Operating and Maintenance Instructions Roller shutters / Rolling grilles

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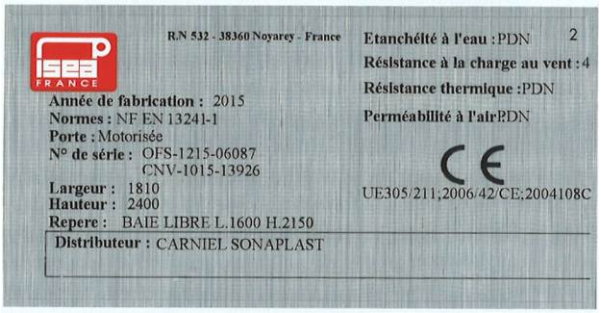
Table of contents

1 General information

1.1 Product identification

For an exact identification please read the following data on the type plate, which is located on the inside of the casing or on the drive unit:



(Example)

Type:

Serial number:

Article number:

Mains connection:

Fuse protection:

1.2 Manufacturer ISEA FRANCE

ISEA FRANCE

Route de Valence

Avenue St - Jean

F-38360 Noyarey

France

Phone: +33 4-76-53-99-99

Fax: +33 4-76-53-95-16

1.3 Document identification

Name: BAL_ROLLGITTER_EN_1V0_REC_119-002401021

Version: V1.0

Article No.: 119-002401021

1.4 Important Notes

1.4.1 Copyright

1.4.2 Target groups (User)

This operating manual is intended for the target groups listed below:

- Owner/operator of the system:
  the person who is responsible for the technical maintenance of this system.
- Operator of the system:
  the person who operates the system every day and has been suitably instructed.

This operating manual refers to the electrically-powered gates without counterbalance, types:

- DP106
- EUROLOOK
- P57 / P57 RUBIS (with micro perforations)
- P97 / P97 RUBIS (with micro perforations)
- P116 / P116 RUBIS (with micro perforations)
- BITUBO
- TUBONDA S
- TUBONDA R

Use and operation of the system is explained with the help of this manual. It forms the basis of fault-free working and gives instructions for the procedures to follow for rectifying any faults that may occur. Extracts of this document can also be made accessible to persons entrusted with the day-to-day operation of the system.
The owner/operator of the system must read this operating manual before commissioning the system, and follow the safety instructions.
It is recommended that this document is kept available in the vicinity of the automatic system.

1.4.3 General definition of terms

For better understanding, the following terms are used in the manuals:

Term:	Explanation:
System	A system is a gate supplied by ISEA FRANCE, F-38360 Noyarey. If any information in this manual applies exclusively to a specific gate type, this is specially mentioned in the text.
Manufacturer	ISEA FRANCE, FR-38360 Noyarey is described as the system's manufacturer.
Owner/operator	The owner/operator is the person or company who owns the system, regardless of whether the system is used by this person/company or by a third party. The owner/operator is responsible for ensuring the system's correct function and use.
Qualified personnel	Qualified persons have the necessary training, experience and instruction, as well as knowledge of relevant standards, regulations, accident prevention regulations and operating conditions, and have been authorized by the person responsible for the safety of the machine or system. They must perform the required tasks and recognize possible dangers and avoid them.

