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LIFTINGITALIA[®]

COMFORTABLE HOMELIFTS

IconLift

Screw-driven lifting platform with car



MAINTENANCE INSTRUCTIONS

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|-------------|--------------------|-------------|
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INDEX

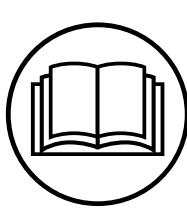
| | |
|---|----|
| SCOPO DEL MANUALE | 4 |
| SICUREZZA PERSONALE E RICONOSCIMENTO DEL RISCHIO | 4 |
| GUIDA ALLA LETTURA DEL MANUALE | 5 |
| RESPONSABILITÀ E CONDIZIONI DI GARANZIA | 5 |
| 1. DISPOSIZIONI GENERALI E GESTIONE DEL CANTIERE | 6 |
| 1.1. DISPOSIZIONI GENERALI | 6 |
| 2. VERIFICHE PRELIMINARI | 7 |
| 2.1. VERIFICHE PRELIMINARI DI SICUREZZA | 7 |
| 2.2. VERIFICHE PRELIMINARI DEL LUOGO DI INSTALLAZIONE | 7 |
| 2.3. OBBLIGHI DELL'INSTALLATORE | 7 |
| 3. ATTREZZATURE E MATERIALI NECESSARI PER LA MANUTENZIONE | 8 |
| 4. LISTA DELLE PARTI DI RICAMBIO | 8 |
| 5. VERIFICA DELL'IMPIANTO | 9 |
| 5.1. INFORMAZIONI GENERALI | 9 |
| 5.2. MESSA FUORI SERVIZIO DELL'IMPIANTO | 9 |
| 6. OPERAZIONI DI MANUTENZIONE | 10 |
| 6.1. DAVANTI ALL'ARMADIO DI COMANDO | 10 |
| 6.2. IN FOSSA | 11 |
| 6.3. DENTRO ALLA CABINA | 12 |
| 6.4. DESCRIZIONE E PERIODICITÀ DELLE OPERAZIONI DI MANUTENZIONE | 13 |
| 7. PORTE DI PIANO - UTILIZZO DELLA CHIAVE DI EMERGENZA | 16 |
| 8. ESECUZIONE DELLE RIPARAZIONI | 16 |



PURPOSE OF THE MANUAL

The purpose of this manual is to provide correct information on the installation of the product, in order to contribute to personal safety and to the proper functioning of the system. Keep the manual for the entire life of the product. In the event of a change of ownership, the manual must be provided to the new user as an integral part of the product.

NOTICE



READ THIS MANUAL CAREFULLY before installing and using the product. This product must be installed and put into operation according to the provisions and regulations in force. Improper installation or improper use of the product can cause damage to people and property, as well as cause the warranty to lapse.

FOLLOW THE SUGGESTIONS AND RECOMMENDATIONS TO OPERATE IN SAFETY.

Any unauthorized modification can compromise the safety of the system, as well as the correct operation and the life of the machine. If you have any doubts regarding the correct understanding of the information and contents contained in this manual, contact LIFTING ITALIA S.r.l. immediately.

QUALIFIED PERSONNEL: The product covered by this documentation can only be installed by qualified personnel, in compliance with the attached technical documentation, above all in compliance with the safety warnings and the precautions contained therein.

Keep the technical and safety documentation near the system.



PERSONAL SECURITY AND RISK RECOGNITION

This manual contains safety rules that must be observed to safeguard personal safety and to prevent damage to the property. The indications to be followed to guarantee personal safety are highlighted by a triangle symbol while those to avoid material damage are not preceded by the triangle. The hazard warnings are shown as follows and indicate the different levels of risk in descending order.

RISK SYMBOLOGY AND PHRASES

| RISK CLASSIFICATION AND RELATIVE GRAVITY OF DAMAGE | | |
|--|---|------------|
| DANGER | The symbol indicates that the failure to comply with appropriate safety measures causes death or serious physical injury. | RISK LEVEL |
| WARNING | The symbol indicates that the failure to observe the corresponding safety measures can cause death or serious personal injury. | |
| CAUTION | The symbol indicates that failure to observe the relevant safety measures can cause minor or moderate personal injury or damage to the device. | |
| NOTICE | It is not a symbol of security. It indicates that the failure to comply with relevant safety measures can result in property damage. | |
| INFORMATION | It is not a symbol of security. It indicates important information. | |

If there are multiple levels of risk, the danger warning always indicates the highest one. If a warning is drawn with a triangle to warn of the risk of injury to persons, the risk of possible property damage may also be caused at the same time.

