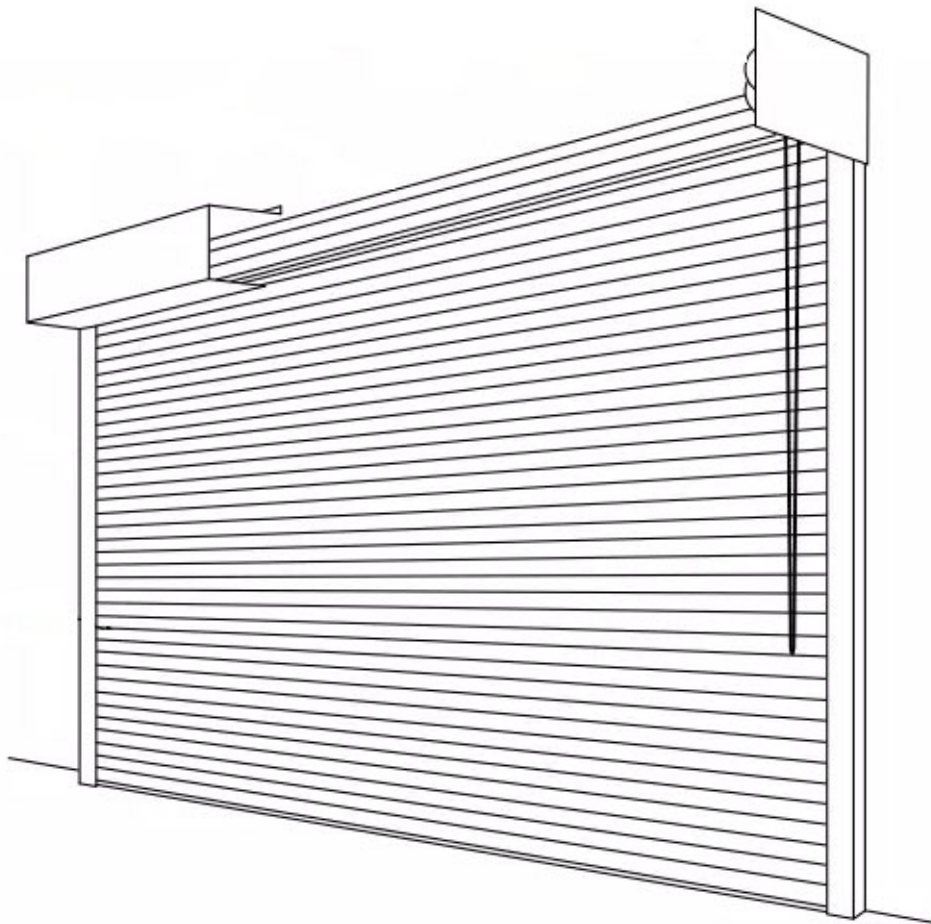


**DOOR SYSTEMS**

*Industrial Drive Roller Shutter*

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*User's Manual*



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## ***1. For Your Safety***

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Please read and observe this manual. It provides you with important information about the safe operation, cleaning, and maintenance of roller shutters. The information is for guidance only and is deemed correct at the date of issue.

- All users must read and understand this document prior to operating the door.
- Regularly inspect the door for any damages. Report any damages before use.
- Do not use the door as a hoist
- Do not climb on the door.
- Do not lean against the door or guide track.
- Ensure the door and opening is clear of any obstructions prior to use.
- Doors should be regularly maintained and inspected by a qualified engineer.
- Only qualified engineers should undertake repairs to the door.
- Do not operate the door in heavy winds.

## 2. Operation

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*There are many variations of operation available on electric roller shutters. We have tried to cover the most common ones within this section, however, if you are not sure, please contact our service department for further advice. Please ensure that the door and opening is clear of any obstructions prior to operation. Should you experience any difficulty, please contact our service department.*

### ***Push Button Station (Or Rocker Switch)***

A push button station usually consisting of two or three button. Usually mounted internally for security.

