
Level Access, Dock Levellers & Personnel Doors (Stertil)

Contents

Stertil

Claire Donlevy
cdonlevy@stertil.co.uk
Unit A, Brackmills Business Park
Caswell Road
Northampton
NN4 7PW
01604 662220

Contents

Scope of Works

Certificates/Warranties/Guarantees

Cleaning and Maintenance Regimes

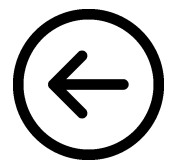
Data Sheets



winvic

winvic.co.uk

Scope of Works



winvic

winvic.co.uk

Index

Section 1.....	3
Scope of Works.....	3
Section 2.....	4
Suppliers Details	4
Section 3.....	5
Manufacturers Details	5
Section 4.....	6
Manufacturers Manuals	6
Section 5.....	7
Emergency Procedures	7
Section 6.....	8
Maintenance and Demolition	8
Section 7.....	9
COSHH Recommendations	9
Section 8.....	10
Technical Specification	10
Section 9.....	11
Test Certification & Handover Documents.....	11
Section 10.....	12
As Built Drawing Amendments	12

Section 1

Scope of Works

Supply and installation of

1 x Fire Rolashutter 3000x6000 WxH

Certificates/Warranties/Guarantees



winvic

winvic.co.uk

**Plot 4000
C/o Winvic Construction Ltd
Plot 4000, Gateway 14
Stowmarket
IP14 5BE**

19 July 2024

Reference: Warranty Commencement – **100179**

Dear Sirs,

Following the recent installation of your new equipment, I am writing to confirm that the warranty period commenced on **14/06/2024** and will end on **13/06/2025**. Within this period, you will receive parts and labour for the first three months. For the remainder of the 12-month period, warranty will cover parts only if no maintenance contract is in place.

If you require any further information or clarification, please do not hesitate to contact me on the details below.

Yours sincerely

A handwritten signature in black ink, appearing to read "R Smith".

Robert Smith
Contracts Coordinator
rosmith@stertil.co.uk

Installation Order No:

DATE	COMPUTER REF No	INSTALLER	SITE CONTACT
12/11/24	100179	J. Callaghan	Aqil
SITE NAME, ADDRESS AND TEL No		SERIAL NUMBERS OF EQUIPMENT	
The Range c/o Waring Coventry Stewmarket Plot 400			

Please ensure any additional checks which are required are carried out in accordance with the installation manuals and spec sheets

DOCK LEVELLER			
Shimmed and fixed	YES / NO	Welded	YES / NO
Bumpers & Brackets	YES / NO	Painted where required	YES / NO
		Wheel Guides Fitted	YES / NO
DOORS			
Guides level	YES / NO	Hangers installed	YES / NO
Floor Level	YES / NO	Tensioned correctly	YES / NO
Panels / Barrel Level	YES / NO	Manual endurance test done	YES / NO
SHELTER			
Top and sides level	YES / NO	Counter weight correct	YES / NO
Chords installed where required	YES / NO	Headframe Mastic Sealed	YES / NO
SCISSOR LIFT			
Shimmed and fixed	YES / NO	All level	YES / NO
COMBILOCK			
Shimmed and fixed	YES / NO	Centered to Dock	YES / NO
WASTE			
Removed from site where required	YES / NO	Disposed as required	YES / NO

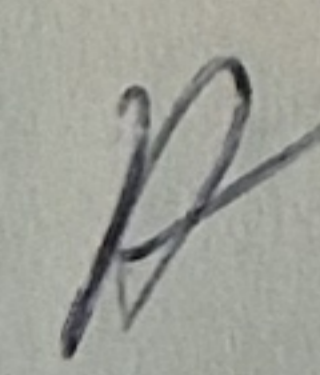
COMMENTS

Remove 4 Collapse Dock Shelters and leave on site for spares by 229
 Install 4 Fixed Frame Dock Shelters with built in gutter Flushing
 Bay Numbers. 42, 43, 104, 105


HANDOVER & DEMONSTRATION OF EQUIPMENT

I confirm the undersigned representative of Sterdil UK Ltd has provided the following:

1. Provided operational training on each of the items of equipment listed above	YES / NO
2. Equipment had been handed over without damage or defects	YES / NO

Customer signature: 

Print: Aqil Rahman

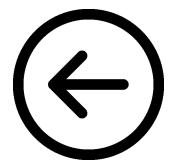
Sterdil UK Signature: 

Print: J. Callaghan

N.B. If a further/certificated demonstration or training is required please contact the Projects Department

Sterdil UK Ltd, Sterdil House, Unit A, Brackmills Business Park, Caswell Road, Northampton NN4 7PW
 Tel: 0870 770 0471 Fax: 01604 662 010 Email: info@sterdil.co.uk Website: www.sterdil.co.uk

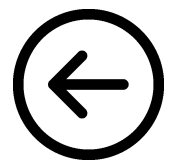
Cleaning and Maintenance Regimes



winvic

winvic.co.uk

Data Sheets



winvic

winvic.co.uk



Cleaning and Maintenance Regimes

This maintenance schedule for **P23-027 The Range, Stowmarket** is to be followed from PC date **24/10/2024** year on year to ensure all plant and equipment is kept within warranty.

Please keep a log of these inspections so that records can be checked should an issue arise.

Code; ✓ **Blue – Recommended** ✓ **Red – To Maintain Warranty**

Item	Daily	Weekly	Monthly	3 Months	6 Months	9 Months	Annually	5 Yearly	Certificates	Regime
Fire Roller Shutter					x					



CDM Documentation

Site Name: Plot 4000, The Range Fitout
Gateway 14
Stowmarket
IP14 5BP

Date: 19.07.2024

Section 2

Suppliers Details

Stertil UK Ltd
Unit A,
Brackmills Business Park,
Caswell Road,
Northampton,
NN4 7PW

Telephone: 0870 770 0471
Fax: 01604 765181

Email: info@stertiluk.com

Section 3

Manufacturers Details

A1 Shutters Ltd
Jackson Works
Raikes Lane Industrial Estate
Raikes Lane
Bolton
BL3 2NH

Section 4

Manufacturers Manuals

See Appendix 1

Section 5

Emergency Procedures

In the event of an emergency whilst operating the equipment the user should adhere to the following procedure.

- Immediately halt operation of the equipment
- Isolate the equipment by switching off the electrical supply at the mains on/off switch located on, or adjacent, to the control panel
- Cordoned off the area and label the equipment as shut down to clearly identify that it should not be used
- Contact Steril UK Ltd

In house emergency procedures should also be followed and duty managers for operations, health and safety and fire wardens should be advised.

Section 6

Maintenance and Demolition

Removal or decommissioning of the equipment should be referred to the approved installers Steril UK Ltd.

Section 7

COSHH Recommendations

All substances should be supplied with the relevant COSHH data sheets

Section 8

Technical Specifications

Refer to manuals in Appendix 1

Section 9

Test Certification & Handover Documents

To follow once complete

Or

Refer to appendix 2

Section 10

As Built Drawing Amendments

Standard drawings enclosed in Appendix 1.

Amendments as listed below.

The Stertil logo is located in the top left corner. It features the word "ster" in blue lowercase letters, followed by "til" in a larger blue lowercase font. A red horizontal bar is positioned above the "st" and "il" parts of the logo.

**THE END USER MANUAL
TO KEEPING YOUR SHUTTER
SAFE, OPERATIONAL & COMPLIANT
WITH CURRENT LEGISLATION**

The Stertil logo is located in the bottom right corner. It features the word "ster" in blue lowercase letters, followed by "til" in a larger blue lowercase font. A red horizontal bar is positioned above the "st" and "il" parts of the logo.

