

SIRIO elevator characteristics

Elevator in masonry space SIRIO
Elevator with self-supporting aluminium structure SIRIO/A
Elevator with self-supporting steel structure SIRIO/B

Elevator for disabled European Machine Directive 98/37

persons complying with: European Electromagnetic Compatibility Directive 89/336

Disabled vertical elevators standard ISO 9386-1 Disabled vertical elevators standard TUV 103-A

Italian Ministry Decree DM 89/236

Electric system complying with standards EN 60204

Capacity 300 daN max (footboard over 1400 up to 1600 depth capacity 250 daN)

Travel up to max. 19.5 metres

Intermediate stops max 5 for SemiSoftStart system – 3 max for On-off system

Speed m/sec. 0.15 STD (0.12 over 12.5 metres); 0.10 m/sec for On-off version

Feed 230 V 50 Hz – 1.1 / 1.5 kW (1.8 kW over 12.5 metres)

Connections and slides standard connections with fixing profile to be walled (optional:

mechanical small blocks, vertical I-iron, self-supporting steel structure with travel 19.5 m max; self-supporting aluminiuml structure with travel 12.5 m max) slides in T- profiles with external

gauge std 650 and 850 (gauge min. 500)

dimensions rail + cylinder 250 mm (330 over 12.5 metres)

Pit 80 mm. min. with platform side 1100 mm. long max.

120 mm. min. with platform side from 1100 mm. long. (if pit not feasible, access ramp is supplied on request)

Head standard 2500 mm. with wall shaft

2500 + 300 mm. with self-supporting shaft

(special heading min. 1950 with load 250 daN max)

Installation in inner and outer environment (with hydraulic and electric gearbox

positioned in a protected place); use field –10°C +60°C (for temperature under +5°C oil heating device is provided)

Floor doors right or left drummed door standard, panoramic optional

manual opening, semiautomatic lockup with skock absorber,

automatic door opening/lockup device optional

standard dimensions 2000x750 – 2000x800 – 2000x850 dimension 2000x900 optional and other on request

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Cabin min. dimension 900 width x 900 depth with roof and 2 vertical posts,

max dimension 1470 width and 1600 depth, std height 2000 std dimension 1470 w x 1000 d; 1400 x 1100; 1400 w x 1000 d;

1000 w x 1000 d; other dimensions on request with max surface 1,75 m²

rail sided vertical wall with push-buttons; on request

other vertical walls on the cabin (max. 2); antislip platform surface

Controls constant pressure, low-tension, extractible key switch enabled;

proof switches for outer installations on request

Lifting system hydraulic cylinder with weight equalizer and double chain

Safety devices mechanical: double lifting chain; mechanical brakes acting on

the rails; door locks with outside release; artificial pit

hydraulic: manual emergency descent; max pressure valve;

pressurization valve; descent speed control valve;

nonreturn valve; safety valve on cylinder;

pressure switch; hand pump kit

electric: low-tension auxiliary circuit and safety devices;

limit switch; loosening-breakage chain switch; mechanical brake microswitch; floor equalizator; electric door presence control; el. door lock control;

emergency descent on board (antiblackout); emergency stop; acoustic signal on board; emergency light; intercommunication system

prearrangement.

Presciption The customer is obliged to pro

The customer is obliged to provide a dedicated electricity supply line with conductor gauge at least 2,5 mm², protected by a differential security breaker

with rated capacity 16 A and sensitivity 0,03 A.

The building works for the laying of raceways for electrical wiring and the power supply line from the master switch to the electrical panel must be

provided by the customer

ATTENTION: the definitive connection from the electrical panel to the

electricity supply line may only be made by a qualified

electrician.

The customer is responsible for checking the resistance of the masonry which support the system and for compliance with the safety requirements and electrical system specifications contained in the relevant legislation and regulations.

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Vertical Elevator

SIRIO / A SIRIO / B

OPERATING AND MAINTENANCE INSTRUCTIONS

(€

Model SIRIO SIRIO/A SIRIO/B

Construction year 2005

Constructor Extrema srl

via dell' Industria 2

I – 46031 Bagnolo S.Vito (MN)

phone +39 0376 252443 fax +39 0376 251091

Importer

Maintenance Hub





SAFETY WARNINGS - GENERAL

These warnings are part of the product.

For a safe use and for maintenance operations we please ask you to keep to these instructions carefully. All users, operators and maintenance personnel must become familiar with, fully understand and observe this manual instructions prior to commissioning.

This product is designed for the intended use: use for other purposes must be considered improper and therefore dangerous. The manufacturer is not liable for possible dangers caused by improper, wrong or irrational uses. Children are not allowed to play or to stay around the floor doors area, they are not allowed to use the elevator unless they are accompanied by an attendant.

In case of failure or malfunctioning turn off the main switch. Any repair and maintenance intervention must be carried out by authorised and competent operators only.

Operational readiness, efficiency and service life of the machine depend on periodical maintenance works carried out by authorised and competent personnel. In particular check the correct functioning of all safety devices regularly.

Installation, repair and maintenance works must be recorded and the relative documentation must always be at operator's disposal.

Dangerous situations may occur if above mentioned indications are not observed.

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1) Compliance

To warrant the highest safety level, Sirio elevator design and installation are accomplished according to the following standards.

Machinery: European Machinery Directive 98/37

European Electromagnetic Standard 86/336

Italian Ministry Decree DM 89/236
Vertical Elevators Standard ISO 9386-1
Vertical Elevators Standard TUV 103-A
Machinery Safety Standard EN 292-1-2
Machinery Safety Standard EN 418

Machines Electric Equipment Standard EN 60204

Floor doors locks, parachute: European Lift Directive 95/16/CE

2) Characteristics

System components

Fixed parts: slide guides

guide attachments

floor doors

fixed and/or self-supporting protection frame







Rail

Rail supports

Self-supporting protection frame

Moving parts: cabin

lift cylinder



Lift cylinder



Internal view of the cabin



Control devices: hydraulic gearbox

electric board

control pushbutton panel (instrument panel)







Hydraulic gearbox Electric board Control pushbutton

Performances

Driving direction: lift/descent hydraulic control

Speed: 0.1 - 0.15 m/sec.

Maximum passengers: 1 person with wheelchair and 1 attendant

Load capacity: max. 300 daN

Cycles (by normal work): 30 operations/hour

Environmental condition: from -10°C to +60°C - max humidity 70%

Controls inside cabin: floor selection switch

emergency STOP button

key switch

Controls on floor doors: call floor pushbutton

key switch

Sirio vertical elevator functions as a lift but it is intended for the transport of disabled persons and, in case, attendants.

An hydraulic cylinder fitted with double chain sets the cabin in motion. An automatic levelling device takes the cabin back to the floor threshold in case of oil leakage from the hydraulic cylinder or of oil thermal expansion. The cabin is made up of a platform fitted with non-skid surface, a sidewall fitted with control pushbutton panel, canopy with supporting columns and a ceiling lamp. T-vertical profiles and attachments fixed on pre-walled brackets form the stout slide guide. According to the standards, constant-pressure buttons together with smooth and even masonry-liftway, already existing or obtained from special installations, avoid using other cabin walls; anyway cabin walls are available as optional. Floor doors are blocked by a special locking device that allows entry to the cabin only when the platform has reached the floor (on request open/close doors controls can be started up automatically). Call-floor pushbuttons panels, started by a key switch, are positioned close to the floor doors area.



3) Technical data

Manufacturer: Extrema srl

Via dell'industria, 2 – 46031 Bagnolo S. Vito (MN)

Tel.: +39.0376.252443 Fax: +39.0376.251091

Model: see data plate
Serial number: see data plate
Load capacity: 300 daN max

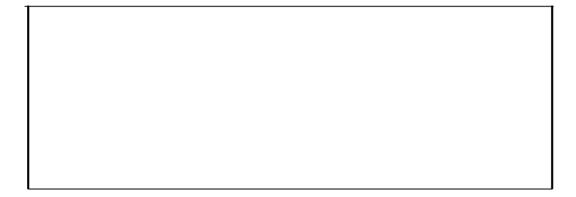
Maximum passengers: 1 person with wheelchair and 1 attendant

Speed: 0.1 or 0.15 m/sec. Working voltage: 230 V ca. 50 Hz

Control circuit voltage: 24 V cc Consumption/power: 2 KW max.

4) Technical Customer Service

Manufacturer stamp or authorised service customer stamp



5) Commissioning

After installation, checking and delivery carried out by specialised personnel, you can start the elevator by turning ON the main switch of the electric box.

If the machine does not work for long periods, turn OFF the main switch to neutralise any function.



Main switch ON-OFF position



6) Intended Use and Prohibited Use

6.1 Intended Use

INSTALLATION There are 2 possibilities of installation: indoor installation in a pre-existing liftway, or

outdoor installation using, in case, self-supporting frame. The customer is supplied with the installation project and with static and dynamic load diagrams in order to verify and

prearrange the liftway.

CAUTION Installation project prescriptions must be carefully observed to avoid

dangerous situations.

The elevator must be operated by physically and mentally qualified users. They must know the function and the maintenance instructions of the whole machine and of the different components.



CAUTION If the user is not self-sufficient, the elevator must be operated by an

attendant

6.2 Prohibited use

<u>INSTALLATION</u> Do not install in areas where floods or explosion may occur.

CAUTION If these dangers are not communicated, the manufacturer is not liable for

damages to persons, animals and objects.

USE Use of the machine by unauthorised persons

Transport of loads on the platform Overloading of the machine



CAUTION Do not insert fluids or foreign materials inside holes or fissures

Do not carry out unauthorised changes.



7) Correct Use



CAUTION

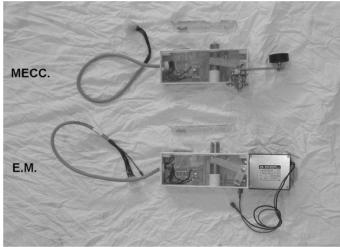
Operate this elevator according to the intended use as described at point nr. 6. This manual must always be at operator's disposal.

CONTROLS FIXED ON FLOORS

The pushbutton panel is installed close to the floor door:

- call floor constant-pressure button
 by pressing this button you can fetch the elevator from a lower or a higher floor
- ON/OFF key switch by rotating this key clockwise, the call floor function of the pushbutton is enabled.





Floor control panel

Mechanical and electromechanical lock device

<u>Mechanical locks:</u> After having enabled the control panel with the key-switch, hold down the button until the lift car arrives at the floor where it will automatically halt and release the floor door lock to permit access to the platform.

<u>Electromechanical locks:</u> After having enabled the control panel with the key-switch, hold down the button until the lift car arrives at the floor where it will automatically halt; releasing the button releases the floor door lock for about 10 sec. to permit access to the platform.

After 10 sec., the lock closes again, preventing the door from opening.

If the lift car is at the floor and access to the platform is required, to open the door press and then release the call button.

After having activated the control station with the appropriate key, keep the pushbutton pressed until the cabin reaches the required floor. Here the cabin stops automatically and the floor door locking is released to permit access to the platform.

The floor door is half-automatic (it closes automatically).

A motorised device for automatic opening of the door is available on request.



CAUTION

Keep the floor door working area free of any object or obstacle that could cause dangerous situations.



CONTROLS FIXED ON PLATFORM

The pushbutton panel is positioned on a cabin sidewall:

It consists of:

- drive pushbutton (constant-pressure)
 if kept pressed, automatically it moves the cabin from any stop to the required floor indicated on the button. While driving it must be kept pressed.
- ON/OFF key switch
 by rotating this key switch clockwise, the drive function of the push buttons is enabled.
- emergency bell switch yellow painted
 it is connected to an emergency device (optional) positioned according to user's request.
- emergency STOP button red painted

 If pressed, it brings the machine to a standstill, whatever the direction of the cabin is. When pressed, the switch remains blocked in this pushed position. To activate the elevator again, rotate the STOP-switch clockwise until it is released.

After having enabled the control panel with the key-switch, hold down the button until the lift arrives at the chosen floor, where the car will automatically halt.



Commands index for cabin control panel

Mechanical locks: the door lock is released as long as the lift car is at the floor, allowing people to leave and access the platform.

Electromechanical locks: hold down the button until the lift car arrives at the floor where it will automatically halt; releasing the button releases the floor door lock for about 10 sec. to allow people to leave the platform. After 10 sec., the lock closes again, preventing the door from opening. To open the door after the lock's normal closure time, press the destination floor button again.



CAUTION

People with wheelchairs must be positioned in such a way to permit easy access to the cabin controls. They must be kept away from non-protected areas (areas without sidewalls). Avoid accidental movements while braking the wheelchair.



CAUTION

Don't put parts of your body or objects between fixed and moving elements of the cabin.





CAUTION

Use the elevator only if there is someone, near the function area, familiar with manual emergency operations

GENERAL

During every operation of the cabin and while opening the floor door the cabin light, fitted with a timer, is activated. After 15 seconds of permanence of the cabin on the floor, the light turns off.



CAUTION

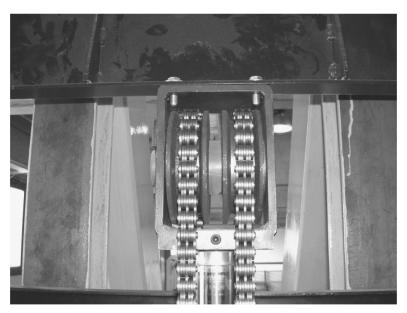
Only authorised personnel, in possession of the ON/OFF key switch can use the system. The key must be removed after every use.

8) Safety Devices

MECHANICAL SAFETY DEVICES

Structure dimensions = they are projected according to the technical standards

Double lift chain = perfect distribution of the load; safety factor: 10min. before braking



Double lifting chaine

Safety brakes for guides = they are activated by anti-breaking/loosening lift chain device.

End of stroke device= this device stops the platform travel while lifting.

Door unblock from outside = for maintenance works, doors can be opened with the appropriate

triangular key, even if the platform has not reached the required floor.







External unlocking door by emergency key



CAUTION

Danger of fall!

This operation must be carried out by authorised and qualified maintenance personnel only.

Artificial pit =

In this space, created inside the lift compartment, the service personnel can work safely because it is fitted with collapsible footrests.

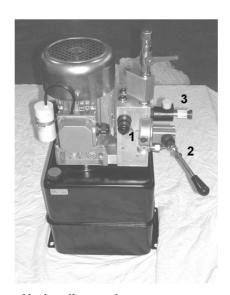


CAUTION

Danger of squashing!

Artificial pit and footrests must be used by authorised and qualified maintenance personnel only (see data plate).

HYDRAULIC SAFETY DEVICES



Hydraulic gearbox:

- 1- Pressure switch
- 2- Manual pump
- 3- Downwards electrovalve



Components dimensions = projected according to the technical standards.

Nun-return valve = positioned inside the hydraulic circuit, it warrants a perfect seal against

hydraulic fluid leakage from the pump.

Speed check valve = this valve ensures that the lowering speed does not exceed the limits

fixed by the technical norms (independently from the load).

Maximum pressure valve = it does not permit lifting movement if the cabin is overloaded. To restore

correct functioning, remove the exceeding load.

Pressure switch = it does not permit lowering movement if the cabin is overloaded. To

restore correct functioning, remove exceeding load.

Pressurization valve = if a cabin block occurs while lowering, this valve prevents any return-

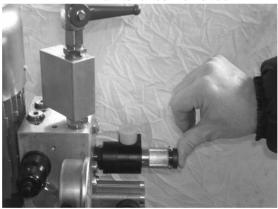
movement of the cylinder stem.

Parachute valve = it prevents the descent of the lift cylinder in case of hose braking.

Emergency descent valve= by using this valve a trained and qualified operator can activate the

lowering of the cabin from the outside and he can carry out

maintenance works too.



Emergency manual downwards



CAUTION

Danger of fall, squashing, shearing!
Before starting the emergency manual lowering control, make sure that all floor doors are closed and that the lift compartment is free of persons and objects.



Manual pump=

by using this valve a trained and qualified operator can activate the lifting of the cabin from the outside and he can carry out maintenance works too.



Manual pump upwards



CAUTION

Danger of fall, squashing, shearing! Before starting the manual pump, make sure that all floor doors are closed and that the lift compartment is free of persons and objects.

ELECTRIC SAFETY DEVICES

Components dimensions = projected according to the technical standards.

Safety and auxiliary circuit = low-tension functioning

Safety final limit micro switch= if the cabin, while lifting, overtravels the upper floor, this device brings

the system to a standstill.



CAUTION

To recover the passengers refer to the previous point "Emergency descent-valve". Only authorised and qualified technicians can put the system back in operation.

Micro switch for parachute = this micro switch brings the system to a standstill if guides safety

brakes are activated either by the speed limiting device or by anti-

breaking/loosening lift chain device.



CAUTION

Only authorised and qualified technicians can put the system back in operation.

Platform self-levelling device= this device automatically activates the levelling of the platform with the

threshold.

Cabin self-levelling device= it permits the automatic self-levelling of the cabin on the floors.

Doors closing check device= the door closing is checked before starting the cabin functioning.

Doors locking check device= it allows the cabin functioning only if the doors locking is blocked within

a pre-determined space.



Emergency light inside cabin =

light is activated automatically if a blackout occurs; it is supplied by an auxiliary battery with enough autonomy to complete the lowering of the cabin.



Emergency light on cabin control panel

Emergency STOP button =

if pressed, the emergency button remains pushed down and it immediately stops the cabin whatever its direction is. Restore the normal functions by turning the pushbutton clockwise.



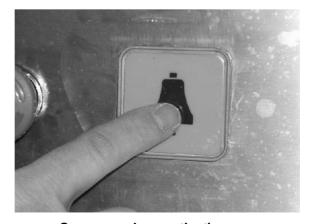
Emergency STOP button encroachment



Emergency STOP button release

Acoustic alarm =

it is connected to an alarm system (optional, according to the customer requests).



Sonorous alarm activation

Intercommunication system =

If necessary this device (optional) permits to communicate with a remote position.



9) Emergency operations

OPERATIONS ON FLOORS

Emergency operations described in the following paragraphs can be carried out by users.

Should the machine continue to travel after releasing the call floor constant-pressure button, rotate the key switch anti-clockwise reaching the OFF position.



Floor emergency manoeuvre



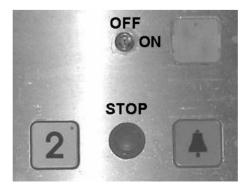
CAUTION

In this case operate immediately, otherwise the cabin continues to travel (either lifting or lowering) until safety sensors activate and bring the system to a standstill.

Only authorised technicians can put the machine back in operation. To recover possible passengers make reference to previous points. If this operation is necessary, it means there is a malfunction of the control circuit: contact immediately authorised and qualified maintenance personnel to check the machine.

OPERATIONS ON PLATFORM

Should the machine continue to travel after releasing the drive constant-pressure button, push the emergency STOP button or rotate the key switch anti-clockwise reaching the OFF position.



Platform emergency manoeuvre





CAUTION

In this case operate immediately, otherwise the cabin continues to travel (either lifting or lowering) until safety sensors activate and bring the system to a standstill.

To recover possible passengers make reference to the previous point "Emergency descent valve".

If this operation is necessary, it means there is a malfunction of the control circuit: contact immediately authorised and qualified maintenance personnel to check the machine.



CAUTION

If this operation is necessary, it means there is a malfunction of the control circuit: contact immediately authorised and qualified maintenance personnel to check the machine.

In case of a blackout, push the button of the required floor to continue the lowering travel. Light is supplied by an auxiliary battery providing, in this way, necessary visibility during operations.



CAUTION

Don't carry out this operation if the bottom side of the compartment is or might be flooded. The manufacturer is not liable for damages to persons or objects caused by the non-observance of this indication.

It is always possible, from inside the cabin, to activate an acoustic alarm by pushing the appropriate yellow button. An intercommunication system, connected with a remote position, is also available.



CAUTION

Don't use above mentioned signalling devices as ordinary communication apparatus: by using them frequently and indiscriminately, rescuers may not recognise real dangerous situations.

10) Vibrations and Noise

Users body and limbs are exposed, during a few cycles only, to limited low-frequency vibrations:

These parameters are not relevant for the safety standards.

Measured air noise: under 70 dB(A)

11) Hydraulic and Electric Schemes

Hydraulic and electric schemes concerning the machine are enclosed to the documentation supplied together with the lift.



12) Maintenance and Inspections



CAUTION

For an efficient safety level, please observe the indicated periodical maintenance and use original spare parts only.

Maintenance operations are divided into two fields of activities and competences:

MAINTENANCE OPERATIONS TO BE CARRIED OUT BY USERS

ardinary cleaning operations (use a cloth with biodegradable detergent)



CAUTION

Before starting any cleaning operation, turn off the system by rotating the main switch of the controls box in OFF position.

MONTHLY INSPECTIONS

- -- Check of the key switch by rotating the key in OFF position, the controls are out of work both, on cabin and on floors.
- -- Check of the cabin alarm pushbutton by pressing the button the alarm device turns on.
- Check of the emergency STOP button
 by pressing the button the controls are out of work both, on cabin and on floors.



CAUTION

If check operations give negative results, turn the system OFF by rotating the main switch of the controls box.

Then contact immediately maintenance technicians for service operations.

MAINTENANCE OPERATIONS TO BE CARRIED OUT BY AUTHORISED TECHNICIANS

SIX-MONTH INSPECTIONS

- Check of safety mechanical devices
 (lift chain wear, mechanical end- of-stroke, parachute activation, doors unblocking from the outside, guides and keepers stability, slide guides greasing).
- Check of hydraulic safety devices
 (maximum pressure valve, pressure switch, pressurization valve, cylinder parachute valve, emergency descent valve, manual pump, oil level check)
- -- Check of electric safety devices (safety limit micro switch, slack chain/breaking, device, parachute, doors closing, floors identification, locking block, emergency light, self-levelling, emergency STOP, on-board alarm, cabin and floor controls).



CAUTION

Before entering into internal areas of the lift compartment, turn the system OFF by rotating the main switch on control box.



13) Material Disposal

- -- There is no toxic waste material to be disposed of.
- -- Dispose of plastic and rubber spare parts, (e.g.: cables, micro switches etc.) separately for recycling according to low.
- -- Dispose of used oil and grease separately according to low.



VERTICAL ELEVATOR

SIRIO / A SIRIO / B

INSTALLATION HANDBOOK SPARE PARTS HANDBOOK

CE

Model SIRIO SIRIO/A SIRIO/B

Construction year 2005

Constructor Extrema srl

via dell' Industria 2

I – 46031 Bagnolo S.Vito (MN)

phone +39 0376 252443 fax +39 0376 251091

Importer

Maintenance Hub





GENERAL WARNINGS FOR THE SAFETY

This warnings are integral part of the product. Pay attention to the informations contained in this handbook as they give important indications about the safety for the system installation. It's necessary to keep these instructions and make them known by everyone carries out operations on the machinery.

Before proceeding to the system installation it's necessary reading this whole handbook.