#### ***To Open via Push Button Station***

- Ensure that all locking mechanisms have been removed, the wicket door has been hinged completely to one side (if applicable), and the emergency stop button is released (if applicable).
- Press and hold the 'Open' button. Ensure that the door is open to the full height and then release. Some doors will have an impulse open function which will allow you to press and release the 'open' button and it will travel to the fully open position automatically.

#### ***Attention***

- Should the door unexpectedly stop during operation and not operate it is possible the safety brake has engaged, or there has been a mechanical failure. Please contact the service department
- For safety, always open the door to full height.

#### ***To Close via Push Button Station***

- Ensure the opening is clear of any obstructions.
- Press and hold the 'Close' button. Ensure that the door is fully closed and then release. Some doors will have an impulse close function which will allow you to press and release the 'close' button and it will travel to the fully closed position automatically.

#### ***Attention***

- Should the door unexpectedly stop during operation and not operate it is possible the safety brake has engaged, or there is a mechanical failure. Please contact our service department
- For safety, always fully close the door.

### ***To Stop via Push Button (Not available on Rocker Switch)***

- If the shutter has been activated and is closing or opening automatically it can be stopped at any time by pressing the 'Stop' button (if available). Some stop buttons have an emergency hold function which will keep the stop button activated until it is twisted to release.

### ***Key Switch***

A key switch is usually mounted externally and can only be operated via a key.

#### ***To Open via Key Switch***

- Ensure that all locking mechanisms have been removed, the wicket door has been hinged completely to one side (if applicable), and the emergency stop button is released (if applicable).
- Insert the key into the key switch, turn to the open direction and hold. Ensure that the door is open to the full height and then release. Some doors will have an impulse open function which will allow you to turn and release the key and it will travel to the fully open position automatically.

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***Attention***

- Should the door unexpectedly stop during operation and not operate it is possible the safety brake has engaged, or there has been a mechanical failure. Please contact the service department
- For safety, always open the door to full height.

***To Close via Key Switch***

- Ensure the opening is clear of any obstructions.
- Insert the key into the key switch, turn to the close direction and hold. Ensure that the door is fully closed and then release. Some doors will have an impulse close function which will allow you to turn and release the key and it will travel to the fully closed position automatically.

***Attention***

- Should the door unexpectedly stop during operation and not operate it is possible the safety brake has engaged, or there is a mechanical failure. Please contact our service department
- For safety, always fully close the door.

***Remote Control***

A remote control key fob that usually consists of 2-4 buttons. Operation can vary depending on setup.

***To Open via Remote Control***

- Ensure that all locking mechanisms have been removed, the wicket door has been hinged completely to one side (if applicable), and the emergency stop button is released (if applicable).
- Press and hold the 'Open' button. Ensure that the door is open to the full height and then release. Some doors will have an impulse open function which will allow you to press and release the 'open' button and it will travel to the fully open position automatically.

***Attention***

- Should the door unexpectedly stop during operation and not operate it is possible the safety brake has engaged, or there has been a mechanical failure. Please contact the service department
- For safety, always open the door to full height.

***To Close via Remote Control***

- Ensure the opening is clear of any obstructions.
- Press and hold the 'Close' button. Ensure that the door is fully closed and then release. Some doors will have an impulse close function which will allow you to press and release the 'close' button and it will travel to the fully closed position automatically.

***Attention***

- Should the door unexpectedly stop during operation and not operate it is possible the safety brake has engaged, or there is a mechanical failure. Please contact our service department
- For safety, always fully close the door.

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### ***To Stop via Remote Control***

- If the shutter has been activated and is closing or opening automatically it can usually be stopped at any time by pressing the 'Stop', 'Open', or 'Close' button.

### ***Lockable Push Button Station***

A push button station usually consisting of two or three buttons and a key switch. Usually mounted externally. The key turns the buttons 'on' for activation or 'off' for security.