OPERATIONS & MAINTENANCE MANUAL

INTRODUCTION

Roller Shutters are a vital everyday piece of machinery in the operation of almost every building. If the shutter is not maintained properly it can become extremely dangerous and, if un-useable, can even stop your business operations. To comply with Health & Safety regulations and to keep within our warranty it is imperative that the shutter be operated and maintained in accordance with these instructions

SHUTTER WARRANTY

All equipment manufactured or supplied by AI Shutters is guaranteed against faulty materials and workmanship for a period of 12 months from the date of installation (or delivery in the case of supply only). This warranty is subject to fair wear and tear and having been maintained to our recommendations.

All equipment manufactured or supplied by AI Shutters comply with the following standards...

BS EN 13241-1	BS EN 12433-1
BS EN 12453	BS EN 12433-2
BS EN 12445	BS EN 12978
BS EN 12604	BS EN 12424
BS EN 12635	BS EN 12444
BS EN 12605	

Each product (with the exception of the Fire Shutter, no relevant standard) is CE marked and labelled in accordance with BS EN 13241.

The information as required by BS EN 12635, MUST be passed to the owner of the shutter and be read and understood by all personnel who will have cause to operate the shutter.

PLEASE NOTE

To comply with BSEN 13241-1 and Regulation 5 of the Workplace (Health, Safety and Welfare) Regulations 1992, it is the responsibility of the owner of the shutter to maintain a fully detailed service and maintenance record and ensure it is serviced in accordance with the our recommendations.

This document must be given to the owner of the door and held for reference, to ensure compliance with the machinery directive.

It is the company's recommendation that any installation, repairs or maintenance to our shutters, are carried out by competent tradesmen. The responsibility of problems arising from work carried out by inexperienced fitters / tradesmen will not be accepted by the company.

WARANTY INFORMATION

Site

Door Location

Unique Serial No

The AIS Products in this Manual meet the following:

Water Tightness Class

Wind Loading Resistance

Thermal Resistance Class

Air Permeability Class

Expected Cycle Life 10 000

SHUTTER TYPE SUPPLIED

EuroDoor Insulated Garage Shutter

Number Supplied

Flameshield 240 Self Coiling

Number Supplied

Flameshield 240 Controlled Descent

Number Supplied

Flameshield 120 Electric

Number Supplied

Industrial Chain Operated Shutters

Number Supplied

Industrial Electric Shutters

Number Supplied

Electric Tube Motor Shutters

Number Supplied

Self Coiling Shutters

Number Supplied

Continental Range Built On / In

Number Supplied

Insulated Electric Shutters

Number Supplied

ACCESSORIES SUPPLIED

Remote Controls

Number Supplied

Photo Cells

Number Supplied

Safety Bearings

Number Supplied

Push Button

Number Supplied

Rocker Switch

Number Supplied

Key Switch

Number Supplied

Group Command

Number Supplied

Other

Number Supplied

Installation and testing completed by

Commision Date

Print



SECTION II

OPERATION INSTRUCTIONS

ESSENTIAL INFORMATION

The following product instructions should be adhered to at all times. Failure to do so could result in accident or injury.

- Do not operate a damaged shutter.
- If a shutter is found to be damaged or difficult to operate, lock the shutter and leave a warning sign.
- Ensure a trained engineer inspects the unit.
- Keep openings clear at all times.
- Stand well clear of opening when shutter is in operation.
- Only operate the shutter by the means supplied.
- Do not lift personnel or materials with a shutter.
- Report any fault or accident.

Prompt service and repair will prevent premature wear, failure and avoid unnecessary component stress.

ROLLER SHUTTER DOORS SELF COILING

These operating instructions apply to a Roller Shutter Door, which is push-up, self-coiling. The shutter is counterbalanced by springs and should only be operated by competent personnel.

OPERATION

To open or close the shutter.

Check the shutter is not locked in any way and that there are no obstructions that may prevent the shutter from opening/closing.

DO NOT ATTEMPT TO OPERATE THE SHUTTER UNTIL ALL OBSTRUCTIONS HAVE BEEN REMOVED.

The shutter shall be manually opened or closed either by lifting the handles, the bottom rail of the shutter or by the Operating pole supplied, as the height dictates.

The shutter must be kept under control at all times and should not be allowed to free travel.

SPRING ASSISTED

Check the shutter is not locked in any way and that there are no obstructions that may prevent the shutter from opening or closing.

The locking mechanism for this product may be one or more of the following: centre lock on bottom rail, shoot bolts (again on bottom rail) or bullet locks attached to the guide rails.

To open the shutter.

Press slightly down on the bottom rail with the shutter closed, disengage the lock(s), ensure keys have been removed and lift the shutter with the bottom rail or handles provided. The pole and hook provided may be required as the height dictates never let go of the shutter until it is in the fully open position.

To close the shutter.

Pull the shutter downwards using the bottom rail on the handles provided. Once the shutter is closed press down on the bottom rail and engage the locking mechanism.

HAND CHAIN OPERATED INDUSTRIAL ROLLER SHUTTER

These operating instructions apply to a Roller Shutter Door, which is operated via a continuous haul chain. The shutter is counterbalanced by springs and should only be operated by competent personnel. The shutter should not be operated under severe windy conditions.

BASIC OPERATION

To open or close the shutter.

Check the shutter is not locked in any way and that there are no obstructions that may prevent the shutter from opening/closing.

DO NOT ATTEMPT TO OPERATE THE SHUTTER UNTIL ALL OBSTRUCTIONS HAVE BEEN REMOVED.

Release the haul chain at the side of the shutter from its keep. Pull the chain in the required direction, always maintaining a steady speed and control. Never release the chain during operation. Once the shutter has reached its required position, place the haul chain back in to its keep. The keep is supplied to accept a standard pad-lock so that the haul chain can be locked in place if required.

TUBULAR MOTOR TYPE ELECTRICALLY OPERATED ROLLER SHUTTER DOOR

These operating instructions apply to a Roller Shutter Door, which is operated via a tubular motor drive mounted within the barrel assembly.

BASIC: OPERATION

To open the shutter.

Check the shutter is not locked in any way and that there are no obstructions that may prevent the shutter from opening.

DO NOT ATTEMPT TO OPERATE THE SHUTTER UNTIL ALL OBSTRUCTIONS HAVE BEEN REMOVED.

Apply continued pressure to the "UP" button, positioned at the side of the shutter, and the shutter will travel vertically until it reaches its upper limit switch. At this point the control circuit will open and the brake will engage to stop the shutter at its fully open position. If at any point the button is released, the shutter will stop at its current position. To restart the open operation, simply press the "UP" button again.

If an additional means of safety is supplied with the shutter, such as a photoelectric safety beam, then continued pressure would not be required on the button. If at any time you need to stop the shutter, simply press the red emergency "STOP" button. If a key switch is supplied in lieu of push buttons, enter key into cylinder and turn towards "UP" to activate the shutter. The key switch will require continued pressure, as it is spring loaded to its "OFF" position.

To close the shutter.

Check the shutter is not locked in any way and that there are no obstructions that may prevent the shutter from closing. Check that the area is clear of all personnel.

DO NOT ATTEMPT TO OPERATE THE SHUTTER UNTIL ALL OBSTRUCTIONS HAVE BEEN REMOVED.

Apply continued pressure to the "DOWN" button, positioned at the side of the shutter, and the shutter will travel vertically until it reaches its lower limit switch. At this point the control circuit will open and the brake will engage to stop the shutter at its fully closed position. If at any point the button is released, the shutter will stop at its current position. To restart the close operation, simply press the "DOWN" button again. If an additional means of safety is supplied with the shutter, such as a safety edge or photoelectric safety beam, then continued pressure will not be required on the button. If at any time you need to stop the shutter, simply press the red emergency "STOP" button. If a key switch is supplied in lieu of push buttons, enter key into cylinder and turn towards "DOWN" to activate the shutter. The key switch will require continued pressure, as it is spring loaded to its "OFF" position.

