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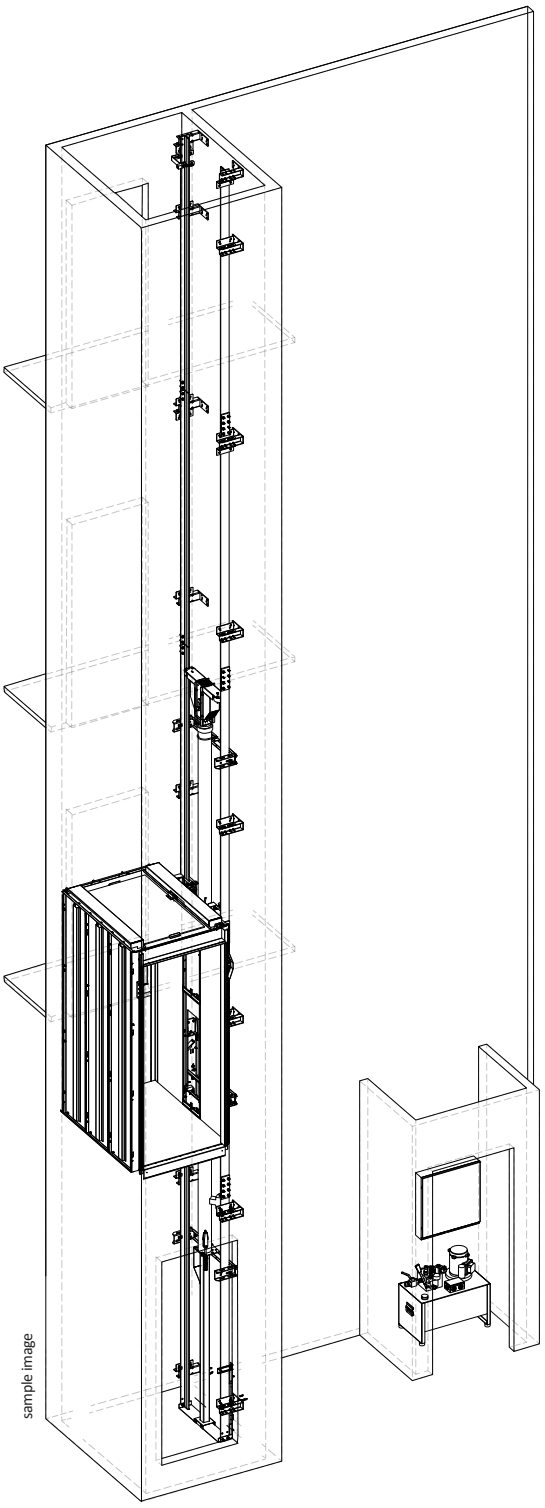
inDOMO HP and inDOMO XL

Home Lift



MM13 CONTROL CABINET
INSTALLATION AND DIAGNOSTICS

As far as the following items are concerned : general instructions, safety instructions, responsibility and warranty, material receiving and storage on site, packing, waste disposal, cleaning and maintenance, please consult the manual "**SAFETY AND MATERIAL HANDLING ON SITE**".

INDEX

2	Updated pages 5, 9, 13, 14, 15, 20, 23	11.01.2016
1	Updated pages 10, 11, 12, 21, 23, 26, 30	27.02.2014
Rev.	*Descrizione*	*Data*

0 MANUAL READING GUIDE

0.1 CHAPTER SYMBOLS

	General information		Positioning		2:1 lift specification
	Box content		Installation		1:1 lift specification
	Preliminary advice		Commissioning		
	Read carefully		Electrical Wiring		

0.2 IMPORTANT ITEMS

	General safety warning		Important notice		Read carefully
	Risk of electric shock		Risk of bodily injury (e.g. due to sharp angles or protruding parts)		Risk of damage to mechanical parts (e.g. during incorrect installation)
	Fire hazard		Hanging load		Risk of skin injury
	Risk of falling		No entry		Materials to be protected against bad weather conditions

0.3 INDIVIDUAL SAFETY DEVICES

	Hard hat		Ear protection		Safety harness and other accessories
	Overalls		Safety steel-toe boots with ankle protection		Safety glasses
	Dust masks		Work gloves Rubber gloves		First aid kit

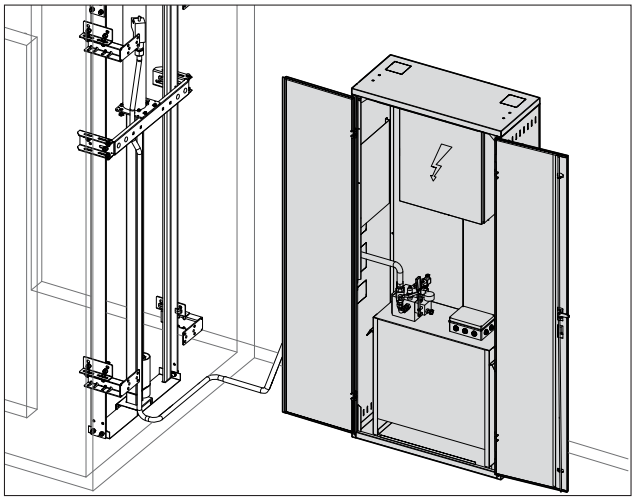
The words **WARNING** and **CAUTION** are used to highlight the following risks of injury and damage:

WARNING	Serious danger to safety
CAUTION	Risk of damage to materials which may lead to safety risks

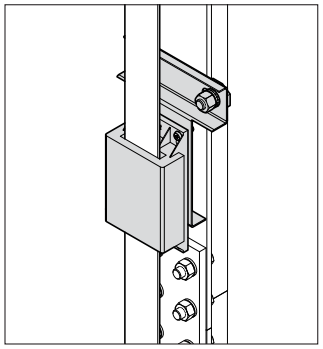
1 SYSTEM DESCRIPTION AND MAIN FEATURES

The electrical equipment of the inDOMO lift is designed on the purpose to obtain the best possible integration between the electrical and mechanical parts. The main electrical components are as follows:

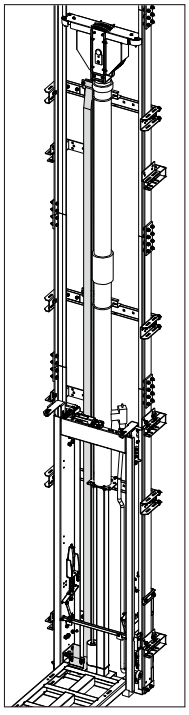
- MM13 control cabinet: PLC-based system connected to the buttons and field signals by means of a serial interface board; it is possible to establish connection between the PLC and the HMI in order to change the settings of the lift and effect advanced diagnostics;

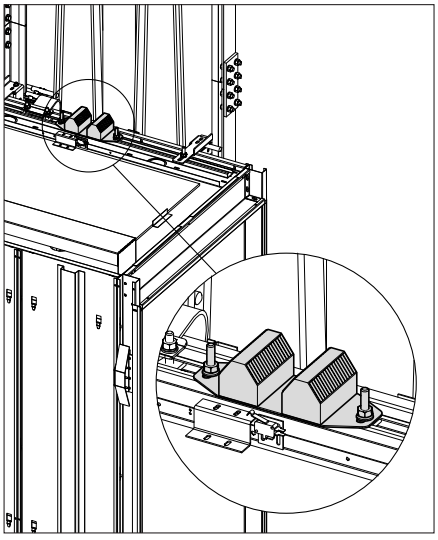


- Wired electrical lines in shaft: flat cable and KonboX® junction boxes, fast to install, do not require any trays; the pit appliances are interlinked by means of a separate wiring;



- Wired electrical lines in car: flat cable and junction box on the roof.

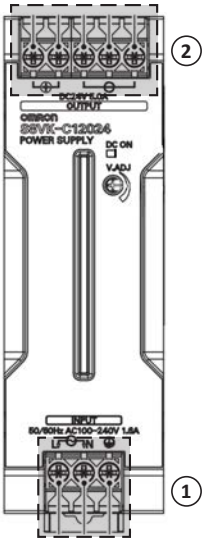


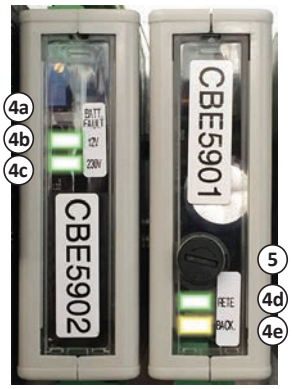


2 PRINCIPAL COMPONENTS

This paragraph is meant to describe the functions of the principal devices of the electrical cabinet, the attention being focused on the problem solving aspects.

2.1 PS-24 : Power supply unit + battery charger





(1) It receives incoming supply voltage.

(2) It generates 24VDC power supply for auxiliary users.

(3) It controls the system power source communicating, through two relay outputs, supply voltage and batteries states to the PLC.

