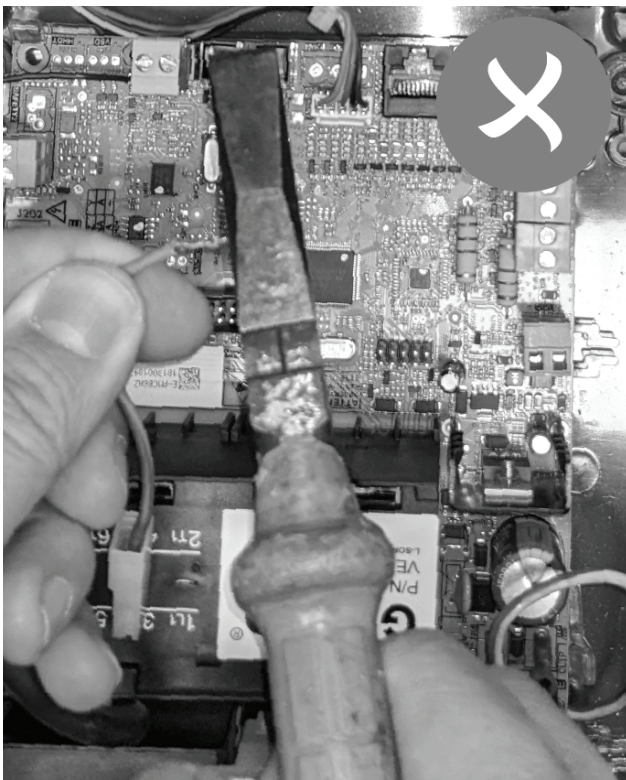


## WIRE STRIPPING

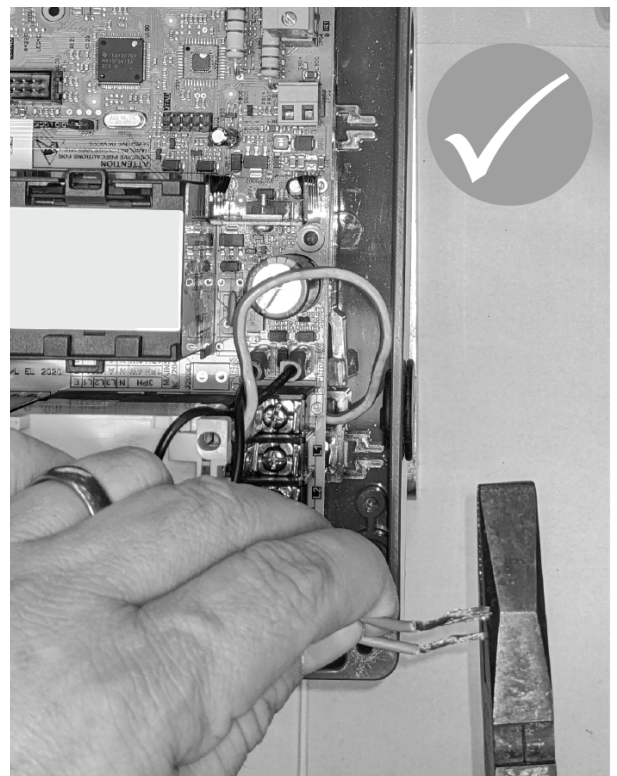
When stripping cable during the E-Drive installation, the cables **MUST BE** stripped outside the MCB (Main Control Board) enclosure. Failure to do so will destroy the MCB as wire cut offs will cause a short circuit. Such events are **NOT** covered by our warranty.



Wire off cuts will  
destroy the MCB



Incorrect



Correct

# PLANNING

Before installation, identify the type and dimensions of your commercial rolling door. A check of the application is recommended to ensure suitability of the opener model to the door.

The installer is required to check that the temperature range marked on the drive is suitable for the location.

Opener Build	Rated Load (Nm)	Hp	Duty Rating (%)	Phase	Door size (m2)*	kW	Amp	Max Door Mass (KG)**
ML6103	140	1.0	10	3	36	1.69	3.1	540
ML6153	170	1.5	10	3	50	1.78	3.3	890
ML6102	85	1.0	10	1	36	1.05	6.0	480

**NOTE: E-Drive openers are not recommended for use on residential garage doors.**

\* Door size is stated as a guide only. Refer to "max door mass" to assess drive suitability.

\*\* Maximum door mass is:

- before spring balancing. Door must be spring balanced.
- based on at least 4:1 sprocket ratio, and curtain load with 200mm drum diameter.

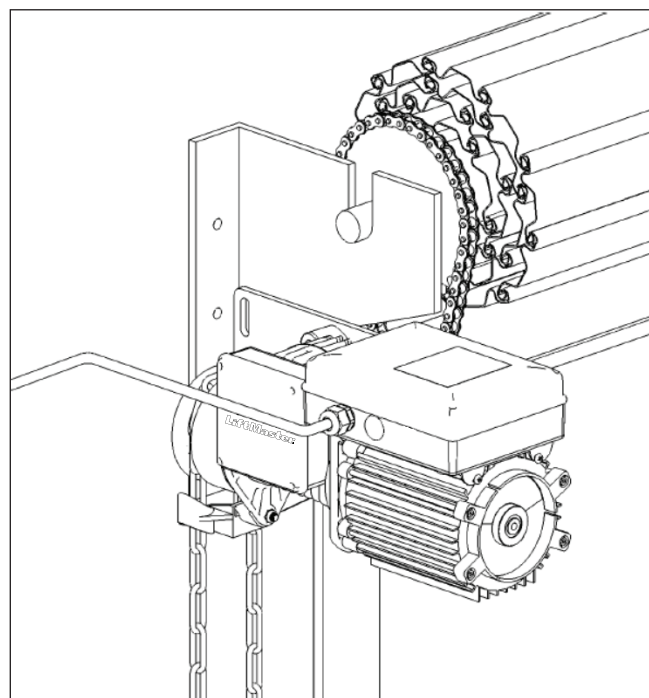
If any conditions above are not met, some consideration should be given to increasing the sprocket ratio, or opener size. The opener should be installed on the most suitable side of the commercial door. Consider an In-Board Mounting Kit (P/N IBMK) if there is insufficient side room. Select the side that meets the requirements listed below.

- Must have minimum distance of 15mm between mounting plate and door drum sprocket
- Must have minimum distance of 10mm between APE housing and imposing structure
- Must have minimum overhead clearance of 150mm from the main control housing

**NOTE: Before installing the opener, check that the commercial door is in good mechanical condition, correctly balanced and opens and closes properly.**

## Doors of Rigid Construction

When using an E-Drive on commercial doors of 'rigid' construction (eg. continuous steel roller doors etc.), consider that the **limit confirmation** movement requires a 1/4 turn of the output shaft downward at the closed position. Sufficient mechanical freedom must be provided at the closed position for this reason.



## WARNING MECHANICAL

The door guides must be fitted with mechanical stops that prevent the bottom rail from passing through in the opening direction. The opener should stall if driven into the mechanical stops.

The top limit must be set at least 50mm below the mechanical stops.

# INSTALLATION

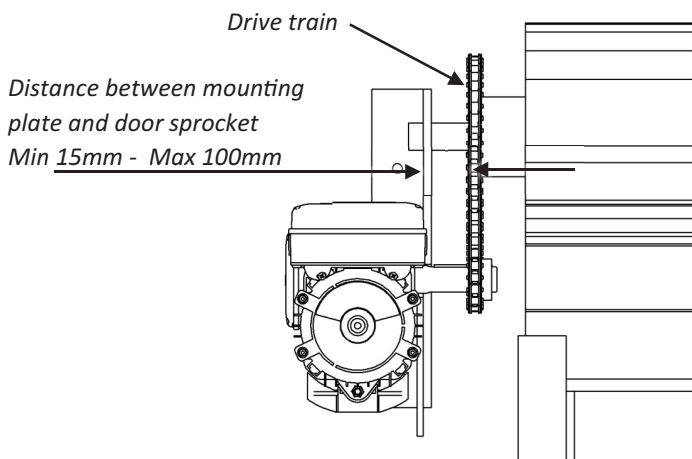
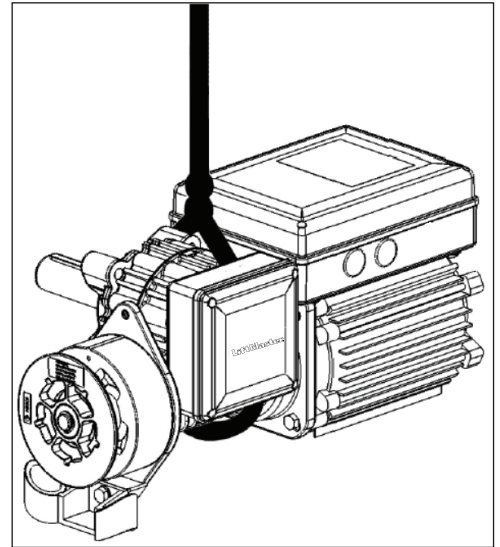
## MOUNTING THE UNIT

The E-Drive is typically flag mounted below the door drum so that the opener shaft points toward the door opening and lies beneath the sprocket of the door drum. For mounting you will need to either secure the opener to the head plate of the roller door or roller shutter with prepared holes or slots, or use a mounting plate that will need fixing via a wall angle or similar existing structure.

