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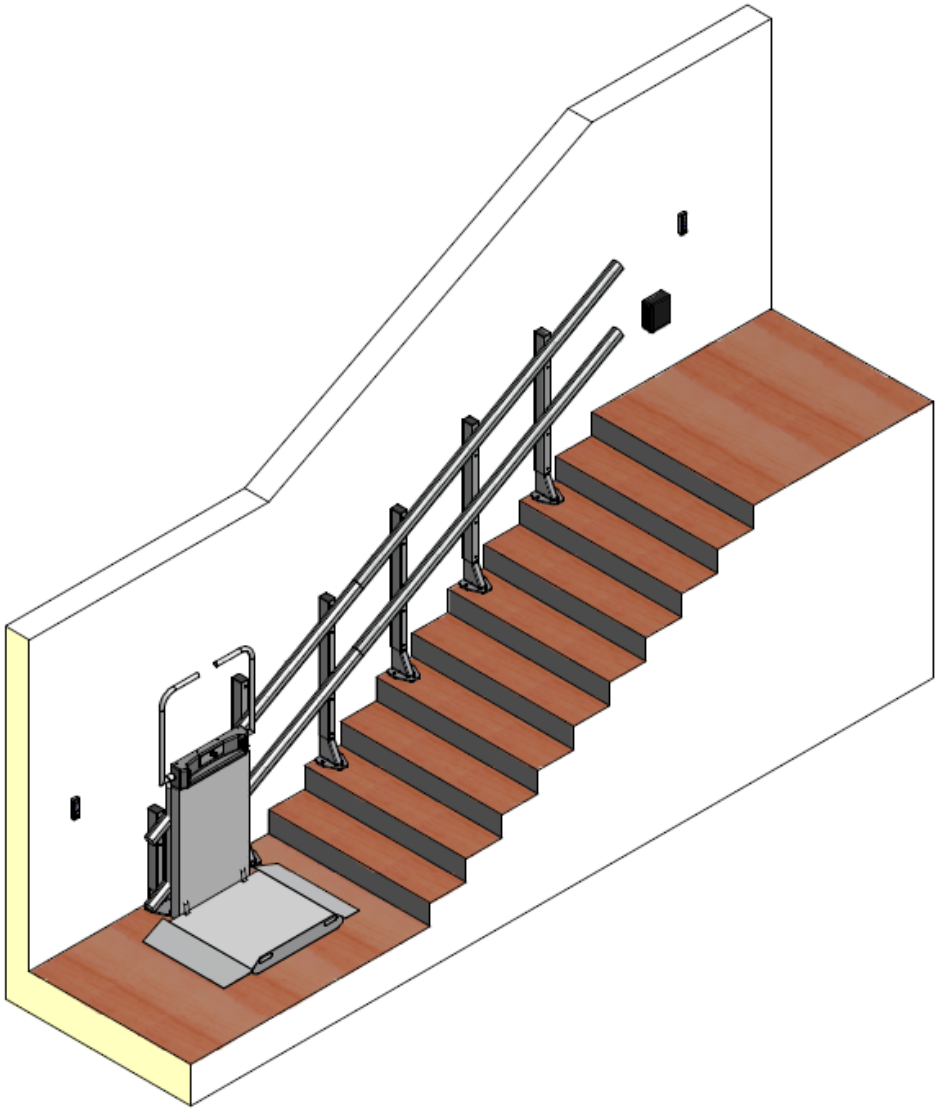
PIATTAFORMA SERVOSCALA LOGIC

LOGIC INCLINED PLATFORM LIFT



made in Italy

TRANSLATION OF ORIGINAL INSTRUCTION BOOKLET

LOGIC WHEELCHAIR LIFT

Operation and Maintenance Manual

03/02/2014 - Cod.L10F31001 - REV. 0

GENERAL SAFETY RULES

These safety rules are an integral part of the product. Read the information in this manual carefully as it provides important instructions for safe use and maintenance of the system. Keep these instructions in a safe place and ensure that anyone operating the system is familiar with them. This product should be used only for the specific purpose for which it is designed: any other use is improper and hazardous.
The end user of the stairlift is always completely responsible for compliance with local safety requirements and directives and the location suitability of the installation.
The manufacturer will not be held liable for damages caused by improper, incorrect or unreasonable use. Do not allow children to play in the area whilst the system is in operation or use the system without being fully supervised at all times.
In case of failure or malfunction of the product move the key-switch of the front panel to the OFF position and remove the key. Do not attempt to repair the machine yourself; contact authorised professional technicians for this purpose. All maintenance and repairs must be carried out by professional authorised technicians. To ensure the efficient and correct operation of the system, observe the manufacturer's instruction regarding scheduled maintenance by authorised technicians; in particular, all safety equipment must be regularly checked. All installation, maintenance and repair work must be registered and the registers made available to the user.

Failure to comply with the above may generate hazards

For any additional information, servicing and maintenance, please, contact the following

Stamp of retailer or authorized service agent

On contacting your authorized dealer, please quote the lift serial number located on the serial number plate visible at the bottom of the wheelchair lift

Contents of the manual

4.0 L

Logic wheelchair lift

4.1 L

Wander lead for attendant control (optional)

4.2 L

Wall controls (optional)

1 Characteristics

The LOGIC wheelchair lift is designed for transporting disabled persons on wheelchairs or the less abled individual on an optional seat integrated in the back of the lift.

The lift travels on two metal rails designed for this application, supported by feet mounted to the stairs or the wall, if present.

The lift comprises:

- 1 fold-away platform with non-slip surface complete with automatic ramps
- 1 carriage fitted to the rails complete with control buttons and fold-away safety barrier arms;
- 1 wander lead for attendant control (optional)
- 1 or 2 Level wall controls which are key-switch operated (optional).

The lift is operated by a rack and pinion mechanism controlled by an irreversible reduction gear and electric motor equipped with an electromagnetic brake.
Powered by two batteries on board with charging contacts at the upper and lower parking positions.
To ensure the highest comfort for the user the lift will slow down when approaching the required level.

This system is suitable for both an internal and external application with the systems main characteristics listed in the technical datasheet.

2 Safety instruction

This lift system is designed for the use of one person on a standard wheelchair in the direction of travel.

Alternatively, the unit can be equipped with a fold-away seat mounted to the lift carriage for only one person (optional).

This system is not designed for more than one user. The unit must only be operated by persons who have been trained in the operation and maintenance of this system. Under-aged or mentally/physically disadvantaged persons may use this plant only under supervision of an instructed person.
This system is not designed for transporting animals or goods.

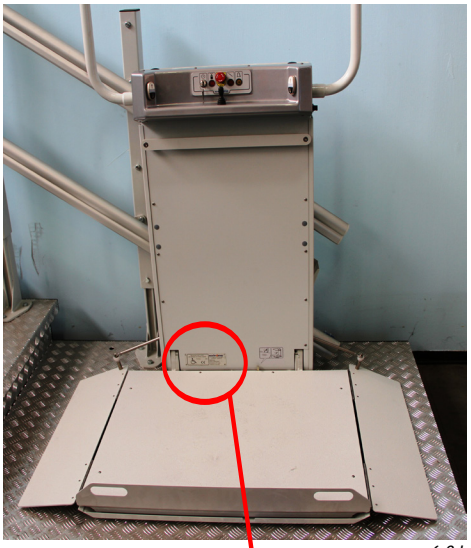
The maximum permissible weight declared on the lift information label (see value for "PORTATA") should not be exceeded.

The sequence of instructions listed in the manual should always be followed to perform each operation.
The travel and parking areas shall always be well lit when the system is to be used.
The stairway, rail and travel area are to be free of any obstacles before use.
Loose clothing etc. should be secured to prevent entanglement in the moving parts of the lift.

When using the stairlift:
- never stand on the platform;
- sit upright and do not lean forward, backward or to the side;
- do not swing and avoid unnecessary movements;
- do not lean against the barrier arms.

Wheechair users should always apply the wheelchair brake on their after getting onboard.
Do not put hands or objects between the moving parts, in the holes and the slots of the lift or on the rail during motion.
The lift is equipped with automatic opening and closing devices: do not force the parts.
In case of malfunction, operate the emergency procedure as described within this manual.
Do not try to move the platform manually but follow the emergency procedure.
Do not use the stairlift in the event of fire or flooding.
Do not install the stairlift where there is risk of explosion.
In case of installation where there is risk of flooding, contact your authorized dealer.
Immediately inform the dealer of unusual vibrations or noises.

During long inactivity periods, it is recommended that the system have additional protection from dust etc.
Do not tamper with the unit or parts of it.
The unit must always be kept "ON" except in cases foreseen in this manual.
Please remove the key from the panel on the carriage control board and from the wall controls in order to prevent unauthorized people from operating the lift. It is possible to remove the key from the carriage control board switch, both if it is in ON and OFF position.
Do not remove the main plug from the wall socket and do not turn the main switch off except for from the cases described in this manual.
Do not perform maintenance operations autonomously. Maintenance operations can be performed only by skilled people familiar with this manual and only when indicated in this manual.



6.0 L

6.1 L

Warning labels positioned on the stairlift are an integrant part of the system and of the safety measures: do not cover or remove them. Labels must always be visible and readable. If they are damaged or no longer readable, please contact your authorized dealer for immediate replacement.

Please find below information contained on the plate installed on the lift carriage.

All the indications of the plate are translated.

Plate master identification number

Information about the manufacturer

image 6.1L

Machine model and destination

Capacity: no.1 person on wheelchair

Machine load

CE conformity

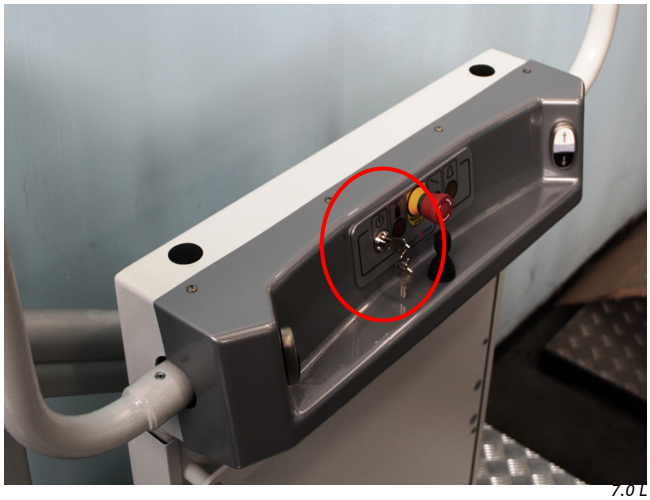
On board power

On board batteries voltage

Year of machine production

Machine serial number

Carriage Information plate



Main key-switch
on carriage
control panel

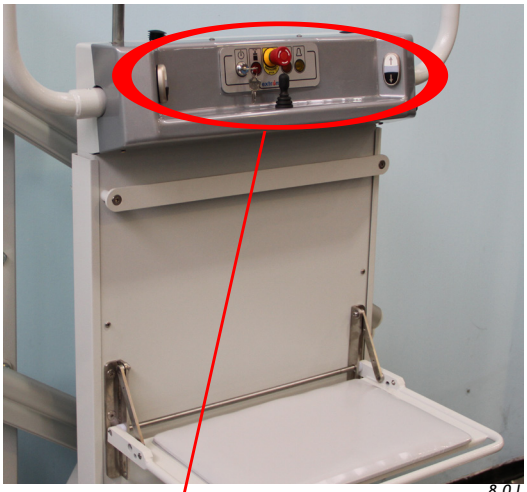
3 Switching Lift ON and OFF

ON
Following installation, final testing and hand-over to the customer, carried out by an authorized technician, the platform is put into service by moving the main key-switch located centrally on the carriage control panel to the “ON” position. The turning ON of the lift is shown by a lit emergency button as shown below.

OFF
Move the switch to the “OFF” position to switch the lift off.

The batteries are recharged both when the system is ON and OFF.
It is possible to remove the key both when the key-switch is in the ON and OFF position.

4 Stairlift controls and signal lights



8.0 L

Carriage Control Board Buttons

8.1 L

8.2 L

overload indicator light

running stairlift indicator light

8.3 L

push-button on board alarm

WARNING: Use the system only following the safety instructions of this manual.

Read carefully this manual before using the plant. Keep this manual near the system.

"Logic" stairlift is equipped with three main groups of commands:

- On board buttons positioned on the control panel of the lift (joystick optional).
- Wander lead for attendant control (optional).
- Wall level controls (optional).

All the buttons require constant pressure: if the button is released before the operation is completed, the operation is stopped. For instance, if the travel button is released during lift travel, the lift will stop without reaching the destination. In order to complete the travel it is necessary to push the button again and apply constant pressure until the lift completes the operation. Carriage control board buttons have always the higher priority than other controls.

Carriage Control Board Buttons and lights

The buttons marked with the direction arrows open and close the barrier arms in order to let the user get on and off the platform, and move the lift in the direction indicated by the arrow. For instance, pushing the button with the upward arrow, the machine will move in the direction that makes the lift go upwards towards the upper parking.
The red back-lightened button is the emergency STOP button: if pushed, the button will remain in the pushed position a buzzer are activated and the lift will stop immediately. To put the lift back into service, it is necessary to rotate the
button until it is released.
Moreover, on the carriage control board unit, there are also an overload indicator light,a movement indicator light and an on board alarm push-button.

9.0 L

Wander lead for attendant control (optional)

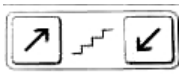
Wander lead for attendant control (optional)

A wander lead control can be used by an attendant who follow on foot when the user is not able to use the carriage control board buttons, or by the user as an alternative to the carriage control buttons.

WARNING: if an attendant is necessary, in order to avoid any risk, the attendant must follow the stairlift always remaining at the side away from the direction of travel.

In the case of a user seated on the optional integrated seat, the wander lead for attendant control is mandatory.
If present, the wander lead for attendant control can be removed by disconnecting the electrical connector positioned in the upper side of the carriage. In this case it is necessary to use the cover in order to protect the electrical connector.

9.1 L



The buttons marked with the direction arrows open and close the barrier arms in order to let the user get on and off the platform and move the lift in the direction indicated by the arrow. For instance, pushing the button with the upward arrow, the lift will move in the direction that makes the lift go upwards towards the upper parking level.

The buttons marked with the symbols open and close the platform when the lift is parked.

9.2 L

Wander lead joystick for attendant control (optional)

The wander lead joystick uses the handle instead of the push-buttons for the stairlift control.
The wander lead joystick can be removed by disconnecting the electrical connector positioned in the upper side of the carriage. In this case it is necessary to use the cover in order to protect the electrical connector.

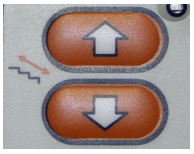
WARNING: ***when the platform is opened or closed, it is necessary to check that there are no obstacles in the flight of the platform. Do not put hands or objects between the moving parts.***

WARNING: ***do this operation only when the platform is not loaded.***

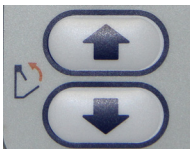
Level Wall Controls (optional)

Level Wall Controls (optional)

Via a remote control it is possible to command the lift from the floors.
In order to enable the controls it is necessary to turn the level wall control key-switch clockwise. It is possible to remove the key from the level control panel when the key switch is in OFF position (anti-clockwise position).



Applying constant pressure to the buttons it is possible to "call" the lift, moving it from one level to another when the platform is closed.



Applying constant pressure to the buttons
it is possible to open and close the platform when the lift is standing at the parking positions (carry out this operation only when the platform is not loaded).

WARNING: by means of removing the key from the level wall controls the lift is no longer usable.

5 Proper use of the stairlift

WARNING: read carefully the safety instructions in this manual before using the stairlift.

WARNING: before starting any travel with a person on board it is necessary to check the integrity and the functionality of the system.

WARNING: for external installations in cold weather conditions it is always necessary to complete a travel without person on board in order to check the functionality of the plant and to remove any ice that could be present between the moving parts and on the rail.

WARNING: do not use the system if a person familiar with the manual emergency operations is not in attendance.

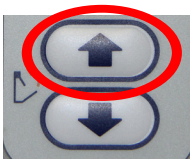
WARNING: the unit must always be kept ON (configuration identified by means of a lit emergency).

WARNING: do not leave the stairlift off its parking position for any length of time. Lift needs to be parked in order to charge the batteries of the lift.
The lift, not in a parked position will, after 5 seconds, sounds a buzzer to signal that the batteries are not on charge.

Call of the lift to the parking position

(This operation is feasible only with floor control available)
a. To call the lift to the users location, should it be parked at another level, it is necessary to enable the floor control turning the key-switch clockwise.

b. Check that there s no obstacle on the stairway or in the area of travel.

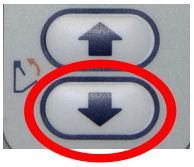


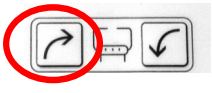
c. If the platform is unfolded, push and keep pushed the button with the symbol in order to close it:
the platform and the barrier arms go in sequence in the resting position with the barrier arms laying vertically downwards and the platform vertically upwards (do this operation only when the platform is not loaded). When the operation is completed the travel commands on the wall level controls are enabled.

d. Push and keep pushed the button relative to the direction of travel required; the lift will start moving.

e. Keep the button pushed until the lift comes to a stop at the parking position, otherwise the security mechanism will not allow the platform to open and the battery to charge. If the pressure on the button is interrupted, all movements will stop; push again and keep button pushed in order to restart the movements interrupted.

Unfolding the platform





Push and keep pushed the button on the Level Wall control or the button on the wander lead for attendant control.
The platform opens and the barrier arms with the platform ramps move into the position appropriate to allow access to the platform by the user and prevent accidental egress from platform at opposite side.
Keep the button pushed until the platform, barrier arms and platform ramps stop otherwise it will not be possible to perform the next operations. Should constant pressure of the button be interrupted, all movements of the lift will stop; push again and apply constant pressure to the button in order to restart the movements interrupted.
In this position the travel commands from the level wall controls are disabled.

WARNING: before using any command, check that there are no obstacles either in the lift parking area or on the stairway.

Passenger boarding

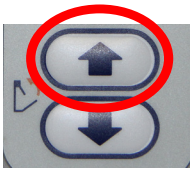
a. A lift user using a wheelchair should access the platform positioning the wheelchair as close as possible to the back of the machine and far from the outer edges of the platform in order to travel in the highest level of safety. The user must apply the wheelchair brake on positioning themselves correctly on the platform prior to the travel of the lift.
b. A lift user using the integrated seat (optional) should unfold the seat manually, and sit with his back against the lift carriage. Operation of the lift from the integrated seat is by means of the wander lead for attendant control (mandatory when there is the integrated seat).

Stairlift travel

a. Check there are no obstacles on the stairs and in the traveling area.
b. Apply constant pressure to the button relating to the desired direction of travel; the lift will move towards the parking position at the desired level.
c. Keep the button pushed until the lift comes to the stop at the level, otherwise the security mechanism will not allow the barrier arm to open. If the pressure on the button is interrupted, all the movements will stop; push again and keep the button pushed in order to restart the movements interrupted.
d. The lift will slow down when approaching its destination and will come to a halt.
e. Keeping the button pushed, the barrier arm and the platform ramp move in the position appropriate to let the passenger egress from the platform with the barrier arm and ramp stairside remaining in place to prevent accidental egress stairside.

User Egress

a. Wheelchair users, after disabling the wheelchair brake, safely egress the platform from the side opened.
b. Lifts integrated seat users should manually fold the seat into its folded position on the lifts carriage



Platform Folding

Push and keep pushed the button on the level wall controls or the button on the wander lead for attendant control in order to close the platform: the platform and the barrier arms go in sequence into the folded position with the barrier arms laying vertically downwards and the platform vertically upwards,

(carry out this operation only when the platform is not loaded). In this configuration the travel commands of the level wall controls are enabled.
Each motorized command is delayed for few seconds.

WARNING: ***the use of the system is permitted only to authorized people with all the requirements for operating a motorized system and familiar with its use.***

WARNING: ***do not leave the stairlift off its parking position for any length of time. Lift needs to be parked in order to charge the batteries of the lift.***
The lift, not in a parked position will, after 5 seconds, sounds a buzzer to signal that the batteries are not on charge.


14.0 L

Motor with plastic cover


14.1 L

Motor without plastic cover


14.2 L

Handwheel

6 Emergency operations

The need of the operation described below means that a failure in the lift has occurred. Please contact your dealer once emergency operations have been completed to return the lift into service.

ATTENTION: ***Please contact your dealer to return the lift into service***

Manual Operation of the Lift

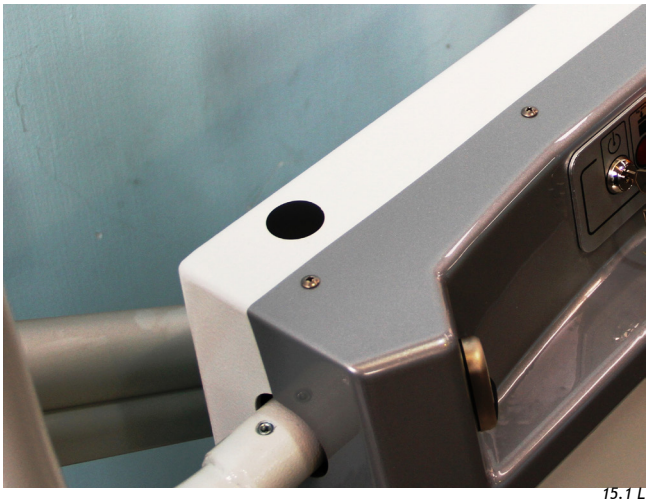
Should the liftstop during the travel and it is not possible to restart the travel, it is possible to move the lift manually to one of the parking positions by means of the emergency handwheel.

a. Turn the key-switch positioned on the center of the control board panel to the “OFF” position.
b. Remove the plastic cover to the motor located at the rear of the lift carriage as shown below

c. Take the emergency handwheel for the manual operation.
d. Insert the handwheel into the hole, joining it to the electric motor shaft. In order to position the handwheel correctly it could be necessary to rotate and/or to slightly move the handwheel until properly located.
e. Rotate the handwheel (this will move the lift), if possible until one of the parking positions has been reached or to recover the lift user. Rotate the handwheel in one direction then in the other to locate the
desired direction of travel.

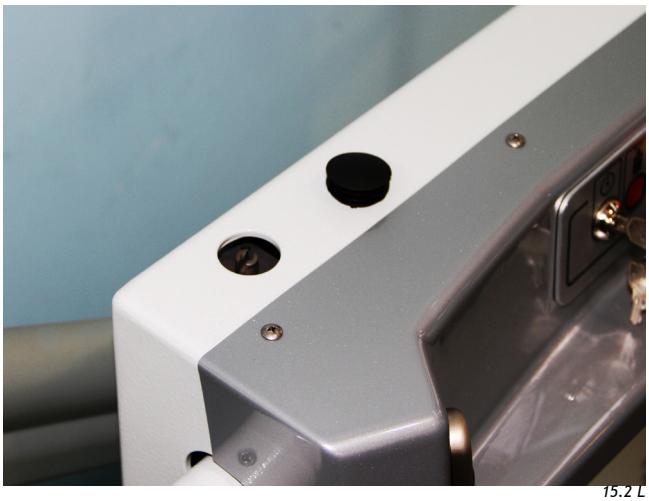
15.0 L

Handwheel insertion for manual handwinding of lift



15.1 L

Barrier protection cap assembled and removed



15.2 L

NOTE: please note that the manual handwinding of the lift carriage is a slow process and will take some time depending on length of travel required.

WARNING: The procedure for manually handwinding the lift carriage should only be carried out with the system key-switch in the "OFF" position.

To recover the user from the lift platform

The user can be recovered from the platform by releasing and opening one of the barrier arms using the same handwheel mechanism as used in manually handwinding the lift carriage:

a. Put the machine out of order by moving the key-switch located on the front panel of the machine to the OFF position

b. Remove the extension from the handwheel, if present.

c. The barrier arm upside of travel only should be opened; the downside barrier arm should remain closed if at all possible to ensure safety of the user. Remove the protection cap in the area of the barrier arm to be opened.

d. Insert the handwheel into the hole, positioning it to the shaft of the barrier arm actuator. In order to correctly locate the centre of the shaft it could be necessary to rotate and/or to slightly move the handwheel until properly inserted.

e. Rotate the handwheel and continue to rotate until the barrier arm is completely opened. Rotate the handwheel in one direction then in the other to make the barrier arm move in the desired direction.

When the barrier arms are unlocked, the platform is disabled; to return to normal operation, move the barrier arm back to the horizontal position.

ATTENTION: HAZARD! Only unlock and open the appropriate barrier arm.

FIG.16

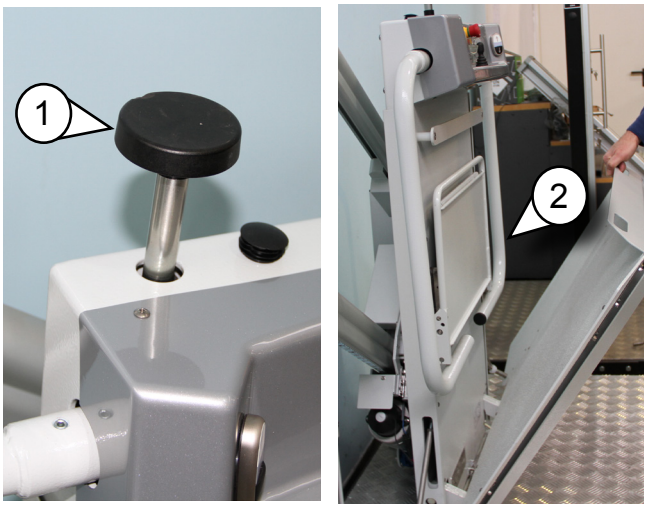


FIG.16.3

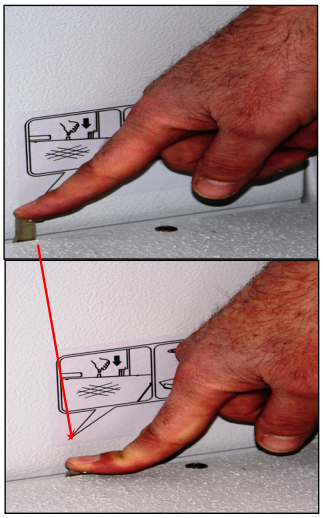
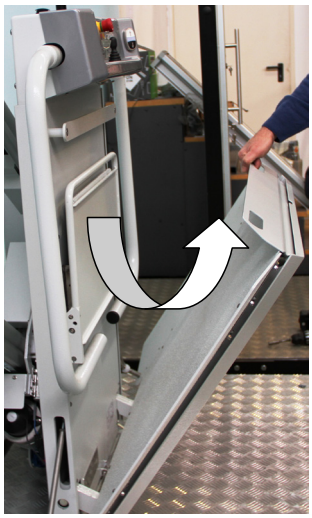


FIG.16.4



Freeing up the route (stairway):

After the occupant has been transported, with the key-switch turned to the “OFF” position, the route can be freed up as follows:

- Remove the protection cap and fit the manual handwheel into the holes above the machine body (Fig. 16.1) and turn it to bring the safety vertical bars down (Fig. 16.2).
- Press the lever to release the lock of the platform (Fig. 16.3).
- Raise the platform (Fig. 16.4).

CAUTION: if the lever does not depress, the platform ends should be moved manually until the lock lever releases.

In this position turn the key switch to the “ON” position and try to bring the stairlift to the closest
level in order to put the stairlift back into normal operation.
If the stairlift comes back to the level, open the platform until the lock lever is refastened;
by pushing the opening button
check that the safety vertical bars open correctly and everything works normally.

if any problem persists and it’s not possible to bring the stairlift back into the normal operation, please contact the Assistance Service.

7 Procedure to return lift to service

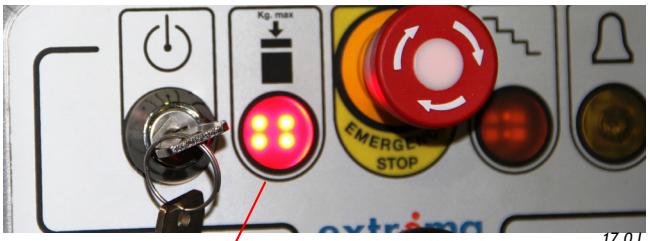
Procedure following a collision with an obstacle

Should the lift collide with an obstacle, the lift sensors detect the collision and stop the lift.
In this situation the user is required to:

a. Release the travel button.
b. If the obstacle is still present, remove it or have it removed. To assist removal of an obstacle, the lift can be moved in the opposite direction of travel by pressing (constant pressure required) the appropriate travel button.
c. Once the obstacle has been cleared push the appropriate travel button again and keep pushed until the desired parking position has been reached.