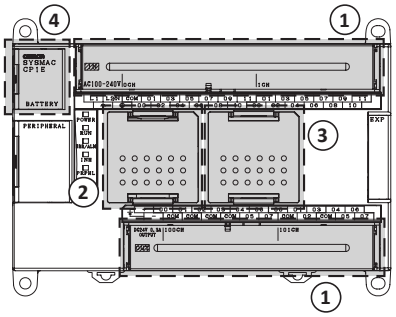
Diagnostic LED:
(4a) a) Battery disconnected or dead
(4b) b) 12V voltage present
(4c) c) Supply voltage present
(4d) d) Supply voltage present
(4e) e) Emergency power supply activated

(5) Fuse 6A for batteries

2.2 KA-RIL : Safety circuit

Allows the car movement with doors open and /or unblocked inside the bypass zone, to effect re-levelling operations and floor bypass when the fixed unblocking cam is present.

2.3 PLC : Programmable Logics Controller



(1) System controlling unit equipped with digital inputs (upper part) and outputs (lower parts); the inputs are photoisolated and respect positive logics (upper input ↔ 24 V DC); the outputs are handled by relays and split into groups, each of them with its common terminal.

(2) The integrated serial port ais connected to the serial interface board; by means of this connection the PLC can be directly interfaced with the buttons and the field signals.

(3) The optional serial port is reserved to the HMI keyboard connection

(4) The left upper housing allows to accommodate a battery for faults backup.

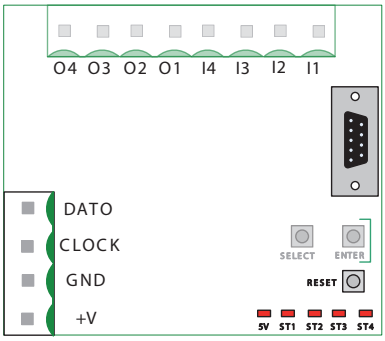
2.4 Maintenance commands

(1) The SA-AUT selector allows to switch from normal mode (S.N.) to maintenance/ inspection mode (MAN) and viceversa; every time you switch from maintenance to normal mode it is necessary to reset holding both the ascent-descent buttons for more than 3 seconds

(2) Ascent button SB-UP (descent SB-DN): in maintenance mode controls the ascent (descent) by means of continuous action commands; in normal mode it simulates a call to the upper (lowest) floor.

To preserve the lifespan of the hydraulic unit it is necessary to wait for 2 seconds between the two pressions of the maintenance buttons.

2.5 ITF232 : Serial interface board

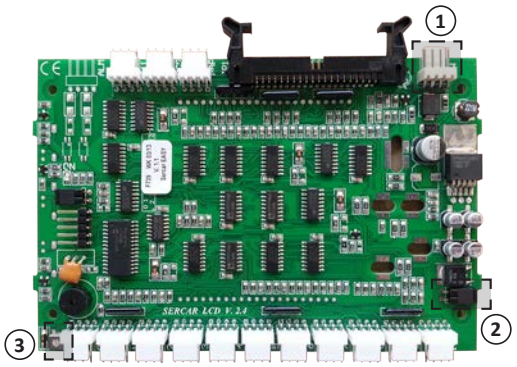


Controls the shaft & car serial interface bus and allows a direct interface between the PLC and the field components (electrial scheme connections).

Equipped with 4 inputs and 4 outputs (transistor)

Disgnostics LEDs:
- 5V: power supply present;
- ST1, ST2: not in use;
- ST3: PLC connected if 1 second on and 1 second off;
- ST4: board functioning if 1 second on and 1 second off.

2.6 SERCAR : Serial interface board

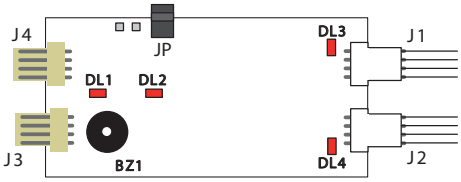


(1) Controls buttons and signals in car/ transmits signals on serial interface bus (electrical scheme connections).

(2) Jumper to exclude calls in car.

(3) Trimmer to adjust the buzzer volume.

2.7 ITF800 : Serial landing board

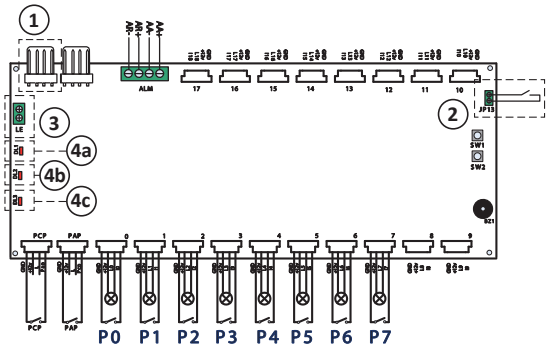


Controls the buttons and landing signals (electrical scheme connections).

Diagnostics LEDs:
- DL1: correct functioning if 1 sec on and 1 sec off; fast blinking with jumper on,serial connection interrupted or wrong;
- DL2: slow blinking - the board is programmed; the number of blinks means the code;
- DL3: on if the contact of the J1 connector is closed;
- DL4: on if the contact of the J2 connector is closed.

Programming procedure:
a) enable the jumper (JP); the DL1 LED will start blinking fast;
b) to insert the address press the button several times according to the floor number: once for the lowest floor etc.
c) remove the jumper to memorize the address;
d) to check the address count the blinks of the DL2 LED.

2.8 LCD505-A : Display in car + Serial board of serial interface



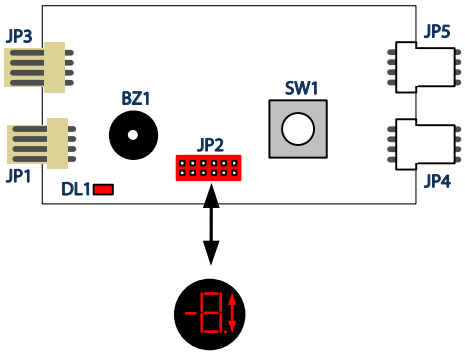
(1) Controls the buttons and signals in car as well as the Law 13 pictograms (electrical scheme connections).

(2) Calls exclusion input.

(3) Emergency light enabling input.

Diagnostics LEDs:
(4a) a) DL1: correct functioning if 1 sec on and 1 sec off; fast blinking if serial connection interrupted or wrong;
(4b) b) DL2: board functioning if 1 sec on and 1 sec off;
(4c) c) DL3: lights up if at least one button is pressed.

2.9 DSP600 : Round landing display



Controls the landing buttons and signals (electrical scheme connections).

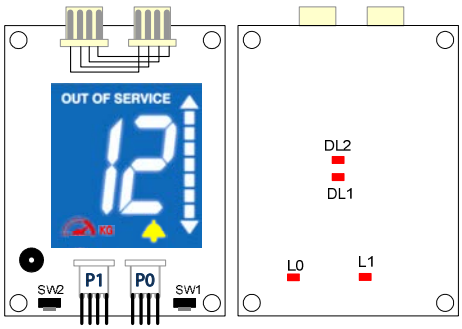
Diagnostics LEDs:

- DL1: correct functioning if 1 sec on and 1 sec off; fast blinking with jumper enabled: serial connections interrupted or wrong.

Programming procedure:

a) enter the programming mode holding the SW1 button for at least 5 seconds; the point and the set address will be displayed ("F"=no address);
b) the SW1 button is used to increase the address value; the "-" sign means tens, the "0" address stands for the lowest floor;
c) upon setting the address, wait for 5 seconds, until the address has been memorized, then exit the programming mode.

2.10 LCD600-A : Square landing display



Controls the landing buttons and signals (electrical scheme connections).

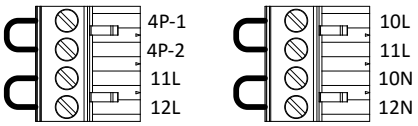
Diagnostics LEDs:

- DL1: correct functioning if 1 sec on and 1 sec off; fast blinking with jumper enabled: serial connections interrupted or wrong;
- DL2: slow blinking - the board is programmed; the number of blinks between two long pauses means the adress;
- L0: on if the contact of the P0 connector is closed;
- L1: on if the contact of the P1 connector is closed.

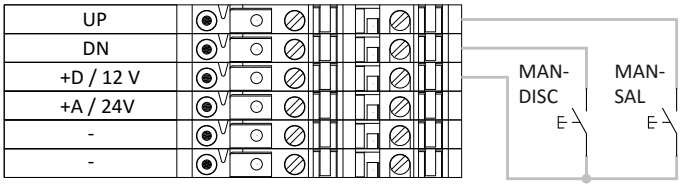
3 FIRST RUN CONNECTION

- Provide the connection betwen the hydraulic unit and the control cabinet as s shown in Wiring Sheet , page related to X0 Terminal Box.
- Provide contact bridges for units still to be connected, by means of supplied clamps. Then connect the maintenance panel using the following scheme:

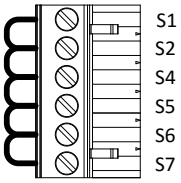
=QG - X



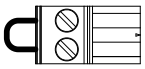
=QG - X1



=QG - X10



=QG - X11



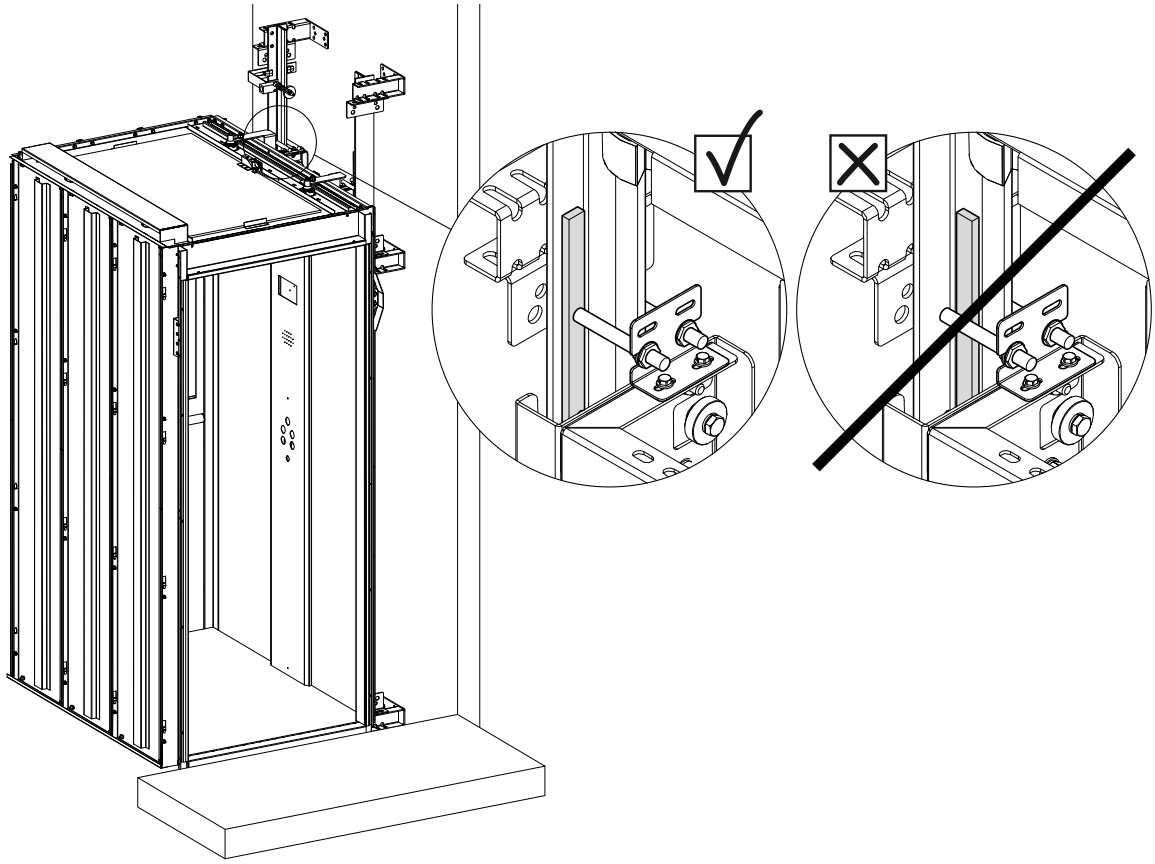
LEGEND	
ST_MON	Emergency Stop on maintenance panel
MAN-DISC	Descent button on maintenance panel
MAN-SAL	Ascent button on maintenance panel

- In case of 3 phase power supply the clamps to be connected are as follows: 1L, 2L, 3L and 1N, Box X; should the internal components remain idle in presence of power, disable the power supply and invert the connection of two out of the three phases.
- Provide the necessary grounding.
- Check the correct position of the safety devices and make sure the emergency stop on the button panel in enabled.
- To enable the maintenance mode: switch the selector to MAN. In this case the only commands that control the lift are SB_DN (downwards movement) and SB_UP (upwards movement).
- In normal mode (selector switched to S.N.) by pressing SB_UP you will effect a call from the upper floor, and viceversa (SB_DN means a call from the lowest floor) .

Switching from maintenance to normal mode: it is necessary to switch the selector and then RESET (press and hold SB_DN and SB_UP simultaneously for more than 3 seconds).

It is not necessary to control the car position during the installation i. When al the magnets have been correctly installed and the lift has been re-phased, then the movement is limited to the sole travel.

4 MAGNETS LAYOUT



4.1 STOP MAGNETS

Two people are necessary for this operation: one in the machine room, in front of the cabinet, and the other nearby the sensors.

1. In maintenance mode, bring the car to the floor (doorstep and car aligned);
2. Ascent IS sensor: starting from above, bring the 150 mm magnet closer to the sensor and stop as soon as the corrisponding LED (PLC) lights up;
3. Descent ID sensor: starting from below, bring the 150 mm magnet closer to the sensor and stop as soon as the corrisponding LED (PLC) lights up;
4. IP landing sensor : place the 300 mm magnet in a way that the sensor is positioned in the middle of the magnet;
5. Should the landing re-evelling be very frequent, bring ID and IS stop magnets closer vertically.

4.2 SLOW DOWN MAGNETS

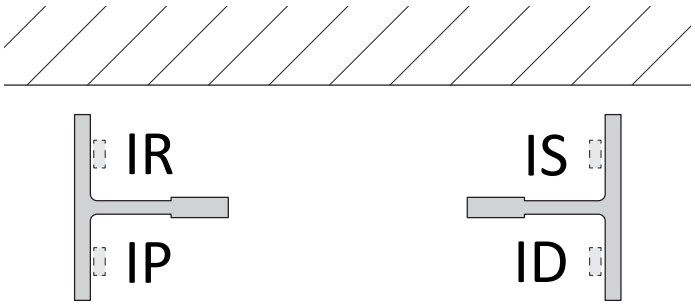
1. Ascent slow-down: place the 150 mm magnet in accordance with the IS sensor, under the stop ascent magnet, and a minimum 200 mm distance from the latter.
2. Descent slow-down: place the 150 mm magnet in accordance with the IS sensor, above the stop descent magnet, and a minimum 200 mm distance from the latter.

4.3 BYPASS AND LANDING BLOCK ADJUSTMENT

As soon as the magnet positioning has been completed, you can proceed with landing block adjusment.

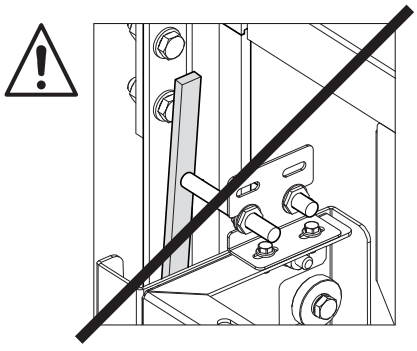
The block bypass is effected at a 150 mm distance under and above the stop level. Therefore the safety lock contact must be closed in that position!

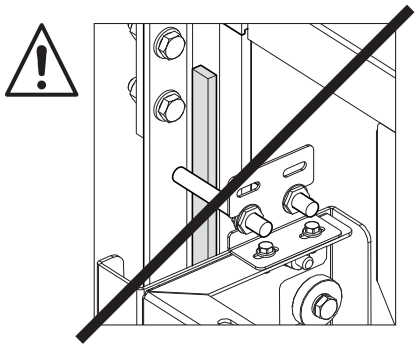
Hereunder, the recommended sensor location.

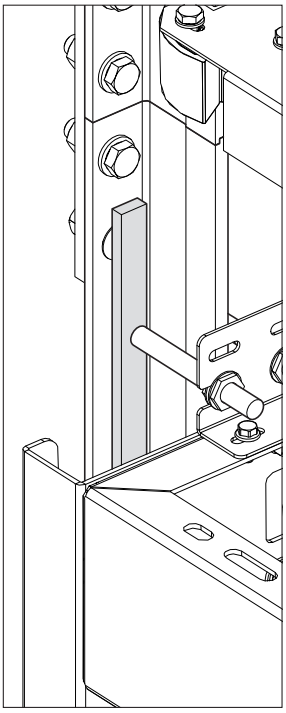


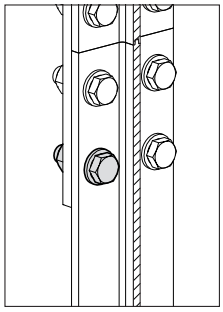
LEGEND	
IR	Re-phasing sensor
IP	Landing and bypass sensor
ID	Descent sensor (stop and slowdown)
IS	Ascent sensor (stop and slowdown)
PB	Lowest floor
PI	Intermediate floors
PA	Upper floor
ZB	Bypass zone
Rall.	Slowdown distance

