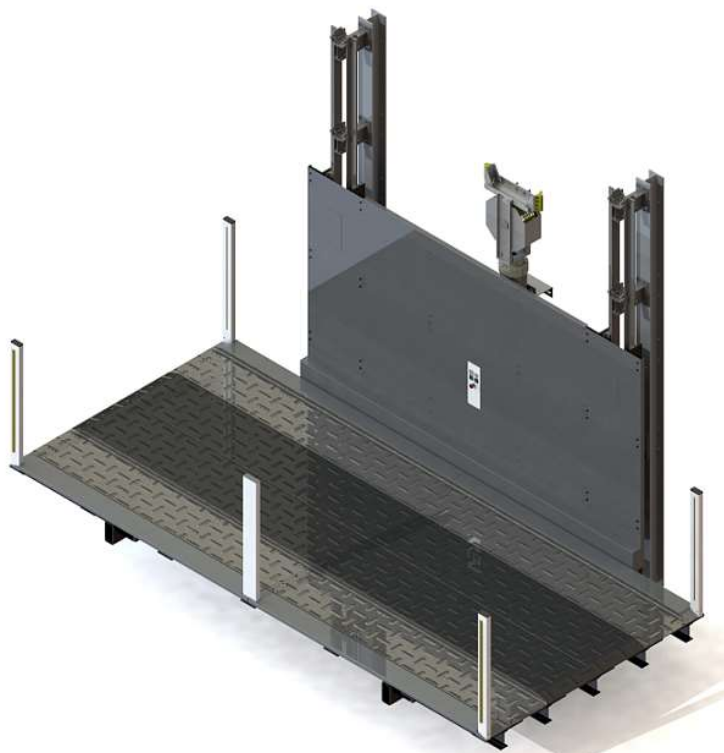

USER´S MANUAL



CAR LIFT (MONTACOCHE) Modelo: MH KOMPACT

Manufacturer : MORISPAIN S.A.
Adresse: c\ Arangutxi 8, Polígono Industrial Júndiz
01015 Vitoria – Álava
SPAIN

2019-NOVEMBER

Serial Number :	
Building Adresse:	
NAme of Building Owner:	
Date of Car lift:	

"Original manual".

This instruction manual corresponds to the original version produced in Spanish.

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1. DECLARATION OF CONFORMITY

«CE» DECLARATION OF CONFORMITY

MORISPAIN S.A.

c\ Arangutxi 8
Polígono Industrial Júndiz
01015 Vitoria – Álava
Spain

MORISPAIN S.A., as manufacturer and legal entity in charge of compiling the technical construction file, declares that the lifting system:

Description:	Ligth Car Lift Plateform
Model:	MH KOMPACT
Material:	Steel S275-JR and others
Max. Load:	3000 kg

Complies with the provisions of the Machinery Directive 2006/42/EC.

Complies with the provisions of the following harmonised standards:

UNE-EN 81-41:2011
UNE-EN 12100:2012

2. GENERAL INFORMATION

2.1. SCOPE OF THIS MANUAL

This instruction manual contains useful and important information for the correct operation and maintenance of the car lift. It also contains important recommendations to prevent possible accidents and damage during use and maintenance.

This document was drawn up by MORISPAIN S.A. and is intended for use by the owner.

This manual is considered part of the equipment and, together with the rest of the documentation that accompanies it, must be given to the owner and kept in a good state of use and be accessible throughout the life of the equipment.

Persons using the MH KOMPACT car lift (hereinafter referred to as "lift") must be familiar with the correct operation of the lift and must periodically consult these instructions.

Of particular interest to the user are the rescue instructions in the event of a trapped vehicle.

2.2. UNITS OF MEASUREMENT

Unless specifically stated otherwise, all units of measurement quoted in this manual and in the control programme are expressed in the International System..