**Note: The E-Drive is not designed to be installed upside down. The chain guide must not be repositioned.**

It is strongly recommended that a suitably rated lifting strap be used to raise the opener to a necessary height, shown right. A suitable lifting device should be connected to a secure support beam (or similar) above the door axle.

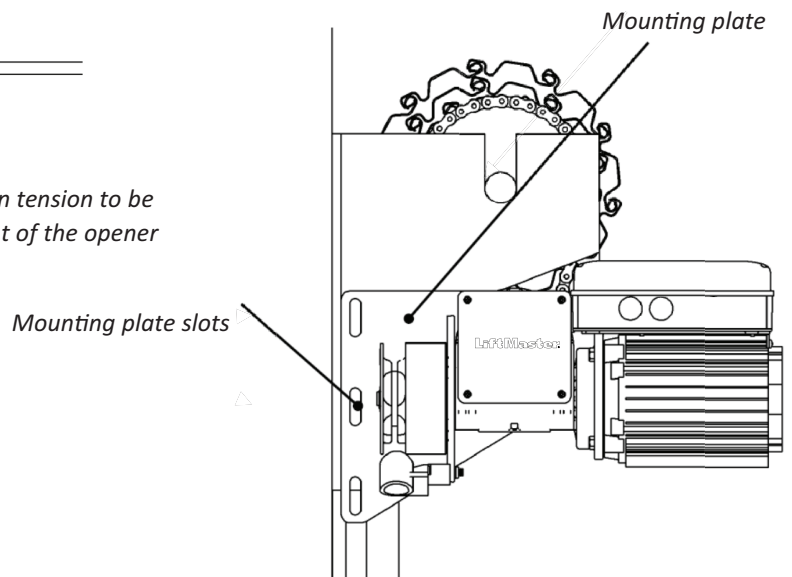
When assessing and selecting an appropriate mounting location, the following considerations should be made:



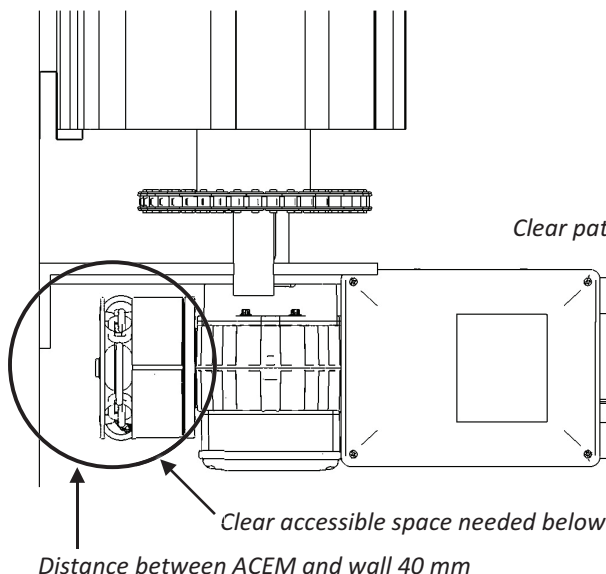
Alignment of door sprocket to output shaft

**Note: If the opener is installed at a height less than 2.5 metres from floor level or any other level from which the unit can be accessed (eg mezzanine) the installer is responsible to fit guards to the opener to prevent access to the chain drive.**

Mounting plate slots allow the chain tension to be adjusted through vertical movement of the opener (see right)



Clear path required for manual chain to hang downward

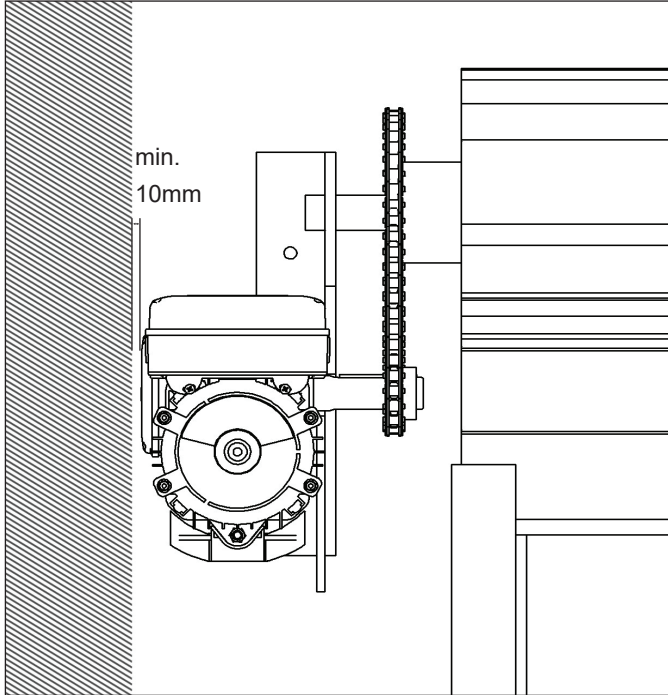




# INSTALLATION

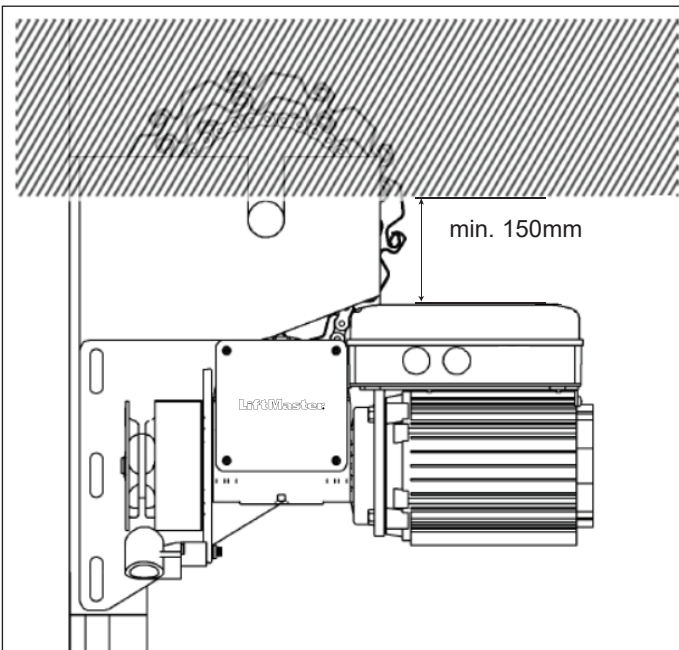
## Slide room to imposing structures

The E-Drive APE housing is not a serviceable area and can be located within 10mm of an imposing structure without affecting installation. Where there is insufficient side room, consider using the opposite hand opener and mount inboard with an Inboard Mounting Kit, P/N IBMK.



