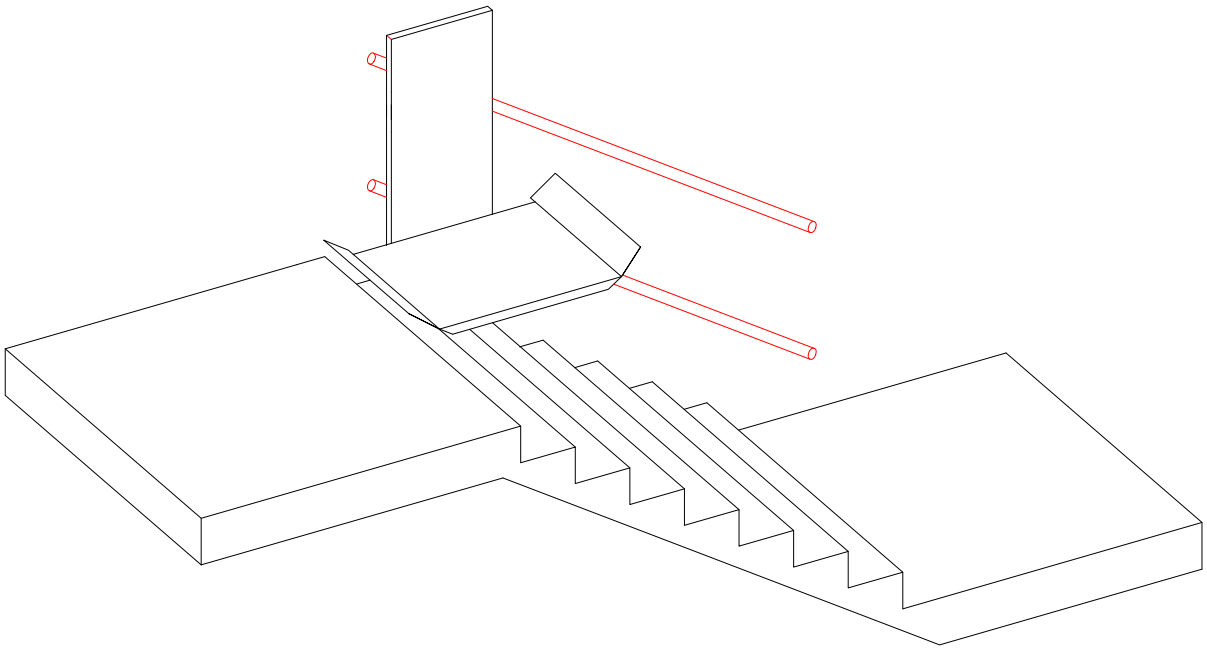
LEHNER LIFTTECHNIK

Installation Manual



≡DELTΔ≡

Platform stairlift

CE

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Observe the following points before installation!

Installation teams must have a general knowledge in:

- working on electric controls
- basic mechanical engineering and providing adequate fixation of the rails and pillars
- reading and understanding circuit diagrams and wiring schematics

The following points are necessary for the installation:

- Have a complete tool kit on hand for mechanical and electrical works

- Check beforehand what fixing materials (screws, anchor bolts, adhesives) are required for the proper fixing of the rails to the wall or the pillars to the floor. These materials are not included in the delivery! The installation company is responsible for the fixing of the rail to the wall or the pillars to the floor/steps!

- Check the packages for shipping damage and missing parts before bringing the lift to the site. Take pictures of damaged parts as soon as these are discovered to provide proof for warranty claims.

- A team of 2 qualified technicians is necessary to install the lift.

Beginning the Installation:

Bring the platform to the upper landing before fixing the rails in order to prevent damage to the rail and platform during transport on the staircase! The platform can only be engaged from the upper end of the rail.