2.3. SAFETY INDICATIONS

Danger notes

! DANGER !	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
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! WARNING !	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
--------------------	---

ATTENTION	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
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Notes

NOTES	The term "note" is used to indicate important information or usage tips.
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2.4. REFERENCES STANDARDS

The design and manufacture of the lift is carried out in accordance with the specifications of this dossier, thus complying with the specifications of the following legislation, both national and European:

- Directive 2006/42/EC, of the European Parliament and of the Council, of 17 May 2006, relating to machinery and amending Directive 95/16/EC (recast).
- Royal Decree 1644/2008 of 10 October 2008, establishing the rules for the marketing and putting into service of machinery.
- Law 31/1995 of 8 November 1995 on the prevention of occupational hazards.

In addition, the indications of the following harmonised standards are taken as a reference:

- UNE-EN 81-41:2011. Safety rules for the construction and installation of lifts. Special lifts for the transport of persons and loads. Part 41: vertical platform lifts for use by persons with reduced mobility.
- UNE-EN 12100:2012. Safety of machinery. General principles for design. Risk assessment and risk reduction.

2.5. DEFINITIONS

Installer: Person or company that assembles and installs the lift supplied by the manufacturer MORISPAIN S.A. Their tasks may include masonry, civil works, welding, mechanics, lighting or electricity.

Owner: Person who has the power of disposal of the installation and is responsible for its operation and use.

Maintenance organisation: A company or part of a company in which maintenance competent person(s) carries out maintenance operations on behalf of the owner of the installation.

Competent maintenance person: A designated person, suitably trained, qualified by knowledge and practical experience, provided with the necessary instruction and supported by his maintenance organisation to ensure that the required maintenance operations are carried out safely.

2.6. TO BE TAKEN INTO ACCOUNT BY THE LIFT INSTALLER

It is necessary for the installer to know the current legislation on construction, safety and accessibility that is applicable in the region or country where the lift is to be installed. It may be mandatory to register the installation with the authority and/or sign a maintenance contract.

2.7. TO BE TAKEN INTO ACCOUNT BY THE LIFT OWNERTENER EN CUENTA POR EL PROPIETARIO DEL ELEVADOR

- He shall maintain the installation in safe operating condition. The owner shall use a maintenance organisation that complies with the requirements of EN 13015.
- He shall shut down the lift when the two-way communication system is not operational.
- The obligation to take the installation out of service in case of dangerous situations.

The maintenance organisation must be informed of:

- The location of the keys to access all parts of the lift.
- The identity of the persons who will accompany the maintenance personnel, if necessary.

2.8. TO BE TAKEN INTO ACCOUNT BY THE MAINTENANCE ORGANISATION

- He is responsible for keeping a record of the results of each intervention due to a failure of the installation. These records must include the type of failure. They must be available on request from the owner.
- He must put the installation out of danger in case of a dangerous situation and inform the owner.
- It must provide the necessary spare parts for each repair.
- Must be able to provide a competent person for any inspection by an authorised third party or maintenance work on the building in the areas reserved for the maintenance organisation.
- The need for regular maintenance.

3. SAFETY

3.1. BEFORE COMMISSIONING

For the commissioning of the lift, the owner must ensure:

- That a planned maintenance service has been contracted, to be carried out by a maintenance company.
- That a "24-hour" call service is available for the lift during the entire time the lift is in operation.
- That the name and telephone number of the maintenance company is displayed in a visible area of the platform.

3.2. SAFETY CONSIDERATIONS

The owner of the installation must ensure that the building is safe by respecting the following considerations:

- If a person cannot be rescued quickly, due to the availability of rescue personnel, the lift must be taken out of service.
- Access areas to maintenance areas must be kept safe and clean. The maintenance company must be informed of any changes or hazards in these areas.
- Keys for maintenance and floor doors must be kept secure and inaccessible to unauthorised persons.

Preventive maintenance shall be carried out to maintain the safety of the lift.

Periodic checks of safety equipment help to locate faulty components before failure.

!WARNING !

Attention shall be paid to the following safety instructions.



Fig. 1 Do not push / lean on doors.

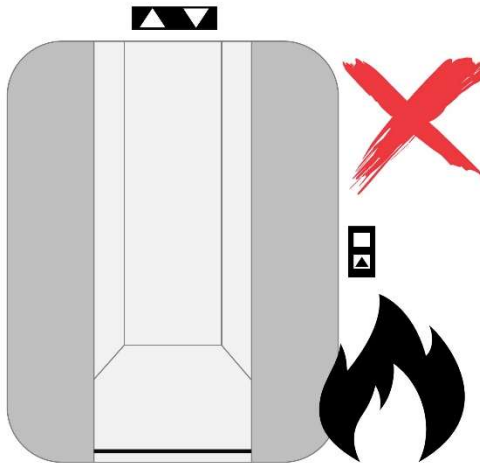


Fig. 2 Do not use in case of fire.

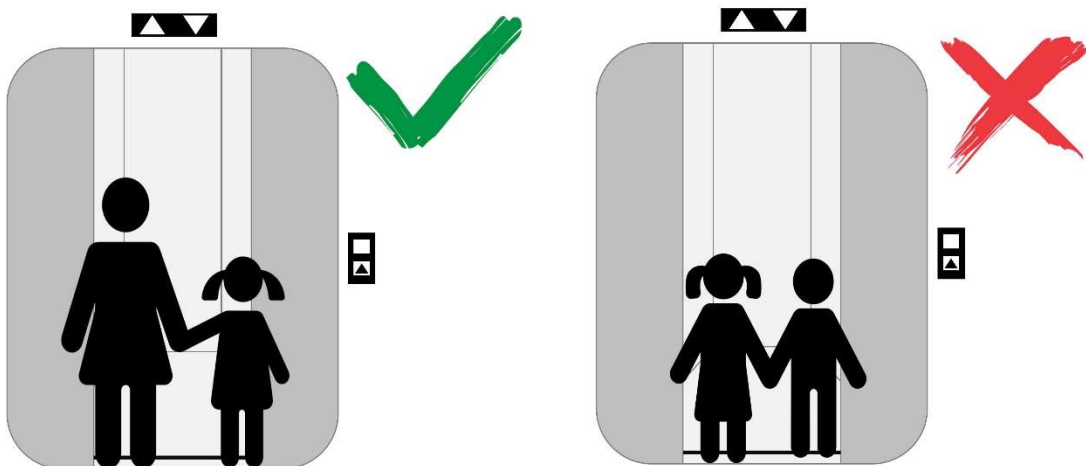


Fig. 3 Do not allow use by unaccompanied children.

4. ENVIROMENT

4.1. MATERIALS USED IN THE CAR LIFT

The lifters are made of different types of steel. There are various electronic components as well as plastics.

The most common hazardous materials and their use in the elevator:

Material	Used
Oil ISO HV-46	Yes
Lead-acid battery	Yes
Mercury-containing fluorescent tubes	No
Abestos	No

Fig. 4 Danger Materials Table

NOTE:
The maintenance company must have adequate waste management procedures.

4.2. PACKAGING

For installation, the lift parts are packed in wooden crates. Cardboard and plastic are also used to protect small parts from damage during transport and handling. They should be sorted and recycled when local circumstances permit..

4.3. FINAL ELIMINATION

The disassembly and disposal of the hoist at the end of its service life must be carried out by a specialised waste disposal company.

In each country there are different regulations regarding the disposal of electronic or hazardous waste, such as batteries. It is necessary to strictly comply with the specific standards in force in the country of use of the equipment.

Do not dispose of equipment components in ordinary waste.

5. TECHNICAL SPECIFICATIONS

5.1. INTRODUCTION

The lift consists of an indirectly driven hydraulic machine. It is a lift intended for the vertical transport of light vehicles (passenger cars, etc.) with their occupants. It is designed for operation between defined levels.

It is suitable for installation in single-family dwellings, residential buildings, public buildings and commercial premises, all of them with a reduced, non-intensive use like conventional lifts.

The lift is intended for permanent installation in a building in a physically separate space (enclosed shaft) and with doors at all accesses to the shaft.

NOTE

The manufacturer declines all responsibility for any damage or injury to persons or other equipment resulting from the use of the hoist for any operation other than that for which it was designed.

5.2. GENERAL DESCRIPTION OF THE CAR LIFT

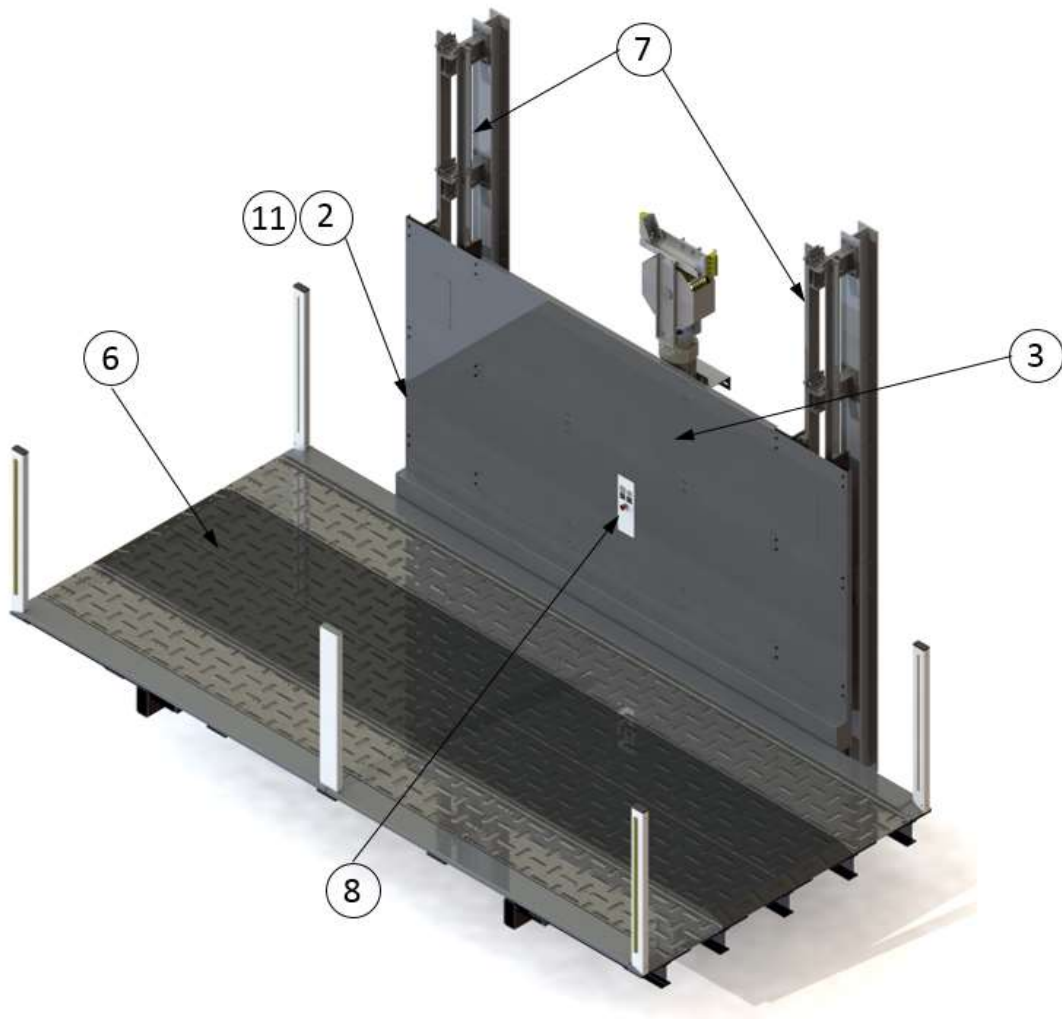


Fig. 5 Front view of the lift and its components.

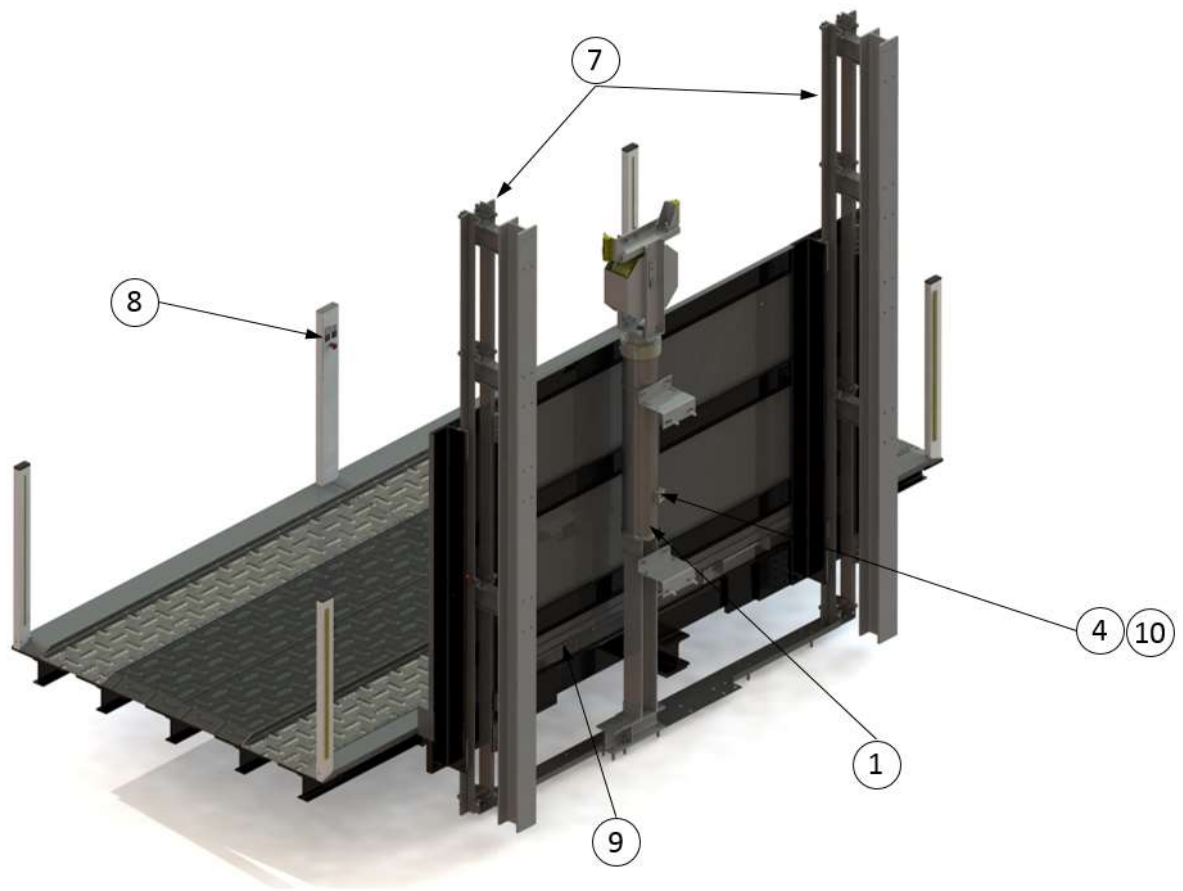


Fig. 6 Rear view of the lift and its components

1- Actuation

Hydraulic with indirect drive. The lift has two opposing guide columns, one on each side of the cylinder.

The cylinder has an internal hydraulic cushioned stop, with parachute valve.

2- Tank Unit

Single-speed hydraulic power unit, with a low-noise motor-pump unit.

The valve group includes a pressure gauge and non-return valve. There is a hand pump as an emergency drive system for the rescue of the vehicle and its occupants. The hydraulic unit also includes a return filter and a stopcock.

3- Control Panel

Behind the maintenance panel are the lift controls. It is very important that the door is closed and locked at all times. There must be no flammable materials near the maintenance panel.

NOTE

Do not block the working space in front of the maintenance panel. The maintenance panel is necessary for maintenance and rescue work.

ATTENTION

Never leave the maintenance panel open or unlocked while unattended, as unauthorised persons could gain access to the lift controls and could be dangerous.

! WARNING !

Never remove electrical system guards when the system is energised. The lift's electrical systems are behind these guards and therefore there is a risk of electric shock if they are removed..

4- Speed Control

The function of the speed limiter is to control the speed of the lift, and even to stop it, by means of the hydraulic system (parachute valve certified to EN 81-41). The speed limiter acts if the lift platform exceeds the rated speed, blocking the oil flow. The limiter operates even during power outages.

5- Landing doors

Doors are installed on each floor and in the elevator car to protect users from injury during elevator operation. Electrical door contacts prevent the lift from moving if the doors are not fully closed. Floor doors are mounted with a special lock that keeps the doors closed and locked if the lift car is not at floor level on that floor.

Protective devices, such as photocells, are installed at the car entrance to prevent the doors from closing if any person is entering or exiting the elevator, or standing too close to the doors for too long.

6- Car Lift Floor

The platform is a perimetrically delimited surface for transporting vehicles and their occupants. The platform has a lower chassis that reinforces it.

7- Guides

The guides are made of steel and slide the platform along the lift shaft. The guides are fixed vertically to the shaft structure.

8- Signalling

The signalling system is the user interface of the lift. Via the push button panel and the display, it can be called up and the destination floor can be selected. The signalling system transfers these messages to the electronic control of the lift.

9- Wedging system

The wedging system is a mechanical safety device fixed to the chassis of the lift car. If there is a major transmission cable failure, the wedging system grips the guides firmly and stops the lift platform.

10- Brake (hydraulic valve)

The brake is a hydraulic valve that prevents the lift platform from moving when at rest or when the power supply to the cylinder is cut off.

The valve maintains the position of the cylinder. It closes automatically when the control panel cuts off the power supply or there is a power failure.

11- Manual emergency battery operation

The lift is equipped with a manual emergency manoeuvre that takes the platform to the nearest lower floor in case of power failure between two floors. This manoeuvre is described in detail later.

Safety systems:

The lift is provided with safety systems.

The owner must maintain the safety components in good condition. The maintenance company is responsible for these tasks, which include the following components:

- Machine brake.
- Speed limiter.
- Wedging system.
- Re-leveling system.

5.3. TECHNICAL DATA

The attached table sets out the characteristics of the different elements that make up the lift:

CONCEPT	DESCRIPTION
Máx dimensions	2750 x 5400 mm
Rated Load	3000 kg
Rated Speed	0,15 m/s
Max Travel	15 m
Traction	Hydraulic in 2:1 suspension
Cabin	Without cab door, provided that they are installed in enclosed recesses, with doors with locks and deadbolts.
Electrical Features	Three-phase motor with a power of 7.5 kW.
Hydraulic System	Hydraulic power unit with submerged motor and pump with H300 distributor. Two-speed valve unit downstream and, by means of the frequency inverter, regulated speed upstream.
Safety components	Certified, according to EN 81-20 if applicable: Block valve Moris 0825/P (HES) (or similar) Blain L10 parachute valve (or similar) Certified according to Directive 2006/42/EC, and/or requirements of EN 81-41: Electric door lock. Not supplied by MORISPAIN S.A. To be guaranteed by the installer.

5.4. NOISE EMISSION

The equivalent continuous A-weighted equivalent sound pressure level emitted by the lift is less than 70 dB(A).

6. USE

6.1. CAR OPERATION PANEL (C.O.P.)

There are two units, located on the sides of the platform, in a position suitable for driving from the car.

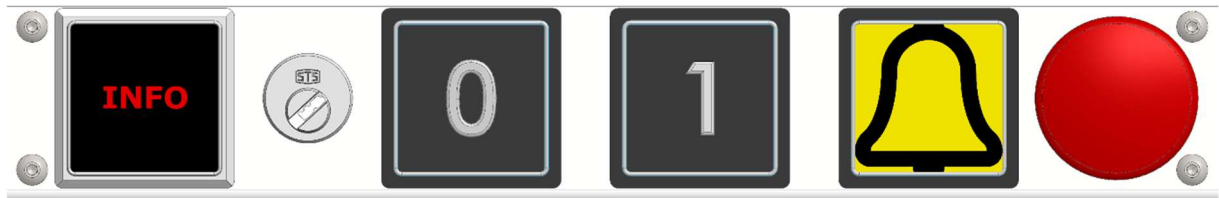


Fig. 7 C.O.P.

Information display.

(Optional) Can display various information, such as the floor to which it is going, excess load, fault, etc.

Key selector.

(Optional) It must be turned with the key inserted in order to press the desired floor.

Level button.

Moves the lift to the desired level. Normally level "0" corresponds to the low floor.

Alarm button.

Allows communication with the breakdown service and, at the same time, activates the alarm buzzer.

Emergency stop button.

Switches off the power supply to the lift in case of an emergency. Stops immediately.

6.2. LANDING CALL

It is reduced to a call button, placed on a vertical pillar of the lift, or on the adjoining wall of the building. Optionally, it can be a key instead of a push button..

6.3. CONTROLLER

The lift is not equipped with a memory, so it only responds to the first call it registers. After the call, the push buttons on each floor will light up, indicating that it is busy.

When the passenger in the car presses a button, the car immediately moves to the required floor. If another person calls the lift from another floor, the call will not be registered and will not be answered..

6.4. CONTROLLER CONDITIONS

- All doors must be closed: if the door of any level is open, the lift will not respond to the call.
- There is a time limit: if approximately 8 seconds elapse after the lift reaches the desired level and it is not accessed, then the door will automatically close.

7. INCIDENTS

The following situations require the intervention of a competent person:

- The lift has stopped due to a malfunction. Rescue is required (see section 7.1).
- The alarm has been triggered and there is a person and/or vehicle inside (see section 7.1).
- Due to an external power failure (see section 7.2).
- Due to a failure in the platform lighting.
- An abnormal noise in the installation.
- The lift is stopped and the doors do not close.

ATTENTION

Do not attempt to exit the lift without the assistance of a competent person. It is very dangerous to attempt to exit the lift without outside assistance. Wait for the technician to arrive and follow his instructions.

7.1. RESCUE PROCEDURE

The lift has stopped between floors due to a malfunction. For example: cable of the indirect drive system, electronic control board, etc.

In such cases, a rescue manoeuvre is necessary. Keep calm. The rescue manoeuvre does not mean that there is a danger, on the contrary, it prevents it. Ventilation is sufficient.

1. Try to start the lift again by pressing the desired level button (0, 1, etc). If the lift still does not respond, stop the vehicle.
2. Press the alarm button. The alarm buzzer will sound and warn people in the vicinity.
3. The lift is equipped with a communication with the intervention service. Wait a few seconds, the conversation will not start immediately.
4. Follow the instructions of the service. A competent technician will come to the lift.
5. When the technician arrives on site, he will start the rescue manoeuvre, which consists of lifting the platform by means of a hand pump or by switching on the rescue system.
6. The technician shall initiate the manual rescue descent, by means of a hydraulic control that allows lowering at a slower speed. For further information, see section 8.4.

7. Finally, after reaching the low level, the technician shall open the access door, using a special key. For more information, please refer to section 8.3.
8. Exit the lift normally. The technician will declare the machine "out of service".

In a fault situation, the push buttons on all levels will remain illuminated.

7.2. POWER SUPPLY FAILURE

The lift has stopped between floors due to a lack of external power supply.

In such cases, you can continue the journey yourself. Stay calm. This manoeuvre does not mean that there is a danger, on the contrary, it prevents it. Ventilation is sufficient.

1. Start the lift again by pressing the button for the lower level (ground floor), normally indicated with "0".
2. Keep the button pressed until you reach the lower level.
3. The motorised doors will open automatically.

It is also advisable to notify the intervention service by pressing the alarm button. The technician can then check that the lift is working properly and rule out other faults.

The lift is able to perform this manoeuvre because it has a battery which automatically powers the safety systems and controls in the absence of external power. It is only possible to descend in level, not to go up.

7.3. OTHER PROCEDURES

The elevator presents another problem. For example:

- A failure in the platform lighting.
- An abnormal noise in the installation.
- The lift is stopped and the doors do not close.

It is necessary to notify the intervention service by pressing the alarm button. The technician can check the correct operation of the lift and rule out other faults.

In the event of a fault, the push buttons on all levels will remain illuminated.

8. MAINTENANCE

8.1. GENERAL RECOMENDATIONS

The lift must be maintained by a competent maintenance company. Particular attention must be paid to the maintenance of the safety components.

! DANGER !

Under the lift platform, there are no items or components to be inspected. No person should remain under the lift in operation.

NOTE

If you detect any abnormal behaviour, contact your maintenance company immediately. Shut down the hoist in dangerous situations.

8.2. MAINTENANCE RPOGRAM

Do not exceed the recommended maintenance intervals, unless otherwise stated by the manufacturer.

ELEMENT	INTERVAL (months)	Actions (In case of)		
		LUBRICATION	AJUSTM ENT	CLEANING
EQUIPEMENT				
Documentation	12			
Control System: level and re-level	4		X	
SHAFT				
Guides and brackets	12	X	X	X
Safety gear System	4			X
Sahft protection; panels	4			X
Electric installation	4			
Limit switch	12		X	
Hydraulic hose	12			
Safety Jack valve	4			
Electric hose	12			
No wáter and oil in the shaft	4			X
CAR FRAME AN PLATFORM				
Ropes Cover	12			
Pulley in Good conditions	4		X	X
Car Frame fixations	4		X	
Ropes Installation	4		X	
Safety gear Accionament	4		X	X
Rescue Procedure	12			
Lighting	4			X
Electric safety chain	4			X
Car calls	4			
Alarm devices	4			
Photocell Curtains	4			

ELEMENT	INTERVAL (months)	ACTIONS (IN CASE OF)		
		LUBRICATION	ADJUST EMENT	CLEANING
LANDING DEVICES				
Landing Calls	4			X
Landing doors operation	4		X	X
OPERATION				
Operation, noise, confort	4		X	

Fig. 8 Intervals and Items Check

8.3. MANUAL DOOR OPENING (ONLY FOR THE COMPETENT TECHNICIAN)

In the event of maintenance or an incident, the landing door can be opened with a special triangular slot key. Make sure that the cabin is close to the door level where it is located.

! WARNING!

When manually opening the door, be careful with the hoistway. Take appropriate measures to prevent the risk of falling. Only authorised maintenance personnel are allowed to open the lift doors manually.

1. Open the landing door lock with the emergency key. The lock returns to the closed position by itself after opening.
2. Unlock the door.

8.4. **MANUAL RESCUE (FOR THE COMPETENT TECHNICIAN ONLY)**

In the event of an incident, the lift can be rescued manually (according to the conditions in section 7.1).

Switch off the circuit breaker at the bottom of the control panel.

Press the red emergency lowering lever on the distributor shown in the adjacent figure until the platform is on the ground.