### ***To Open via Lockable Push Button Station***

- Ensure that all locking mechanisms have been removed, the wicket door has been hinged completely to one side (if applicable), and the emergency stop button is released (if applicable).
- Insert the key and turn to the 'on' position.
- Press and hold the 'Open' button. Ensure that the door is open to the full height and then release. Some doors will have an impulse open function which will allow you to press and release the 'open' button and it will travel to the fully open position automatically.
- The buttons will remain 'on' until you turn the key to the 'off' position.

#### ***Attention***

- Should the door unexpectedly stop during operation and not operate it is possible the safety brake has engaged, or there has been a mechanical failure. Please contact the service department
- For safety, always open the door to full height.

### ***To Close via Lockable Push Button Station***

- Ensure the opening is clear of any obstructions.
- Insert the key and turn to the 'on' position. (This step may not be required if the buttons are already turned on).
- Press and hold the 'Close' button. Ensure that the door is fully closed and then release. Some doors will have an impulse close function which will allow you to press and release the 'close' button and it will travel to the fully closed position automatically.
- The buttons will remain 'on' until you turn the key to the 'off' position.

#### ***Attention***

- Should the door unexpectedly stop during operation and not operate it is possible the safety brake has engaged, or there is a mechanical failure. Please contact our service department
- For safety, always fully close the door.

### ***To Stop via Push Button***

- If the shutter has been activated and is closing or opening automatically it can be stopped at any time by pressing the 'Stop' button.

### ***Numeric Key Pad***

A numerical key pad that usually operates via a 4 digit code. There may be 2 codes, one to close and one to open, depending on device setup, and sometimes there may be a timer lock out function. Speak to our service department for further advice

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### ***To Open via Numeric Key Pad***

- Ensure that all locking mechanisms have been removed, the wicket door has been hinged completely to one side (if applicable), and the emergency stop button is released (if applicable).
- Enter the code to open the door.

#### ***Attention***

- Should the door unexpectedly stop during operation and not operate it is possible the safety brake has engaged, or there has been a mechanical failure. Please contact the service department
- For safety, always open the door to full height.

### ***To Close via Numeric Key Pad***

- Ensure the opening is clear of any obstructions.
- Insert the code to close the door.

#### ***Attention***

- Should the door unexpectedly stop during operation and not operate it is possible the safety brake has engaged, or there is a mechanical failure. Please contact our service department
- For safety, always fully close the door.

## ***Emergency Stop Button***

Some doors have an Emergency Stop Button which is a fail-safe control switch that cuts the electricity to the motor.

### ***To Stop Operation***

- Push the button to stop.

### ***To Resume Operation***

- Twist the button clockwise to release the button
- Then operate the door via the standard operator provided.

### 3. Locking

Your roller shutter may have been supplied with a locking mechanism. Please ensure all locks are removed prior to operation to prevent damage to the roller shutter.

#### ***Pin Locks***

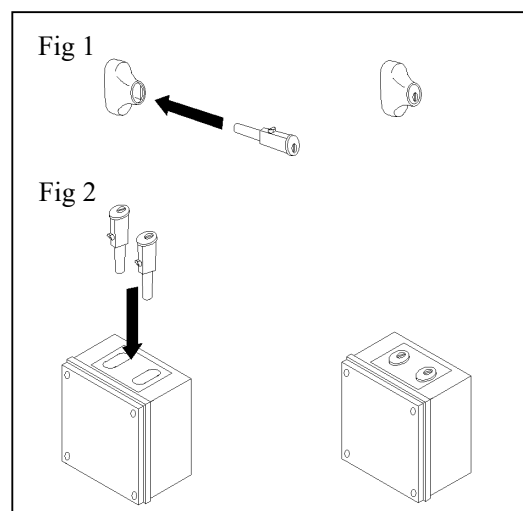
Pin locks hold the curtain closed through the guide channel. They are usually supplied as a pair, one on each guide.

#### ***To lock the shutter***

- With the shutter in the closed position, you should be able to see a clear path straight through the pin housing and curtain. Adjust the curtain height if you cannot see straight through.
- Slide the pin into the housing, and through the curtain (Fig 1). The pin should lock into place. You may need to turn the key to fully engage the pin. Repeat on the other pin lock.