Competent person	A competent technical specialist, at least 16 years old, assigned by the manufacturer or his agent for assembly, commissioning, maintenance, and repair work.
Installation company	A competent technical person or company offering third-party installation services for these systems, including upgrades and electrical connections.
Shutter	A shutter consists of numerous exchangeable profiles, whose form enables them to be hinged together. Material: Galvanized or epoxy-coated steel
Gates without counterbalance	The shutter weight is not compensated by means of a spring mechanism. Gates without counterbalance open upwards.
P57 gates without counterbalance	Due to their low height, the profiles of the P57 gate are particularly attractive and are featured by minimum space requirements. Height: 57 mm. Thickness: 8-10 mm.
P97 (and P97 RUBIS) gates without counterbalance	Thanks to their curved shape, the P97 gate profiles are particularly strong (for intensive use and large widths). Height: 97 mm. Thickness: 7 or 9 mm.
P116 (and P116 RUBIS) gates without counterbalance	The P116 gate is ideally suited for all kinds of exterior openings (shops, industrial buildings, garages). Height: 116 mm. Thickness: 7 or 9 mm.
DP106 gates without counterbalance	Thanks to their dual-walled profiles with PU foam filling, DP106 gates offer good insulation properties. Heat transfer coefficient: k=3.5 w/m^2
EUROLOOK gates without counterbalance	The transparent EUROLOOK shutter features a transparency of 83 % and a light transmittance of 92 % (UV-resistant).
BITUBO roller grilles without counterbalance	The BITUBO model features a specially modern design, and offers incomparable strength for large openings.
TUBONDA S roller grilles without counterbalance	The TUBONDA S model consists of curved tubes with diameters of 14 mm, and offers extensive visibility.

TUBONDA R roller grilles without counterbalance	The TUBONDA R model consists of curved tubes and horizontal reinforcing tubes with diameters of 14 mm, which are interconnected by means of safety fasteners. Interspaces of 45 mm ensure absolute safety.
Operated by continuous pressing (dead man mode)	The control button that moves the shutter to the required position (opening, stop, closing) must be pressed continuously while watching the shutter.
Impulse operation for opening, and dead man operation for closing	This operating mode complies with the impulse mode described in EN 13241-1.

1.4.4 Storage of the manual

After the installation of the system, the instructions should be stored in an accessible and dry place.

2 Safety instructions and regulations

2.1 Presentation of warning signs

Various symbols are used in this guide for easier understanding:

NOTICE

Useful advice and information to ensure correct and efficient workflow of the system.

IMPORTANT

Specific details which are essential for trouble-free operation of the system.

IMPORTANT

Important details which must be read for proper function of the system.

⚠ CAUTION

Against a potential hazardous situation that can lead to minor personal injury and property damage.

⚠ WARNING

Against a latent hazardous situation that can lead to severe injuries or death and cause substantial property damage.

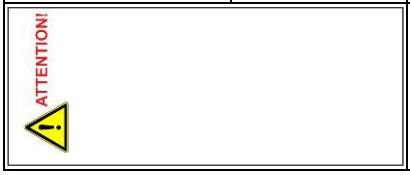
⚠ DANGER

Against an imminent hazardous situation that can lead to severe injury or death.

⚠ DANGER

Against an imminent or latent hazardous situation that could lead to electric shock and cause serious injury or death.

2.2 Explanation of symbols on the gate

Symbol / Pictograph		Location	Description
Crushing hazard		On the bottom profile	Risk of crushing between shutter and floor when closing
Pinching hazard		On the guide rails, both sides, at eye level	Risk of getting caught in the guide rails when opening/closing the shutter
CE marking		On a surface that is clearly visible for installation and operating personnel	Declaration of conformity that certifies the gate's compliance with the EU Machine Directive
		On a surface that is clearly visible for operating personnel	Important notes for operation

IMPORTANT

It is essential that these pictographs are attached during installation.
If necessary, the country-specific regulations must be observed and applied.

2.3 Product safety

2.3.1 State of the technology

The installation has been constructed according to the latest technical knowledge and the recognised safety regulations. The installation complies with the requirements of European machinery directive 2006/42/EG as well as European standard NF EN 13241-1+A1 June 2011, NF EN 12604, NF EN 12453.

This conformity was established by means of prototype tests

Nevertheless, danger can arise if not used as intended.

IMPORTANT

Installation, maintenance and repairs to the installation must only be performed by qualified, trained and authorised technicians
A risk assessment has to be carried out for the whole installation.