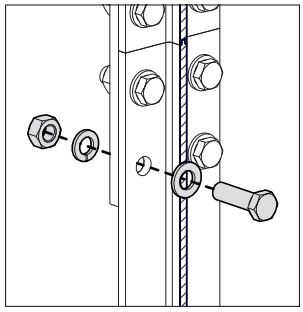
NOTES
AA ≥ 50 mm
Rall. ≥ 200 mm

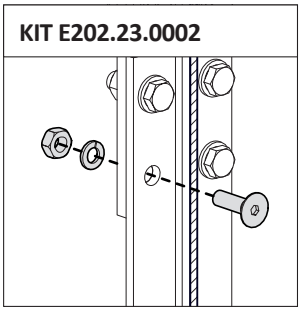


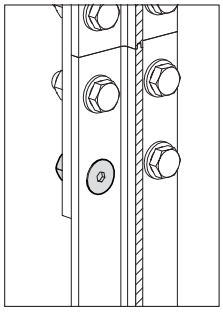


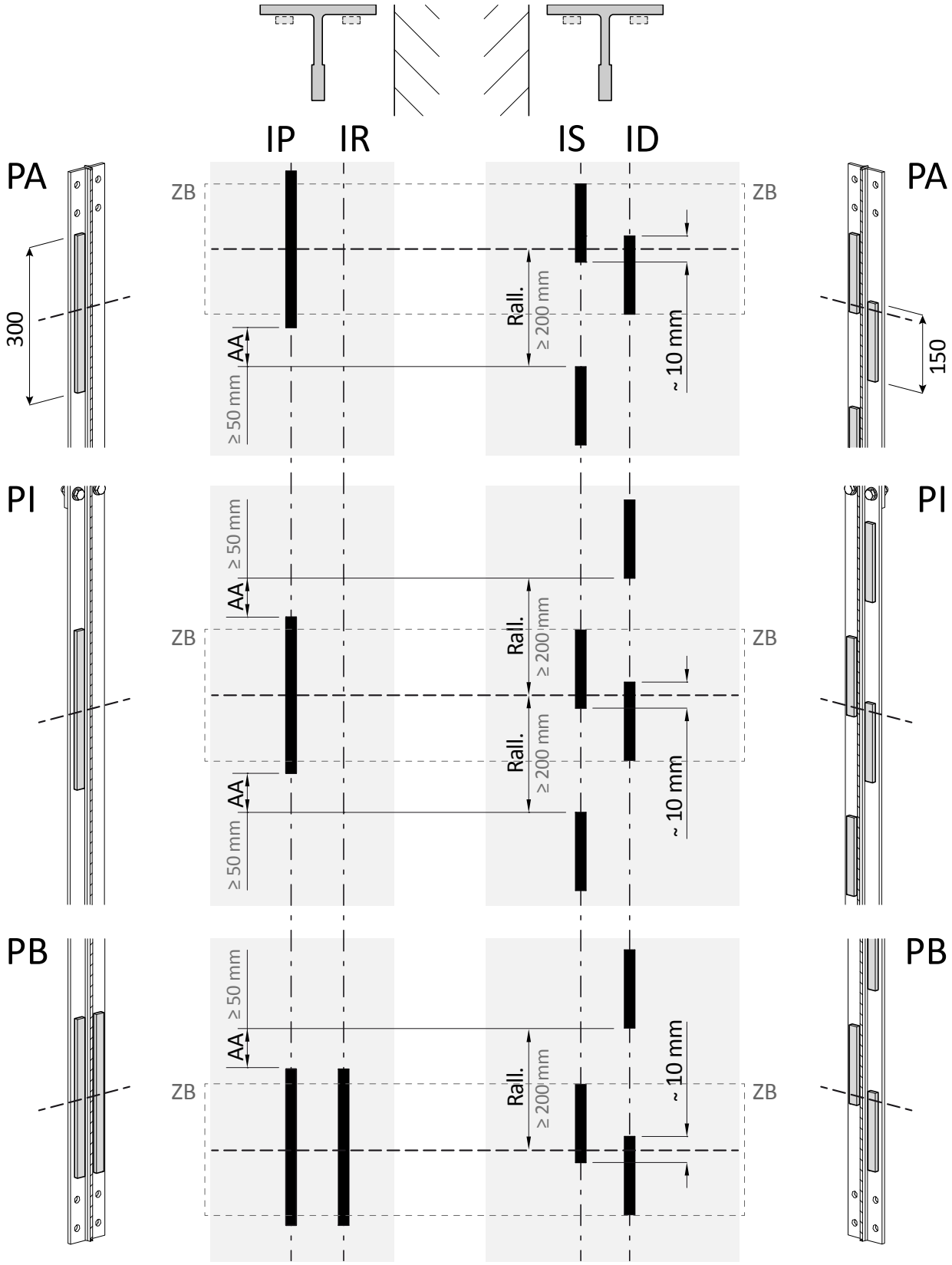












5 INSULATION TESTS

- Position the car between two floors and check if the safety chain is closed.
- Disconnect the electrical cabinet from the mains supply by opening all the switches of the power supply board.
- Disconnect al the battery terminals
- Disconnect all the users connecting the PE conductor by means of power supply clamps: door devices, PLC and UPS.
- Disconnect the "-" conductor from the PE connecting clamp; the clamp is shown on page 101 (or 102) of the electrical scheme.
- Make sure that all the power switches inside the cabinet are closed.
- Measure the resistance values between the terminals indicated in the below table. The table shows the test power (V) and the minimum resistance of the insulation between the circuits (MΩ).

-	L1 (L2, L3)	LC-L	LV-L	+A	+D
PE	500 V > 1 MΩ	500 V > 1 MΩ	500 V > 1 MΩ	250 V > 0,5 MΩ	250 V > 0,5 MΩ

- On test completion restore the initial state of the connections.

6 KA-RIL SAFETY CIRCUIT TEST PROCEDURE

Whenever a unit or device has been installed, or connections are regularly changed, the following sequnce of steps must be followed. Make sure there is no risk for the staff during this procedure.

STEP 1	Check the integrity, the correct installation, positioning and functioning of the sensors connected to the safety block inputs (IP, IS, ID). Check the correct wiring of all the devices, according to the electrical scheme.
STEP 2	In the maintenance / car off the floor mode (none of the sensors must be enabled) cut and restore the power, using the QF-24, the LED POWER signal will light up, while the CH1 and CH2 signas will be off. The LED POWER signal will stay on while the device is powered.
STEP 3	Close the input contacts of the unit by means of the following connections on the X20 terminal box: · +A/24 – IP: no LED on · +A/24 – ID: CH1 and CH2 on. Check if the safety output is closed (13-14 or 23-24 terminals of the unit).
STEP 4	Remove the connections effected as per STEP 3: the CH1 and CH2 LEDs must go off. Check if the safety output is open.
STEP 5	Repeat the STEP 2 procedure by opening and closing one connection at a time, make sure that the safety output does not close.
STEP 6	Repeat the STEP 2 procedure replacing the +A/24 – ID with +A/24 – IS connection.
STEP 7	Bring the car to a floor position , so that all the position sensors are enabled. Cut and restore the power using QF-24: all the three LEDs of the unit will light up.
STEP 8	In maintenance mode, disconnect the IP conductor from the X20 terminal box: the LED CH2 will go off. Restore the connection, cut and restore the power using QF-24: all the three LEDs of the unit will light up.
STEP 9	Disconnect the ID conductor from the X20 terminal box : none of the LEDs will change its status. Then disconnect the IS: the LED CH1 will go off. Restore the connection, cut and restore power using QF-24: all the three LEDs of the unit will light up.
STEP 10	Repeat the STEP 9 procedure disconnecting first IS and then ID: they must follow the same pattern.

7 TROUBLESHOOTING 24 V DC

When using OMRON S8VK-C12024 (120 W) power supply unit, please make sure that a 230 V AC power supply is present and measure it with a multimeter between terminals L and N (INPUT section). If LED DC ON and the other 24 V DC-power supplied components are off, it means that a short circuit or an overload has probably occurred and the protection function of the power supply unit has been activated.

Power supply check:

· Remove the 2 positive (+) terminals from the power supply unit: Should the LED not turn on, the power supply needs to be replaced. Otherwise proceed with troubleshooting.

Troubleshooting procedure:

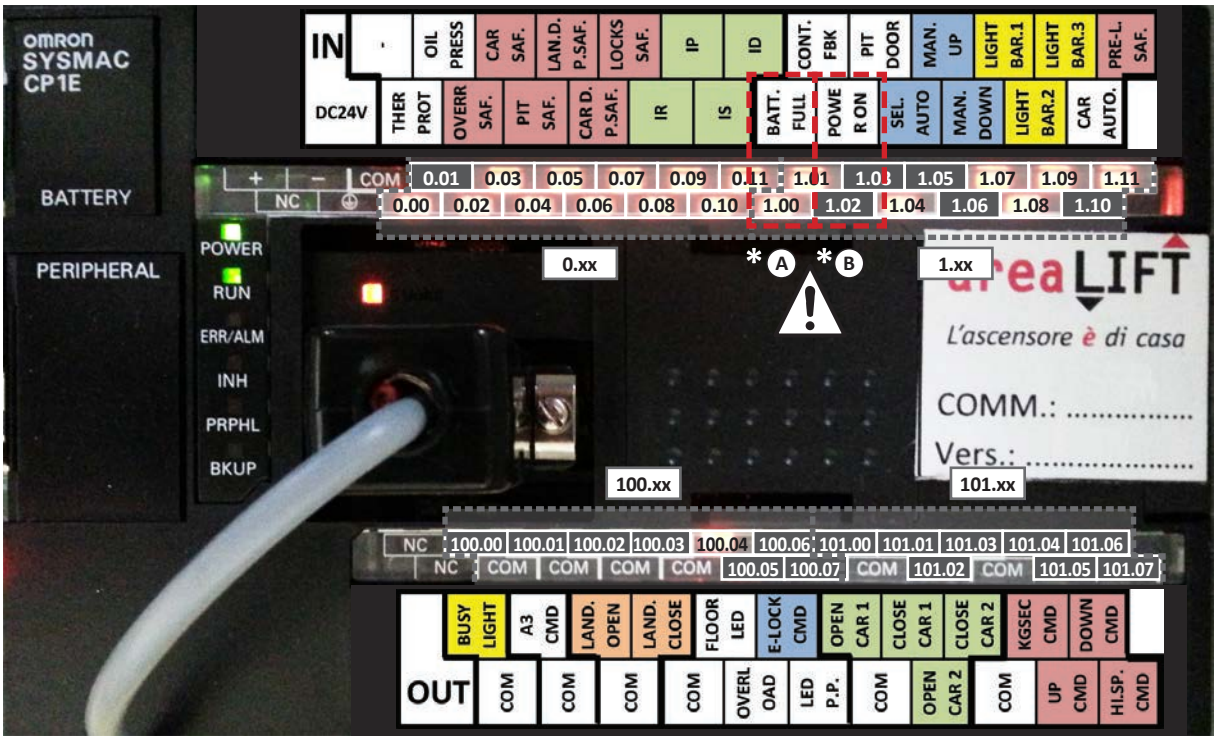
· Remove all the terminals from the terminal board, except for Xr (power supply to the electrical panel);
· When terminals are disconnected LED CD ON turns on. If this does not happen it means that the short circuit has involved connections of the electric panel and that one of the 24 V DC-power supplied devices does not work properly;
· If, with disconnected terminals, LED DC ON turns on, please connect the terminals one by one, arriving to the identification of the terminal causing intervention of the protection system, then identify the shorted device among the ones connected to that terminal.