Procedure following the activation of the overload control system

The overload control system stops any operation of the lift while it feels an excessive weight;
In case of overload, a red light and a buzzer are activated on the front panel.



17.0 L

Overload control system light

The overload control system is designed to intervene in two main cases:

1. when it detects an overload weight on the start position (safety vertical bars still open):

a. the user needs to descend from the stairlift
b. the user needs to go onboard again
c. use the the stairlift

If the alarms persist, make sure the user's weight doesn't exceed the machine load capacity(kg) written down on the carriage information plate;
for further problems, please contact the Assistance Service in order to check the correct working order of the overload control system.

17.1 L

Machine load capacity

2. when it detects an overload weight after the start of the stairlift:

a. Turn the key-switch on the front panel to the "OFF" position.
b: Restart the stairlift

-IF the alarms are off, please come back to the start level.

-IF the alarms are still on:

1. Turn the key-switch on the front panel to the "OFF" position.

2. Recover the user from the stairlift as described in the paragraph at page 15

3. Call the Assistance Service immediately

Procedure following the electric or mechanic overrun intervention

a. Ensure the lift is out of order by moving the key-switch on the front panel to the “OFF”position.
b. Recover the user and clear the stairway as described above.
c. Contact your authorized dealer to arrange visit to locate failure and return lift to service.

Procedure following safety brake intervention

To prevent a dangerous situation the stairlift is equipped with a safety brake that will stop the lift when the travel speed exceeds a certain value defined by the manufacturer.
Should the emergency brake be activated, all lift commands are disabled.

In this situation it is necessary:

a. Position the key-switch on the front panel to the “OFF” position.
b. Recover the user and fold away the lift as described above.
c. Contact your authorized dealer to arrange visit to locate failure and return lift to service.

WARNING: The lift should NOT in any circumstances be manually moved as this could lead to failure of the emergency break causing the lift to travel uncontrollably!

Restore of system function following safety brake intervention

WARNING: this operation can only be performed by technicians authorized to carry out system maintenance

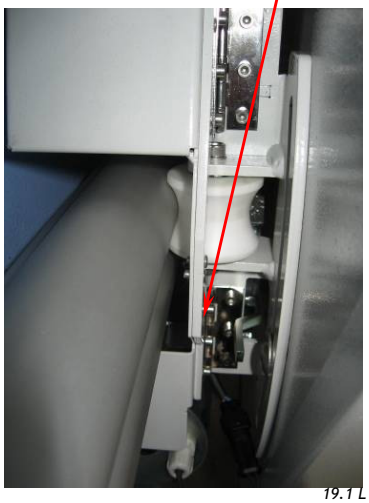
On resolving issues that resulted in emergency brake intervention, follow the instructions below:

a. In order to unlock the emergency brake (stop the braking action) it is necessary to slightly move the lift in the direction opposite to that of lift travel when the emergency brake was activated. If this direction is unknown, try to slightly move the lift in both directions: one direction will result locked by the emergency brake, the other will not.

b. In order to manually handwind the lift, please follow the indication given in the paragraph "Manual Operation of the Lift "; a few millimeters travel is enough to unlock the emergency brake.

19.0 L

Leva paracadute



19.1 L

WARNING: the above procedure release the breaking action. If it is performed before having found and solved the problem that had caused the emergency brake intervention, it can cause an uncontrolled free fall of the lift.

c. After the emergency brake intervention, the emergency brake lever will be shifted from the resting position.

Return the lever in the resting position:

i. Slightly move the lever (one direction will result locked, the other will not);

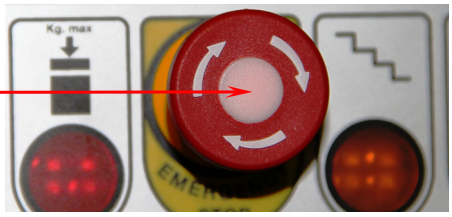
ii. When you feel an external calling force on the lever, leave the lever because the resting position has been reached.

iii. Check the lever is stable in its position by slightly moving the lever in both directions and checking that the lever is called back in the central position.

d. Return the lift to service by moving the key-switch on the front panel to the "ON" position. Carry out unloaded travels to verify that the system is operating correctly.

8 Recognizing and resolving signals

The alarm status of the platform is signaled when the emergency pushbutton starts flashing.
This flashing is activated following a request for movement.



N° of FLASHES	DESCRIPTION	SOLUTION
		User
2	Identifies the activation of the micro-parachute or of the micro over-run. This alarm blocks the machine permanently.	Follow the indications in paragraph headed "Emergency operations" of the "Operation and Maintenance Manual" to put the machine on out of order and, if the case, rescue the person on the platform. Then, contact the authorized technical assistance service.
3	On leaving the floor, the end run sensor has been kept pressed for more than the established time of 1 sec. This alarm blocks the machine permanently.	Follow the indications in paragraph headed "Emergency operations" of the "Operation and Maintenance Manual" to put the machine on out of order and, if the case, rescue the person on the platform. Then, contact the authorized technical assistance service.
4	Identifies the presence of the enable drive signal when the bars are not in safety position. This alarm blocks the machine permanently.	Follow the indications in paragraph headed "Emergency operations" of the "Operation and Maintenance Manual" to put the machine on out of order and, if the case, rescue the person on the platform. Then, contact the authorized technical assistance service.
5	A:Identifies the pressed position of the emergency button. B:Identifies the intervention of the overload control system	A:Rotate the emergency pushbutton clockwise to unblock and put back in normal conditions for platform function. B: please see the indications reported on page 17
6	Identifies failure of the tests carried out during traction motor start up sequence	Check if there are any objects along the stairs or behind the platform which could have activated a sensitive edge reaction and, if so, remove these. If there are no said objects, contact the authorized technical assistance service.
7	Identifies incorrect position of the micros which detect the safety position of the two bars. Anyway missing Enable at start up.	Contact the authorized technical assistance service
8	The safety micros do not confirm open platform or close platform configuration	Contact the authorized technical assistance service
9	Identifies intervention of power limiter on the traction motor	The weight on the platform exceeds the max. load capacity. Remove excess weight. If the problem persists, contact the authorized technical assistance service.
10	Identifies intervention of power limiter on platform lift/descent motor or on the motor which opens and closes the front access ramp (optional)	Check if there is anything obstructing the platform's movement or its front access on closing and opening. If the problem persists, contact the authorized technical assistance service.

11	Identifies intervention of a sensitive edge	While going up or coming down, the platform has knocked against an obstacle with its sensitive edge. Remove the obstacle before resuming movement. To remove the obstacle it is possible to reverse the platform's drive gear. If the problem persists after removal of object, contact the authorized technical assistance service.
12	Identifies the conditions of the battery tension under minimum threshold	When the battery falls to a minimum charge, a buzzer will go on and continue throughout the lift movement along with the emergency pushbutton light which will start flashing. This condition calls for a complete, eight hour recharge of the battery.

9 Technical datasheet

General	
Load	See data plate (250 daN max)
Travel	Straight flight of stairs, standard up to 10 m
Gradient	Variable, from 10° to 45°
Speed	max 0.1 m/sec
Capacity	1 person on wheelchair
Standard working cycle	5 travels at max load and max gradient after 1 hour of batteries recharge
Environmental condition	from -15°C to +60°C
Noise	Lower than 70 dBA (in air)
Vibrations	Low frequency; negligible
Drive system	Rack and pinion mechanism controlled by an irreversible reduction gear and electric motor equipped with an electromagnetic brake
Carriage commands	Key-switch ON-OFF Upwards and downwards travel buttons On board alarm push-button Emergency stop button with manual reset Joystick (optional)
Level Wall commands (optional)	Calling and fold/unfold buttons key-switched
Wander lead for attendant control (optional)	Upwards and downwards travel buttons. Fold/unfold buttons Joystick (optional)

ELECTRIC PARAMETERS	
Nominal voltage required:	115÷240V (ac) @ 50÷60 Hz
Maximum current absorbed by the net:	0.68÷0.45 A
Power supply voltage:	24V (dc)
Maximum power on board:	0.54 kW

10 Safety systems

• Constant pressure control buttons (imposed by law)
• Low voltage controls.
• Microswitches with fail safe operation for parkings detection.
• Additional microswitch with fail safe operation for parkings detection in case of failure of the principal parking miscroswitches.
• Mechanic limit switch.
• Overload control system
• Safety brake controlled by electric microswitch with fail safe operation.
• Crushing, shearing and crash protection by means of safety micro-switches with fail safe operation.
• Automatic safety barrier arms and ramps locked in safety position during the complete travel (plant function enabled only with barrier arms in safety position).
• Emergency STOP button with manual reset on carriage control board.
• Overload control system light and buzzer
• On board alarm push-button
• Handles on platform.
• Anti-slip platform and ramps.

All microswitches are with fail safe operation.

11 Compliance

With the aim of ensuring the highest levels of safety for the user, the design of the machinery and the installation of the Logic have been executed in accordance with the current safety regulations and legislation.

12 Maintenance and inspections

WARNING: To ensure an adequate level of safety, observe the specified maintenance intervals and use original spare parts.

Maintenance is divided into two types:

User maintenance

Cleaning operations:

• Clean regularly the stairlift and the rail with a slightly moist cloth and a light detergent. Do not use an aggressive detergent and too much water.
• During the use of the stairlift dust particles could be collected under the rail. Remove them by means of a vacuum cleaner.

WARNING: Before cleaning the system, switch the lift off by turning the key-switch to the "OFF" position or by pushing the emergency button.
When the operations are finished return the lift to service by turning the key-switch to the "ON" position or by rotating and releasing the emergency button.

Monthly inspections:

• General visual inspection of the system.
• Check the floor controls key-switch efficiency (if present): turning the key to the ON/OFF positions, the floor control must be enabled/disabled.
• Check the efficiency of emergency STOP button: pushing the stop button, the carriage control board and level wall control commands must be disabled and you must hear the acoustic signal.

WARNING: If the system does not pass these checks, if possible, disable the system by turning the carriage control board key-switch to the "OFF" positionand contact your authorized dealer for assistance.

Maintenance to be done by authorized technicians

SIX-MONTHLY INSPECTIONS:
Check the operation of the mechanical safety devices:
• Rack, pinion and toothed wheels wear.
• Rack fixing on rail.
• Cam fixing on rail and condition (wear, deformation, etc.).
• Mechanic limit switch fixing and condition.
• Rail and rail supports (stanchions, plates, brackets, etc.) stability.
• Machine stability on the rail.
• All rotation axis lubrication.

ATTENTION: before carrying out any inspection system should be switched OFF by turning the carriage control board key-switch to the "OFF" position or by pushing the emergency button.
Return the lift to service on completion of inspection by turning the carriage control key-switch to the "ON" position or by releasing the emergency button.

23.0 L

Battery Compartment

23.1 L

Level wall control batteries replacement

23.2 L

image 23.2 L

Check the operation of the electric safeties:

- check the carriage control board key-switch efficiency: turning the key to ON/OFF, the carriage control board must be enabled/disabled.
- Parking and overtravel microswitches.
- Simulation of emergency brake activation: moving the safety brake lever must result in the lift being disabled.
- Sliding contacts.
- Locking of the barrier arms.
- Emergency stop button.
- Carriage control board and signal lights, level wall controls (if present) and wander lead for attendant control (if present).
- Overload control system

13 Replacing of Lift Batteries

a. Disable the system by turning the carriage control board key-switch to the “OFF” position.
b. Open the battery compartment cover by unscrewing the screws.
c. Disconnect the batteries.
d. Remove the batteries and insert the new batteries.
e. Connect the batteries.
f. Replace compartment cover and secure in place.
g. Return the system to service by moving the main key-switch located on the carriage control board to the “ON” position.

14 Replacing Level Wall Control Batteries

a. Unscrew the four screws.
b. Open the box.
c. Remove the old batteries and insert the new ones.
d. Close the box and tighten the screws.

15 Disposal of substances and waste materials

The system does not contain toxic substances in need of special disposal.
All spare parts, such as batteries, cables, cams, etc. in rubber and plastic, should be delivered to authorized collection and disposal centers as provided by established legislation.
Exhausted oils and greases should be delivered to authorized collection and disposal centers as provided by established legislation.

DICHIARAZIONE DI CONFORMITÁ CE

(Declaration of Conformity)

Il costruttore: Extrema S.r.l. – Società Unipersonale
(The manufacturer)

Indirizzo: Via dell'Industria 2 – 46031 Bagnolo S. Vito (MN)
(Address)

DICHIARA CHE LA MACCHINA
(DECLARES THAT THE FOLLOWING EQUIPMENT)

Descrizione: Servoscala con piattaforma **Modello:** LOGIC
(Description) (Platformlift) (Model)

Matricola: **Anno di costruzione:**
(Serial Number) (Made in)

Uso previsto: Trasporto di persone con ridotta mobilità
(Use) (Transport of disabled persons)

è conforme, in base all'analisi dei rischi effettuata, ai requisiti essenziali di sicurezza della direttiva:
(is in compliance with the following Community Directives, on the basis the implemented analysis of risks):

2006/ 42/CE (EN 12100-1; EN 12100-2; EN 81-40)

La macchina è inoltre conforme anche alle direttive:
(The equipment is also in compliance with the following Directives:)

2004/108/CE
2006/95/CE

Si dichiara che la documentazione tecnica, preparata in conformità all'allegato VII A della 2006/42/CE, all'allegato IV punto 1 della 2004/108/CE, all'allegato IV della 2006/95/CE, è disponibile presso l'azienda e verrà trasmessa entro trenta giorni dietro motivata richiesta delle autorità nazionali.
(We hereby declare that the technical documentation, edited in compliance with Annex VII A of 2006/42/CE, Annex IV item 1 of 2004/108/CE, Annex IV of 2006/95/CE is filed in the company and will be transmitted within 30 days upon motivated request of the national authority)

Il depositario della documentazione è il Sig.: Andrea Lodi
(Depositary of the documentation is:)

Indirizzo depositario: Via dell'Industria 2 – 46031 Bagnolo S. Vito (MN)
(Depositary address:)

Bagnolo San Vito,

L'amministratore delegato
(Managing Director)

Enzo Lodi

LOGIC WHEELCHAIR LIFT

INSTALLATION HANDBOOK

TRANSLATION OF ORIGINAL INSTRUCTION BOOKLET

GENERAL SAFETY WARNINGS

These warnings are an integral part of the product. Pay close attention to the information presented in this manual because they provide important information regarding safety when installing the system. It is necessary to keep these instructions and make them available to any system users. Please read this entire manual before installing the system.

Failure to comply with the above may create dangerous situations

Contents:

1 System components identification

Please, check if you have all the following components:
- Stairlift platform (complete machine body with upper and lower carriage)
- Rail: rail sections with and without rack
- Rail supports: self-supporting stanchions (not supplied if wall-fastening version), fixing plates (not supplied if to be fixed on self-supporting stanchions), "L" brackets (2 for each fastening)
- N° 2 stopping cams (the 2 cams are symmetric)
- N° 2 mechanical stops (the 2 stops are symmetric)
- N° 2 plate to close the ends of the rails (the 2 plates are symmetric)
- N° 1 emergency handwheel
- Floor controls and/or attendant pushbutton control (at least one of them).

Each installation has its own number of components: their number can't be defined previously.

2 Preliminary checks

1. Check if wall and floor are suitable for fastening of feet and rail by means of chemical or mechanical anchoring. The wall or other surface behind the rail and the fastenings (e.g. the handrail) must not have irregularity or protuberance that could compromise the installation of the straight rail.

WARNING: a wrong evaluation could jeopardize the entire installation!

2. Make sure that the access to the lift is fairly illuminated (50 lux at least) and that a power socket at least is available near the plant for maintenance purpose.
3. Check platform dimension: e.g.:width 1000 mm, 850 mm, 750 mm.
4. Check if left-hand or right-hand installation: standing at the ground floor and looking at the stair, in left-hand installation the rail will be on the left side of the machine, in right-hand application on the right side.
5. From the enclosure, pick out the right group of tables (tables no. 1, 2, 3) corresponding to the kind of installation you have to do (platform dimension and fixing side found at paragraphs 3 and 4).
6. See data in table nr. 1 and check the following situations:
   a. ground floor: there must be room enough to install rails (see dimensions LC and HC) and platform (see dimension LB).
   b. top floor: there must be room enough to install rails (see dimensions LD, LF and HF)
   NOTE: LD, LF and HF are the minimum theoretical overall dimensions of the stairlift platform. The real overall dimensions after the installation could be higher.
   c. flight must be wide enough to let the platform go up and down easily and to preserve the minimum distances and the safety requirements imposed by the current and local regulations.

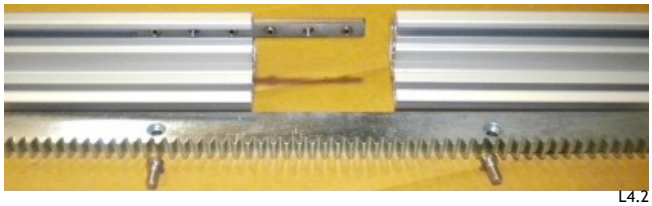
3 Rail assembly

7. Logic run is constituted by two parallel rails (a lower and an upper rail). Both of them could be divided into one or more sections.The lower rail is the one with the rack assembled on it.
8. When the rails are composed of more than one section, the number of the sections and their lengths must be the same for lower rail and upper rail. If not, the installation will fail.

L4.0

L4.1

Upper rail joint



L4.2

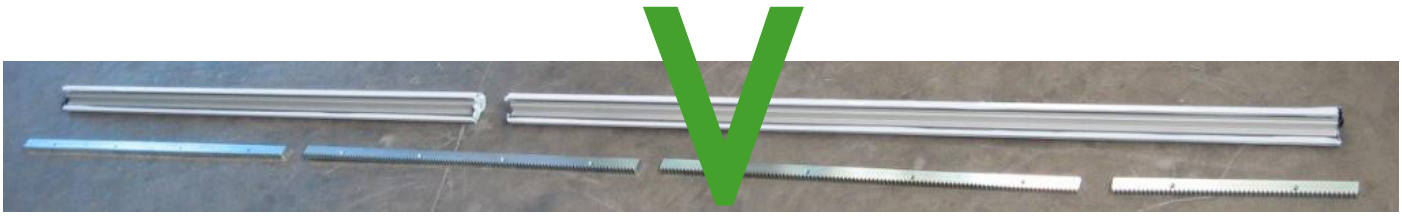
L4.3

Lower rail joint

9. If rails are composed of more than one section, you must join the sections following the same order for both upper and lower rail. Example:
   a. Total rail length = 3,5 m.
   b. you will be provided with no. 2-meters sections and no. 1,5-metres sections.
   c. Both upper rail and lower rail must be composed of 2 m + 1,5 m section (tot. 3,5 m each).
   d. The sequential order is not important: it doesn't matter if you have the 2 m section in the lower part of the stair and the 1,5 m section in the upper part of it, or, on the contrary, if you have the 1,5 m section in the lower part of the stair and the 2 m section in the upper part of it (or vice versa). But it is fundamental to respect the same sequence for both upper and lower rail.
10. Join the upper rail sections:
    a. You must join the sections in two points. In each point you have to use nr. 1 junction kit (each kit is composed of nr. 1 plate with 6 threaded holes and nr. 4 screws). See picture below L4.0 and L4.1
    b. In order to get a solid and stout junction, you have to fix the threaded plate using two screws for each rail section (the axis of the threaded plate will correspond to the junction of the two rail sections).
11. Join the lower rail sections:
    a. You must join the sections in two points. In each point you have to use nr. 1 junction kit (each kit is composed of nr. 1 plate with 6 threaded holes and nr. 4 screws) and nr.1 rack and its screws. See picture L4.3.
    b. For a solid junction, fix the rack between the rail sections to join, so to have 2 screws fastening each rail section. To do this, first disassemble the rack section from the rail section (these are preassembled), then reassemble so that one rack section is fixed between two rail sections. Refer to pictures L4.4 and L5.0 for the correct position of the rack on the lower rail with an exemplary case of travel length 3,50 m:

L4.4

Rail and rack sent by Extrema



L5.0

Rail and rack reordered for the joint

L5.1

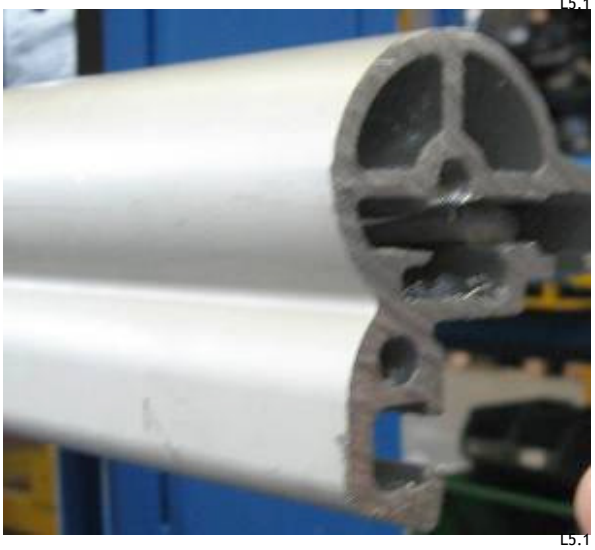
Rail sections distance setting

REMARK: before fixing the rack, remove partially the thin plastic film from the rail/rack contact area. Do not remove all the film for now, just peel off the parts that get in contact with the rail.

c. In order to get a solid and stout junction, you have to fix the threaded plate using two screws for each rail section. The axis of the threaded plate will correspond to the junction of the two rail sections.
d. In order to get the correct distance from one rack to the other, use the short rack section. See the picture below.
e. Assemble the rack sections to the lower rail, tightening tightly the screws

WARNING: if the rack is not fixed properly to the rail, both the safety of the worker and of the final user will be compromised.

L5.1



L5.1

12. At the two ends of the lower rail make the cut represented in the picture below, in order to let the electric feeding cable bend inside the rail. (See pictures L5.2 - L5.3 - L5.4)

Cut at the ends of the rail

L5.1

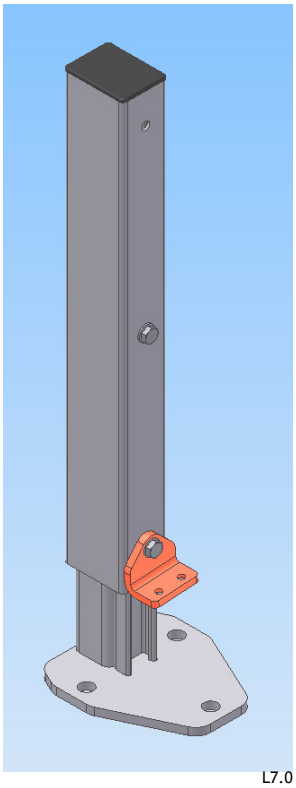
13. Put the electric feeding cable inside the lower rail (in center area). At the ends
14. Carry the box with the battery charger inside at the upper landing.

4 Rail fixing

15. Put the lower rail on the stair, with the rack placed in front of the rear wall (this operation is necessary in order to distinguish the upper and the lower end of the rail).
16. Put the upper rail with the same orientation.
17. Define the K point on the lower landing:
    a. if you use a laser meter put the ray source onto the edge of the upper step. than point the ray towards the lower landing. Be careful not to cut intermediate steps edges. Lower the ray till you to touch lightly a step edge. The ray projection on lower landing will determine point K.
    Measure the angle between the laser ray and the horizontal plane: this angle will be called angle b. you have to use this datum in order to consult the table no. 3
    b. If you do a manual measurement, lean the rail on the stair. Pay attention: the rail must touch the edge of the upper step. The point where the rail gets in contact with the lower landing is K point.

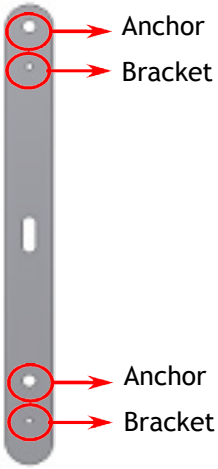
IMPORTANT: long rails could slightly bend, be careful this does not affect K point definition.Measure the angle between the rail and the lower landing: this angle will be called angle b. You have to use this datum in order to consult table no. 3Mark K point on the lower landing.

18. Table nr. 3 contains all data concerning logic installation. Find the row corresponding to the angle b found at paragraph 17, than consider the dimensions you have all along that row.
19. Before fixing each component to the rail, remove partially the thin plastic film from the rail/component contact area. Do not remove all the film for now, just peel off the parts that get in contact with the component.
20. Both for upper and lower rail, identify point F measuring LG dimensions starting from the lower part of the rail. Mark point F on the rail itself (on the thin plastic film or on a hidden spot so as not to stain the aluminum).
21. Define the first fastening position on the lower landing: KP dimension away from point K
    a. If you have self-supporting stanchions, put the first stanchion on the point only just found. The first stanchion is always the shortest one. Fix this stanchion to the floor: keep it as near to the wall as possible (or to the handrail, if you do not have a wall) but remember to maintain an appropriate distance between wall (or handrail) and stanchion if you have surface irregularity along the rail run (see paragraph 1).
    b. if you have wall-fastened version, go to the next paragraph.
22. Staying in the position found in paragraph 21, record the vertical position of the first fastening.



L7.0

Self-supporting foot and L-bracket



a. If you have self-supporting stanchions:

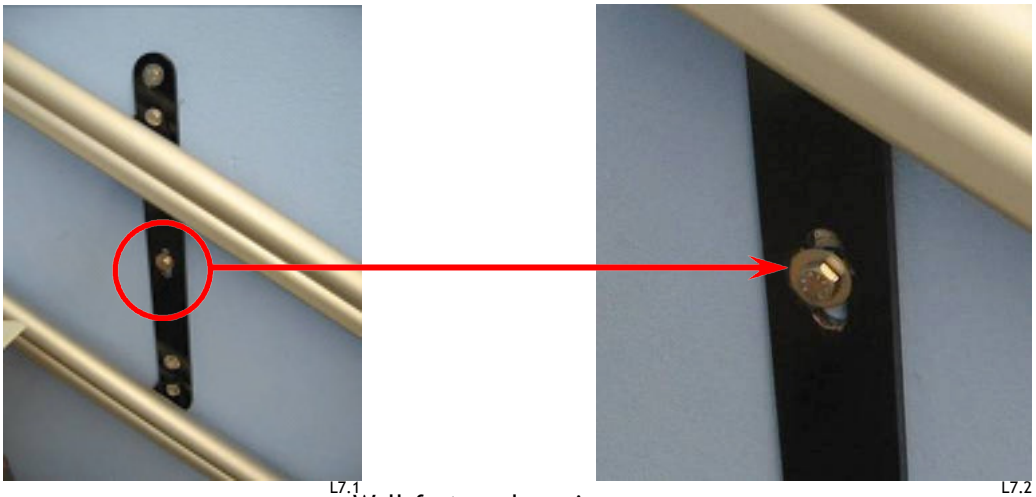
- fasten an L-bracket near the third screw starting from the highest one (see picture)
- loosen the other screws to make the two parts composing the stanchion slide one in the other
- extend the external part until you reach height HP;
- tighten the screws;
- remove the L-bracket and the corresponding fastening screw.

b. If you have wall-fastened version, fasten an L-bracket on a fixing plate at the exact hole (see pictures below), keep the position found under paragraph 21, raise it up to height HP. Drill the wall in correspondence to the slot centre of the fixing plate. Put an anchor in (e.g. hilti HSL-3 M10/20 or a similar model with screw). Do not drill the wall in correspondence to the upper and lower holes of the fixing plate because you still could need to register the plate final position.

WARNING: check that the fixing plate is correctly orientated (see picture below), and that the longitudinal axis of the plate is vertical.

WARNING: if you use a different version of anchors (e.g. version with nut) the over-length compared to the screw version could determine a mechanical interference with the lower truck!

c. remove the L-bracket and the corresponding fastening screw.



L7.1 L7.2

Wall-fastened version

23. All components joined to rails (rack, brackets, cams, mechanical stops) must be fixed by means of supplied spring nuts and screws. Spring nuts can be inserted at the very beginnings of the rail, then you can move them sliding them to their proper location. Otherwise, you can insert them at any point of the rail (see pictures below).