2.3.2 Intended purpose of use

The system is intended to be used exclusively as a gate. This permits a wide range of application areas, as well as access by persons and vehicles. The system is intended for installation in industrial, commercial, and private premises.
Use of the system drive force for lifting persons, animals or loads is prohibited.
It is forbidden to use devices for the purpose of pressing or pushing against the system's drive force.
It is forbidden to modify the gate or its component parts.
It is forbidden to modify the electric control system in order to accelerate or reduce the gate's operating speed.
Any other use is considered to be non-intended use. The manufacturer bears no liability for any resulting damage; the owner/operator is solely responsible.
The intended purposes also include observation of the operating conditions specified by the manufacturer, in addition to regular care, maintenance and repair.

2.3.3 Residual risks

The system was designed according to the state of the art and recognized standards and guidelines. Nevertheless, improper use could endanger user safety and certain residual risks may not be avoided.

NOTICE

This device was not intended to be used by persons (including children) with limited physical, sensory or mental abilities, or with the absence of experience and/or lack of knowledge, unless they are being supervised by a person responsible for their safety or received instruction on how to use the device.

Children should be supervised to ensure that they do not play with the device.

2.4 Danger zones

2.4.1 Danger warnings on the product

If necessary, the country specific regulations have to be adhered to.

2.4.2 Qualifications, skills and training of staff

Mechanic	Technical training with very good electrical and mechanical skills Site experience
Commissioning employees Service employees	Technical training with very good electrical and mechanical skills Experience in field service

2.4.3 Reconstructions and changes to the product

Unauthorized modifications to the installation will release the manufacturer from all liability for any resulting damage.

2.5 Safety instructions

NOTICE

The system power must be turned off when doing inspection and maintenance work on electrical components.

IMPORTANT

All repairs and service work must be performed by qualified personnel. Technicians must have good general technical knowledge and a good knowledge of the current standards and regulations.

IMPORTANT

If malfunctions that endanger the safety of individuals occur, the system must be turned off. It may not be turned back on until the problem has been resolved by a professional and the danger no long exists.

IMPORTANT

The gate may not be operated if any persons are within the gate's actuating area. Maintain a distance of at least 1 m from the gate.

IMPORTANT

To prevent injuries, the corresponding handle must always be used to open the gate manually.

IMPORTANT

The gate must be opened completely to allow a vehicle to pass through.

IMPORTANT

If the gate's operation deviates from the description in this manual, or its functional safety is endangered due to faulty components, illegible pictographs or inadequate maintenance, please contact your supplier as soon as possible.

IMPORTANT

Corrosive and chemically aggressive ambient conditions (use of acids or leaches) can impair the gate's operational safety.

IMPORTANT

The removal of protective or safety devices, pictographs, or warning labels, as well as constructional modifications are strictly forbidden.

IMPORTANT

Wiring must be done in accordance with current national regulations, e.g. VDE.

⚠ CAUTION

Fingers getting pinched

- Fingers or hands getting crushed, sheared or pulled in

➢ Maintain at least 1 m distance during operation

⚠ DANGER

Dangerous electrical voltage!

- Risk of death by electric shock

➢ Do not touch the drive system when the system is turned on.

➢ Do not spray water into the drive.

2.6 Power supply

The power supply must be connected by a licensed electrician in compliance with the required safety class and degree of protection!
The cabeling must be done according the french standard NFC 15-100 or according to the country specific regulations.

3 Operating conditions

The gate may not be operated under the following conditions:

- Temperatures below -30 °C
- Temperatures above +60 °C
- Wind pressure above 1100 Pascal (wind speed 110 km/h)
- The wind-up shaft may not be installed in the open during bad weather.
- The wind-up shaft must always be accessible for disassembly or maintenance.

4 Operation

4.1 Operating principle

Roller shutters and roller grilles are fitted with a drive motor that assists gate operation. The gate can be operated by various means, e.g. via an

Electric actuating device.