Not respecting what's above can cause danger situations

General index:

- 1/ System components identification
- 2/ Slide connection and wall clamp fitting up
- 3/ Slides fitting up
- 4/ Cylinder fitting up
- 5/ Arcade fitting up
- 6/ Floor sensors fitting up
- 7/ Ribbon cable fitting up
- 8/ Footboard fitting up
- 9/ Electric panel and hydraulic gearbox fitting up
- 10/ Electric connection
- 11/ Door fitting up
- 12/ Lock kit fitting up
- 13/ Cabine fitting up
- 14/ Max pressure valve and pressure switch calibration
- 15/ Regulations and final testing



1) System components identification

- Profiles to be walled (Halfen) for keepers and complete wall connections
- Slide connection
- T-bar slides complete with connecting plates
- Floor doors, locksand and pushbutton
- Automatic doors kit (if it's scheduled)
- Lifting cylinder with cross spacer (if they're scheduled)
- Gearbox and pipeline for hydraulic connection
- Cabine electric connection command panel and ribbon cable
- Floor door electric connection sheaths assembly
- Floor sensors assembly
- Arcade to be assembled
- Platform, commands wall, columns and canopy
- Cabine walls (if they're scheduled)
- Runway protection (if it's scheduled)
- Self-supporting protection (if it's scheduled)



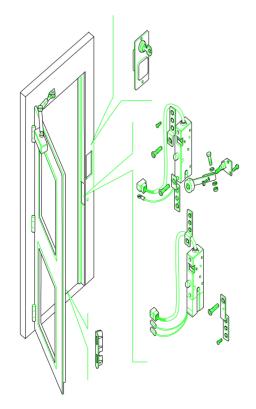




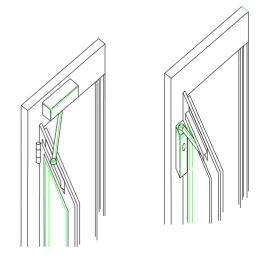
Profiles to be walled (Halfen)

Slides connection

T-bar slides + connecting plate







DITEC automatism CAME

CAME automatism







Lifting cylinder

Cross spacer and distancer



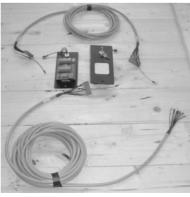
Hydraulik gearbox



Pipeline connection





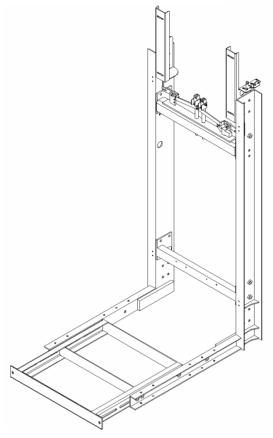


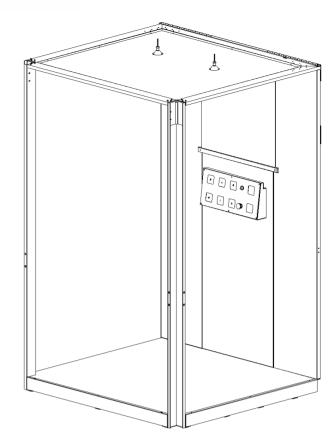
Door connection sheaths assembly



Floor sensors assembly







Arcade with assembled crosspieces

Platform, commands wall, columns and canopy

- **1.1)** For the montage the following equipmed is required:
 - Socket box wrench set from 5mmm to 30 mm
 - Cross-slotted and single-slotted screwdrivers set
 - Plumb-line set, spirit-level an flexible meter
 - Hammerdrill with twist drills from Ø 6 to Ø 22
 - Milling machine with straight-flute drills from Ø 2 to Ø 13
- **1.2)** Before installing, ensure that the floor of the pit consists of material having R min. = 250 kg/cm², with R min. = 500 kg/m² for load-bearing floors.

The customer is supplied with the installation project and with static and dynamic load diagrams in order to verify and prearrange the liftway.



CAUTION Installation project prescriptions must be carefully observed to avoid dangerous situations.

Do not install in areas where floods or explosion may occur.



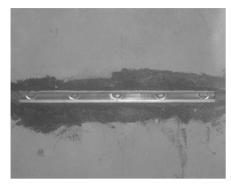
CAUTION

If these dangers are not communicated, the manufacturer is not liable for damages to persons, animals and objects.



2) Slide connection and wall clamp fitting up

Check the right position of Halfen wall clamp according to installation drawing.







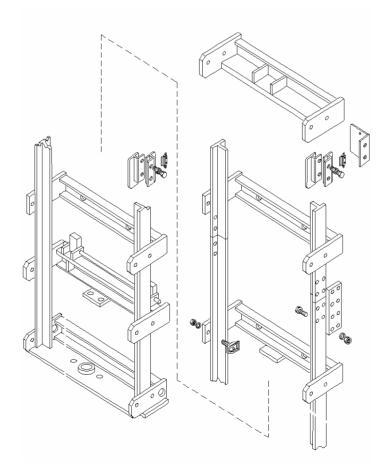
Lead fixing system

Halfen wall fixing Rails fixing

 Set up higher the connection and line up with plumb line the other connections (shim if it's necessary) before the final clamping

3) Slides fitting up

Position lower slides without tightening the appropriate clump
 CAUTION – slides have on the extremities a gain to make easy junction operations; make sure that lower slides have the gain in the upper side



Rails and connection rail installation









Leading rails installation on the rail fixing device

Rail splice

 Set up the other slide sections with the appropriate equipment plates checking their squareness before fixing definitively to the connections with the appropriate clump



WARNING: Falling hazard! Fit the rails vertical using appropriate personal protection equipment if necessary.

4) Cylinder fitting up

 Position the cylinder, if in dotation, the foot distancer that support the cylinder Cin the appropriate centering of the lower connection and fix the collar to one of the preset connections after having checked the correct vertical position



Floor crosspiece



Cylinder positioning



Hydraulic pipeline connection

- In ther same way, if on issue, proceed to positioning the appropriate spacer which the cylinder leans on, checking the correct vertical position of the whole system
- Join the feed hydraulic pipe to the cylinder bottom avoiding any folding of the hose inferior to 150 mm.
- If the cylinder is provided with a cross, after having correctly fitted up all its components, unloose the fastening screws of all the collars, withdraw the cylinder rod to the maximum extension, check the correct vertical position and fix definitively the collars









Cross spacer rudder ram



CAUTION: nor respecting the following prescriptions can cause danger situations

CYLINDER BLEEDING

Before starting the duty, it's necessary to bleed the cylinder

BLEED AT THE SAME TIME OF THE FIRST GEARBOX STARTING

Barrel bleed:

- remove the breather screw on the cylinder head
- connect to the cylinder the appropriate pipeline inserting it in a container to avoid dangerous oil shedding
- start the gearbox for short intervals watching that from the pipeline come out oil without foam
- carefully retighten the breather screw on the cylinder head
- top up oil when expected

When it's present:

Ram bleed:

- remove the breather screw on the cylinder rod
- connect to the rod the appropriate pipeline put in a container to avoid dangerous oil shedding
- start the gearbox for short intervals watching that from the pipeline come out oil without foam
- carefully retighten the breather screw on the cylinder rod
- top up oil when expected



Removing vent screw

Bleeding connection





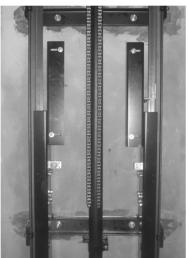
CAUTION: danger of fall! Before unloosing or removing bleed screws make sure that rod is completely reentered in the cylinder

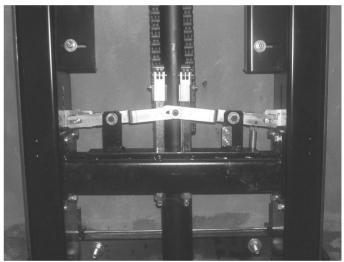
CAUTION: AFTER STARTING THE SYSTEM, IN PIPELINES AND IN THE CYLINDER THERE IS ALWAYS A MINIMUM PRESSURE OF 10 bar

5) Arcade fitting up

- The arcade is broken up in nr. 5 parts (nr. 2 forks- nr. 3 transoms); on the forks are already fitted up from factory all the devices necessary to the correct system working
- Position the left fork so that the left slide occupies the runner groove, in the same way proceed with the right fork; bolt the transoms as in scheme.





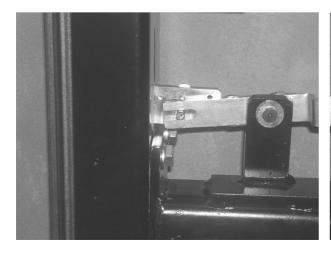


Lower platform frame

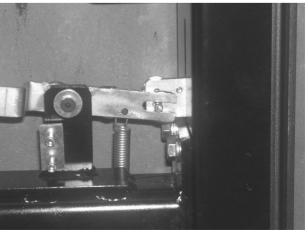
Arcade frame

Lifting arcade beam

CAUTION – for the upper transom, make coincide the pins coming out from the parachute control plates with the preset slits on the command levers.







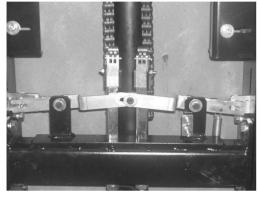
Right parachute lever





CAUTION: danger of fall! If the operation is done uncorrectly the safety device is made ineffective. Make sure of the correct working: moving downwards a lever, both the parachute controls are moved upwards

 After having connected chains with pins and split spin to the appropriate chain tighteners on the transom, withdraw the cylinder rod till stretching chains and remove spacers under chain tighteners







Lifrting arcade beam

Connection chains

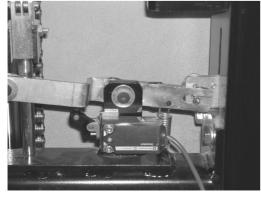
Chains tightness



CAUTION: danger of fall! If the operation is done uncorrectly the safety device is made ineffective. Make sure of the real removal of the spacers

6) Floor sensors fitting up

- Set up on the slide at about 1.7 vertical metres from the doorstep the floor sensors observing the drawing.
- Regulate after starting the system so that the real footboard stop position as for the floor treshold is between ± 10 mm







Floor and by-pass sensors



Limit switch



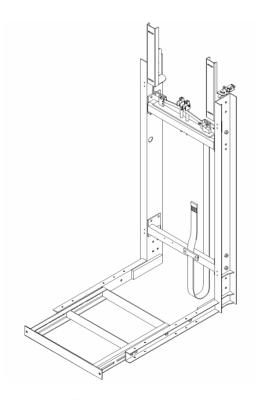


CAUTION: danger of trapping! The wrong regulation of floor sensors doesn't permit to sense correctly the ± 50 mm release area disabling the machine in an area where floor door locks are still locked

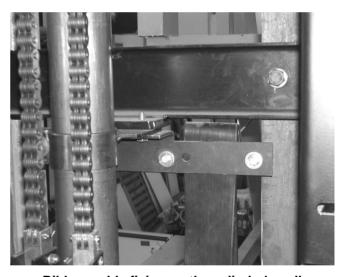
 Final regulation can be done entering to the runway frm the cabine through appropriate opening in the canopy

7) Ribbon cable fitting up

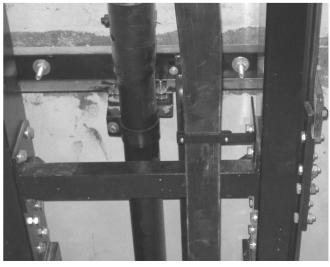
- Set up the ribbon cable on the arcade so that the extremity with the connector sticks out about 1 meter from the connection fixed on the arcade
- Block the ribbon cable on the preset connection corresponding with the cylinder clamp collar (taking care to check that its lower curve is about 100 mm from the ground) bringing back downwards the reamining part making it pass through the holes of the lower plate wings to the connection with the electric panel
- Check during the first workings the absence of impediments and entanglings between the ribbon cable moving side and the fixed structures



Ribbon cable and arcade



Ribbon cable fixing on the cylinder's collar



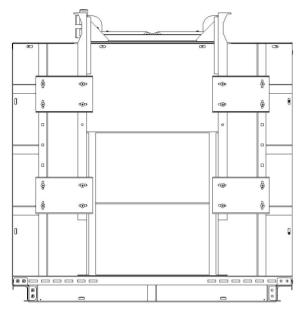
Ribbon cable fixing on the arcade

Manuale cod. L20K11000/a.doc

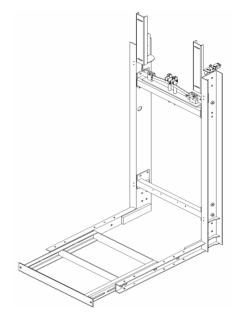


8) Footboard fitting up

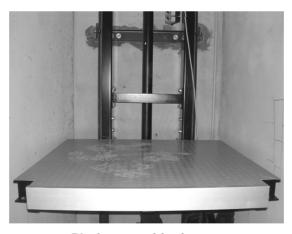
Position the footboard regulating the truing in the run space through the appropriate screws.
 Check the correct position to the whole run.



Lower platform view with plates connection



Assembling lower platform frame



Platform positioning



CAUTION: danger of fall! Make sure that clamping screws of footboard holdfast are correctly clamped



9) Electric panel and hydraulic gearbox fitting up

- Fix electric panel and gearbox in the preset positions using the material on issue
- Make electric connections of motor, solenoid valves and pressure switch with the sheaths on issue respecting the cables numeration
- Connect to the feed the electric panel using the electric line preset by the customer.
 The customer must prepare a dedicated feed line at 230 V~, with grounded neutral phase, with min. section = 2.5 mm², protected by 16 A differential magnetothermic switch with sensitivity 0.03 A

10) Electric connection

- Make electric connections between components and sheaths with reference to the wiring diagram
- The building works for the laying of raceways for electrical wiring and the power supply line from the master switch to the electrical panel must be provided by the customer

ATTENTION: the definitive connection from the electrical panel to the electricity supply line may only be made by a qualified electrician.

11) Doors fitting up

 Proceed to the walling or the clamping of the door casing respecting the run space cable and the right alignment in every direction

CAUTION – check the presence of opportune raceway for the passage of floor lock-button strip connection sheaths



Door positioning

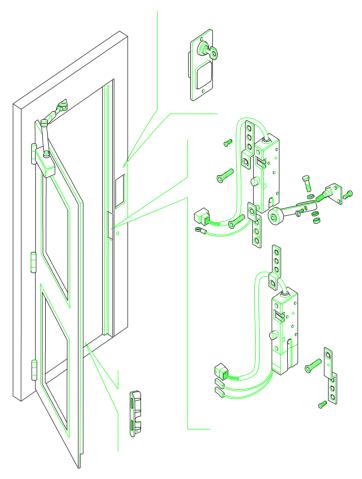


Door fixing



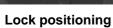
12) Lock kit fitting up

- Apply on the rightly preset casing the lock fixed with screw on issue
- Set up on the door the removable contact correctly adjusted to conform to the lock
- Install the floor push-button panel and carry out the electric connections taking care of the electric cables housing
 - CAUTION check the presence of opportune raceway for the passage of floor lock-button strip connection sheaths



Door with mechanical and electromechanical lock device







Lock fixing

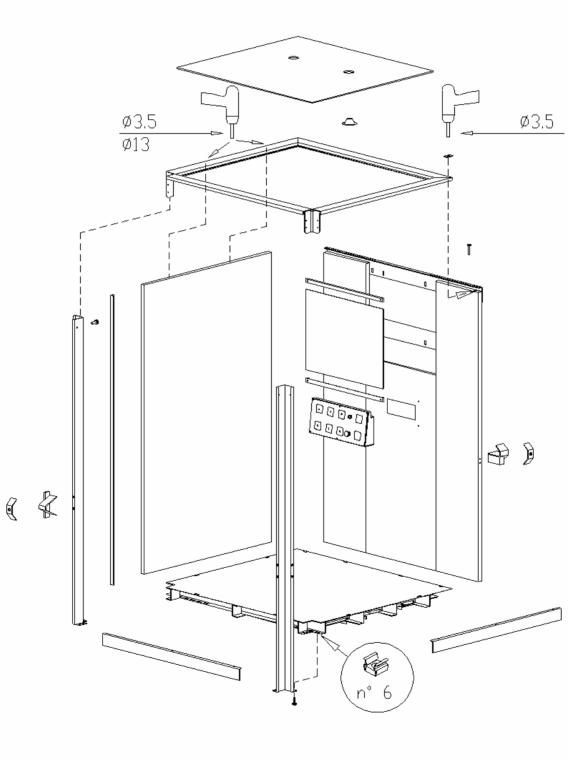


Removable contact fixing



13) Cabine fitting up

- Set up the commands wall, regulating the position on the footboard, after having connected all the electric connections
- Set up the support columns (if scheduled) on the footboard extremities opposite to the slide checking the correct position of the floor door lock command cam
- Position and fix the canopy on support columns and on the commands wall
- Position and fix the other cabine walls (if on issue)



Cabin assembling



14) Max pressure valve and pressure switch calibration

Max pressure valve

- Ballast the platform with the weight recommended on the rating in cabine checking that the machine could climb at rated speed
- Increase the ballast with about 70-100 daN, operate on the max valve adjustment to prevent the platform lifting with that load
- Remove the added weight and make sure that the platform climb at full load at rated speed

Pressure switch

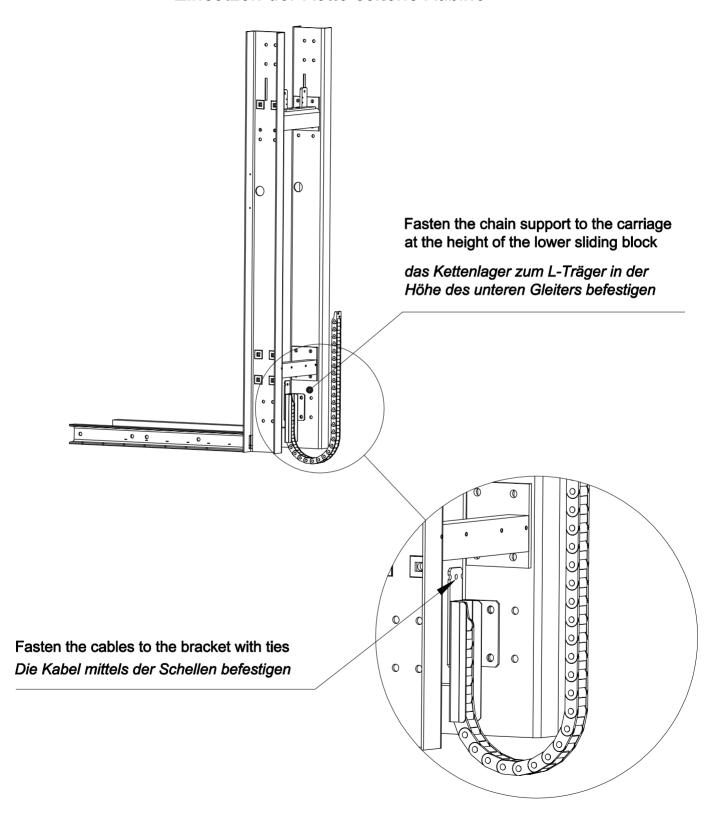
- Ballast the platform with the weight recommended on the rating in cabine and take the platform to the first floor
- Increase the ballast to about 550 daN; operate on the presure switch to inhibit the descent electric command
- Remove the added weight and make sure that the platform could descend

15) Regulations and final testing

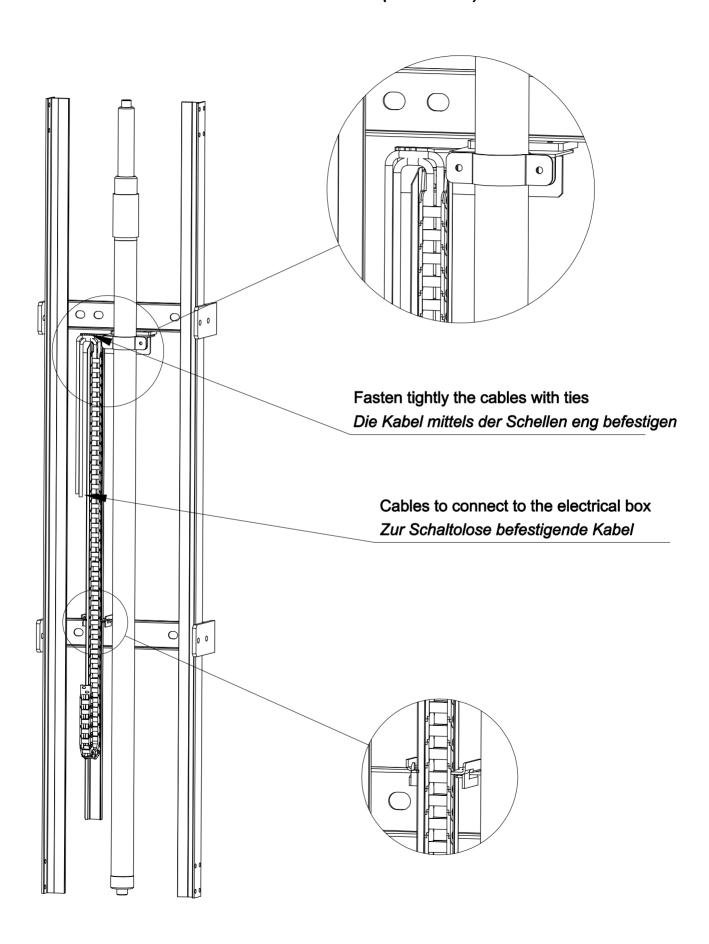
System delivery protocol

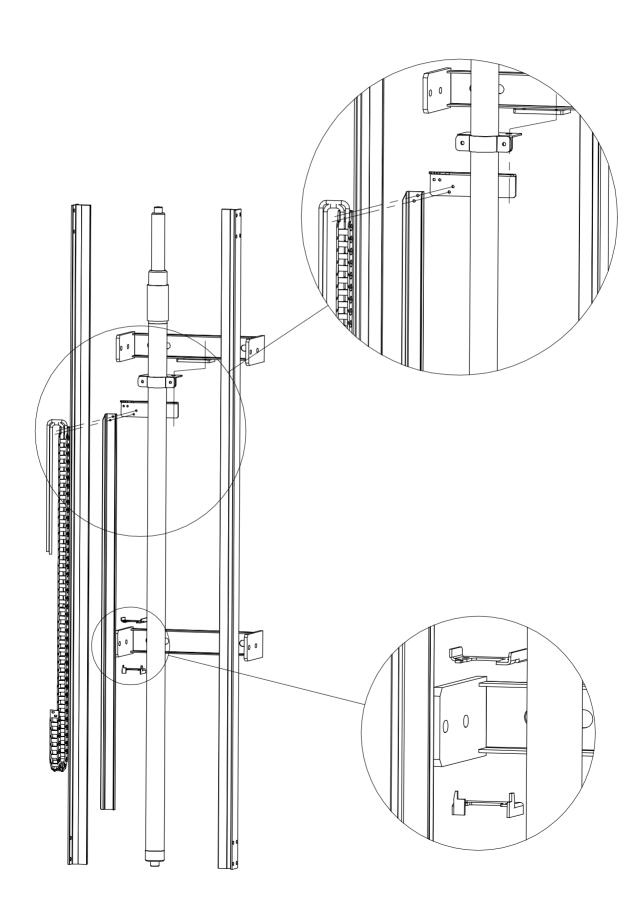
- Check the tightening of all the bolts and nuts assembled on installation
- To lubricate the sliding side for all the slide length with No Drop/150 Roloil
- Make some climbs and descents checking efficiency of mechanic, hydraulic and electric parts and that aren't moving parts iterfering with fixed parts, sheaths and tubes.
- Make the adjustments on the position of floor sensors to stop correctly the platform
- Make the system testing filling out the testing certificate, checking the following points:
 - 1) all the operative and control devices operate correctly
 - 2) all the locks, the floor and cabine commands operate correctly
 - 3) all the safety contacts and electric devices operate correctly
 - 4) the suspension elements and their etchings are correctly fixed and in order
 - 5) the lifting chain testing certificate is available and in order (the system certificate must state the safe work load and the min ultimate strenght)
 - 6) there is an adequate free space between the footboard/vertical wall and the surrounding structure for all the elevator run length
 - 7) the insulation resistance is bigger than 1000 ohms per Volt (make this test following the instructions described on the electric diagram and using adequate instrumentation)
 - 8) the correspondence phase-neutral of the main feed connection is correct
 - 9) the correct intervention of the of the mechanic parachutes
 - 10) at each floor: the correct operation of upwards and downwards levelling
 - 11) the correct working of the emergency manual descent
 - 12) the correct working of the alarm device (if on issue)
 - 13) all the warnings, plates, etc. are correctly displayed