L8.0


L8.1


L8.2


L8.3

Spring nut assembly


L8.4

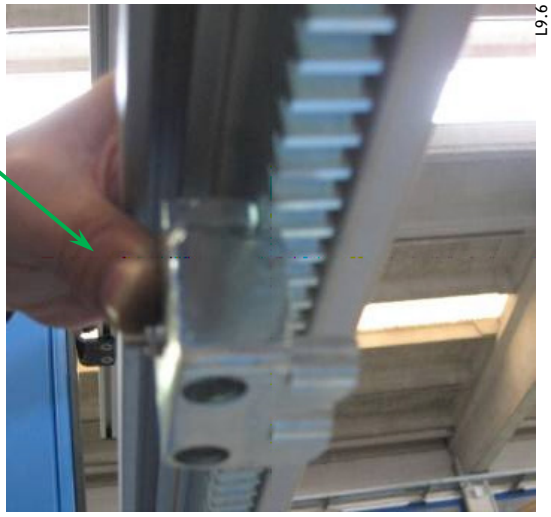
24. With reference to dimension C2 (table no. 3), put on the lower rail the cam of the upper stop. In order to identify the correct assembly side and which cam near which stop, please refer to the following pictures. In particular, note that the screw for the electrical connections of each cam (rounded in red in the drawing) are positioned outward the free space between the cams.

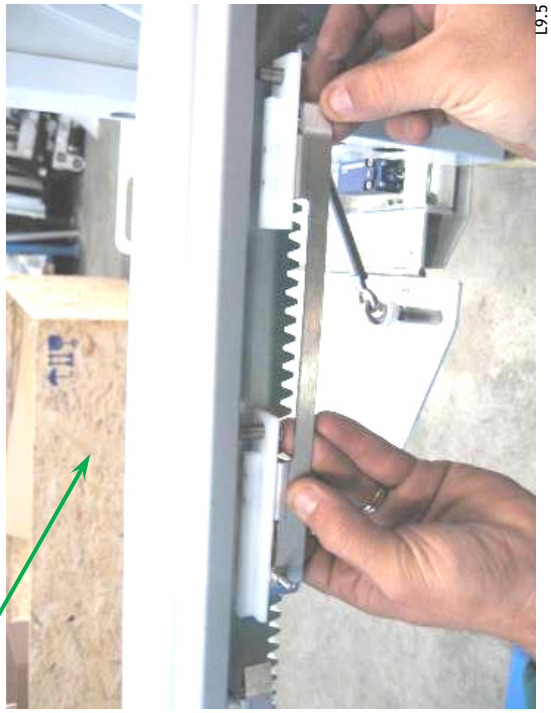

L9.0

Wrong assembly example

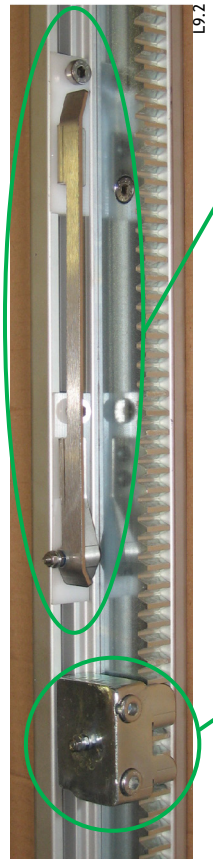

L9.1

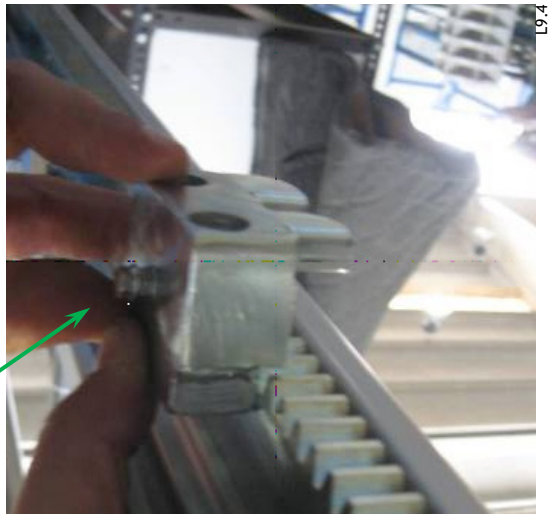

L9.3


L9.6


L9.5

Correct assembly example


L9.2


L9.4

25. With reference to dimension M2 (table no. 3) put on the lower rail the mechanical stop of the upper stop.In order to identify the correct assembly side and which mechanical stop at the top and the bottom floor, please refer to the pictures above. In particular note that the bending for fixing on the rack (rounded in red in the pictures) are positioned outward the free space between the stops. Dimensions M2 is the lowest value to respect. If necessary, you can use higher values.
26. Place an L-bracket onto the lower rail (see LP, table no. 3)

L10.0

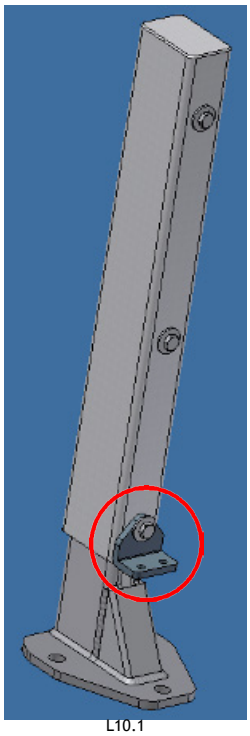
Upper (on the left) and upper (on the right) brackets

WARNING: the brackets for the lower rail are different from the upper ones. Consider that you can distinguish them considering that the lower bracket is thicker and shorter than upper one (see the pictures).

WARNING: before fixing the L brackets to the rail, assemble to the brackets themselves the screws and the washers you will later use to fix the brackets to the stanchions or to the fixing plate. By installations on self-supporting stanchions, use the third screw starting from the highest one, this already assembled on the stanchions.

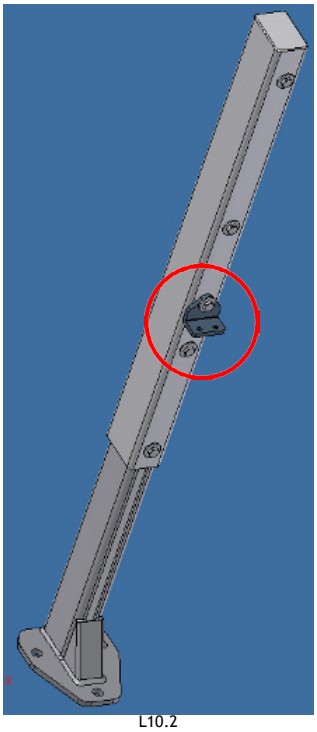
27. Fasten another L-bracket on the lower rail, between the cam and the mechanical stop.

WARNING: before fixing the L brackets to the rail, assemble to the brackets themselves the screws and the washers you will later use to fix the brackets to the stanchions or to the fixing plate. By installations on self-supporting stanchions, use the third screw starting from the highest one, this already assembled on the stanchions.



L10.1

First stanchion



L10.2

Generic stanchion

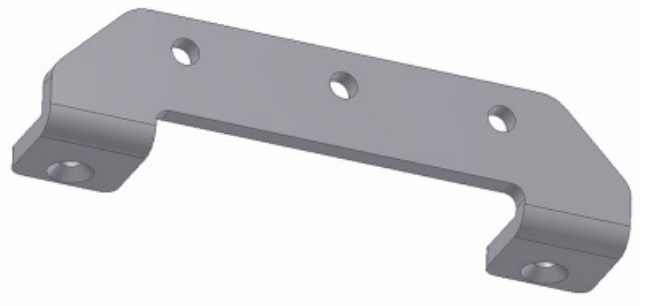
28. ***WARNING: All positions pointed out in the previous paragraphs could be slightly modified during final settings. Sometimes it could be even necessary to move the "L" brackets of the last fastening (those near the stop on the top) beyond the mechanical stop.***

29. Put the lower rail on the first fastening by joining the L bracket you have already on the rail to the stanchion or to the fixing plate of the lower landing by means of the screws you have right on the brackets (see paragraph 26).During this operation, in particular with long rails, take care to protect the rails in order to avoid damages on it (scratches, dents, etc.).Verify that the distance between cam and L bracket is enough (roughly 3-4 cm in each direction) for the subsequent adjustments.
30. Lift the lower rail and incline it by a b angle in respect with the horizontal or, alternatively, as long as you keep the HG control distance on the highest rise. Be careful not to bend the rail because of its own weight. If necessary, hold the rail up in an intermediate position in order to prevent deflection.
31. Maintain the rail inclination found at the previous paragraph and join a stanchion (use the third screw starting from the highest one) or a fixing plate to the L brackets already linked to the rail.
    a. If you have self-supporting stanchions make sure you have room enough to fix the feet on the step, but do not anchor the stanchion at this moment. If you do not have room enough, shift a little bit the stanchion and its L bracket towards the upper part of the stair (do not overpass the cam moving in the opposite direction). The shift has to be as short as possible.
    To adjust the stanchion height, loosen the screws so as to have one stanchion sliding in the other, extend at the proper size, then tighten the screws.
    Should the inclination of the rail be higher than the b angle at paragraph 30 with the stanchion adjusted to its minimum height, shift the L-bracket from the third screw from top to the fifth (or the lowest one); see the picture under paragraph 37) and newly adjust the stanchion height.
    b. If you have wall-fastened version, put the fixing plate directly on the wall. Do anchor the plate to the wall at this moment.

WARNING: Doesn't anchor the plate to the wall at this moment!

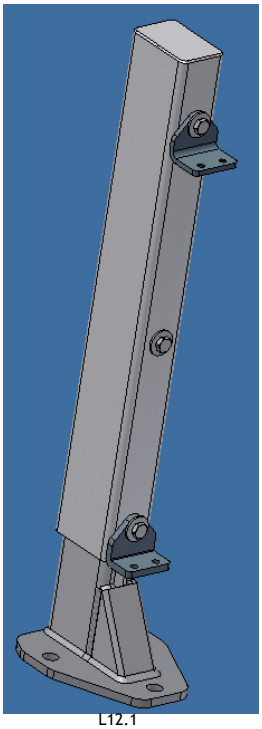
Make sure you have a distance long enough (3 – 4 cm in both directions) to shift the cam along the lower rail during the final settings.

32. Make sure that dimension HG (table no. 3) is the same for all risers, in particular for the last one on the upper part of the stair. If necessary, modify the rail inclination in order to comply with HG dimension.
33. Verify that the distance between the rails and the back wall (or the handrail) is constant enough in order to let all the remaining stanchions/fastenings to be fastened without producing deformations o stress in the rail.
34. Fix the support positioned previously:
    a. If you have self-supporting stanchion, anchor the base of the stanchion to the floor or to the step.
    b. If you have wall-fastened version, anchor the last fastening plate to the wall starting from the central slot in order to eventually modify the vertical position. Then fix all the other points both for the upper and the lower floor.
35. Place all the other supplied feet/fastening plates
    a. You can calculate the total number of stanchions/fastenings using the following formula: KG / 750 + 1
    b. Place all the other supplied fixing plates maintaining a maximum wheelbase of 700 mm. In any case, You'd better maintain a smaller wheel base between the first and the second fastening plate (that's to say where there is the lower stop) and between the last and the second-last fastening plate (that's to say where there is the upper stop).
    c. You can use the supplied special bracket to fasten the rail to the fixing plate if you find it difficult to install the second-last stanchion because of interferences between the L bracket of the lower rail and the cam of the upper stop.



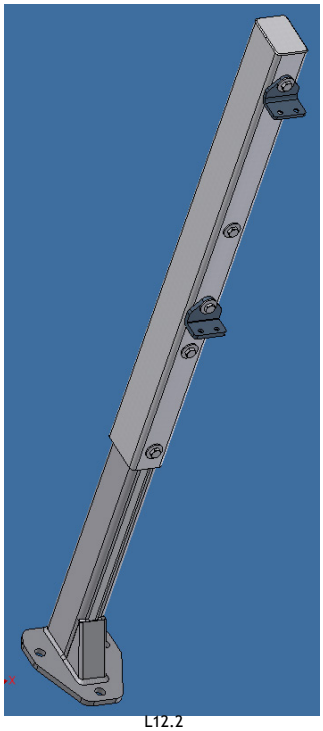
L12.0

Special bracket



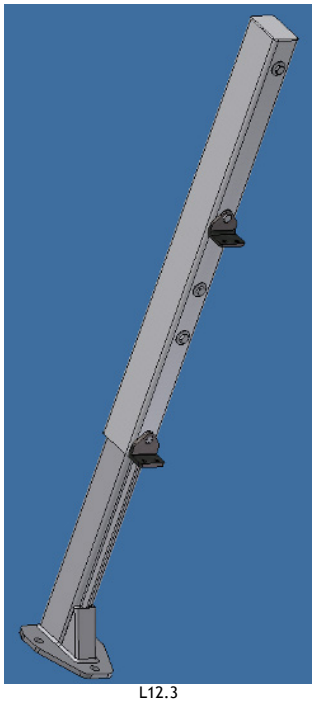
L12.1

First stanchion



L12.2

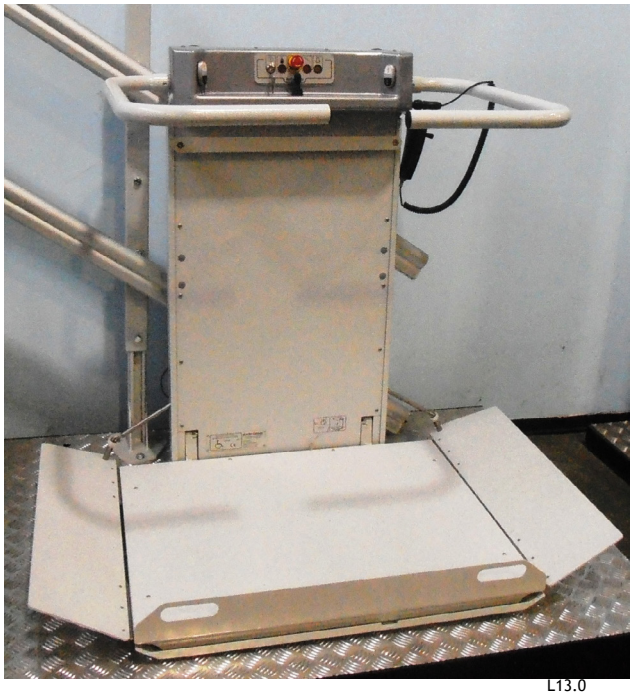
Generic stanchion



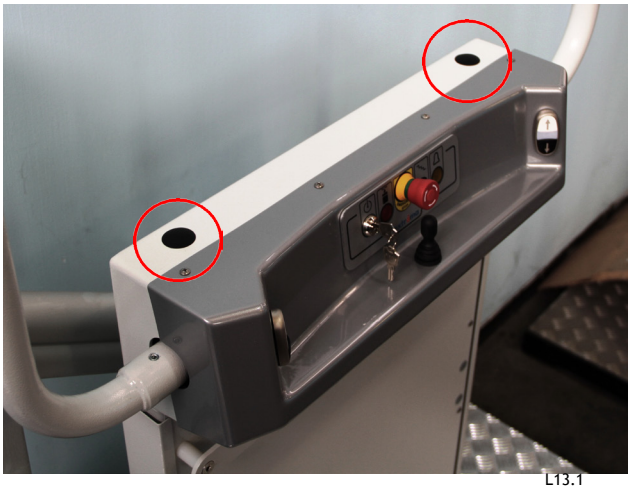
L12.3

Generic stanchion – lower fixing

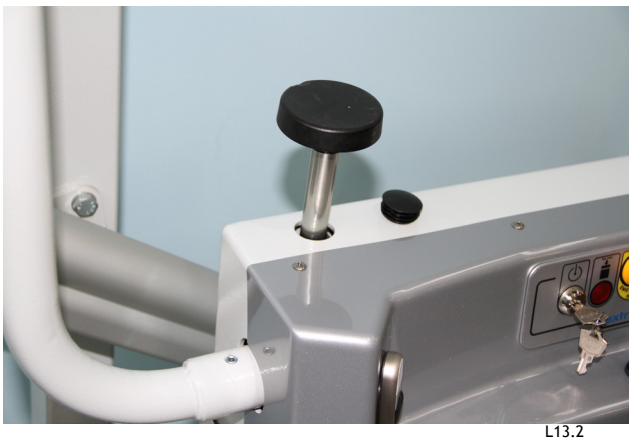
36. Fasten fixing to rail by means of the supplied L-brackets. Anchor the stanchions to the steps (with self-supporting stanchions; in this case also set the height of stanchions as described under paragraph 31) or the plates to wall (with wall-rail version). Check firmness of each fastening before proceeding to next fixing. For wall-rail version ascertain vertical position of the plate longitudinal axis before anchoring.Taking care to prevent any risk of danger, do not tighten yet all the joints between the rail and the L-brackets, so to make the next operations possible. Mark the rail position so to recover it properly after execution of the next operations.
37. Assemble the upper rail onto the ready fixings, place the L-brackets on the highest screw of each stanchion/fixing (or on the second screw from top, if the L-bracket of the lower rail has been placed on the last screw from bottom); place the upper rail thus to have lower and upper rail endings lined up vertically. Taking care to prevent any risk of danger, do not tighten yet all the joints between rail and L-brackets, so to make the next operation possible.


L13.0

Machine with 90° bars


L13.1

Caps to be removed in order to mesh the handwheel


L13.2

Handwheel for the manual displacement of the bars

5 Fitting the unit on the rails

38. After unpacking the unit, unfold the platform.

WARNING: platform may fold during the operations if not properly fixed, endangering the security of the operator. Take the necessary precautions to avoid this.

WARNING: the protection bars can be used to bear or to move the platform, but they must be held only where they are fixed to the body of the machine. Never force the bars on the other extremity.

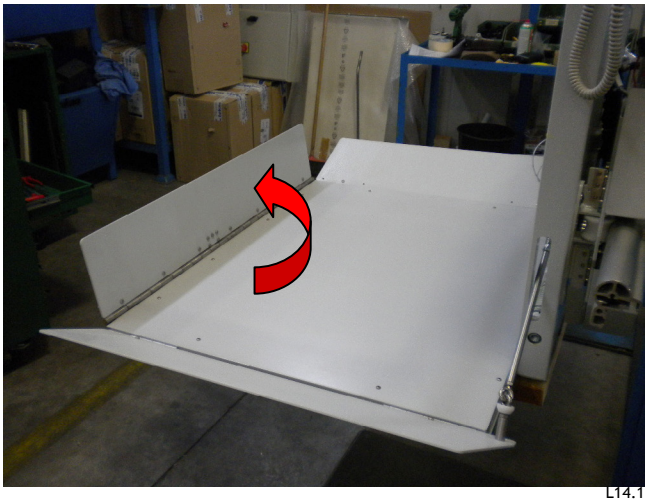
WARNING: during these operations, be careful not to spoil or damage the ramps.

39. How to prepare the machine:
    a. Unfold the platform completely;
    b. Put the protection bars so that they form a 90° angle with the body of the platform by means of the emergency handwheel;

L14.0

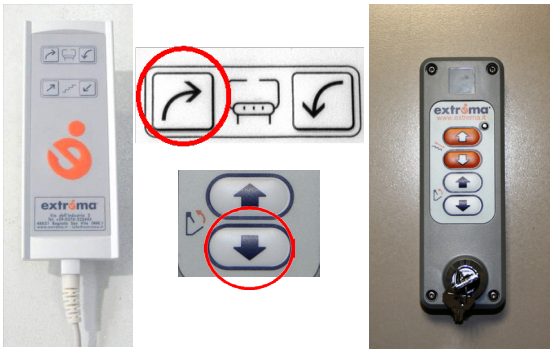
Platform with closed front access ramp

c. If the machine has a front access ramp, put this ramp so that it forms a 90° angle with the platform by pushing the opening button on the wander lead control or on the floor control. In the meantime push manually one of the two micros intended for the platform stops;
d. Install the ramps on the platform if not already assembled (platforms 1000x800 mm).

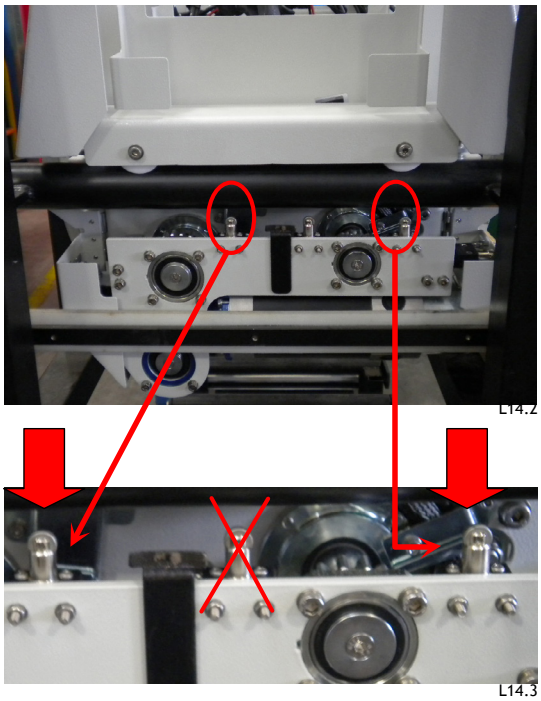


L14.1

Platform with open front access ramp



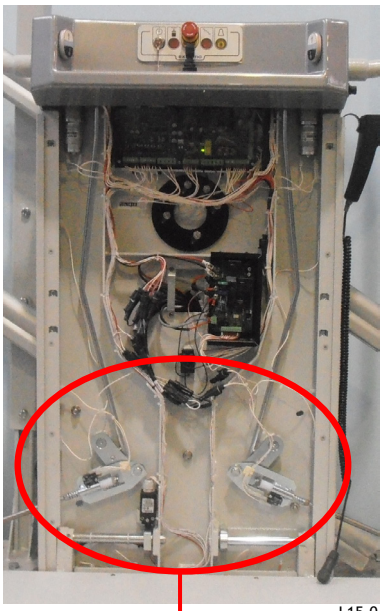
Push buttons for the front access ramp operation



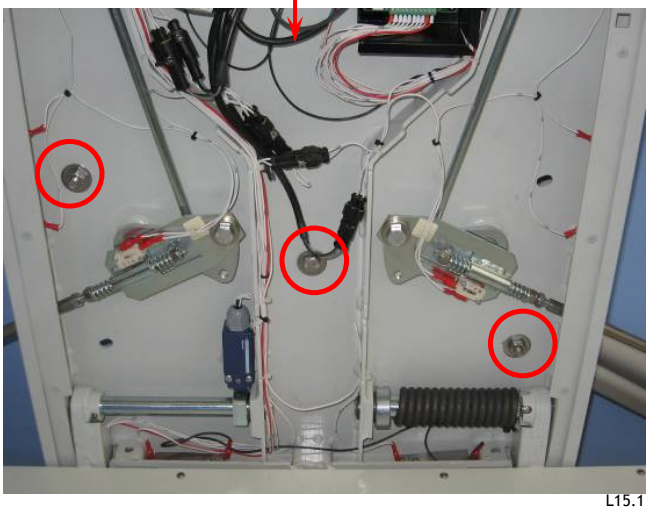
L14.2

L14.3

Micro to operate in order to move the front access ramp

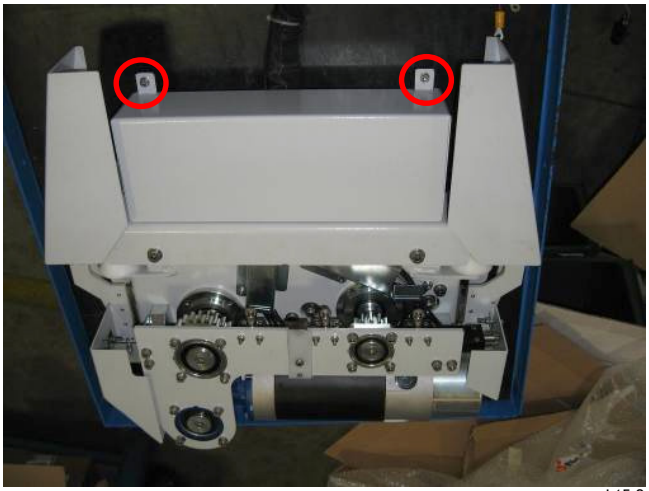


L15.0



L15.1

Screws for the connection of upper carriage to body



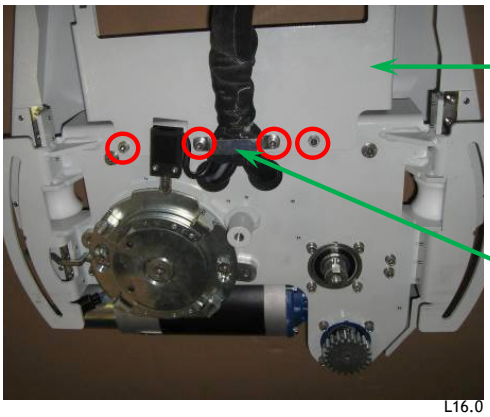
L15.2

Battery cover and fixing screws

40. Open the front deck by loosening the self-tapping-screws on the outer boundary.
41. If you have a left-hand installation (see paragraph 4), modify the cables fittings as indicated in the enclosure “Configurations and settings”.
42. If the unit is equipped with the uprated batteries set, follow next step, if not, skip to the next one:
    a. Remove the lower carriage from the back of the machine by loosening the connecting screws shown in the picture, without disconnecting the electrical wiring.

WARNING: remove the carriage from the back of the machines much as you need in order to proceed with the next operations, paying attention to not damage or putting in voltage the electrical wiring.

    b. Unfasten the two screws and nuts on the batteries cover and remove this one.



L16.0

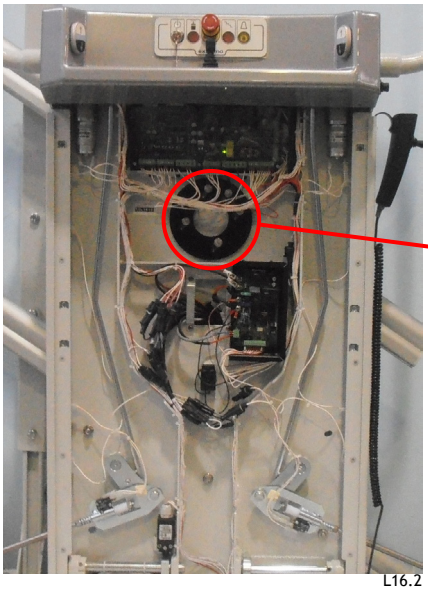
Screws for battery-holder assembly

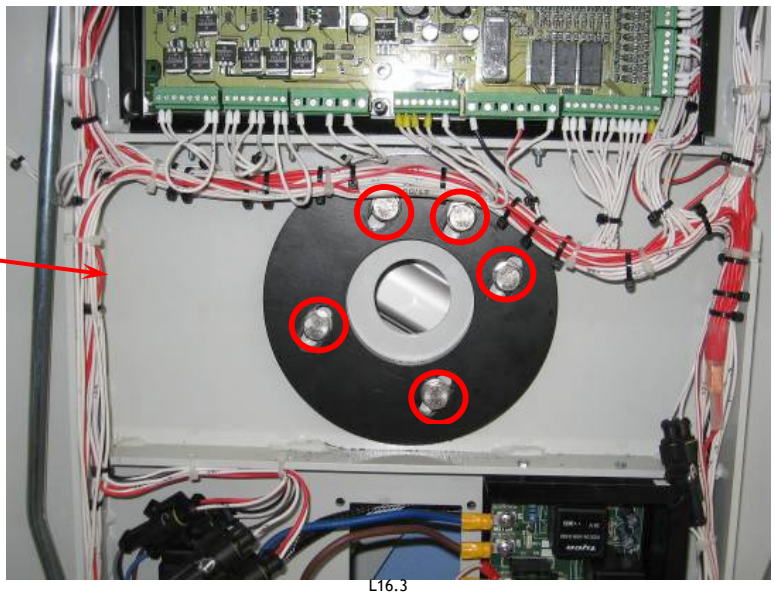
L16.1

Batteries and batteries cover assembly

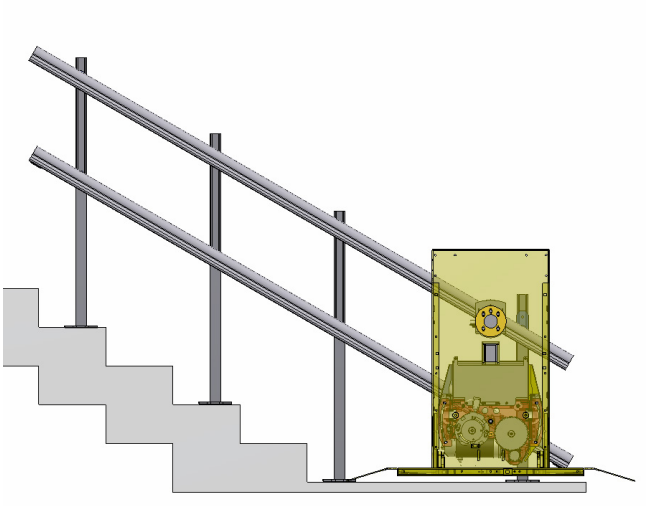
c. Unfasten the 4 screws fixing the batteries-holder on the lower carriage and remove the battery-holder and the electrical connections fixing bracket.
d. Replace the standard batteries-holder with the uprated battery-holder.
e. Place the electrical connections fixing racket and fasten the 4 screws.
f. Place the batteries in position replace the connection cables and connect electrically the batteries, by paying attention to that the eyes-bolts aren't in touch with each other or with metallic parts.
g. Place the batteries cover and newly fasten the 2 screws with nuts: tighten the cover on the battery-holder.