Triggered by the actuating device, the gate is operated by an electric motor.

4.2 Authorized user

Operating mode	Trained user (non-public area)	Trained user (public area)	Untrained user
Controller with automatic reset (dead man function)	Push-button with automatic reset (dead man function)	Key switch with automatic reset (dead man function)	Prohibited
Opening via push-button and clear view of gate Closing with long press of the button	3-position switch with Stop	3-position key switch with Stop	Prohibited
Opening & closing via push-button and clear view of gate	Sealing profile below the finishing profile + 3-position switch	Sealing profile + 2 sets of photo cells* + flashing lights	Prohibited
Automatic operation **(not possible with perforated grilles)**	Sealing profile + 2 sets of photo cells* + 2 flashing lights + illuminated area	Sealing profile + 2 sets of photo cells* + 2 flashing lights + illuminated area	Sealing profile + 2 sets of photo cells* + 2 flashing lights + illuminated area

NOTICE

“Public area”: Doors and gates with direct access from public thoroughfares, or used in residential areas.

NOTICE

“Trained user”: Person who has been trained by the installation company to operate the gate.

NOTICE

The swing range must be marked on the floor with yellow-black warning tape (responsibility of the installation company).

NOTICE

*** The 2nd set of photo cells must be installed at a height of about 2 m, so that persons trying to climb onto the shutter are detected.**

4.3 Optional protective devices

NOTICE

Depending on the gate's actuation method, these protective devices are optional, and are available for a surcharge.

4.3.1 * Safety light barriers

Gates with electric control can be fitted with one or two safety light barriers.
The light barriers consist of a housing that emits an infrared light beam. If the infrared light beam is interrupted while the gate is closing, the gate opens again automatically.

4.3.2 Safety sealing profile

Gates with electric control can be fitted with a safety sealing profile. The safety sealing profile consists of two rubber-embedded light barriers that emit an infrared light beam. If the infrared light beam is interrupted while the gate is closing, the gate opens again automatically.

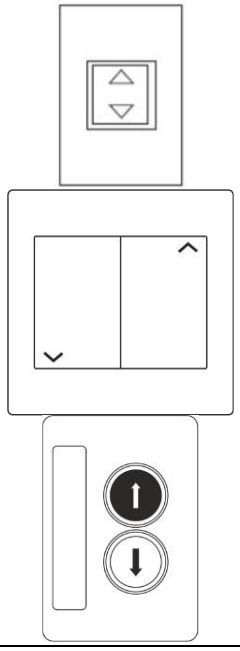
4.3.3 Fall arrester

Shutters fitted with 4, 6 or 8 springs: If one spring fails, the remaining springs will keep the shutter in balance.
Shutters fitted with 2 springs: If a spring fails, the fall arrester is activated automatically.

4.4 Push-button and key switch

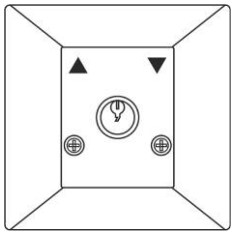
The push-button serves for intentional door operation, and is located in a safe position for the operator at a height of 1.5 m above the ground. From this location, the operator must have a clear view of the system at all times.
On gate actuators with dead-man function, manual shutter operation must only be possible by means of control devices without self-holding.

4.4.1 Key operation

	**Gate open:** The gate can be opened by pressing the push-button continuously. The shutter then moves upwards. If the push-button is released, the shutter stops. **Gate close:** The gate can be closed by pressing the push-button (continuously). The shutter then moves downwards. If the push-button is released, the shutter stops.

4.4.2 key switch

The key switch serves for intentional gate operation, and is located in a safe position for the operator at a height of 1.5 m above the ground. From this location, the operator must have a clear view of the system at all times.
On gate actuators with dead-man function, manual shutter operation must only be possible by means of control devices without self-holding.