NOTE: During installation / maintenance of the platform, the safety functions are temporarily suspended. Therefore all necessary precautions must be taken to avoid personal injury and / or damage to the product.



MANUAL READING GUIDE

WARNING SIGN

| | | | | | |
|--|---------------------------|--|------------------------|--|-----------------------------|
| | GENERAL DANGER | | ELECTRICITY DANGER | | DANGER FLAMMABLE MATERIAL |
| | DANGER OF FALL BY A LEVEL | | DANGER SUSPENDED LOADS | | DANGER CORROSIVE SUBSTANCES |

PROHIBITION SIGN

| | | | | | |
|--|---------------------|--|----------------------|--|--|
| | GENERIC PROHIBITION | | FORBIDDEN TO STEP ON | | PROHIBITED TO WALK ON OR STOP IN THIS AREA |
|--|---------------------|--|----------------------|--|--|

MANDATORY SIGN

| | | | | | |
|--|--|--|---|--|---------------------------------------|
| | OBLIGATORY TO WEAR THE PROTECTION HELMET | | OBLIGATORY TO WEAR SAFETY SHOES | | OBLIGATORY WEAR THE PROTECTIVE GLOVES |
| | OBLIGATORY TO WEAR EYE PROTECTION | | OBLIGATION TO WEAR THE AUDIO PROTECTION | | OBLIGATORY TO WEAR THE MASK |
| | OBLIGATORY TO WEAR PROTECTIVE CLOTHES | | OBLIGATORY TO KEEP CLOSED | | OBLIGATORY TO CHECK THE PROTECTIONS |

EMERGENCY AND FIRST AID SIGNS

INDICATION SYMBOLS

| | | | | | | | |
|--|-----------|--|-----------|--|----------|--|-------------------------------------|
| | FIRST AID | | NOTA BENE | | KEEP DRY | | OBLIGATORY TO CHECK THE PROTECTIONS |
|--|-----------|--|-----------|--|----------|--|-------------------------------------|



LIABILITY AND WARRANTY CONDITIONS:

RESPONSIBILITY OF THE INSTALLER

The elevator / platform is produced and intended to be installed as described in the attached project drawing and in this manual; any divergence from the prescribed procedure may affect the operation and safety of the system and cause the immediate cancellation of the warranty.

Any modification or variation made to the project and the to the assembly Instructions must be documented in detail and referred to LIFTING ITALIA S.r.l., in order to allow the company an adequate assessment. Under no circumstances can a modified system be activated without the express authorization of LIFTING ITALIA S.r.l.

Installers are responsible for ensuring compliance with safety procedures at work and any health and safety regulations in force in the country and on the site where the assembly is carried out.

The elevator / platform must only be used in the way envisaged by the system and illustrated in the relative manuals (transportation of people and / or things, maximum loads, cycles of use, etc.). LIFTING ITALIA S.r.l. assumes no responsibility for damage to persons and property caused by improper use of the system.

NOTE: Pictures and images on this manual are for illustration purposes only.



1. GENERAL DISPOSITIONS AND INSTALLATION SITE MANAGEMENT

1.1. GENERAL DISPOSITIONS

IMPORTANT!

 For more information on safety, liability and warranty conditions, receipt and storage of material on site, packaging, waste disposal, cleaning and storage of the product; refer to the "**SAFETY INSTRUCTIONS AND SITE MANAGEMENT**" manual.

NOTICE

PRELIMINARY CHECKS: Once the packaging has been opened, check that the product is intact and has not been damaged during transport. Should any anomalies or damage be found, please dispatch them in writing on the transport document to the transport company, giving written notice to LIFTINGITALIA S.r.l.

NOTE: In this manual, we will talk about "SHAFT" meaning for it the base slab, the slab of landing and the vertical wall that connects its slabs.