Placing of the chain (cabin side) Einsetzen der Kette seitens Kabine

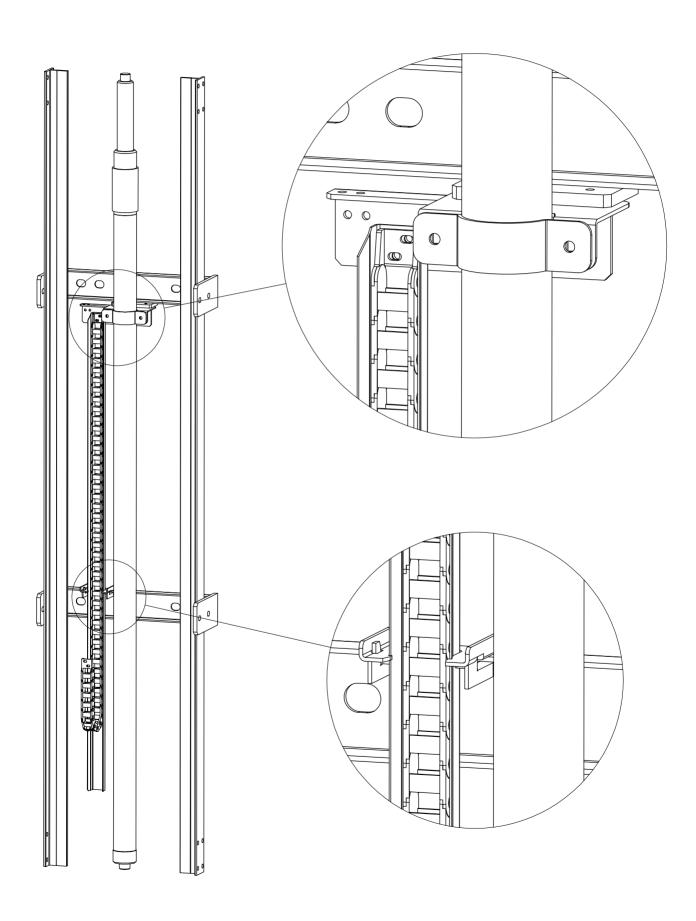


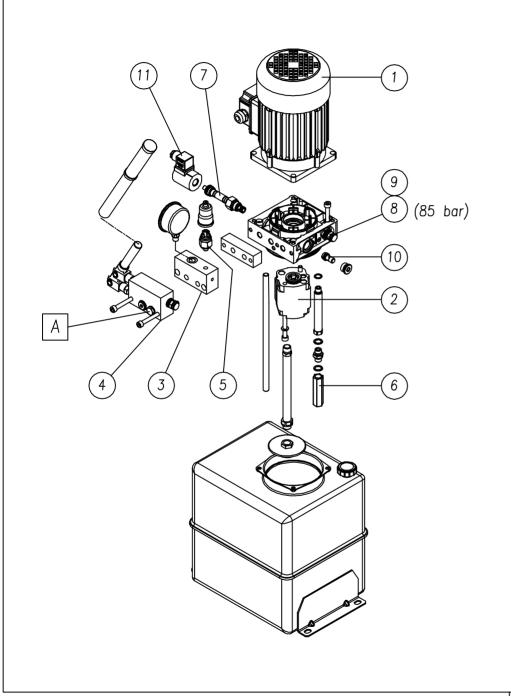
Placing of the chain (fixed side) Einsetzen der Kette (Festseite)





Placing of the chain (fixed side) Einsetzen der Kette (Festseite)



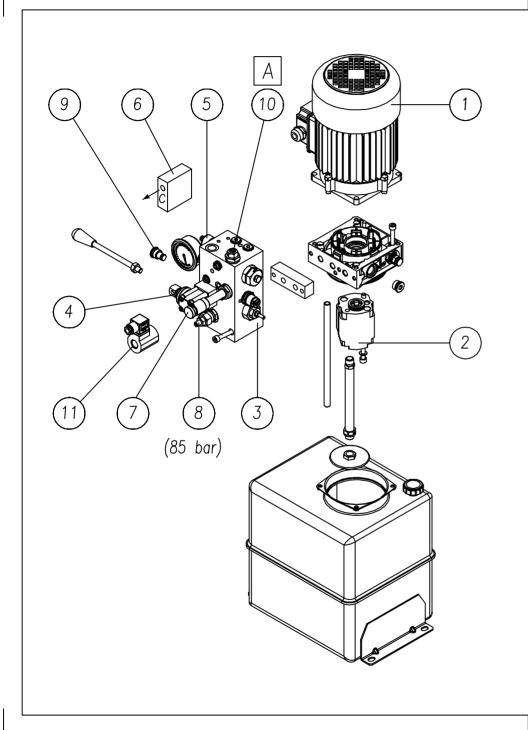


PERICOLO : eseguire manovre solamente con piattaforma a terra l'avviamento : allentare ed azionare la leva fino a fuoriuscita olio

DANGER: carry out manoeuvres with platform at bottom floor 1rt start: activate the lever to full up with hydr. oil the circuit, then loosen the cup until oil outlet

GEFAHR : Einstellungen un Bedienungen nur mit Plattform auf "0" Etage Erste Abfahrt : betätigen den Hebel und mit hydr. Öl den Kreislauf einfüllen, dann den Schraubenverschluss bis Ölaustritt

11	Solenoide	Solenoid	Solenoid	23S200000	1
10	Valvola 0.10	Valve 0.10	Ventil 0.10	22V010022	1
9	Valvola ritegno	Non-return valve	Rückschlagventil	22V010021	1
8	Valvola max.	Max pressure valve	Überdruckventil	22V010004	1
7	Elettrovalvola	Solenoid valve	Elektroventil	22E060000	1
6	Valvola 10 bar	Pressure valve 10 bar	Druckventil 10 bar	22V010019	1
5	Pressostato	Pressure switch	Druckventile	22P190000	1
4	Pompa man.	Manual pump	Handpumpe	22P120000	1
3	Modulo	Module	Modul	22C200006	1
2	Pompa 0.10	Pump 0.10	Pumpe 0.10	22P120007	1
1	Motore elett.	El. motor	El. motor	23M120011	1
Pos.	Descrizione	Description	Beschreibung	Codice	N°pz.
PRELIEVO (CODICE DESCRIZIONE		MATERIALE		
TRATTAMEN	NTO		SCALA DISEGNATO D. F.E.	errari 27/0	1/03
SUPERFICI LAVORAZIO		PESO kg	LQ	1 0	-
VIETATE LE RIPRODUZIONI NON AUTORIZZATE REPRODUCTION NOT PERMITTED AL RIGHT RESERVED			ex	tršm	Ja
Cen	tralina On−Off	- 0.10 new	TOLLERANZE GENERALI LINEARI H12 - h12 CODICE		
GRUPPO		i i	ANGOLARI ±1° DIAMETRO FORI 0 +0,2 RACCORDI R 1,2	12050	\cap
Vers	sione OS		SMUSSI 0,5x45°	ノーとしつし	U

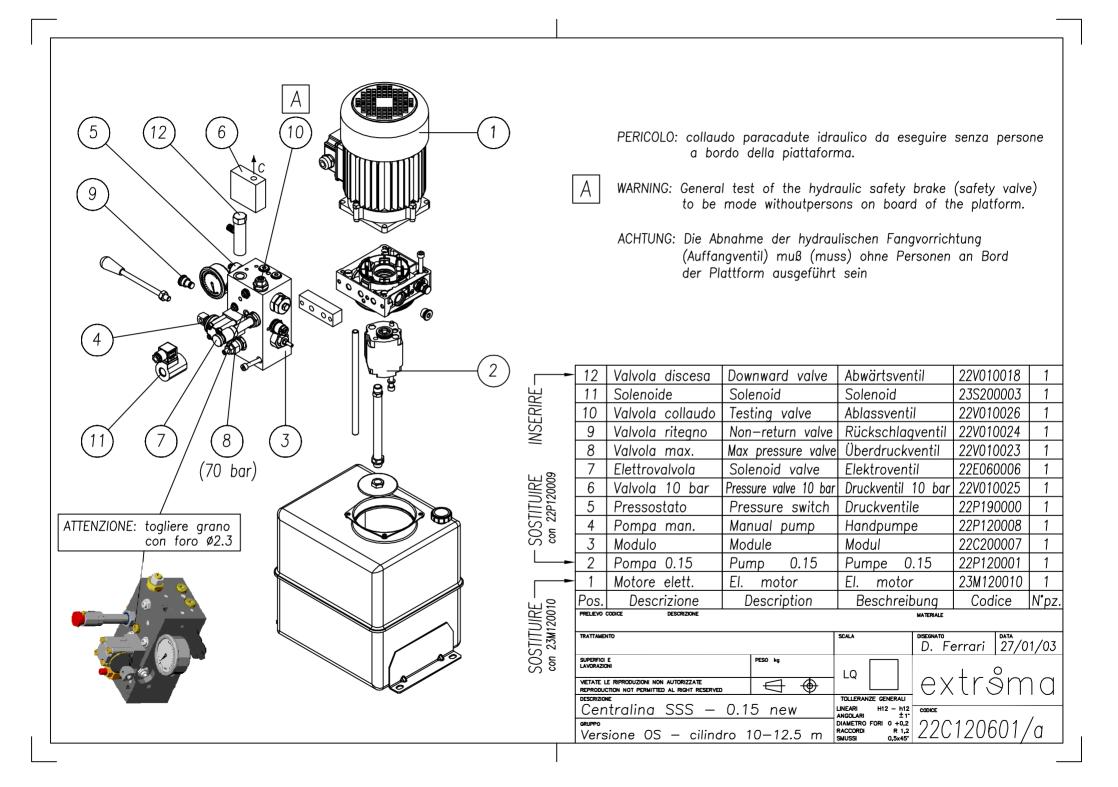


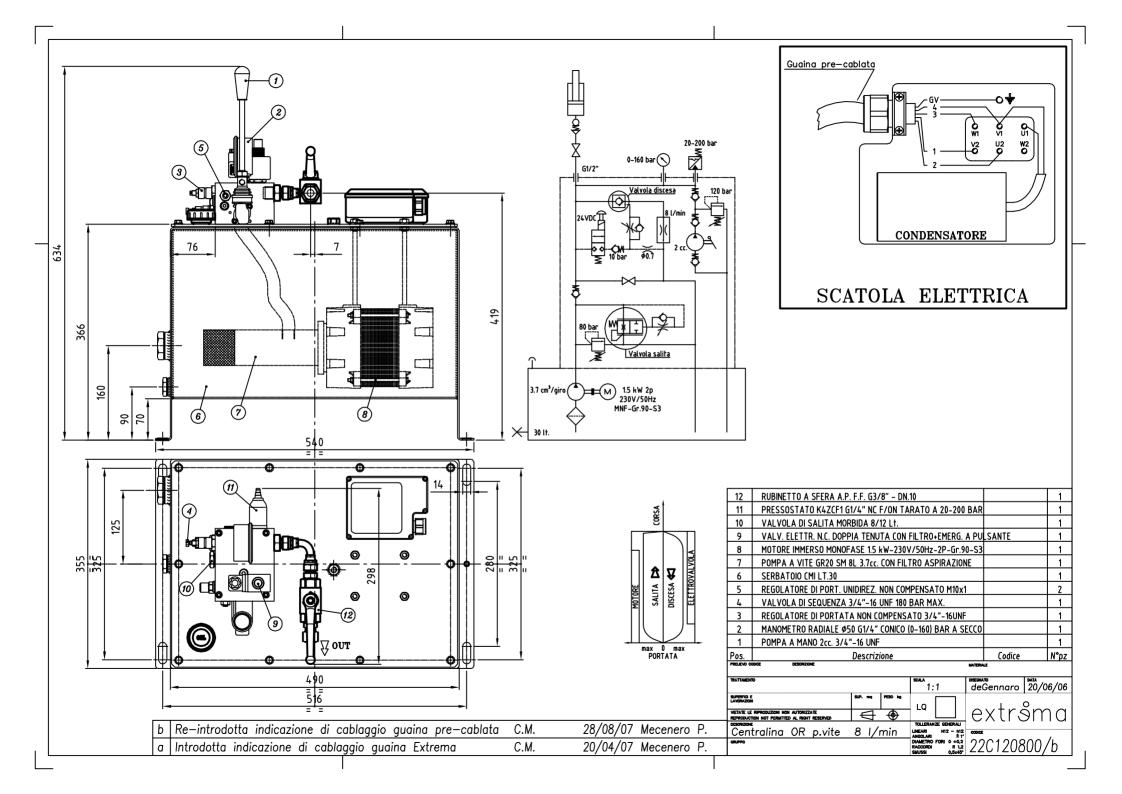
PERICOLO: collaudo paracadute idraulico da eseguire senza persone a bordo della piattaforma.

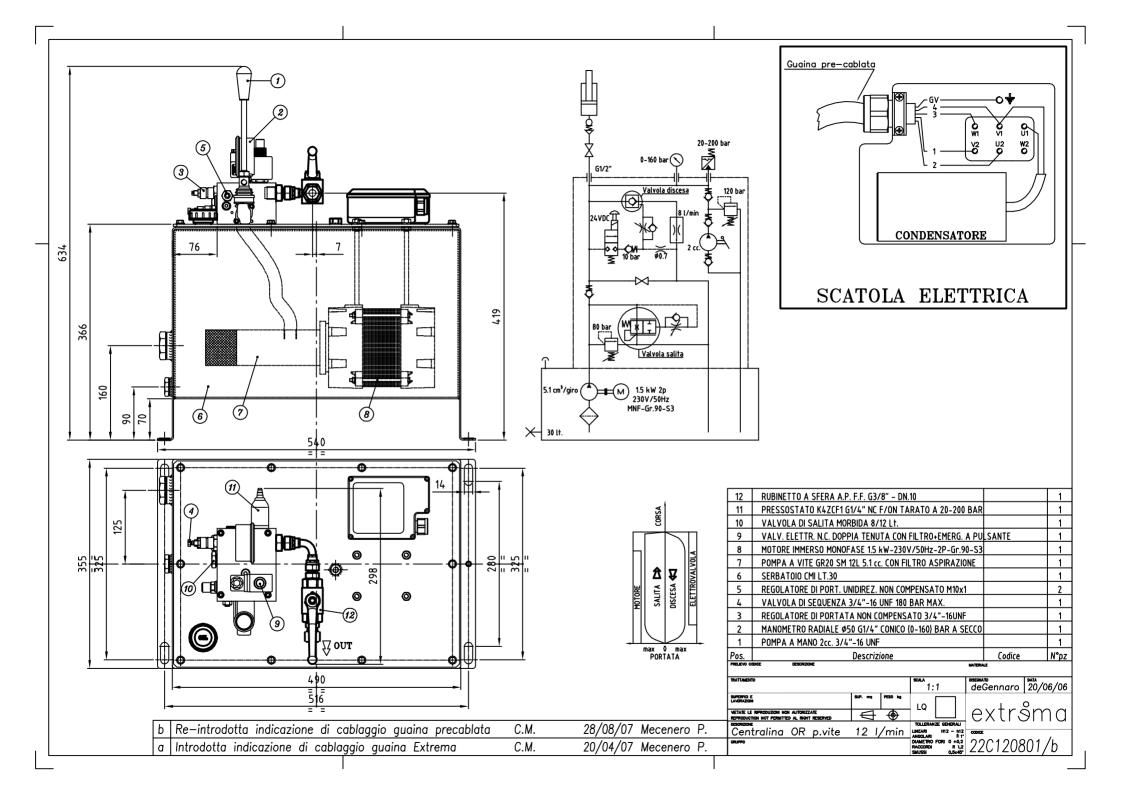
WARNING: General test of the hydraulic safety brake (safety valve) to be mode withoutpersons on board of the platform.

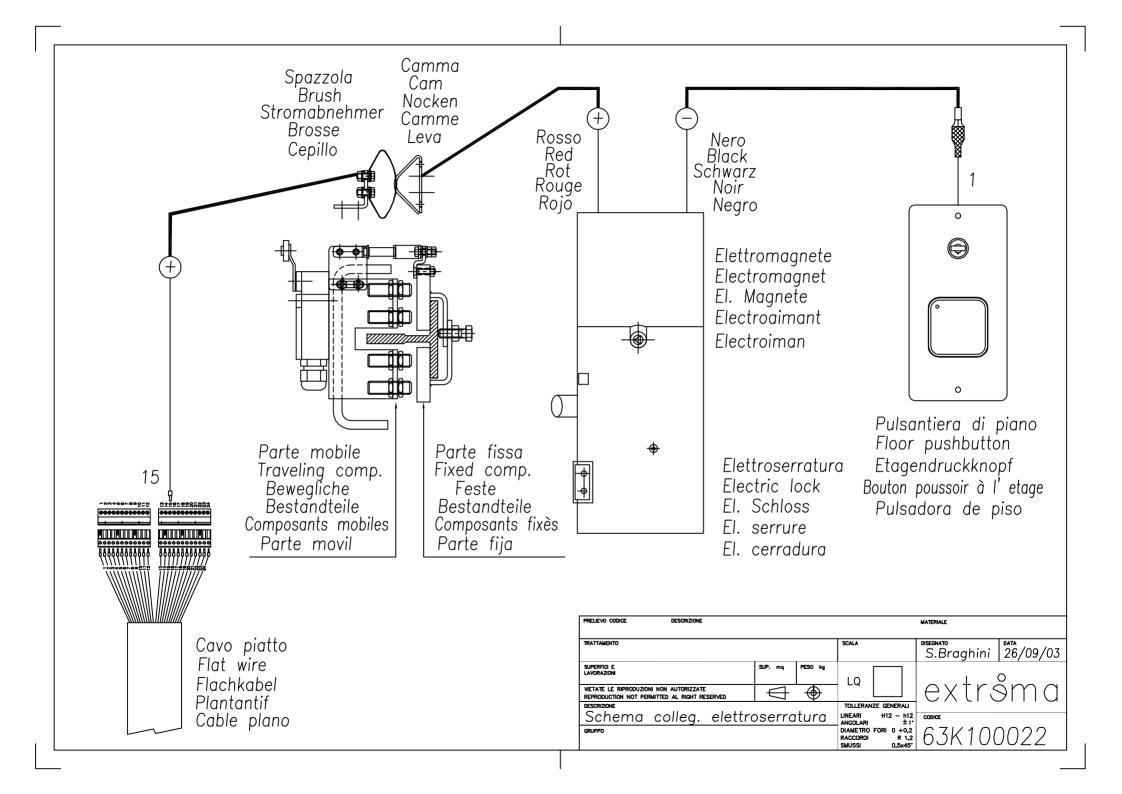
ACHTUNG: Die Abnahme der hydraulischen Fangvorrichtung (Auffangventil) muß (muss) ohne Personen an Bord der Plattform ausgeführt sein

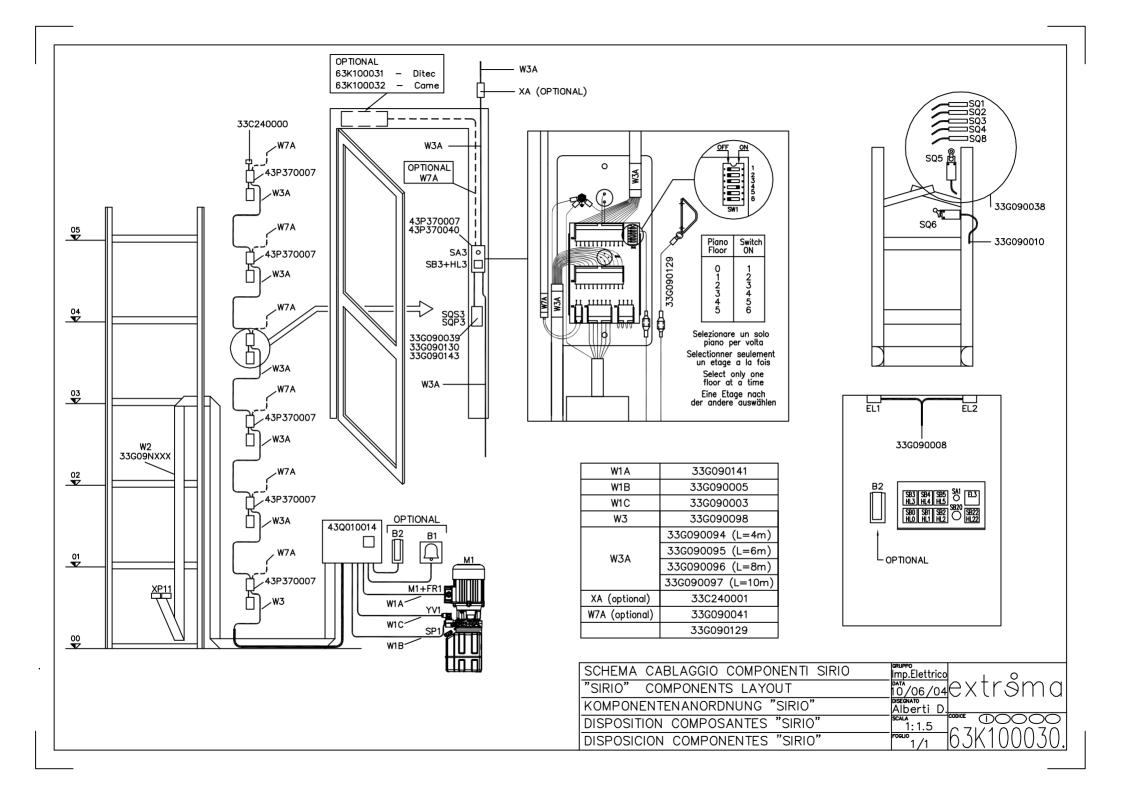
11	Solenoide	Solenoid	Solenoid	23S200003	1
10	Valvola collaudo	Testing valve	Ablassventil	22V010026	1
9	Valvola ritegno	Non-return valve	Rückschlagventil	22V010024	1
8	Valvola max.	Max pressure valve	Überdruckventil	22V010023	1
7	Elettrovalvola	Solenoid valve	Elektroventil	22E060006	1
6	Valvola 10 bar	Pressure valve 10 bar	Druckventil 10 bar	22V010025	1
5	Pressostato	Pressure switch	Druckventile	22P190000	1
4	Pompa man.	Manual pump	Handpumpe	22P120008	1
3	Modulo	Module	Modul	22C200007	1
2	Pompa 0.15	Pump 0.15	Pumpe 0.15	22P120001	1
1	Motore elett.	El. motor	El. motor	23M120010	1
Pos.	Descrizione	Description	Beschreibung	Codice	N°pz.
PRELIEVO (CODICE DESCRIZIONE		MATERIALE		
TRATTAMENTO			SCALA DISEGNATO D. F	errari 27/0	1/03
SUPERPO E LAVORAZIONI PESO kg			LQ O	+ 15 0 100	
VIETATE LE RIPRODUZIONI NON AUTORIZZATE PEPRODUCTION NOT PERMITTED AL RIGHT RESERVED DESCRIZIONE			TOLLERANZE GENERALI	(trŝm	1 (
Centralina SSS — 0.15 new			LINEARI H12 - h12 CODICE		
Versione OS cilindro 4 — 8 metri			DIAMETRO FORI 0 +0,2 RACCORDI R 1,2 SMUSSI 0,5x45*	C12060	0