8 PLC INPUT / OUTPUT DIAGNOSTICS

To check the status of the PLC logic signals please refer to the LEDs positioned in the upper (input signals) and lower (output signals) parts of the PLC.
To simplify the reading, the inputs/ outputs are equipped with a plate bearing a shortname for each function. The similar function groups are identified by means of the same colour. For instance, the safety LED plates in the upper (input) part are marked in red.

FIRST START - CHECK PROCEDURE

- Bring the car the the lowest floor
- Close all the doors and safety devices, so that the lift will be ready for a call (Standby mode)
- Cut and restore power using QF-24
- Bring the SA_AUT selector to S.N. position and reset by pressing SB_UP and SB_DN for more than 3 seconds
- The status of the PLC must be as below.



- Check all the PLC inputs using the following table; should the status not be correct, follow the instructions stated in the column "INCORRECT STATUS".

(A) When battery is connected and full, LED 1.00 is turned OFF.

(B) When supply voltage is activated, LED 1.02 is turned ON.

INPUTS		
0.00	*Label*	**TERM.MIC.**- THERMO SAFETY MICROSWITCHES
	Description	Disabled if thermo oil or drive safety device are activated
	STANDBY only	**ON** ST-P01 closed and FR-P closed
	INCORRECT STATUS	a. check the drive oil temperature; b. check if the FR-P adjustment matches the nominal data of the drive; restore the FR-P protection, if activated; c. check the wire connection between the X0 terminal box and the ST-P01 contact using the wiring table; d. check the wiring inside the cabinet (input 0.00) using the electrical scheme; e. check if the COM terminal is connected to "-" and if the PLC output is enabled (by means of temporary PLC connection to +24 V DC.)

0.01	*Label*	**PRESS. OIL** - OIL PRESSURE
	Description	Enabled if the oil pressure gauge (hydraulic unit) is active
	STANDBY only	**OFF** SP-P01 open
	INCORRECT STATUS	a. check the load of the car; b. check the pressure gauge settings on the hydraulic unit; c. check the wire connection between the X0 terminal box and the ST-P01 contact using the wiring table; d. check the wiring inside the cabinet (input 0.01) using the electrical scheme; e. check if the COM terminal is connected to "-" and if the PLC output is enabled (by means of temporary PLC connection to +24 V DC.)

0.02	*Label*	**RUN MIC.** - OVERRUN SAFETY MICROSWITCHES
	Description	Disabled when the ovevrrun contact is active o QF-SER open
	STANDBY only	**ON** SQ_EXC closed
	INCORRECT STATUS	a. check if the QF-SER is closed; b. check the car position and make sure the SQ_EXC is not active; c. check the wirihg between the X10 terminal box and the SQ_EXC contact following the wiring scheme; d. check the wiring inside the cabinet, input 0.02 , following the electrical scheme; try to make a bridge between S1-IN and S2-EXC, terminal box X10; e. check if the COM terminal is connected to "-" and if the PLC input is enabled (by means of temporary PLC connection to +24 V DC.

0.03	*Label*	**CAR MIC.** - CAR SAFETY MICROSWITCHES
	Description	Disabled if one of the safety switches in car is active or QF-SER open
	STANDBY only	**ON** SQ_TC - SQ_FT - SB_PEC - SQ_PAR - SQ_COL are OFF
	INCORRECT STATUS	a. check if the QF-SER and upstream safety switches are off (led 0.02 ON); b. check if all the safety contacts in car are off (side acronyms); c. check the wiring between: internal terminal box - X20 board - X50 on car roof - X21 - COP connector ; d. check the wiring of the car roof contacts between X50 - SQ_TC - SQ_FT, using the wiring scheme; e. check the wiring on COP rear contacts, between C50 - SB_PEC, SQ_COL - SQ_PAR , using the wiring scheme; f. check the wiring inside the cabinet, input 0.03 , following the electrical scheme; try to make a bridge between S2-EXC and S3-CA , terminal box X20; g. check if the COM terminal is connected to "-" and if the PLC input is enabled (by means of temporary PLC connection to +24 V DC.

0.04	*Label*	**PIT MIC.** - PIT SAFETY MICROSWITCHES
	Description	Disabled Sif one of the safety switches in pit is active or QF-SER open
	STANDBY only	**ON** SQ_FF closed SQ_PEF closed
	INCORRECT STATUS	a. check if the QF-SER and upstream safety switches are off (led 0.02, 0.03 ON); b. check if the pit safety and mechanic blocking devices and safety switches are closed; c. check the wiring between: the X11 terminal box and and the pit box, using the wiring table; d. check the wiring between the pit box and the two contacts : SQ_FF e SQ_PEF , using the wiring table ; e. check the wiring inside the cabinet, input 0.04 following the electrical scheme; try to make a bridge between S3-CA e S4-FO terminal box X11; f. check if the COM terminal is connected to "-" and if the PLC input is enabled (by means of temporary PLC connection to +24 V DC.

0.05	*Label*	**FLOOR MIC.** - FLOOR LEVELLING SAFETY MICROSWITCHES
	Description	Disabled if one of the landing doors is open or QF-SER open
	STANDBY only	**ON** SQ_APP closed
	INCORRECT STATUS	a. check if the QF-SER and upstream safety switches are off (led 0.02, 0.03, 0.04 ON); b. check if the landing doors are closed as well as the preliminary contacts; c. check (for all the services) the wiring between the X10 trminal box and the SQ_APP contact, using the wiring table; d. check the wiring inside the cabinet, input 0.05 following the electrical scheme; try to make a bridge between S4-FO e S5-APP terminal box X10; e. check if the COM terminal is connected to "-" and if the PLC input is enabled (by means of temporary PLC connection to +24 V DC.

0.06	*Label*	**CAR LEV.** - CAR LEVELLING SAFETY MICROSWITCHES
	Description	Disabled if one of the car doors is open or QF-SER open
	STANDBY only	**ON** - * if the standby mode is enabled with car doors open, must be off **OFF** SQ_APC closed
	INCORRECT STATUS	a. check if the QF-SER is and the upstream contacts are closed (led 0.02, 0.03, 0.04, 0.05 ON); b. check if the all car doors and prleiminary contacts are closed; c. check the wiring between the X20 internal box and the X50 box on the car roof, using the wiring table; d. check (for all the car doors) the wiring between the X50 box (car roof) and the SQ_APC contacts, using the wiring table; e. check the wiring inside the cabinet, input 0.06 , following the electrical scheme; try to make a bridge between S5-APP and S6-APC , terminal box X20; f. check if the COM terminal is connected to "-" and if the PLC input is enabled (by means of temporary PLC connection to +24 V DC.

0.07	*Label*	**BLOCK MIC.** - BLOCK SAFETY MICROSWITCHES
	Description	Disabled if one the car doors is blocked. Remains active in the bypass area by means of the KA-RIL unit. Disabled when the QF-SER is open
	STANDBY only	**ON** SQ_ABP closed or KA-RIL enabled
	INCORRECT STATUS	a. check if the QF-SER and the upstream safety switches are closed (led 0.02, 0.03, 0.04, 0.05, 0.06 ON); b. check if all the landing doors are blocked and the locking contacts are closed; c. check (for all the landing doors) the wiring between the X10 and the SQ_ABP contact, using the wiring table; d. check the wiring inside the cabinet, input 0.07 , following the electrical scheme; try to make a bridge between S6-APC and S7-BL , terminal box X10; e. check if all the three LEDs of the KA-RIL unit are on, otherwise cut and restore the power by means of the QF-24; if the prombel still remains, check the status of the inputs 0.09, 0.10 and 0.11; f. check the KA-RIL unit folowing the instructions written in this manual; g. check if the COM terminal is connected to "-" and if the PLC input is enabled (by means of temporary PLC connection to +24 V DC.