CAUTION

SAFETY AND SITE MANAGEMENT - OVERALL DISPOSITIONS:

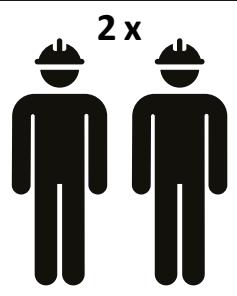
1. Always secure tools and any objects against falling;
2. Pay the utmost attention to all the steps described in this;
3. While assembling the parts making up the system or after installation, be careful of any sharp burrs (machining residues);



WARNING

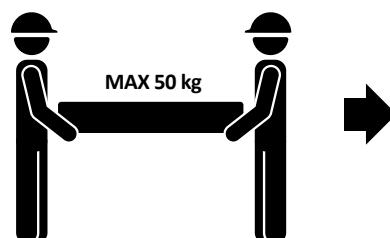
RISK OF ELECTROCUTION:

The lighting and power supply systems must meet the requirements of the system and the regulations in force. Check that it has an effective earth. **If they do not meet all the requirements, interrupt the installation until the system has been brought up to standard** by the customer.



The assembly must be performed by a **MINIMUM 2** people;

If the load is greater than 50kg, use the hoist for handling.





2. PRELIMINARY CONTROLS



2.1. PRELIMINARY SAFETY CHECKS



WARNING

BEFORE STARTING THE INSTALLATION, YOU NEED:

- Check that the main electrical system is up to standard and provided with adequate grounding; **Otherwise, stop the installation until the Customer has made the system up-to-date.**
- Check the presence of an efficient lighting system at the place of installation;
- Check the cleanliness of the shaft and pit and that there are no liquids (water, oil, ...) on the bottom;
- Check that the entrances to the work areas are properly closed;
- Check that all the holes and the housings for the electric cables are free, inspectable, well finished and dry;
- Check that there is adequate ventilation for the smoke exhaust;

2.2. PRELIMINARY CHECKS OF THE INSTALLATION SITE

NOTICE

BEFORE STARTING THE INSTALLATION CHECK THE FOLLOWING MEASURES AND COMPARE THEM WITH THOSE ON THE PROJECT DRAWING:

- Width (distance between the side walls)
- Depth (distance between front and back wall)
- Pit depth
- Travel
- Headroom height
- Plumbing of the shaft and any plumb parts already installed
- Dimensions of any necessary arrangements (breaking down the landing doors, distance between the guides,
- Determine the finished floor level of each floor;

Measure the width and length of the shaft at all levels. Perform the dimensional checks independently of the measurements taken by the building manufacturers.

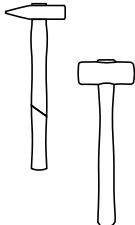
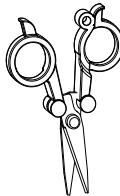
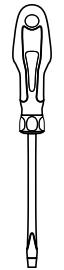
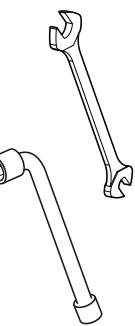
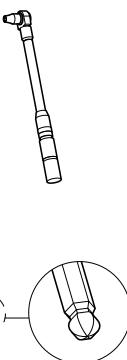
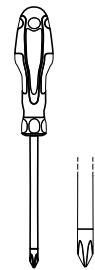
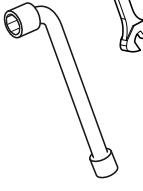
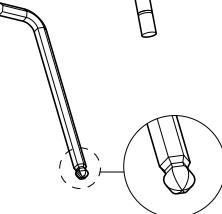
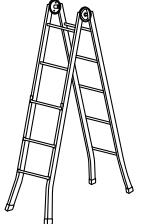
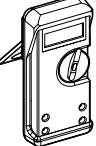
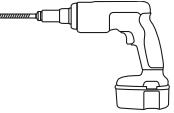
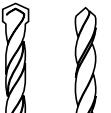
2.3. OBLIGATIONS OF THE INSTALLER



BEFORE STARTING THE INSTALLATION, YOU NEED:

- Arrange a material deposit area near the work area, easily accessible and protected from the bad weather;
- Prepare any lifting equipment to be used;
- Check the presence of all materials, using the list;
- Check the state of all materials at the time of receipt on site and in case of damage or missing contact the supplier immediately;
- Periodically check the materials destined for long storage before installation to avoid possible deterioration caused by incorrect storage;
- Check the completeness of the attached documentation