EMERGENCY MANUAL OVER RIDE OPERATION (IF INSTALLED)

BEFORE USING THE MANUAL SYSTEM, SWITCH OFF THE POWER AT THE ISOLATOR

In the event of a power failure, the shutter is supplied with a manual over ride system. This is via a hand crank and should only be used in emergencies. PLEASE NOTE that the emergency manual over ride system is not designed for every day use and that excessive use will cause premature failure.

If not installed Locate the winding eye mechanism. This is located at the motor end of the barrel assembly. Insert the winding handle and wind the shutter in the direction required.

TAKING CARE AND OBSERVATION TO PREVENT OVER WINDING

ELECTRICALLY OPERATED INDUSTRIAL ROLLER SHUTTER DOOR

These operating instructions apply to a Roller Shutter Door, which is operated via a flange, foot-mounted or direct drive motor. The shutter should only be operated by trained personnel and should not be used in severe windy conditions.

BASIC OPERATION

To open the shutter.

Check the shutter is not locked in any way and that there are no obstructions that may prevent the shutter from opening.

DO NOT ATTEMPT TO OPERATE THE SHUTTER UNTIL ALL OBSTRUCTIONS HAVE BEEN REMOVED.

Apply continued pressure to the "UP" button, positioned at the side of the shutter, and the shutter will travel vertically until it reaches its upper limit switch. At this point the control circuit will open and the brake will engage to stop the shutter at its fully open position. If at any point the button is released, the shutter will stop at its current position. To restart the open operation, simply press the "UP" button again. If an additional means of safety is supplied with the shutter, such as a photoelectric safety beam, then continued pressure would not be required on the button. If at any time you need to stop the shutter, simply press the red emergency "STOP" button. If a key switch is supplied in lieu of push buttons, enter key into cylinder and turn towards "UP" to activate the shutter. The key switch will require continued pressure, as it is spring loaded to its "OFF" position.

To close the shutter.

Check the shutter is not locked in any way and that there are no obstructions that may prevent the shutter from closing. Check that the area is clear of all personnel.

DO NOT ATTEMPT TO OPERATE THE SHUTTER UNTIL ALL OBSTRUCTIONS HAVE BEEN REMOVED.

Apply continued pressure to the "DOWN" button, positioned at the side of the shutter, and the shutter will travel vertically until it reaches its lower limit switch. At this point the control circuit will open and the brake will engage to stop the shutter at its fully closed position. If at any point the button is released, the shutter will stop at its current position. To restart the close operation, simply press the "DOWN" button again. If an additional means of safety is supplied with the shutter, such as a safety edge or photoelectric safety beam, then continued pressure will not be required on the button. If at any time you need to stop the shutter, simply press the red emergency "STOP" button. If a key switch is supplied in lieu of push buttons, enter key into cylinder and turn towards "DOWN" to activate the shutter. The key switch will require continued pressure, as it is spring loaded to its "OFF" position.

If a DIRECT DRIVE motor operator is fitted with an internal safety brake, this is to prevent uncontrolled dropping of the shutter curtain. If a problem occurs that would cause the safety brake to engage the shutter will be locked in its position and the electricals to the motor will be open circuited. Once activated, the safe drive will have to be replaced. A qualified shutter engineer must only carry this out.

EMERGENCY MANUAL OVER RIDE OPERATION

In the event of a power failure, the shutter is supplied with a manual over ride system. This is via a continuous haul chain and should only be used in emergencies. PLEASE NOTE that the emergency manual over ride system is not designed for every day use and that excessive use will cause premature failure.

To engage the manual over ride system, simply pull on the green toggle at the side of the opening that is marked "MANUAL / HAND". This will isolate the electrical control buttons and will engage the haul chain. Remove the haul chain from its keep and pull the haul chain in the required direction.

To disengage the manual over ride system, return the haul chain to its keep and pull on the red toggle at the side of the opening that is marked "MOTOR". This will re-instate the electrical control buttons and will disengage the haul chain.

The emergency manual over ride system cannot be used if the safety brake has been activated.

AUTOMATIC OPERATION

Where a shutter control system is fitted, such as timed return, radio control, induction loop activation... additional safety features will be installed on the shutter to give the required protection. Please refer to the automation section in the instructions.

FLAME SHIELD 240 SELF COILING FIRE RESISTING ROLLER SHUTTER

These operating instructions apply to a Fire Resisting Roller Shutter Door, which is push-up, self-coiling. The shutter is counterbalanced by springs and should only be operated by competent personnel.

This shutter is not designed for constant daily use.

The shutter will be fitted with a drop weight, which is captivated in its own guides and is released to close the shutter via a fusible link. The fusible link is designed to operate at 68° C. If the drop weight is activated the fusible link will have to be replaced and the shutter re-set by a qualified Fire Shutter engineer.

BASIC OPERATION

To open or close the shutter.

The shutter shall be manually opened or closed either by lifting the handles or the bottom rail of the shutter.

The shutter must be kept under control at all times and should not be allowed to free travel.

FLAME SHIELD 240 CONTROLLED DESCENT FIRE RESISTING ROLLER SHUTTER

These operating instructions apply to a controlled Descent Fire Resisting Roller Shutter Door, which is manually or electrically operated. Trained personnel should only operate the shutter.

This shutter is not designed for constant daily use.

The shutter will be supplied with either a fusible link activated at 68° C; a manual reset solenoid or an electrical reset solenoid. These devices are designed to close the shutter under fire conditions.

MANUAL OPERATION

To open the shutter.

Release the haul chain at the side of the shutter from its keep. Pull the chain to open the shutter. Please note that the chain will only travel in one direction. The shutter cannot be closed via the haul chain. Once the shutter has reached its required position, place the haul chain back in to its keep. The keep is supplied to accept a standard pad-lock so that the haul chain can be locked in place if required.

To close the shutter

A release cord with pull ring is supplied with the drive unit. Locate the pull ring and pull. This will release the clutch in the drive unit and the shutter will gravity close at a controlled speed. Once the shutter reaches its required position release the pull ring.

FLAME SHIELD 240 ELECTRIC FIRE RESISTING ROLLER SHUTTER

To open the shutter.

Check the shutter is not locked in any way and that there are no obstructions that may prevent the shutter from opening.

DO NOT ATTEMPT TO OPERATE THE SHUTTER UNTIL ALL OBSTRUCTIONS HAVE BEEN REMOVED.

Apply continued pressure to the “UP” button, positioned at the side of the shutter, and the shutter will travel vertically until it reaches its upper limit switch. At this point the control circuit will open and the brake will engage to stop the shutter at its fully open position. If at any point the button is released, the shutter will stop at its current position. To restart the open operation, simply press the “UP” button again. If an additional means of safety is supplied with the shutter, such as a photoelectric safety beam, then continued pressure would not be required on the button. If at any time you need to stop the shutter, simply press the red emergency “STOP” button.

If a key switch is supplied in lieu of push buttons, enter key into cylinder and turn towards “UP” to activate the shutter. The key switch will require continued pressure, as it is spring loaded to its “OFF” position.

To close the shutter.

Check the shutter is not locked in any way and that there are no obstructions that may prevent the shutter from closing.

Check that the area is clear of all personnel.

DO NOT ATTEMPT TO OPERATE THE SHUTTER UNTIL ALL OBSTRUCTIONS HAVE BEEN REMOVED.