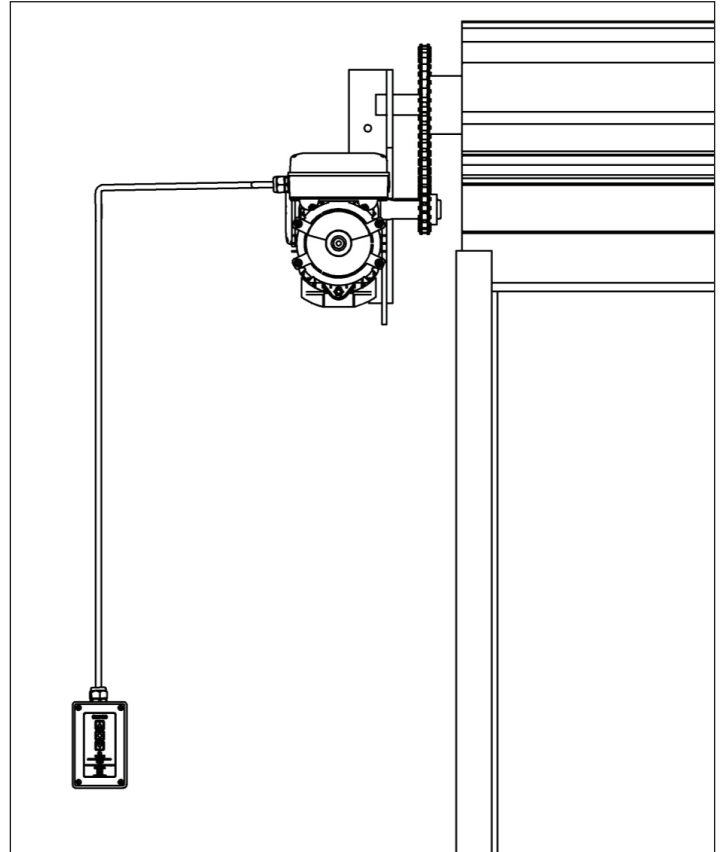
## Limited head room

The E-Drive main control housing is a serviceable area and will need to be accessed by service personnel. Ensure the installation allows a minimum 150mm clearance.



## Location of Controller

Controller has 6 metres of cable with RJ45 ends ready to connect the E-Drive opener to the controller.



## WARNING MECHANICAL

When securing the E-Drive opener with the 4 x M12 x 40mm long fasteners (based on an 8mm mounting plate) and spring washers provided, it is critical to ensure that the applied torque is between 80-90Nm. When mounting through thicker sections, ensure a minimum of 30mm of screw thread is engaged with the female thread. Use of incorrect fasteners or torque may cause serious product damage, personal injury or death. When fixing through a slotted plate, ensure that the slots are no wider than 13mm as a spring washer may not be adequate in outside diameter to support the hexagon head.



## CAUTION

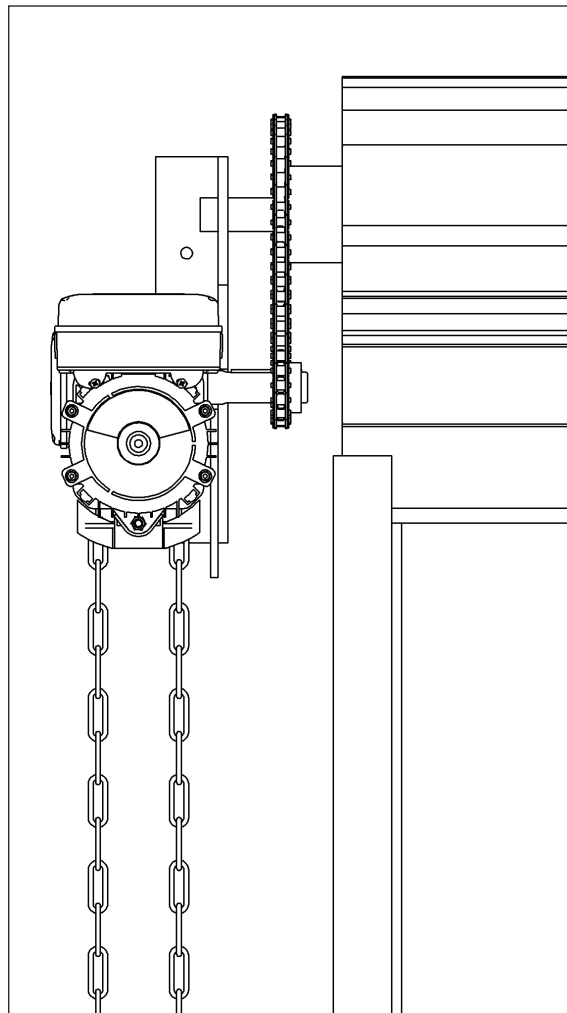
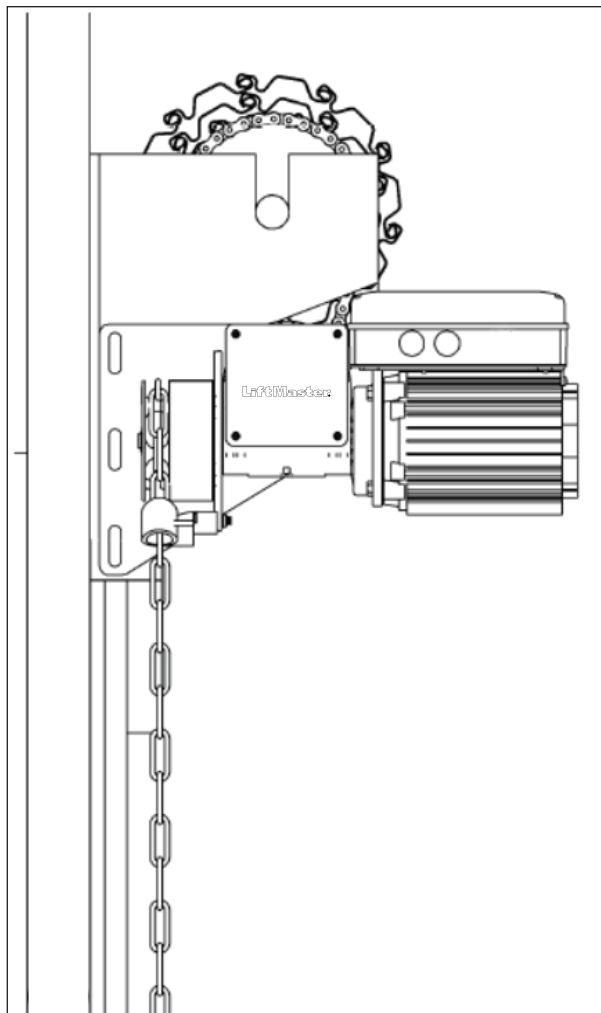
Motor may become hot during operation. Appropriate clearance and/or shielding should be supplied by the in-staller to ensure any cabling, wiring and/or other items cannot come in contact with the motor. If temperature rise exceeds 50°C all cable wiring must be shrouded.

Fixed wiring insulation must be protected, for example, by insulating sleeving having an appropriate temperature rating.

# INSTALLATION

## Installing Hand Chain

- Use 5mm long link chain only
- Ensure the mounting position allows the hand chain to hang free of obstructions
- Ensure hand chain is not twisted when re-making the join



## Automatic Chain Engagement Mechanism (ACEM)

The patented ACEM feature allows the use of the hand chain at all times when the motor is not in use and in the event of a power failure. Simply pull on the hand chain in either direction to operate the door manually.

**Warning!** Ensure power is isolated when using this feature.

The ACEM label (see right) must be fixed in close proximity to the controller e.g. on the door track.





## ELECTRICAL CONNECTION

The E-Drive + 2.0 opener must:

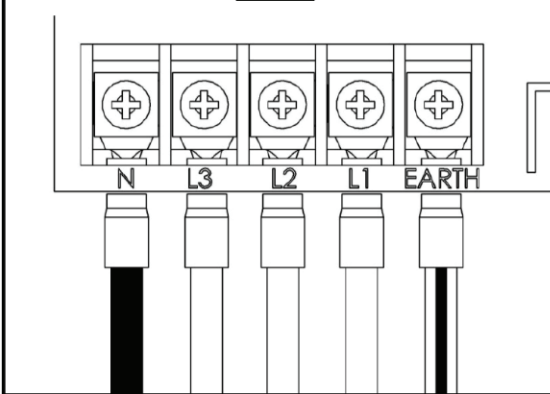
- be connected via an approved electrical isolation device
- be connected via a suitable circuit breaker that disconnects all live conductors
- be connected in accordance with the wiring rules of the country in which it is installed
- not have control enclosures left open for extended periods (excess dust will void warranty)

It is recommended to run all cable through non-flexible conduit and use appropriate conduit entries.

However if a flexible cable and cable gland are used, additional cable ties / strain relief must be fitted inside the enclosures to prevent the cable from splitting.