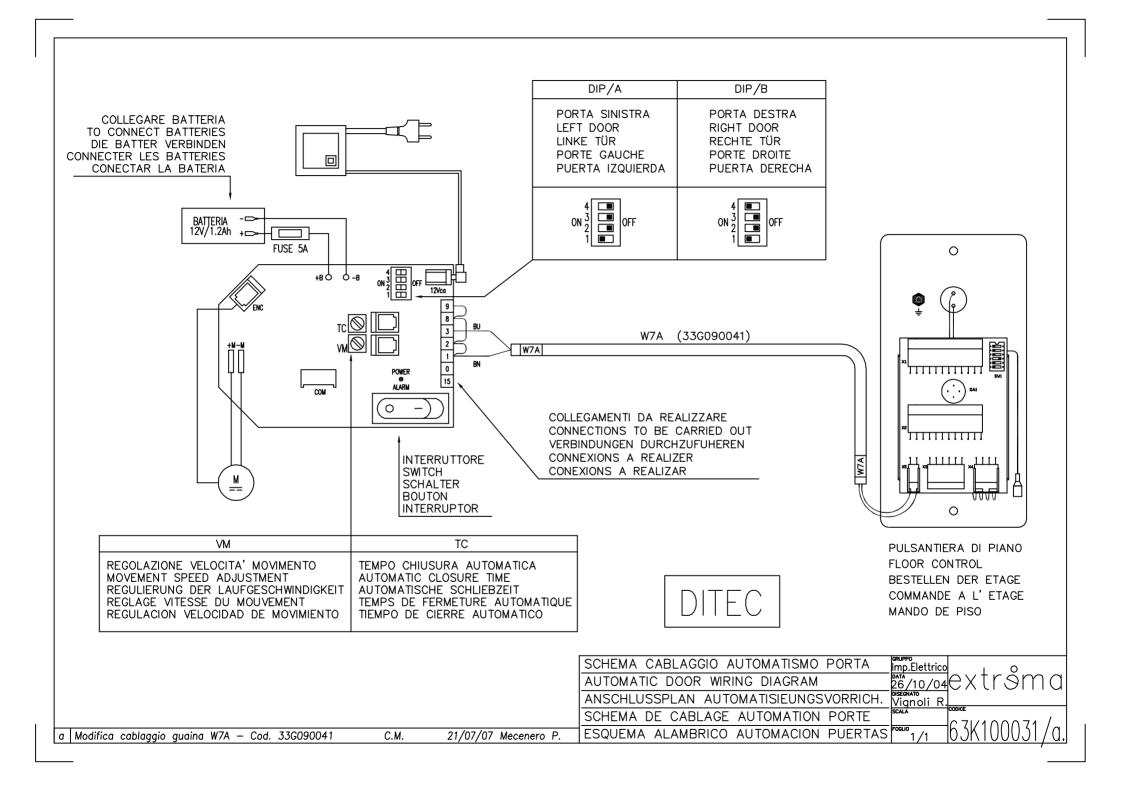


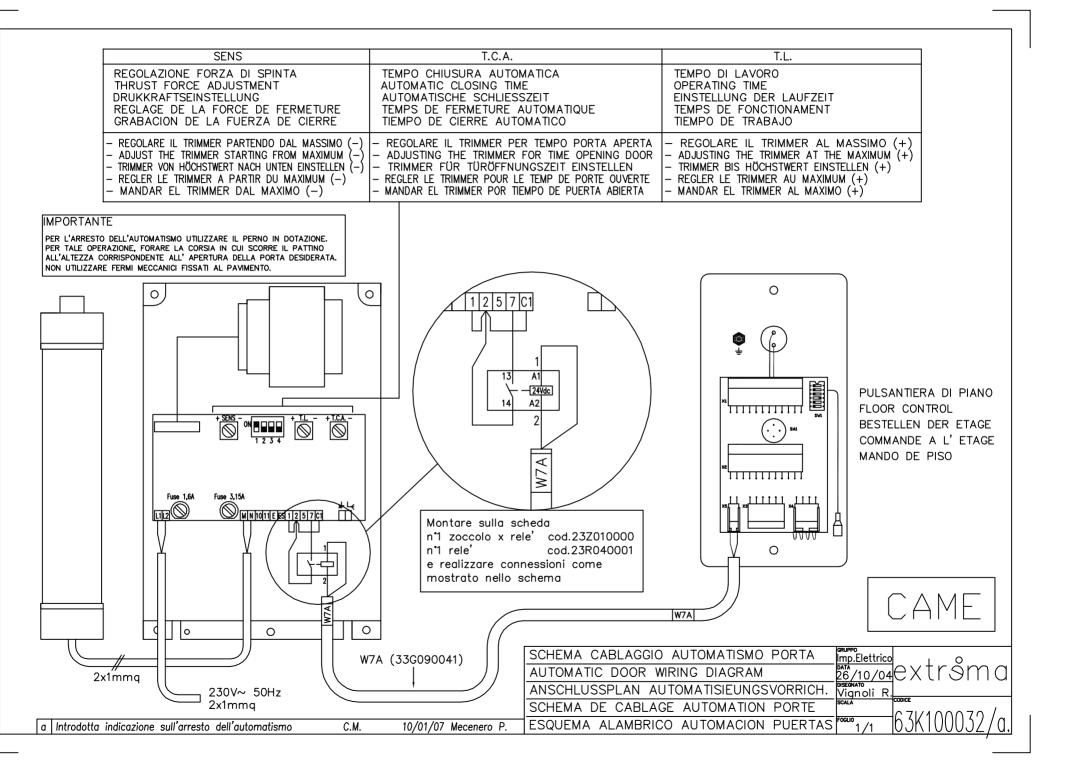


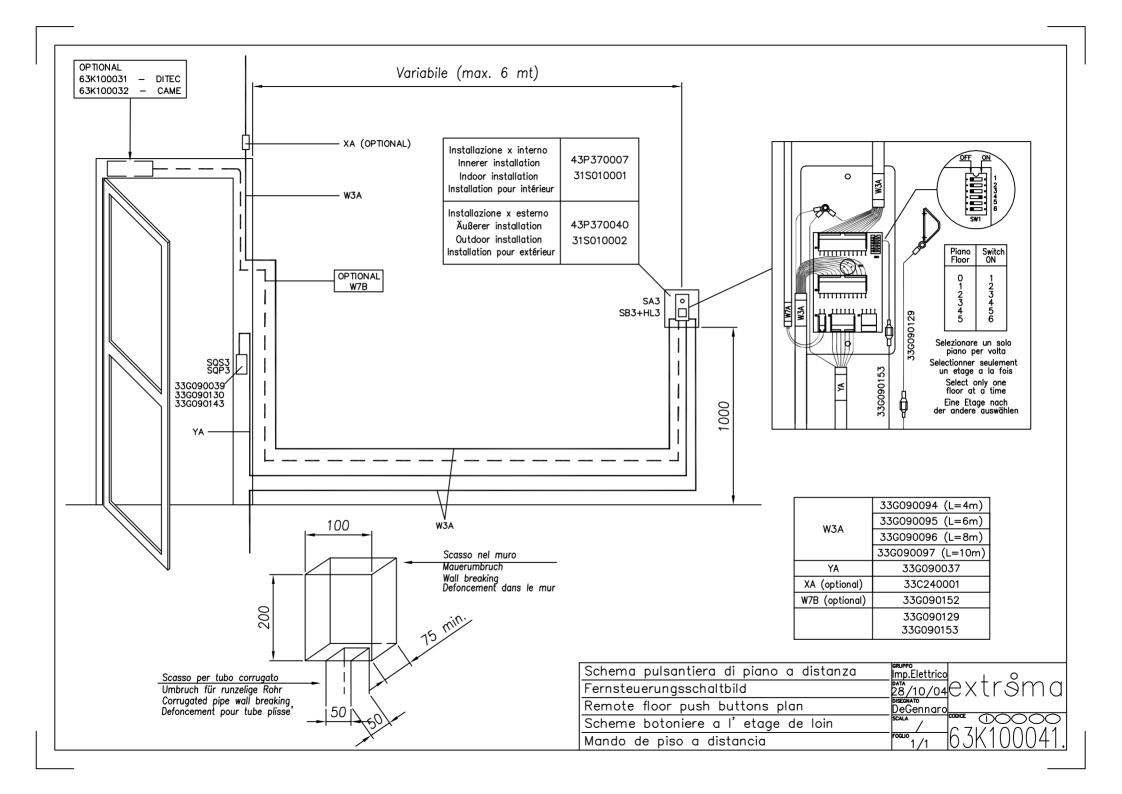


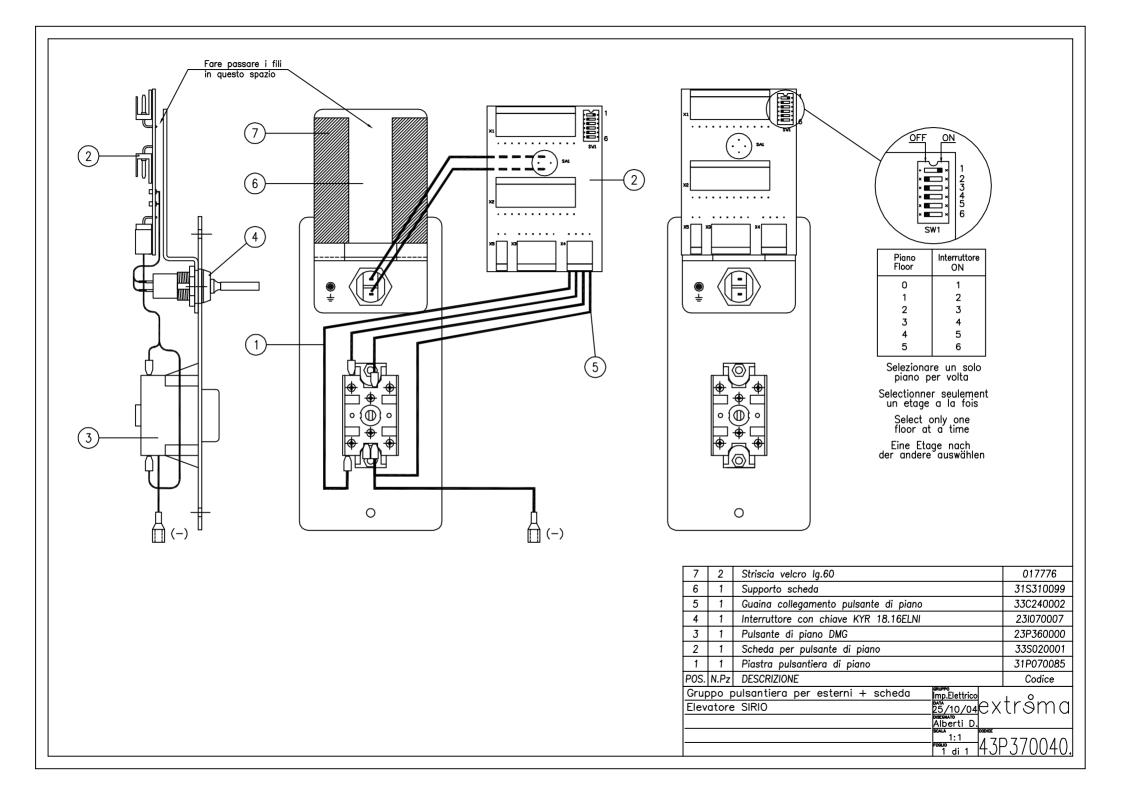


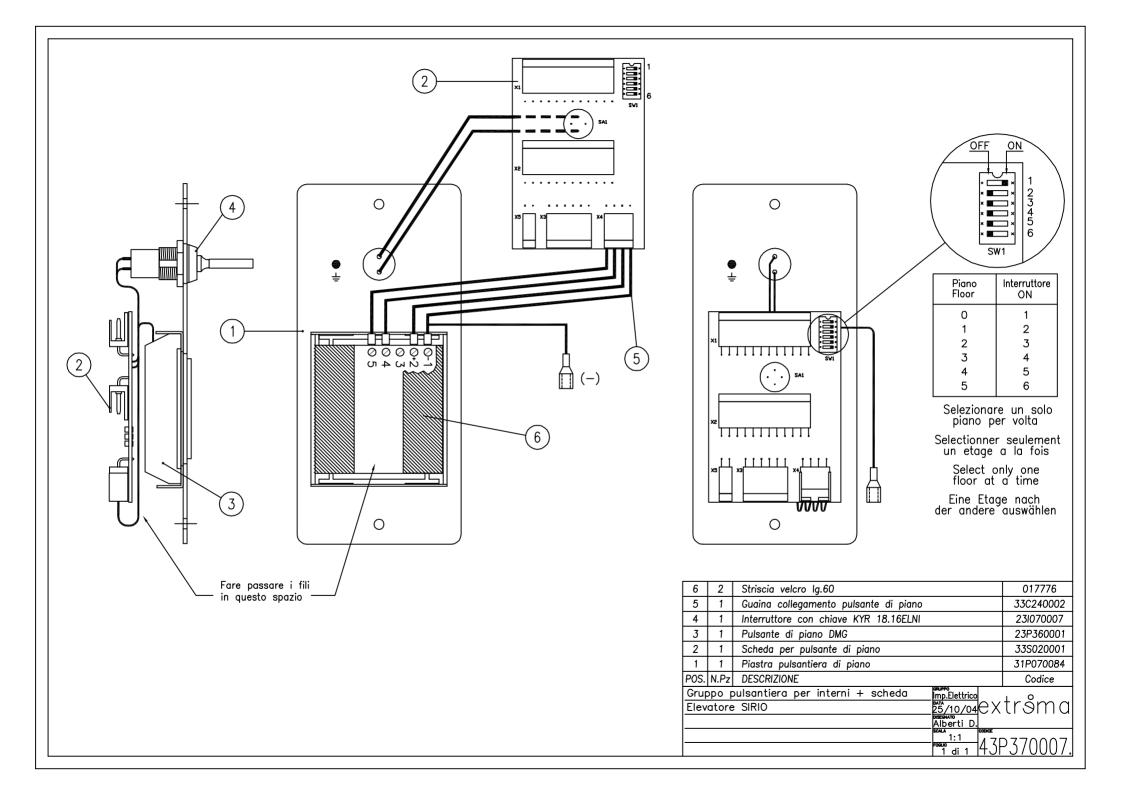


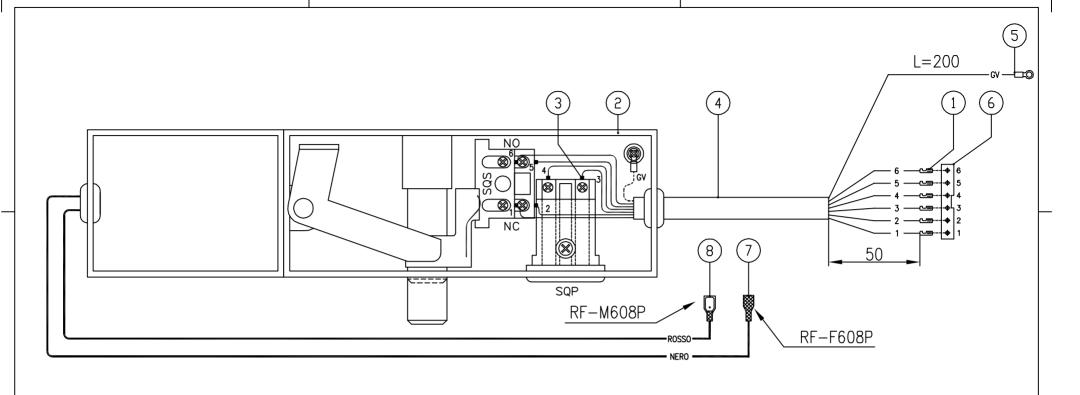








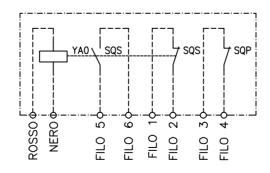




YAS = Comando elettromagnete Comando elettromagnete Comando elettromagnete Commande électro—aimant Mando electroimàn

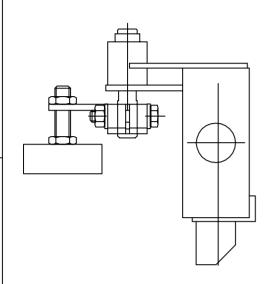
SQS = Contatti del chiavistello Contacts of the latch Riegelkontakte Contacts de verrou Contacto de clavija

SQP = Contatto porta chiusa Contact door closed Angelehnt tür Kontakt Contact porte fermée Contacto puerta cerrada Schema contatti serratura Scheme contact lock Schloß Verdrahtungsplan Schéma contacts serrure Esquema contactos cerradura

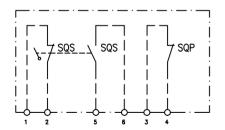


a Modificata lunghezza conduttore di terra (filo Giallo-Verde) C.M. 052-06 25/10/06 deGennaro

8	1	Fastom maschio total. isolato	23C070022			
7	1	Fastom femm. total. isolato	CEMBRE RF-F	508P	23C070021	
6	1	Connettore femm. 6 vie art	. AMP M□DU 1		23C240002	
5	2	Capocorda ad occhiello Ø 4	CEMBRE art. R	F-M4	23C070007	
4	0.7m	Cavo 7x0,75 REITER OLFLEX-	-110/03 art.0019	013	23C400015	
3	6	Capocorda a tubetto CEMBR	RE art.PKC7508		23C070005	
2	1	Elettroserratura per port	23S130002			
1	6	Contatto femm. per conn. A	23C250000			
POS. N.Pz Descrizione					Codice	
Con	npost	DESCRIZIONE O		MATERIALE		
TRATTAME	МТО		SCALA 1:1	Alberti [DATA 02/04/03	
SUPERFICI LAVORAZIO		PESO kg		1	0	
METATE LE RIPRODUZIONI NON AUTORIZZATE REPRODUCTION NOT PERMITTED AL RIGHT RESERVED					ršma	
	Guaina cablaggio elettroserratura					
					0130/a	
					•	

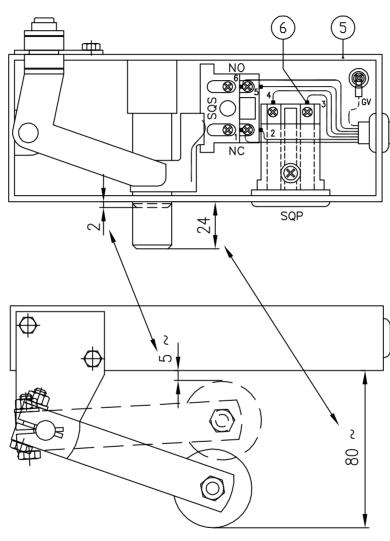


Schema contatti serratura Scheme contact lock Schloß Verdrahtungsplan Schéma contacts serrure Esquema contactos cerradura



SQS = Contatti del chiavistello Contacts of the latch Riegelkontakte Contacts de verrou Contacto de clavija

SQP = Contatto porta chiusa Contact door closed Angelehnt tür Kontakt Contact porte fermée Contacto puerta cerrada



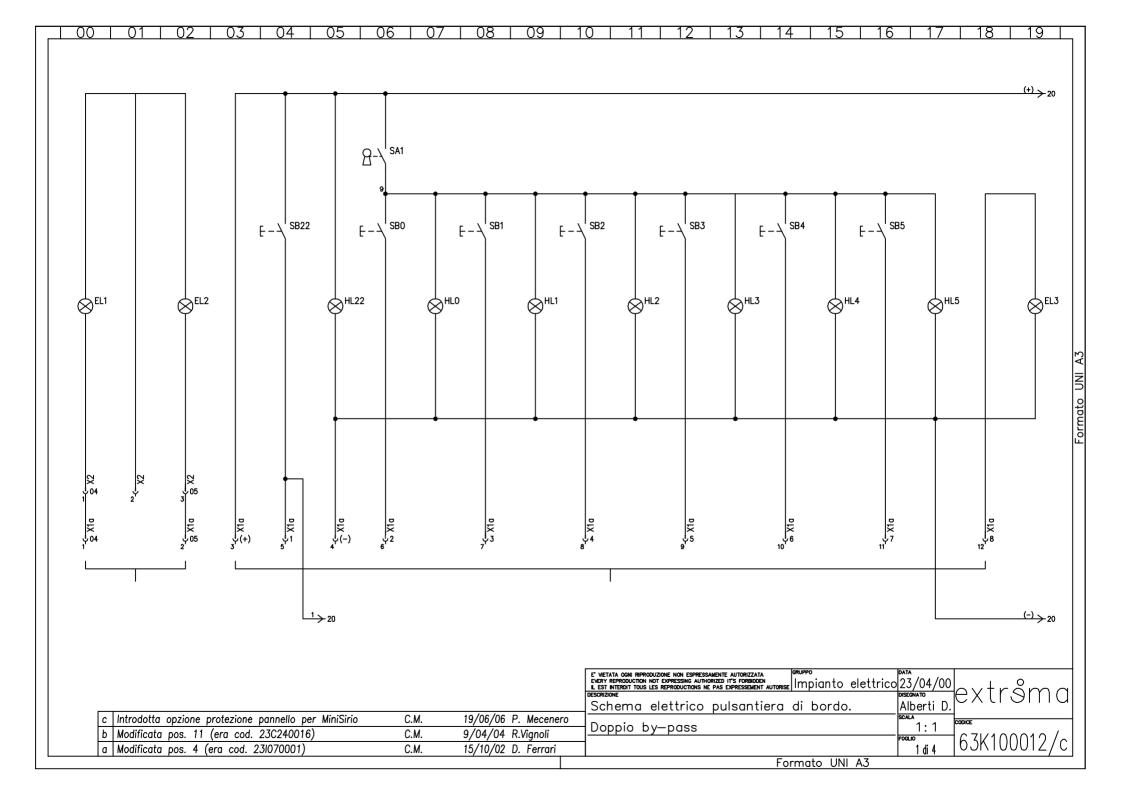
a Modificata lunghezza conduttore di terra (filo Giallo-Verde) C.M. 052-06 25/10/06 deGennaro