43. If the uprated set is not required, remove the batteries cover, place the batteries in position and connect, mount the battery cover as per paragraphs 42-a, 42-f, 42-g.
44. Loosen the lower carriage from the unit back - undo the central screw and the two side nuts (see picture) and get the carriage to overrun on the unit back. Grease the sliding pins.
45. Loosen the upper carriage from the unit back - undo the 5 screws and get the carriage to overrun on the unit back. Grease the sliding pins.


L16.2

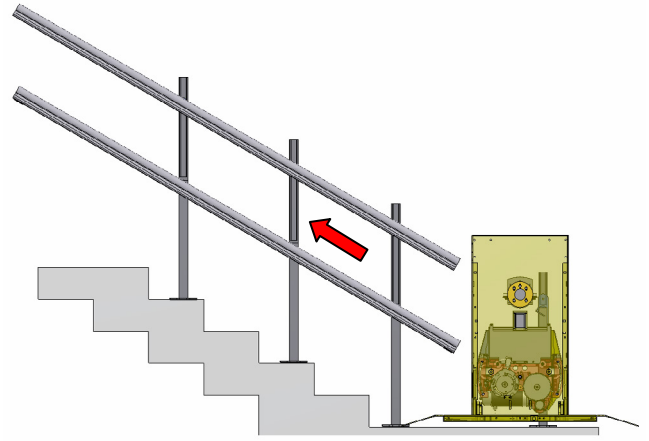

L16.3

Screws for the connection of lower carriage to body



L17.0

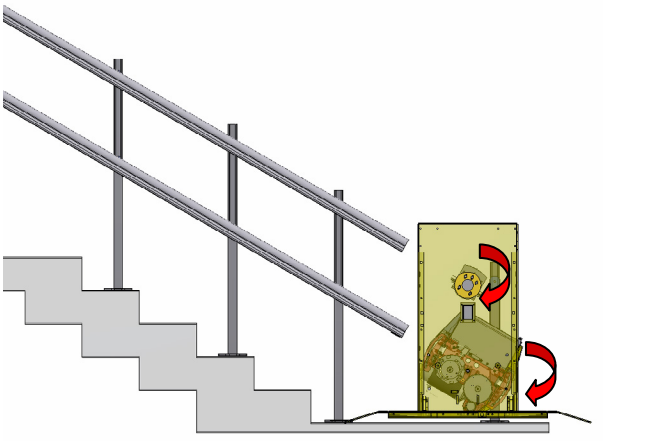
46. Approach the unit to the rails, at the height of the lower stop.



L17.1

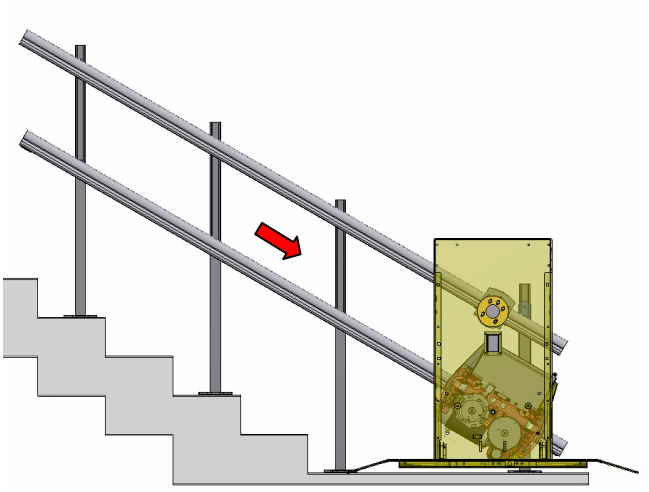
47. Let the rails slide to the top (loosen the fixing between rails and L-brackets if necessary) and get the rails out from the unit carriages.

If displacement of rails is hindered, skip to paragraph 56.

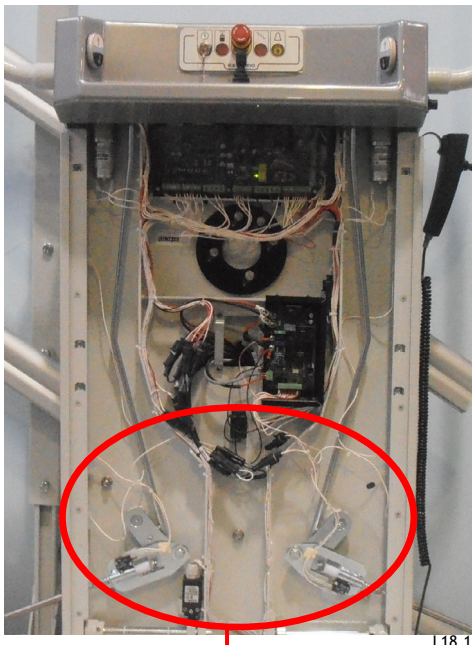


L17.2

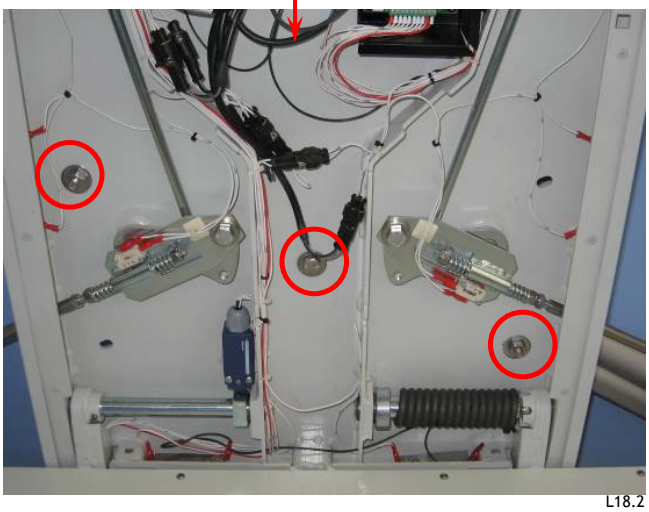
48. Place the carriage parallel to the rails and move the unit in order to get the rails sliding inside the carriages.



L18.0



L18.1



L18.2

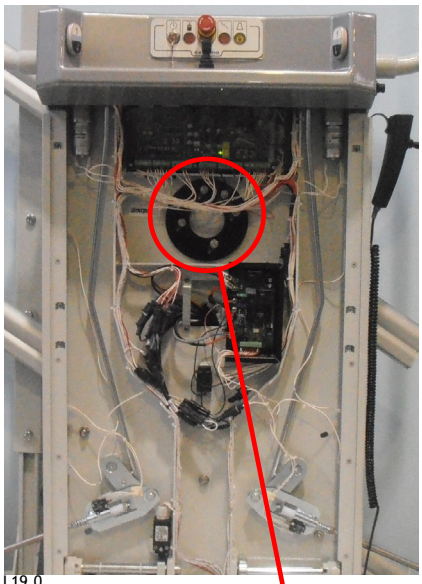
Screws for the connection of lower carriage to body

49. Make the lower rail slide until the rack is against the dented wheel of the rack. Make the rack gear on the dented wheel, shortly and repeatedly press the start button on the board panel. If gearing does not work, do not force, gently move the rail, get the dented wheel rotate for a few degrees by shortly pressing the start button on the board panel. Repeat the operation.

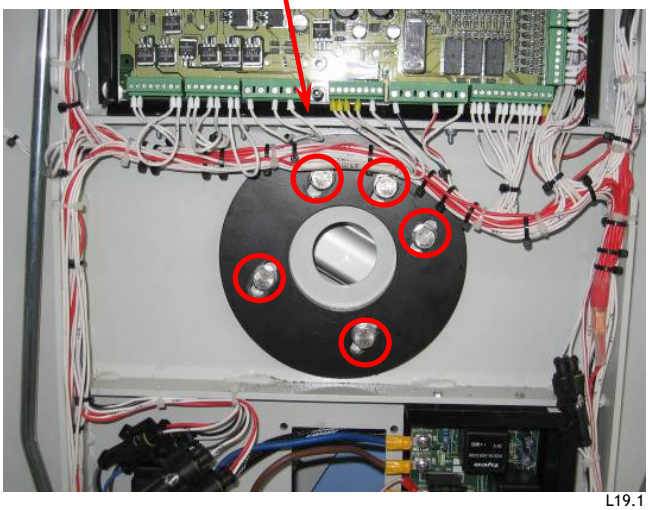
50. As gearing works, press the start button on the panel board, refer to paragraph 36, place the rail back to the correct position.
51. Place the upper rail back to the correct position, with lower and upper rail endings lined up vertically.
52. Fast tighten all joints between rail and L-brackets.

WARNING: by defective tightening, the use of the plant for both fitter and end user is not safe!

53. Fast tighten all the screws and the nuts on the carriage.
54. Skip to paragraph 77.
55. Remove the mechanical stop from the upper stop.
56. Remove the lower carriage from the body of the machine by loosening the central screw and the two side nuts (see pictures). Grease the sliding pins.



L19.0



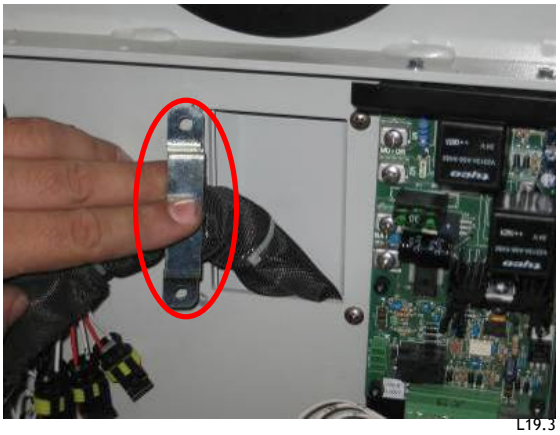
L19.1

Screws for the connection of upper carriage to body

57. Remove the upper carriage by loosening the 5 screws. Grease the sliding pins. Keep aside the plate inside the machine.

58. Remove the protection carter from the back of the machine and the bracket for fixing the cables inside the machine, removing the screw inside the machine.

L19.2



L19.3

Protection carte (on the left) and fixing bracket (on the right)

L20.0

Measuring of the height of the central bore for the connection to the lower carriage

59. Keeping the machine in vertical position and putting it on its wood crossbar, measure the height "H" of the central bore for the connection to the lower carriage.

60. Disassemble the ring gear from the lower carriage.

WARNING: keep aside the connection key between shaft and ring gear.

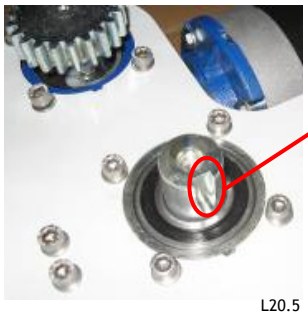
L20.1

L20.2

L20.3

With connection key

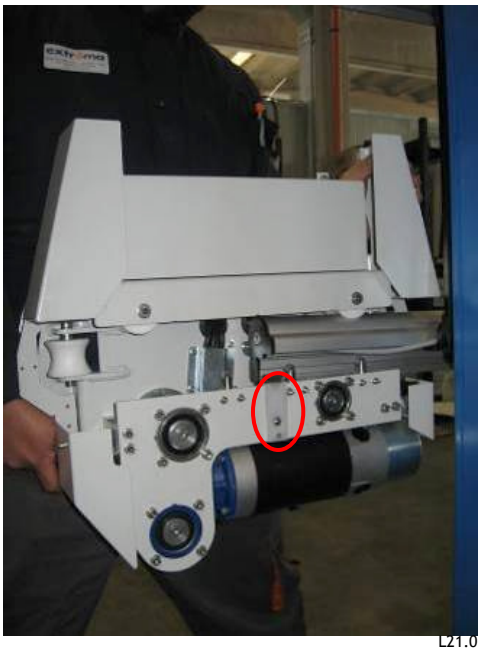
L20.4



Without connection key

L20.5

Disassembling of ring gear



L21.0

Sight from wall side

L21.1

Sight from machine back side

L21.2

Sight parallel to rail

61. Bring the lower carriage near the rail end (higher stop).
62. Fit the lower carriage on the lower rail and carefully place the two side and the two upper carriage rolls in contact with the rounded part of the rail as shown in pictures. Refer to pictures for the correct hand fitting of the carriage.

Mind to not damage the battery-charge brush fastened to the carriage (marked in red in the previous figure). Move the carriage towards the lower stop till the height of the central bore of the carriage from the ground is roughly equal to the “H” dimension measured in paragraph 59.
Arrived at the position, assemble the gear ring reversing the procedure used for disassembling it.
The non-reversibility of the motor assembled to the reduction unit keep the carriage.

WARNING: be sure to assemble the connection key on the shaft before assemble the ring gear. If not, there will be an immediate and heavy danger both for the operator and the final user!

WARNING: during this operation, take care to protect the rails in order to avoid damages on it (scratches, dents, etc.).

63. put the machine in front of the rail and near the lower carriage.

WARNING: the machine may fold during the operations if not properly fixed, endangering the security of the operator. Take the necessary precautions to avoid this.

L22.0

Cap for emergency handwheel access

64. Using the emergency handwheel slightly move the carriage upward or downward till the screwed hole in the central area of the carriage is in front of the hole in the back of the machine. If necessary slightly move the machine too.In order to use the emergency handwheel it is necessary to remove the plastic cap on the bottom of the motor. When the assembly operations are completed, refit the cap.

WARNING: In order to use the emergency handwheel it is necessary to remove the plastic cap on the bottom of the motor. When the assembly operations are completed, refit the cap.

65. Fit the lower carriage on the back by fastening first the central screw then the side screws. Do not tight fasten the screws so that the subsequent regulation of the angle of the unit in respect of the carriage can be done.
66. Put all the electrical cables of the lower carriage inside the machine through the central bore in the back of the unit.
67. Assemble the carter on the back and the bracket inside the machine tightening the cable on the back (see picture of paragraph 58).
68. Fit the upper carriage on the upper rail and bring it near the machine back.

L22.1

Upper carriage

WARNING: the upper carriage could slip out of the rail as long as it is not connected to the machine back. Take the necessary precautions to avoid injuries for the operator or damages to the carriage, to other parts of the unit or to the stair.

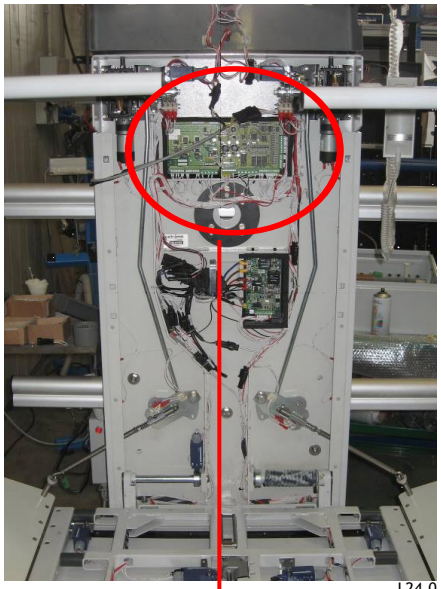
69. Fit the plate inside the back and rotate the plate in correspondence until the holes of the two parts match.
70. Fasten the screw bur not tight so that the subsequent regulation of the angle of the unit in respect of the carriage can be done.
71. Adjust the position of the unit in order to guarantee that the platform is horizontal.
72. Tight fasten the screws of the lower carriage.
73. Orient the upper carriage to be parallel to the rail.
74. Tight fasten the screws of both lower and upper carriage.
75. Connect all the cables inside the machine.
76. Assemble the mechanical stop of the upper landing in the position found in paragraph 25.

L23.0

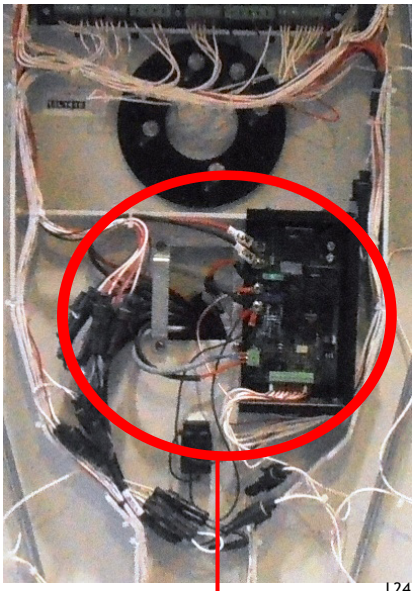
L23.1

Upper carriage and plate assembly

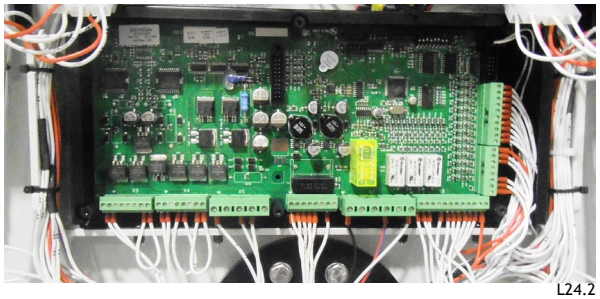
Cable connections inside the machine



L24.0

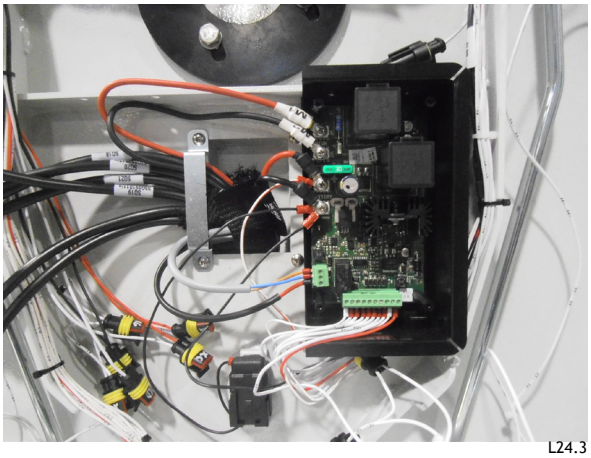


L24.1



L24.2

PLC - AP1 card



L24.3

PWM card


L25.0


L25.1


L25.2


L25.3


L25.4

Cam and mechanical stop electrical connection

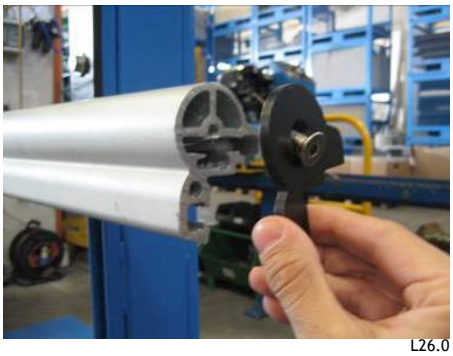
6 Cam and mechanical stop electrical connection

77. With reference to dimensions C1 and M1 (table no.3 and picture) fit cam and mechanical stop for the lower stop on the lower rail. See figures under paragraph 24 for correct assembly side and type of cam or mechanical stop. In particular, do note that the screws for the electrical wiring of each cam (red rounded in the drawing) are outside the useful space between the cams and that the anchoring folds on the rack (red rounded in the drawing) are outside the useful space between the mechanical stops.

NOTE: consider M1 as minimum dimension to respect; this can be in case increased if required.

78. 7Fit the cable connections to the cams and the mechanical stops as indicated in the following pictures:
    a. Unscrew the external nut from the screw of the cam or mechanical stop, and put in the order a washer, the eye of the cable, the second washer and the nut.
    b. Screw the nut.
    c. Put grease on connection in order to prevent oxidation.
    d. Put the rubber cap on the connection

NOTE: fix the brown cable (POSITIVE) to the cam, the blue (NEGATIVE) to the mechanical stop.



L26.0

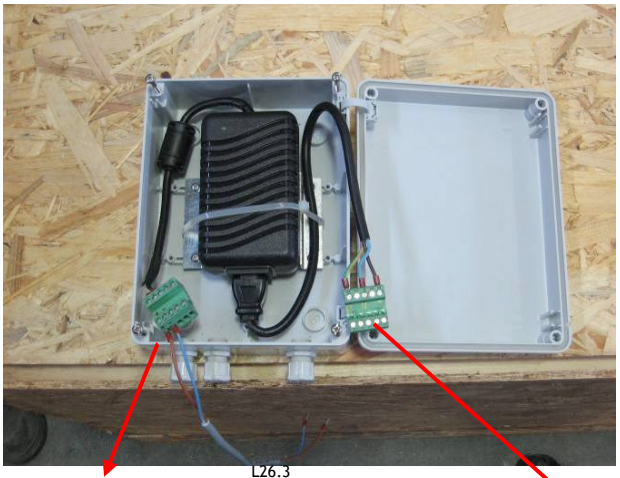
L26.1

L26.2

Rail closing plates assembly

79. Assemble the rail closing plates at the end of the rail, threading the central bore of the aluminum rail directly by means of the two screws.

80. Remove the wood crossbar from the bottom of the unit, removing the screws inside the back.
81. Refit the front deck by means of the screws.
82. Connect the battery charger inside the box to the electric cable inside the rail (BROWN = positive; BLUE = negative) and to the external feeding line, then close the box and fix it to the wall or other appropriated support.



L26.3

Cable inside the rail

External feeding

Battery charger connections

7 Final settings

83. Adjust cams positions in order to have the best conditions to get on and off the platform:
    e. Unscrew lightly the screws of the connections cam/rail;
    f. Move the cam in the proper position;
    g. Tighten the cam to the rail
84. If necessary, set the Dip Switch as indicated in the enclosure “Dip Switch Setting”.
85. Remove the thin plastic film from the rail.

8 Test

86. Test the lift and fill in the test certificate, checking the following points:
    a. The unit can move freely along the rail.
    b. There is an appropriate gap between the platform and the all the idle parts as imposed by current and local regulation.
    c. All operating and control devices are working properly.
    d. All floor and on-lift controls are working properly.
    e. All anti-collision devices on the unit are working properly.
    f. The limit microswitch and the microswitches of the stops on the unit is working properly.
    g. All the electrical connections (in particular for battery) and the voltage at the battery chargers (shall be between 26 and 29 V) at the charging stops;
    h. Moving the lever of the overspeed safety device (see pictures below) check that the microswitch works properly.
    i. the bars can be opened by hand in emergency mode correctly
    j. the unit can be moved by hand in emergency mode correctly.
    k. the alarm device (if supplied) is operating correctly.
    l. all warning signs, data places, etc. are properly fitted and visible.

L27.0

L27.1

Lever of the overspeed device

87. Fill in the certificate of delivery and testing, hand over a copy to customer and second copy to Extrema.

9 Enclosure “Configurations and Settings”

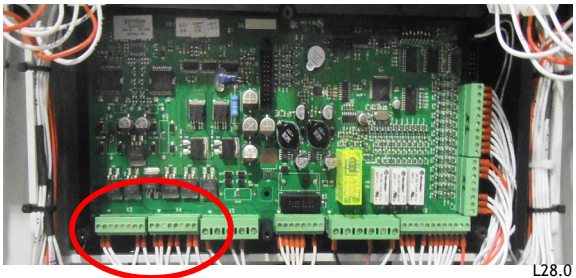
CONFIGURATIONS AND SETTINGS
RIGHT Machine and LEFT Machine: Logic stairlifts leave the production line always in RIGHT configuration. The configuration may be changed to LEFT before or after installation and always with the platform switched off. If the configuration is changed after installation, make sure the following procedure for exchanging the connections at some distance from the lower and upper end run. When the exchange has been effected, switch the machine on and off to memorize the new status.

RIGHT Installation configuration (STANDARD)

Sheath connector	*AP1 Card Connector*
X3	*X3*
X4	*X4*
Sheath connectors	*Trolley micro connectors*
XB	*XB*
XC	*XC*
XD	*XD*
XE	*XE*
Xi	*Xi*
XM	*XM*

LEFT Installation configuration

Sheath connector	*AP1 Card Connector*
X3	*X4*
X4	*X3*
Sheath connectors	*Trolley micro connectors*
XB	*XD*
XC	*XE*
XD	*XB*
XE	*XC*
Xi	*XM*
XM	*Xi*



X3-X4 AP1 card connector

10 Enclosure “Dip Switch Setting”

DIP SWITCH SETTING AP1 CARD CONNECTOR
After every change of position of the DIP SWITCH, it is necessary to switch the platform off and on again

DIP 1:	Enables the configuration of the optional kit for front access

DIP 1 = OFF	Front access Not Present
DIP 1 = ON	Front access present

DIP 2 and 3:	Enable the setting of 4 different speeds with relative start and stop ramps

		maximum speed %
DIP 2 = OFF	Up	75%
DIP 3 = OFF	Down	50%

		maximum speed%
DIP 2 = ON	Up	100%
DIP 3 = OFF	Down	70%

		maximum speed%	STANDARD CONFIGURATION
DIP 2 = OFF	Up	100%	
DIP 3 = ON	Down	80%	

		maximum speed %
DIP 2 = ON	Up	100%
DIP 3 = ON	Down	100%

DIP 4 and 5 :	Enable the setting of maximum current threshold for the traction motor

	Maximum current in A
DIP 4 = OFF DIP 5 = OFF	23 A

	Maximum current in A
DIP 4 = ON DIP 5 = OFF	28 A

	Maximum current in A	
DIP 4 = OFF DIP 5 = ON	33 A	STANDARD CONFIGURATION

	Maximum current in A
DIP 4 = ON DIP 5 = ON	38 A

DIP 6 :	Enables the configuration of the emergency button's led alarm signals

DIP 6 = OFF	Led normally switched off	
DIP 6 = ON	Led normally switched on	STANDARD CONFIGURATION

DIP 7 :	Enables the configuration of the emergency button's led signals

DIP 7 = OFF	Steady Led	STANDARD CONFIGURATION
DIP 7 = ON	Flashing Led	

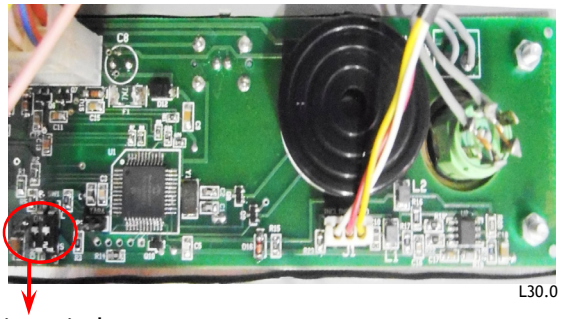
DIP 8 :	Enables the Auto-Key and the opening transfer system operations

DIP 8 = OFF	Auto-Key and opening transfer system OFF	STANDARD CONFIGURATION
DIP 8 = ON	Auto-Key and opening transfer system ON	

WARNING: in order to use the opening transfer system operation in a safe like manner, make sure that all the stairlift run is completely visible!