Apply continued pressure to the “DOWN” button, positioned at the side of the shutter, and the shutter will travel vertically until it reaches its lower limit switch. At this point the control circuit will open and the brake will engage to stop the shutter at its fully closed position. If at any point the button is released, the shutter will stop at its current position. To restart the close operation, simply press the “DOWN” button again. If a key switch is supplied in lieu of push buttons, enter key into cylinder and turn towards “DOWN” to activate the shutter. The key switch will require continued pressure, as it is spring loaded to its “OFF” position.

EMERGENCY MANUAL OVER RIDE OPERATION

To open the shutter.

Release the haul chain at the side of the shutter from its keep. Pull the chain to open the shutter. As the chain is moved it will prevent the shutter from being operated electrically. Please note that the chain will only travel in one direction. The shutter cannot be closed via the haul chain. Once the shutter has reached its required position, place the haul chain back in to its keep. The keep is supplied to accept a standard pad-lock so that the haul chain can be locked in place if required.

To closed the shutter

A release cord with pull ring is supplied with the drive unit. Locate the pull ring and pull. This will release the clutch in the drive unit and the shutter will gravity close at a controlled speed. Once the shutter reaches its required position release the pull ring.

Fusible link

The fusible link is designed to activate at 68° C. and once activated, it will release the clutch in the drive unit and the shutter will self-gravity close at a controlled speed. If activated, the fusible link will have to be replaced and the shutter reset by a qualified Fire Shutter engineer.

MANUAL RESET SOLENOID

The solenoid is activated by a signal from the fire alarm or a smoke detector, and once activated, it will release the clutch in the drive unit and the shutter will self-gravity close at a controlled speed. If activated, the solenoid must be reset via the reset pull ring located adjacent to the drive unit at high level. A firm pull on the pull ring will reset the solenoid and the shutter can then be activated in the normal manner.

ELECTRIC RESET SOLENOID (ELECTRICALLY OPERATED SHUTTERS ONLY)

The solenoid is activated by a signal from the fire alarm or a smoke detector, and once activated, it will release the clutch in the drive unit and the shutter will self-gravity close at a controlled speed. If activated, the solenoid will reset as soon as the “OPEN” button is pressed. This will return to shutter to normal operation.

FLAMESHIELD I20 ELECTRIC FIRE RESISTING ROLLER SHUTTER DOOR

These operating instructions apply to a Roller Shutter Door, which is operated via a tubular motor drive mounted within the barrel assembly.

BASIC: OPERATION

To open the shutter.

Check the shutter is not locked in any way and that there are no obstructions that may prevent the shutter from opening.

DO NOT ATTEMPT TO OPERATE THE SHUTTER UNTIL ALL OBSTRUCTIONS HAVE BEEN REMOVED.

Apply continued pressure to the "UP" button, positioned at the side of the shutter, and the shutter will travel vertically until it reaches its upper limit switch. At this point the control circuit will open and the brake will engage to stop the shutter at its fully open position. If at any point the button is released, the shutter will stop at its current position. To restart the open operation, simply press the "UP" button again. If an additional means of safety is supplied with the shutter, such as a photoelectric safety beam, then continued pressure would not be required on the button. If at any time you need to stop the shutter, simply press the red emergency "STOP" button.

If a key switch is supplied in lieu of push buttons, enter key into cylinder and turn towards "UP" to activate the shutter. The key switch will require continued pressure, as it is spring loaded to its "OFF" position.

To close the shutter.

Check the shutter is not locked in any way and that there are no obstructions that may prevent the shutter from closing. Check that the area is clear of all personnel.

DO NOT ATTEMPT TO OPERATE THE SHUTTER UNTIL ALL OBSTRUCTIONS HAVE BEEN REMOVED.

Apply continued pressure to the "DOWN" button, positioned at the side of the shutter, and the shutter will travel vertically until it reaches its lower limit switch. At this point the control circuit will open and the brake will engage to stop the shutter at its fully closed position. If at any point the button is released, the shutter will stop at its current position. To restart the close operation, simply press the "DOWN" button again. If an additional means of safety is supplied with the shutter, such as a safety edge or photoelectric safety beam, then continued pressure will not be required on the button. If at any time you need to stop the shutter, simply press the red emergency "STOP" button. If a key switch is supplied in lieu of push buttons, enter key into cylinder and turn towards "DOWN" to activate the shutter. The key switch will require continued pressure, as it is spring loaded to its "OFF" position.

KS02 RELAY POWERED DESCENT

The KS02 is activated by a volt free signal from the fire alarm and once activated it will power this shutter down at a controlled speed. The relay will reset once the signal ceases, leaving the shutter operational in the normal manner.

If no fire signal is available, a fuseable link micro switch will be used, which is activated at a temperature of 64^o. This will power the shutter to the closed position and will leave the shutter inoperable until the link is replaced.

BATTERY BACK-UP

In the event of power failure a battery back-up unit can be used (and is recommended). This will close the shutter via the fire signal or fuseable link micro switch.

ELECTRICALLY OPERATED INSULATED ROLLER SHUTTER DOOR

These operating instructions apply to a Roller Shutter Door, which is operated via a flange, foot-mounted or direct drive motor. The shutter should only be operated by trained personnel and should not be used in severe windy conditions.

BASIC OPERATION

To open the shutter.

Check the shutter is not locked in any way and that there are no obstructions that may prevent the shutter from opening.

DO NOT ATTEMPT TO OPERATE THE SHUTTER UNTIL ALL OBSTRUCTIONS HAVE BEEN REMOVED.

Apply continued pressure to the "UP" button, positioned at the side of the shutter, and the shutter will travel vertically until it reaches its upper limit switch. At this point the control circuit will open and the brake will engage to stop the shutter at its fully open position. If at any point the button is released, the shutter will stop at its current position. To restart the open operation, simply press the "UP" button again. If an additional means of safety is supplied with the shutter, such as a photoelectric safety beam, then continued pressure would not be required on the button. If at any time you need to stop the shutter, simply press the red emergency "STOP" button.

If a key switch is supplied in lieu of push buttons, enter key into cylinder and turn towards "UP" to activate the shutter. The key switch will require continued pressure, as it is spring loaded to its "OFF" position.

To close the shutter.

Check the shutter is not locked in any way and that there are no obstructions that may prevent the shutter from closing.
Check that the area is clear of all personnel.

DO NOT ATTEMPT TO OPERATE THE SHUTTER UNTIL ALL OBSTRUCTIONS HAVE BEEN REMOVED.

Apply continued pressure to the "DOWN" button, positioned at the side of the shutter, and the shutter will travel vertically until it reaches its lower limit switch. At this point the control circuit will open and the brake will engage to stop the shutter at its fully closed position. If at any point the button is released, the shutter will stop at its current position. To restart the close operation, simply press the "DOWN" button again. If an additional means of safety is supplied with the shutter, such as a safety edge or photoelectric safety beam, then continued pressure will not be required on the button. If at any time you need to stop the shutter, simply press the red emergency "STOP" button. If a key switch is supplied in lieu of push buttons, enter key into cylinder and turn towards "DOWN" to activate the shutter. The key switch will require continued pressure, as it is spring loaded to its "OFF" position.

If a DIRECT DRIVE motor operator is fitted with an internal safety brake, this is to prevent uncontrolled dropping of the shutter curtain. If a problem occurs that would cause the safety brake to engage the shutter will be locked in its position and the electricals to the motor will be open circuited. Once activated, the safe drive will have to be replaced. A qualified shutter engineer must only carry this out.

EMERGENCY MANUAL OVER RIDE OPERATION

In the event of a power failure, the shutter is supplied with a manual over ride system. This is via a continuous haul chain and should only be used in emergencies. PLEASE NOTE that the emergency manual over ride system is not designed for every day use and that excessive use will cause premature failure.