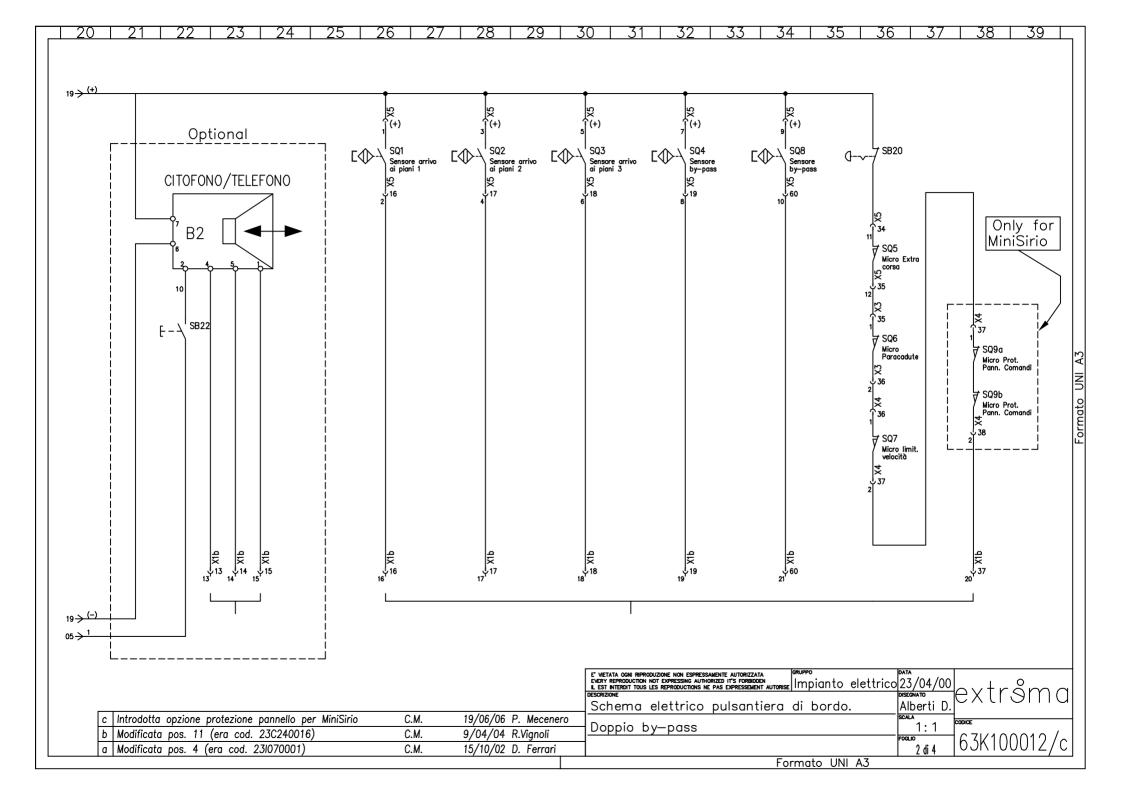
Le quote sono valide per un montaggio standard The quotas are valid for a standard assemblage Sind die Abmessungen für ein Standardmontage gültig Les quotas sont valides pour un montage standard Cuotas valida por montaje standard

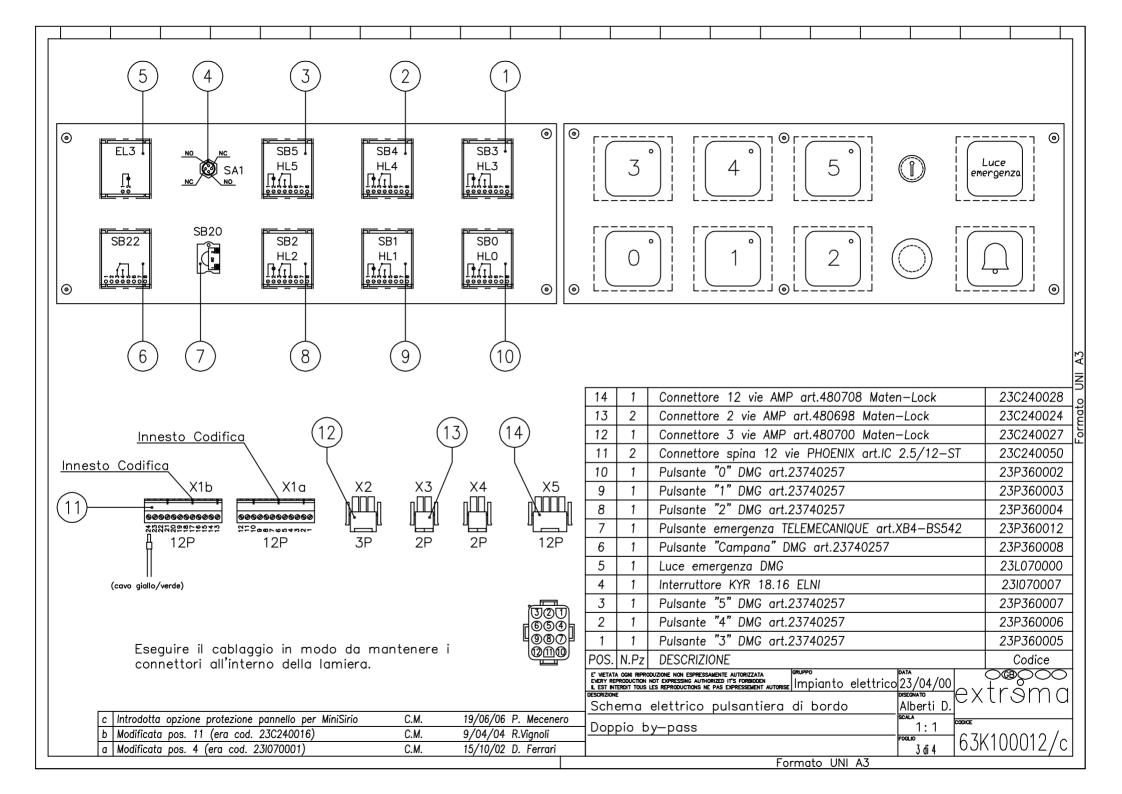
3

L = 200

6	6	Capocorda a tubetto CEMBRE art.PKC7508				23C070005
5	1	Serratura a 90°	TF 2000			21S130010
4	0.7m	Cavo 7x0,75 REI1	ER OLFLEX-11	0/03 art.0019	013	23C400015
3	2	Capocorda ad oc	chiello Ø 4 C	EMBRE art. R	F-M4	23C070007
2	1	Connettore femi	23C240002			
1	6	Contatto femm.	23C250000			
POS.	N.Pz	Descrizione	Codice			
Con	npost	DESCRIZIONE O			MATERIALE	
TRATTANE	жто			3CNA 1:1	Alberti D). 05/04/01
SUPERFICE E LAVORAZIONI			LQ 🔲	1	0	
VETATE LE RIPRODUZIONI NON AUTORIZZATE REPRODUCTION NOT PERMITTED AL RIGHT RESERVED				exti	rŝma	
Curaina a abla a sia a arratura			TOLLERANZE GENERALI LINEARI H12 - h12			
_	Guaina cablaggio serratura			ANGOLARI ±1°	CODICE	1
Porta			DIAMETRO FORI 0 +0,2 RACCORDI R 1,2 SMUSSI 0,8x46*	1.3.3G09	0143/a	
1.0.10				3MU33I 0,0K40		,



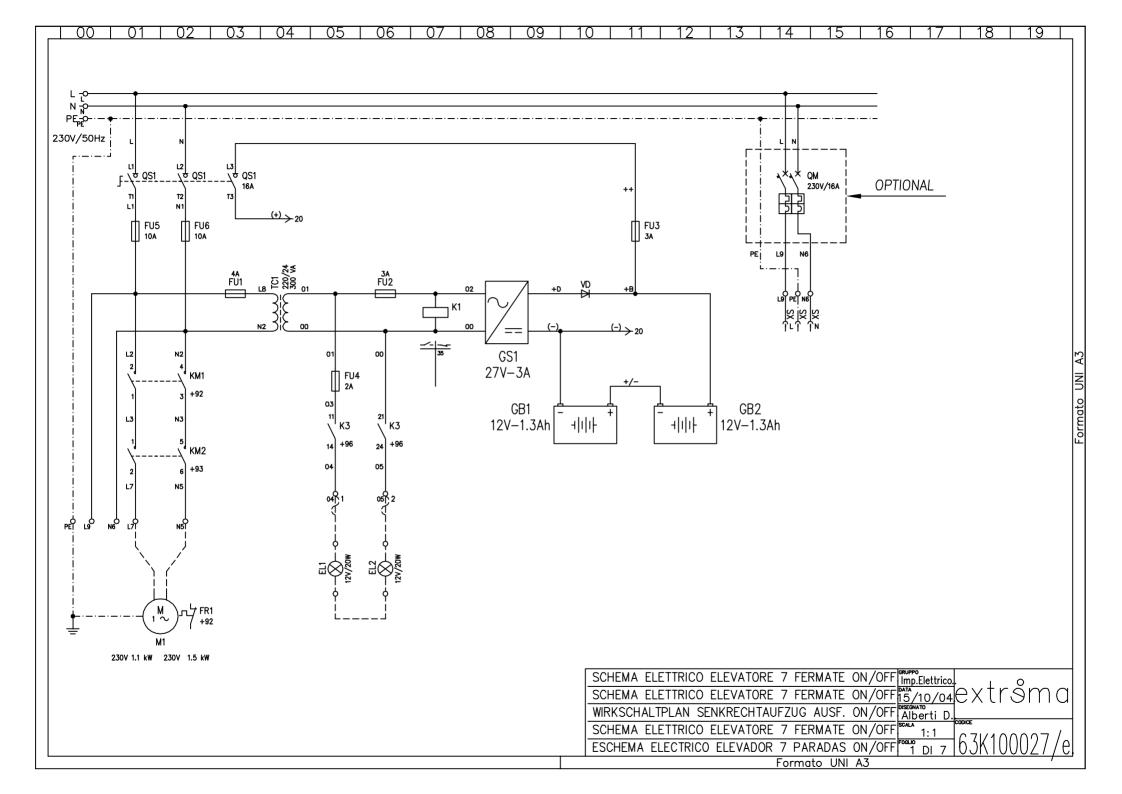


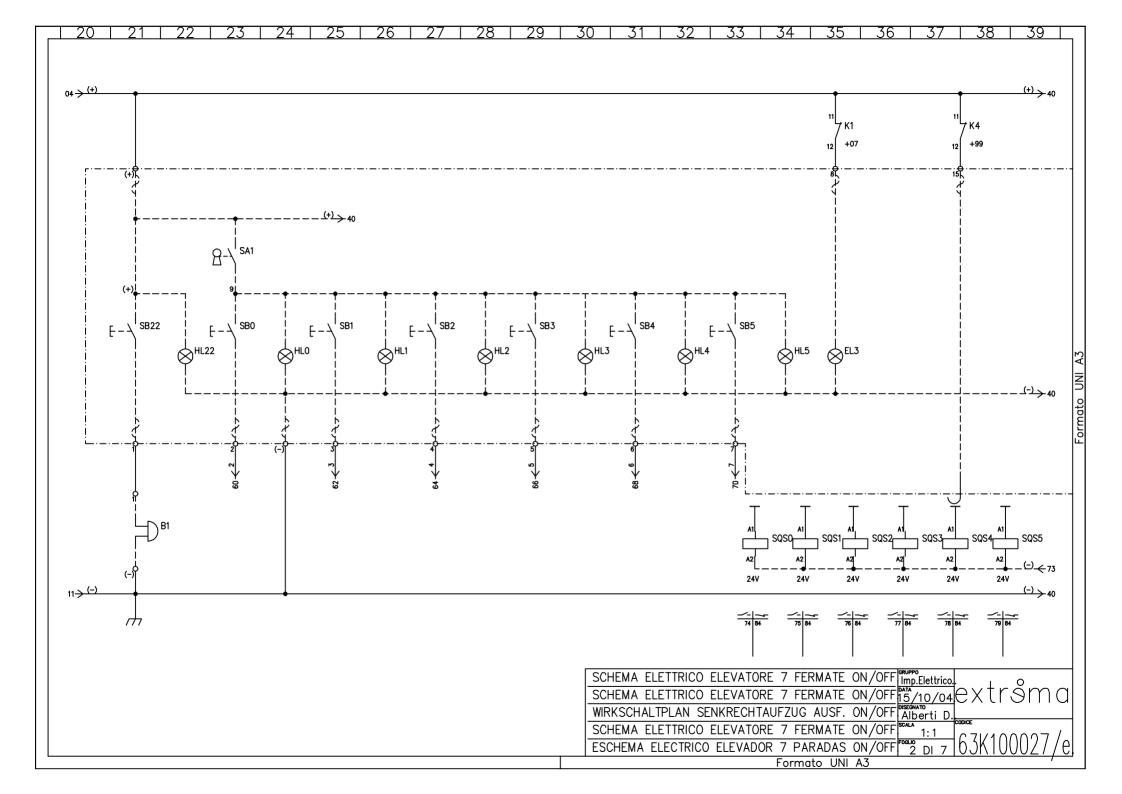


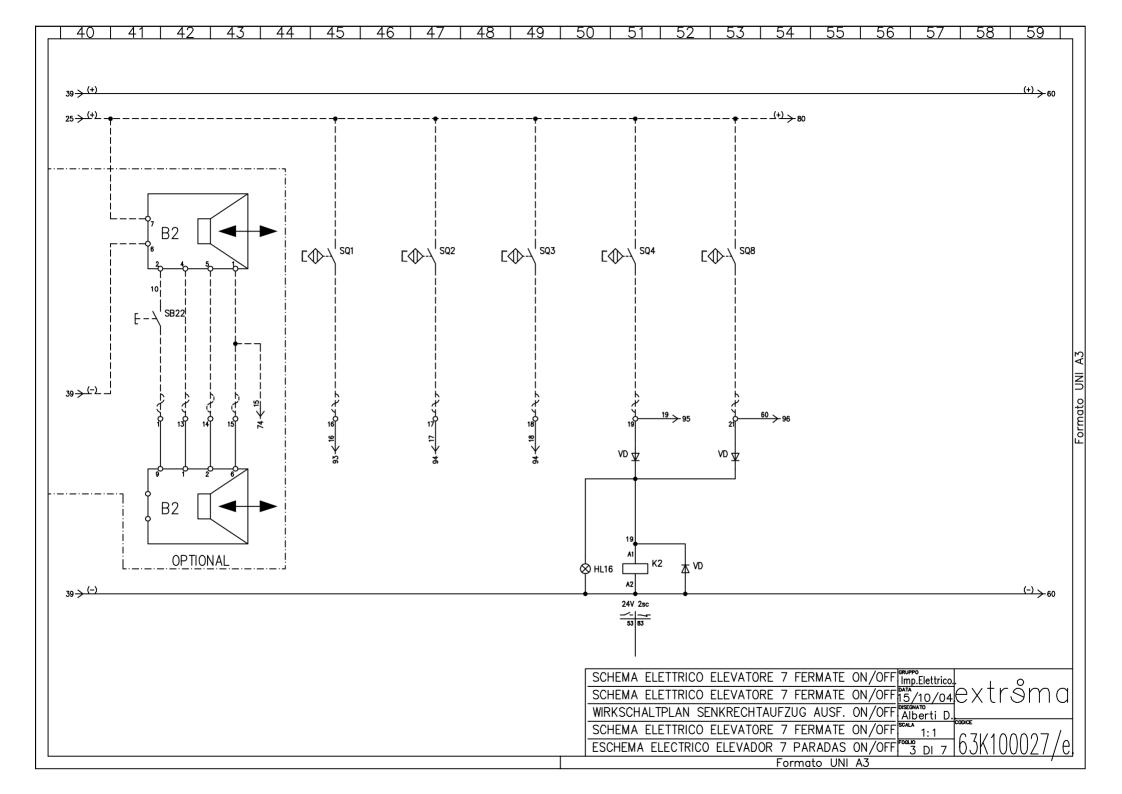
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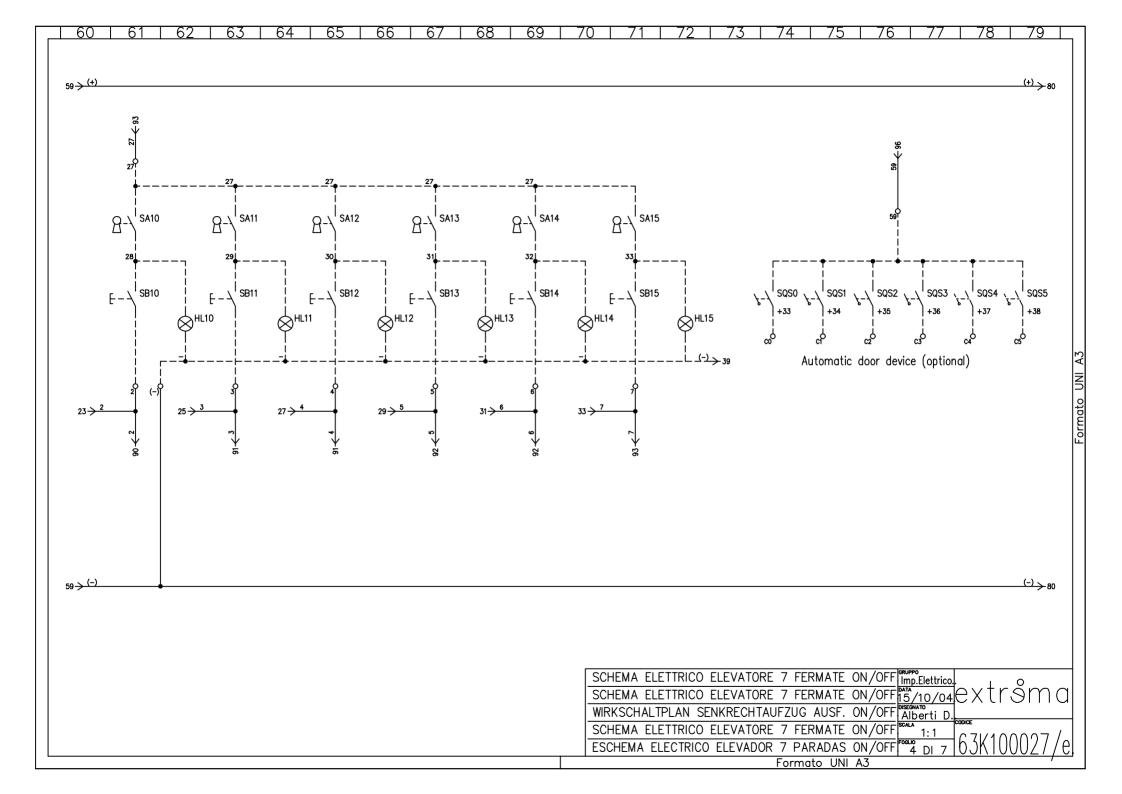
SIMB.	DESCRIPTION	RAMO
B2	INTERPHONE (OPTIONAL)	22
EL1-EL2	·	01-02
EL3	EMERGENCY LAMP ON BOARD	19
HLO	PUSHBUTTON ON BOARD SBO LAMP	07
HL1	PUSHBUTTON ON BOARD SB1 LAMP	09
HL2	PUSHBUTTON ON BOARD SB2 LAMP	11
HL3	PUSHBUTTON ON BOARD SB3 LAMP	13
HL4	PUSHBUTTON ON BOARD SB4 LAMP	15
HL5	PUSHBUTTON ON BOARD SB5 LAMP	17
HL22	PUSHBUTTON ON BOARD SB20 LAMP	05
SA1	KEY SWITCH FOR ON BOARD CONTROL	06
SB0	PUSHBUTTON OF FLOOR 0	06
SB1	PUSHBUTTON OF FLOOR 1	08
SB2	PUSHBUTTON OF FLOOR 2	10
SB3	PUSHBUTTON OF FLOOR 3	12
SB4	PUSHBUTTON OF FLOOR 4	14
SB5	PUSHBUTTON OF FLOOR 5	16
SB20	STOP-PUSHBUTTON ON BOARD	36
SB22	ALARM PUSHBUTTON ON BOARD	04
SQ1	SENSOR 1 OF FLOOR	26
SQ2	SENSOR 2 OF FLOOR	28
SQ3	SENSOR OF FLOOR 3	30
SQ4	SENSOR OF BY-PASS 1	32
SQ5	SAFETY LIMIT MICROSWITCH	36
SQ6	MICROSWITCH PARACHUTE	36
SQ7	MICROSWITCH OF OVER SPEED GOVERNOR	38
SQ8	SENSOR OF BY-PASS 2	34
SQ9a/SQ9b	MiniSIRIO CONTROL BOARD WALL SENSORS	38