INFORMATION**3. TOOLS REQUIRED FOR INSTALLATION**

| | | | | | | | |
|------------------------|---|---|---|---|--|---------------------------|---|
| Hammer |  | Tape measure |  | Insulation tape |  | Scissors for electricians |  |
| Rubber hammer | | | | | | | |
| Flat-blade screwdriver |  | Spanner 5 ÷ 27 mm 2 each size |  | Ratcheting ring spanner 13 to 19 mm |  | Phillips screwdriver |  |
| Phillips screwdriver | | Socket wrench 5 to 27 mm |  | Allen key with ball end 2,5 to 8 mm |  | | |
| Adjustable pliers |  | Portable lamp |  | Platform or foldable safety ladder, 5 steps |  | Digital Multimeter |  |
| Drill |  | for Brickwork 6 to 22 mm Metal 2 to 13 mm |  | Chronometer |  | | |

INFORMATION**4. SPARE PARTS LIST**

| Component | Description | Q.ty | Code |
|-------------------|-----------------|------|-----------------|
| Sliding shoes | Lateral shoes | 4 | F300.05.0002V02 |
| | Yoke shoe seals | 2 | F600.05.9057V04 |
| Safety nut | | 1 | F352.05.6033 |
| Nut | | 1 | F352.05.6031 |
| Trapezoidal belts | | 2 | F352.05.9017 |



5. TEST PROCEDURE

The platform lift has been designed to reduce the necessity of periodical maintenance.

The safety components have been certified in accordance with the current regulations. The platform lift has been certified in accordance with Machine Directive 2006/42/CE, to guarantee the maximum reliability of the products and the complete user's safety. The actual maintenance requirements comprise a periodical check by an authorized Body, to be effected every two years. We recommend that maintenance operations be effected to ensure the correct functioning of the lift. The owner of the lift is invited to plan and strictly follow the maintenance operation schedule. Should any irregularity or trouble occur, the maintenance personnel must be notified immediately.

5.1. GENERAL INFORMATION

- a. The stops are indicated as 0, 1, 2, 3, "0" meaning the lowest floor: the COP numbering may be different according to the customer's needs (example -1, 0, etc.);
- b. The other reference documents are as follows:
 - Project drawings referred to the lift;
 - Electrical schemes and instructions;
 - Hydraulic scheme.
- c. For threaded fixings coupling, please respect the below table.

All the screws used for the lift assembly, have been tightened using the parameters stated in the below table.

| SCREW | COUPLE MAX (Nm) | COUPLE MIN (Nm) |
|-------|-----------------|-----------------|
| M3 | 1.2 | 1.0 |
| M4 | 2.6 | 2.1 |
| M5 | 5.1 | 4.1 |
| M6 | 9.0 | 7.0 |
| M8 | 21.0 | 17.0 |
| M10 | 42.0 | 34.0 |
| M12 | 71.0 | 57.0 |
| M16 | 175.0 | 145.0 |

In case of necessity, consult the table.

5.2. OUT OF SERVICE MODE

The following instructions describe the out of service procedure.

1. Make sure the car is empty;
2. Bring the car to the lowest floor;
3. Wait for the busy signal to be off;
4. Open all the circuits of the power supply board;
5. Check if all the other landing doors are closed correctly;
6. Arrange the "out of service" boards to be placed on all landings.

On completion of the above listed operations, the lift can be considered out of service, and cannot be used.



6. MAINTENANCE OPERATIONS



NOTICE



The maintenance operations must only be carried out by qualified personnel, in possession of a certificate for the maintenance of lifts, issued according to the current regulations.



The persons authorized to carry out maintenance and rescue operations are those in possession of a certificate of qualification for the maintenance of lifts, issued in accordance with current regulations.

The frequency and the description of the operations are stated in the table, paragraph 1.5. The recommended frequency is referred to the normal use of the lift, which means 1200 runs per month; a more frequent use requires a more frequent maintenance. The commissioning operations fare listed in the Installation Manual; these are to be repeated, should there be a time gap of more than six months between the installation and the commissioning dates, or should the service be suspended for more than six months. Should any element need to be replaced, we recommend using original components from the supplier LIFTINGITALIA S.r.l.