#### ***To remove the pins***

- Insert the key into the pin. Turn and pull to remove. If an isolator box has been supplied, insert the pins into the box to engage electric operation (Fig 2).



#### ***Ground Lock***

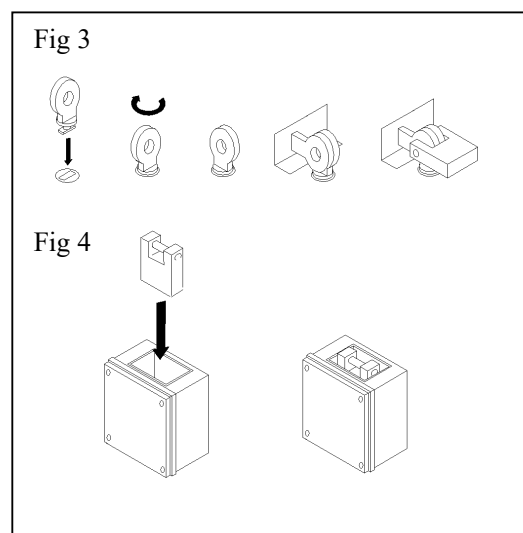
Ground locks hold the curtain to the floor. They are usually supplied as a single lock, but more than one may be installed.

#### ***To lock the shutter***

- With the shutter in the open position, locate the eyelet into the floor receiver and turn 90 degrees clockwise (Fig 3).
- Close the shutter to the floor and the two eyelets should roughly lineup. You may need to give it a wiggle to line it up. Once in line, insert the padlock.

#### ***To remove the lock***

- Unlock and remove the pad lock.
- Open the shutter. Then twist the eyelet 90 degrees counter clockwise to remove. Never leave an eyelet in the floor.
- If an isolator box has been supplied, insert the pad lock into the box to engage electric operation (Fig 4)





## 4. Manual Override

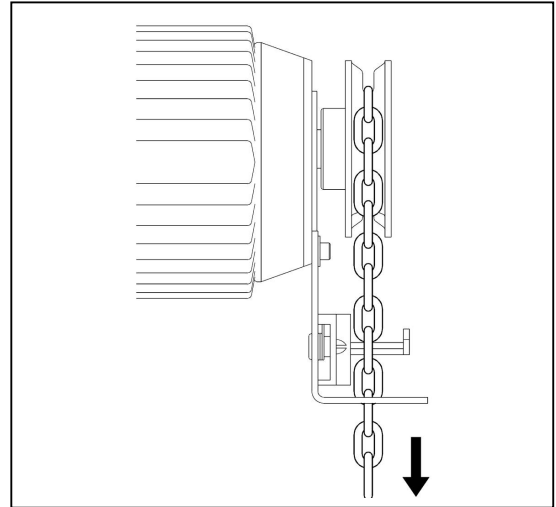
Your roller shutter may have been supplied with a manual override. The override is only designed for use in the event of a power failure and should not be in constant use. There are various overrides available depending on the motor type, we cover the 3 main options below. Please note that if there is mechanical failure of the motor or shutter, the manual override may not work.

### ***High Level Chain Override***

An override that is operated at low level but requires engaging at high level before operation.

#### ***To operate the override***

- At high level, lift the chain off the red safety switch and place it on the chain wheel.
- Gently pull the chain in either direction to operate the shutter. Once you have found the direction you require, continue until the door is fully open or closed. There may be no mechanical limitations on the travel of the shutter so be careful not to over wind the override. The operation will be slow, this is normal.
- Once complete, remove the chain from the chain wheel and place back onto the red safety switch. Ensure the safety switch is fully compressed. The motor will not operate electrically until this is complete.