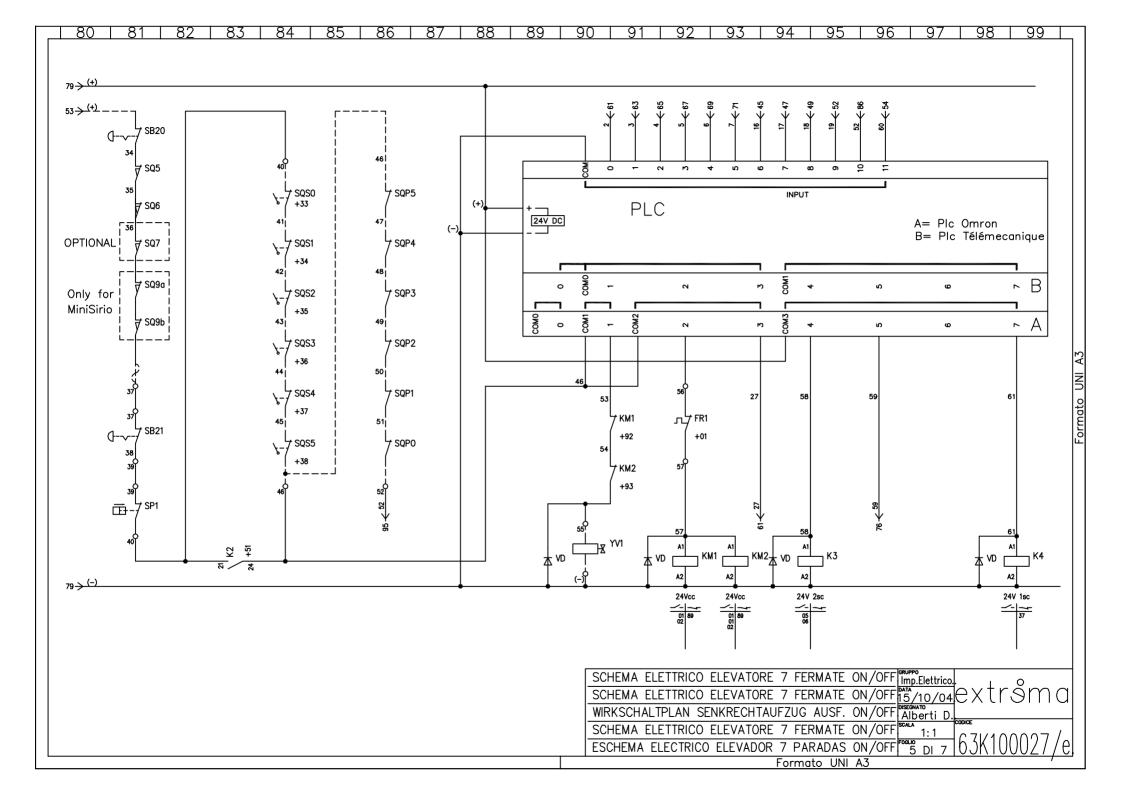
С	Introdotta opzione protezione pannello per MiniSirio	C.M.	19/06/06 P. Mecenero
b	Modificata pos. 11 (era cod. 23C240016)	C.M.	9/04/04 R.Vignoli
а	Modificata pos. 4 (era cod. 231070001)	C.M.	15/10/02 D. Ferrari
S	chema elettrico pulsantiera di bordo.	Imp.Ele	ttrico
D	oppio by—pass	23/04	_{1/00} extršmal
		DISEGNATO Alber SCALA	ti D.
		1: FOGLIO	<u>1</u> 63k100012/d
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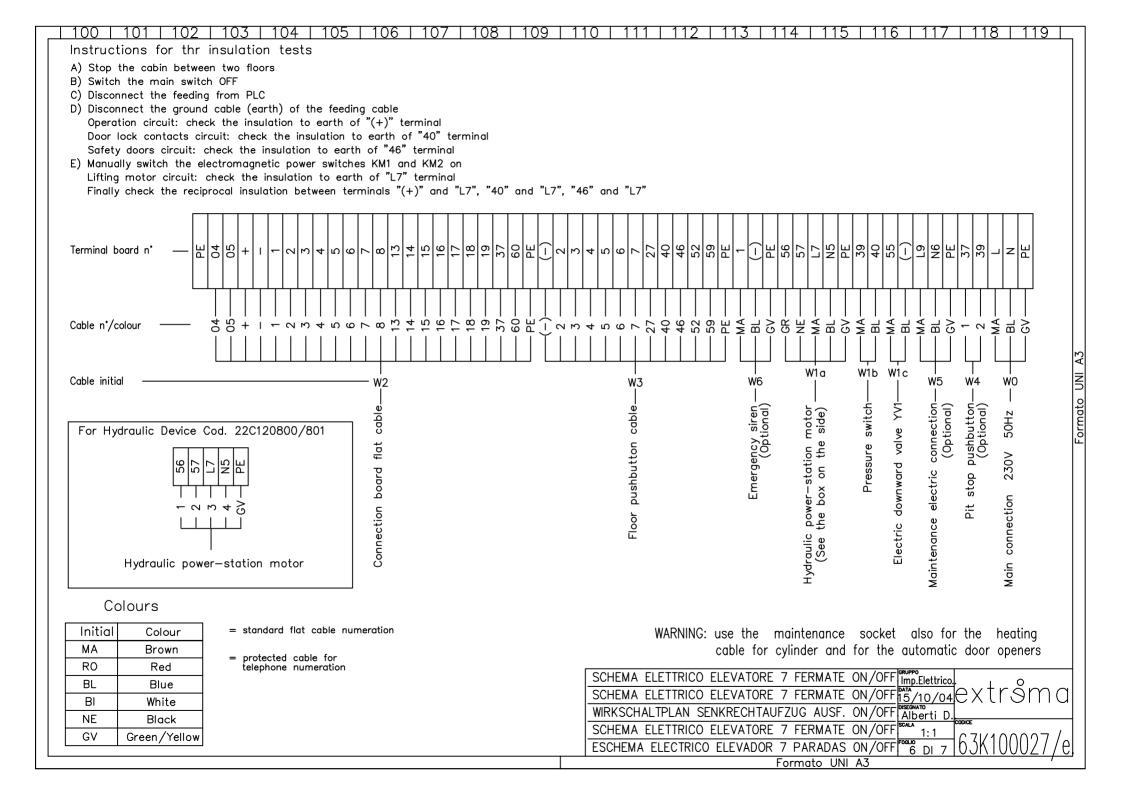




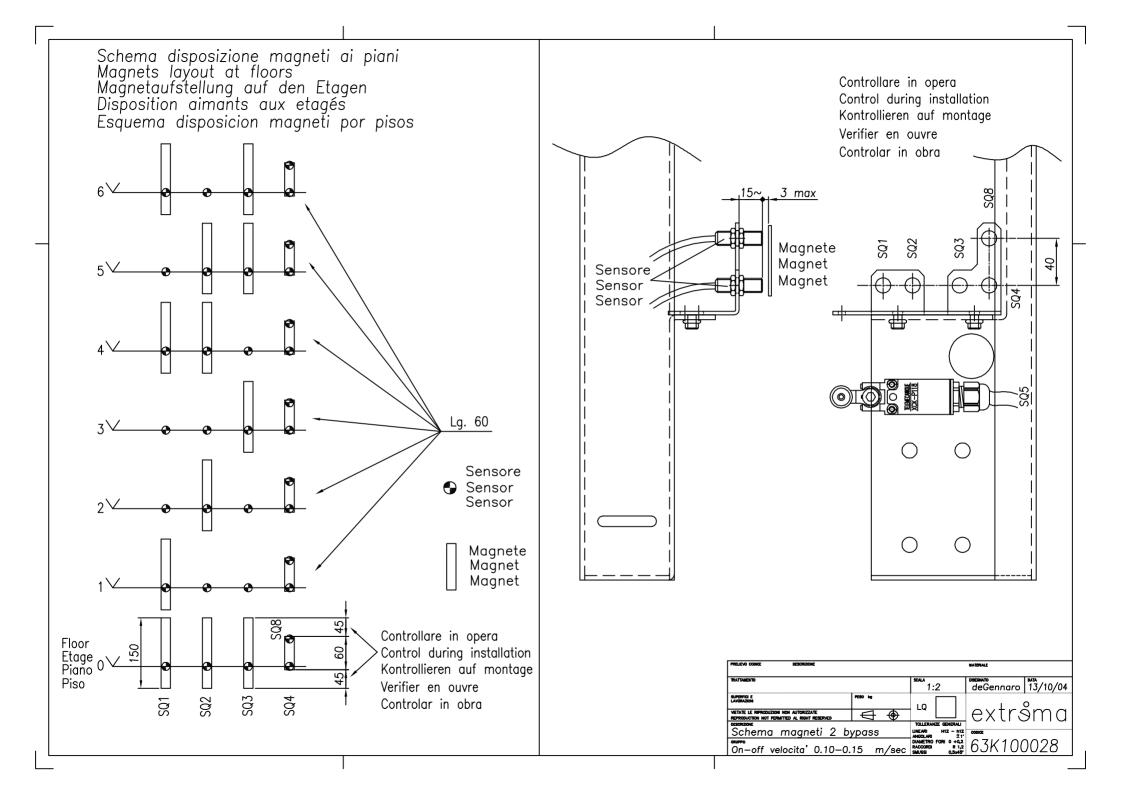


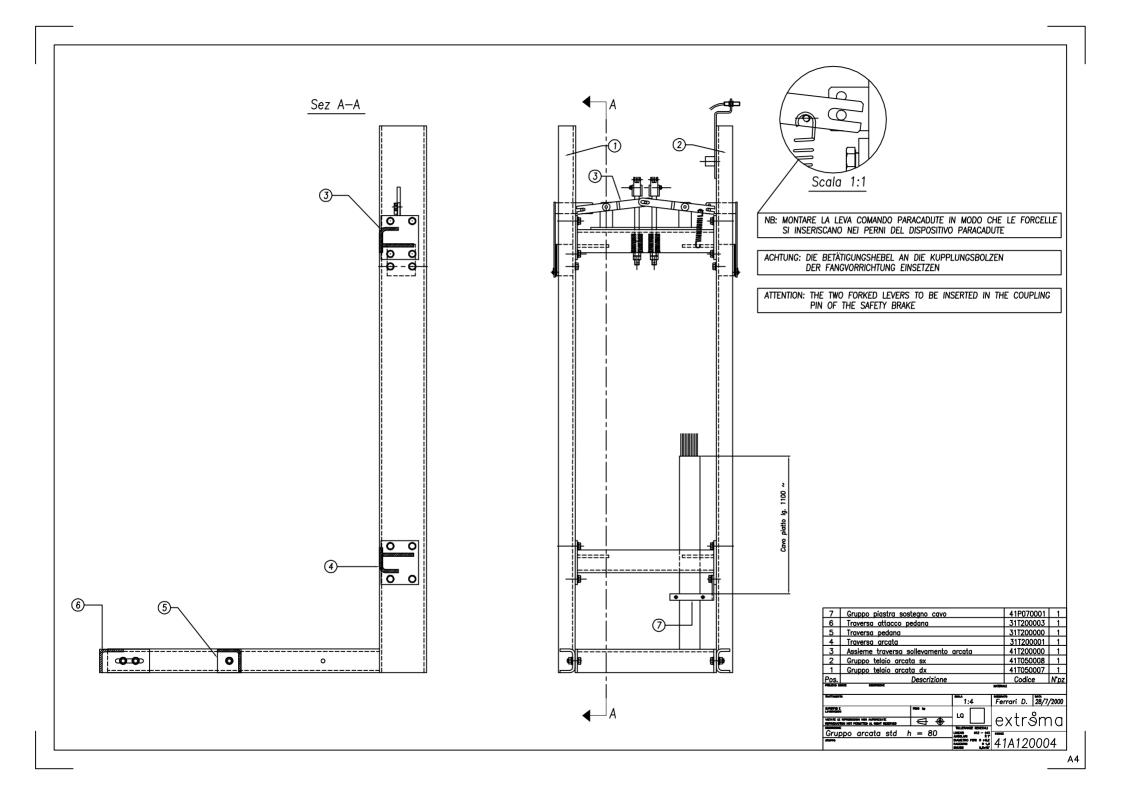


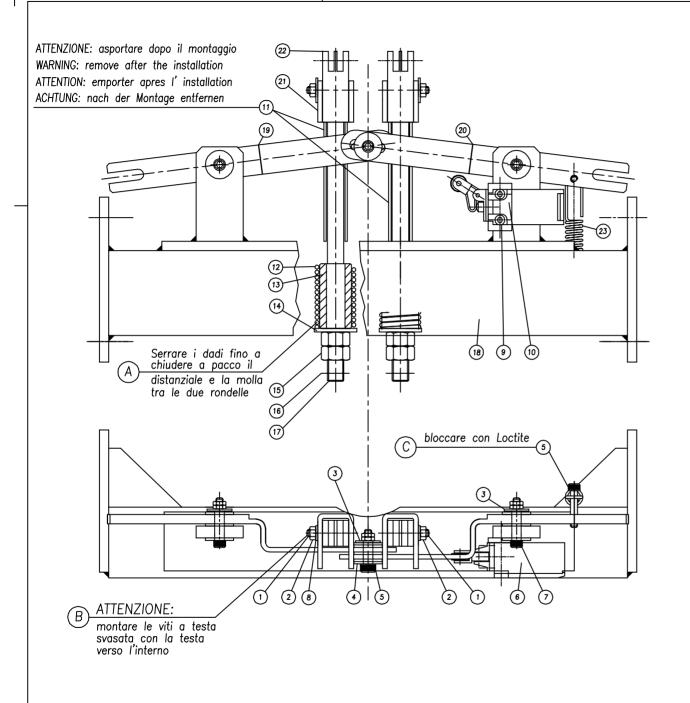




SIMB.	DESCRIPTION	RAMO	SIMB.	DESCRIPTION	RAMO
B1	EMERGENCY SIREN	21	SB0	FLOOR O PUSHBUTTON	23
B2	INTERPHONE (OPTIONAL)	41	SB1	FLOOR 1 PUSHBUTTON	25
FR1	MOTOR M1 THERMAL RÉLAY	92	SB2	FLOOR 2 PUSHBUTTON	27
FU1	TRANSFORMER FUSE	03	SB3	FLOOR 3 PUSHBUTTON	29
FU2	SUB-CIRCUIT FUSE	06	SB4	FLOOR 4 PUSHBUTTON	31
FU3	BATTERY FUSE	11	SB5	FLOOR 5 PUSHBUTTON	33
FU4	ELEVATOR CAR LIGHTING FUSE	05	SB10	CALL FLOOR O PUSHBUTTON	61
FU5	MOTOR M1 FUSE	01	SB11	CALL FLOOR 1 PUSHBUTTON	63
FU6	MOTOR M1 FUSE	02	SB12	CALL FLOOR 2 PUSHBUTTON	65
GB1-GB2	EMERGENCY BATTERY	10-12	SB12	CALL FLOOR 3 PUSHBUTTON	67
GS1	STABILIZED ALIMENT.	08	SB14	CALL FLOOR 4 PUSHBUTTON	69
EL1-EL2	ELEVATOR CAR LIGHTING LAMPS	05	SB15	CALL FLOOR 5 PUSHBUTTON	71
EL1-EL2 EL3		35	SB20	STOP-PUSHBUTTON ON BOARD	81
	EMERGENCY LAMP ON BOARD	l l			
HLO	PUSHBUTTON ON BOARD SBO LAMP	24	SB21	STOP-PUSHBUTTON IN THE PIT	81
HL1	PUSHBUTTON ON BOARD SB1 LAMP	26	SB22	ALARM PUSHBUTTON ON BOARD	21–41
HL2	PUSHBUTTON ON BOARD SB2 LAMP	28	SQ1	FLOOR SENSOR 1	45
HL3	PUSHBUTTON ON BOARD SB3 LAMP	30	SQ2	FLOOR SENSOR 2	47
HL4	PUSHBUTTON ON BOARD SB4 LAMP	32	SQ3	FLOOR SENSOR 3	49
HL5	PUSHBUTTON ON BOARD SB5 LAMP	34	SQ4	BY-PASS SENSOR	51
HL22	PUSHBUTTON ON BOARD SB22 LAMP	22	SQ5	SAFETY LIMIT MICROSWITCH	81
HL10	FLOOR PUSHBUTTON SB10 LAMP	62	SQ6	PARACHUTE MICROSWITCH	81 5
HL11	FLOOR PUSHBUTTON SB11 LAMP	64	SQ7	OVERSPEED GOVERNOR SWITCH	81
HL12	FLOOR PUSHBUTTON SB12 LAMP	66	SQ8	BY-PASS SENSOR	54 함
HL13	FLOOR PUSHBUTTON SB13 LAMP	68	SQ9a/b	MiniSIRIO CONTROL BOARD WALL SENSORS	81 Ē
HL14	FLOOR PUSHBUTTON SB14 LAMP	70	SQS0	ELECTRIC LOCK FLOOR 0	81 81 54 81 33-74-84 34 75 84
HL15	FLOOR PUSHBUTTON SB15 LAMP	72	SQS1	ELECTRIC LOCK FLOOR 1	34-75-84
HI16	STANDING FLOOR SIGNAL LED	50	SQS2	ELECTRIC LOCK FLOOR 2	35-76-84
K1	VOLTAGE RELAY	07-35	SQS3	ELECTRIC LOCK FLOOR 3	36-77-84
K2	BY-PASS RELAY	51-53-83	SQS4	ELECTRIC LOCK FLOOR 4	37–78–84
К3	ELEVATOR CAR LIGHTING RELAY	94-05-06	SQS5	ELECTRIC LOCK FLOOR 5	38-79-84
K4	RELAIS ELECTRIC LOCK	37–99	SQP0	FLOOR 0 DOOR CONTACT	86
KM1	ELECTROMAGNETIC SWITCH UPWARDS 1	92-01-02-90	SQP1	FLOOR 1 DOOR CONTACT	86
KM2	ELECTROMAGNETIC SWITCH UPWARDS 2	93-01-02-90	SQP2	FLOOR 2 DOOR CONTACT	86
M1	HYDRAULIC POWER-STATION MOTOR	01>02	SQP3	FLOOR 3 DOOR CONTACT	86
PLC	PLC	89-99	SQP4	FLOOR 4 DOOR CONTACT	86
QS1	MAIN SWITCH	01	SQP5	FLOOR 5 DOOR CONTACT	86
QM	SWITCH MAINTENANCE CONNECTION	14	SP1	PRESSURE SWITCH CONTACT	81
R1	RESISTANCE	50	TC1	AUXILIARY TRANSFORMER	3
SA1	KEY SWITCH FOR ON BOARD CONTROL	23	VD	DIODE	10/51/52/53/89/91/94
SA10	KEY SWITCH FOR FLOOR CONTROL 0	61	XS	MAINTENANCE ELECTRIC CONNECTION	14
	KEY SWITCH FOR FLOOR CONTROL 1	63	YV1	DOWNWARDS SOLENOID VALVE	90
SA11 SA12	KEY SWITCH FOR FLOOR CONTROL 1	65	1 V I	DOWNWANDS SOLLINOID VALVE	
		l l			
SA13	KEY SWITCH FOR FLOOR CONTROL 3	67			
SA14	KEY SWITCH FOR FLOOR CONTROL 4	69	SCHEM	A ELETTRICO ELEVATORE 7 FERMATE ON/OF	- GRUPPO
SA15	KEY SWITCH FOR FLOOR CONTROL 5	71	CCLIEN	A ELETTRICO ELEVATORE 7 FERMATE ON/OF	-Floata / Ovtromall
			SCHEM	A ELETTRICO ELEVATORE / FERMATE UN/OF	<u> </u>
			WIRKSO	CHALTPLAN SENKRECHTAUFZUG AUSF. ON/OF	-Flatherti D
		·	CULEM	A ELETTRICO ELEVATORE 7 FERMATE ON/OF	SCALA
			JUITEIN	A LLLITHICO LLLVATORE / TERMATE ON/OF	$\frac{1}{1}$ $\frac{1}{1}$ $\frac{1}{1}$ $\frac{1}{1}$ $\frac{1}{1}$ $\frac{1}{1}$
			ESCHEN	MA ELECTRICO ELEVADOR 7 PARADAS ON/OF	FOOL 7 DI 7 63K100027/el
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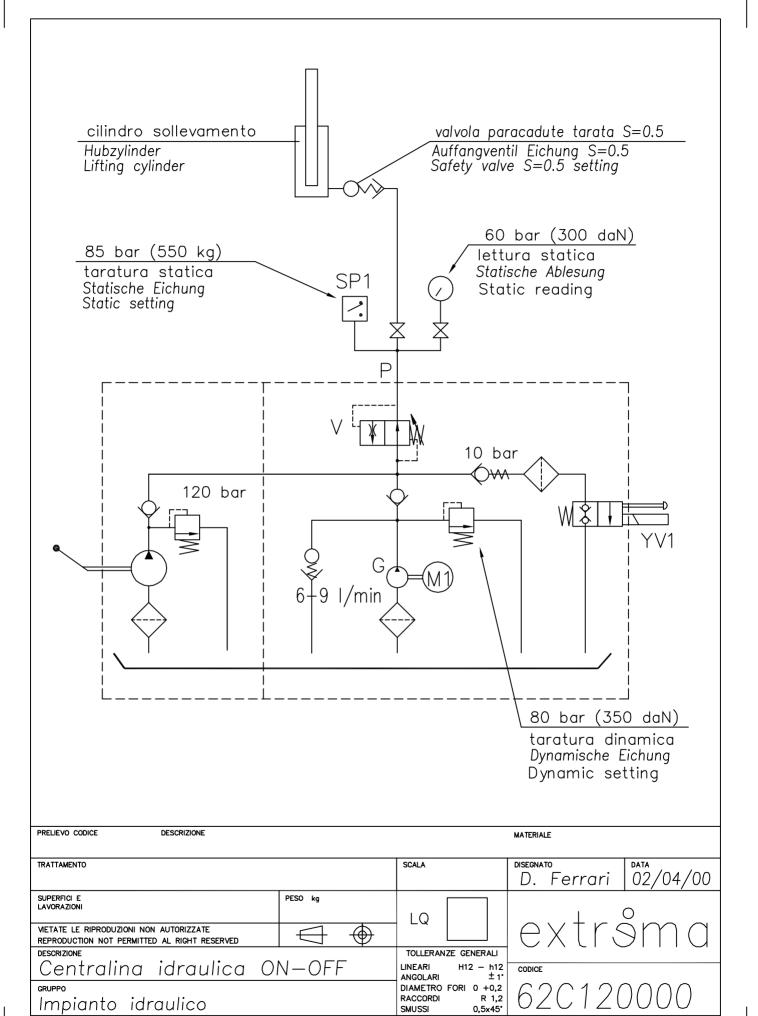




a Eliminate nr. 2 rosette per molla tendicatena pos. 14

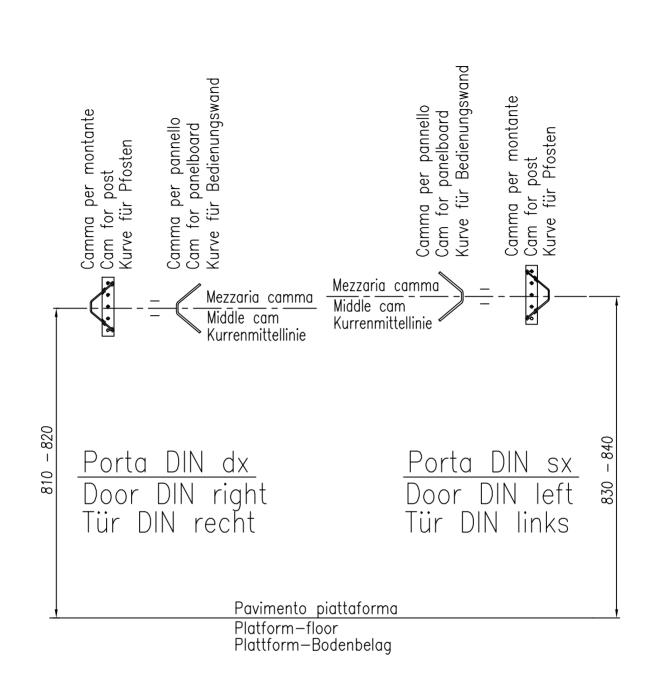
C.M. 031/fz/04 09/11/04 deGennaro

23	Molla paracadute Omicron B/105 A	21M080002	1			
22	Attacco catene	31A170000	2			
21	Staffa comando leva	31S270000	2			
20	Leva dx comando paracadute	31L100001	1			
19	Leva sx comando paracadute	31L100000	1_			
18	Traversa sollevamento arcata	31T200002	1			
17	Barra tendicatena	31B010000	2			
16	Copiglia A 3x30 UNI 1336	25C310014	2			
15	Dado M14 cl 8 UNI 5588	25D010024	4			
14	Rosetta molla tendicatena	31R130000	2			
13	Distanziale tirante catena	31D090000	2			
12	Molla Catene Omicron A/0398	21M080000	2			
11	Distanziale montaggio leve	31D090008	2			
10	Distanziale micro paracadute	31D090005	1			
9	Vite TCEI M5x40 cl 8.8 UNI 5931	25V070030	2			
8	Rosetta 6x12.5 cl. R40 UNI 6952	25R130002	2			
7	Vite TCEIGR D8x25 cl 12.9 ISO 7379	25V080012	2			
6	Guaina micro catene	33G090010	1			
5	Vite TCEIGR D8x20 cl 12.9 ISO 7379	25V080011	2			
4	Rosetta FL 8x24 cl R40	25R130208	11			
3	Rosetta FL 7x21 cl R40	25R130206	3			
2	Dado M6 cl 8 UNI 5589	25D010033	8			
1	Vite TSPEI M6x40 cl 10.9 UNI 5933	25V100037	2			
Pos.	Descrizione	Codice	N'pz.			
Com	DOSTO DESCRIZIONE: MATI	FRALE				
TRATTAMENT	O SCALA DISE	onato). Ferrari 04/0	7/00			
SUPERFICI E LAVORAZIONI	PESO to					
VETATE LE REPODUZIONI NON AUTONIZZATE REPRODUCTION NOT PERMITED AL ROUT RESERVED TOLERANZE GERMAN TOLERANZE GERMAN						
Assieme Traversa sollev. arcata LINEAN HIZ- 112 OCCUCE						