0.08	*Label*	**RE-PHASE** - MAGNETIC RE-PHASING SENSOR
	Description	Enabled if the IR sensor is situated in front of a magnet
	STANDBY only	**ON** IR closed
	INCORRECT STATUS	a. check the magnet positioning; with the car at the lowest floor, the IR sensor must be positioned in front of the magnet; b. check the wiring between the X20 (inside the board) and X50 (sul tetto cabina) terminal box es, using the wiring table; c. check the wiring between the X50 (car roof) and the IR sensor, using the wiring table; d. check the wiring inside the cabinet, input 0.08 , following the electrical scheme; try to make a bridge between +A/24 and IR , terminal box X20; e. check if the COM terminal is connected to "-" and if the PLC input is enabled (by means of temporary PLC connection to +24 V DC.

0.09	*Label*	**LAND. SENS.** - MAGNETIC LANDING SENSOR
	Description	Enabled when a magnet is positioned in front of the IP sensor
	STANDBY only	**ON** IP closed
	INCORRECT STATUS	a. check the magnet positioning; with car at a floor the magnet must be located in front of the IP sensor; b. check the wiring between the X50 terminal box (car roof) and the X20 box (on board) using the wiring scheme; c. check the wiring between the X50 terminal box (car roof) and the IP sensor using the wiring scheme; d. check the wiring inside the cabinet, input 0.09, following the electrical scheme; try to make a bridge between +A/24 and IP in box X20; e. check if the COM terminal is connected to "-" and if the PLC input is enabled (by means of temporary PLC connection to +24 V DC.

0.10	*Label*	**UP SENSR.** - MAGNETIC ASCENT SENSOR
	Description	Enabled when a magnet is positioned in front of the IS sensor
	STANDBY only	**ON** IS closed
	INCORRECT STATUS	a. check the magnet positioning; with car at a floor the magnet must be located in front of the IS sensor; b. check the wiring between the X50 terminal box (car roof) and the X20 box (on board) using the wiring scheme; c. check the wiring between the X50 terminal box (car roof) and the IS sensor using the wiring scheme d. check the wiring inside the cabinet, input 0.10, following the electrical scheme; try to make a bridge between +A/24 and IS in box X20; e. check if the COM terminal is connected to "-" and if the PLC input is enabled (by means of temporary PLC connection to +24 V DC.

0.11	*Label*	**DN SENSR.** - MAGNETIC DESCENT SENSOR
	Description	Enabled when a magnet is positioned in front of the ID sensor
	STANDBY only	**ON** ID closed
	INCORRECT STATUS	a. check the magnet positioning; with car at a floor the magnet must be located in front of the ID sensor; b. check the wiring between the X50 terminal box (car roof) and the X20 box (on board) using the wiring scheme; c. check the wiring between the X50 terminal box (car roof) and the ID sensor using the wiring scheme; d. check the wiring inside the cabinet, input 0.11, following the electrical scheme; try to make a bridge between+A/24 and ID in box X20; e. check if the COM terminal is connected to "-" and if the PLC input is enabled (by means of temporary PLC connection to +24 V DC.

1.00	*Label*	**BATT. FULL** - BATTERY FULL
	Description	Active if the "battery dead" signal is received from the power suppy unit
	STANDBY only	**OFF** The battery is full and connected, and the 4th pole is connected
	INCORRECT STATUS	a. check the batteries connection; b. check the connection of the fourth pole (clamps 4P-1 and 4P-2 in X box); c. check the wiring inside the cabinet, input 1.00, following the electrical scheme; try to make a bridge between 8 and 9 clamps of the power supply unit; d. replace the batteries; e. check if the COM terminal is connected to "-" and if the PLC input is enabled (by means of temporary PLC connection to +24 V DC.

1.01	*Label*	**FBK. CONT.** - CONTACTORS FEEDBACK
	Description	Disabled if at least one contactor / operation relay is excited
	STANDBY only	**ON** KM-P, KA-YD, (KA-Y3), KA-YHS e KG-SEC are not excited
	INCORRECT STATUS	a. check if any of the following contacts got stuck: KM-P, KA-YD, (KA-Y3), KA-YHS e KG-SEC; b. check if any of the following commands is active: Q101.04, Q101.05, Q101.05 and Q101.07; c. check the wiring inside the cabinet, input 1.01, following the electrical scheme; try to make a bridge between single normally closed contacts in KM-P, KA-YD, (KA-Y3), KA-YHS and KG-SEC; d. check if the COM terminal is connected to "-" and if the PLC input is enabled (by means of temporary PLC connection to +24 V DC.

1.02	*Label*	**POWER ON** - MAINS POWER SUPPLY ON
	Description	Active if power supply is on
	STANDBY only	**ON** The power is on and the QF-220 closed
	INCORRECT STATUS	a. check if the 230 V AC power is supplied to 1L and 1N clamps, box X; b. check of the QF-220 is closed; c. check if the 230 V AC power is supplied to L and N clamps of the power supply unit; d. check the wiring inside the cabinet, input 1.02, following the electrical scheme; try to make a bridge between 6 and 7 clamps of the power supply unit; e. check if the COM terminal is connected to "-" and if the PLC input is enabled (by means of temporary PLC connection to +24 V DC.

1.03 **STANDARD**	*Label*	**PIT DOOR** - PIT DOOR UNBLOCKED
	Description	Active if the pit access door/s is unblocked
	STANDBY only	**ON** - * only if the car is equipped with a fixed unblocking slide SQ_SPF closed
	INCORRECT STATUS	a. check if the the pit access door/s are unblocked for both car and floors*; b. check the wiring between the X11 box and the SQ_SPF, using the wiring scheme; c. check the wiring inside the cabinet, input 1.03, following the electrical scheme; try to make a bridge between +A/24 e SQ_PEF in morsettiera X11; d. check if the COM terminal is connected to "-" and if the PLC input is enabled (by means of temporary PLC connection to +24 V DC.

1.03 OPTION	**With car roof self-standing if foreseen**	
	Label	**ROOF TRAPD** - ROOF TRAP-DOOR UNLOCKED
	Description	Active if the roof access trap-door is blocked
	STANDBY only	**OFF**
	INCORRECT STATUS	a. check if the the roof trap-door is blocked; b. check the wiring between the X50 box and the SQ_SBT, using the wiring scheme; c. check the wiring inside the cabinet, input 1.03, following the electrical scheme; try to make a bridge between +A/24 e SQ_SBT in morsettiera X20; d. check if the COM terminal is connected to "-" and if the PLC input is enabled (by means of temporary PLC connection to +24 V DC.

1.04	*Label*	**SEL. AUTO.** - AUTOMATIC MODE SELECTOR
	Description	If enabled, then the lift is in automatic mode, otherwise maintenance
	STANDBY only	**ON** the manual selector is in automatic mode (S.N.)
	INCORRECT STATUS	a. check if the selector is positioned on S.N.; b. check the wiring inside the cabinet, input 1.04, following the electrical scheme; c. check if the COM terminal is connected to "-" and if the PLC input is enabled (by means of temporary PLC connection to +24 V DC.

1.05	*Label*	**MAN. UP** - MANUAL ASCENT COMMAND
	Description	Active if the manual ascent button is pressed
	STANDBY only	**OFF** The manual ascent button is pressed and the UP clamp in X11 is not powered
	INCORRECT STATUS	a. check if the manual ascent button is not pressed; b. check if the UP clamp in box X11 is not powered; c. check the wiring inside the cabinet, input 1.05, following the electrical scheme; d. check if the COM terminal is connected to "-" and if the PLC input is enabled (by means of temporary PLC connection to +24 V DC.

1.06	*Label*	**MAN. DOWN** - MANUAL DESCENT COMMAND
	Description	Active if the manual descent button is pressed
	STANDBY only	**OFF** The manual descent button is pressed and the DN clamp in X11 is not powered
	INCORRECT STATUS	a. check if the manual descent button is not pressed; b. check if the DN clamp in box X11 is not powered; c. check the wiring inside the cabinet, input 1.06, following the electrical scheme; d. check if the COM terminal is connected to "-" and if the PLC input is enabled (by means of temporary PLC connection to +24 V DC.

1.07	*Label*	**BAR. CAR1** - BARRIER / PHOTOCELL IN CAR - ACCESS 1
	Description	Active is the barrier / photocell is not obscured
	STANDBY only	**ON** Contact FTC1 closed
	INCORRECT STATUS	a. check if the barrier/ photocell is not obscured and the installation has been done correctly; in absence of devices the input must be connected to the +A/24, as per electrical scheme; a. check the wiring between the X50 terminal box (car roof) and the X20 box (on board) using the wiring scheme; b. check the wiring between the X50 terminal box (car roof) and the power supply unit, using the wiring scheme; c. check the wiring inside the cabinet, input 1.07, following the electrical scheme; try to make a bridge between +A/24 and FTC-1, terminal box X20; d. check if the COM terminal is connected to "-" and if the PLC input is enabled (by means of temporary PLC connection to +24 V DC.

1.08	*Label*	**BAR. CAR2** - BARRIER / PHOTOCELL IN CAR - ACCESS 2
	Description	Active is the barrier / photocell is not obscured
	STANDBY only	**ON** Contact FTC2 closed
	INCORRECT STATUS	a. check if the barrier/ photocell is not obscured and the installation has been done correctly; in absence of devices the input must be connected to the +A/24, as per electrical scheme; b. check the wiring between the X50 terminal box (car roof) and the X20 box (on board) using the wiring scheme; c. check the wiring between the X50 terminal box (car roof) and the power supply unit, using the wiring scheme; d. check the wiring inside the cabinet, input 1.08, following the electrical scheme; try to make a bridge between +A/24 and FTC-2, terminal box X20; e. check if the COM terminal is connected to "-" and if the PLC input is enabled (by means of temporary PLC connection to +24 V DC.