The following maintenance areas have been identified:

1. IN FRONT OF THE CONTROL BOARD;
2. IN THE PIT;
3. ON THE PLATFORM ("CAR").

The following table shows the maintenance areas in connection with paragraph 1.5.

| Maintenance area | N. of operation |
|----------------------------------|---|
| In front of the electrical panel | 2, 5, 8, 10 |
| In the pit | 6, 7, 10, 12, 13, 14 |
| On the platform ("car") | 1, 2, 3, 4, 6, 7, 9, 10, 11, 12, 13, 14, 15 |

Make sure that all the safety measures are taken, before starting to work in the maintenance areas.

6.1. IN FRONT OF THE CONTROL BOARD

| | |
|---|--|
|  |  WARNING |
| | ELECTRICITY HAZARD: Several operations are to be effected in front of the control board under power. |

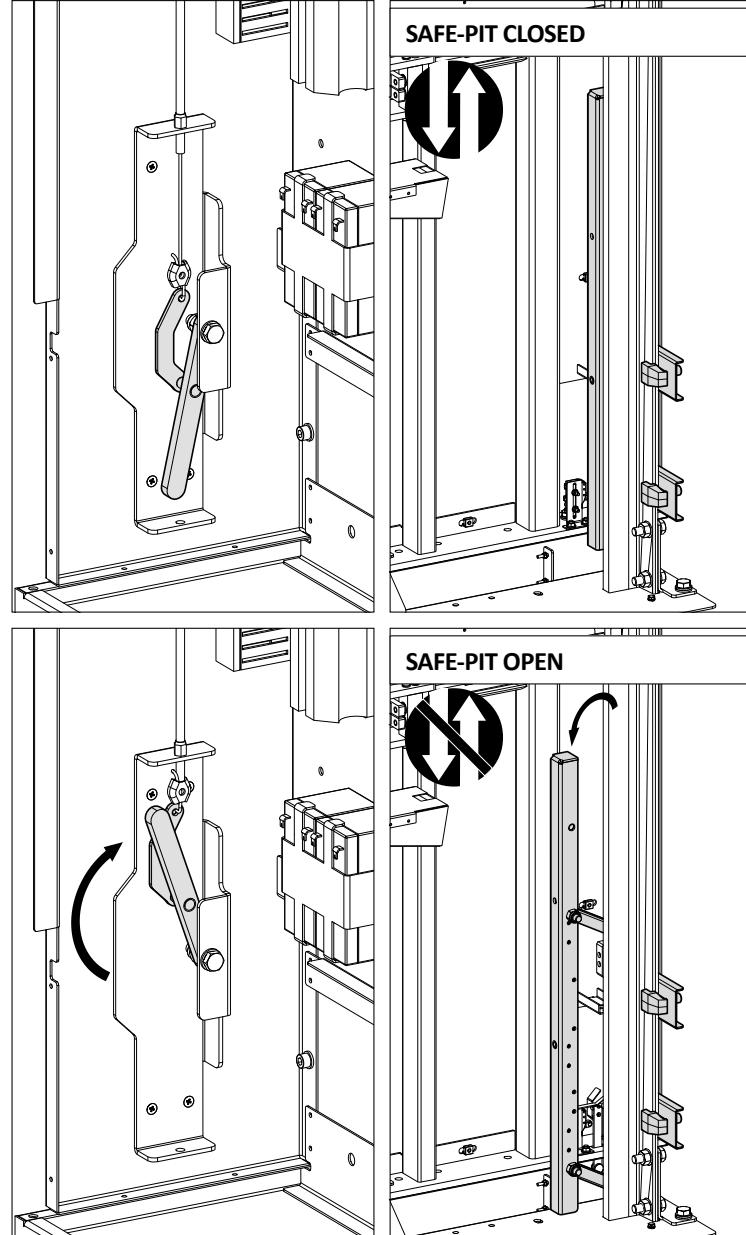
- disable power by means opening the main switch;
- close the main switch only if required, paying attention to the safety rules to be followed in presence of components under power.