OVERLOAD CONTROL SYSTEM AND ON BOARD ALARM ELECTRONIC CARD DIP-SWITCH SETTING (placed on the control panel backside)

SwOFF	S	SLIM stairlift operation mode	Config. by EXTREMA
SwON	L	LOGIC stairlift operation mode	
SwOFF	B.SI	Buzzer On during the stairlift running	STANDARD CONFIG.
SwON	B.NO	Buzzer off during the stairlift running	



L30.0

Dip-switch

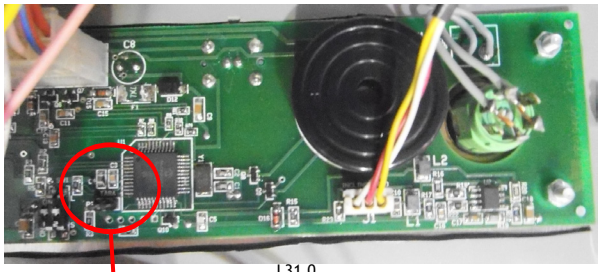
11 Enclosure “overload control system”

System Description
The overload control system blocks the stairlift run when the weight exceeds the 25% of the machine load capacity

System Calibration:

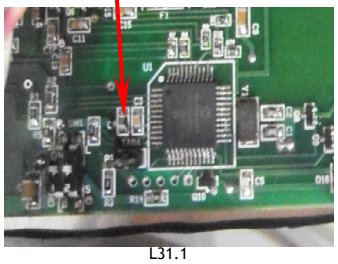
Only authorised personnel can calibrate the system.
It is advised to do the calibrating procedure, by stopping the stairlift where the rail has a negative angle,
or
as close as possible to the starting point (avoiding that the starlift feet touch the ground)

To calibrate the system it is necessary to go onboard of the stairlift and bridge (e.g. with a flat head screwdriver) the “TARA” strip located on the electrical card



L31.0

OVERLOAD CONTROL SYSTEM AND ON BOARD ALARM ELECTRONIC CARD (IMAGE L31.0)



L31.1

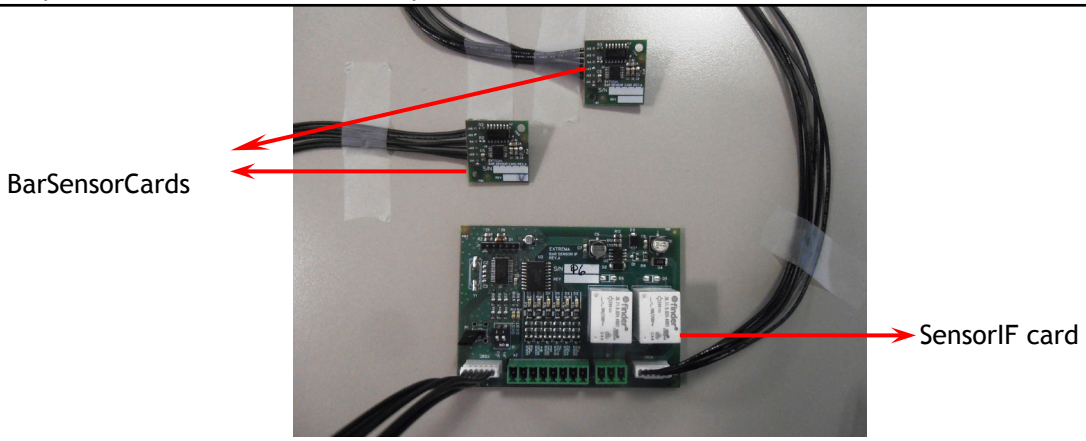
The correct overload control system calibrating acquisition is reported by short buzzer sounds + 1 steady buzz after the bridge is released

SAFETY NOTES:

- The overload control system works for a short range even after the stairlift leaves the starting point: if the system detects an excessive weight leaving the floor level or going up the next level, it stops the stairlift.
  To bring the stairlift back into the operational mode it is necessay to follow the instructions reported on the“Operation and maintenance manual” booklet

12 Enclosure “BMRS regulation system for arm barriers”

System Description
BMRS system is made of by three main components: one SensorIF card and two BarSensorCards. BarSensorCards are installed in both of the arm barriers. The LEFT arm barrier is connected to the JBSX connector; the RIGHT arm barrier is connected to the JBDX connector. The SensorIF main controller interfaces with the two BarSensorCards (left and right) and depending on the barriers position, different kinds of output are sent out towards the PLC - AP1 card.



L32.0

BMRS System

S1 Dip-switch settings

DIP S1 = OFF	LOGIC working operation mode
DIP S1 = ON	SLIM working operation mode

Signalling LED lights

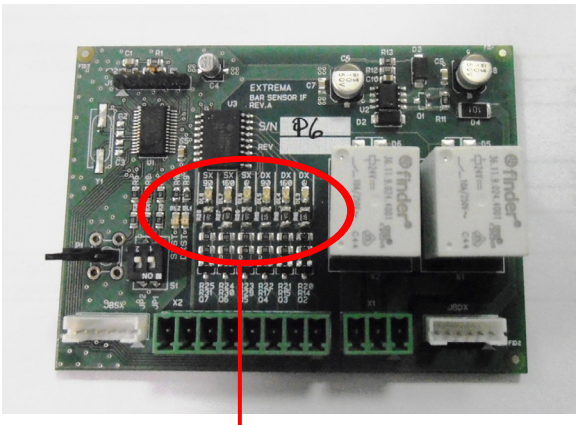
On SensorIF card there are Led lights which provide information regarding the arm barriers status and position. Each Led name is visible on SensorIF card.

DX0-DX180-DX90-SX0-SX180-SX90 LED lights show the arm barriers position;
all LED lights are always on:
when a specific position is reached the LED goes off (e.g. Right arm barrier 0° = DX 0 LED off)

LED OFF	MEANING
DX 0	Right arm barrier 0°
DX 180	Right arm barrier 180°
DX 90	Right arm barrier 90°
SX 0	Left arm barrier 0°
SX 180	Left arm barrier 180°
SX 90	Left arm barrier 90°

DXST and SXST LED lights show the arm barriers status

LED ACTION	MEANING
1 long flashing	Sensors correctly aligned
3 fast flashings	Sensors not correctly aligned
led on	Calibrating procedure in progress



L32.1

signalling LED lights area

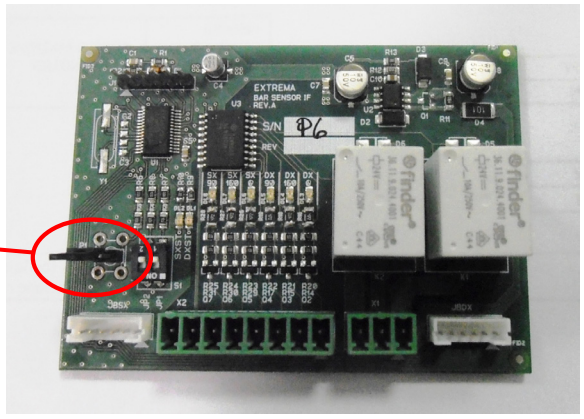
System calibration

The stairlift system calibration is carried out during the factory process, however it could be necessary to re-calibrate the system (only by authorised personnel)
If this happens, follow this procedure:

1. By using the handwheel, bring both arm barriers on closed (0°) position
   (maintain at least 3/4 cm distance from the stairlift structure)
2. Bridge (e.g. with a flat head screwdriver) the P1 Strip on the SensorIF card
3. Leave the bridge (screwdriver) to memorize the calibration
4. Check the right working mode of the arm barriers in each position and if necessary re-calibrate

Bridging the P1 strip allows a pulse to run to the main controller, which records the value at 0°

P1 Strip



SensorIF card

L33.0

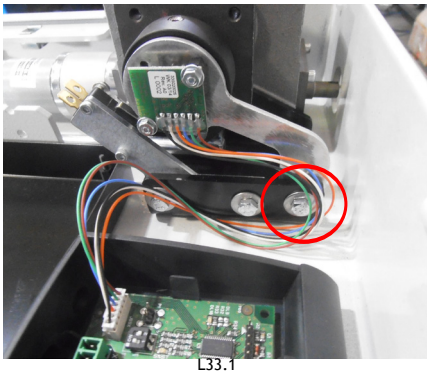
13 BMRS components replacement

If it is necessary to replace the BMRS group parts, please read and follow the instructions accurately

WARNING: it is important to cut off power before any replacement operation

WARNING: collect all removed nuts, screws, washers, in order to re-use them during the re-assembly operation

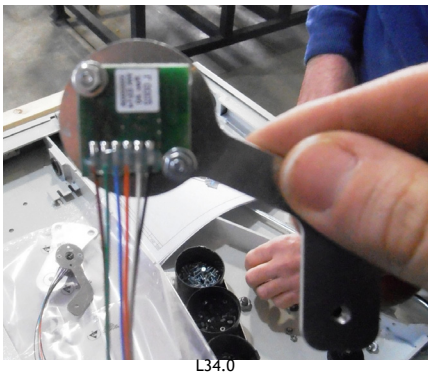
BarSensorCard replacement



L33.1

1. Disconnect the white connector (JBDX or JBSX) on the SensorIF card depending on which BarSensorCard needs to be replaced

2. Unscrew the M5x14 hex-head screw + M5 nut from actuator flange
   (highlighted by the circle in image L33.1)
   and remove the silvery rotation magnetic sensor support


L34.0

3. Unscrew the M3x14 screws + M3 nuts placed diagonally on BarSensorCard (image L34.0) and remove the electronic card

4. Install the new BarSensorCard:

- screw the new BarSensorCard with M3x14 screws + M3 nuts on the silvery magnetic sensor support

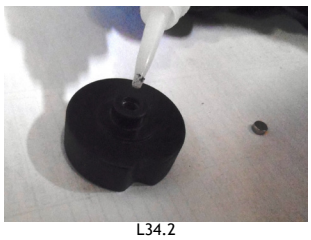
- connect the white connector on JBDX or JBSX

5. Calibrate the system following the instructions reported on top of page 33.

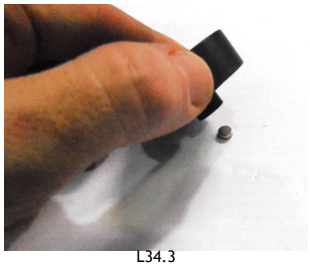
Cam & magnet replacement


L34.1

A. Set:
- Glue (e.g. Loctite Super Attack)
- Cam without magnet
- magnet
(image L34.1)


L34.2

B. Leave the magnet on a workbench and pour some Glue drops into the Cam's cavity
(image L34.2)


L34.3

C. turn the Cam upside down above the magnet and apply pressure towards the workbench (image L34.3); Keep the pressure for a few seconds


L34.4

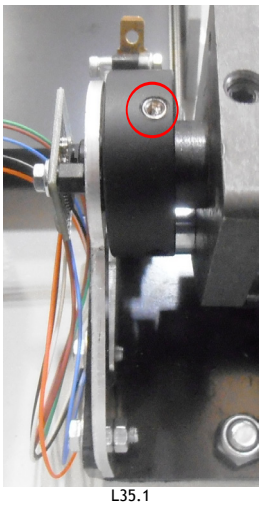
D. the Cam is ready

Please follow the instructions on page 35

L35.0

E. Using the handwheel (image L35.0)
bring the arm barriers to the safety position (90°)

F. Undo the silvery rotation magnetic sensor support, but do not move the security microswitch

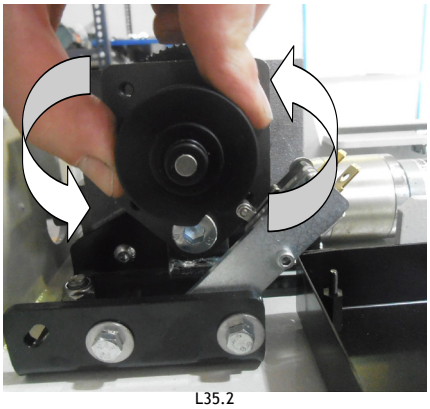


L35.1

G. Unscrew and remove the M6x10 STEI screw (highlined by the circle in image L35.1)
and pull out the broken cam.

H. Insert the new cam and turn it by hand: make sure it runs smoothly and check that the microswitch works correctly (image L35.2).

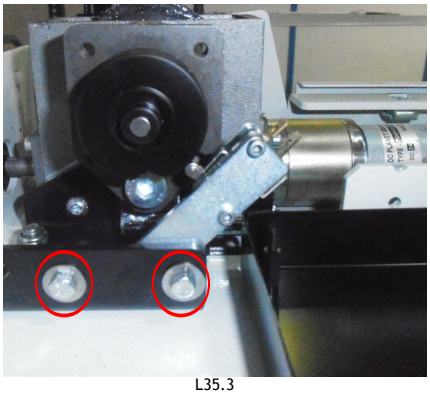
If you need to adjust the microswitch support, loosen the two screws highlighted in the circle of image L35.3; please follow the instructions reported at page 36



L35.2

I. Insert the STEI M6x10 screw into the new cam ensuring that the cam threaded hole is aligned with the shaft slot.
Check that the microswitch wheel is at the centre of the cam cavity

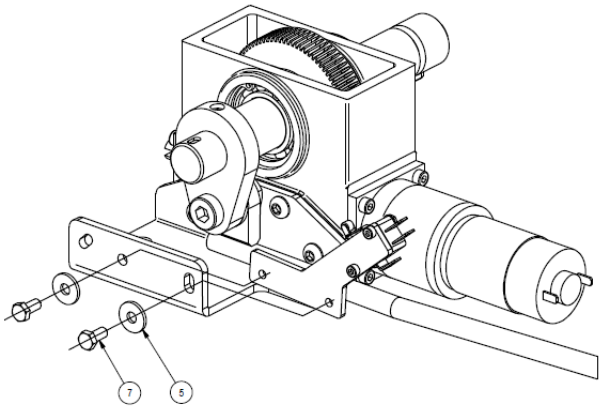
L. Re-install the magnetic sensor support on the actuator flange



L35.3

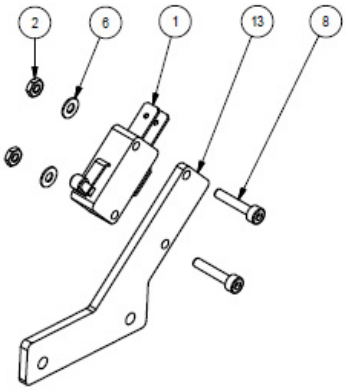
M. Turn the power ON and calibrate the BMRS system following the instructions reported on top of page 33

Microswitch support replacement



L36.0

1. In order to replace the Microswitch support, it is necessary to unscrew the two TE M5x10 screws from the actuator flange as shown in image L36.0



L36.1

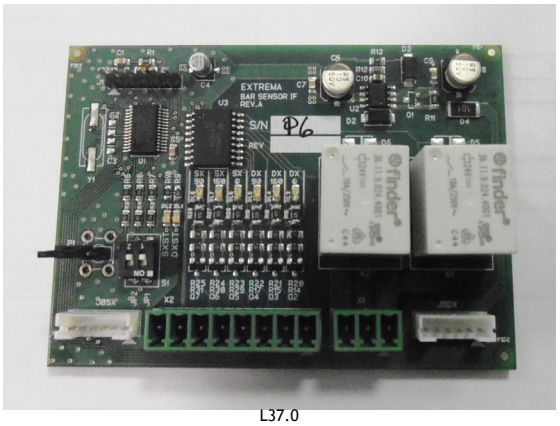
2. To replace the Microswitch, it is necessary to unscrew the two TCEI M3x16 screws + M3 nuts as shown in image L36.1

3. To reassemble:

- screw the microswitch to the microswitch support

- screw the microswitch support to the actuator flange

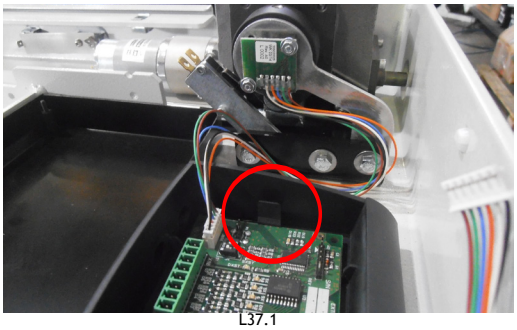
SensorIF electronic card replacement



L37.0

1. In order to replace the SensorIf electronic card (L37.0 image),
disconnect all the connectors

2. Extract the broken SensorIF card by pushing the electronic card case lateral flaps
(detail on image L37.1)


L37.1

3. Install the new SensorIF card

4. Set the SensorIF S1 Dip Switch:

DIP S1 = OFF	LOGIC operation mode
DIP S1 = ON	SLIM operation mode

5. Connect all the connectors

6. Turn the power on and calibrate the BMRS system following the instructions reported on top of page 33

14 Enclosure “Alarms Table”

The alarm status of the platform is signalled when the emergency pushbutton starts flashing. This flashing is activated following a request for movement.

N° of FLASHES	DESCRIPTION	SOLUTION	SOLUTION
		Technician	User
2	Identifies the activation of the micro-parachute or of the micro overrun. This alarm blocks the machine permanently.	Check if micro parachute SQ21 has been activated analyzing the respective position of the test lever as described in the paragraph headed “Emergency operations” of the “Operations and Maintenance Manual”. The position of the lever all the way up or all the way down confirms the activation of the micro parachute. In this case check: - the integrity of the rack and stability of the fixtures on the runner - the integrity of the cogged wheels of the lower trolley and relative fixing - if the motor-reducer and relative brake are working properly - if there is a return spring between the parachute’s cam masses Or, check if the SQ19 Overrun micro has been activated. In this case check: - the correct positioning and integrity of the landing end run cam - the correct positioning and integrity of the landing stop micro and relative wiring	Follow the indications in paragraph headed “Emergency operations” of the “Operation and Maintenance Manual” to put the machine on out of order and, if the case, rescue the person on the platform. Then, contact the authorized technical assistance service.

3	On leaving the floor, the end run sensor has been kept pressed for more than the established time of 1 sec. This alarm blocks the machine permanently.	Check the correct positioning and integrity of the landing end run. Check the integrity of wire 23 connecting pin 9 of X9 connector (card AP2) with pin 2 of connector J3 (card AP1). Check the motor connections on card AP2 and the conditions of the motor brushes. This alarm permanently blocks the machine until the card is reset. To reset, switch the machine off and on again.	Follow the indications in paragraph headed "Emergency operations" of the "Operation and Maintenance Manual" to put the machine on out of order and, if the case, rescue the person on the platform. Then, contact the authorized technical assistance service.
4	Identifies the presence of the enable drive signal when the bars are not in safety position. This alarm blocks the machine permanently.	Check the integrity and correct adjustment of micro SQ12. Check the integrity of the wiring. This alarm permanently blocks the machine until the card is reset. To reset, switch the machine off and on again.	Follow the indications in paragraph headed "Emergency operations" of the "Operation and Maintenance Manual" to put the machine on out of order and, if the case, rescue the person on the platform. Then, contact the authorized technical assistance service.
5	A:Identifies the pressed position of the emergency button. B:identifies the intervention of the overload control system.	A:Rotate the emergency pushbutton clockwise to unblock and put back in normal conditions for platform function. If the problem persists, verify the wiring of the emergency pushbutton. B:Please see the indications reported on “operation and maintenance manual” booklet at page 17.	A: Rotate the emergency pushbutton clockwise to unblock and put back in normal conditions for platform function. B: Please call immediatly the Assistance Service.
6	Identifies failure of the tests carried out during traction motor start up sequence	Check if the sensitive edge of the platform is pressed. Check the integrity of the 30A fuse on card AP2. Check the integrity of wire 11 connecting pin1 of X9 connector (card AP2) with pin 3 of J3 connector (card AP1). Check the integrity of the drive relays fixed on card AP2.	Check if there are any objects along the stairs or behind the platform which could have activated a sensitive edge reaction and, if so, remove these. If there are no said objects, contact the authorized technical assistance service.

7	Identifies incorrect position of the micros which detect the safety position of the two bars. Anyway missing Enable at start up.	Check and eventually adjust the SQ1-2 micros which identify the safety position of the bars when the platform needs to move. Check SQ12 which provides the enable on closed platform.	Contact the authorized technical assistance service
8	The safety micros do not confirm open platform or close platform configuration	Identifies errors in configuration with the presence of more micros activated simultaneously such as: RIGHT bar open (SQ2) and RIGHT bar closed (SQ1), LEFT bar open (SQ7) and RIGHT bar closed (SQ8), front access open (SQ16) and front access closed (SQ17), End run SQ18 and SQ20. Also a different combination of micros to the above may activate the alarm in question. This type of alarm indicates a wiring fault or connection errors.	Contact the authorized technical assistance service
9	Identifies intervention of power limiter on the traction motor	Check the load on the platform. Check if there is a mechanical obstruction between the motor/ parachute mechanisms and the rack mechanism. Eventually check the motor brushes and clean them by blowing out the wear dust which has accumulated. The platform leaves the manufacturing plant with a setting that allows for a load of 250Kg to be lifted at a maximum inclination of 45°. Then check the correct positioning of the DIP Switch , as described in the installation manual	The weight on the platform exceeds the max. load capacity. Remove excess weight. If the problem persists, contact the authorized technical assistance service.
10	Identifies intervention of power limiter on platform lift/descent motor or on the motor which opens and closes the front access ramp (optional)	Check if there is a load on the platform or on its front access. Check if there is a mechanical obstruction on the platform or on the front access. Check the mechanics connected to the two motor shafts.	Check if there is anything obstructing the platform's movement or its front access on closing and opening. If the problem persists, contact the authorized technical assistance service.

11	Identifies intervention of a sensitive edge	This alarm is activated every time an obstacle is knocked by a sensitive edge while running. If instead one tries to start with a sensitive edge pressed, the alarm will appear with 6 flashes. If an obstacle has been knocked by a sensitive edge, it is possible to remove the obstacle by reversing the gear. This alarm is also activated when the false bottom is pressed while opening the platform.	While going up or coming down, the platform has knocked against an obstacle with its sensitive edge. Remove the obstacle before resuming movement. To remove the obstacle it is possible to reverse the platform's drive gear. If the problem persists after removal of object, contact the authorized technical assistance service.
12	Identifies the conditions of the battery tension under minimum threshold	When the battery falls to a minimum charge of 20,5 V, the buzzer placed on the AP1 card will set off with a continuous throughout the ride and together with the visual alarm consisting of 12 flashes. This is the information that indicates that the battery is low and needs to be recharged for at least 8 hours. If the tension drops further and reaches a minimum of 19.5 V the machine will shut down. It is still possible however to reach the landing going up even with frequent blocks or going down without blocks. Obviously it is necessary to charge the batteries as indicated above. This condition may cause irreparable damage to the batteries.	When the battery falls to a minimum charge, a buzzer will go on and continue throughout the lift movement along with the emergency pushbutton light which will start flashing. This condition calls for a complete, eight hour recharge of the battery.

PIATTAFORMA SERVOSCALA

WHEELCHAIR PLATFORM LIFT

LOGIC

2014

SCHEMI ELETTRICI
ELECTRICAL DRAWING

Cod. L20F30003 rev.0 del 15/04/2014

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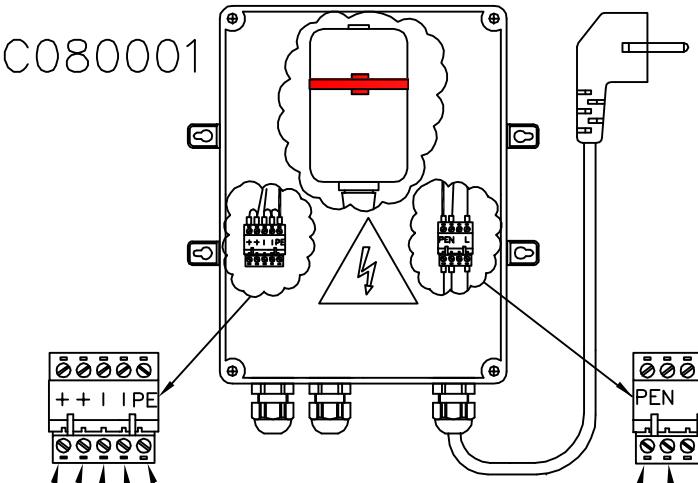
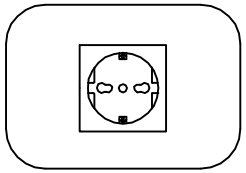




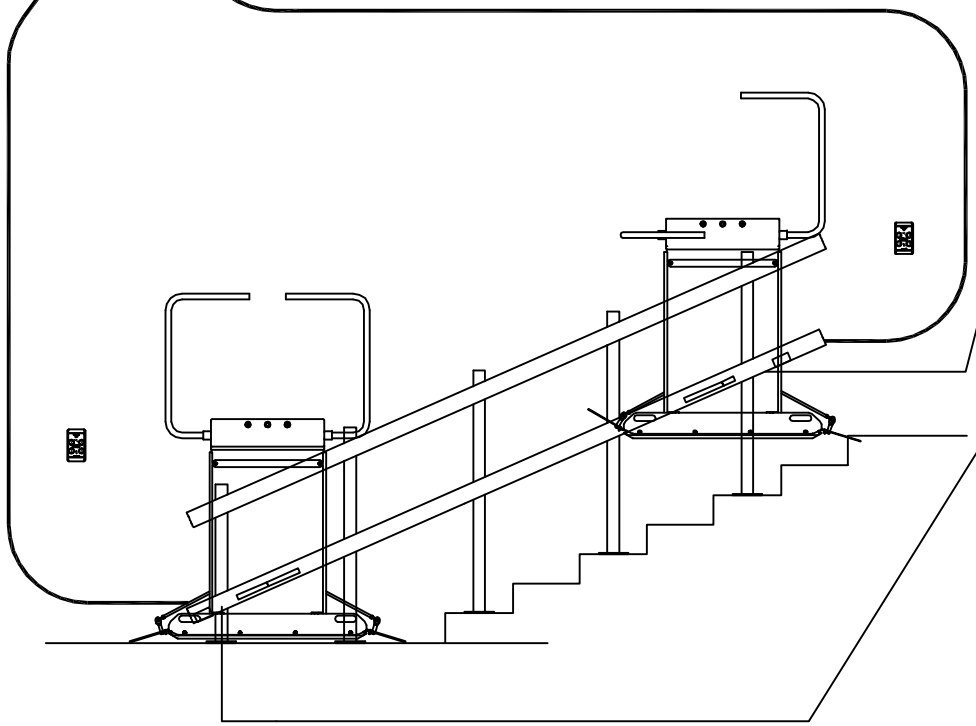
Color	Abbreviation
brown	BN
blue	BU
green/yellow	GNYE

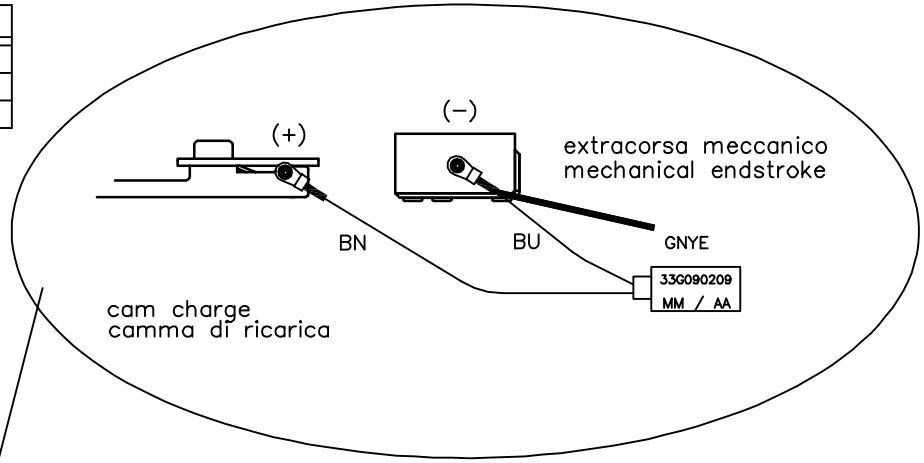
BN BN BU BU GNYE

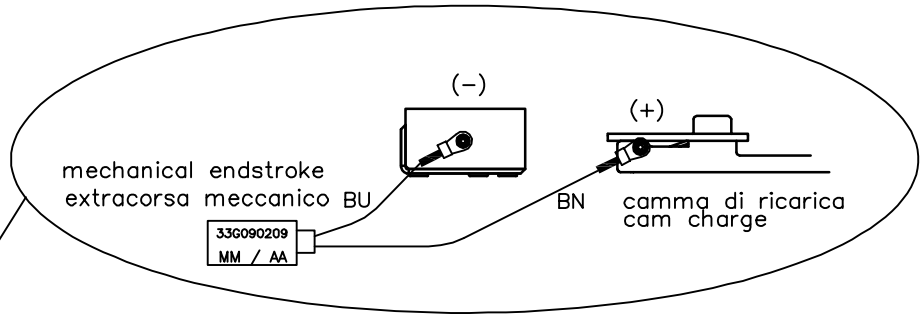
27.5V (DC)

GNYE BU BN

100÷240V (AC) 50÷60 Hz







Formato UNI A3

Wytyczne podłączeń ładowarki do akumulatorów Logic
Prescrizioni di collegamento caricabatteria Logic
Logic charger connecting instruction
Instructions pour brancher le chargeur Logic
Anweisungen für den Anschluss Ladegerät Logic
Instrucciones para conectar el cargador Logic