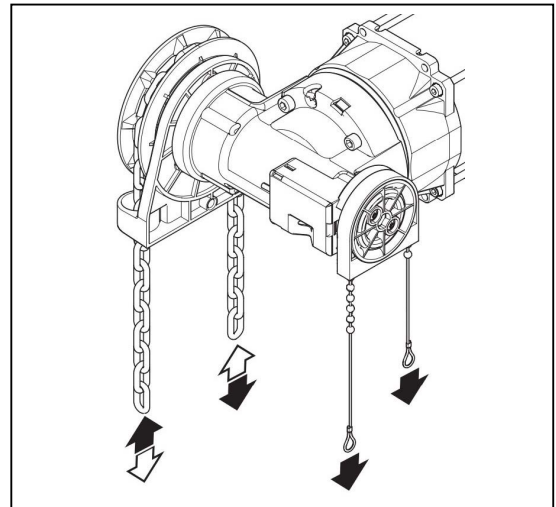


### ***Low Level Chain Override***

An override that is engaged and operated at low level.

#### ***To operate the override***

- Gently pull the red toggle handle downwards to engage the override. The motor will no longer work electrically.
- Gently pull the chain in either direction to operate the shutter. Once you have found the direction you require, continue until the door is fully open or closed. There may be no mechanical limitations on the travel of the shutter so be careful not to over wind the override. The operation will be slow, this is normal.
- Once complete, gently pull the green toggle handle downwards to disengage the override. The motor will not operate electrically until this is complete.



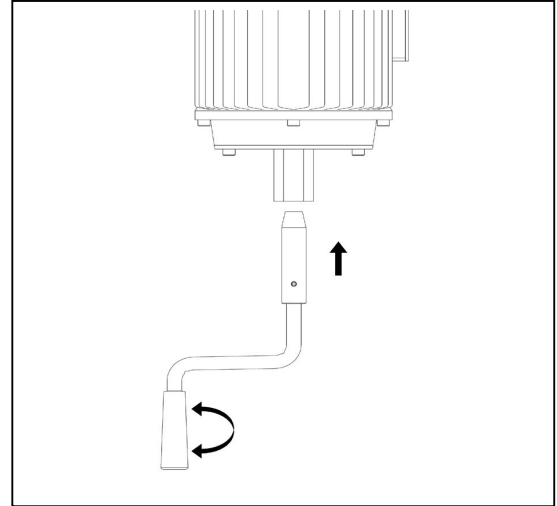
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### ***High Level Crank Override***

An override that is engaged and operated at high level.

#### ***To operate the override***

- At high level, insert the hand crank (supplied separately) into the bottom of the motor as far as it will go.
- Gently turn the crank in either direction to operate the shutter. Once you have found the direction you require, continue until the door is fully open or closed. There may be no mechanical limitations on the travel of the shutter so be careful not over wind the override. The operation will be slow, this is normal.
- Once complete, remove the crank. The motor will not operate electrically until this is complete.



## 5. Safety Sensors

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*Some shutters may have been supplied with some additional safety sensors to detect the presence of persons or obstructions. This is a legal requirement on shutters that can close by just the press of a button, or have an automatic timer return.*

### ***Photo Safety Cell – Low Level***

The photo safety cell is mounted close to the guides of the roller shutter at low level and emits a light beam across the opening and is either reflected back to its emitter or collected by a receiver. If the beam is obstructed during the shutter's close operation the shutter will stop and return to the fully open position until the obstruction is removed.

Please note, that if a sensor is knocked out of alignment, the beam will not register and the shutter will stay open.

### ***Photo Safety Cell – High Level***

The photo safety cell is mounted close to the guides of the roller shutter at high and emits a light beam across the opening and is either reflected back to its emitter or collected by a receiver. If the beam is obstructed during the shutter's open operation the shutter will stop. This is to prevent persons getting drawn into the drive assembly at the top of the door.

Please note, that if a sensor is knocked out of alignment, the beam will not register and the shutter will not operate.

### ***Safety Bottom Edge***

The safety bottom edge is concealed within the bottom seal of the shutter curtain and detects objects by compression of the seal (by contacting the obstruction). There are different variations available, including pneumatic, photo electric, and conductive.

Please note, that if the bottom edge of the door is damaged it is likely that the sensor will register an obstruction even if there isn't one present, and will stay open.