6.2. IN THE PIT

As clearly stated in the adhesive plate, the "Safe Pit" device must be enabled before accessing the pit, by means of the following sequence of operations:

| | |
|---|---|
|  | <p>! CAUTION</p> <p>DANGER OF CRUSHING: <u>Should any operation in the pit be required, it is necessary to open the main switch located on the power supply board., then enable the "Safe Pit" device.</u></p> |
|---|---|

- bring the car to one of the upper floors, possibly at the minimum height of 2500mm from the pit bottom. In this way, the Safe Pit device can be easily enabled;
- open the landing door using the unblocking key;
- as soon as the landing door has been unblocked, a light and sound emergency signal will be enabled, to remind the maintenance operator of the "Safe Pit" device to be activated; utilized a special lever
- should you have trouble when positioning the Safe Pit device, and should the light and sound signal still be on, it means that the car is too close to the pit bottom. So, close the landing door, reset the control board and send the car to the upper floor. Get back to the previous sequence of steps;
- as soon as the light and sound signal is deactivated, pit access and maintenance operations inside are possible;
- upon the work completed, leave the pit and close the Safe Pit. The light and sound signal will be active again until the device has returned to the resting position. Close the landing door and check it is locked off correctly.
- make sure all the landing doors are closed and locked off;
- reset the control board in order to put the lift into operation.



6.3. INSIDE THE CAR**WORKING ON THE BACK SIDE OF THE CONTROL BOARD**

The lifting platform has been designed to ensure an easy access to the drive unit and platform shoes.

Follow the below instructions:

- with the car stationary at one of the stops, open the Mains Supply Switch, press the STOP button in car and make sure that the lift cannot be commanded from the control board;
- remove the service panel unscrewing the safety screws;
- put the service panel aside;

| | |
|---|--|
|  | WARNING |
| | ELECTRICITY HAZARD: Make sure the wires are not pulled during the panel removal. |

- effect the necessary operations on the safety brakes;
- re-position the service panel and fix it with the safety screws;
- unblock the STOP button in the car, close the Mains Supply Switch and check the correct functioning of the lift.

TO OPERATE FROM INSIDE THE CAR ON DEVICES ABOVE THE CAR**INFORMATION**

It is not possible to carry out some maintenance operations above the car roof (i.e. access to the shaft sensors, to the ropes, etc.), **as it is not load-bearing and cannot be walked on.**

In this case, remove the roof from inside the car, as indicated in the assembly instructions, and create the necessary space to safely exit above the car level.

6.4. MAINTENANCE OPERATIONS : FREQUENCY AND DESCRIPTION

| OPERATION | RECOMMENDED FREQUENCY | | | |
|---|-----------------------|----------------|-------------------|------------------|
| | 1st run | every 6 months | every 1/2 year(s) | every 5/10 years |
| 1. CAR MOVEMENT Check the correct car movement and stops using the related commands. A. from the car: try to send the lift to each of the stops (both during ascent and descent), checking the correct automatic stop, with the maximum difference in height of 10 mm above or under the landing level; B. from all the landings: try to call the lift, checking the correct automatic stop and the "busy" and "present" lights functioning; C. make sure that the lift cannot be commanded from the COP without the enabling key. | • | • | | |
| 2. EMERGENCY POWER SUPPLY  Check the efficiency of the emergency power supply unit, as far as alarm, car emergency lighting and forced descent to the lowest floor are concerned. A. bring the car to the upper floor; B. switch the power off by opening the power supply switch upstream of the electrical panel (main of the building); C. car emergency light will be enabled; D. push the alarm button: the siren will be activated; E. press and hold any call button: the car will descend and stop at the lowest stop level, then the door can be opened (sliding doors open automatically). For battery replacement (batteries inside the control board) follow the below instructions. F. open the Driving Force switch; G. disconnect the battery connectors, trying to avoid shorts; H. replace batteries and re-connect the connectors; I. close the Driving Force switch, disable the control board lighting and repeat test operations from A. to E.; J. dispose of the exhausted batteries bringing them to the authorized points (as special and dangerous waste). | • | • | | |