	**Gate open:** The gate can be opened with the keyswitch by turning and **holding** the key. The shutter then moves upwards. If the key is released, the shutter stops. **Gate close:** The gate can be closed with the keyswitch by turning and **holding** the key. The shutter then moves downwards. If the key is released, the shutter stops.

5 Procedure in case of malfunction

The gate components have been designed for the following number of cycles and operations per day.

Drive type	Cycles	Operations/day
Gate with mid-mounted motor	15,000	10
Gate with direct drive motor (bracket)	50,000	50
Gate with direct drive motor (flange)	50,000	50
Gate with tubular motor	50,000	50
Gate with drawbar	15,000	10

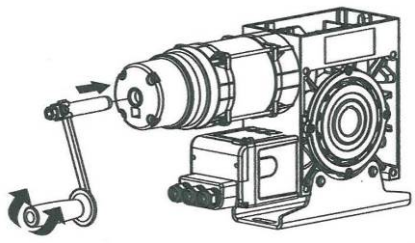
Proceed as follows in case of a gate malfunction:

Malfunctions	Possible cause	Remedial action
Loud noise when opening or closing the gate	Guide rails or flanges must be lubricated Check the alignment of the profiles There must be no projecting screws or welds in the guide rails Incorrectly adjusted play	Lubricate the guide rails and/or springs Please contact your supplier
Gate does not respond to remote control signals	Fault in the electrical system	Switch the gate off completely and contact your supplier
The shutter stops immediately after being started	Fault in the Emergency Stop device or the safety catch locking system	Please contact your supplier
Shutter is slanted	Connecting tabs loose or damaged / one or more springs broken Shaft is slanted	Please contact your supplier
Gate stops moving before reaching its upper or lower end stop	End stop switches have become misaligned	Please contact your supplier
Gate moves up or down again shortly after being stopped	Springs have not been tensioned correctly (with power-actuated gates, the Emergency Stop has possibly been triggered or a connecting element between motor and shutter is missing)	Please contact your supplier

Gate does not remain in the starting position	Springs have weakened or have been tensioned too much	Please contact your supplier
Gate closes in jerks	The shutter has been fitted with a fall arrester, and the closing speed is too high	Move the shutter downwards more slowly
The drive does not work	Check the electrical connections The fall arrester has engaged The emergency manual crank is inserted The screw of the hook on the motor side is too long	Please contact your supplier Please contact your supplier Remove the crank and try again Please contact your supplier

5.1 Emergency operation of gate with direct drive motor

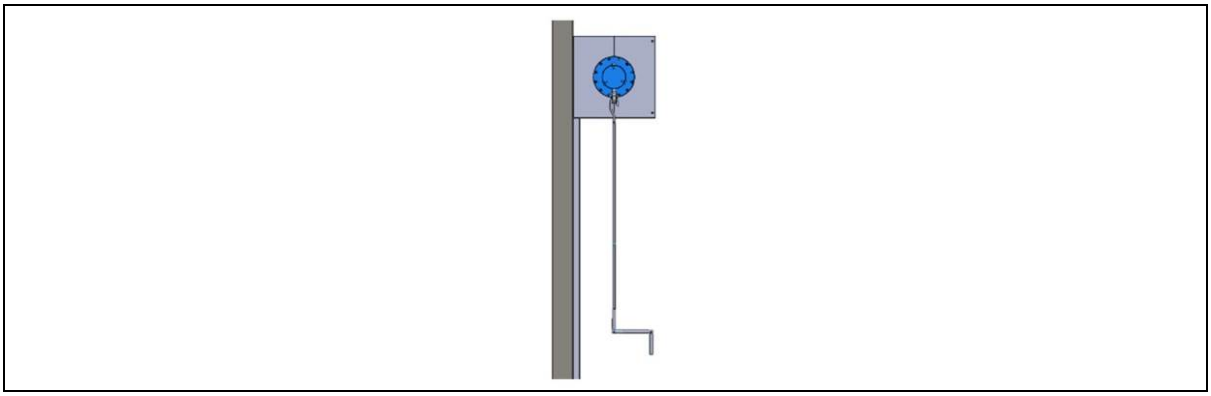
The emergency crank may only be used in case of a power failure or a motor fault.