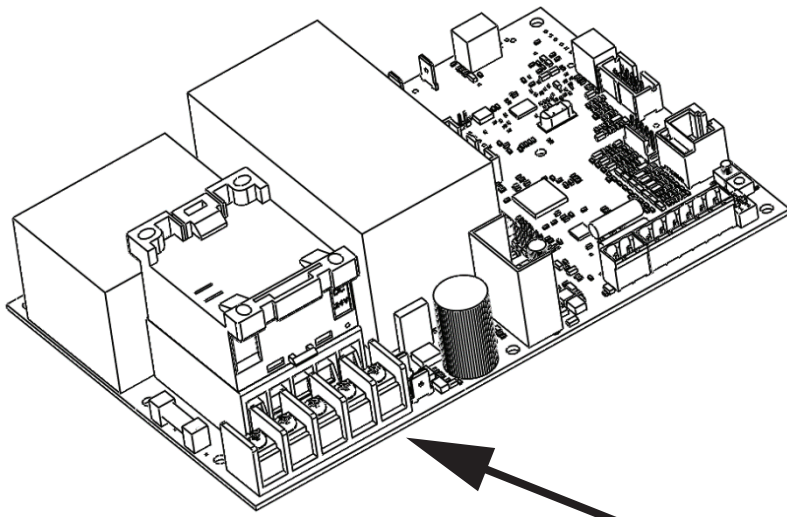
### Connecting power (for fixed wiring)

#### A. 3 PHASE WITH NEUTRAL



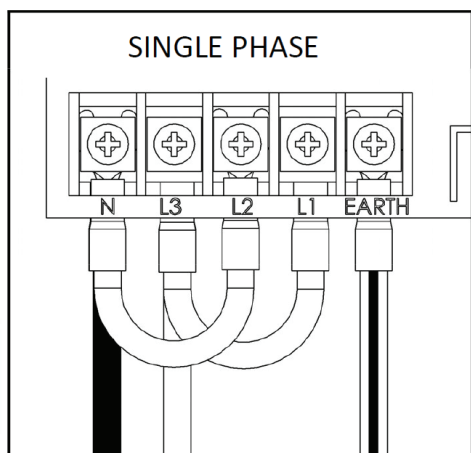
Supply connection for 3 phase builds with neutral

Models: ML6103 & ML6153



It is recommended that 1.5mm<sup>2</sup>(max.) wire size is used to avoid unnecessary crowding and difficulty when making connections. Avoid lengthy cable ends that may cause undue pressure on delicate components.

# INSTALLATION



Supply connection for single phase provided with supply cord  
Models: ML6102

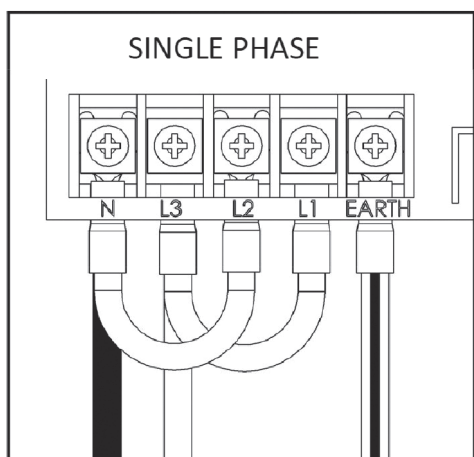


## NOTE:

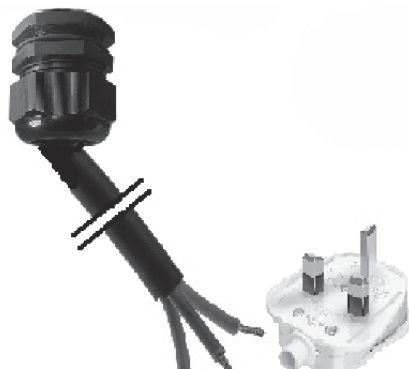
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or a similarly qualified person in order to avoid a hazard.
- A disconnection device incorporated in the fixed wiring must be provided in accordance with the wiring rules of the country in which it is installed.

## Connecting power for 1phase to the wall socket

The controller is connected to the MCB via a low voltage control cable provided within the controller enclosure. Using the conduit entries provided (also enclosed) run the cable through conduit. Be sure not to cut or damage the cable and therefore cause installation issues and void warranty. Ensure the control cable is installed so that moisture is not directed to the controller.



Supply connection for single phase provided with supply cord and to be fitted with locally approved plug with suitable rating  
Models: ML6102



## NOTE:

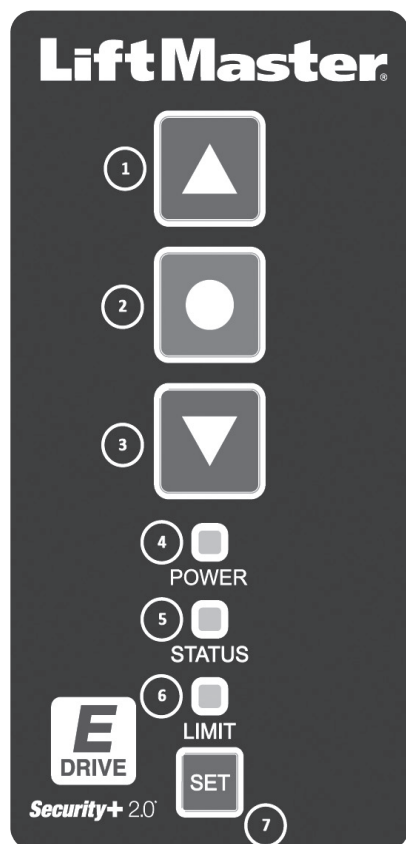
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or a similarly qualified person in order to avoid a hazard.



# INSTALLATION

## Controller

The E-Drive controller is the user interface for the opener. It consists of four buttons for control and setup, as well as three indicators to display the opener status.



- |           |  |
|-----------|--|
| 1. UP     | Moves the door upwards   |
| 2. STOP   | Stops the door   |
| 3. DOWN   | Moves the door downwards   |
| 4. POWER  | Shows when the unit is mains powered   |
| 5. STATUS | Shows the status of the unit (refer to 'Troubleshooting').   |
| 6. LIMIT  | When lit indicates limits (or stopping positions) are not set, the door will only operate in SAFETY inch mode until limits are set (or reset). |
| 7. SET    | Used primarily to set limits and enter configuration modes.  |

## Installing the Controller

The controller is connected to the MCB via a low voltage control cable provided within the controller enclosure. Using the conduit entries provided (also enclosed) run the cable through conduit. Be sure not to cut or damage the cable and therefore cause installation issues and void warranty. Ensure the control cable is installed so that moisture is not directed to the controller.



## WARNING MECHANICAL

Install the controller in a position where the door is visible. Failure to do so may result in serious injury or death to persons trapped beneath the door. Minimum mounting height is 1.5 metres from floor level.

**CAUTION: Do not force the controller cable! Excess stretching and manipulation can cause cable failure. Plug ends must not be gripped with pliers.**

To connect the controller to the E-Drive opener, identify the most appropriate entry of the MCB enclosure for your installation. Open the MCB enclosure and fit the conduit fitting, allowing enough cable to reach the controller (RJ45) socket. Place the opposing end of the controller cable through the conduit entry of the controller enclosure and pull through any excess cable. Plug the RJ45 end into the socket located within the controller assembly. Use the space provided within the controller enclosure to neatly coil any excess cable.

**NOTE:** If the supplied controller cable is **not** long enough for your installation, a Liftmaster® Controller Extension Kit is available (P/N ESK01).

# SETUP AND ADJUSTMENT

Once the installation of the opener and controller is complete it is time to test the operation. Make sure the door is away from the ground or the top door stops (mid open position). This will prevent damage to the door in the event that the door direction is reversed in relation to the controller (see below changing door direction).

### Checking power

Ensure the unit is powered by checking that the POWER ON indicator on the controller is lit. You should also notice that the *LIMIT* indicator (orange) is lit which signifies that there are no limits set.