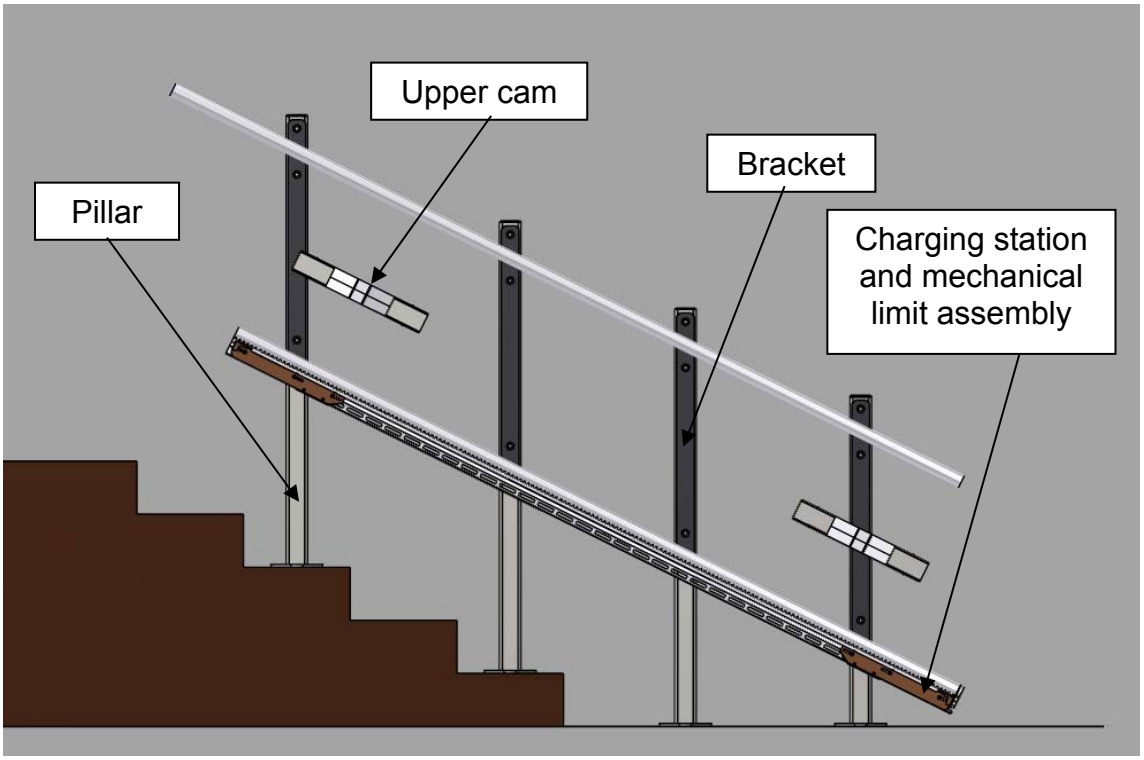
Caution: The large platform is heavy; it weighs approximately 120 kg. A dolly might be necessary to transport the platform up the steps.

The following tools will be required to finish the installation successfully:

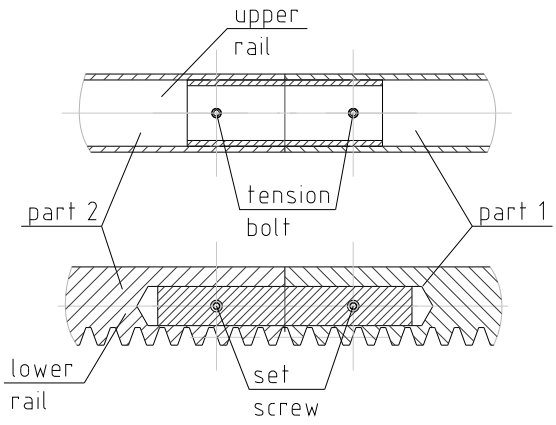
- A complete toolset for mechanical and electrical works
- Voltmeter
- Drilling machines
- Drills, thread cutter
- Fixing material
- Water lever with angle indication

Installation of the STEEL RAILS

The rails can be fixed directly to the wall or on pillars that are fixed to the staircase.



Step 1: If there are 2 rail sections, combine both rail sections. See illustration.
If there are more than 2 rail sections the 3rd rail sections has to be added once the first 2 are installed on the staircase.