GRUPPO Imp.Elettrico
DATA 23/03/12
DISEGNATO M.I.
SCALA
FOGLIO 1 di 7

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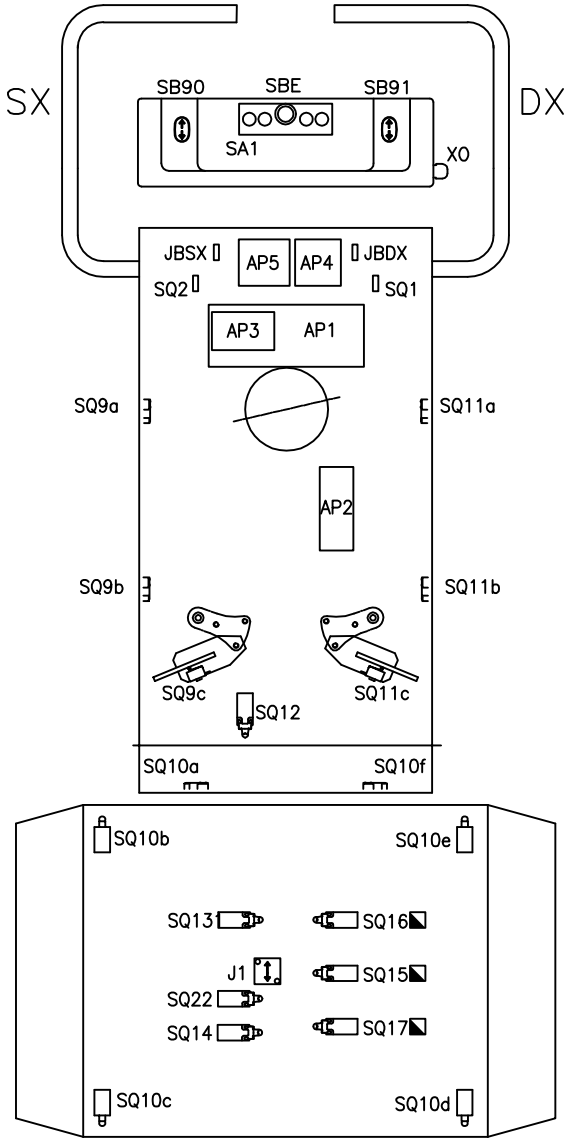
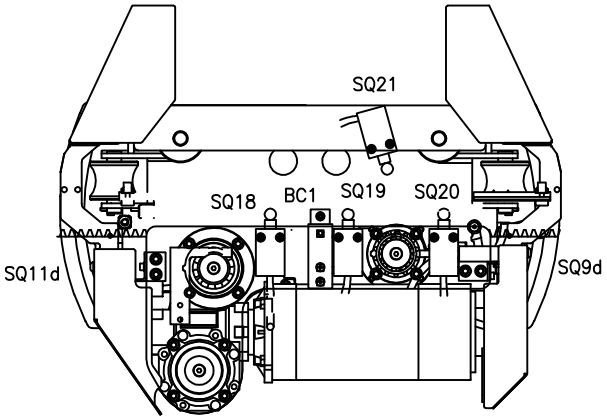
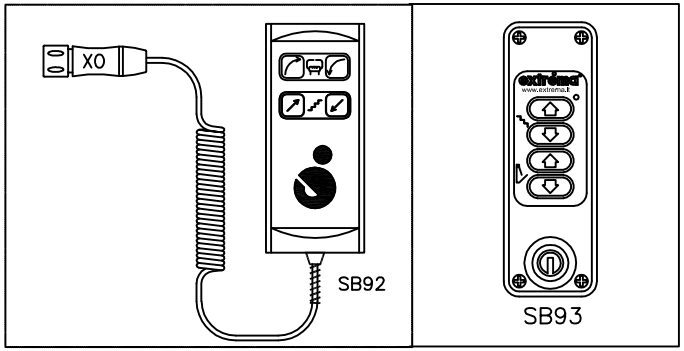
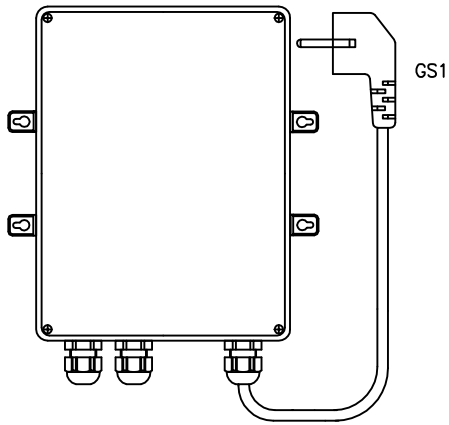
CODICE 63F300001/a

Formato UNI A3









Formato UNI A3

Schema elettrico servoscala rettilineo	GRUPPO ELECTRICAL DRAWING	extroma®
LOGIC 2014	DATA 13/01/14	
Straight stair lift Electrical Wiring	DISEGNATO I.D.	
	SCALA 1:1	CODICE 63F300003
	FOGLIO 1 di 9	

Formato UNI A3

SIMBOLO	DESCRIZIONE	POSIZIONE
AP1	Scheda elettronica CPU CPU electronic card	100 – 119
AP2	Scheda elettronica PWM PWM electronic card	03 – 18
AP3	Scheda elettronica accesso frontale (opzionale) Front Access electronic card (optional)	72 – 78
AP4	Scheda ricevitore comandi di piano (opzionale) Level wall controls radio receiver electronic card (optional)	58 – 59
AP5	Scheda di controllo sensori magnetici barre barrier arms magnetic sensors control electronic card	31 – 38
AP6	Scheda controllo sovraccarico e allarme a bordo Overload control system and on board alarm electronic card	22 – 27
BC1	Contatto spazzola di alimentazione e rallentamento Power supply and slowdown brush contact	03 – 04
FU	Fusibile batterie 30A 30A batteries fuse	06
F1	Fusibile di potenza PWM 30A 30A PWM card power fuse	05
F2	Fusibile +24 aux su sheda AP1da 6.3A 6.3A fuse (AUX +24) on AP1 card	96
Fc	Fusibile negativo ausiliari 7.5A 7.5A fuse (AUX negative)	14
GB1	Batterie Batteries	05 – 07
GS1	Caricabatteria Battery charger	01
J1	Sensore inclinometrico Incline sensor	21
JBDX	Scheda sensore magnetico destro Right–hand side magnetic sensor electronic card	39
JBSX	scheda sensore magnetico sinistro Left–hand side magnetic sensor electronic card	30
M1	Motore attuatore barra di contenimento destra Right–hand side barrier arm motor unit	61
M2	Motore attuatore barra di contenimento sinistra Left–hand side barrier arm motor unit	67
M3	Motore attuatore ribaltamento pedana Platform motor unit (fold/unfold)	86
M4	Motore attuatore rampa accesso frontale Front access motor unit	74
M5	Motore trazione Drive unit motor	04
SA1	Selettora a chiave off–on Off/On key–switch	23
SA2	Selettore Joystick (optional) Joystick (optional)	49 – 50
SBE	Pulsante emergenza–stop + led diagnosi Emergency pushbutton + alarm status	24
SB90	Pulsante a bordo di movimentazione On board travel push button	52 – 53
SB91	Pulsante a bordo di movimentazione On board travel push button	54 – 55
SB92	Pulsantiera accompagnatore (opzionale) Wander lead for attendant control (optional)	
SB93	Pulsantiera di piano opzionale Level wall controls (optional)	

SIMBOLO	DESCRIZIONE	POSIZIONE
SQ1	Microinterruttore barra DX in sicurezza 90° 90° Right–hand side barrier arm micro switch	111
SQ2	Microinterruttore barra SX in sicurezza 90° 90° Left–hand side barrier arm micro switch	111
SQ9a–b	Microinterruttore bordo sensibile schienale lato sinistro Left–hand side Lift unit body edge sensor micro switch	108
SQ9c	Microinterruttore bandella laterale sinistra Left–hand side Platform edge micro switch	108
SQ9d	Microinterruttore bordo sensibile motore lato sinistro Left–hand side Drive unit edge micro switch	107
SQ10a–f	Microinterruttore bordo sensibile fondo schienale Anti–crushing sensor base in Lift unit body	88 – 91; 101; 106
SQ10b...e	Microinterruttore bordo sensibile doppiofondofondo pedana Anti–crushing sensor base in platform	102 – 106
SQ11a–b	Microinterruttore bordo sensibile schienale lato destro Right–hand side Lift unit body edge micro switch	109
SQ11c	Microinterruttore bandella laterale destra Right–hand side Platform edge micro switch	109
SQ11d	Microinterruttore bordo sensibile motore lato destro Right–hand side Lift unit body edge micro switch	101
SQ12	Microinterruttore pedana in sicurezza chiusa Safety position platform micro switch	111 – 112
SQ13	Microinterruttore pedana chiusa Closed platform micro switch	87
SQ14	Microinterruttore pedana aperta Wide–open platform micro switch	87
SQ15	Microinterruttore accesso frontale in sicurezza (verticale) Front access safety micro switch position (vertical)	76 ; 111
SQ16	Microinterruttore accesso frontale aperto Wide–open front access micro switch	77
SQ17	Microinterruttore accesso frontale chiuso Closed front access micro switch	75
SQ18	Microinterruttore di piano: basso conf. DX; alto conf. SX End run micro switch: config. Low Right; config. Up Left	43 ; 80
SQ19	Microinterruttore di extracorsa Overrun micro switch	113
SQ20	Microinterruttore di piano: alto conf. DX; basso conf. SX End run micro switch: config. Up Right; config. Down Left	42 ; 83
SQ21	Microinterruttore sicurezza paracadute Parachute micro switch (overspeed)	113
SQ22	Microinterruttore pedana a 45° 45° platform micro switch	89
X0	connettore pulsantiera accompagnatore Wander lead for attendant connector	45
YB1	Freno elettromagnetico motore M5 Electromagnetic brake M5 motor unit	09

Formato UNI A3

Schema elettrico servoscala rettilineo
LOGIC 2014
Straight stair lift Electrical Wiring

GRUPPO: ELECTRICAL DRAWING
DATA: 13/01/14
DISEGNATO: I.D.
SCALA: 1:1
FOGLIO: 2 di 9

extroma®

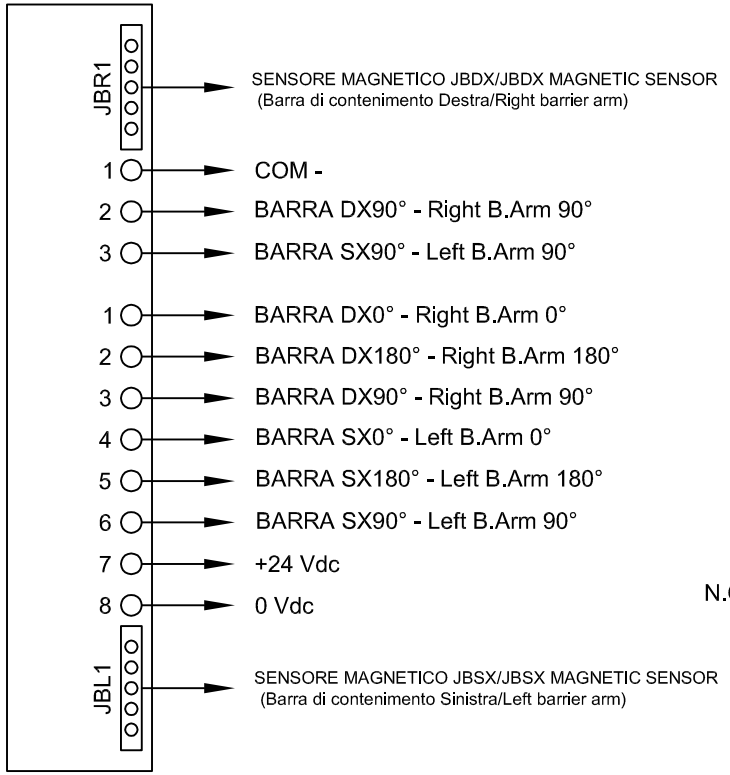
CODICE: 63F300003

Formato UNI A3

AP5 CARD

SCHEDA DI CONTROLLO SENSORI MAGNETICI BARRE

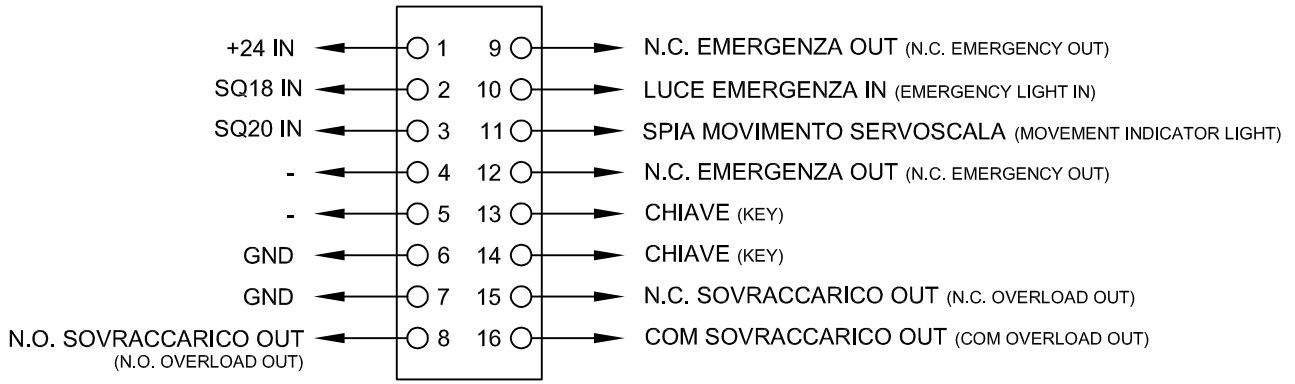
SAFETY BARRIER ARMS MAGNETIC SENSOR CARD



AP6 CARD

SCHEDA SOVRACCARICO E ALLARME A BORDO

OVERLOAD AND ON BOARD ALARM EMERGENCY CARD



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Schema elettrico servoscala rettilineo	GRUPPO ELECTRICAL DRAWING	extroma®
LOGIC 2014	DATA 13/01/14	
Straight stair lift Electrical Wiring	DISEGNATO I.D.	
	SCALA 1:1	CODICE 63F300003
	FOGLIO 3 di 9	

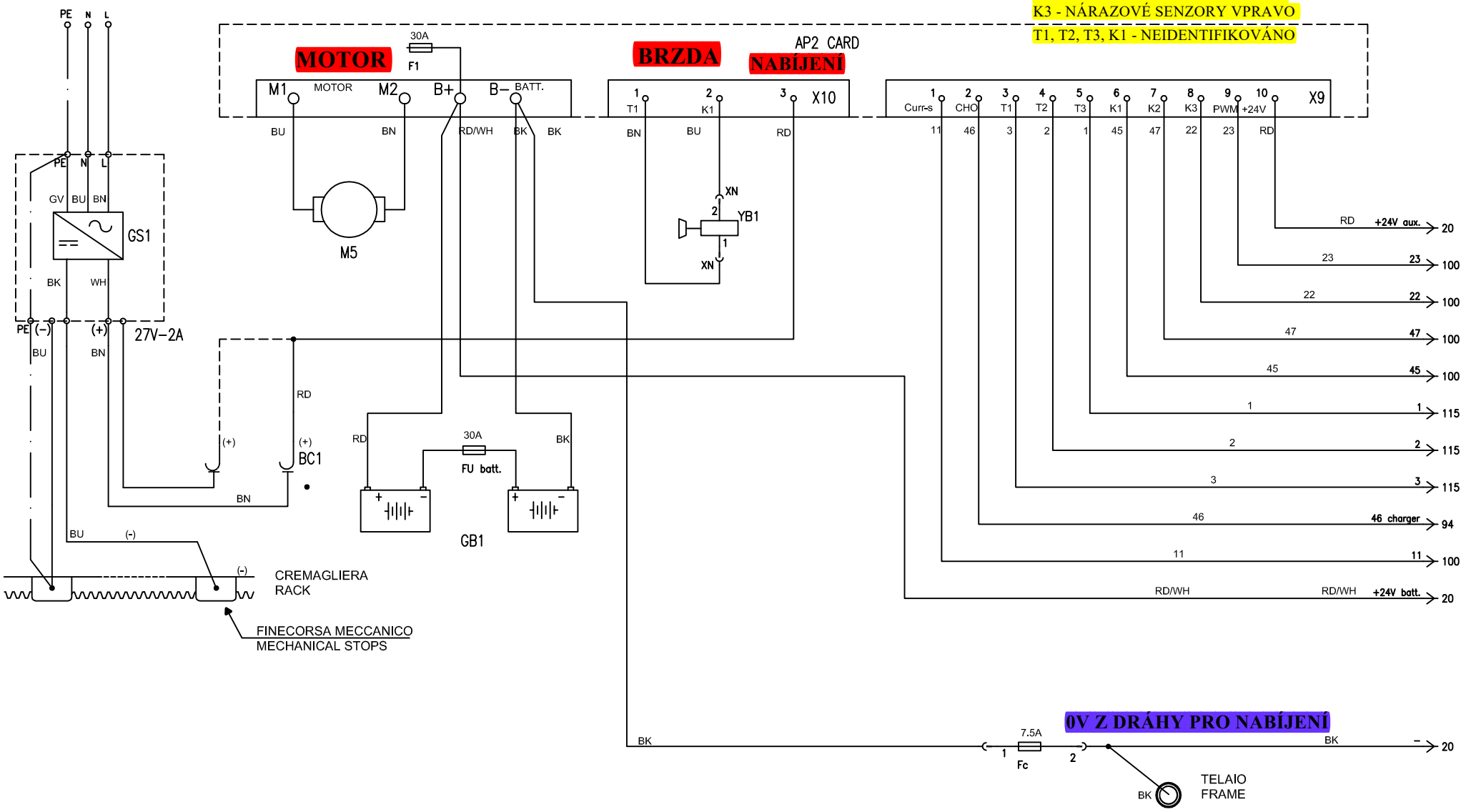
Formato UNI A3

LINEA ELETTRICA 220V
Seguire le prescrizioni indicate sul manuale di installazione

220V ELETRIC POWER LINE
Please follow the regulation reported in the installation handbook

X9/10 - AUX - NAPÁJENÍ BEZPEČNOSTNÍCH OBVODŮ
X9/2 - CHO - SIGNÁL NABÍJENÍ (CHARGER) Z AP2 DO AP1
Curr-s A PWM - NEIDENTIFIKOVÁNO

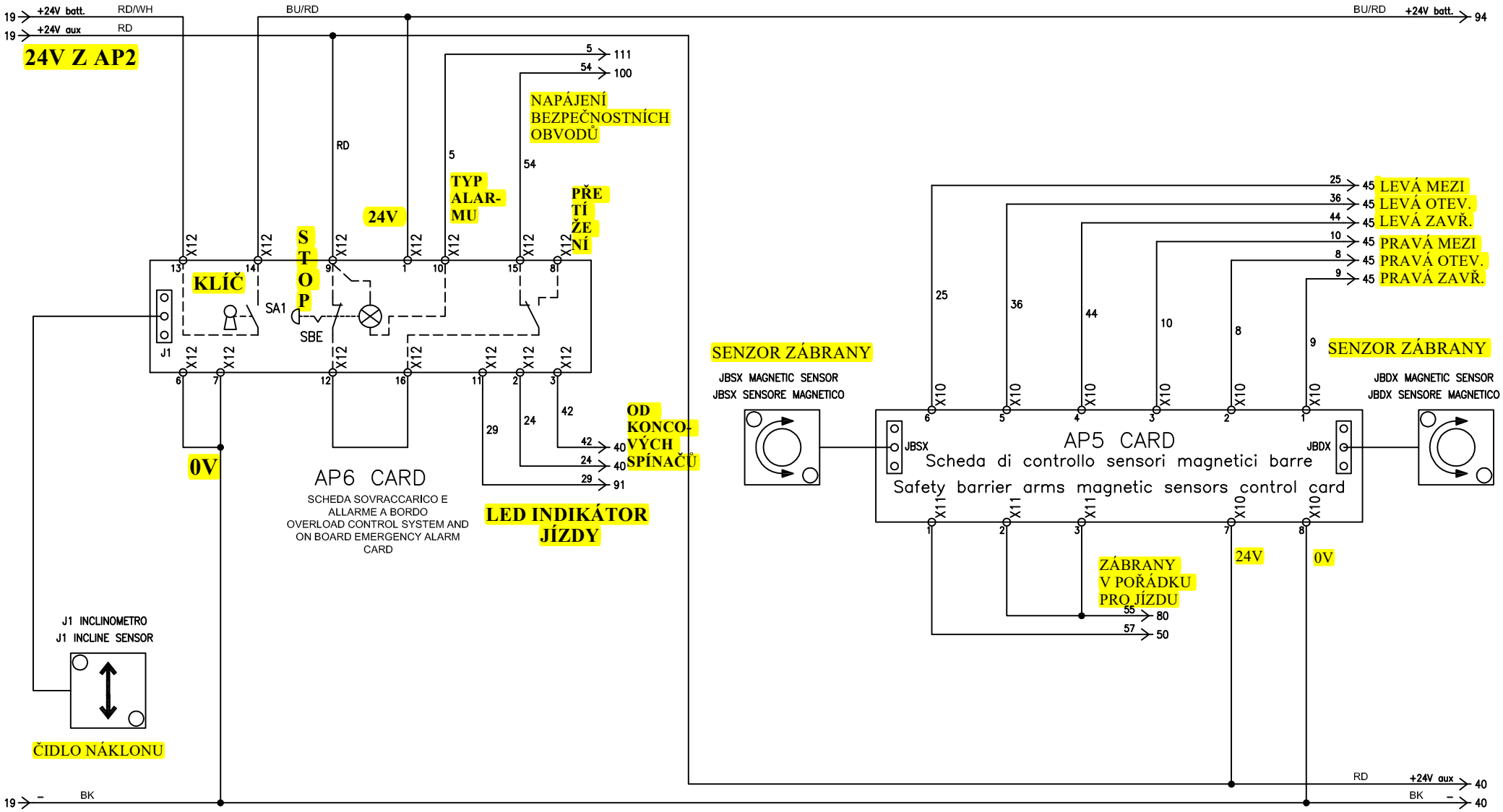
K2 - NÁRAZOVÉ SENZORY VLEVO
K3 - NÁRAZOVÉ SENZORY VPRAVO
T1, T2, T3, K1 - NEIDENTIFIKOVÁNO



Schema elettrico servoscala rettilineo	GRUPPO ELECTRICAL DRAWING	extroma®
LOGIC 2014	DATA 13/01/14	
Straight stair lift Electrical Wiring	DISEGNATO I.D.	
ZAPOJENÍ PRAVÁ STRANA	SCALA 1:1	CODICE 63F300003
	FOGLIO 4 di 9	

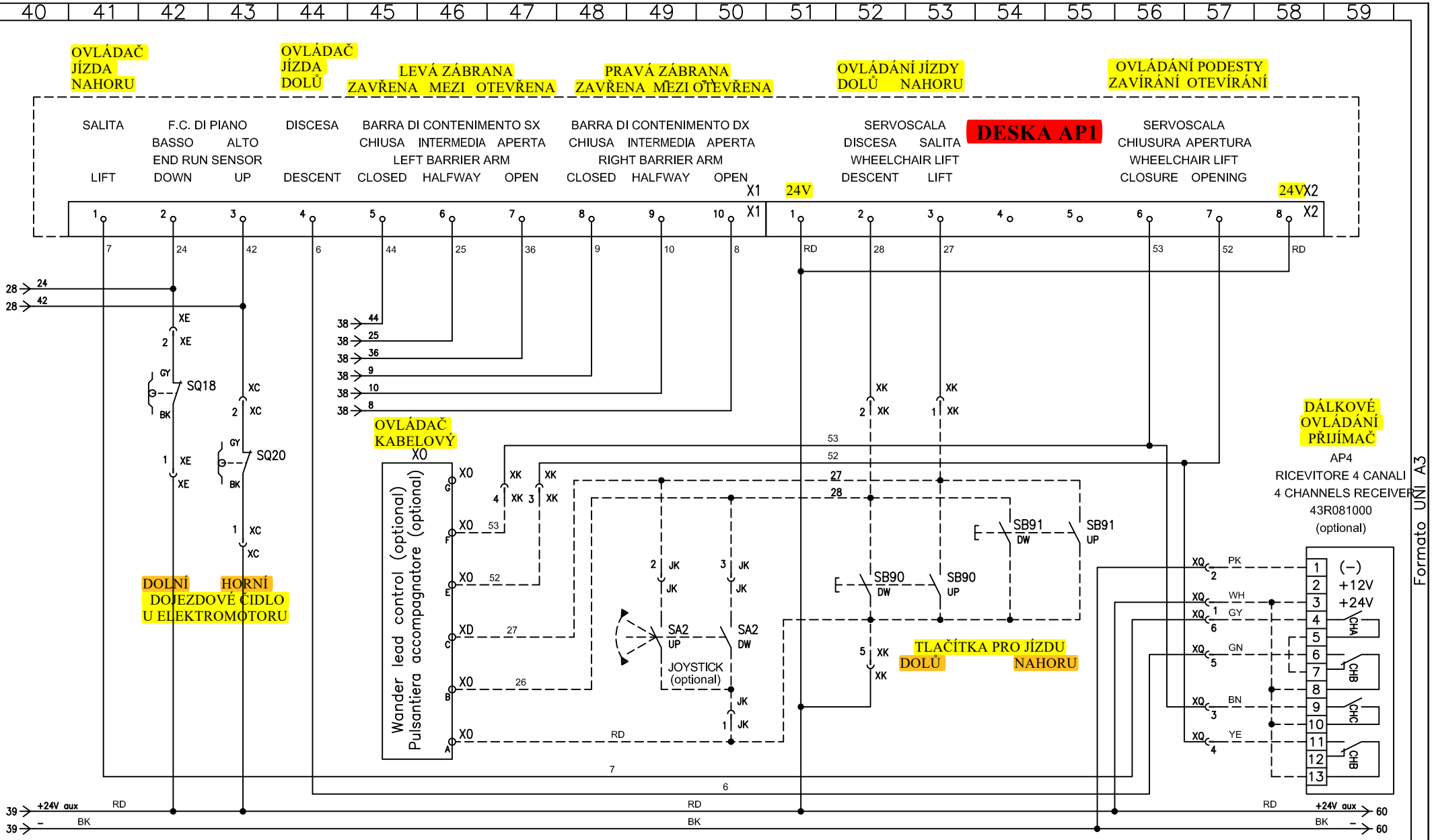
Formato UNI A3

Formato UNI A3



Schema elettrico servoscala rettilineo	GRUPPO ELECTRICAL DRAWING	extroma
LOGIC 2014	DATA 13/01/14	
Straight stair lift Electrical Wiring	DISEGNATO I.D.	
ZAPOJENÍ PRAVÁ STRANA	SCALA 1:1	CODICE 63F300003
	FOGLIO 5 di 9	

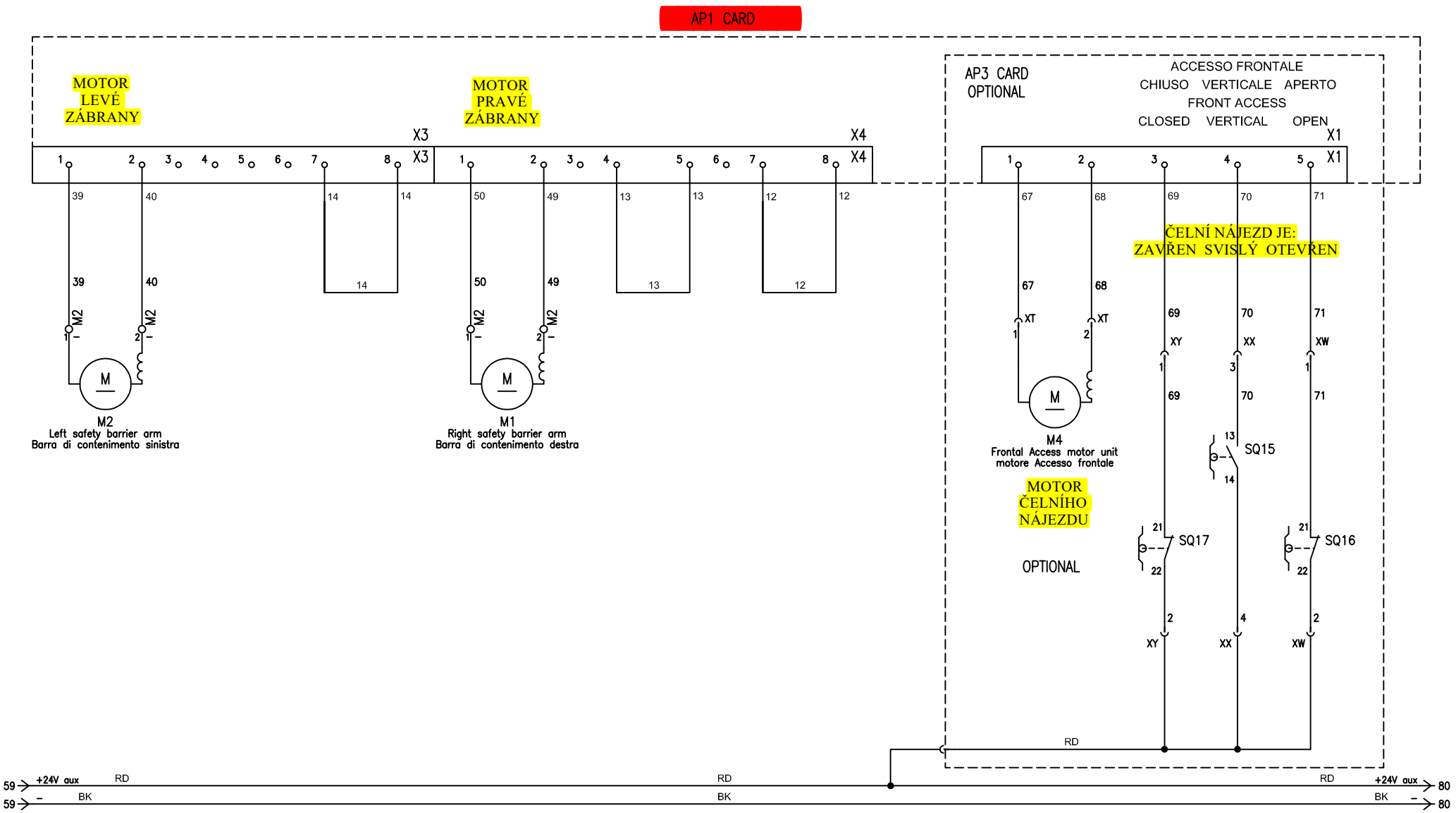
Formato UNI A3



CONFIGURAZIONE MACCHINA DESTRA
RIGHT HAND CONFIGURATION

Schema elettrico servoscala rettilineo	GRUPPO ELECTRICAL DRAWING	extroma®
LOGIC 2014	DATA 13/01/14	
Straight stair lift Electrical Wiring	DISEGNATO I.D.	
ZAPOJENÍ PRAVÁ STRANA	SCALA 1:1	CODICE 63F300003
	FOGLIO 6 di 9	