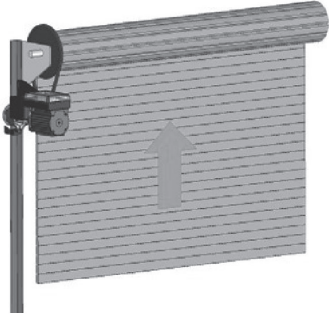
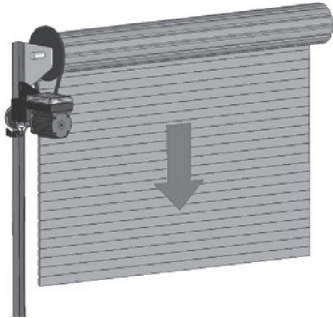


### CAUTION

On new installations, the orange limit light should be lit after initial power up. If not, DO NOT operate door unless in limit setting mode or serious damage or injury may occur.

### Door direction

Check the direction of the door movement. If the direction of the door is incorrect, refer below to changing door direction.

	CORRECT	INCORRECT
		

### Changing door direction

To change the door direction first put the unit into 'limit setting mode' by following this

1. While holding STOP, press the SET button 3 times. The LIMIT indicator will start flashing signifying 'limit setting mode'
2. Press and hold STOP for 10 seconds until the LIMIT indicator flashes quickly.

The direction of the door movement will now be reversed.

The LIMIT indicator will remain flashing as the unit is still in limit setting mode. You can now set limits (go to step 2 on next page)

Or to exit, press STOP.

# SETTING LIMITS

## READ CAREFULLY BEFORE SETTING LIMITS FOR RIGID DOORS

(NOT APPLICABLE TO ROLLER SHUTTERS)

### Automated Positioning Routine

The E-Drive features a limit confirmation routine that occurs after a power outage upon the first push of the UP or DOWN buttons. By default, the routine will “jog” slightly downward in order to confirm door position before proceeding in the intended direction.

**NOTE:** For doors of rigid construction (e.g. bi-fold, vertical lift, sectional or continuous steel roller doors etc.) this routine should be changed so that the first “jog” movement is upward. To do so, proceed as follows:

- While holding STOP, press the SET button 3 times and CONTINUE to hold STOP for 20 seconds (or until the orange light goes solid).

RKML6051 models (1/2hp roller door openers) will confirm limits by jogging UPWARD first by default. To reverse the limit confirmation direction, proceed as above.

#### Setting Limits

While setting limits, ensure the upper limit is set NO CLOSER than 50mm from the top stops (or fully open position) of the door.

#### 1. While holding STOP, press the SET button 3 times.

*The LIMIT indicator will start flashing signifying ‘limit setting mode’*

#### 2. Use the DOWN button to drive the door to the desired CLOSED position.

*The manual hand chain can be used to accurately position the door before pressing SET*

#### 3. Press the SET button to save this as the CLOSED position.

*The LIMIT indicator will flash quickly then return flashing slowly*

#### 4. Use the UP button to drive the door to the desired OPENED position.

*The manual hand chain can be used to accurately position the door before pressing set*

#### 5. Press SET again to save this as the OPENED position.

*The LIMIT indicator will flash quickly then will go out*

The Closed and Open limits should now be set. If at any time you need to exit ‘limit setting mode’ simply press the STOP button.

Once set, operate the door between limits 2 times to check they are suitable. If not, return to STEP 1.

Upon completion of the installation, turn power OFF, then back ON at the open and closed positions, and test proper operation accordingly. If required, refer to top of page to reverse the limit confirmation direction.



#### WARNING ELECTRICAL

Do not place hands or tools near the opener when power is on or when testing controls or safety devices.

Always disconnect power before servicing or adjusting the opener.



#### WARNING MECHANICAL

After the installation a final function test of the system along with a full function test of any connected safety devices must be done.

The E-Drive has the ability to set a third limit which is a handy option for high doors that rarely need to be fully opened. The third limit is a door position above the open limit position which can be accessed when needed. Having this upper stopping position allows a mid-height limit to be set as a first opening point, while a further press of the open button takes the door to a higher set position.

#### Setting a third limit

1. Follow the “Setting Limits” steps to set the Open and Closed limits
2. Position the door at the Open limit position
3. While holding the UP button, press the SET button 3 times.  
*The LIMIT indicator will flash*
4. Press and hold the UP button until the door is in the desired extended open position
5. Press SET to save this as the extended open position.

*The LIMIT indicator will quickly flash then go out*

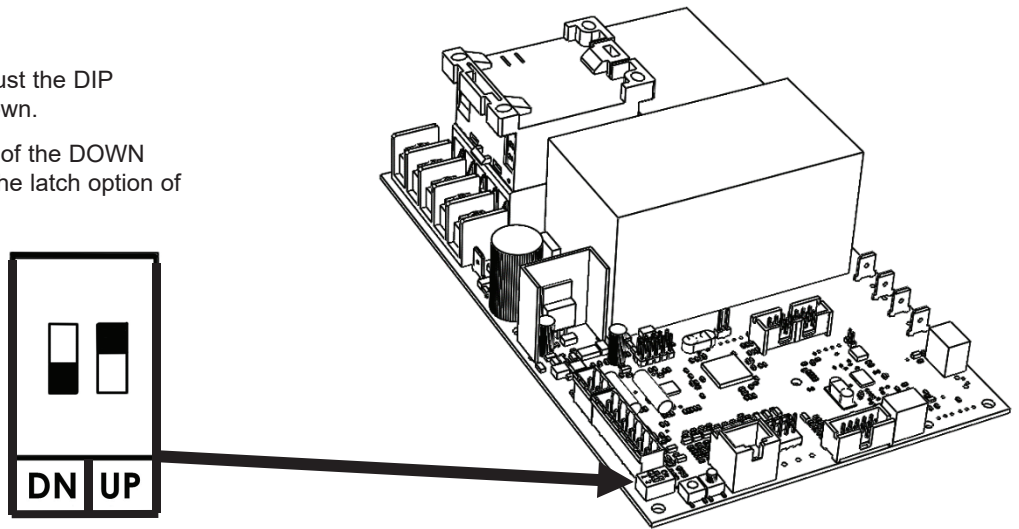
To access the third limit open the door to the first limit then press the UP button again.

# DOOR BEHAVIOUR

## Setting door behaviour

To set the door behaviour modes, adjust the DIP switches in the corner of the MCB shown.

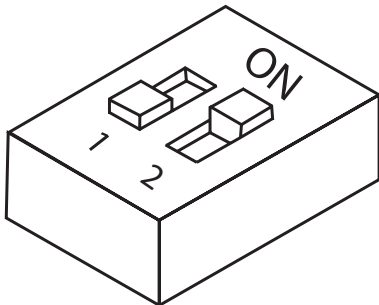
DIP Switch 1 controls the latch option of the DOWN direction while DIP Switch 2 controls the latch option of the UP direction.



### Inch Down / Latch Up (default):

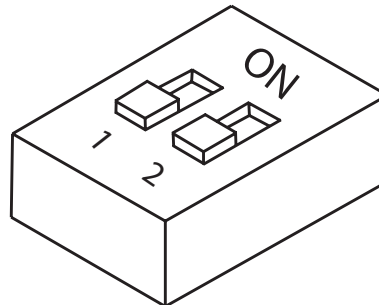
The door will inch down, only travelling downwards when the DOWN button is held. The door will stop at the closed limit or when the button is released.

The door will latch up, travelling upwards with only a single press and release of the UP button. The door will stop at the set limit.



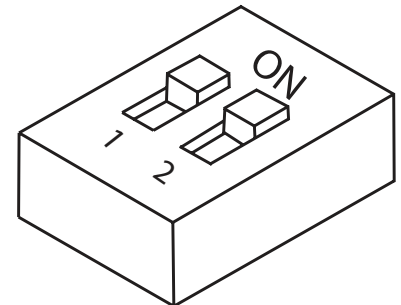
### Inch Down / Inch Up:

The door will inch down and inch up, only travelling whilst the DOWN or UP buttons are being held. The door will stop at the limits or when the button is released.



### Latch Down and Latch Up\*:

The door will latch down and latch up, travelling either upwards or downwards with only a single press and release of the DOWN or UP buttons respectively.



*\* Latch Down mode is only possible when Entrapment Protection Devices such as an Infrared Safety (IR) Beam or a Safety Bump Edge have been installed and are operating correctly. Failure to add Entrapment Protection Devices may result in damage to property or injury to persons.*



## WARNING MECHANICAL

### Entrapment Protection

The Entrapment Protection System for your installation will be determined by the functional requirements of the door.