1.09	*Label*	**BAR. CAR3** - BARRIER / PHOTOCELL IN CAR - ACCESS 3
	Description	Active is the barrier / photocell is not obscured
	STANDBY only	**ON** Contact FTC3 closed
	INCORRECT STATUS	a. check if the barrier/ photocell is not obscured and the installation has been done correctly; in absence of devices the input must be connected to the +A/24, as per electrical scheme; b. check the wiring between the X50 terminal box (car roof) and the X20 box (on board) using the wiring scheme; c. check the wiring between the X50 terminal box (car roof) and the power supply unit, using the wiring scheme; d. check the wiring inside the cabinet, input 1.09, following the electrical scheme; try to make a bridge between +A/24 and FTC-3, terminal box X20; e. check if the COM terminal is connected to "-" and if the PLC input is enabled (by means of temporary PLC connection to +24 V DC.

STANDARD

1.09 **OPTION**	*Label*	**MAN-FIRE** - FIREMEN INTERVENTION
	Description	When ON, the car is required to serve the landing indicated by the client and stop with doors in the open position until the entry is ON.

1.10	*Label*	**CAR AUTO.** - CAR AUTOMATIC OPERATION
	Description	Active if connected to +A/24V
	STANDBY only	**ON** if the car operation is automatic; **OFF** if the car operation is hold-to-run.
	INCORRECT STATUS	a. check the internal board wiring, input 1.10, using the electrical scheme; b. check if the COM terminal is connected to "-" and if the PLC input is enabled (by means of temporary PLC connection to +24 V DC.

1.11	*Label*	**PRE-B. MIC.**- PRE-BYPASS SAFETY SWITCH
	Description	Enabled when on of the landing doors is unblocked irrespective of the status of KA-RIL.
	STANDBY only	**OFF** - * only if the car is equipped with a fixed unblocking slide SQ_ABP open
	INCORRECT STATUS	a. check if the lowest landing door is blocked; b. check the wiring between the X10 box and the SQ_ABP lowest landing door/s contact/s , using the wiring scheme; c. check the internal board wiring, input 1.11, using the electrical scheme; d. check if the COM terminal is connected to "-" and if the PLC input is enabled (by means of temporary PLC connection to +24 V DC.

- Effect a reset procedure by holding SB_UP and SB_DN pressed for more than 3 seconds
- As soon as the Input status has been checked, the Output status will be displayed as "CORRECT STATUS" of the following table. Shoud they mismatch,check the inputs once again and repeat the reset procedure .
- Also use the following table for PLC command errors (commands btw field devices and board internal ones). **If the command arrives correctly to the device, then CHECK THE CORRECT FUNCTIONING OF THE DEVICE, using the related manual**.

OUTPUTS

100.00	*Label*	**BUSY ON** - BUSY LIGHT
	Description	The light is on when the lift is busy. The command handles the light in car
	STANDBY only	**OFF**
	IF LED is ON	24 V DC on KA-LOC
	INCORRECT STATUS	a. check the condition, if THE LED IS ON; b. check the correct connection between KA-LOC and X50 box, using the wiring scheme ; c. check the wiring between the X50 terminal box (car roof) and the X20 box (on board) using the wiring scheme; d. check the internail wiring of the board, output 100.00 and the common COM, using the electrical scheme; e. check the integrity of the output PLC contact disconnecting the conductors from the COM terminal: there must be continuity between COM and output.

100.01	*Label*	**CMD A3** - A3 ELECTROVALVE
	Description	Active during the descent or the electrovalve testing (A3). The command handles the KA-YA3 relay and the YA3 electrovalve .
	STANDBY only	**OFF** - * can be Active during the electrovalve testing (A3)
	IF LED is ON	+24 V DC on KA-YA3, +24 V DC on YA3
	INCORRECT STATUS	a. check the condition, if THE LED IS ON; b. check the correct connection between YA3 and the X0 box, using the wiring scheme; c. check the internail wiring of the board, output 100.01 and the common COM, using the electrical scheme; d. check the integrity of the output PLC contact disconnecting the conductors from the COM terminal: there must be continuity between COM and output.

100.02	*Label*	**LAND. OPEN.** - LANDING DOOR OPENING
	Description	Enabled when the command of automatic landing door opening is given. The command handles the landing door drives.
	STANDBY only	**OFF**
	IF LED is ON	Continuity btw 1 and 2 of X2 on LCD2 or continuity btw 1 and 3 on DITEC
	INCORRECT STATUS	a. check the condition, if THE LED IS ON; b. check the connections between the door drive and the X12 box, using the wiring scheme; c. check the wiring of the door drive board, using the electrical scheme; d. check the internail wiring of the board, output 100.02 and the common COM, using the electrical scheme; e. check the integrity of the output PLC contact disconnecting the conductors from the COM terminal: there must be continuity between COM and output.

100.03	*Label*	**LAND. CLOS.** - LANDING DOOR CLOSURE
	Description	Enabled when the command of automatic landing door closure is given. The command handles the landing door drives.
	STANDBY only	**OFF**
	IF LED is ON	Continuity btw 3 and 4 of X2 on LCD2 or continuity btw 1 and 2 on DITEC
	INCORRECT STATUS	a. check the condition, if THE LED IS ON; b. check the connections between the door drive and the X12 box, using the wiring scheme; c. check the wiring of the door drive board, using the electrical scheme; d. check the internail wiring of the board, output 100.03 and the common COM, using the electrical scheme; e. check the integrity of the output PLC contact disconnecting the conductors from the COM terminal: there must be continuity between COM and output.

100.04	*Label*	**LED. FLOOR** - LED ON FLOORS
	Description	Enabled if the car is located at a stop (IP + IS + ID). The command handles the car-at-floor signal
	STANDBY only	**ON**
	IF LED is ON	+24 V DC on HL-PIA
	INCORRECT STATUS	a. check the condition, if THE LED IS ON; b. check the internail wiring of the board, output 100.04 and the common COM, using the electrical scheme; c. check the integrity of the output PLC contact disconnecting the conductors from the COM terminal: there must be continuity between COM and output.

100.05	*Label*	**OVERLOAD** - OVERLOAD
	Description	Fixed access if PRES.OIL (0.01) high . Intermittent when binking diagnostics is on (see below). The command handles the overload signal.
	STANDBY only	**OFF**
	IF LED is ON	+24 V DC on HL-OVC
	INCORRECT STATUS	a. check the condition, if THE LED IS ON; b. check if the HL-OVC is connected correctly to the X21-C10 using the wiring scheme; c. check the wiring between the X21 (inside board) and X21-C10 using the wiring scheme; d. check the internail wiring of the board, output 100.05 and the common COM, using the electrical scheme; e. check the integrity of the output PLC contact disconnecting the conductors from the COM terminal: there must be continuity between COM and output.

100.06 **STANDARD**	*Label*	**CMD ELE** - ELECTRO LOCK COMMAND
	Description	Enabled when the release command is given.
	STANDBY only	**OFF**
	IF LED is ON	+24 V DC su KA-ELT, +24 V DC on YB_Pn with SQ_Pn closed
	INCORRECT STATUS	a. check the condition, if THE LED IS ON; b. check the wiring between the X10 terminal box and the YB_Pn lock using the wiring scheme; c. check the internail wiring of the board, output 100.06 and the common COM, using the electrical scheme; d. check the integrity of the output PLC contact disconnecting the conductors from the COM terminal: there must be continuity between COM and output.

100.06	**With car roof self-standing if foreseen**	
OPTION	*Label*	**HEAD LED** - REDUCED HEADROOM LED
	Description	Enabled when the headroom access has been attempted. The command handles the car roof box signals.
	STANDBY only	**OFF**
	IF LED is ON	+24 V DC on HL-FT, with SQ-FTA and SQ-FTA2 both closed
	INCORRECT STATUS	a. check the condition, if THE LED IS ON; b. check the wiring between the car roof LED and the wiring between the LED and the X50 terminal box, using the wiring scheme; c. check the internail wiring of the board, output 100.06 and the common COM, using the electrical scheme; d. check the integrity of the output PLC contact disconnecting the conductors from the COM terminal: there must be continuity between COM and output.

100.07	*Label*	**LED PP** - PIT PROT LED
	Description	Enabled when the a pit access has been attempted. The command handles the pit box signals.
	STANDBY only	**OFF**
	IF LED is ON	+24 V DC on HL-FF, with SQ-FFA closed
	INCORRECT STATUS	a. check the condition, if THE LED IS ON; b. check the wiring between the pit box and the wiring between the box and the X11 terminal box, using the wiring scheme; c. check the internail wiring of the board, output 100.07 and the common COM, using the electrical scheme; d. check the integrity of the output PLC contact disconnecting the conductors from the COM terminal: there must be continuity between COM and output.