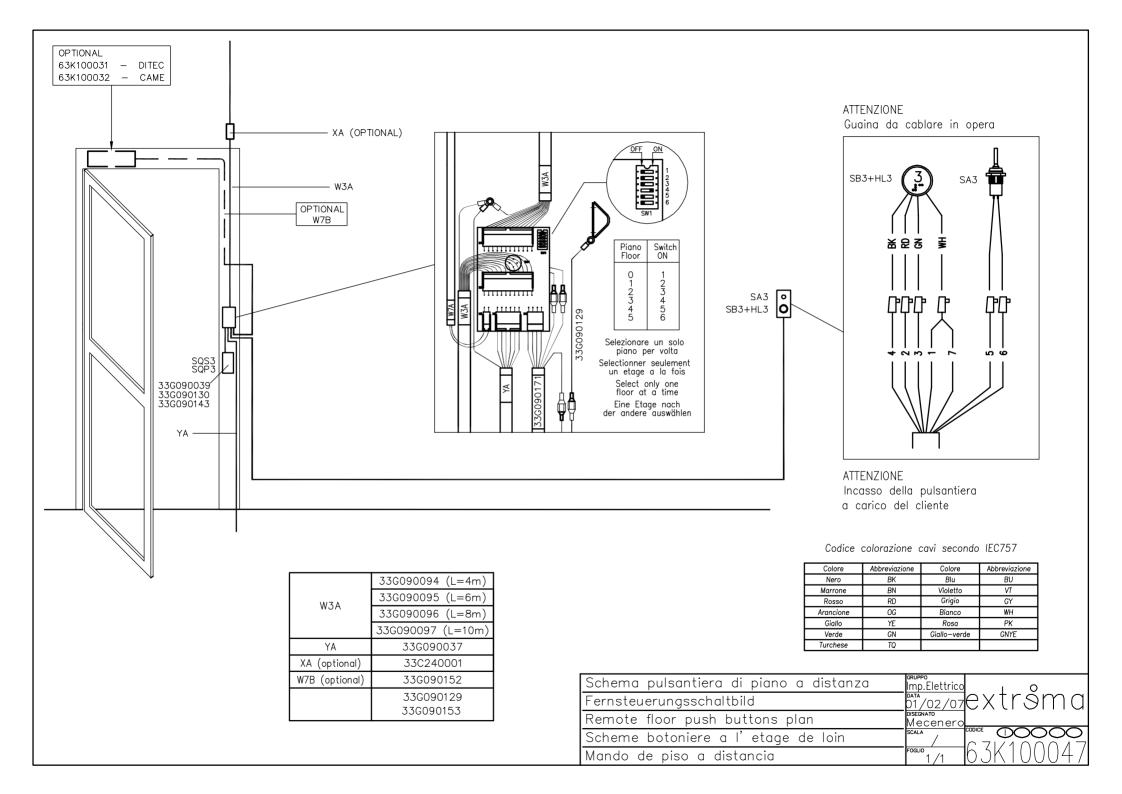


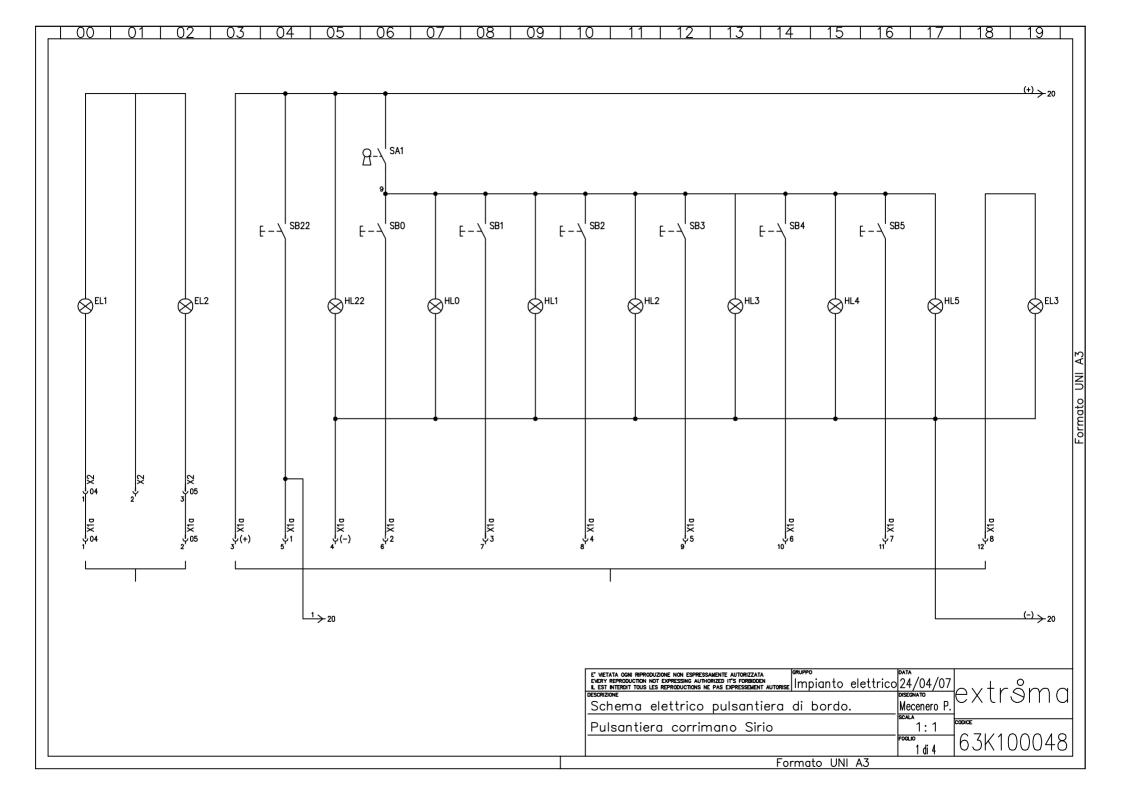
Impianto idraulico

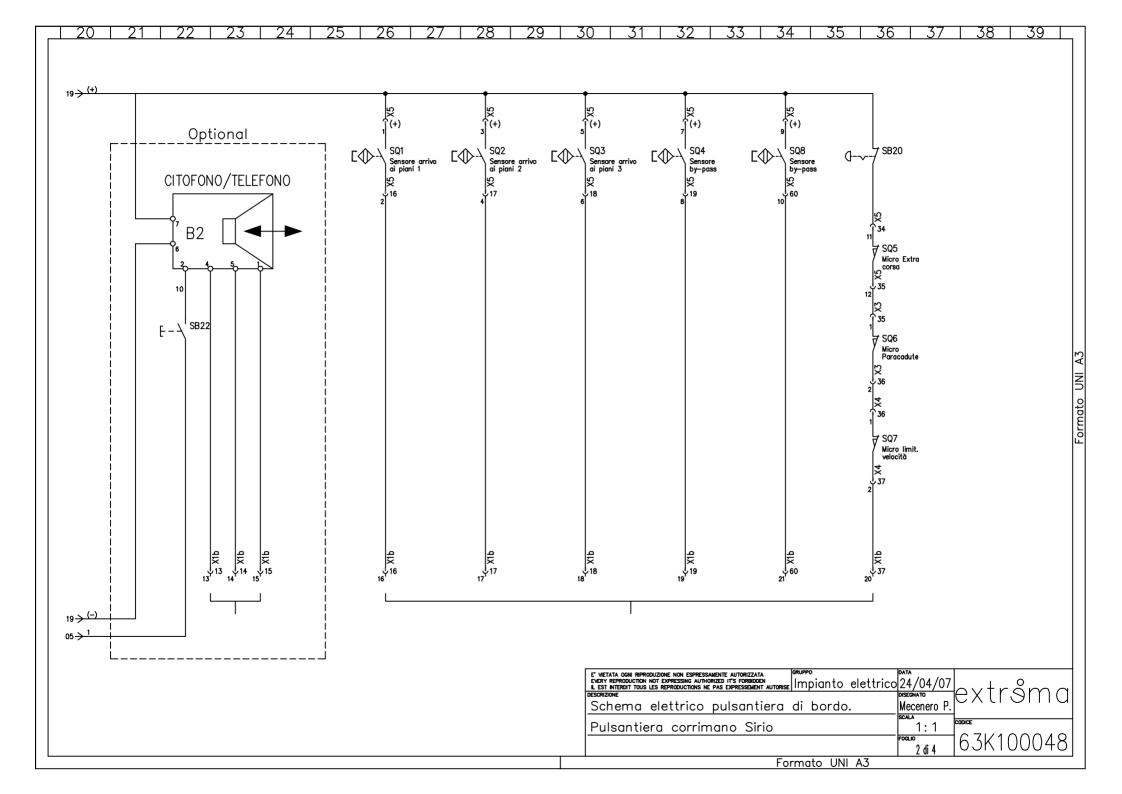
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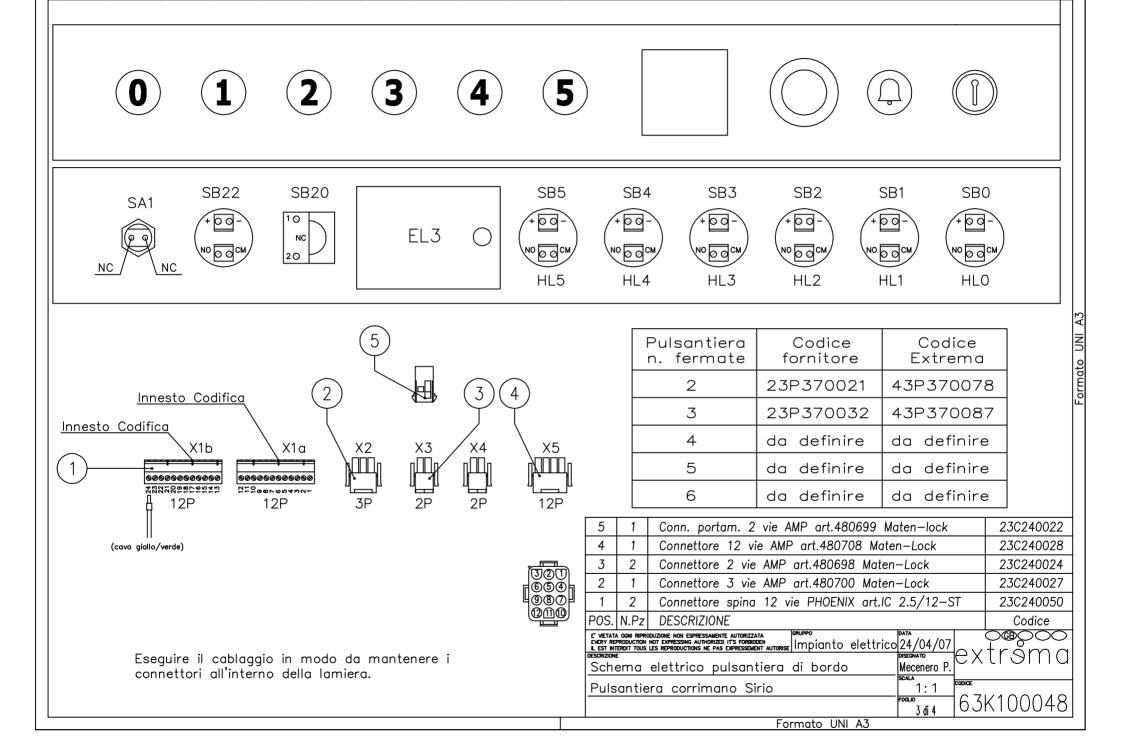


PRELIEVO CODICE DESCRIZIONE			MATERIALE	
TRATTAMENTO		SCALA	DISEGNATO	DATA
		1:1	D. Ferrari	07/09/01
SUPERFICI E	PESO kg			
LAVORAZIONI			ı	0
METATE LE RIPRODUZIONI NON AUTORIZZATE		LQ	$l \cap V + r \circ$	\tilde{n}
REPRODUCTION NOT PERMITTED AL RIGHT RESERVED				7111()
DESCRIZIONE		TOLLERANZE GENERALI		
Disposizione camme s	serrature	LINEARI H12 - h12	CODICE	
GRUPPO		ANGOLARI ± 1° DIAMETRO FORI 0 +0,2	011/10/	10007
	RACCORDI R 1,2		1(1()5	
Anordnung Schlosskurven		SMUSSI 0,5x45*		





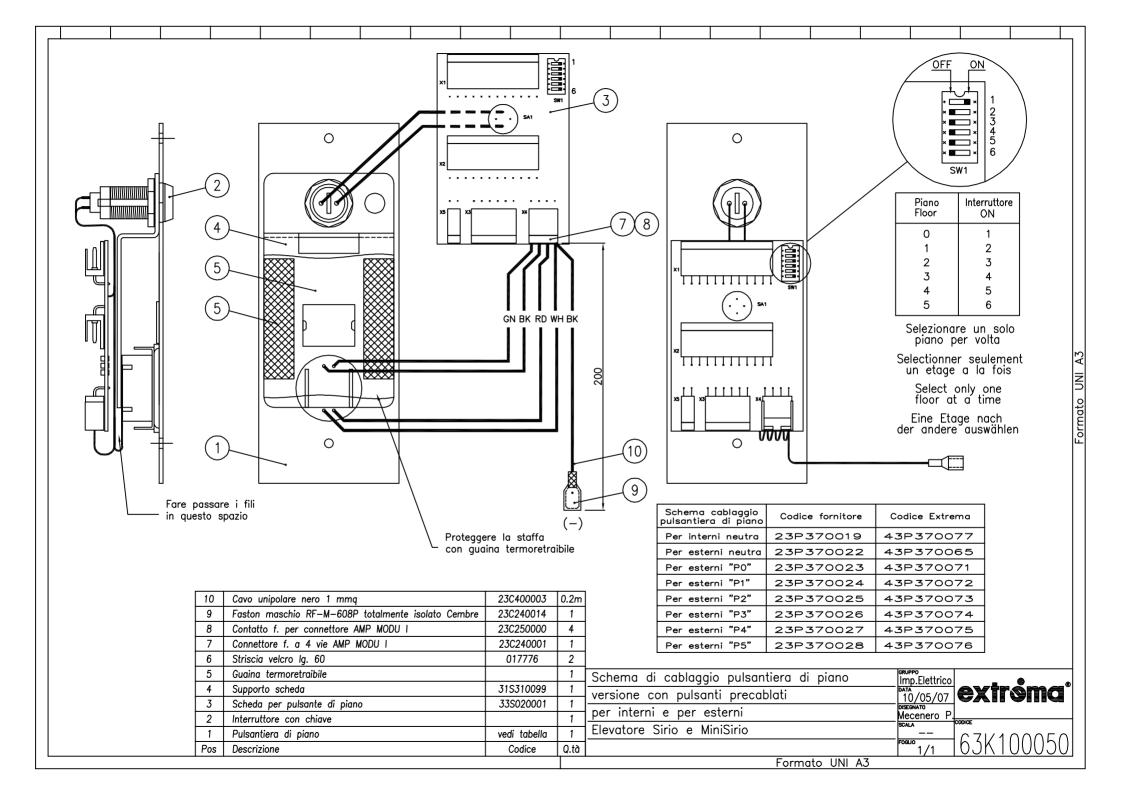


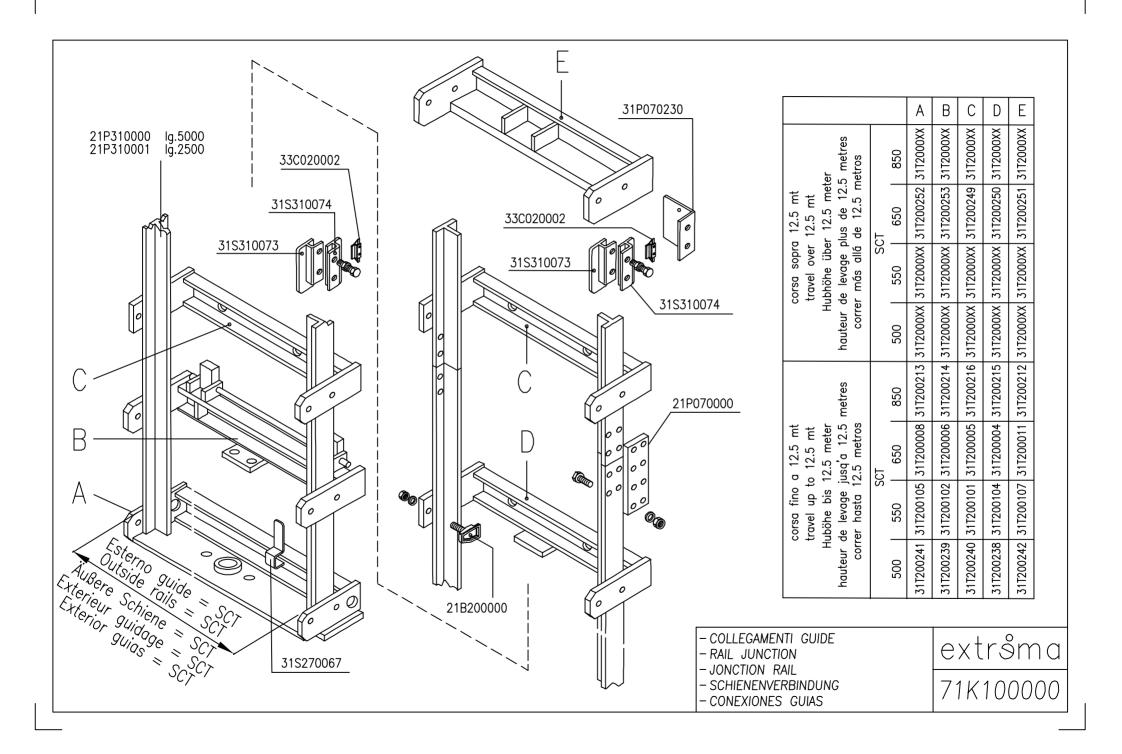


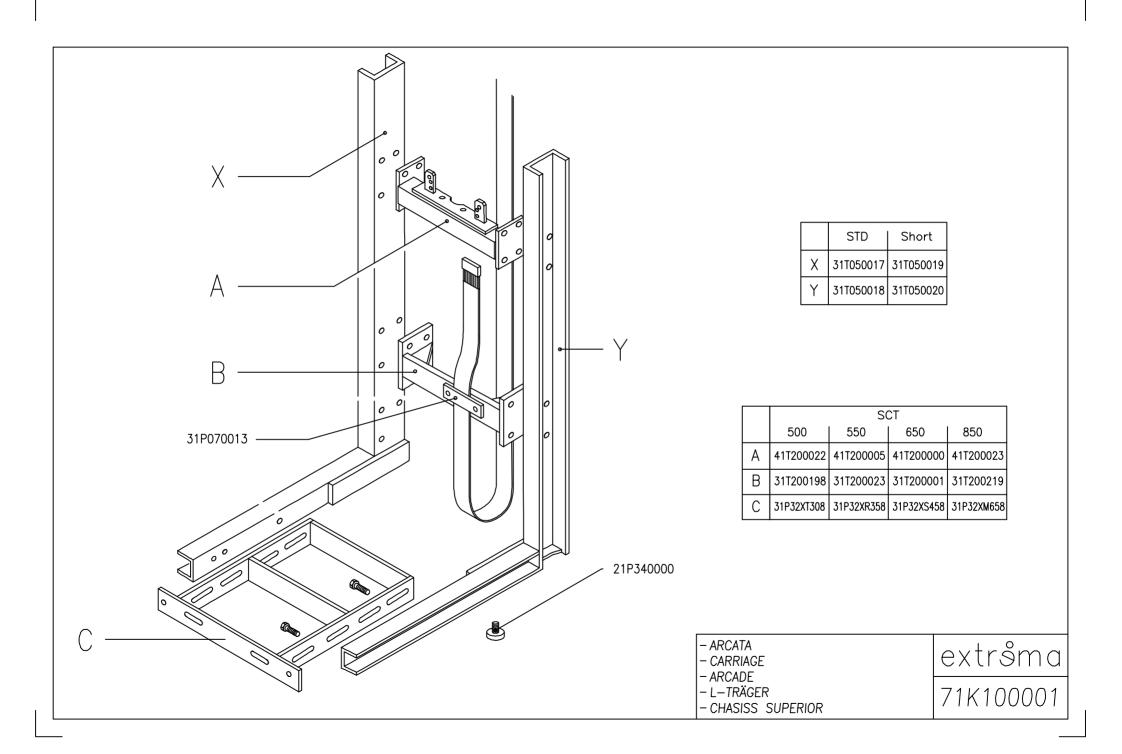
SIMB.	DESCRIPTION	RAMO	
B2	INTERPHONE (OPTIONAL)	22	
EL1-EL2	·	01-02	
EL3	EMERGENCY LAMP ON BOARD	19	
HLO	PUSHBUTTON ON BOARD SBO LAMP	07	
HL1	PUSHBUTTON ON BOARD SB1 LAMP	09	
HL2	PUSHBUTTON ON BOARD SB2 LAMP	11	
HL3	PUSHBUTTON ON BOARD SB3 LAMP	13	
HL4	PUSHBUTTON ON BOARD SB4 LAMP	15	
HL5	PUSHBUTTON ON BOARD SB5 LAMP	17	
HL22	PUSHBUTTON ON BOARD SB20 LAMP	05	
SA1	KEY SWITCH FOR ON BOARD CONTROL	06	
SB0	PUSHBUTTON OF FLOOR 0	06	
SB1	PUSHBUTTON OF FLOOR 1	80	
SB2	PUSHBUTTON OF FLOOR 2	10	
SB3	PUSHBUTTON OF FLOOR 3	12	
SB4	PUSHBUTTON OF FLOOR 4	14	
SB5	PUSHBUTTON OF FLOOR 5	16	
SB20	STOP-PUSHBUTTON ON BOARD		
SB22	ALARM PUSHBUTTON ON BOARD	04	
SQ1	SENSOR 1 OF FLOOR	26	
SQ2	SENSOR 2 OF FLOOR	28	
SQ3	SENSOR OF FLOOR 3	30	
SQ4	SENSOR OF BY-PASS 1	32	
SQ5	SAFETY LIMIT MICROSWITCH	36	
SQ6	MICROSWITCH PARACHUTE		
SQ7	MICROSWITCH OF OVER SPEED GOVERNOR		
SQ8	SENSOR OF BY-PASS 2	34	
SQ9a/SQ9b	MiniSIRIO CONTROL BOARD WALL SENSORS	38	