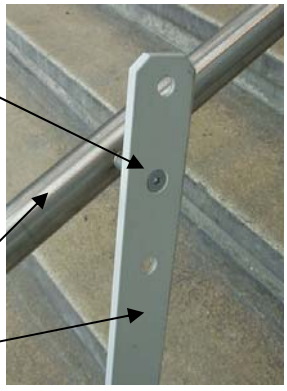
Step 2: Set the approximate angle between the rail and the bracket according to the angle given in the installation drawing.
Then fasten all screws that connect the brackets to the upper and the lower rail.

Use an anlge water level

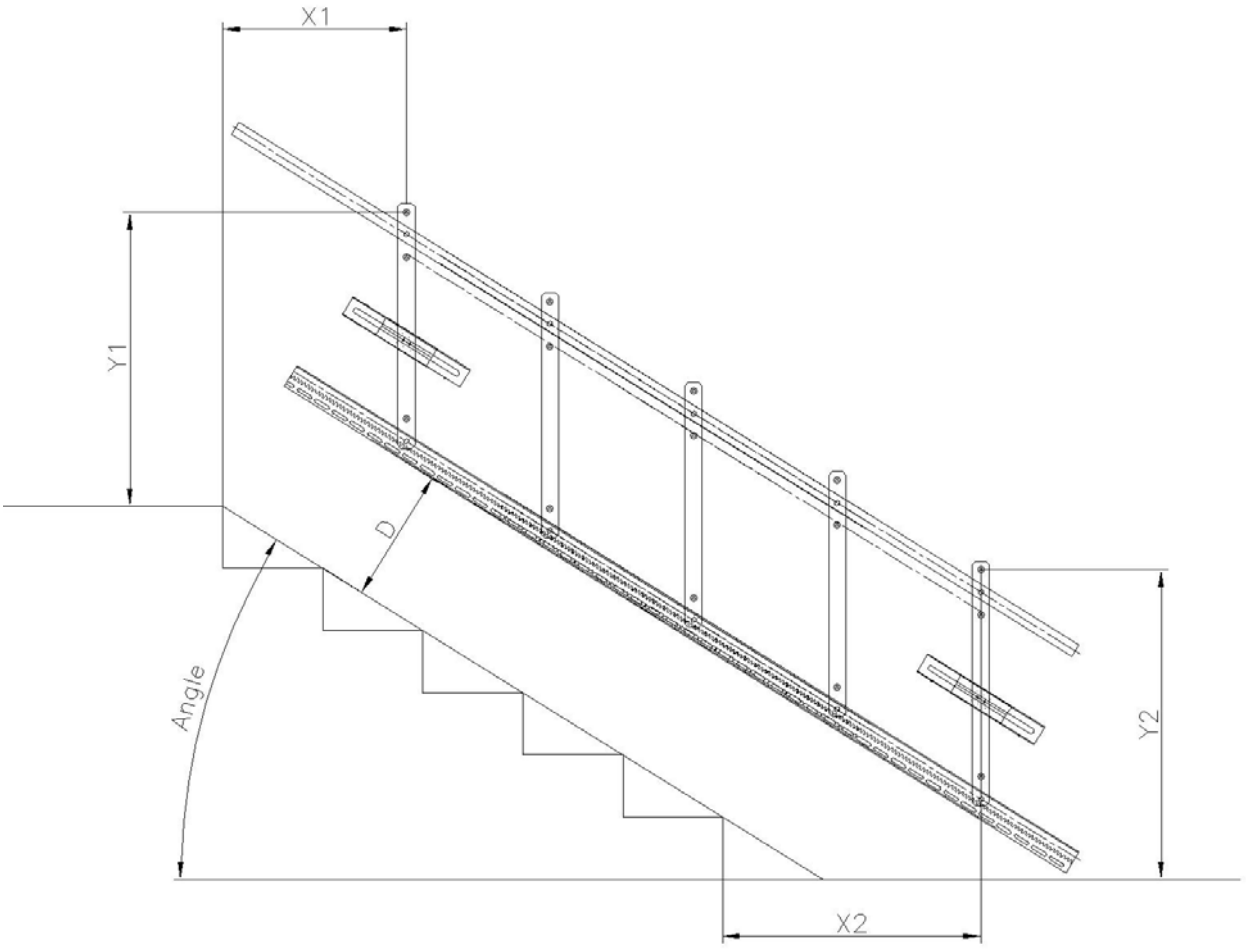
Fasten all screws that connect the brackets to the rail