To ensure the installation meets these requirements refer to local standards.



# ENTRAPMENT PROTECTION AND ACCESSORIES INPUTS

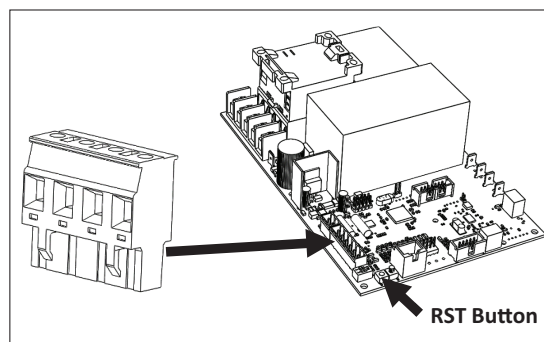
Devices such as Infrared (IR) Beams and Safety Bump Edges allow safe automatic or latch closing of the door and can be wired into the MCB via an appropriate cable entry. Entrapment Protection Devices such as the Protector System and Bump Edge are wired into the quick connect inputs located next to the door behaviour DIP switches on the MCB.

## Entrapment Protection Options

**IR1:** Monitored Protector System, or NC (normally closed) switching input

**IR2:** Monitored Protector System, or NC (normally closed) switching input

**BUMP:** Monitored 8K2 Resistor type Bump Edge input.



## Setting Up Entrapment Protection Device

Methods used to provide safety and compliance are determined by the functional requirements of the installation and the door type. It is the responsibility of the installer to ensure the installation meets the requirements of the local standards.

To install an Entrapment Protection Device, ensure the door is at the open limit position and then follow the instruction manual that comes with the device. All Entrapment Protection Devices and monitored Bump Edges require at least one simulated obstruction or activation to be learned by the opener. Once learned, the latch down mode will be allowed when set.

**NOTE:** some IR protection devices require a minimum distance of more than 1m between the sensor and reflector to function correctly.

## Setting Up Entrapment Protection for When Door is Opening

IR2 can be set so that while the door is opening, and a connected IR beam is obstructed, the door will stop moving.

1. Position the door to the closed limit position.
2. While holding the SET button, press and hold the UP button for approximately 4 seconds.

*The STATUS indicator will quickly flash then go out.*

3. Connect a monitored Entrapment Protection Device into IR2. A N/C relay type IR switching device is not compatible.
4. Simulate an obstruction to learn the IR device.
5. Press the OPEN button, and while the door is moving, obstruct the IR device and check the door stops, reverses for 1 second, and stops.

To change IR2 to the factory default setting of sensing an obstruction while closing:

1. Position the door to the closed limit position.
2. While holding the SET button, press and hold the DOWN button for approximately 4 seconds.

*The STATUS indicator will quickly flash then go out.*

## Erasing Entrapment Protection Devices

To erase the learnt entrapment devices from the MCB press and hold the RST button for 10 seconds or until the green LED on the MCB blinks rapidly.

## Accessory Power

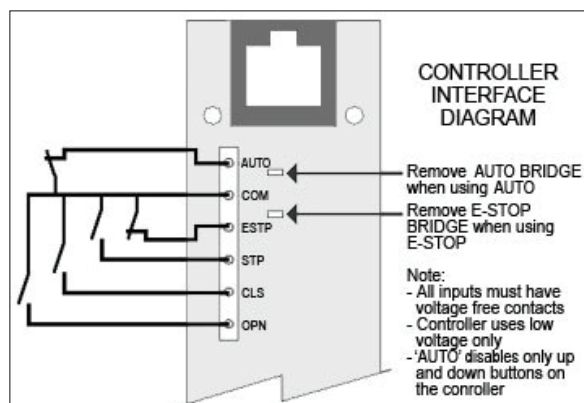
The E-Drive has an unregulated 24 Volt, DC output connection labelled (VDC) located near the Entrapment Protection Device inputs. Accessories connected to this output should not draw more than a maximum 150mA. For additional loads, use a separately mounted power supply.

**NOTE:** GPS IR beams must NOT be connected to the VDC output.

## Additional Switchgear (e.g. dedicated open/close and Auto Mode etc)

The E-Drive can be easily interfaced by the reverse side of the controller push button panel. To do so you will need terminal blocks (P/N TB210) available from your local commercial door dealer or Liftmaster®.

**NOTE:** A controller must always be plugged in for the opener to function. When utilising the AUTO or ESTP terminals the respective bridge must be removed (refer right).



# ENTRAPMENT PROTECTION AND ACCESSORIES INPUTS

## Toggle Input (2 wire)

A 2 wire toggle input is provided on the MCB to allow single button (or access control) operation. The input will operate as “open-stop-close-stop-etc.”

If Auto close is set, the toggle behaviour will become “open only”.

When the toggle input is bridged\* and held (e.g. a timer or latching switch) the door will remain open (i.e. Auto Close ignored). If the bridge is released, Auto Close will resume.

*\* If an EB is fitted, this feature will not be available on the MCB toggle input. Use EB com open input instead.*

For a typical car park configuration:

- The opener must be installed in accordance with the instructions contained within this document.
- Entrapment Protection Devices must be installed before the operator can be set for Auto Close.
- For Latch Up (open) and Latch Down (close) set the dip switches on the MCB in accordance with the “Setting Door Behaviour” instructions.
- Set Auto Close in accordance with the instructions.

## Access Control Options

- Security +2.0 Transmitter or other Security+2.0 Wireless Accessories
- Swipe Card, Magnetic Key or similar access control device

The transmitter, once programmed, allows the transmitter to open the door. Auto close will close the door after the programmed delay on both entry and exit.

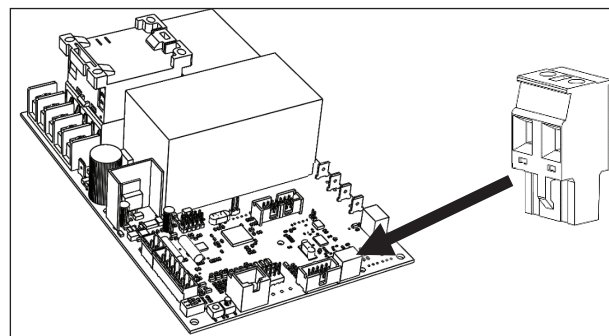
Other access control devices must be a two wire voltage free interface and be connected to the toggle input on the MCB via the quick connect pluggable terminal block.

**CAUTION**

Any access control intended for these terminals must be user operated and in line of sight with the door.

**WARNING**  
**MECHANICAL**

Keep additional accessories away from children. Do not allow children to play with pushbuttons or remote controls. Without safety devices a door can cause serious injuries as it closes. Only trained people are allowed to use the opener.



## Exit Control

The door can be configured to open from either a:

- Security+2.0 Transmitter or other Security+2.0 Wireless Accessory device, or
- Where a loop detector or similar access controls are required to trigger opening to exit, connect to the toggle input on the MCB via a quick connect pluggable terminal block as described above.

**NOTE: The Toggle Input will accept N/O inputs from multiple access control devices eg, both a separate entry and exit control.**

## Auto Close Feature

When Auto Close is enabled, the Toggle Input, and Receiver behaviour will become “Open Only” i.e. an activation via the Toggle Input or a Transmitter during opening, or Auto Close delay, will not close the door. Each activation will reset Auto Close delay.

## Advanced Logic Functionality

For applications where full logic functionality (eg relay status outputs, advanced door behaviour, building management system integration) is required please order the EB1 Expansion Board.