Formato UNI A3

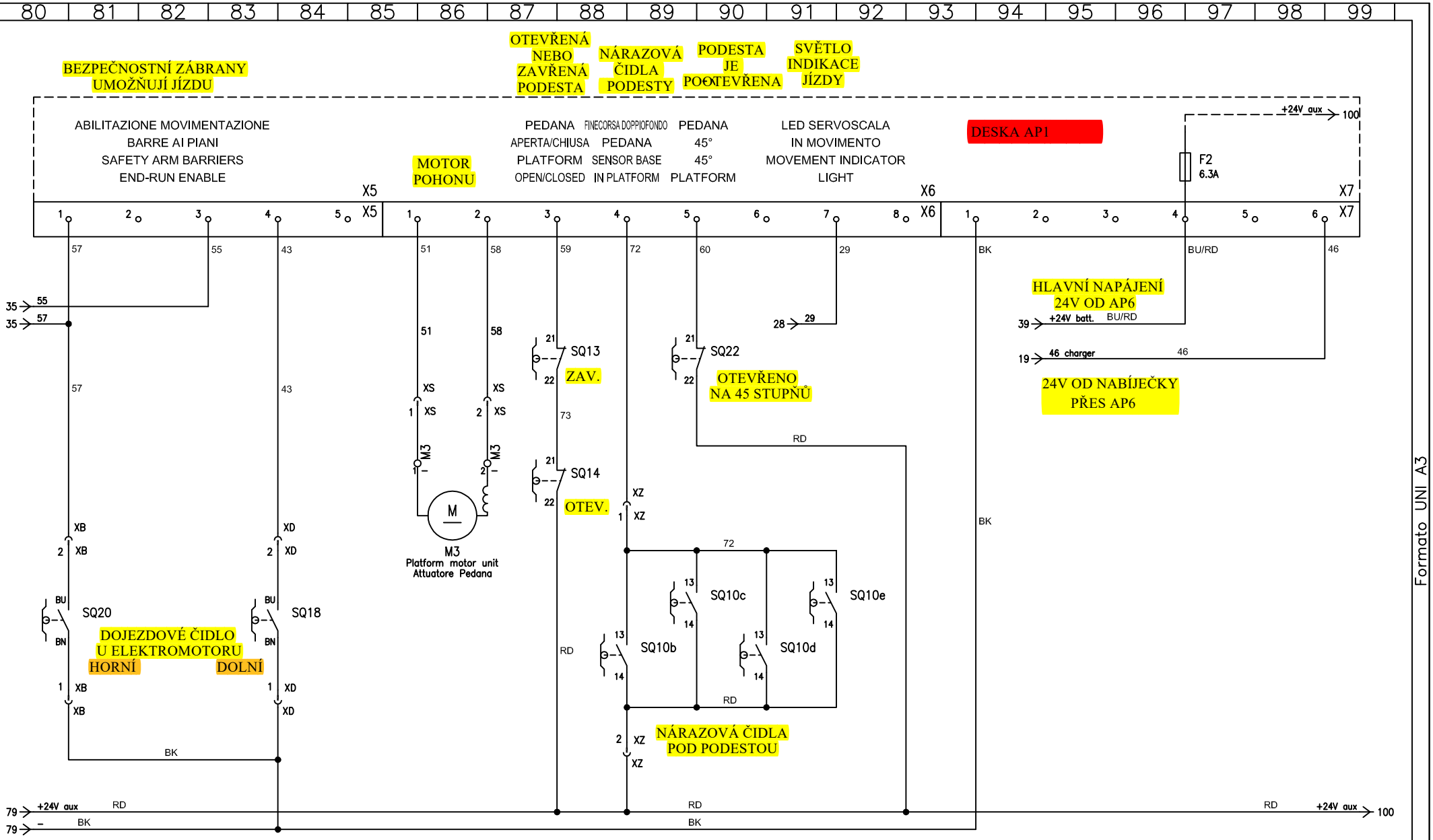


CONFIGURAZIONE MACCHINA DESTRA
RIGHT HAND CONFIGURATION

Schema elettrico servoscala rettilineo	GRUPPO ELECTRICAL DRAWING	extroma®	
LOGIC 2014	DATA 13/01/14		
Straight stair lift Electrical Wiring	DISEGNATO I.D.		
ZAPOJENÍ PRAVÁ STRANA	SCALA 1:1	CODICE 63F300003	
	FOGLIO 7 di 9		

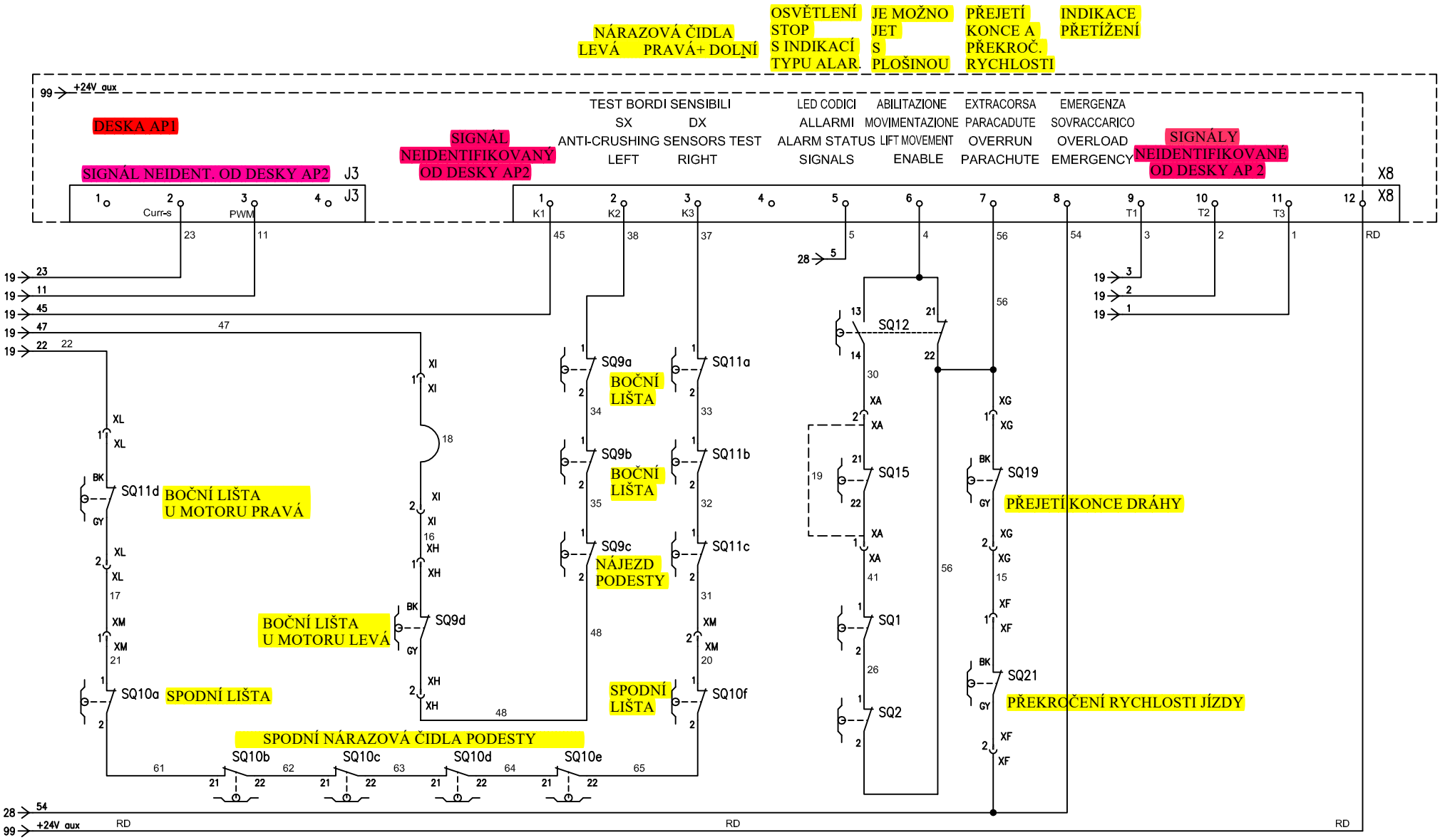
Formato UNI A3

Formato UNI A3



Schema elettrico servoscala rettilineo	GRUPPO ELECTRICAL DRAWING	extroma
LOGIC 2014	DATA 13/01/14	
Straight stair lift Electrical Wiring	DISEGNATO I.D.	
ZAPOJENÍ PRAVÁ STRANA	SCALA 1:1	CODICE 63F300003
	FOGLIO 8 di 9	

Formato UNI A3



CONFIGURAZIONE MACCHINA DESTRA
RIGHT HAND CONFIGURATION

Schema elettrico servoscala rettilineo
LOGIC 2014
Straight stair lift Electrical Wiring
ZAPOJENÍ PRAVÁ STRANA

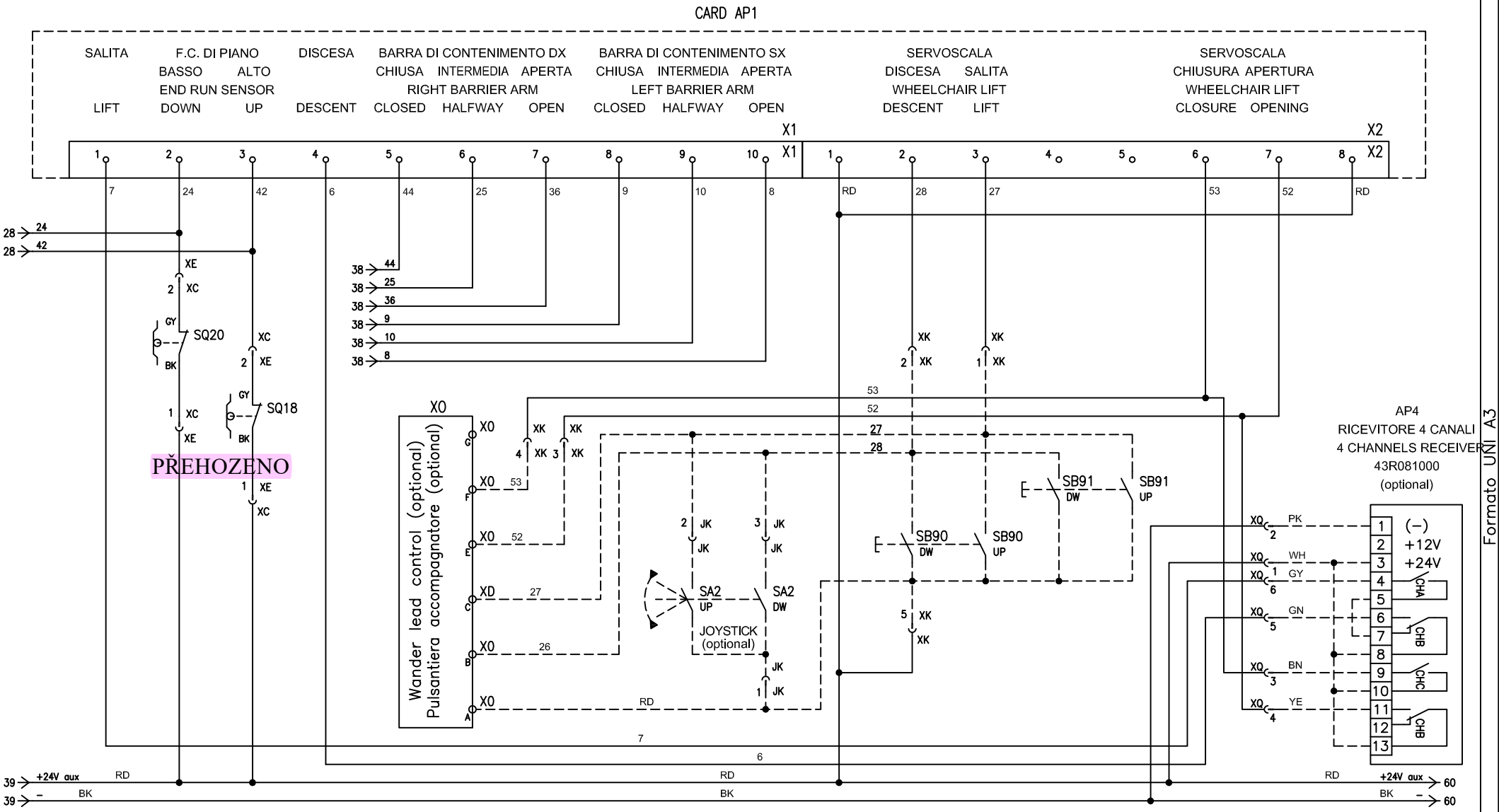
GRUPPO ELECTRICAL DRAWING
DATA 13/01/14
DISEGNATO I.D.
SCALA 1:1
FOGLIO 9 di 9

extroma

CODICE 63F300003

Formato UNI A3

Formato UNI A3

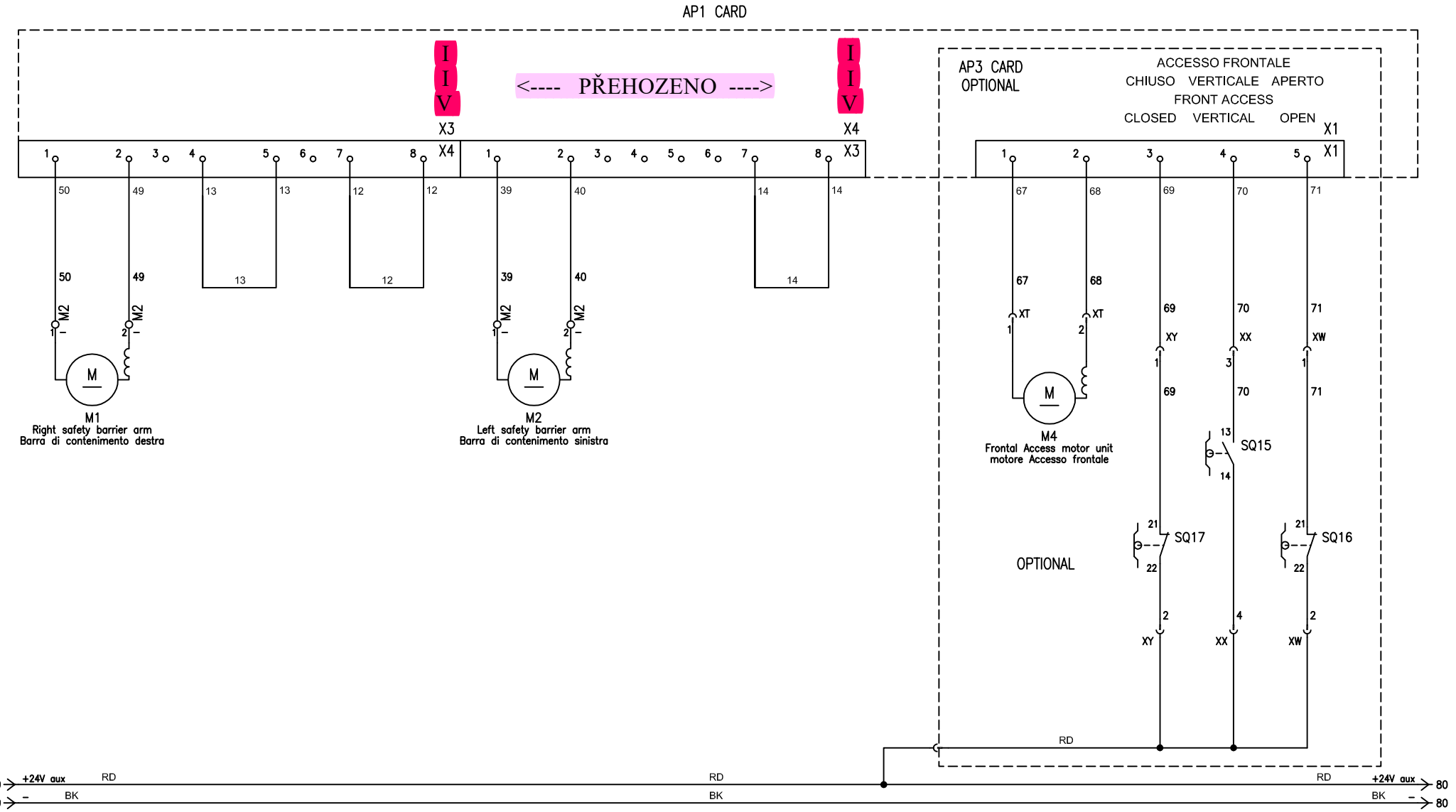


CONFIGURAZIONE MACCHINA SINISTRA
LEFT HAND CONFIGURATION

Schema elettrico servoscala rettilineo	GRUPPO ELECTRICAL DRAWING	extroma®	
LOGIC 2014	DATA 13/01/14		
Straight stair lift Electrical Wiring	DISEGNATO I.D.		
ZAPOJENÍ LEVÁ STRANA	SCALA 1:1	CODICE 63F300003	
	FOGLIO 6 di 9		

Formato UNI A3

Formato UNI A3

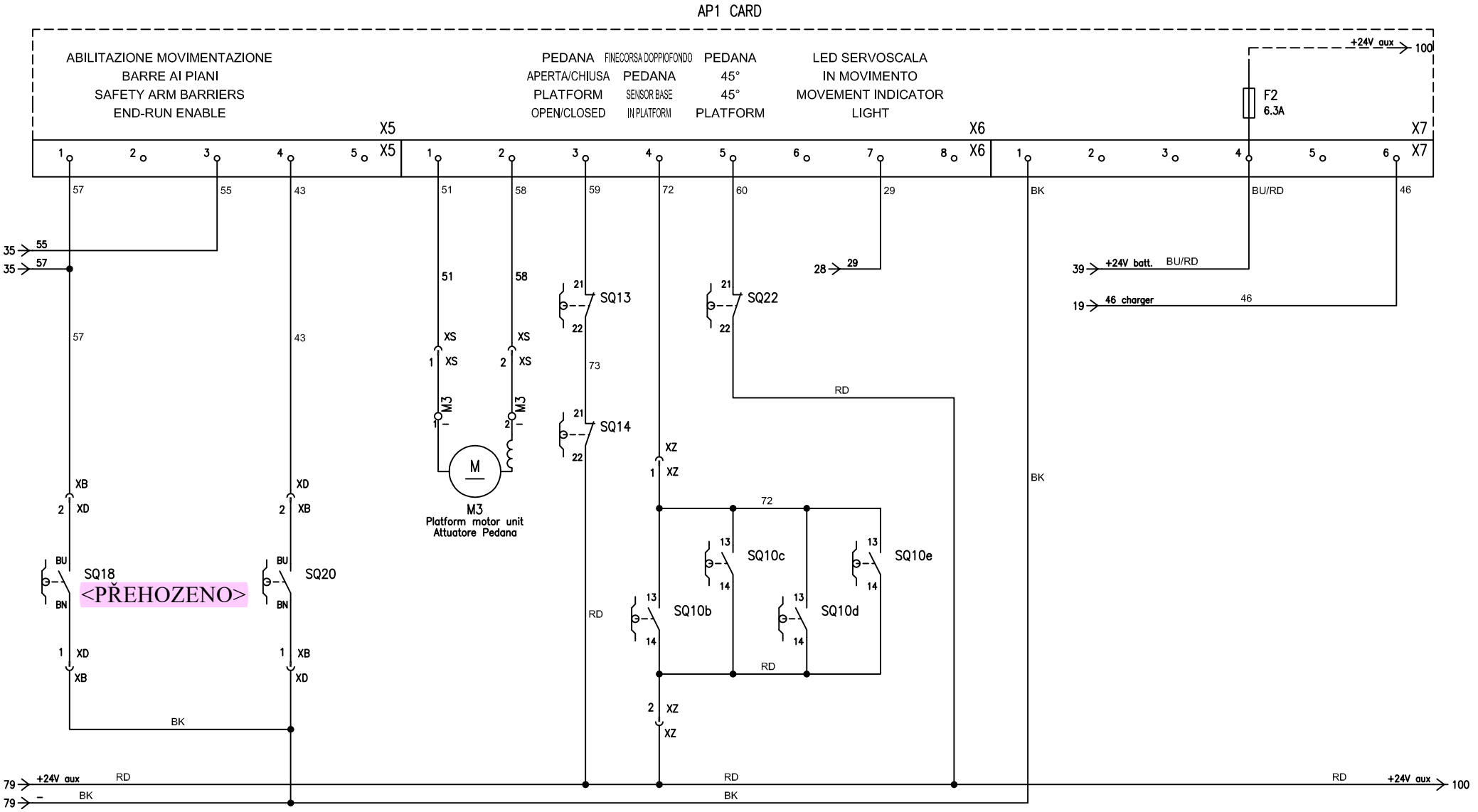


CONFIGURAZIONE MACCHINA SINISTRA
LEFT HAND CONFIGURATION

Schema elettrico servoscala rettilineo	GRUPPO ELECTRICAL DRAWING	extroma®	
LOGIC 2014	DATA 13/01/14		
Straight stair lift Electrical Wiring	DISEGNATO I.D.		
ZAPOJENÍ LEVÁ STRANA	SCALA 1:1	CODICE 63F300003	
	FOGLIO 7 di 9		

Formato UNI A3

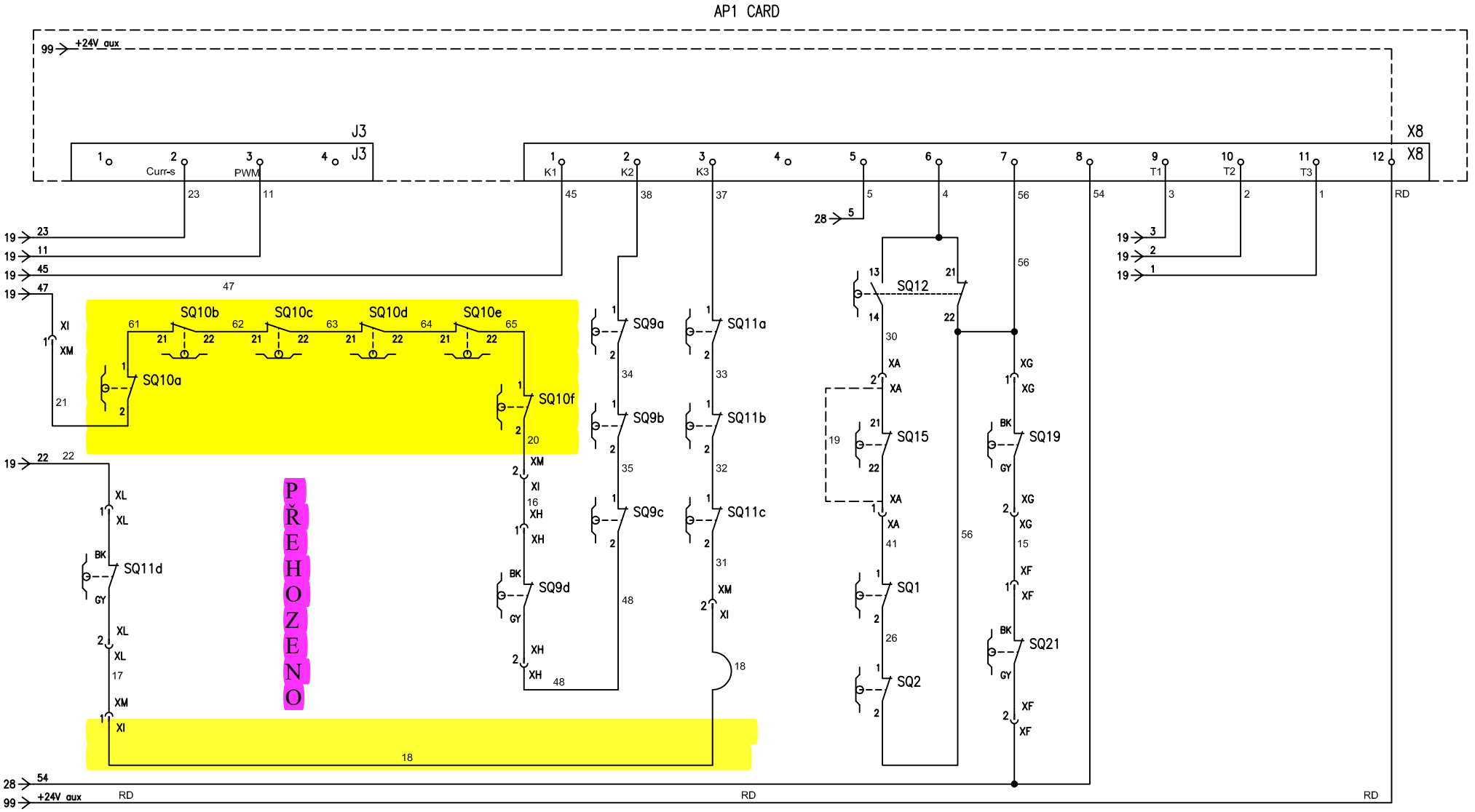
Formato UNI A3



Schema elettrico servoscala rettilineo	GRUPPO ELECTRICAL DRAWING	extroma®	
LOGIC 2014	DATA 13/01/14		
Straight stair lift Electrical Wiring	DISEGNATO I.D.		
ZAPOJENÍ LEVÁ STRANA	SCALA 1:1	CODICE 63F300003	
	FOGLIO 8 di 9		

Formato UNI A3

Formato UNI A3



CONFIGURAZIONE MACCHINA SINISTRA
LEFT HAND CONFIGURATION

Schema elettrico servoscala rettilineo	GRUPPO ELECTRICAL DRAWING	extroma®
LOGIC 2014	DATA 13/01/14	
Straight stair lift Electrical Wiring	DISEGNATO I.D.	
ZAPOJENÍ LEVÁ STRANA	SCALA 1:1	CODICE 63F300003
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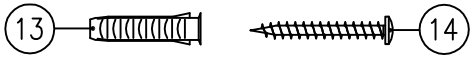
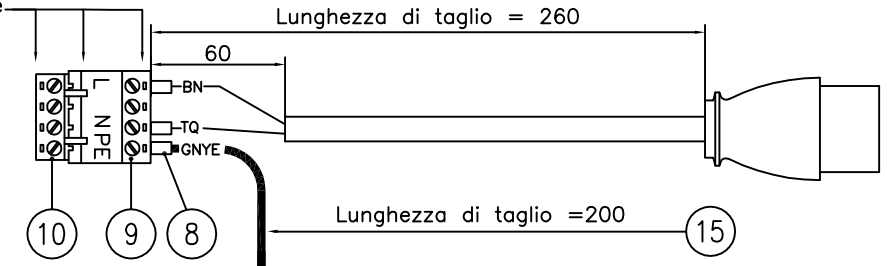
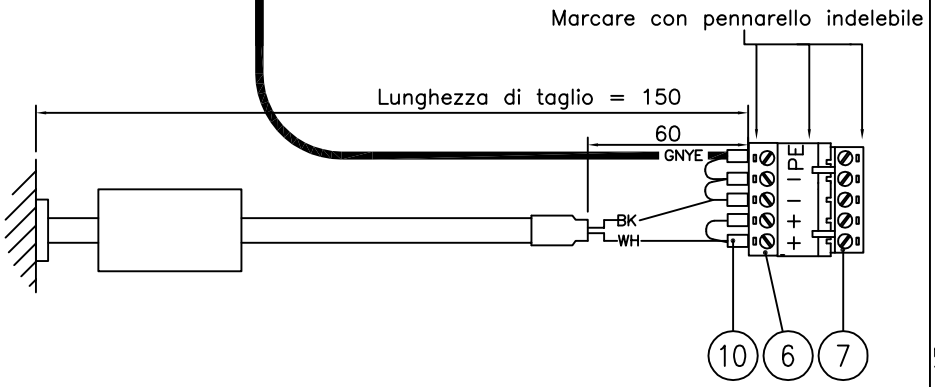
Colore	Abbreviazione
Nero	BK
Bianco	WH
Marrone	BN
Turchese	TQ
Giallo/Verde	GNYE