There are wireless sensors available which require batteries to be replaced regularly. The batteries will be found within the sensor which is mounted to the bottom rail of the shutter. Please ensure the battery voltage meets the requirements.

### ***Laser Grid***

Similar in principal to the Photo Safety Cell, but emits many sources of light with multiple receivers to cover a larger area and is therefore much safer.

Again, if a sensor is knocked out of alignment, the beam will not register and the shutter will stay open.

## 6. Additional Features

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*Some shutters may have been supplied with some additional activation features. These are generally only found on industrial applications and a few are covered below.*

### ***Timer Return***

A timer that automatically closes the shutter after a set time. Settings can only be modified by a technician.

### ***Induction Loop***

A sensor mounted within the floor close to the shutter that detects vehicles and open the shutter.

### ***Radar***

A sensor that can detect movement of persons or vehicles within a designated area which then opens the shutter. Settings can only be adjusted by a technician.

### ***Battery Back Up***

A battery unit to provide an uninterrupted power supply to a roller shutter. Due to the heavy power requirements of the operation; the usage of the battery should be limited. Some batteries require 'turning on' via a key switch or remote before they will operate, and some batteries are permanently on. Battery units will 'beep' regularly if the power supply has failed or the battery life is exhausted.

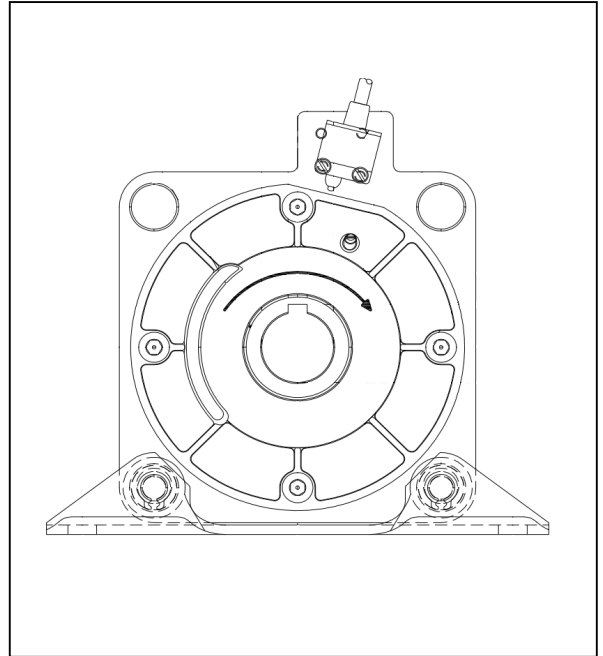
## 7. *Safety Brake*

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Depending on the design and motor on the roller shutter it may have been supplied with an anti-fall back device. The main purpose of the safety brake is to prevent the curtain from dropping in the event of a spring failure or drive failure. The brake is activated when the barrel spins beyond a certain speed. When activated, the brake locks the barrel preventing any further movement.

If the roller shutter is electrically operated, the speed of the barrel is dictated by the motor and controls and therefore accidental activations cannot occur. Should the brake activate, either the motor drive system has failed or the brake unit, and you will need to contact a service department to arrange for an engineers visit. Do not attempt to operate or secure the door.

Most direct drive motors or 'Safedrive' motors have built in integral brakes and will not have a separately mounted safety brake.