To engage the manual over ride system, simply pull on the green toggle at the side of the opening that is marked "MANUAL / HAND". This will isolate the electrical control buttons and will engage the haul chain. Remove the haul chain from its keep and pull the haul chain in the required direction.

To disengage the manual over ride system, return the haul chain to its keep and pull on the red toggle at the side of the opening that is marked "MOTOR". This will re-instate the electrical control buttons and will disengage the haul chain.

The emergency manual over ride system cannot be used if the safety brake has been activated.

AUTOMATIC OPERATION

Where a shutter control system is fitted, such as timed return, radio control, induction loop activation... additional safety features will be installed on the shutter to give the required protection. Please refer to the automation section in the instructions.

EURODOOR INSULATED ELECTRIC GARAGE SHUTTER

These operating instructions apply to Roller Shutter Garage Shutters, which are electrically operated and Radio Controlled. The shutters should only be operated by trained users.

BASIC OPERATION

A locking device is not usually supplied with the shutter as the motor drive system prevents the opening of the shutter. If supplied, the lock will be placed on the 1st panel from floor level.

To open or close the shutter.

Check the shutter is not locked in any way and that there are no obstructions that may prevent the shutter from opening.

DO NOT ATTEMPT TO OPERATE THE SHUTTER UNTIL ALL OBSTRUCTIONS HAVE BEEN REMOVED.

EURODOOR INSULATED ELECTRIC GARAGE SHUTTER (Cont)

Apply pressure to the top green button on the hand transmitter, or the push button located on the control box and the shutter will travel vertically until it reaches its upper limit switch. At this point the control circuit will open and the brake will engage to stop the shutter at its fully open position. If at any time you need to stop the shutter, simply press the red button on the hand transmitter. To close the shutter press the bottom green button on the hand transmitter.

CONTINENTAL RANGE BUILT IN / BUILT ON CE38, CE150, CE60, CE77

These operating instructions apply to a roller aluminium roller shutter door, which is operated by a rod crank, swivel belt, geared belt, spring assisted or electrical tubular motor.

SPRING ASSISTED

Check the shutter is not locked in any way and that there are no obstructions that may prevent the shutter from opening or closing.

The locking mechanism for this product may be one or more of the following: centre lock on bottom rail, shoot bolts (again on bottom rail).

To open the shutter.

Press slightly down on the bottom rail with the shutter closed, disengage the lock(s), ensure keys have been removed and lift the shutter with the bottom rail or handles provided. The pole and hook provided may be required as the height dictates never let go of the shutter until it is in the fully open position.

To close the shutter.

Pull the shutter downwards using the bottom rail on the handles provided. Once the shutter is closed press down on the bottom rail and engage the locking mechanism.

SWIVEL BELT OPERATION

Check the shutter is not locked in any way and that there are no obstructions that may prevent the shutter from opening or closing.

To open the shutter.

Pull the grey tape downwards, the tape will coil into the spring loaded winder. Once the shutter is close to the top of the guides, care must be taken as the conical stops will damage the box lid if operated too fast.

To close the shutter.

Pull the grey tape out of the spring loaded winder and release – this will allow the curtain to drop in the guide channels. The mechanism has a brake, so the curtain will stop anywhere in the guides when the tape is released.

To activate the lock mechanism.

Fully close the curtain to the bottom stop (cill or doorstep). Release the tape by 300mm. Trap the tape with one finger at the exit on the winder – this will allow the locking mechanism on the roller to engage. The slack on the tape can now be released. Check that the lock has activated by attempting to lift the bottom rail. If the lock has not operated, try closing the shutter's final 300mm of travel with more speed.

GEARED BELT OPERATION

Check the shutter is not locked in any way and that there are no obstructions that may prevent the shutter from opening or closing.

To open the shutter.

Attach the handle into the square opening on the winder and turn the handle in the rotation for 'up'. Once the shutter is close to the top of the guides, care should be taken as the conical stops will damage if opened too fast.

To close the shutter.

Turn the winder in the rotation for 'down' – this will allow the curtain to close down in the guide channels.

To activate the lock mechanism.

Fully close the curtain to the bottom stop (cill or doorstep). Keep turning until the tape goes slack – allow 300mm approx of tape to hang loose. Pull the tape downwards and release – this will allow the locking mechanism on the roller to engage. The slack tape can now be wound back into the winder. Check that the lock has activated by attempting to lift the bottom rail. If the lock has not operated, pull and release the slack tape with more vigour.

ROD CRANK OPERATION

Check the shutter is not locked in any way and that there are no obstructions that may prevent the shutter from opening or closing.

The locking mechanism for this product may be one or more of the following: centre lock on bottom rail, shoot bolts (again on bottom rail).

To open the shutter.

Pull the crank handles out of the clip and hold the handle at 45° – this will enable the handle to turn with ease and not over stretch the knuckle on the crank. Turn the handle either clockwise or anti-clockwise. If turned the wrong way it will feel tight. If this occurs STOP, as you will damage the mechanism. Continue turning until the conical stops touch the box lid.

To close the shutter.

Pull the crank handles out of the clip and hold the handle at 45° – this will enable the handle to turn with ease and not over stretch the knuckle on the crank. Turn the handle in the opposite direction to above and the curtain will close down the guide channels.

To activate the lock mechanism.

Fully close the curtain to the bottom stop (cill or doorstep). Keep turning until the crank handle feels tight. The shutter is now locked.

ELECTRICALLY OPERATED ROLLER SHUTTER DOOR

These operating instructions apply to a Roller Shutter Door, which is operated via a motor drive mounted within the barrel assembly.

BASIC: OPERATION

To open the shutter.

Check the shutter is not locked in any way and that there are no obstructions that may prevent the shutter from opening.

DO NOT ATTEMPT TO OPERATE THE SHUTTER UNTIL ALL OBSTRUCTIONS HAVE BEEN REMOVED.

Apply continued pressure to the “UP” button, positioned at the side of the shutter, and the shutter will travel vertically until it reaches its upper limit switch. At this point the control circuit will open and the brake will engage to stop the shutter at its fully open position. If at any point the button is released, the shutter will stop at its current position. To restart the open operation, simply press the “UP” button again. If an additional means of safety is supplied with the shutter, such as a photoelectric safety beam, then continued pressure would not be required on the button. If at any time you need to stop the shutter, simply press the red emergency “STOP” button.

If a key switch is supplied in lieu of push buttons, enter key into cylinder and turn towards “UP” to activate the shutter. The key switch will require continued pressure, as it is spring loaded to its “OFF” position.

To close the shutter.

Check the shutter is not locked in any way and that there are no obstructions that may prevent the shutter from closing. Check that the area is clear of all personnel.

DO NOT ATTEMPT TO OPERATE THE SHUTTER UNTIL ALL OBSTRUCTIONS HAVE BEEN REMOVED.

Apply continued pressure to the “DOWN” button, positioned at the side of the shutter, and the shutter will travel vertically until it reaches its lower limit switch. At this point the control circuit will open and the brake will engage to stop the shutter at its fully closed position. If at any point the button is released, the shutter will stop at its current position. To restart the close operation, simply press the “DOWN” button again. If an additional means of safety is supplied with the shutter, such as a safety edge or photoelectric safety beam, then continued pressure will not be required on the button. If at any time you need to stop the shutter, simply press the red emergency “STOP” button. If a key switch is supplied in lieu of push buttons, enter key into cylinder and turn towards “DOWN” to activate the shutter. The key switch will require continued pressure, as it is spring loaded to its “OFF” position.