# AUTO CLOSE AND WIRELESS ACCESSORY SETUP

Action	Button Sequence
SET AUTO TIMER TO CLOSE (no expansion board fitted) FROM THE CONTROLLER	<ul style="list-style-type: none"> <li>Press and hold the SET button, then whilst holding press the DOWN button 3 times (green status light ON solid)</li> <li>Press the UP button to increase the auto-timer to close setting in 10-second increments</li> <li>Press the DOWN button to decrease the auto-timer to close setting in 10-second increments</li> </ul> <p><b>NOTE:</b> the green light will flash according to the number of 10-second increments have been set, then goes back to solid ON. For example, a 5-minute auto-close will be set by increasing the increments until the green light flashes 30 times</p> <ul style="list-style-type: none"> <li>Press SET to accept setting and exit learn mode</li> </ul> <p><b>NOTE:</b> To cancel the Auto-timer-to close function, enter the learn mode and press the DOWN button until the number of 10-second increments is ZERO. The green light will flash repeatedly to indicate the function has been reset, then return to solid ON</p> <ul style="list-style-type: none"> <li>Press STOP to exit</li> </ul>
LEARNING A NEW WIRELESS ACCESSORY FROM THE CONTROLLER	<p><b>NOTE:</b> Radio Lock jumper (if fitted) must be removed from the MCB before wireless accessories can be learnt. For security reasons the Radio Lock should be refitted after the wireless learn sequence is completed.</p> <ul style="list-style-type: none"> <li>Press and hold the SET button, then whilst holding press STOP 5 times (green status light will light then continue flashing. Indicating Learn Mode)</li> <li>Press the desired WIRELESS ACCESSORY BUTTON to learn (orange limit light will flash fast after each wireless accessory is successfully learnt)</li> <li>Press STOP to exit Learn Mode</li> </ul> <p><b>NOTE:</b> Hand held remotes can only be learned during the first 30 seconds of Learn Mode.</p>
LEARNING A NEW WIRELESS ACCESSORY FROM THE MCB	<ul style="list-style-type: none"> <li>Press the LRN button (green status light will light then continue flashing, indicating Learn Mode)</li> <li>Press the desired WIRELESS ACCESSORY BUTTON to learn (orange limit light will flash fast after each wireless accessory is successfully learnt)</li> <li>Press LRN button again to exit Learn Mode</li> </ul>
ERASE ALL LEARNED WIRELESS ACCESSORIES FROM THE CONTROLLER	<ul style="list-style-type: none"> <li>Press and hold the SET button, then whilst holding</li> <li>Press the STOP button 4 times, holding on the fourth press for 5 seconds (green light will flash 5 times, then fast flash to indicate completion)</li> <li>Check that previously learned wireless accessories no longer work</li> </ul> <p><b>NOTE:</b> To unlearn a myQ Internet Gateway only, while holding the SET, button press the STOP button 3 times holding on the third press for 7 seconds.</p>

# MAINTENANCE



## WARNING MECHANICAL

Power **MUST** be turned off before servicing or adjusting the opener. Disconnect the supply when cleaning!

Frequently examine the E-DRIVE installation for imbalance and signs of wear or damage to cables, springs and mounting. Do not use if repair or adjustment is necessary. Power must be turned off before servicing, cleaning or adjusting the opener.

Certain mechanical aspects of the installation must be checked at regular intervals.

### Monthly

- Examine the installation for imbalance and signs of wear or damage to cables, springs and mounting. Do not use if repair or adjustment is necessary
- Check chain alignment, tension and condition. Adjust / replace if required
- Check PE / IR beam/s and bump edge functionality where applicable

### Quarterly

- Check tightness of fixing bolts and (sprocket) grub screws. Adjust if required.
- Check correct electrical operation.
- Check manual operation via hand chain.
- Lubricate the drive chain.
- Check door balance. The drive chain should display a transition of tension from one side of the linkage to the other in the lower half of the roller door travel. This transition is the 'balance' point. Adjust if required.
- Conduct door maintenance in accordance with door manufactures guidelines. This will include door balance.

**NOTE:** SERVICE MUST BE CARRIED OUT BY A QUALIFIED TECHNICIAN

### To view total cycles (limits must be set)

- Drive to door to closed limit.
- Press and hold CLOSE for 10 seconds.
- After 10 seconds and while still holding CLOSE, press and release the SET button.
- Status LED will light up indicating number of cycles performed.

**To read number of cycles, follow the 'Reading Status Flashes' routine described below.**

### Reading Status Flashes

- STATUS indicator will start flashing to signify the value of the least significant digit of the overall number. A solidly lit indicator stands for zero.
- Press set to view the next digit.
- Continue previous step until the STATUS indicator flashes quickly for 1 second then goes out. This signifies that the entire number has been displayed.

### To reset error codes

The cause of the error needs to be rectified prior to resetting the error code.

See Troubleshooting.

- Error codes 2, 9, 10 and 12 will self reset.

If the code does not clear follow the process below.

- Error codes 4, 5, 9, 10 and 1
  - Press and hold the STOP button for 10 seconds.
  - While hold the STOP button, press and release the SET button
  - The Status LED will flash fast for 1 second.
- To reset error code 14.
  - Turn power off
  - Turn power on
  - Enter Limit Set up mode immediately
  - Change direction and reset limits



# TROUBLESHOOTING

## Status Indicator (Green) Flash / Problem Table

No. flashes/ Problem	Meaning	Possible Causes	Possible Solutions
Solid ON	Motor running		
2	Infrared beam and/or Bump edge obstruction N/C beam removed	IR beam obstructed	• Clear obstruction
		Bumper edge pressed	• Remove pressure from bump edge
		The opener has detected removal of an Entrapment Protection	• Set DIP 1 to OFF and press 'reset' (RST) button on MCB for 10 seconds. Re-learn any remaining Entrapment Protection Devices
3	Entrapment Protection Device removed	The opener has detected removal of an Entrapment Protection Device	• Set DIP 1 to OFF and press 'reset' (RST) button on MCB for 10 seconds. Relearn any remaining Entrapment Protection Devices
4	MCB error	Internal Error	• Power off, and on. If un-resettable replace MCB
5	EB internal error	EB disconnected or ignored from MCB	• Return EB to the installation or resolve EB issue, refer Elite Manual
9	APE error	APE position jump	• Replace APE assembly
		Severe close range frequency	• Press 'reset' (RST) button on MCB for 3 seconds
		APE cable disconnected APE cable fault	• Reconnect APE cable • Replace APE cable
10	Under speed error	Extreme load on door	• Check for objects causing interference to door operation • Check door installation • Check for damage to motor • Upgrade to a larger opener
12	Safety Input Error	Safety input has triggered	• Assess device connected to Safety Input
14	Direction error	Motor connections altered	• Change door direction and reset limits • Power cycle and immediately enter Limit Setup mode
15	Clutch slip (if fitted) No speed detected Contactor failure	Clutch adjustment set too low	• Check clutch adjustment
		Motor stalled	• Check door for mechanical failure or motor fault
		Extreme vibration or impact during transit	• Replace MCB
Constant flash	Due for service	Door is due for routine service	• Contact your local door dealer to arrange service
No Lights Displayed		With no lights on MCB or Controller: Power supply not correctly connected	• Check transformer • Check power supply wiring
		With light on at MCB: Bad connection to Controller	• Refer below if lights are on at MCB and not on Controller
Push button not responding	Opener does not drive up and / or down	Bad connection to Controller Damaged Controller cable Controller buttons forced and dislodged from rear of lid	• Check RJ45 plugs are clipped in securely at Controller and MCB • Check connections • Replace Controller cable • Replace Controller
Open or Clode button not responding but green light comes on	Coil failure or incorrect motor wiring if green light on whilst holding up or down button and opener does not move in one direction	Extreme vibration or impact during transit Incorrect motor terminal connection	• Replace MCB • Correctly wire the motor

# TROUBLESHOOTING



## WARNING ELECTRICAL

**Power MUST be turned off before servicing or adjusting the opener. Disconnect the supply when cleaning!**

### 1. No indicator lights on controller

Are there any indicator lights ON the MCB (Main Control Board)?

**YES:** Check connection between MCB and wall control  
Check for damage to control cable.

**NO:** Check power supply.

### 2. Power light illuminated on controller but door will not go up

Does the green status light come ON when button is being pressed?

**YES:** Check for loose motor terminal connection. If green light begins to flash, Refer to Status Indicator (Green) Flash / Problem Table.

**NO:** Check for control circuit isolating switch or connection between MCB and controller.

**Check for damage to control cable.**

### 3. Power light illuminated on controller but door will not go down

Is the green status light flashing 2 or 3 times?

**2 times:** check for obstructions or IR beam misalignment.

**3 times:** check for persistent IR beam obstruction, misalignment or bump edge wiring problem.

**NO:** *continue onto next question.*

Check for correct wiring connection and DIP switch settings on MCB.

### 4. Can't set limits:

Does the orange light start flashing after the third press of the 'set' button?

**YES:** But green status light starts to flash 'x' times while attempting to set upper limit. Refer to Status Indicator (Green) Flash / Problem Table.