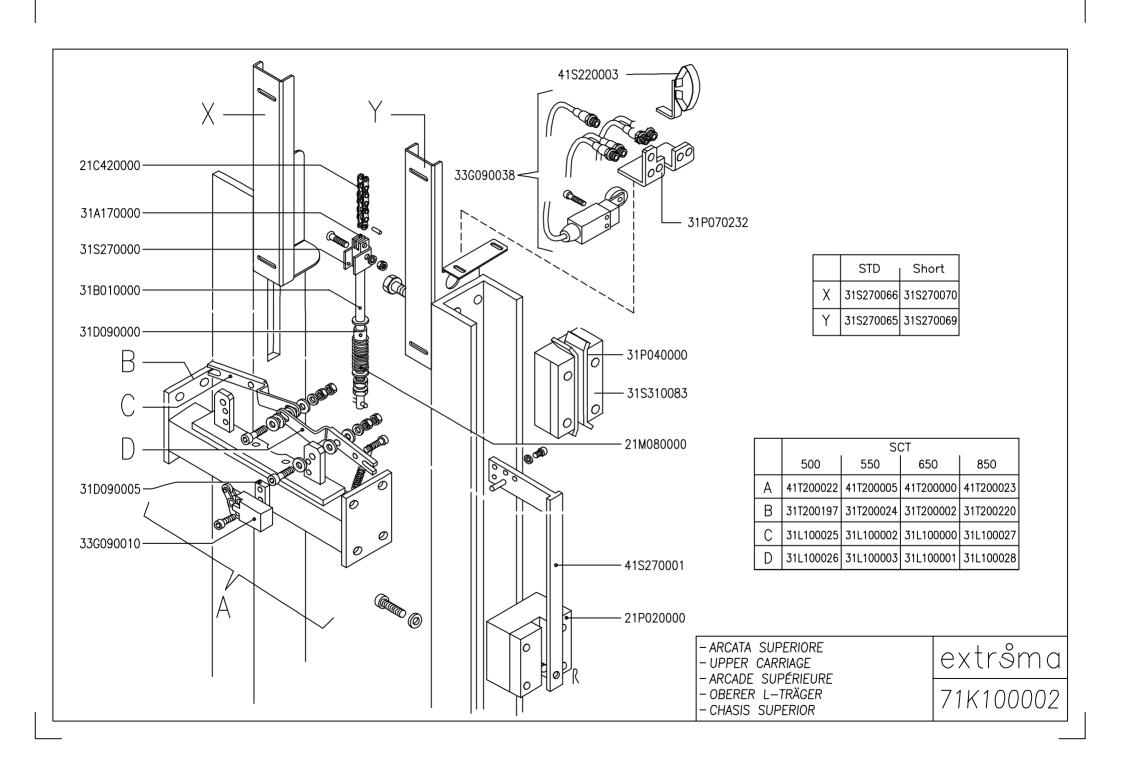


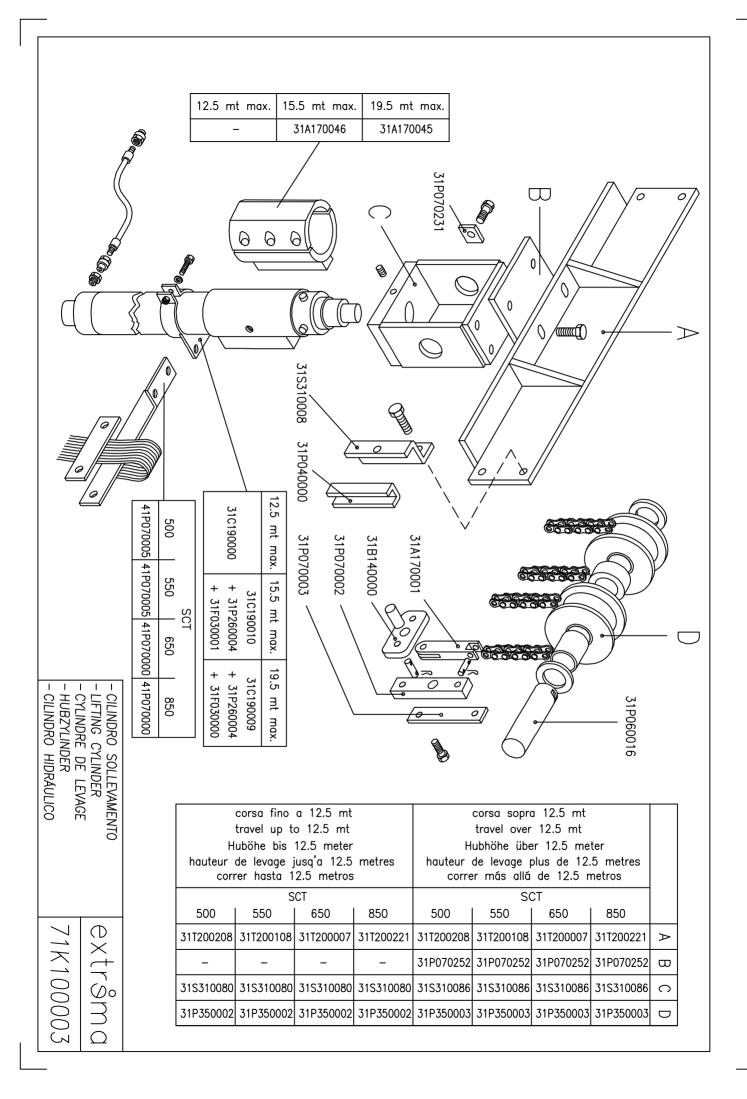
Schema elettrico pulsantiera di bordo.	GRUPPO Imp.Elettrico
Pulsantiera corrimano Sirio	_ 24/04/07
	DISEGNATO Mecenero P.
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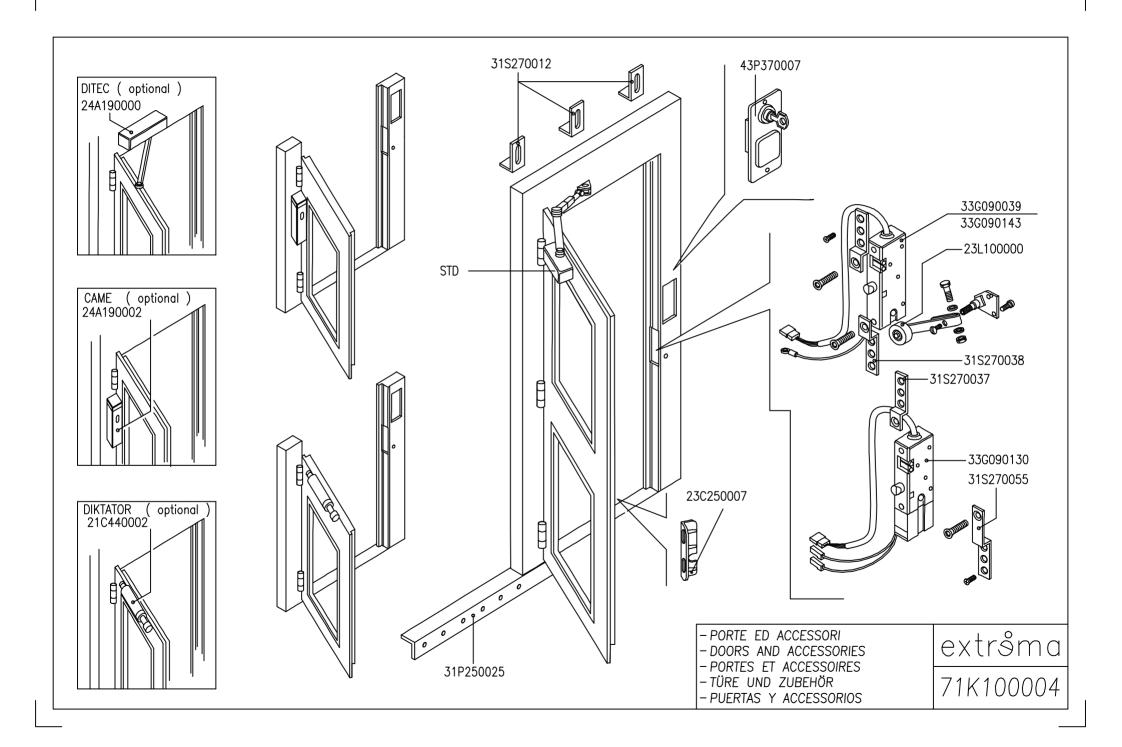


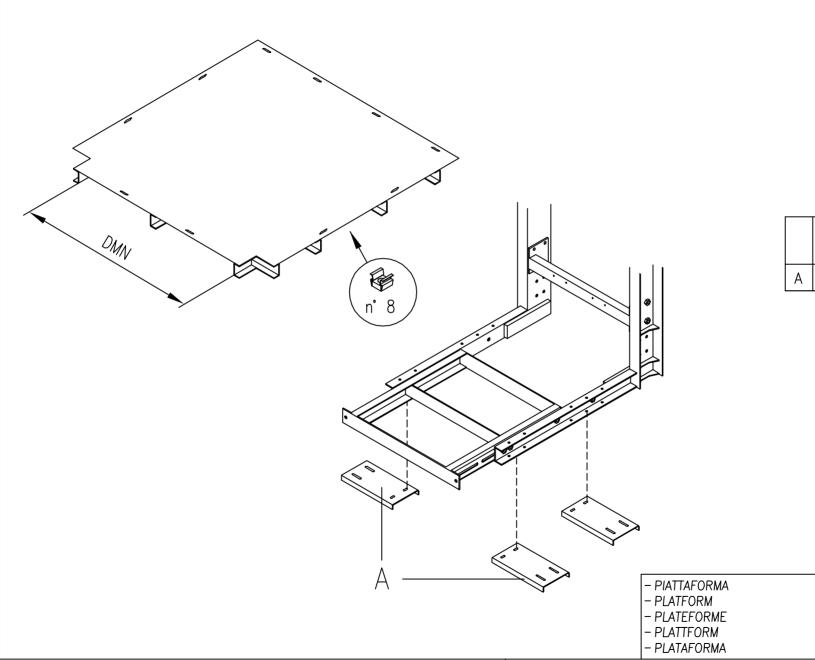








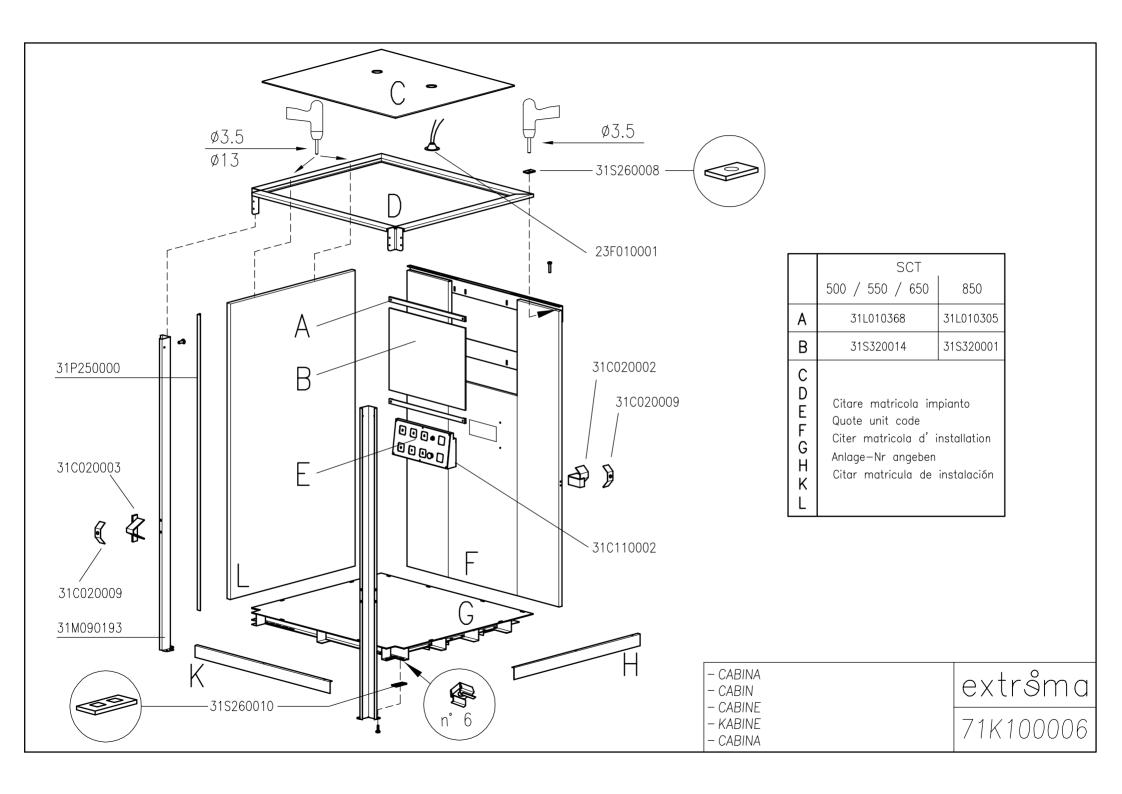


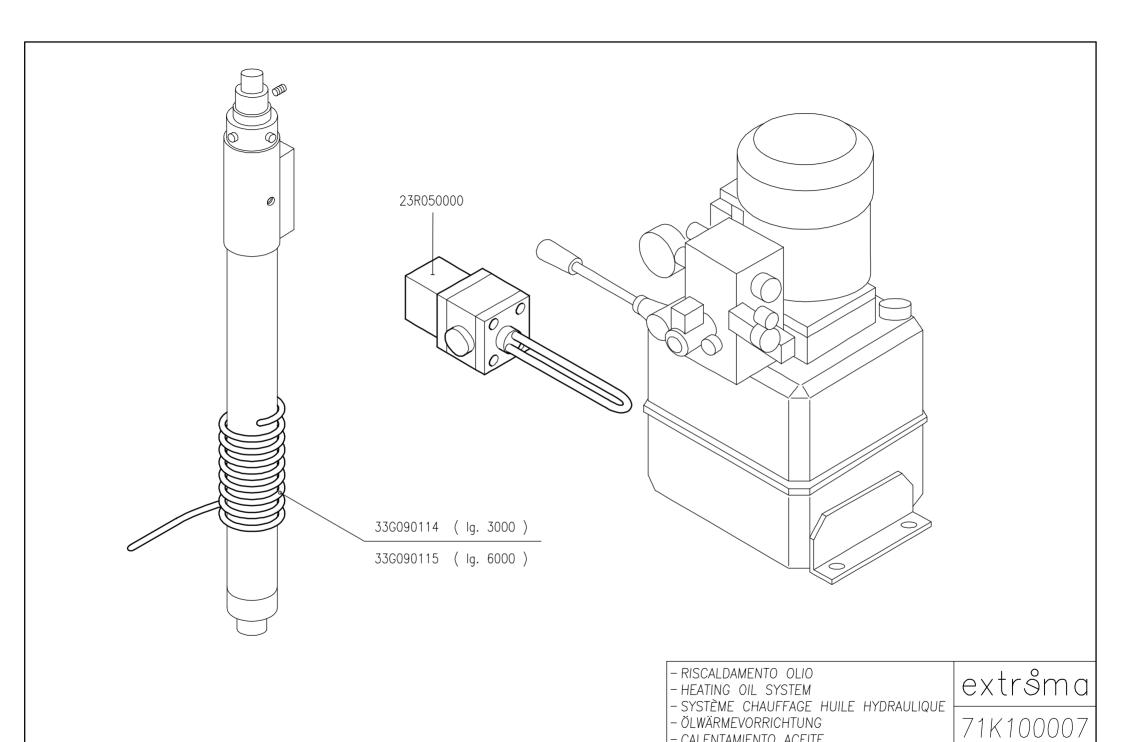


	DMN			
	850 max	1050 max	1250 max	
Α	31S270072	31S270073	31S270074	

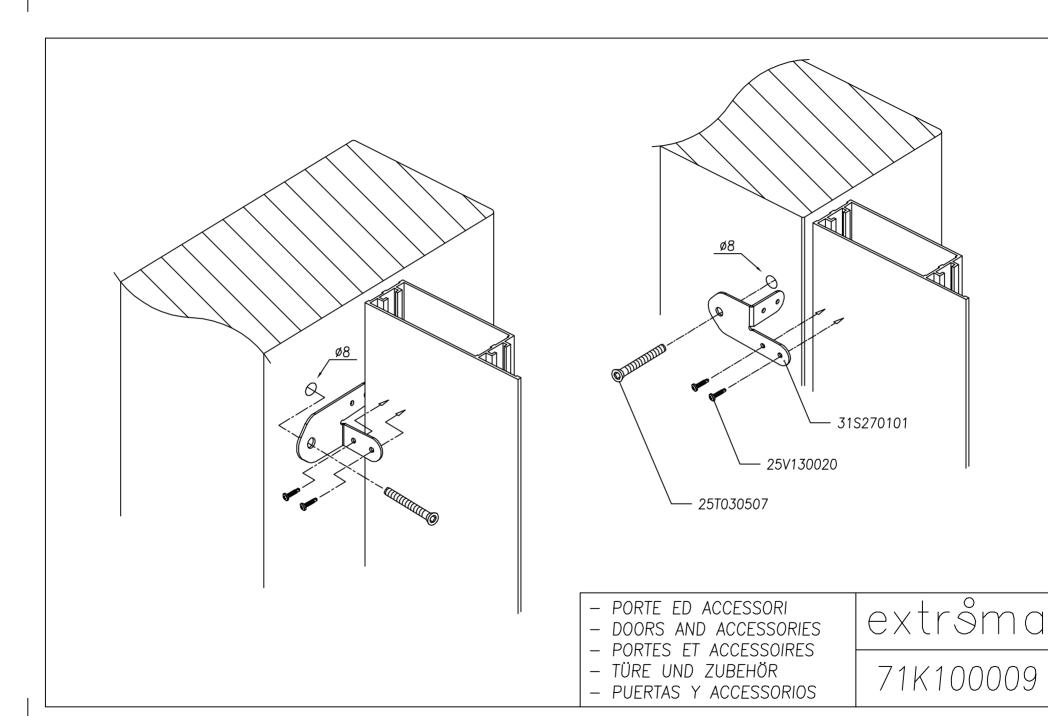
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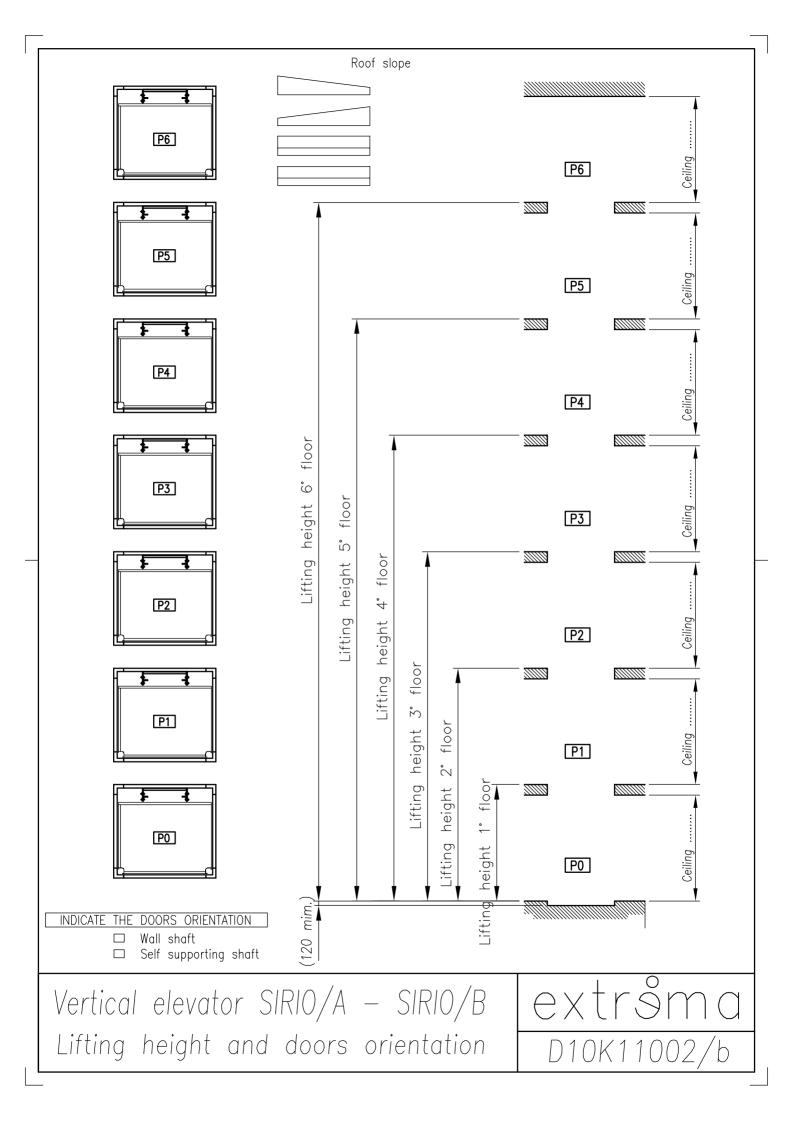
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- CALENTAMIENTO ACEITE





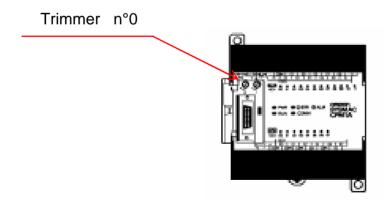


Elevatore SIRIO

Dal programma PLC per ON-OFF cod. SK1020091 e dal programma PLC per SOFT-START cod. SK1030091 il tempo di accensione luci cabina puo' essere regolato da 5 a 20 sec. per mezzo del trimmer n°0 posto dietro lo sportellino di sinistra del PLC (vedi figura)

Starting from PLC program ON-OFF cod. SK1020091 and from PLC program SOFT-START cod. SK1030091 the ignition time of cabin lights can be regulated 5 – 20 sec. with trimmer n°0 behind the litte scuttle in the left side of PLC' body (see picture)

Avec le programme du PLC pour ON-OFF code SK1020091 et le programme du PLC pour SOFT-START code SK1030091 on peut regler de 5 a 20 sec. le temps d'allumage des lumieres, en utilisant le trimmer n°0 qu'un trouve au derriere du portillon (guichet) a gauche du PLC



extrema srl

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