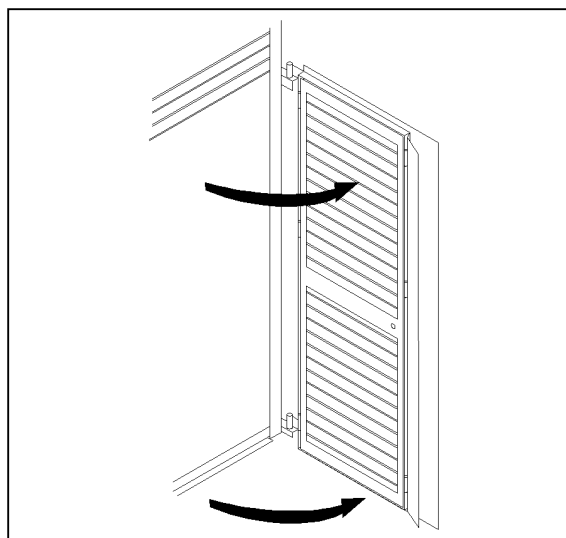
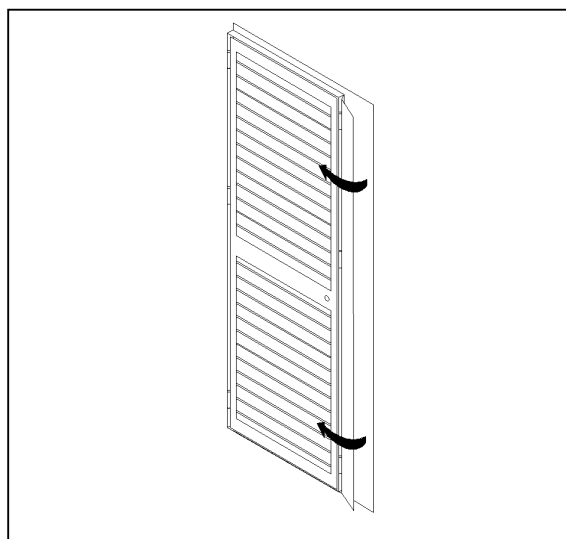
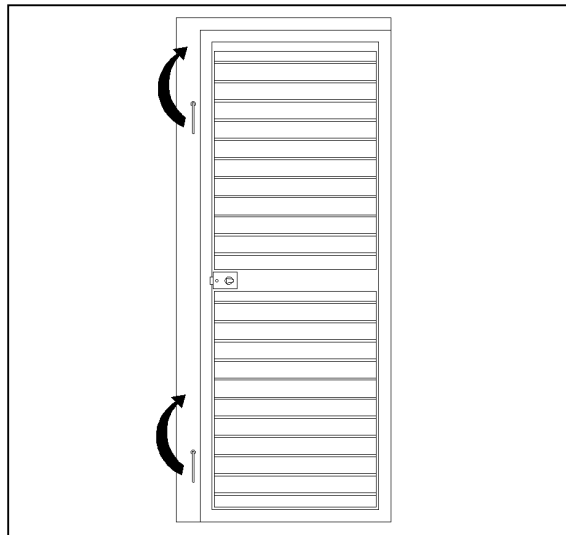


## 8. Wicket Door

*The wicket door must be hinged to one side before the roller shutter is operated. Failure to do so may result in damage to both the roller shutter and wicket door.*