1. Insert the crank into the corresponding opening as far as it will go. This disconnects the power to the motor so that the gate can no longer be operated electrically.
2. Turn the crank in the required direction to OPEN or CLOSE the gate.
3. Remove the crank when the emergency gate operation has been completed. This reconnects the power to the motor so that the gate can be operated electrically.

5.2 Emergency operation of gate with tubular motor

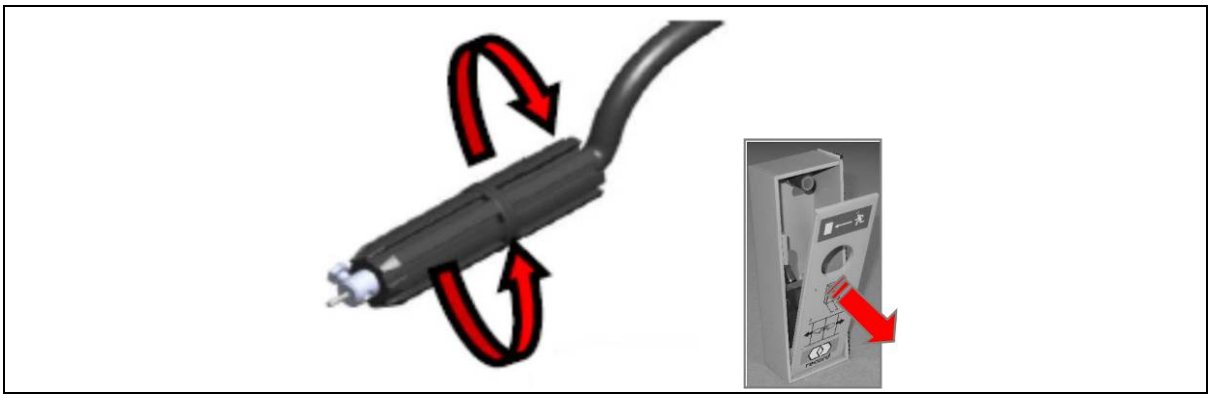
The emergency crank may only be used in case of a power failure or a motor fault.
When using the crank, the motor end stops must never be exceeded.
Therefore, only turn the crank until the gate is closed, or open so far that a vehicle can pass through.



1. Pass the crank through the hook of the manual drive, and pull the hook downwards.
2. Now turn the crank in the opening or closing direction.
3. When the manual gate operation has been completed, push the hook upwards and remove the crank.

5.3 Emergency operation of gate with mid-mounted motor

The actuating knob of the electric brake may only be operated in case of a power failure or a motor fault.
When using the crank, the motor end stops must never be exceeded. Therefore, only turn the crank until the gate is open so far that a vehicle can pass through, or until the gate is closed.



1. Loosen the actuating knob until the electric brake comes off the drive motor (the cable must be taut).
2. Open or close the gate manually.
3. Remember to re-tighten the actuating knob when finished.

6 Acceptance report

Product description:

Serial number:

Address of operating entity/owner:

Address of installation site:

Checked:	
	Product is complete and in good condition
	Safety devices are in good condition
	Installation has been done correctly
	CE marking attached
	Shearing points are protected or marked with warning labels

Remarks / notes:

Delivery:

This document certifies the successful acceptance test of the product, and is the formal confirmation of delivery.

By signing this document, the purchaser confirms:

- that the product complies with his order;
- receipt of the operating and maintenance instructions, and that he has taken notice of his duties within the scope of the relevant standards as specified in the instructions;
- receipt of the troubleshooting instructions;
- receipt of the CE Certificate of Conformity (enclosed in this manual).