101.00	*Label*	**OPEN CAR1** - CAR OPENING, ACCESS 1
	Description	Enabled when the car opening (access 1) command is given. The command handles the car door drive.
	STANDBY only	**OFF**
	IF LED is ON	+24 V DC btw 6 and 9 di X101 on AT12-ACC1 or continuity btw COM and I1 of X1 on ECO-ACC1
	INCORRECT STATUS	a. check the condition, if THE LED IS ON; b. check the wiring between the door drive and the X50 box on the roof; c. check the wiring between the X50 terminal box (car roof) and the X20 box (on board) using the wiring scheme; d. check the internail wiring of the board, output 101.00 and the common COM, using the electrical scheme; e. check the integrity of the output PLC contact disconnecting the conductors from the COM terminal: there must be continuity between COM and output

101.01	*Label*	**CLOS CAR1** - CAR CLOSING, ACCESS 1
	Description	Enabled when the car closing (access 1) command is given. The command handles the car door drive.
	STANDBY only	**OFF**
	IF LED is ON	+24 V DC btw 6 and 8 of X101 on AT12-ACC1 or continuity btw COM and I2 of X1 on ECO-ACC1
	INCORRECT STATUS	a. check the condition, if THE LED IS ON; b. check the wiring between the door drive and the X50 box on the roof; c. check the wiring between the X50 terminal box (car roof) and the X20 box (on board) using the wiring scheme; d. check the internail wiring of the board, output 101.01 and the common COM, using the electrical scheme; e. check the integrity of the output PLC contact disconnecting the conductors from the COM terminal: there must be continuity between COM and output.

101.02	*Label*	**OPEN CAR2** - CAR OPENING, ACCESS 2
	Description	Enabled when the car opening (access 2) command is given. The command handles the car door drive.
	STANDBY only	**OFF**
	IF LED is ON	+24 V DC tra 6 e 9 di X101 su AT12-ACC2 or continuity btw COM and I1 of X1 on ECO-ACC2
	INCORRECT STATUS	a. check the condition, if THE LED IS ON; b. check the wiring between the door drive and the X50 box on the roof; c. check the wiring between the X50 terminal box (car roof) and the X20 box (on board) using the wiring scheme; d. check the internail wiring of the board, output 101.02 and the common COM, using the electrical scheme; e. check the integrity of the output PLC contact disconnecting the conductors from the COM terminal: there must be continuity between COM and output.

101.03	*Label*	**CLOS CAR**2 - CAR CLOSING, ACCESS 2
	Description	Enabled when the car closing (access 2) command is given. The command handles the car door drive..
	STANDBY only	**OFF**
	IF LED is ON	+24 V DC btw 6 and 8 of X101 on AT12-ACC2 or continuity btw COM and I2 of X1 on ECO-ACC2
	INCORRECT STATUS	a. check the condition, if THE LED IS ON; b. check the wiring between the door drive and the X50 box on the roof; c. check the wiring between the X50 terminal box (car roof) and the X20 box (on board) using the wiring scheme; d. check the internail wiring of the board, output 101.03 and the common COM, using the electrical scheme; e. check the integrity of the output PLC contact disconnecting the conductors from the COM terminal: there must be continuity between COM and output.

101.04	*Label*	**CMD KGSEC** - KG-SEC COMMAND
	Description	Enabled when the UP or DOWN command is given. The command handles the KG-SEC contactor and the P01 drive.
	STANDBY only	**OFF**
	IF LED is ON	+24 V DC su KG-SEC
	INCORRECT STATUS	a. check the condition, if THE LED IS ON; b. check the internail wiring of the board, output 101.04 and the common COM, using the electrical scheme; c. check the integrity of the output PLC contact disconnecting the conductors from the COM terminal: there must be continuity between COM and output.

101.05	*Label*	**CMD UP** - UP COMMAND
	Description	Enabled when the UP command is given. The command handles the KM-P contactor and the P01 drive.
	STANDBY only	**OFF**
	IF LED is ON	+24 V DC su KA-P, +24 V DC su KM-P
	INCORRECT STATUS	a. check the condition, if THE LED IS ON; b. check the internail wiring of the board, output 101.05 and the common COM, using the electrical scheme; c. check the integrity of the output PLC contact disconnecting the conductors from the COM terminal: there must be continuity between COM and output.

101.06	*Label*	**CMD DOWN** - DOWN COMMAND
	Description	Enabled when the DOWN command is given. The command handles the KA-YD relay and the YD electrovalve.
	STANDBY only	**OFF**
	IF LED is ON	+24 V DC su KA-YD, +24 V DC su YD
	INCORRECT STATUS	a. check the condition, if THE LED IS ON; b. check the internail wiring of the board, output 101.06 and the common COM, using the electrical scheme; c. check the integrity of the output PLC contact disconnecting the conductors from the COM terminal: there must be continuity between COM and output.

101.07	*Label*	**CMD HIGH** - HIGH SPEED
	Description	Active when high speed command is given (up or down). Comands the KA-YHS relay and the YHS electrovalve
	STANDBY only	**OFF**
	IF LED is ON	+24 V DC on KA-YHS, +24 V DC on YHS
	INCORRECT STATUS	a. check the condition, if THE LED IS ON; b. check the internail wiring of the board, output 101.07 and the common COM, using the electrical scheme;; c. check the integrity of the output PLC contact disconnecting the conductors from the COM terminal: there must be continuity between COM and output.

9 DIAGNOSTICS BY MEANS OF BLINKING CODE

In maintenance mode (SA_AUT in MAN) the errors/aberrations are pointed out by means of a blinking code received by the overload signal in car ad the related PLC output LED 100.05, according to the following table.

Each single error is signaled by means of the related number of blinkings followed by a 5 sec pause; in case of several errors, these are signaled "in cascade", arranged according the number of blinkings (increasing). This cycle is repeated THREE times; per visualizzare nuovamente le segnalazioni girare il selettore in modalità normale e riportarlo in manutenzione.

The error warning is always completed, so sometimes continuous blinking may occurred, even if the error has already been reset.

If necessary, after the error recognition and solution, it is necessary to effect a RESET procedure from the board. To do this, press the SB_DN and SB_UP buttons simultaneously, for more than 3 seconds.

N	***Signal:*** **Description**	**Check / Solution**
1	***Pit access:*** the lowest floor landing door has been unblocked, the car being out of the re-phasing zone (IR aperto), or one of the pit safety intervened.	a. check the status and functioning of the input 1.03; b. check the status and functioning of the input 0.08; c. check the status and functioning of the input 0.04; d. check of the input 1.03 is off when the 0.08 is off (the door in the pit is blocked when IR is open); e. RESET.
2	***Contactor blocked:*** contactor found not completely open in absence of command.	a. check the status and functioning of the input 1.01; b. RESET.
3	***Oil / drive overheating:*** oil gauge contact open or drive safety switch intervened.	a. check the status and functioning of the input 0.00.
4	***Travel time limit (car blocked):*** no commutation of magnet sensors with up or down command high for more than 40 seconds	a. check the status and functioning of the inputs 0.08, 0.09, 0.10, 0.11; b. verificare il movimento della cabina; c. RESET.
5	***Wrong ascent magnet position:*** a wrong location of IS and ID magnets has been identified during the ascending stage	a. check the status and functioning of the inputs 0.10, 0.11; b. RESET.
6	***Wrong descent magnet position:*** a wrong location of IS and ID magnets has been identified during the descending stage .	a. check the status and functioning of the inputs 0.10, 0.11; b. RESET.
7	***Batteries dead:*** battery out of power identified.	a. check the status and functioning of the input 1.00.
8	***Power supply missing:*** lack of power supply in the mains circuit	a. check the status and functioning of the input 1.02.
9	***Re-phasing needed:*** re-phasing due to magnetic sensor commutation in absence of commands from the board.	a. check the status and functioning of the inputs 0.08, 0.09, 0.10, 0.11.

10	***Barrier /photocell :*** barrier or photocell obscured for more than 2 minutes.	a. check the status and functioning of the inputs 0.08, 1.07, 1.08, 1.09.
11	***Car door access 1 not closed:*** time limit error in closing – access 1.	a. check the status and functioning of the input 0.06, access 1.
12	***Car door access 2 not closed:*** time limit error in closing – access 2.	a. check the status and functioning of the input 0.06, access 2.
13	***Landing door/s not closed:*** time limit error in closing – landing doors.	a. check the status and functioning of the input 0.05.
14	**OPTION IF VALVE FOR AMENDMENT-3 FORESEEN** ***Amendment 3 test failed:*** the cabin has lowered with only one valve opened during the test.	a. check the installation of the hydraulic unit; b. check that there are no leaks in the hydraulic circuit; c. check the correct position of the stop magnets (IS and ID); d. RESET.
15	**OPTION IF SELF-BEARING CABIN ROOF FORESEEN** ***Headroom access:*** detected an attempt to access the upper part of the shaft.	a. check the status and functioning of input 1.03; b. check the functioning and wiring of the landing lock presence contacts (SQ-PRPn); see the wiring scheme, the contact must close with car at floor and door unlocked; c. RESET.
16	**OPTION IF SELF-BEARING CABIN ROOF FORESEEN** ***Check of the landing lock presence contacts failed:*** no commutation of the landing lock presence contact.	a. check the functioning and wiring of the landing lock presence contacts (SQ-PRPn); see the wiring scheme, the contact must close with car at floor and door unlocked; b. RESET.