EMERGENCY MANUAL OVER RIDE OPERATION (IF INSTALLED)

BEFORE USING THE MANUAL SYSTEM, SWITCH OFF THE POWER AT THE ISOLATOR

In the event of a power failure, the shutter is supplied with a manual over ride system. This is via a hand crank and should only be used in emergencies. PLEASE NOTE that the emergency manual over ride system is not designed for every day use and that excessive use will cause premature failure.

If not installed Locate the winding eye mechanism. This is located at the motor end of the barrel assembly. Insert the winding handle and wind the shutter in the direction required.

TAKING CARE AND OBSERVATION TO PREVENT OVER WINDING

BATTERY BACKUP UNIT

Principally, the tube motor fire shutter requires a maintained supply. If this cannot be achieved, then effectively the shutter will require a battery backup unit. Fundamentally, if under fire conditions there is a power failure, the shutter must have a means of ensuring closure. The unit provided will give the facility for at least one operation under fire conditions.

The unit must remain plugged in at all times, or alternatively you can wire this into a fused spur. In effect, the shutter should always receive a signal from the fire alarm, under British Standards the fire alarm must have a battery backup, in the unlikely event of a power failure under fire conditions, i.e. the alarm has triggered and the door is closing – if there is a power failure at that particular time, the battery pack provided will continue to close the door.

When using the shutter under normal conditions, if there is a power failure, the unit can be used again for at least one operation to open or close the shutter manually via the key switch. Please bear in mind the unit will require a recharging period of up to 8 hours.

The maximum standby period for this unit is 6/8 hours.

It is recommended that you only use the modified battery backup unit provided by AI Shutters, the use of any other unit would be problematic and could nullify the warranty.

The unit comes complete with a wall mounting bracket and must be mounted at high level next to the motor. The physical dimensions of the unit are 280mm (w) x 170mm (h) x 90mm (d). The typical battery lifetime is 3-5 years depending on the number of cycles and operating temperature. Replacement batteries can be ordered when required.

STATUS INDICATORS AND ALARMS

Note:

Allow the Back-UPS to charge for a full eight hours prior to use. Press the push-button on the front panel of the Back-UPS.

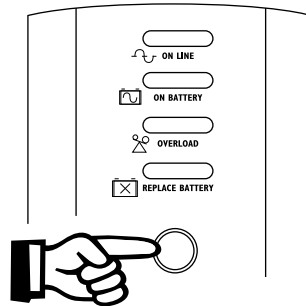
Observe that the following events occur after pressing and releasing the push button:

The green 'On Line' indicator flashes.

The yellow 'On Battery' indicator lights while the self-test is being performed.

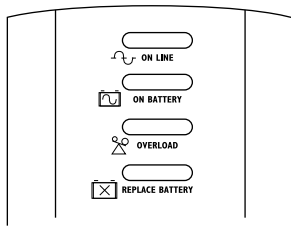
When self-test has successfully completed, only the green 'On Line' indicator will be lit.

If the internal battery is not connected, the green 'On Line' indicator and red 'Replace Battery' indicator will light. The UPS will also emit a chirping sound.



STATUS INDICATORS AND ALARMS

There are four status indicators (lights) on the front panel of the Back-UPS (On Line, On Battery, Overload and Replace Battery).



On Line (green) – is lit whenever utility power is powering the Battery Backup Outlets.



On Battery (yellow) – is lit whenever the battery of the Back-UPS is powering the Battery Backup Outlets.



Four Beeps Every 30 Seconds – this alarm is sounded whenever the Back-UPS is running 'On Battery'.



Continuous Beeping – this alarm is sounded whenever a low battery condition is reached. Battery run-time is very low.



Overload (red) – is lit whenever power demand has exceeded the capacity of the Back-UPS



Circuit Breaker – the circuit breaker button located on the rear panel of the Back-UPS will stick out if an overload condition forces the Back-UPS to disconnect itself from utility power. If the button sticks out, disconnect non-essential equipment. Reset the circuit breaker by pushing the button inward.



Replace Battery (red) – is lit whenever the battery is near the end of its useful life or if the battery is not connected (see above). A battery that is near the end of its useful life has insufficient run-time and should be replaced.



Chirps for 1 Minute Every 5 Hours – this alarm is sounded whenever the battery has failed the automatic diagnostic test.

ORDER REPLACEMENT BATTERY

The typical battery lifetime is 3-6 years (depending on the number of discharge cycles and operating temperature).

TRANSFER VOLTAGE AND SENSITIVITY ADJUSTMENT (OPTIONAL)

In situations where the Back-UPS or connected equipment appears too sensitive to input voltage, it may be necessary to adjust the transfer voltage. This is a simple task requiring use of the front panel pushbutton. To adjust the transfer voltage, proceed as follows:

1. Press the Back-UPS into the utility power source. The Back-UPS will be in a Standby Mode (no indicators lit).
2. Press the front panel pushbutton fully inward for 10 seconds. All indicators on the Back-UPS will flash to acknowledge going into Programming Mode.
3. The Back-UPS will then indicate its current Sensitivity Setting, as shown in the following table.

INDICATORS FLASHING	SENSITIVITY SETTING	INPUT VOLTAGE RANGE FOR UTILITY OPERATION	USE WHEN
1 (yellow)	Low	160-278 Vac	Input voltage is extremely low or high. Not recommended for computer loads.
2 (yellow and red)	Medium (factory default)	180-266 Vac	Back-UPS frequently On Battery.
3 (yellow, red and red)	High	196-256 Vac	Connection equipment is sensitive to voltage fluctuations (recommended).

4. To select the Low Sensitivity setting, press the pushbutton until the yellow indicator is flashing.
5. To select the Medium Sensitivity setting, press the pushbutton until the yellow and red indicators (second and third from the top) are flashing.
6. To select the High Sensitivity setting, press the pushbutton until the yellow and both red indicators (bottom three) are flashing.
7. To exit without changing the Sensitivity Setting, press the pushbutton until the green indicator is flashing.
8. Once in Programming Mode, if the pushbutton is not pressed within 5 seconds, the Back-UPS will exit Programming Mode; all indicators will extinguish.

SAFETY DEVICES – OPERATING INSTRUCTIONS

The standard remote control receiver unit is supplied with a safety edge as standard and when required may also be supplied with a photo cell.

REMOTE CONTROL, HOLD-TO-RUN/DEADMAN OPERATION

Your remote control unit may have been supplied without safety devices in hold-to-run (deadman) mode. If this is the case to close the door you will need to press and hold the down button whilst the door is in view ensuring at all times that there are no obstacles in the doorway.

To open the door

You will need to press and hold the up button whilst the door is in view ensuring at all times that there are no obstacles in the doorway. Please be aware it is possible to set the remote control so that the door will travel in the up direction in the standard automatic mode in which case a single press of the up button will open the door edge.

The Safety Edge is fitted to the bottom of the door and is activated when the door starts to close. If it comes into contact with an object while the door is closing, it transmits a signal to the wall mounted control unit, the door will then stop and reopen a short distance. The safety edge also works as a weather seal, designed to be pressed against the ground, to prevent false sensing and reopening it is disabled for the last 50mm of door travel.

If the safety edge hits an obstacle and the door stops you will be unable to close the door in the normal way.

To close the door you can either:

1. Press the up button on the transmitter or the control unit to raise the door to its fully open position. The safety device will automatically reset and the door can now be operated as normal with the safety device active.
2. Press and hold the down button on the transmitter or control unit to close the door fully. If you release the button the door will stop. Ensure the door has fully lowered and locked before releasing the button. Please note the safety device will not be active until the door returns to its fully open position.

PHOTO CELL

The PEC projects a pencil line beam across the door opening. If the beam is broken during the closing cycle, the shutter will stop and reopen a short distance.

A visual indication is given on the signal LED as detailed in the System Status Indication section.