### ***To Hinge the Wicket Door Open***

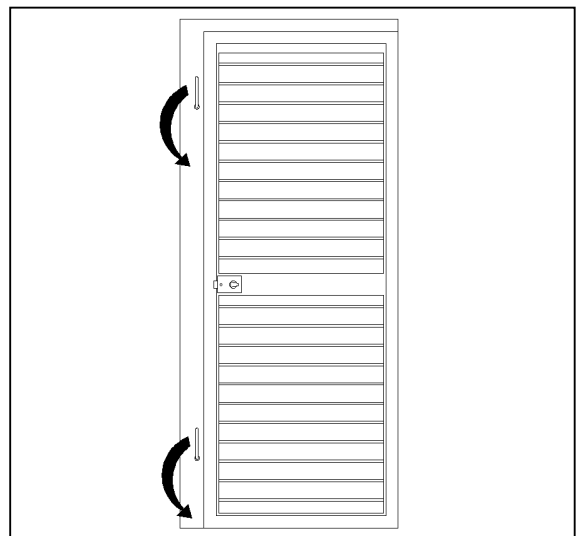
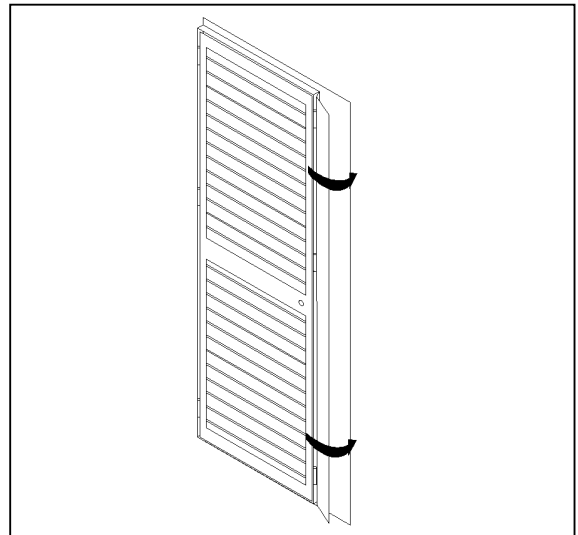
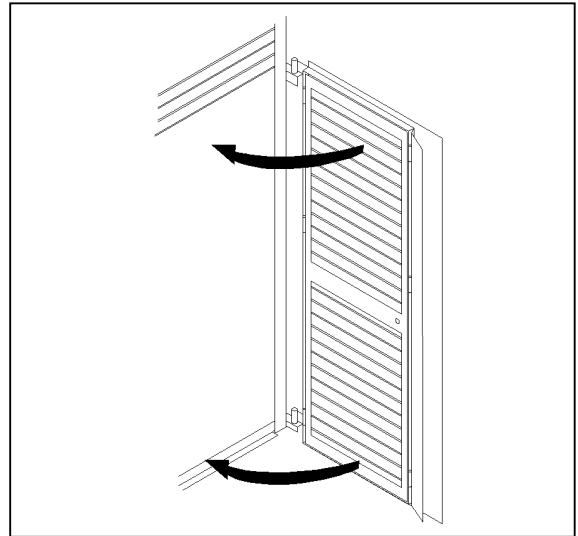
- Release the top and bottom internal levers to release the external securing flap.
- Swing out the external securing flap to release the door from the roller shutter curtain.
- Pull the door and frame back away from the roller shutter so that it is completely clear of the curtain, and locate it back to the wall with either the locating pin or hook and eye.



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*To Hinge the Wicket Door Closed*

- Ensure the external securing flap is open. Release the door & frame from the wall and swing back into roller shutter.
- Close the external securing flap so that it clamps onto the roller shutter curtain.
- Turn the top and bottom internal levers to lock the external securing flap.



## ***9. Cleaning & Maintenance***

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### ***Cleaning***

It is important to ensure that the door is kept clean from dust, dirt, leaves, small branches etc, especially from the guide system. General dirt and debris can build up in the guides and obstruct the travel of the door. This should be checked and cleared periodically, just with a brush.

The curtains and outside of guides can be cleaned using a rag, sponge, and general non-abrasive detergents. For your safety, please be careful not lean ladders against the curtain or guides during cleaning.

Do not attempt to clean the motor or control panel as this is potentially dangerous.

Safety photo cells should be carefully cleared using a dry rag; with care taken not to dislodge their position as this could cause the shutter to stop working.

### ***Maintenance***

Maintenance and repairs should only be undertaken by an experienced technician. Do not attempt to undertake any maintenance or repairs. Please contact our service department for a quotation.

Regulations dictate that all roller shutters be inspected for safety periodically, under a preplanned maintenance regime. The roller shutter should be inspected for safety, regularly maintained, and kept in good repair. Failure to do so could lead to damage to property or injury to persons.

The frequency of inspection is dependant upon usage. Minimal usage doors (e.g. Grain Stores) should be inspected annually, more frequently used doors (e.g a distribution centre loading bay) should be inspected every six months, and heavily used doors (e.g a car park shutter) should be inspected every three months. Contact our service department for further advice.

### ***Daily Checks***

It is advisable that before the roller shutter is used, a quick visual check for any damages should be completed. Do not attempt to repair any damages, please call our service department for help and advise.





## **DOOR SYSTEMS**

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Subject to technical changes.