Date: ……

Signed for the installation company:……

Signed for the operating entity/owner:……

7 Maintenance and regular inspection

General:

All maintenance and/or repair work may only be carried out by a suitably qualified installation company with the necessary technical expertise regarding the gates involved, and that is able to ensure correct gate operation.

NOTICE

Any damage caused by non-observance of the operating and maintenance instructions or inadequate servicing, is not covered by our warranty. All maintenance work must be carried out by a qualified installation company.

Before first commissioning, and subsequently as required – and also according to applicable regulations, but at least **once per year** – a technical safety inspection must be carried out by a qualified service technician or an authorized partner.
The manufacturer recommends maintenance work to be done every 6 months. The operating person must keep the inspection certificates, and make them available to the relevant authorities on demand.
Regular inspection and maintenance of the system by trained personnel authorized by the manufacturer is the best insurance for a long service life and trouble-free, safe operation.

Inspection:

Check the gate for signs of damage from possible collisions.
Check the condition of the guide rails, and make sure that they are free of dirt or foreign bodies, which could restrict the shutter's free movement. These inspections are not normal maintenance work, but are checks that should be carried out regularly when inspecting and cleaning the workplace.
The operating person is obliged to carry out such an inspection every time before operating the gate.

Cleaning and care:

The shutter elements are made of a special polycarbonate alloy. They can be cleaned with a soft and moist cloth dipped in warm water with dissolved liquid soap. Alternatively, a glass cleaning agent and a soft cloth can be used to clean the element.

IMPORTANT

Do not use scouring agents or a dry cloth, as this could result in scratch marks on the element surfaces. On no account may alkaline cleaning agents, glue solvents or limescale removers be used, as they will attack the polycarbonate.

Maintenance:

IMPORTANT

During maintenance work, suitable warning signs must be installed on both sides of the gate.
Disconnect the motor from the mains supply.

- Check the drive shaft alignment.
- Check the condition of the connecting tabs.
- Check the connections of the fall arrester (with fall arrester on the opposite side).
- Check the motor end stop adjustments.
- Check the motor brake.
- Check the gate mounting tightness.
- Check the fall arrester mounting.

- Check the motor mounting.
- Clean the guide rails and flanges.
- Check the alignment of the profiles.
- Check the function of inside and outside emergency manual operating devices.
- Check the control unit function.

NOTICE

Lubricate the guide rails and flanges regularly to ensure smooth and quiet operation.

NOTICE

At temperatures near the freezing point, all rubber seals must be protected with a thin coat of vaseline.

IMPORTANT

Make corresponding entries in the maintenance log with date and signature.
Enter any repair work carried out.
Have the maintenance log signed by the owner/operator.
Point out any faults or urgent repair work.

Spare parts:

Spare parts can be ordered from your supplier. Only original spare parts must be used, and they must be fitted by a qualified installation company.
We recommend entering a servicing agreement with the service organization or authorized partner for your region.

8 Maintenance log

Serviced on:	Comments:
By:	

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By:	

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9 Dismantling and disposal

IMPORTANT

All system components must be sorted, separated, and disposed of in accordance with the local and national regulations.

Amongst others, the system contains the following materials and components:

Aluminium:

- profiles
- drive gear housing
- various profiles and small parts
- drive covers

Steel / iron parts:

- drive housing
- possibly spacing or reinforcing profiles
- drive components, springs
- various small parts such as trolleys, threaded fittings, covers, linkage parts, etc.

various electronic and electro-mechanical components:

- sensors, controls, and drive components
- lead-acid and NC batteries

Various plastics:

- track rollers
- cable clips, clutch and linkage components
- sealing profiles
- housings of the electro-mechanical components and sensors

Liquids:

- lubrication oil (in the motor) must be disposed of as hazardous waste

10 EC declaration of conformity

Contact

➔ record UK limited

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