If the photo cell beam is broken during the closing cycle the door will stop and reopen a short distance and a visual indication is given on the signal LED. You will now be unable to close the door in the normal way.

To close the door you can either:

1. Press the up button on the transmitter or the control unit to raise the door to its fully open position. The safety device will automatically reset and the door can now be operated as normal with the safety device active.
2. Press and hold the down button on the transmitter or control unit to close the door fully. If you release the button the door will stop. Ensure the door has fully lowered and locked before releasing the button. Please note the safety device will not be active until the door returns to its fully open position.

Adding transmitters

- Press and hold down the Grey button on a transmitter that is already loaded onto the control unit.
The lid mounted signal LED will flash YELLOW slowly, keep the button held down until it flashes YELLOW quickly.
- Release the Grey Button.
The lid mounted signal LED will continue to flash YELLOW quickly.
- Press the top green button on the same transmitter once.
The flashing LED will change from flashing YELLOW to flashing GREEN.
- Now press the top green button on the new transmitter once and release.
The flashing LED will change to continuous for 1 second each time it accepts a new transmitter.
- Repeat step 4 for other transmitters to be added on to the system.

Thirty seconds after loading the last transmitter the LED changes to flashing yellow for ten seconds and then returns to normal running mode. Alternatively you can press the top green button of a transmitter that has just been loaded, this will take it straight back to normal running mode.

Note the manufacturers code for the transmitter must match the manufacturers code for the receiver, if they do not match, you cannot add that particular transmitter on to the system, the LED will flash RED, GREEN then YELLOW once quickly, if they are not compatible. Please contact your supplier for further details.

Remote Control Trouble Shooting Guide

N.B. Always isolate the power before attempting to make any adjustments or repairs. Untrained operators are advised to contact an approved installer.

System Status Indication

The status of the control unit and/or door is indicated by the lid mounted signal LED. This is a three-colour "RED, YELLOW & GREEN" lamp (LED) mounted on the front of the control unit, as detailed below:

Door positions

LED signal	Status
GREEN solid	open limit activated
GREEN flashing	door opening
RED solid	close limit activated
RED flashing	door closing
YELLOW solid	door stationary between the open and close limits

Programming mode (using a transmitter)

LED signal	Status
Slow flashing YELLOW then quick flashing YELLOW	control unit in programming mode

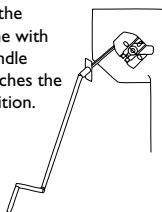
SAFETY DEVICES – OPERATING INSTRUCTIONS

LED signal/fault	Cause	Solution
RED rapid flashing	Photo Electric Cell (PEG) beam broken.	<ol style="list-style-type: none"> 1. Remove any obstacles which may be in the doorway (once you have removed the obstacle the signal light will change to solid yellow). 2. Reset the safety device as described in the Photo Cell section. 3. Ensure the photocell and reflector are clean. 4. Re-align the photo cell and reflector (contact your installer).
RED flash then two YELLOW flashes	A motor stall has been detected.	<ol style="list-style-type: none"> 1. Disengage manual locking device. 2. Remove any objects which may have jammed in the guide rails, curtain or roll. 3. Ensure nobody is attempting to ride up on the curtain. 4. Ensure a non-approved item has been attached to the curtain. 5. In extreme conditions the door may have frozen to the guide rails or floor. Try to operate the door again or defrost the frozen section.
RED flash then three YELLOW flashes	The thermal trip has activated on the motor or the motor is not connected.	<ol style="list-style-type: none"> 1. Allow the motor to cool for approximately 30 minutes before attempting to operate the door again. 2. The motor may not be connected to the remote control unit contact your installer.
RED flash then four YELLOW flashes	Door overrun time out; the door has been opening or closing for over 60 seconds without detecting a final end limit position.	Contact your installer.
A rapid RED, GREEN then YELLOW single flash	Indicates that a signal has been received from either a transmitter that has not been loaded on to the system or the transmitter's manufacturer's code does not match with the control unit.	<ol style="list-style-type: none"> 1. Load the transmitter on to the system as per the "Adding transmitters" section. 2. Contact your installer if the transmitter will not load on to the system.
Long YELLOW then two shorter RED flashes	PEC has failed Self Check test.	Contact your installer.
Reduced operating range	Batteries in transmitter are flat or aerials may not be fitted to remote control unit or they may be touching.	<ol style="list-style-type: none"> 1. Transmitter LED does not illuminate when flat and if batteries low it flashes when button pressed. Replace batteries. 2. Ensure aerials are not touching, if aerials are missing then contact your installer.
The door stops automatically after the bottom edge of the door has passed the top magnet when the door is closing (this only applies when bottom slat safety edge is installed).	Fault detected in safety edge circuit.	<ol style="list-style-type: none"> 1. Contact your installer. 2. To close the door press and hold the down button releasing the button once the door is fully down and locked (ensure the door is fully in view when operating).

POWER FAILURE/MANUAL OVERRIDE (IF FITTED)

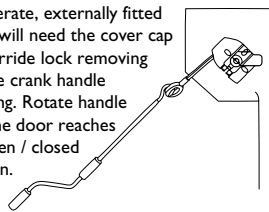
In the event of disruption to the power supply, or the motor temporarily over-heating (the motor is protected by a thermal cut-out), the door can be operated manually. Isolate power supply to shutter before using the manual override.

To operate, hold the crank handle in line with eye and rotate handle until the door reaches the open / closed position.



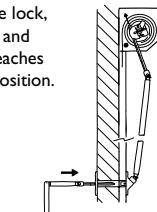
Internally installed shutter with internal manual override

To operate, externally fitted doors will need the cover cap or override lock removing and the crank handle inserting. Rotate handle until the door reaches the open / closed position.



Externally installed shutter with external manual override

To operate, remove lock, insert crank handle and rotate until door reaches the open / closed position.



Internally installed shutter with external manual override

When the main power is reinstated, ensure that the power isolator is switched back on. If applicable secure the handle back onto the wall. Remember to keep the crank handle in a convenient place.



**SECTION
III**

**MAINTENANCE
INSTRUCTIONS**

MAINTENANCE INSTRUCTIONS

CLEANING METHODS

Galvanised Steel / Aluminium Self Colour Or Powder Coated. Some shutter sections are designed for external applications and require little or no maintenance under normal operating conditions. Any general build up of dust or grime should be removed with a sponge using a soap and water mixture.

PLASTISOL FACED STEEL

Some shutter sections are manufactured from HP 200 plastisol coated steel, which require little maintenance under normal conditions. Any general build up of dust or grime should be treated as above.

WINDING GEAR, MOTOR UNIT, BARREL ASSEMBLIES

Winding gear, motor units (electric shutters), and barrel assemblies are generally under cover at high level and do not require regular cleaning between planned maintenance periods.

CLEANING MATERIALS, SOLVENTS ETC

White spirit may be used to remove graffiti but the shutter should be thoroughly washed and rinsed using a sponge with a soap and water mix afterwards.

MAINTENANCE BY THE USER

- On a daily basis the user should ensure that:
- There is no damage to any parts of the shutter
- Excessive force is not required to operate the shutter
- Any damage to the shutter or excessive force needed to operate the Shutter is reported and action taken as necessary to put the shutter in good working order
- Components of the shutter and the guides are free from dirt and dust build up likely to affect the operation
- The shutter operation continues to comply with the safety requirements

SERVICE

It is essential that the shutter operation remains functioning in accordance with the operating instructions. To ensure this happens a documented maintenance regime should be established and maintained by the employer in accordance with Regulation 5 of the Workplace (Health, Safety and Welfare) Regulations 1992.

Failure to do so may result in prosecution in the event of an accident.