| OPERATION | RECOMMENDED FREQUENCY | | | |
|---|-----------------------|----------------|-------------------|------------------|
| | 1st run | every 6 months | every 1/2 year(s) | every 5/10 years |
| 3. SENSITIVE SAFETY EDGES Check the efficiency of all the sensitive safety edges: A. remain in car and command the ascent; B. when the platform is out of the door zone, activate the sensitive edges, first on the platform and then on the COP side; the platform will stop and remain stationary until the obstacle has been removed; C. repeat with each photocell; D. repeat inside the door zone. | • | • | | |
| 4. LOCKS Check the locks of all the landing doors. A. Check the correct opening-closing movement, with and without the emergency key; B. Check if the removable bridge on the fixed contact, as well as the lock chain in the door leaf hole have been assembled properly; C. Check the independence between the chain contact and the preliminary half-closing contact. | • | • | | |
| 5. EMERGENCY DESCENT HANDLE Make sure that the manual emergency device works. A. open the Driving Force main switch located on the Power Supply board; B. with the platform stationary at the upper floor, press the DOWN EMERGENCY button; C. open the door using the emergency key and check the platform lowering; close the door | • | • | | |
| 6. GUIDE RAIL SHOES The play of the shoes must be 1-2 mm. Major gaps can be made up for, by means of shoe bearers adjustment; orthogonal gaps require shoe replacement. | • | • | | |
| 7. GUIDE RAILS The guide rails must be lubricated by a mix of oil (grade \geq 220 cst, EP-free) and grease (50-50). The lowest piece must be lubricated from the pit. | • | • | | |
| 8. UPPER OVERRUN Check the safety contact. A. send the empty car to the upper floor; B. activate the car ascent using the UP button on the electrical panel, until the activation of the overrun contact (the contact is activated when the lift does not react to calls). | • | | • 1 | |

| OPERATION | RECOMMENDED FREQUENCY | | | |
|--|-----------------------|----------------|-------------------|------------------|
| | 1st run | every 6 months | every 1/2 year(s) | every 5/10 years |
| 9. GROUNDING Verify the efficiency of the grounding and the electrical circuit insulation, as described in the electrical scheme. | • | | • 1 | |
| 10. LIGHTING Check the correct functioning of the lighting systems: in the car, in the shaft (if foreseen) and in the control cabinet. | • | | • 1 | |
| 11. OVERLOAD Make sure the operation mode with overloaded car is disabled. A. load the car; B. bring the car to the first stop; C. open the landing door and enter the car; D. close the door; E. make sure that the lift does not react to the inner not outer commands. | • | | • 2 | |
| 12. ELECTRICAL WIRING Check the integrity of the lines, either fixed and mobile. | • | | • 2 | |
| 13. SHAFT CONTACTS Check the integrity of the following contacts: doorlock block exclusion and floor levelling . | • | | • 2 | |
| 14. PLATES - SCHEMES Verify the presence of the followings schemes and plates: A. pit plate (danger in case of access, safety devices required); B. car roof plate (not bearing surface); C. control board plate (electrical hazard, access forbidden); D. control board plate (beside the board, emergency procedure); E. red emergency button identification plate; F. landing door plate (use reserved to less able people, for public places only); G. carplate(load,capacity,constructor'sname,emergencydescentprocedureincaseofpower blackout); H. electrical and hydraulic schemes on the electrical panel (or machine room). | • | | • 2 | |
| 15. SPEED - PICKUP - SLOWING DOWN Make sure the actual parameters match the set values. | • | | • 2 | |



7. USE OF EMERGENCY KEY



| | |
|---|---|
|  | ! CAUTION |
| | Opening doors by means of the triangular emergency key may be dangerous. Be extremely careful. |

A difference of height exceeding 30 cm between the car floor and the landing level, may imply a serious risk of falling inside the shaft. Therefore, **NEVER use the intermediate landing door during rescue operations.**

| | |
|---|------------------|
|  | ! CAUTION |
| DANGER: FRAGILE ROOF! The car roof is NOT BEARING. Do not step on the roof nor on its edge. | |

| | |
|---|---|
| | INFORMATION |
|  | To unblock and open the landing door, first open the driving force main switch, then insert the safety key in the special hole in the jamb, then turn the key. Open the door carefully, making sure of the car position in respect to the landing. <u>Upon the operation completed, make sure that all the landing doors are locked and blocked.</u> |

| | | |
|--|--|---|
|  | 8. REPAIRS EXECUTION |  |
| ! CAUTION | | |
|  | Usually a damaged frame (especially if the damage was caused by a bending, excessive heat etc.) cannot be replaced. The damaged parts must be replaced. Only spare parts by LIFTINGITALIA S.r.l. can be used for replacement. | |
| The repair operations must be carried out by qualified personnel, with the maximum care, to guarantee post repair efficiency. | | |

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| | INFORMATION |
|  | The following operations can be carried out directly in place by qualified personnel: <ul style="list-style-type: none"> • Sanding down the rust (caused by painting faults) and anti-rust layer application; • Shoes (or parts of shoes) replacement; • Rope replacement. |