**NO:** Ensure all external devices and external push buttons are disconnected from wall control.

**Check for damage to control cable.**

### 5. Opener activates from controller but not remotes

Are limits set?

**YES:** Change remote battery. Check keyswitch position and dipswitch settings. Check that remote is learned and receiver card is picking up signal.

**NO:** Set limits.

### 6. Opener will only travel around 200mm either way

Are limits set? i.e. orange limit light ON = limits not set.

**YES:** Check damaged to control cable.

**NO:** Set limits. If unable to set limits refer to above no. 4

### 7. Works from controller but automatic functions do not:

Is there a keyswitch fitted?

**YES:** Check keyswitch position and dipswitch settings

**NO:** Check transmitter is functioning, dipswitch settings and Auto Close.

### 8. Power light intermittently goes OFF and ON

Is the power light going off on the MCB also?

**YES:** Check supply wiring.

**NO:** Check connection between MCB and controller.

## مراجعة رموز السلامة وكلمات التنبيه

تم تصميم واختبار جهاز فتح الأبواب التجاري هذا لتقديم خدمة آمنة بشرط أن يتم تركيبه وتشغيله وصيانته واختباره بالتوافق الدقيق مع التعليمات والتحذيرات الموجودة في هذا الكتيب.

عندما ترى رموز السلامة وكلمات التنبيه هذه في الصفحات التالية، فهي تنبّهك باحتمالية الإصابة الخطيرة أو الموت إذا لم تمتثل للتحذيرات التي تصاحبها. قد يأتي الخطر من شيء ميكانيكي أو من الصدمة الكهربائية.

### WARNING

Mechanical

### WARNING

Electrical

### CAUTION

عندما ترى كلمة التنبيه هذه موجودة في الصفحات التالية، فهي تنبّهك باحتمالية حدوث ضرر لبابك التجاري و/أو جهاز فتح الأبواب التجاري إذا لم تمتثل لعبارات التنبيه التي تصاحبها.

تعليمات السلامة التالية هامة للغاية، يرجى اتباع جميع التعليمات حيث أن التركيب غير الصحيح قد يؤدي إلى الإصابة الشديدة أو الموت



يجب أن يكون الباب التجاري متوازنًا. يجب إصلاح الأبواب العالقة أو المحشورة. تقع الأبواب التجارية وزنبركات الباب والكابلات والبكرات والكتيفات وعتادها تحت ضغط شديد ويمكن أن تسبب الإصابات الشخصية البالغة. لا تحاول فكّها أو تحريكها أو تعديلها. اتصل بخدمة الأبواب التجارية.



احتفظ بالملحقات الإضافية بعيدًا عن متناول الأطفال. لا تسمح للأطفال باللعب بزر (أزرار) التشغيل أو جهاز (أجهزة) التحكم عن بُعد. قد ينتج عن الاستخدام الخاطئ لجهاز فتح الباب الإصابة الشخصية البالغة التي قد تحدث بسبب إغلاق الباب التجاري. حيث أن الباب قد يسبب إصابات خطيرة عند إغلاقه بدون توافر أجهزة السلامة. يُسمح فقط للأشخاص المدربين باستخدام جهاز فتح الباب.



شغلّ جهاز فتح الباب فقط عندما يكون الباب مرئيًا بشكل كامل وخالي من العوائق وأن يكون جهاز فتح الباب قد تم ضبطه بشكل صحيح. يجب ألا يدخل أو يغادر أحد المبنى عندما يكون الباب في وضع الحركة.



يجب أن يقوم أحد فنيي الكهرباء بفصل التيار الكهربائي عن جهاز فتح باب التجاري قبل إجراء أي إصلاحات أو إزالة الأعطية.



يمكن أن تؤدي الرطوبة والماء إلى تلف المكونات الإلكترونية. تأكد أن الرطوبة والماء أو رطوبة التخزين لا يمكنها اختراق الإلكترونيات تحت كل الظروف. ونفس الشيء ينطبق على الفتحات ومداخل الكابلات.



عند التشغيل كمفتاح انحيازي، تأكد أن الأشخاص الآخرين بعيدين.



هذا الجهاز ليس مخصصًا لاستخدامه من قبل الأشخاص (بما في ذلك الأطفال) الذين لديهم نقص في القدرات الجسدية أو الحسية أو العقلية، أو تنقصهم الخبرة والدراية، إلا إذا قام شخص بالغ مسؤول عن سلامتهم بالإشراف عليهم أو إرشادهم عن كيفية استخدام الجهاز. يجب مراقبة الأطفال لضمان عدم العبث بالجهاز.



استخدم مشغل الباب التجاري وأجهزة التحكم في الأغراض المخصصة لها. تم تصميم مشغل الباب وأجهزة التحكم لتشغيل المصاريح اللفافة المتوازنة بزنبركات والأبواب اللفافة المتوازنة بزنبركات والأبواب متوازنة الثقل ثنائية الطي والأبواب ذات الرفع العمودي.



**تحذير:** تعليمات هامة للسلامة. من المهم لسلامة الأشخاص اتباع جميع التعليمات. **احتفظ** بهذه التعليمات.



من المهم التأكد أن الباب يعمل بسلاسة بشكل دائم. يجب إصلاح الأبواب التي تعلق أو تتحشر على الفور. قم باستدعاء مهني كفؤ لإصلاح الباب، ولا تحاول أبداً إصلاحه بنفسك.

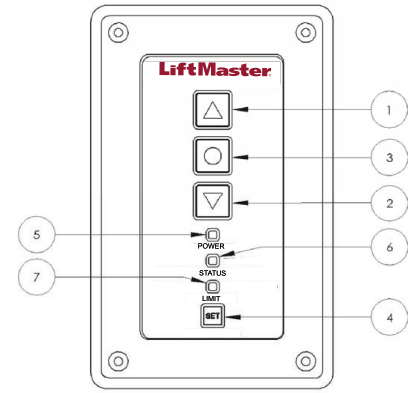
التشغيل

لتنشغيل الباب

اضغط زر أعلى (UP) في جهاز التحكم لفتح الباب، واضغط زر أسفل (DOWN) مع الاستمرار للإغلاق.

جهاز التحكم الخاص بتشغيل الباب

جهاز تحكم eDrive +2.0 هو واجهة المستخدم لجهاز فتح الباب. يتكون من أربعة أزرار للتحكم وكذلك ثلاثة مؤشرات لعرض حالة جهاز فتح الباب.



1. أعلى (UP) — يحرك الباب إلى الأعلى
2. أسفل (Down) — يحرك الباب إلى الأسفل
3. إيقاف (STOP) — يوقف الباب
5. متصل بالتيار (POWER ON) — يوضح عندما تكون الوحدة متصلة بمصدر التيار الكهربائي
6. الحالة (STATUS) — يوضح حالة الوحدة
7. خطأ في الحدود (Limit Error) — عندما يضيء يرجى الاتصال بالخدمة التجارية

التشغيل اليدوي

آلية التعشيق التلقائي للسلسلة (ACEM)

تسمح لك ميزات آلية التعشيق التلقائي للسلسلة (ACEM) الحاصلة على براءة الاختراع باستخدام السلسلة اليدوية في حالة تعطل التيار الكهربائي. ببساطة اسحب سلسلة اليد في أحد الاتجاهين

لتنشغيل الباب يدوياً.

تحذير! تأكد أن مصدر التيار معزولاً عند استخدام هذه الميزة. قد يؤدي استخدام السلسلة اليدوية خلال تشغيل الباب بالتيار الكهربائي إلى تلف الجهاز أو إصابة المستخدم. تأكد من إغلاق مصدر التيار قبل استخدام السلسلة اليدوية.

يتم وضع ملصق آلية التعشيق التلقائي للسلسلة (ACEM) (انظر على اليسار) بالقرب من جهاز التحكم على سبيل المثال، على مسار الباب.



الصيانة

جهاز eDrive +2.0 مزود بمنطق ذكي لتوضيح متى يتطلب بابك التجاري الصيانة، عندما يومض مؤشر الحالة يرجى الاتصال ببائع بابك التجاري لترتيب عملية الصيانة الاعتيادية للباب.

الصيانة العامة

يرجى اتباع تعليمات بائع الأبواب التجارية في عملية الصيانة.