MAINTENANCE INSTRUCTIONS

SERVICE INTERVALS

Note: Failure to keep the shutter regularly maintained will invalidate the warranty.

The following recommendations are for maintenance to ensure that the shutter remains in full working order throughout its service life. To ensure safe and reliable operation regular inspection and maintenance is essential. The intervals are dependant on the use.

Shutter cycles per day 1 cycle = open or close	Recommended Maintenance Period
Up to 16	6 months
Up to 30	4 months
Up to 44	3 months
Over 44	2 months

Shutters over 30m² should be serviced at intervals equivalent to 50% of above cycles.

MAINTENANCE

MAINTENANCE MUST BE CARRIED OUT BY TRAINED PERSONNEL ONLY

A specialist service engineer in accordance with the service work instructions and task sheets should carry out the service and maintenance in accordance with the recommended service intervals as above.

SAFETY DEVICES

Safety Brake

Roller shutter shutters may be fitted with a safety brake as an anti-fall back device. The brake is normally installed at the opposite end to the drive system on the end plate at high level. The brake works centrifugally and will stop the shutter completely if the shutter curtain travels too quickly in the downward mode. Once activated, a qualified engineer will be required to reset the brake.

Direct Drive Operator

Some roller shutters are fitted with a direct drive motor operator. This type of shutter does not have counterbalance springs fitted and therefore the direct drive unit is designed to take the full weight of the shutter curtain. The direct drive unit has a built in safety brake which will activate if there is a failure in the motor drive. Once activated the direct drive operator will stop the shutter completely and would have to be replaced by a qualified engineer.

Safety Beam

A photoelectric safety beam may be fitted to the shutter. If the beam is broken, the shutter will not close. If the beam is broken during closing, the shutter will stop and re-open to its fully open position. Please note that if the beam is out of alignment, the shutter will not operate.

SERVICE CHECKS

STANDARD SERVICE CHECK SHEET FOR ROLLER SHUTTER DOORS ON PLANNED MAINTENANCE

THIS WORK IS TO BE CARRIED OUT BY TRAINED PERSONNEL ONLY

Shutter Curtain

- Check general condition of shutter curtain.
- Check laths for signs of wear or damage.
- Check that end locks fixed to the ends of laths are secure.
- Check wind anchors are secure (if installed).
- Check curtain is securely fixed to barrel assembly.
- Check bottom rail section for wear or damage.
- Check seal on bottom rail section.
- Check the operation of any locking devices fitted.

Side Guides

- Check all fixings are secure.
- Check condition of guide channel and straighten any slight deformations.
- Grease guide channel if necessary.
- Check guide stops at high level.
- Check any chain keeps fitted.
- Check that the shutter curtain feeds into the guides smoothly and correctly.

End Plates and Barrel Assembly at High Level

- Check fixings are secure.
- Check and lubricate all gearing.
- Check all grub screws and keys.
- Check and lubricate drive chain if fitted.
- Check haul chain.
- Check barrel for correct tension. Re-tension barrel assembly if required to correctly balance the shutter curtain.
- Check condition of safety brake if fitted.
- Check that coil casing is securely fixed (if installed).

The springing in the barrel assembly is designed for approximately 10,000 cycles. At this point the barrel assembly should be replaced.

Electrical Drive System

- Check motor drive is securely fixed.
- Check drive gearing and lubricate.
- Check operation of manual over-ride system.
- Check electrical interlock of manual over-ride system.
- Check shutter travel limits and adjust if required.
- Check correct operation of control buttons.
- Check correct operation of safety edge (if installed).
- Check correct operation of safety beams (if installed).
- Check all other control systems (if installed).

If the shutter is correctly used and maintained, the motor drive system is designed to operate for at least 10.000 cycles. At this point consideration should be given to replace the motor drive.

SERVICE CHECKS

STANDARD SERVICE CHECK SHEET FOR FIRE RESISTANT ROLLER SHUTTER DOORS ON PLANNED MAINTENANCE

THIS WORK IS TO BE CARRIED OUT BY TRAINED PERSONNEL ONLY

Shutter Curtain

- Check general condition of shutter curtain.
- Check laths for signs of wear or damage.
- Check that end locks fixed to the ends of laths are secure.
- Check curtain is securely fixed to barrel assembly.
- Check bottom rail section for wear or damage.

Side Guides

DO NOT GREASE THE SIDE GUIDES,

- Check all fixings are secure and that fusible washers are in tact.
- Check condition of guide channel and straighten any slight deformations.
- Check guide stops at high level.
- Check any chain keeps fitted.
- Check that the shutter curtain feeds into the guides smoothly and correctly.
- Check drop bar guides (if installed).
- Check drop bar system works correctly (if installed).

End Plates and Barrel Assembly at High Level

- Check fixings are secure.
- Check all gearing is fitted.
- Check all grub screws and keys.
- Check drive chain is fitted.
- Check haul chain.
- On push up shutters, check barrel for correct tension.
Re-tension barrel assembly if required to correctly balance the shutter curtain.
- Check that the controlled descent operator is securely fixed.
- Check condition of safety brake if fitted.
- Check that coil casing and supports are securely fixed.

Simulate Fire Test

- Check condition of any fusible link or solenoid.
- Test the self-closing of the shutter by simulating fire conditions.
- Test operation of any battery back up device and warning systems (if fitted).
- Re-set shutter after test is complete.

Electrical Drive System

- Check motor drive is securely fixed.
- Check drive gearing and lubricate.
- Check operation of manual over-ride system.
- Check electrical interlock of manual over-ride system.
- Check shutter travel limits and adjust if required.
- Check correct operation of control buttons.
- Check correct operation of safety beams (if fitted).
- Check all other control systems (if installed).

The controlled descent operator is not designed to operate the shutter on a regular basis and should only be used sparingly.



Date:	Work Carried Out:
Engineers Name:	
Date:	Work Carried Out:
Engineers Name:	
Date:	Work Carried Out:
Engineers Name:	
Date:	Work Carried Out:
Engineers Name:	
Date:	Work Carried Out:
Engineers Name:	
Date:	Work Carried Out:
Engineers Name:	
Date:	Work Carried Out:
Engineers Name:	
Date:	Work Carried Out:
Engineers Name:	
Date:	Work Carried Out:
Engineers Name:	

DECLARATION

EC Declaration of Conformity

Products -

Manufacturer - AI Shutters Ltd
Jackson Works
Raikes Lane Industrial Estate
Bolton
BL3 2NH

The above product is in conformity with the essential Health & Safety requirements of the Products Standard BSEN 13241-1 and the following transposed harmonised standards.

BSEN 12100/1
BSEN 12100/2
BSEN 294:1992
BSEN 60204: part 1: 1997
BSEN 418: 1992
BSEN 12453:2001
BSEN 12604:2004
BSEN 12445:2001
BSEN 12635:2002
BSEN 12424:2000
BSEN 12444:2001

All relevant certificates and test reports are included in the technical construction file.

Date of issue:



Signature:.....

Name:

DECLARATION

EC Declaration of Incorporation

Products -

Manufacturer - AI Shutters Ltd
Jackson Works
Raikes Lane Industrial Estate
Bolton
BL3 2NH

The above product is in conformity with the essential Health & Safety requirements of the Products Standard BSEN 13241-1 and the following transposed harmonised standards.

BSEN 12100/1
BSEN 12100/2
BSEN 294:1992
BSEN 60204: part 1: 1997
BSEN 418: 1992
BSEN 12453:2001
BSEN 12604:2004
BSEN 12445:2001
BSEN 12635:2002
BSEN 12424:2000
BSEN 12444:2001

All relevant certificates and test reports are included in the technical construction file.

Date of issue:



Signature:.....

Name: