



ORIGINAL INSTRUCTIONS

Per informazioni:

www.updynamic.com

E-mail: info@updynamic.com

MAINTENANCE MANUAL

Rev.02.02 Updated 24/02/2020

Tel. + 39.0442.590.129

Fax +39.0442.599.091

Via Franco Modigliani, 22

37045 - Legnago (VR) Italy

One level ahead.

UPDINAMIC S.r.l.

Via Modigliani, 22
37045 LEGNAGO (VR)

MAINTENANCE MANUAL

Rev. 02.02 - 24/02/2020

DL2 CAR LIFT/GOODS LIFT

SERIAL NUMBER:

THIS MANUAL ADDRESSES THE LIFT INSTALLER AND MAINTENANCE TECHNICIAN.
THE OWNER MUST KEEP THIS MANUAL AND THE ATTACHMENTS LISTED BELOW IN
THE UTILITY SHAFT.

- ☒ MACHINE BOOKLET
- ☒ USER MANUAL
- ☒ ELECTRIC SYSTEM MANUAL
- ☒ INSTALLATION MANUAL



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1. DEFINITIONS

Refer to the EN 292, EN 81-1, EN 81-2, EN81-3, prEN 81-41, EN81-28 standards for the definitions of the terms used in this manual as well as the following definitions.

Maintenance:

All operations necessary to ensure safe operation according to the intended use of the system and its components after installation is complete and for its entire life cycle.

Maintenance includes:

- Lubrication, cleaning, etc. (except the external parts of the lift shaft and internal cleaning of the cabin).
- Checks.
- Driver rescue operations (only for lifts with SPB system).
- Calibration and adjustment operations.
- Repairs or replacements of components, which may be due to wear or failure, but do not alter the system characteristics.

Not to be considered maintenance operations are:

- Replacement of the main components, such as duct, roof, cabin, control panel, etc.
- System replacement.
- System modernization, including modification of any system features (e.g. speed, travel, capacity, dimensions, etc.)
- Rescue operations are carried out by the fire brigade.

Maintenance organisation:

A company or part of a company that has the professional technical requirements according to the law whose maintenance technicians carry out maintenance operations on behalf of the system owner.

Maintenance technician:

A qualified and trained person (see EN ISO 9000) assigned to carry out maintenance, who has practical knowledge and experience, is given the necessary instructions and is supported by the maintenance organisation so that the required maintenance operations can be carried out in safety.

Manufacturer:

A natural or legal person who assumes the responsibility for designing, constructing and marketing both the car lift and its safety components.

Installer:

A natural or legal person who assumes the responsibility for installing goods lift systems for goods only and car lift systems with and without driver on board.

System:

A fully installed goods lift for goods only and car lift with or without driver on board.

System owner:

A natural or legal person who has the power to plan for the system and the responsibility for its use and operation.

Emergency:

An abnormal situation in which the person in the car lift may need help from the outside.

Fault:

A situation in which safe use of the platform for the intended use is limited or impossible.

Repair:

Replacement or repair of defective and/or worn components.

Notified Body:

An organisation that has been accredited by a Member State to assess whether a product to be placed on the market meets certain preordained standards and ensures that the procedures for putting systems into service and their surveillance are followed in accordance with the Machinery Directive.

LIFT DEFINITIONS**Car lift / Goods lift:**

A car lift/goods lift system with operator on board.

Guides:

A metal structure anchored to a load-bearing wall composed of metal C-shaped profiles for carriage sliding.

Carriage:

A metal frame to which the platform is secured with bearings for sliding in the guides. It is lifted by hydraulic cylinders with chain transmission.

Platform:

A structure consisting of a load-bearing platform in striated sheet metal and a steel frame.

Utility shaft:

A section outside the lift shaft in which the electric panel and the hydraulic control unit are housed.

SPB system:

A system that allows safe movement of the car lift with the driver on board equipped with all the features necessary for emergency situations.

SDE system:

A system for car lift descent to the lower floor even in the event of a power failure.



2. INTRODUCTION

REFERENCE STANDARDS

The reference standards are indicated in the accompanying lift manual.

GENERAL REQUIREMENTS

The systems to which this manual refers must be subjected to regular maintenance with a frequency indicated by the manufacturer with the main aim of guaranteeing system safety and compliance with the laws and regulations in force.

The maintenance operations are exclusively carried out by the manufacturer or by qualified persons authorised by the manufacturer, who are able to read and understand the diagrams and drawings.

Any maintenance operations not described in this manual may only be carried out by the manufacturer's technicians.



Any maintenance operation must be carried out with the lift out of service disconnecting the power with the main switch on the electric panel and posting a clearly visible sign indicating that maintenance is being carried out.

The maintenance technician must ensure that the lift can only be started after his intervention and permission.



If the lift needs to be moved to look for faults, the instructions given below must be followed in order to guarantee the safety of the operators:

- The operator at the lift controls and the maintenance technician must be able to see each other and easy and clear communication between them must be ensured.
- The operator must act on the orders of the maintenance technician only after having repeated them to confirm that he has understood them.
- Before going from a stationary to a motion phase, the maintenance technician must stand in a safe position and approach the moving devices only after having made sure that the operator has exactly followed his instructions.
- Maintenance must always be carried out with adequate lighting.



3. MAINTENANCE OPERATIONS

When accessing the machine room, lift shaft, utility shaft, etc., maintenance technicians must be equipped with the necessary personal protective equipment in compliance with the regulations in force regarding safeguarding of worker health.

MAINTENANCE TECHNICIAN EQUIPMENT

- Standard equipment
- Portable lamps for the areas difficult to access and poorly illuminated
- 4 props to support the mobile cabin (3000 kg) if operations underneath the platform are required
- Thermometer to check the operating temperature
- Stop watch to check the operating speed
- Amperometric pliers to check electric motor absorption

MAINTENANCE PLAN

The maintenance plan is provided to the customer purely by way of information (half-yearly maintenance is recommended).



The hydraulic system must be checked only after having discharged the hydraulic pressure; the checks must be carried out with particular care preventing foreign bodies or substances harmful to operation from entering the circuit.

UTILITY SHAFT INSPECTION

The utility shaft is the area where the hydraulic control unit and the electric panel of the lift are housed. The utility shaft should preferably be located adjacent to the lift shaft and should be clean and damp-free.



Check that there is a hole of at least 100mm Ø through which to run the cables and hydraulic tubes between the lift shaft and the utility shaft.



Check that there is an electric line with characteristics suited to the system for power supply and wiring to the electric panel.



Check that there is adequate space for the maintenance operations as required by the regulations in force (recommended space of at least 1000x1000mm).

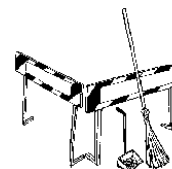
4. BASIC SAFETY RULES

The installation operators (installation and startup) must have the required qualifications. In Italy, the installation company must have the required professional technical qualifications (letter F of Pres. Decree 162 of 30 April 1999) and be authorised by the competent body. The installer must hence be able to read and understand the diagrams and drawings. The system must be installed following the instructions in the relative technical file and all the necessary safety devices must be in place to protect the safety of the operators.

The lift owner must ensure that anyone who has access to the installation devices has read through and fully understood this manual. In addition, it is important that the owner ensure that the operators comply with all the regulations and/or requirements for the prevention of accidents in the workplace, also considering the specific conditions in the place of installation.

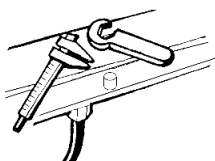
WARNING

The working environment must be kept clean and tidy. In particular, the danger zones must be duly marked off.



WARNING

Do not leave working tools and materials on the lift (or anywhere else where they may interfere with the mechanical movements of the lift) or where they can fall and cause damage to persons and/or things.



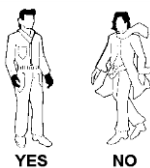
WARNING

Every tool is to be used only for the purpose for which it was designed and in the most suitable way. Any tool that has deteriorated or is in poor conditions is a potential hazard.



WARNING

Flapping clothing (e.g. scarves, ties, etc.) is a potential hazard. Always work wearing tight-fitting clothes.



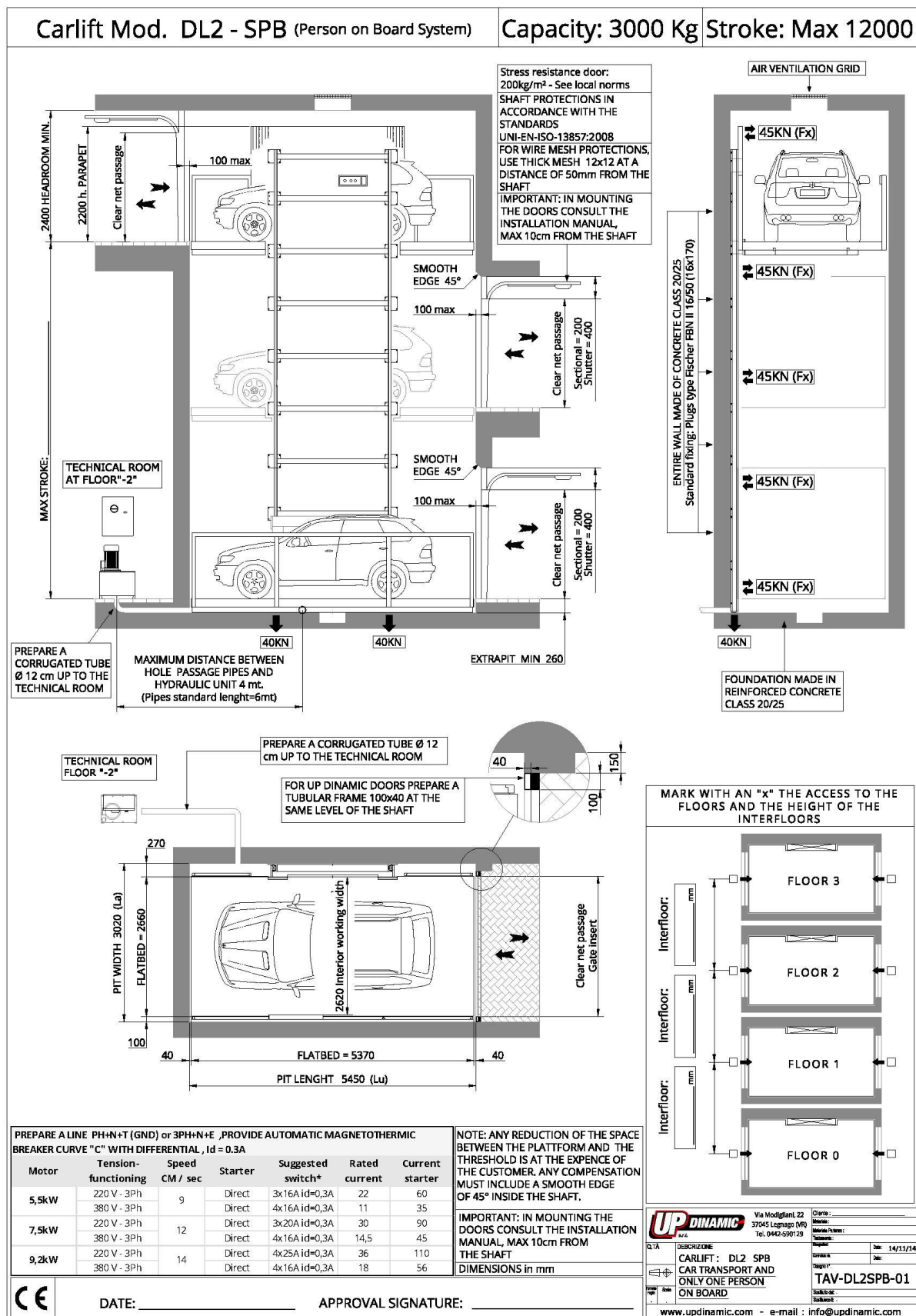
WARNING

Oil and grease spilled on the floor must immediately be removed to prevent any risk of slipping and falling.



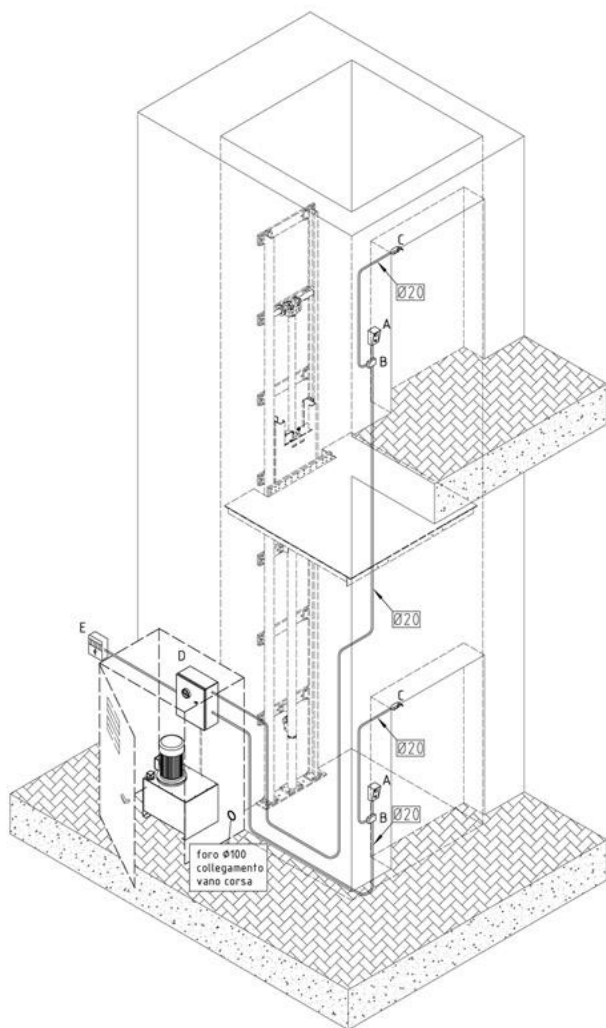
5.

6. LIFT DIAGRAM



7. CHECKING THE ELECTRIC LINE

Check that the power supply line and power socket are present and that the power is suited to the system characteristics. The electrical characteristics of the system are indicated on the electric panel wiring diagram and on the motor data plate.



- Two 20mm Ø corrugated pipes must reach each floor for connection of the pushbutton panel and the electric lock to the utility shaft.

- The utility shaft must be located on the lower floor on a wall adjacent to the lift shaft for positioning of the hydraulic control unit and the electric panel.

- One 100mm Ø hole is required in the extra pit for the hydraulic tubes to run through.

- The utility shaft must be large enough to allow maintenance operations by qualified operators (minimum 100x160xH.200cm) and be positioned in a place accessible for maintenance and at the same time away from and protected against access by unauthorised persons, and must be 200 Lux illuminated.

- The utility shaft should be positioned in a dry place protected against water.

- It is advisable to protect the technical area with a brick wall, panels or a specific technical cabinet.

- The standard length of the hydraulic tubes and the electric cables is 6m.

- Install an appropriately dimensioned (see motor characteristics) differential switch upstream of the electric system of the lift positioning it in the utility shaft.

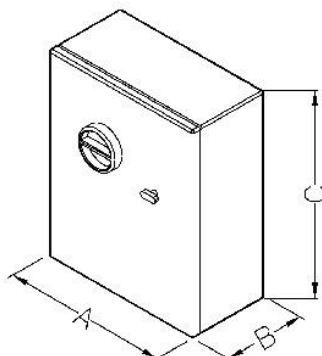
- Prepare an adequate lighting system: 50 Lux in the lift shaft; 200 Lux in the utility shaft.

ELECTRIC PANEL DIMENSIONS

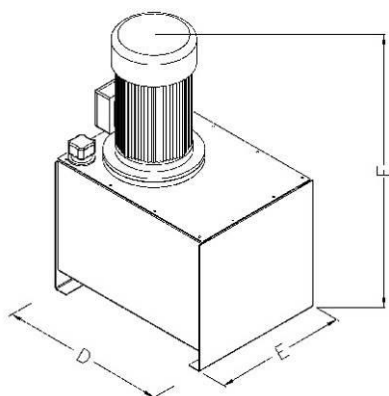
A = 50 cm

B = 25 cm

C = 70 cm



HYDRAULIC CONTROL UNIT DIMENSIONS



	5,5kW	7.5kW	9.2kW	11kW
F	80cm	85cm	90cm	95cm
D	60cm	60cm	60cm	60cm
E	45cm	45cm	50cm	50cm
	240-400V three-phase	240-400V three-phase	240-400V three-phase	240-400V three-phase

THREE-PHASE MOTORS AVAILABLE

Motor	Operating voltage	Starting	Recommended switch*	Rated current	Starting current
5,5kW	240 V - monophase	Direct	3x20A id=0,3A	17	51
	400 V - threephase	Direct	4x16A id=0,3A	10	30
7,5kW	240 V - monophase	Direct	3x20A id=0,3A	23	69
	400 V - threephase	Direct	4x16A id=0,3A	14	42
9,2 kW	240 V - monophase	Direct	3x32A id=0,3A	28	84
	400 V - threephase	Direct	4x20A id=0,3A	17	51
11 kW	240 V - monophase	Direct	3x40A id=0,3A	34	102
	400 V - threephase	Direct	4x25A id=0,3A	20	60

* Automatic magnetothermal switch with differential, curve "C".

Provide for pentapolar 3P+N+G power supply



8. SAFETY STRUTS

For safety reasons, it is essential to install struts if working underneath the lift during installation and maintenance.



It is strictly prohibited for unauthorised persons to stand underneath the lift and for reasons other than those mentioned above.

The following parts are provided for each strut:

- Base plate
- Side plate (2 pieces)
- Tube
- Limit switch

Operate as follows to install the strut:

- Anchor the base plate to the pit floor.
- Screw one end of the side plates onto the base plate.
- Screw the tube onto the side plates.
- Screw the limit switch onto the dedicated bracket.
- Check that the central bolt is correctly in contact with the limit switch.
- Connect the limit switch to the electric panel (see the electric system manual)

In the operating phase, position the tube vertically by screwing the other end of the side plates onto the base plate. Check that the position is correct in order to ensure that the platform is supported.



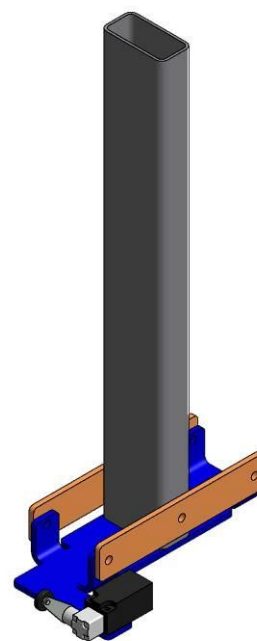
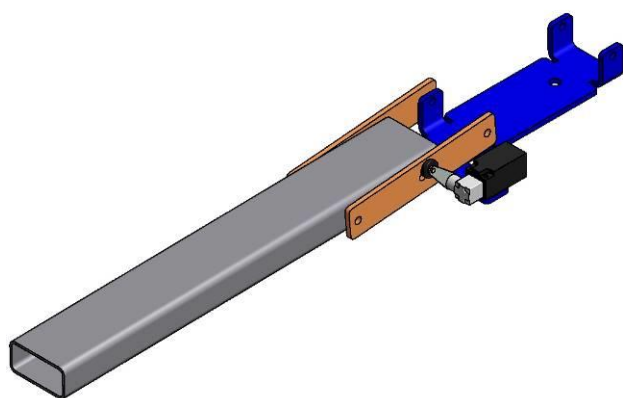
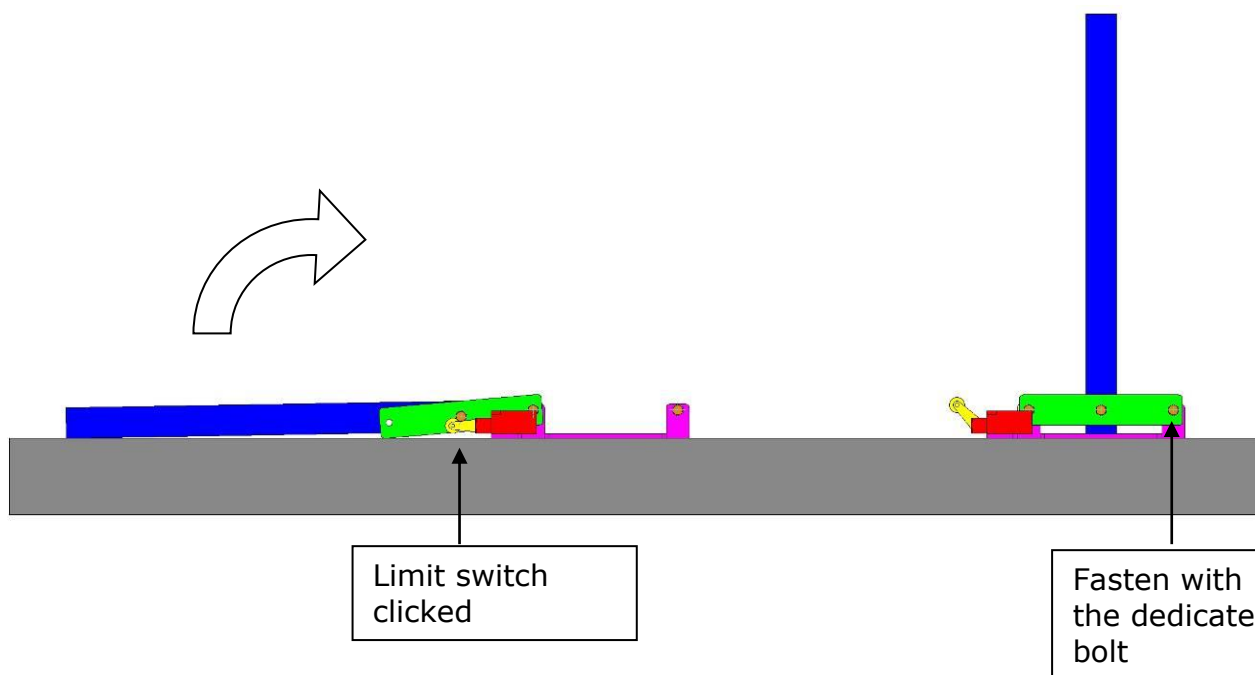
The strut guarantees a maximum capacity of 2000 kg



Any maintenance operation must be carried out with the lift empty.

**Strut at rest:
system operational**

**Strut raised:
system locked**



9. EMERGENCY STOP BUTTON IN THE PIT



An emergency stop button is provided in the pit to be activated during maintenance to disable any movement command given from the outside.

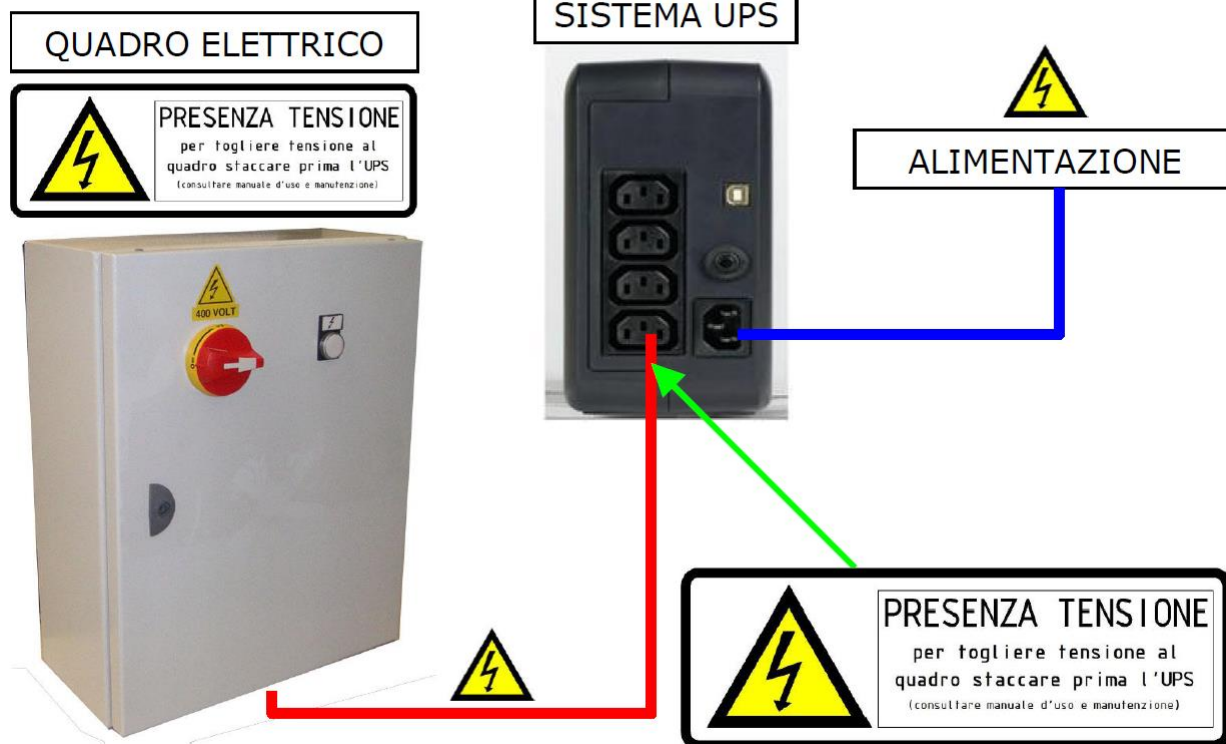
It is strictly prohibited for unauthorised persons to stand underneath the lift and for reasons other than those mentioned above.



10. POWER IN THE ELECTRIC PANEL



In case of systems with UPS, to cut the power in the electric panel, it is important to disconnect the power supply from the UPS before opening the panel.



11. CHECKLIST

PART TO BE CHECKED	DL2		EVERY 6 MONTHS	EVERY 12 MONTHS
LIFT TRAVEL	•	Let the lift ascend and descend at least once to check the quality, measure the speed and compare it with the data given in the lift manual. Consider all the possible faults detectable: levelling at the floors, platform/shaft centring, vibration, noise, interferences, etc. and take the necessary action.		•
FLOOR LEVEL	•	Check that platform levelling with each floor is within a tolerance of 1.5cm. Check the planarity of the platform.		•
PLATFORM LOADING AND UNLOADING	•	Check the behaviour of the hydraulic system and consequent movement of the platform during loading and unloading.		•
GUIDE WEAR	•	Check the state of wear of the sliding guides and grease them if necessary.		•
BEARING CONDITIONS	•	Check the conditions of the bearings and adjust and grease them if necessary.		•
WALL SCREW-ANCHORS		Check perfect hold of the heavy-duty screw-anchors fastened to the wall, taking any building settlement into account, and tighten them with a torque wrench if necessary. Remove any excess material that may interfere during travel.		•



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PART TO BE CHECKED	DL2		EVERY 6 MONTHS	EVERY 12 MONTHS
PLATFORM FASTENING	•	Check that the platform is securely fastened to the carriage, considering possible loosening due to vibration, and tighten the screws using a torque wrench if necessary.		•
RAILING FASTENING	•	Check that the railings and covering panels are securely fastened, considering possible loosening due to vibration. Also check their verticality.		
MECHANICAL DEVICES	•	Check the conditions of the mechanical devices, bearings, pulleys, pins, etc.		•
CHAINS, STAYS AND TRANSMISSION PULLEYS		Check the state of wear of the chains and the pulley races and lubricate the parts if necessary. Check for any signs of deterioration and wear of the stays and that the coupling resistance has remained unchanged.	•	
OVERALL LIFT CONDITIONS	•	Check that there is no rust in the critical areas of the lift: guides, mechanical devices, etc. Clean off excess grease.		•
ANTI-FALL HOOKS		Check the conditions of the anti-fall hooks, their operation, safe resting on the floor and lubricate them if necessary.		•

PART TO BE CHECKED	DL2		EVERY 6 MONTHS	EVERY 12 MONTHS
HYDRAULIC CYLINDER	•	Check the seal of the piston gasket, check the fittings and bleed if necessary.		•
CHECK VALVE 	•	Check proper functioning of the check valve and any coil. WARNING: it is prohibited to remove the check valve without having locked the platform and activated the safety strut. REMOVING THE VALVE CAUSES THE HYDRAULIC SYSTEM TO DISCHARGE AND IMMEDIATE FALLING OF THE PLATFORM	•	
OIL SEAL IN GENERAL	•	Check that there are no oil leaks due to seepage on the various system components (cylinder, check valve, control unit, fittings, tubes, etc.).		•
TUBES AND FITTINGS	•	Check that they are in good condition.	•	
OIL LEVEL	•	Check that the oil level in the tank is above the minimum notch when the lift is stationary at the highest floor.		•
FLOW REGULATORS	•	Check that the flow regulators (chokes) are properly adjusted and locked.		•

PART TO BE CHECKED	DL2		EVERY 6 MONTHS	EVERY 12 MONTHS
OPERATING PRESSURE/RELIEF VALVE	•	Check that the operating pressures have remained unchanged and check calibration of the relief valve.		•
EXTERNAL AND ON-BOARD ELECTRIC SYSTEM		See the use and maintenance manuals of the electric part: motor protection devices, lock limit switch and proximity switch contacts, electrical connections, insulation tests, ground tests, cabin lighting, buttons, warning lights, badge and key contacts, electrical safety devices, other electrical devices, electrical lines, alarm devices.	•	



In case of a car lift
with SPB system:



CHECK CHAINS MODE:



Chain used: Lifting chain Flyer
AL622 / AL644 / AL666 / AL688
Pitch = 19.05mm - 3/4"

- The chain must be tensioned.
- Carry out the control as close as possible to the transmission pulley, on a straight section of chain.
- Carry out the check by measuring 8 chain pitches.
- Position the appendages 1 and 2 on the chain projecting pins.

The notches indicate:

- New chain with length close to nominal value
- Chain with elongation of 1.5%

Chain with elongation of 3% and regulations require replacement.

EXAMPLE:

- Nominal length 8 PITCHES = $19.05 \times 8 = 152.4\text{mm}$
- Elongation limit 3% = 4.6mm
- Maximum length 8 PITCHES = **157mm MAX!**



12. ELECTRICAL PART AND SAFETY COMPONENTS

LOCKS PROVIDED

Pizzato Elettrica S.r.l.:

Safety switches with electromagnet with separate activation: FD, FG, FP and FS series.

(In compliance with the requirements of: Low Voltage Directive 2006/95/EC, Machinery Directive 2006/42/EC and Electromagnetic Compatibility Directive 2004/108/EC)

Tieffe S.r.l.:

TF2000 series locks

(CE Type Test Certificate No. I0110 in compliance with Directive 95/16/EC issued by IMQ S.p.A. Notified Body No. 0051)

Hans & Jos. Kronenberg GmbH:

DLF and DL series locks

(In compliance with the requirements of: EN 81-1, EN 81-2, EN 60947-5-1; ATV 13/7 or ATV 15/6 certificate (TÜV))

Prudhomme S.a:

Mechanical locks: LR series Electric locks: LR series

(CE Test Certificate; in compliance with the requirements of: NFP 82-212; ISO 9001 certificate)

UNLOCKING THE LANDING DOORS

If for unexpected reasons you cannot open the landing doors equipped with an external electric lock by manual force, you can operate as follows:



NB: This operation is to be carried out with the platform at the floor from where you want to access!

IF THE LOCK IS RELEASED WITH THE PLATFORM NOT AT THE FLOOR, THERE IS A RISK OF FALLING.

- Release the electric lock; the unpowered electric lock can be released by following the instructions below:



1) Unscrew the setscrew



2) Using a simple screwdriver to turn the slider from the "locked" to the "open" position

- open the landing door following the unlocking instructions of the installed automation.



On conclusion of the operations reset the electric lock contact

DOORS INTERFACE

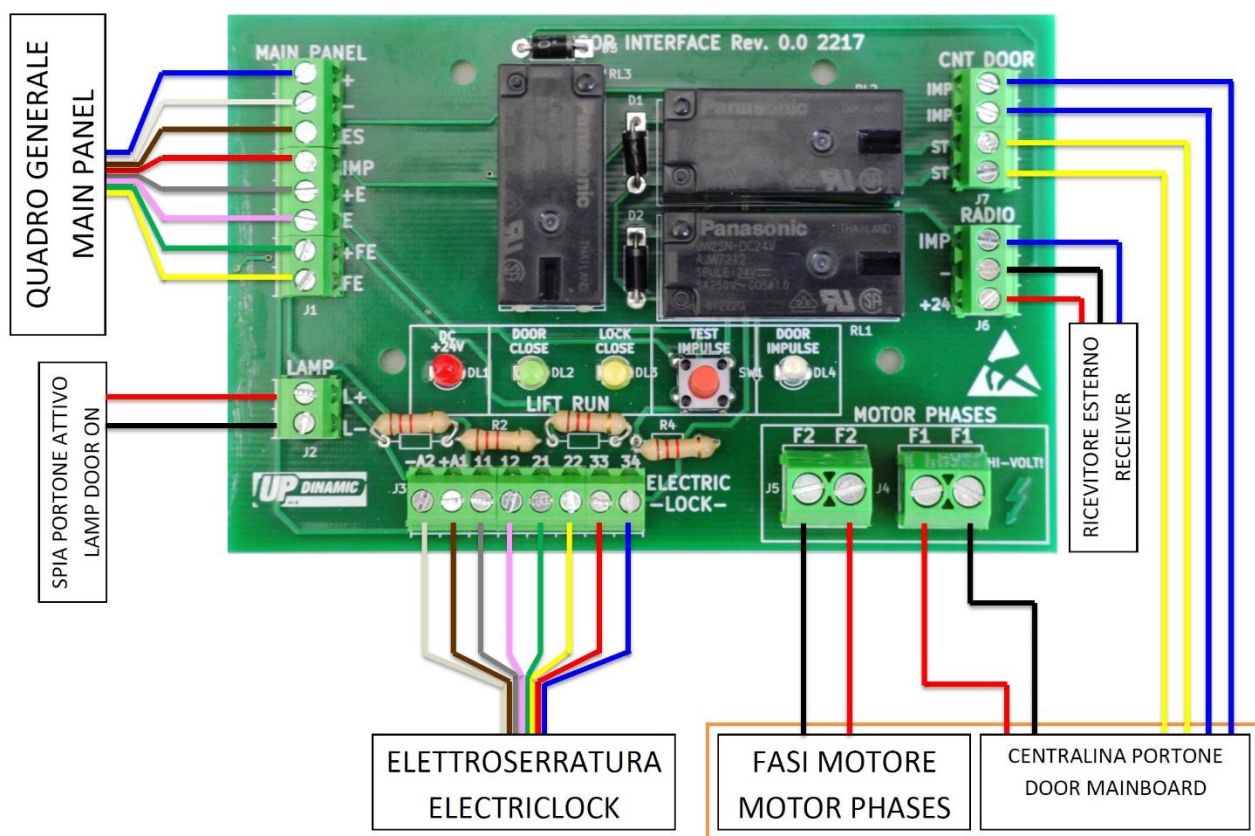
(only with automatic doors)

Connect the doors using the supplied interface.

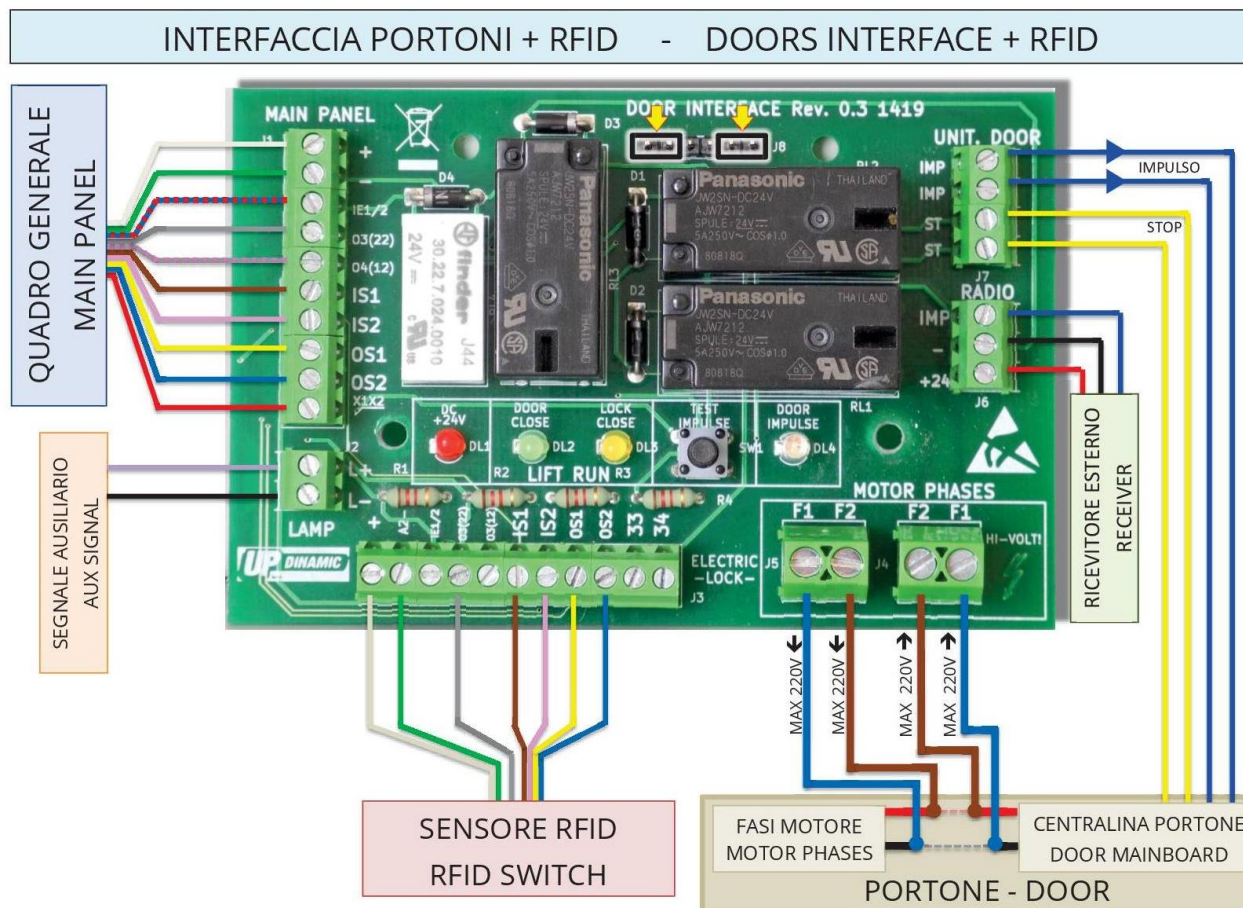
Functions of the interfacing card:

- Connection of interlock device (Electric lock)
- Connection of door motor phases to prevent activation with the system between levels
- Connection of opening signal (IMP) for prohibiting sending of the opening signal with the system between levels
- Management of the door (ST) STOP contact to block the door with the system between levels
- Connection of the transmitter for management of the opening signal
- "Door in action" light connection

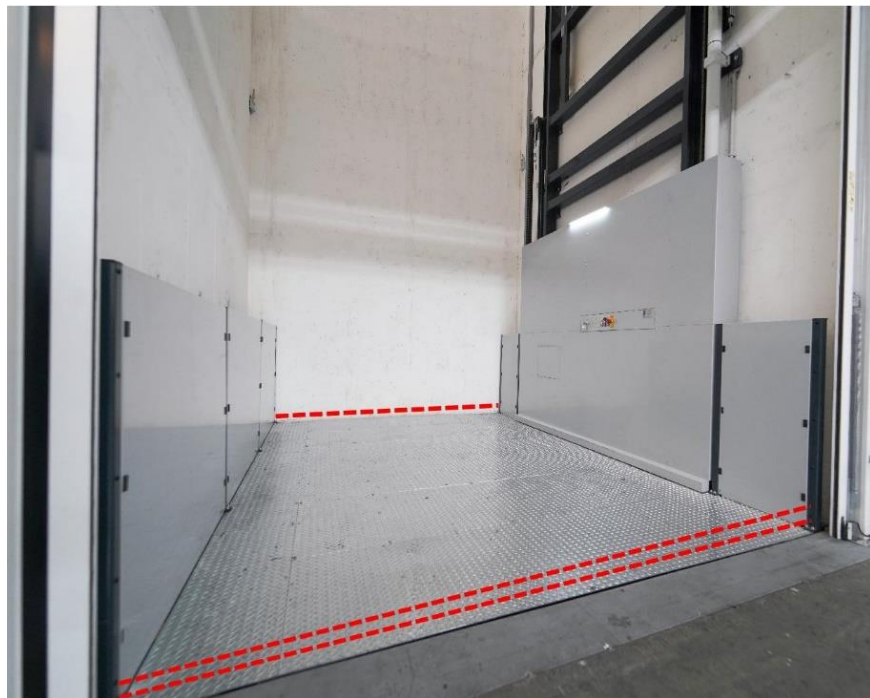
INTERFACCIA PORTONI / DOORS INTERFACE



RFID Pizzato Sensor wiring



SAFETY PHOTOCELLS (ONLY SPB)



The open sides of the cabin are provided with safety photocells.

2 photocell ranks are present on each side

It is sufficient to interrupt one rank only to halt the machine

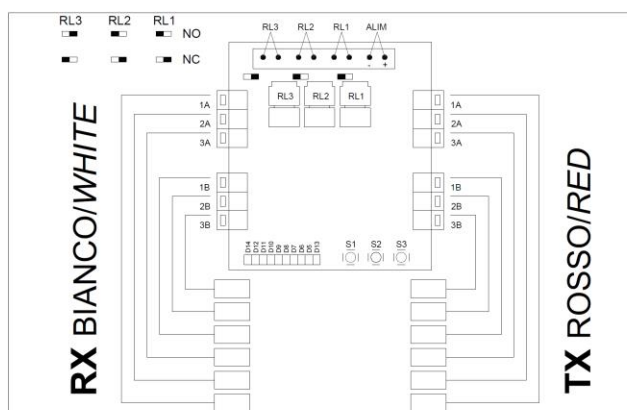
When the photocells are interrupted, the light on-board the cabin lights up and remains lit while the photocells are occupied.



Frequent cleaning of the photocells is recommended.

CARATTERISTICHE TECNICHE / TECHNICAL DATA

PORTATA/RANGE	0,1 ÷ 6 mt.
PROTEZIONE/DEGREE OF PROTECTION	IP 30 (IP 55 OPTIONAL CASE PROTECTION)
ALIMENTAZIONE/SUPPLY VOLTAGE	12 / 24 Volt AC-DC SENZA NECESSITÀ DI SETTAGGIO
ASSORBIMENTO/SUPPLY CURRENT	100 mA (LN1054.C) 130 mA (LN1056.C)
TEMPERATURA DI FUNZIONAMENTO/OPERATING TEMPERATURE	-15 ÷ +50°C
USCITA/OUTPUT	N.O. / N.C. RELAY CONTACT
PORTATA CONTATTO/OUTPUT CONTACT	5 A - 30 Volt DC / 0,9 A - 60 Volt DC PROTECTED BY EXTRA -TENSIONS
RAGGIO/OPTICAL RAY	INFRARED 900 nm
CONFORMITÀ/APPROVALS	89 / 336 / CEE
SERIE SENSORI COMPATIBILI/ COMPATIBLE BEAMS	PS 2003; PS 2007; PS 2010 ADATTATORI SPECIALI PER QUALSIASI TIPO DI CO- STA DI SICUREZZA SPECIAL FITTINGS TO ANY SAFETY RIBS



LED ATTIVI

D14 acceso presenza alimentazione.
D12 acceso relè RL1 eccitato, comandato dalla coppia di raggi 1A-1B allineati.
D11 acceso relè RL2 eccitato, comandato dalla coppia di raggi 2A-2B allineati.
D10 acceso relè RL3 eccitato, comandato dalla coppia di raggi 3A-3B allineati (solo LN1056.C).

CONFIGURAZIONE DEI RAGGI

Premere S2 per 5 sec. per attivare la funzione.

D9 acceso coppia in esame 1A-1B
D8 acceso coppia in esame 2A-2B
D7 acceso coppia in esame 3A-3B (solo LN1056.C)

D6 acceso attivo raggio A della coppia in esame
D5 acceso attivo raggio B della coppia in esame

D13 spento coppia in esame in configurazione OR
D13 acceso coppia in esame in configurazione AND

Premere S2 per 5 sec. per memorizzare la configurazione e uscire dalla funzione.

REGOLAZIONE SENSIBILITÀ RAGGI

Premere S1 per 5 sec. per attivare la funzione.

Il sistema calcola la potenza ottimale in funzione della distanza tra Tx e Rx.

Durante la fase di regolazione i led D9-D13 lampeggiano sequenzialmente.

Al termine del lampeggio è possibile, se necessario, apportare una regolazione fine della potenza dei trasmettitori.

D9 lampeggiante = raggio 1A
D8 lampeggiante = raggio 2A
D7 lampeggiante = raggio 3A
D6 lampeggiante = raggio 1B
D5 lampeggiante = raggio 2B
D13 lampeggiante = raggio 3B

Premere S2 per diminuire la potenza (il led del raggio lampeggia più velocemente).

Premere S3 per aumentare la potenza (il led del raggio lampeggia più lentamente).

Premere S1 per 5 sec. per memorizzare la regolazione e uscire dalla funzione.

RITORNO ALLA CONFIGURAZIONE DI FABBRICA (DEFAULT)

Premere S3 per 5 sec. un rapido lampeggio del led segnala il ripristino della configurazione di fabbrica.

CONFIGURAZIONE DI FABBRICA (DEFAULT)

La centralina viene fornita con tutti i raggi attivi e le coppie in configurazione OR alla massima potenza.

LEDS ON

D14 on input
D12 on RL 1 is controlled by 1A-1B lined up beam pair
D11 on RL 2 is controlled by 2A-2B lined up beam pair
D10 on RL 3 is controlled by 3A-3B lined up beam pair (only LN 1056.C)

BEAMS' CONFIGURATION

Push S2 key for 5 seconds continuously to activate the function.

D9 on pair 1A-1B
D8 on pair 2A-2B
D7 on pair 3A-3B (only LN 1056.C)

D6 on beam "A" of the selected pair is active
D5 on beam "B" of the selected pair is active

D13 off pair in "OR" configuration
D13 on pair in "AND" configuration

Push S2 for 5 seconds to save the configuration and to log out.

BEAMS' SENSITIVITY ADJUSTING

Push S1 key for 5 seconds continuously to activate the function.

The device calculates the optimum power according to the distance between TX and RX.

During the adjusting process D9-D8-D7-D6-D5-D13 leds blink sequentially.

When the leds' blinking is finished, if necessary, it is possible to regulate the transmitters power.

D9 blinking = 1A beam
D8 blinking = 2A beam
D7 blinking = 3A beam
D6 blinking = 1B beam
D5 blinking = 2B beam
D13 blinking = 3B beam

Push S2 to reduce the power (the led blinks faster).

Push S3 to increase the power (the led blinks slowly).

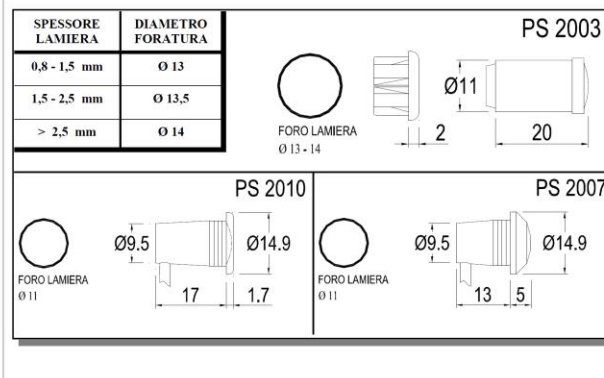
Push S1 for 5 seconds to save the adjusting and log out.

RETURN TO FACTORY SETTING (DEFAULT)

Push S3 for 5 seconds and a rapid leds' blinking indicates the return to factory configuration.

FACTORY CONFIGURATION (DEFAULT)

The control unit is equipped with operating beams and with beam pairs in "OR" configuration at the maximum power.





PROGRAMMING REMOTE RESCUE HELPYVOX MODEL

Dial the dialler number, wait for it to ring twice and for the connecting tone; then proceed with entering the access codes.

ACCESS CODES:

ACCESS TO PROGRAMMING ***0#**

EXIT FROM PROGRAMMING ***0#**

PROGRAMMING CODES (These can be entered following access):

TELEPHONE NUMBER **210112** TELEPHONE NUMBER#

CANCEL TELEPHONE NUMBER **210112#**

RECORD A MESSAGE **7101** Recording up to 20 seconds, until the beep sounds

ACTIVATION OF LOUDSPEAKERS **780** Activation of loudspeakers using number "0"

loudspeakers **781** Activation of automatic response

AUTOMATIC RESET **770** Automatic reset on conclusion of each call

771 Reset with end code, no."9"

FACTORY SETTINGS **99** Reset factory settings

RESPOND TO THE ALARM

- Respond and listen to the message
- Press 0 to speak with the trapped person
- Press 9 to reset the alarm

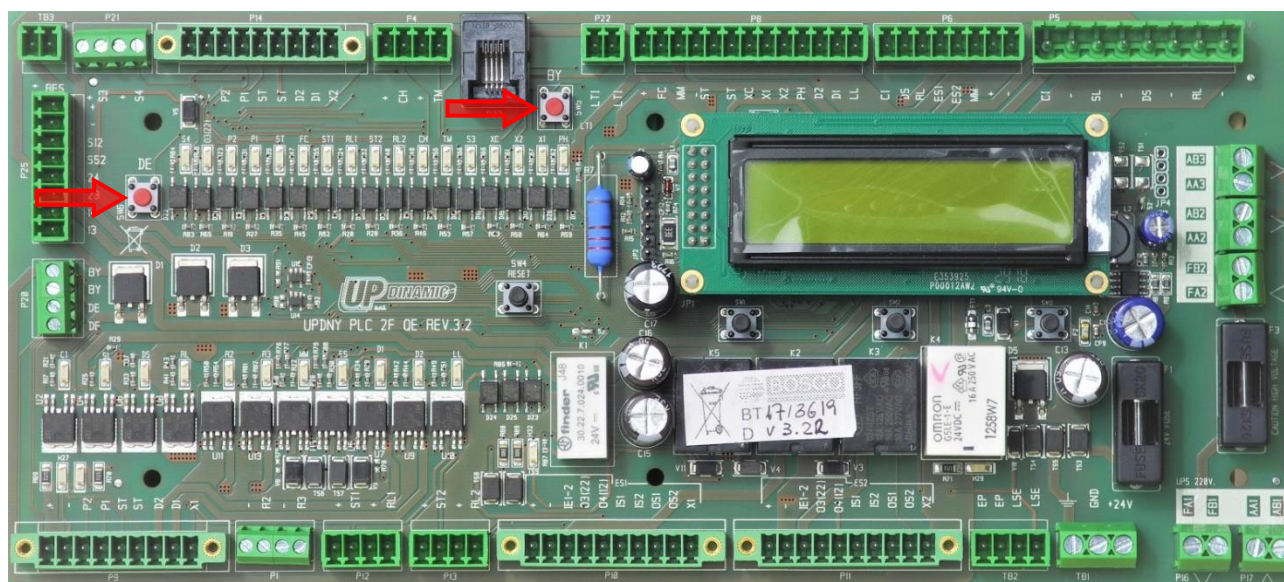
13. EMERGENCY MOVEMENT (FOR AUTHORISED PERSONS ONLY)

VALID FOR 2 STOP GOODS LIFT

For installation and maintenance of car lifts and goods lifts, Art. 15 of Pres. Decree 162/99 requires that the system owner appoint a person holding an appropriate certificate of qualification

(LETTER "F") issued by the prefecture.

Press the two buttons indicated at the **same time** to carry out the emergency descent



BYPASS BUTTON (BY)

- Bypass closed door contact
- Bypass stop
- Bypass photocells
- Bypass emergency stop

DESCENT BUTTON (DE)

Actuate the descent valve with deadman command



WARNING: NO SAFETY DEVICE IS ACTIVE DURING MOVEMENT

Wait until the platform reach the lower floor, the display will indicate when the platform reach the floor

VALID FOR 3/4/5 STOP GOODS LIFT

For installation and maintenance of car lifts and goods lifts, Art. 15 of Pres. Decree 162/99 requires that the system owner appoint a person holding an appropriate certificate of qualification (LETTER "F") issued by the prefecture.



Press the two buttons at the same time to carry out the emergency descent

FIRST BYPASS BUTTON (BY):

By Pass – Safety devices + enables Descent Button (DE)

- Doors-closed contact bypass
- Stop bypass
- Photocell bypass
- Emergency stop bypass

SECOND RIGHT DESCENT BUTTON:

it powers the two descent valves with jog control.

WARNING: NO SAFETY DEVICE IS ACTIVE DURING MOVEMENT

14. ADJUSTING THE RELIEF VALVE

Adjust the relief valve setting a maximum operating pressure as shown in the table below:

Model	Max cylinder load (kg)	Maximum capacity (kg)	Rod diameter (mm)	Max platform travel (mm)	Max operating pressure (bar)
DL2-DEC2	4800	2000	Ø60	7000	170
			Ø70	8900	125
			* Ø70 *	16000	125
DL2-DEC1	5300	2500	Ø60	6600	190
			Ø70	8500	140
			* Ø70 *	16000	140
DL2-SPB	5800	3000	Ø60	6200	200
			Ø70	8100	155
			* Ø70 *	16000	155
DL2-MAG1	5800	3500	Ø70	8000	155
			* Ø70 *	16000	155
DL2-MAG2	6100	4000	Ø70	7900	160
			* Ø70 *	16000	160

NB: Rod Ø60mm is out of production, it was used only up to a capacity of 3000Kg
 * Ø70 * = Cylinder with 2 rod guide carriages, to halve the peak load



Loosen the lock nut and act on the Allen screw:

Clockwise = Increase the pressure

Counterclockwise = Decrease the pressure



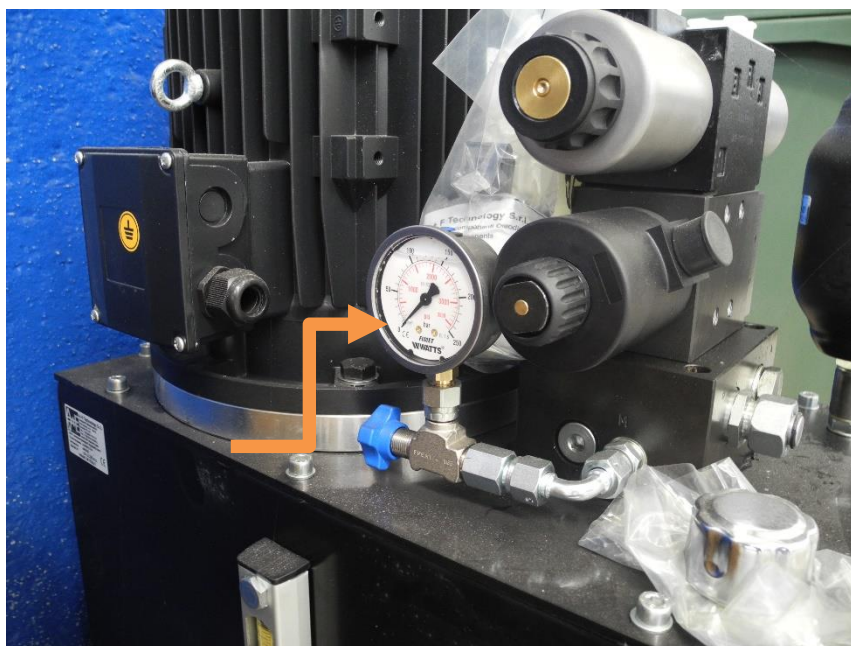
ADJUSTMENT PROCEDURE FOR OVERLOAD CONTROL

- Load the flatbed with the maximum transportable weight (see "maximum flow rate" table).
- Make the ascent manouvre and make sure the flatbed remains stationary (the pressure is not sufficient to lift the load)
- Act on the regulating grain by increasing the pressure until the flatbed starts to move
- Check the working pressure and compare it with the maximum pressure indicated in the previous table according to the hoist model

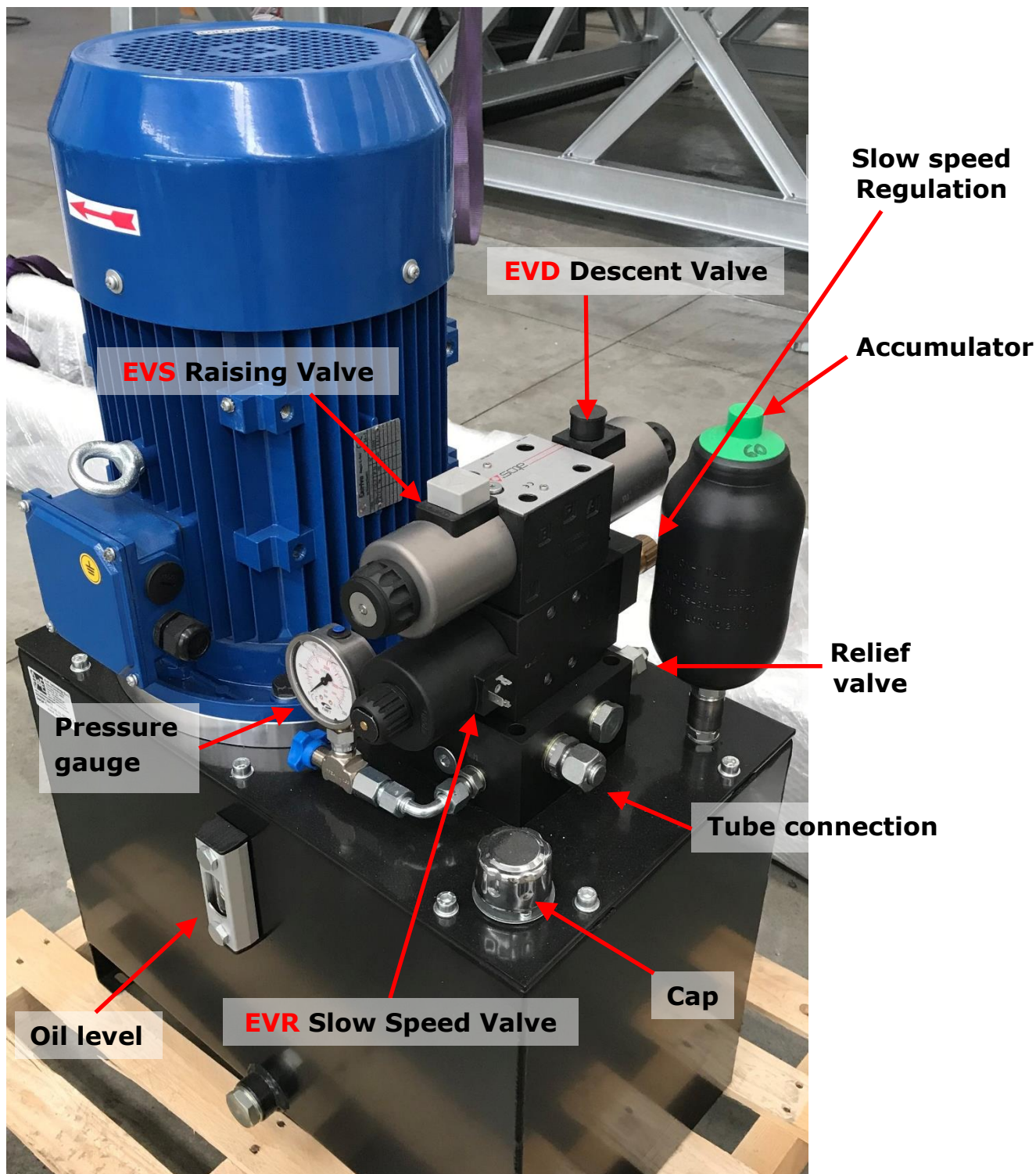
Note: If the pressure is higher than indicated in the table, please inform Updynamic Technical Assistance

Perform a +20% overload test by verifying that the hoist can lift the overload

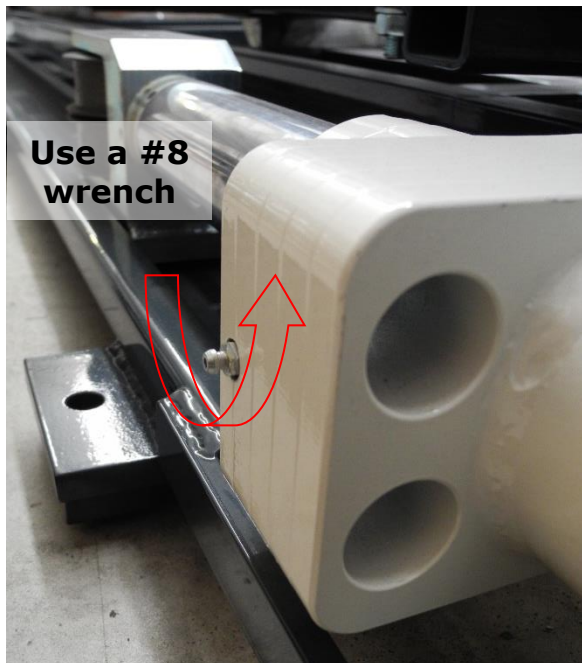
Transcribe LOAD used for calibration and WORKING PRESSURE on the installation check list



15. HYDRAULIC CONTROL UNIT DESCRIPTION



BLEEDING THE SYSTEM



To bleed the cylinders, act on the breather pipe on the upper part of the cylinders.

Carry out the operation holding the loading platform stably lifted by about 10cm for at least half an hour so that the air in the cylinders flows towards the top of the cylinders.

Simultaneously open the dedicated screw at the top of the 2 cylinders to bleed the air from the hydraulic cylinders. To prevent splashes, fit the Nylon tube provided on the bleeding screw.

It is advisable to repeat the operation after a 30-minute pause.

WARNING: the cylinders must be bled in order to prevent jumping during travel.

FILLING THE TANK

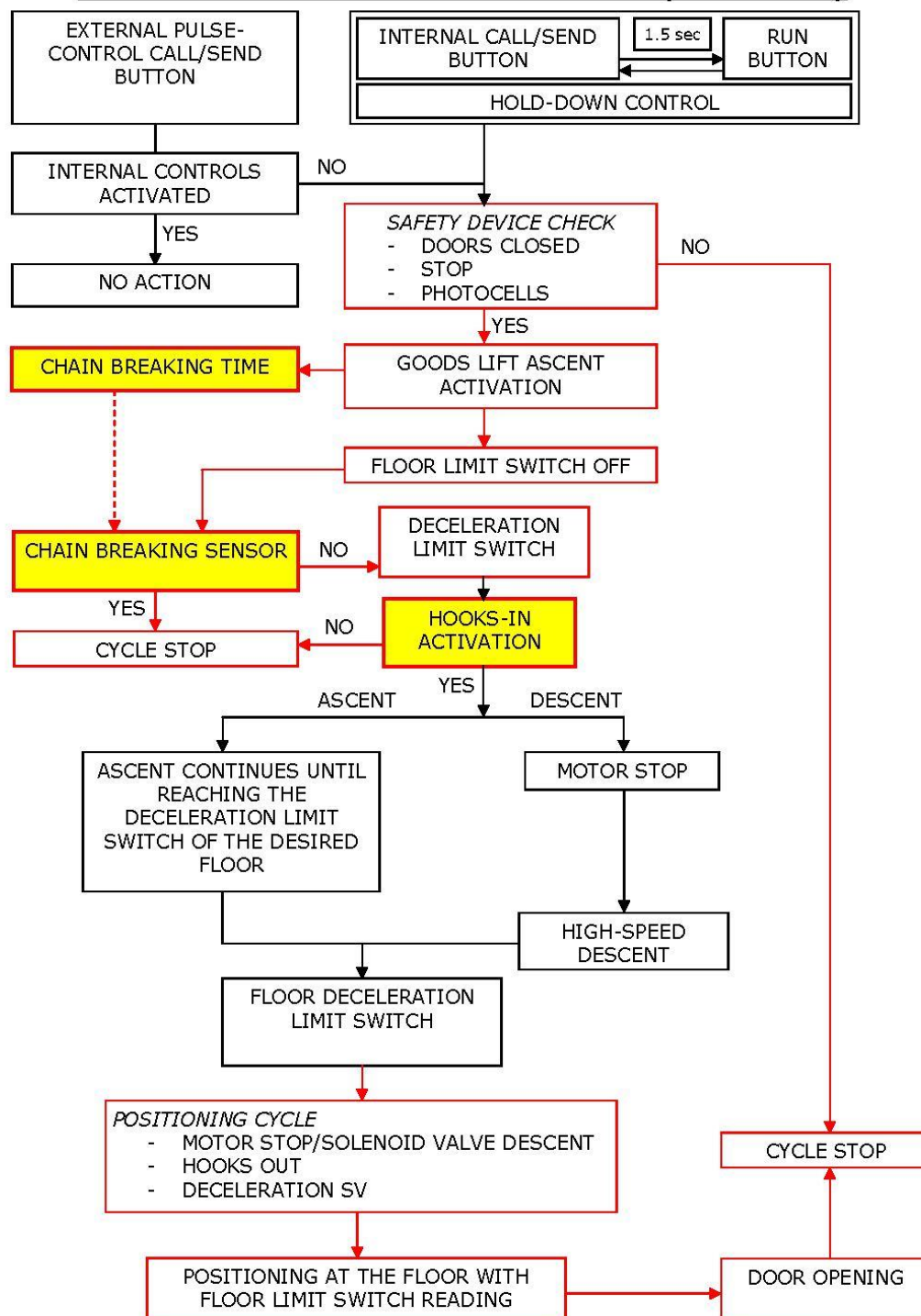
The hydraulic unit tank is to be filled with oil for hydraulic systems, type Wladoil Engine HY SY. It is important to use special filters that prevent polluting particles from entering. To start system operation, the oil must be above the minimum level indicated on the tank.

Wladoil Engine HY SY (approximate average characteristics)

- | | |
|----------------------------------|-------|
| - Density at 15°C: | 0.852 |
| - cSt viscosity at 40°C: | 32 |
| - Engler viscosity at 50°C: | 3.2 |
| - Viscosity index: | 100 |
| - Pour point °C: | -33 |
| - Flammability VA °C: | 192 |
| - Aniline point °C: | 96 |
| - DIN 51 524 HLP classification: | 32 |

16. OPERATING CYCLE

DL2-SPB GOODS LIFT OPERATING CYCLE (12-09-2014)



NOTES: When the "occupied time" of 30 seconds is enabled, the external controls are disabled as soon as the manoeuvre from the inside has ended.

= AUTOMATIC MANOEUVRE

= AUTOMATIC MANOEUVRE ONLY FROM THE OUTSIDE

= SAFETY DEVICE CHECKS



17. TECHNICAL SERVICE

Contact the system maintenance company or our Sales and Technical Service Department for anything you may need.

TECHNICAL SERVICE CENTRE

UPDINAMIC S.r.l.

Via Modigliani, 22

37045 Legnago (VR)

Tel. +39 0442 / 590129

Fax +39 0442 / 599091

info@updynamic.com

18. REPAIRS AND SPARE PARTS

Important

IMPORTANT: For any repairs, contact qualified and authorised persons.
Should you ask our Sales and Technical Service Department for technical information or spare parts, always specify the data indicated on the identification plate.

Annex A – PERIODIC MAINTENANCE REPORT

Model	☐ DL2 ☐ DL2 SPB ☐ DL2 DEC1 ☐ DL2 DEC2 ☐ DL2 MAG1 ☐ DL2MAG2	s/n _____	Installation date ____/____/20__
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Operations/checks to be performed in the presence of the user by the technical support service		Functional part					Fill with ✓ x ✓ = Yes x = No				
		Control unit	Flatbed	Column	Anchor	Civil works	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
1	MACHINE STROKE: Run at least one full ascent and descent ride to check the quality, measure the speed and compare with the data on the machine booklet. Consider any detectable anomalies: levelling on the floors, centering of the platform, vibrations, noise, interference, andtc. and take the necessary measures.	•	•	•	•	•					
2	LEVEL OF THE FLOOR: Check that the levelling of the flatbed with the floor on each floor, is in the tolerance of 1.5cm. Check the flatness of the flatbed.		•			•					
3	LOADING AND UNLOADING OF THE FLOOR: Check the behavior of the hydraulic system, and the consequent movement of the platform during loading.	•	•								
4	WEAR OF THE GUIDES : Check the status of the sliding guides, grease if necessary.			•							
5	BEARING STATUS: Check the status of bearings, record the bearings you need, gain weight if necessary.			•							
6	WALL ANCHORS: Check the perfect tightness of the heavy anchors fixed to the wall, taking into account any adjustments of the building, if necessary tight the anchor with a torque wrench. Remove any excess material that may interfere during the ride.				•	•					
7	FLATBED FASTENING: Check the correct fixing of the flatbed to the trolley, considering possible loosening due to vibrations, in case of need to tighten the screws with a torque wrench.		•	•							
8	PARAPET FASTENING: Check the correct fastening of the railings edge and cover casings, considering possible loosening due to vibrations. Also check the verticality.		•	•	•	•					
9	MECHANICAL ORGANS: Check the status of mechanical organs, bearings, pulleys, parthy, etc.		•	•							
10	CHAINS, TIE RODS AND PULEG GAND REPRIEVE: Check the wear status of the chains and the possible wear of the pulley throats, lubricate the parts if necessary. Check for signs of deterioration, wear of the tie rods, check that the resistance of the attachment has remained unchanged.		•	•							
11	GENERAL STATE OF THE MACHINE : Check for rust in the critical areas of the machine: guides, mechanical organs, andtc. Clean the machine of excess grease.	•	•	•	•	•					
12	ANTI-FALL HOOKS: Check the status of the anti-fall hooks, operation, safe support to the top, lubricate if necessary.		•	•		•					
13	HYDRAULIC CYLINDER: Check the seal of the piston seal, check the fittings, bled if necessary.	•		•							
14	LOCK VALVE: Check the correct functioning of the hydraulic valve mounting on the cylinder and check the functioning of the coil.	•									
15	OIL SEAL IN GENERAL: Check for oil leaks due to leakage on the various components of the plant (cylinder, fall valve, control unit, fittings, pipes, and tc.).	•									
16	PIPE AND JOINT: Check the good state of conservation.	•									
17	OIL LEVEL: Check that the oil level in the tank is above the minimum when the hoist is stationary on the highest floor.	•									

Operations/checks to be performed in the presence of the user by the technical support service		Functional part					Fill with ✓ x				
		Control unit	Flatbed	Column	Anchor	Civil works	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
18	FLOW REGULATORS CONTROL: Check that the flow regulators (chokes) are well adjusted and locked. .	•									
19	OPERATING PRESSURE/MAX PRESSURE VALVE: Check that the operating pressures have remained unchanged, check the calibration of the valve of maximum pressure.	•									
20	EXTERNAL ELECTRICAL SYSTEM AND CABIN EDGE: Check the correct functioning of engine protection devices, end-of-travel locks and proximity contacts, electrical connections, insulation tests, grounding tests, cabin lighting, buttons, light signals, badges and key contacts, electrical safety and non-safety devices, electrical lines, alarm devices.	•									

Any notes/comments will be made on the attestation of the technician's intervention. The user must transfer them to the Security Registry

	<u>YEAR 1</u>	<u>YEAR 2</u>	<u>YEAR 3</u>	<u>YEAR 4</u>	<u>YEAR 5</u>
Name manufacturer/distributor authorized					
Name and signature of the technician					
Date of control	__/__/____	__/__/____	__/__/____	__/__/____	__/__/____