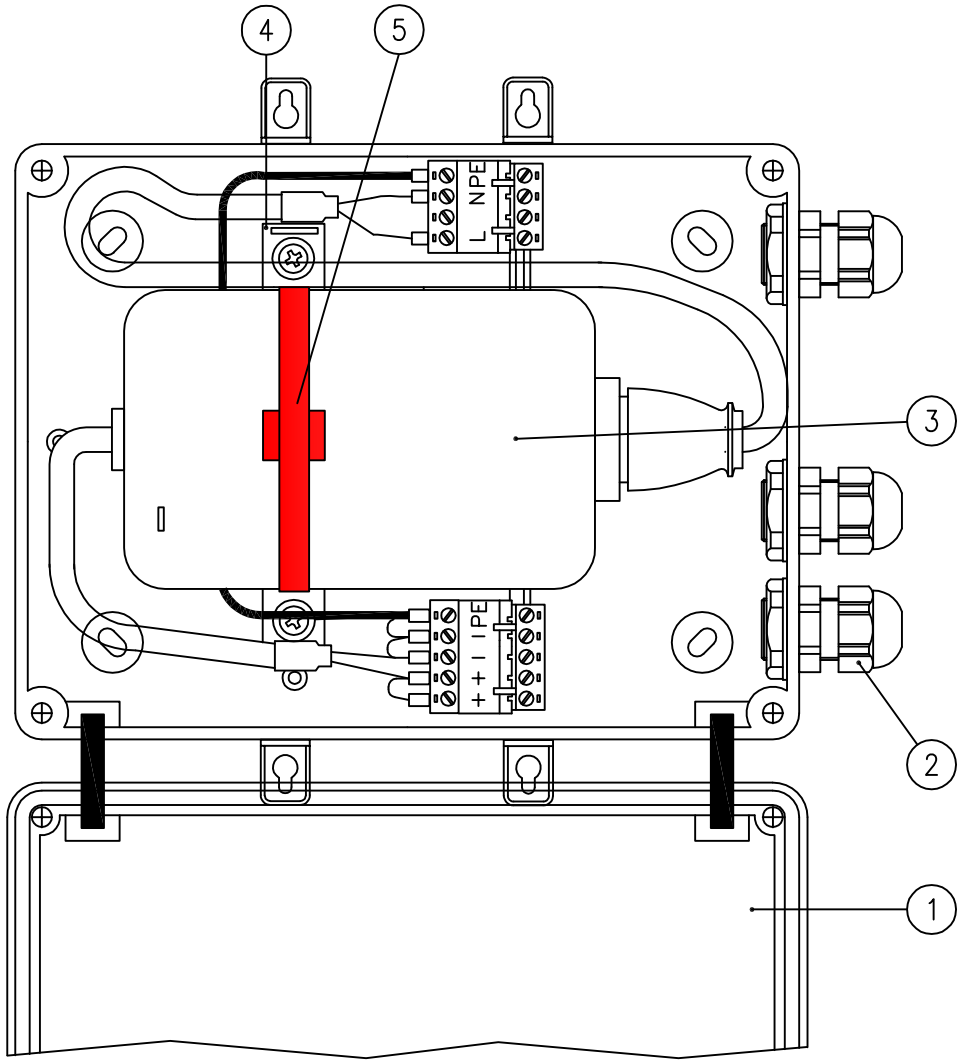
Fissare le staffe alla scatola come in figura sotto



Consegnare in busta la quantità indicata in tabella







	a	Tolto spina di alimentazione + staffe di fissaggio installate C.M. 07/06/13 Ilario DeBiasi	
15	0.2m	Cavo unipolare giallo–verde sezione 2.5mmq	
14	4	Vite AF 3.5 x 25.4 UNI 6954	25V120119
13	4	Tassello Fischer S 5	25T030510
12	4	Vite AF 3,9x9,5 AB UNI 6954 INOX	25V120124
11	4	Staffa di fissaggio Bocchiotti 04861	
10	8	Capocorda a puntalino	
9	1	Connettore Phoenix MSTB 2,5/ 4–ST–5,08	
8	1	Connettore Phoenix IC 2,5/ 4–ST–5,08	
7	1	Conn. Phoenix MSTB 2,5/ 5–ST–5,08	
6	1	Conn. Phoenix IC 2,5/ 5–ST–5,08	
5	1	Fascetta per fissaggio elettrico	
4	2	Placchette avvitate per fissaggio fascetta caricabatteria	
3	1	Caricabatterie SONEIL 2403SR	23C080001
2	3	Pressacavo PG9 con ghiera	
1	1	Scatola Bocchiotti 04844	
Pos.	N.Pz	Descrizione	Codice

Caricabatteria Logic
con negativo collegato a terra

Italiano

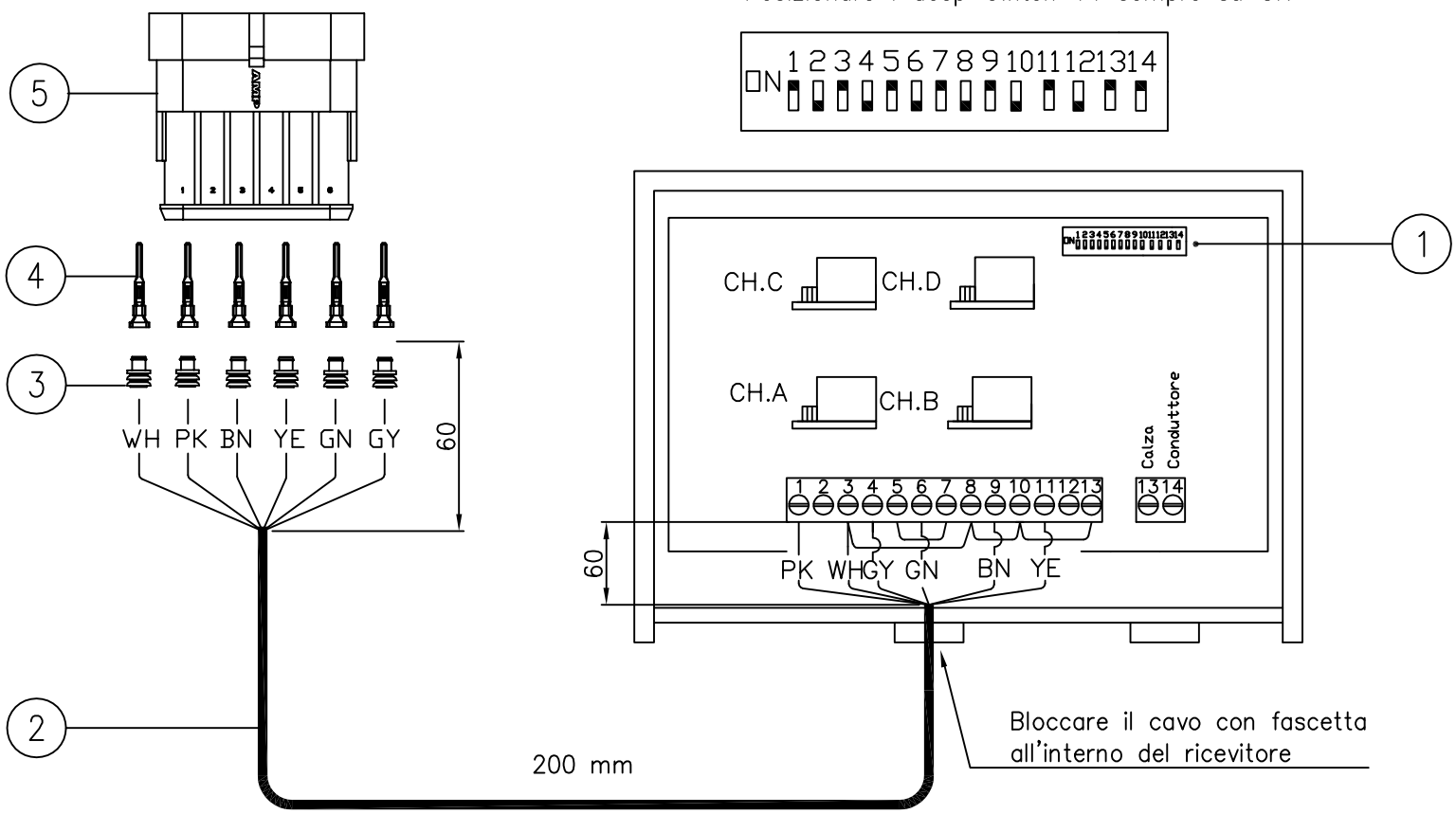
GRUPPO Imp.Elettrico
DATA 20/03/10
DISEGNATO M.I:
SCALA
FOGLIO 1 di 1

extroma®

CODICE 43C080001/a

Formato UNI A3

Formato UNI A3



CODICE COLORAZIONE CAVI
SECONDO IEC757

Colore	Abbreviazione
Rosa	PK
Marrone	BN
Giallo	YE
Verde	GN
Grigio	GY
Bianco	WH

N.B.: consegnare in busta con l'antenna, ma eliminare il supporto

POS.	N.Pz	DESCRIZIONE	Codice
5	1	Connettore AMP 282108-1	
4	6	Contatto machio AMP 183024-1	
3	6	Gommino AMP 281934-4	
2	1	Cavo Fror 6x0.50 colorato -lunghezza = 200mm	23C400032
1	1	Ricevitore Extrema REQ438 4 canali	23R081001

Ricevitore 4 canali cablato Logic

GRUPPO Imp.Elettrico
DATA 26/10/09
DISEGNATO M. I.
SCALA
FOGLIO 1 di 1

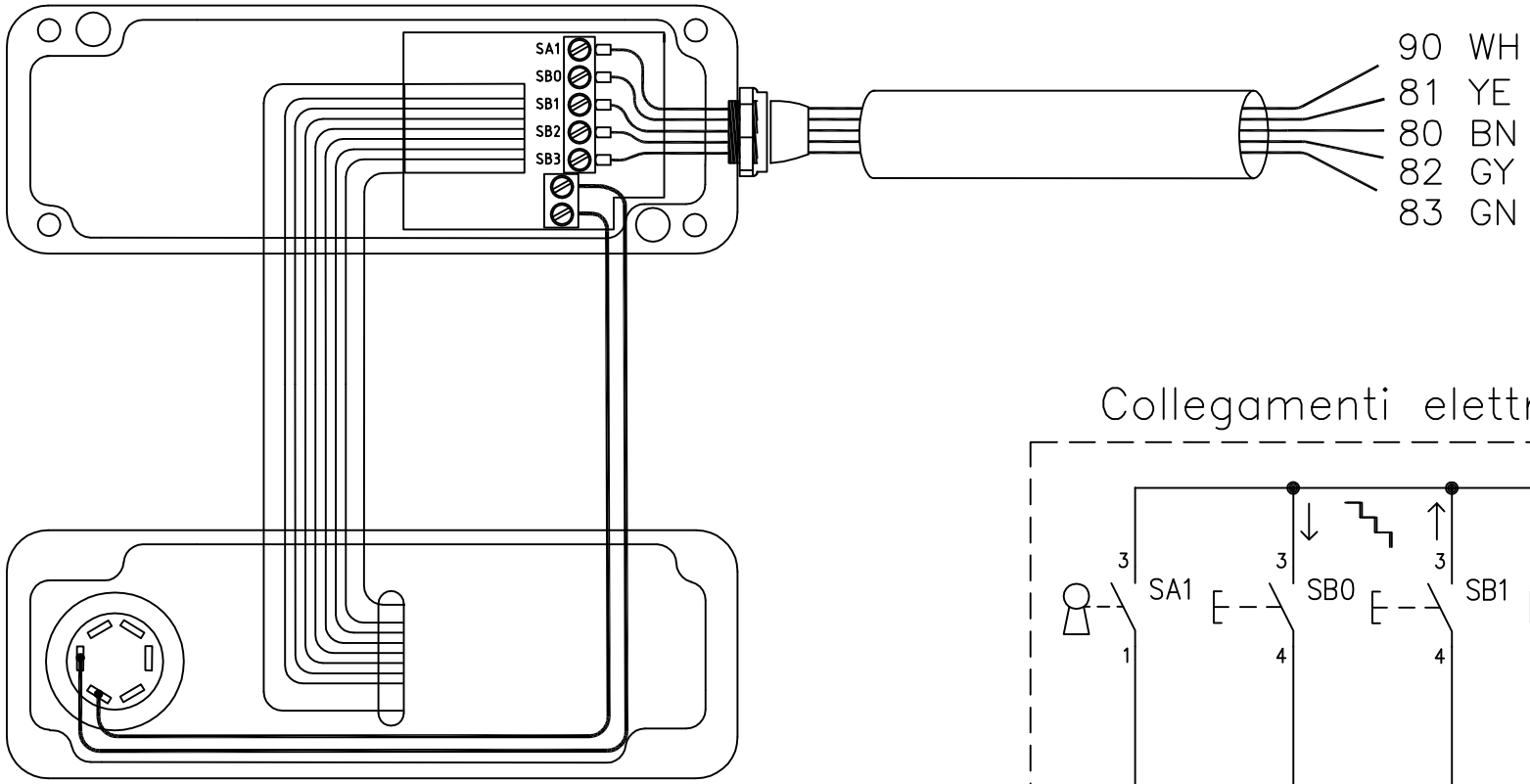
extrema

CODICE 43R081000/a

a	Modificato disposizione deep switch	C.M.	13/04/10 Stefano L.

Formato UNI A3

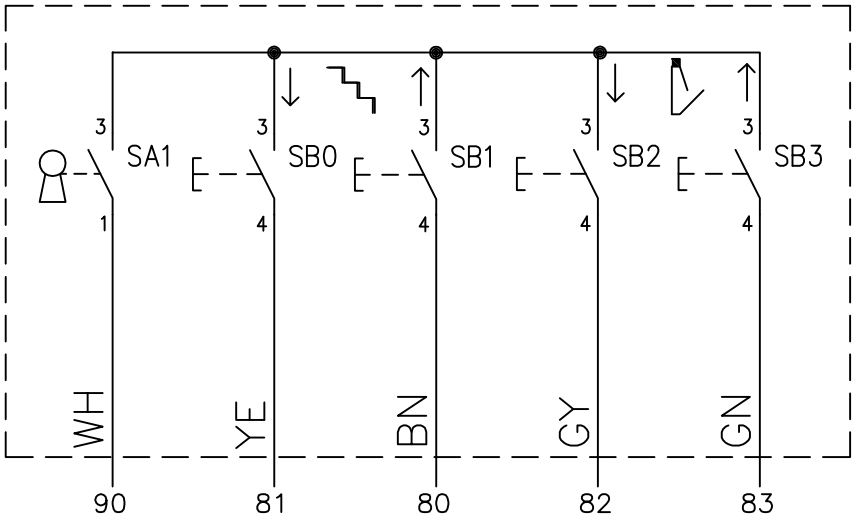
Formato UNI A3



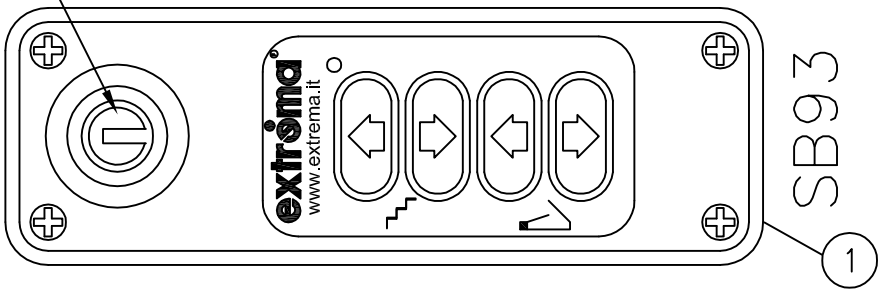
CODICE COLORAZIONE CAVI
SECONDO IEC757

Colore	Abbreviazione
Marrone	BN
Giallo	YE
Bianco	WH
Grigio	GY
Verde	GN

Collegamenti elettrici interni



Key Switch / Interruttore a chiave (2)



ATTENZIONE:
Terminali e tasselli non assemblati
Introdurre nell'imballo la stampa del foglio

Pos.	N.Pz	Descrizione	Codice
2	1	Interruttore a chiave Lorlin WRL-5-M-S-2	231071004
1	1	Pulsantiera di piano	43P370213

Pulsantiera Slim collegamento a cavo
4 pulsanti

GRUPPO Imp.Elettrico
DATA 20/03/14
DISEGNATO P.S.
SCALA 1:1
FOGLIO 1 di 1

extroma®

CODICE 43P370213

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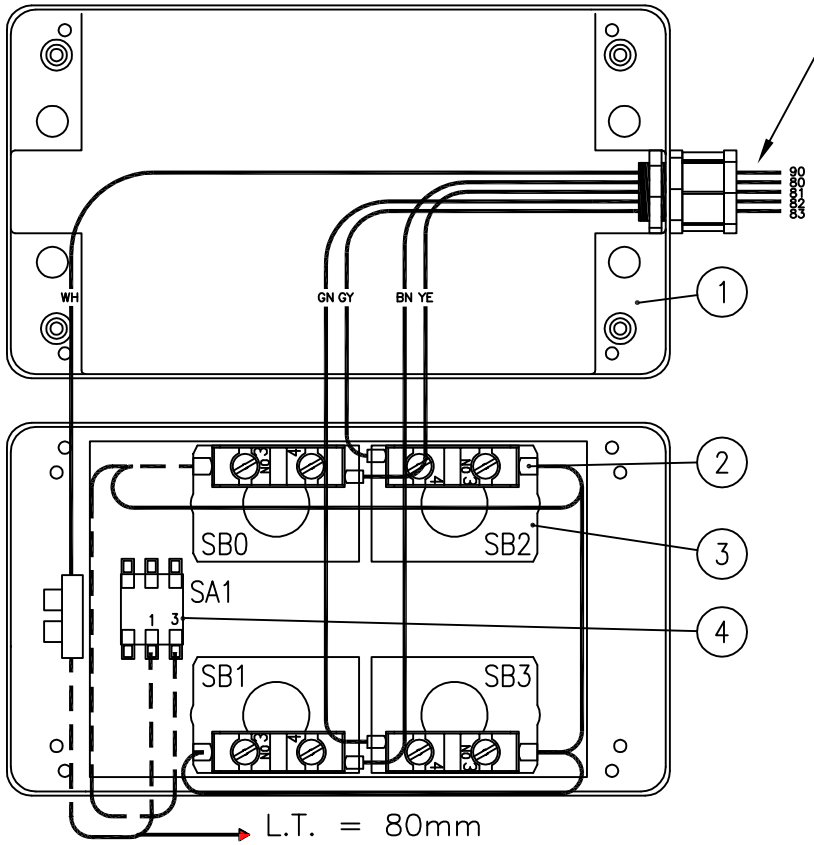
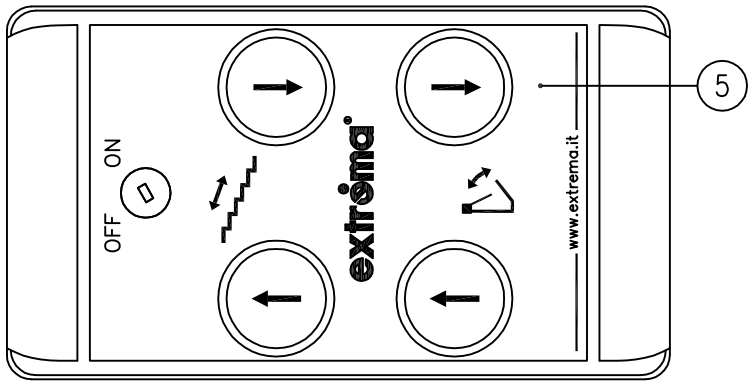
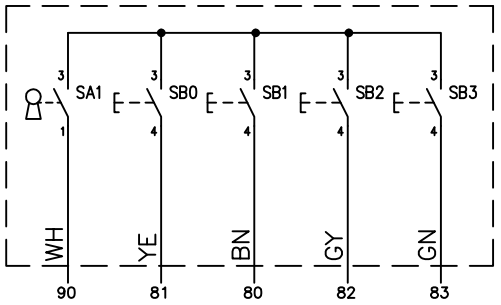
ATTENZIONE: non forare la scatola



Collegamenti tratteggiati, da saldare, in carico al fornitore

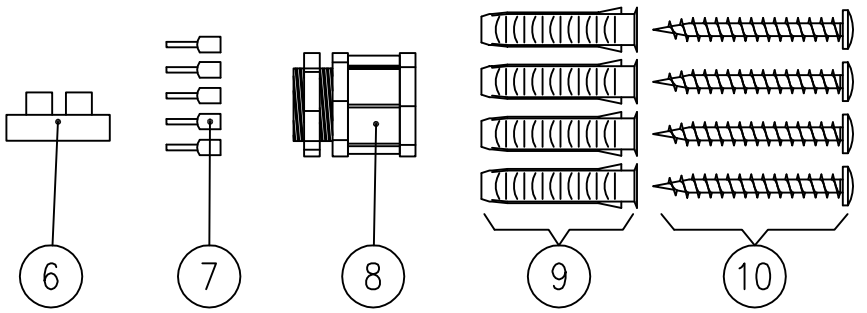


Collegamenti elettrici interni



CODICE COLORAZIONE CAVI SECONDO IEC757

Colore	Abbreviazione
Marrone	BN
Giallo	YE
Bianco	WH
Grigio	GY
Verde	GN



ATTENZIONE:
Fornire pressacavo, terminali e tasselli non assemblati
Introdurre nell'imballo la stampa del foglio

Pos.	N.Pz	Descrizione	Codice
10	4	Vite AF 3.5 x 25.4 UNI 6954	25V120119
9	4	Tassello Fischer S 5	25T030510
8	1	Pressacavo PG 9 con ghiera	23P410003
7	5	Tubetto terminale preisolato Cembre art. PKC508	23C070003
6	1	Mammut tipo B206 2.5 mmq	
5	1	Targa pulsantiera di piano Logic 4P	31T020028
4	1	Interruttore a chiave Lorlin WRL-5-M-S-2	23I071004
3	4	Pulsante Giovenzana art. PPRN5NL/F + PCW10	23P360068
2	4	Tubetto terminale preisolato Cembre art. PKC108	23C070006
1	1	Scatola OKW C6009161 per pulsantiera Logic	23S011000

Pulsantiera Slim collegamento a cavo
4 pulsanti

Italiano

GRUPPO: Imp.Elettrico
DATA: 19/10/12
DISEGNATO: I.D.
SCALA: 1:1
FOGLIO: 1 di 1

extroma®

CODICE: 43P370188

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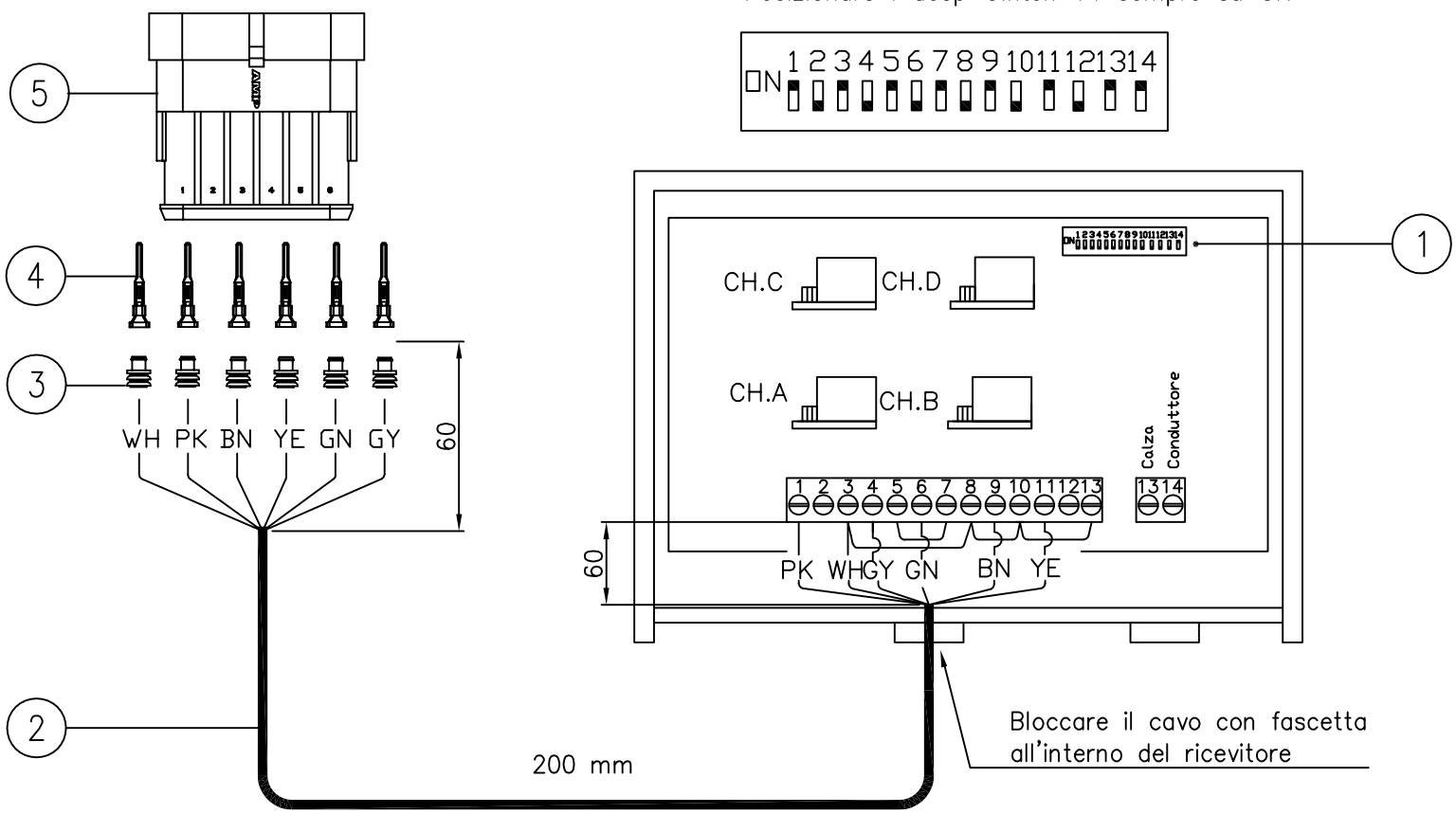

CODICE COLORAZIONE CAVI
SECONDO IEC757

Colore	Abbreviazione
Rosa	PK
Marrone	BN
Giallo	YE
Verde	GN
Grigio	GY
Bianco	WH

N.B.: consegnare in busta con l'antenna, ma eliminare il supporto

POS.	N.Pz	DESCRIZIONE	Codice
5	1	Connettore AMP 282108-1	
4	6	Contatto machio AMP 183024-1	
3	6	Gommino AMP 281934-4	
2	1	Cavo Fror 6x0.50 colorato -lunghezza = 200mm	23C400032
1	1	Ricevitore Extrema REQ438 4 canali	23R081001

Ricevitore 4 canali cablato Logic

GRUPPO Imp.Elettrico
DATA 26/10/09
DISEGNATO M. I.
SCALA
FOGLIO 1 di 1

extrema

CODICE 43R081000/a

a	Modificato disposizione deep switch	C.M.	13/04/10 Stefano L.

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Timbro del rivenditore o della ditta autorizzata per l'assistenza tecnica

Stamp of retailer or authorized service agent

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web: http://www.extrema.it - mail: info@extrema.it
C.F. e P.Iva: 01909470203 - Cap. Soc. € 100.000 i.v. - Reg. Imp. MN 2611/2000 REA 207977 M. MN019405
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