Upper rail

Bracket



Step 3: First fix the upper bracket to the wall or to the upper pillar (pillars have the serial letters stamped on the base). The required dimensions for the first fixing point are given in the drawing – see dimension X1 and Y1 in example drawing below:



Step 4: Adjust the correct angle of the rail. Now check the necessary clearance (dimensions D in illustration) between the lower rail and the step noses. In case the rail angle must be changed to get the correct clearance between rail and step then the angle of the lower platform carriage needs to be changed.

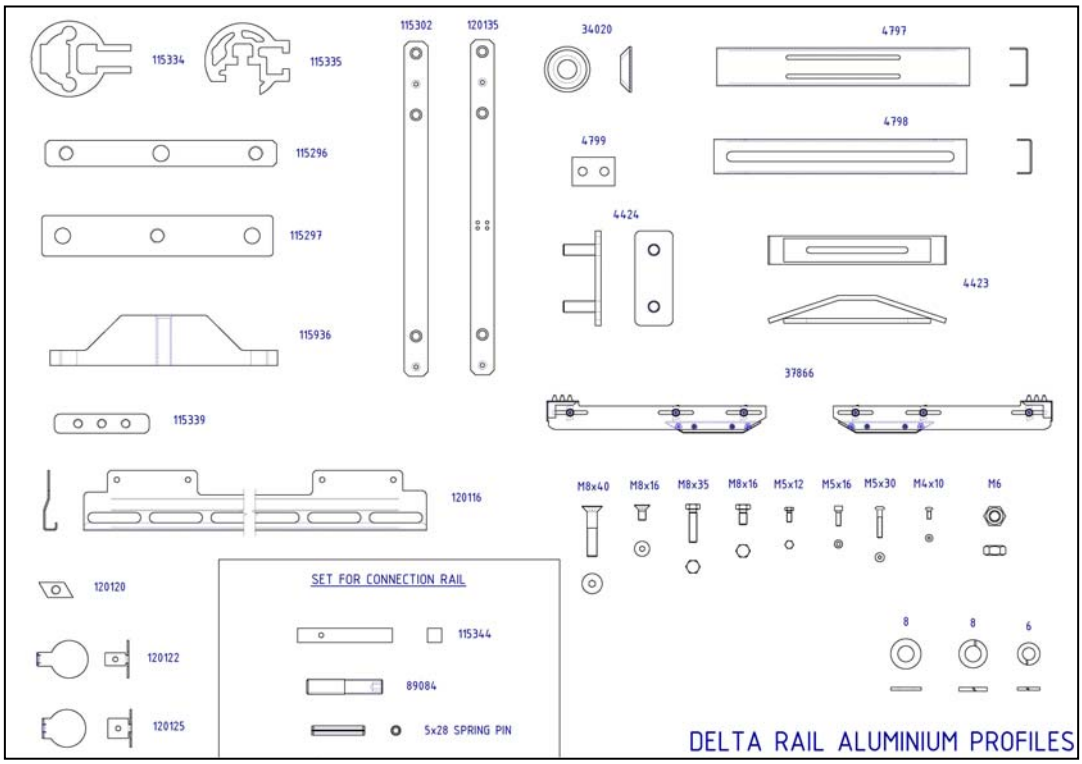
Step 5: If the actual measurements correspond with the clearance dimensions on the layout drawing fix the remaining brackets to the walls or to the pillars.

Step 6: Clean any debris from the rails.

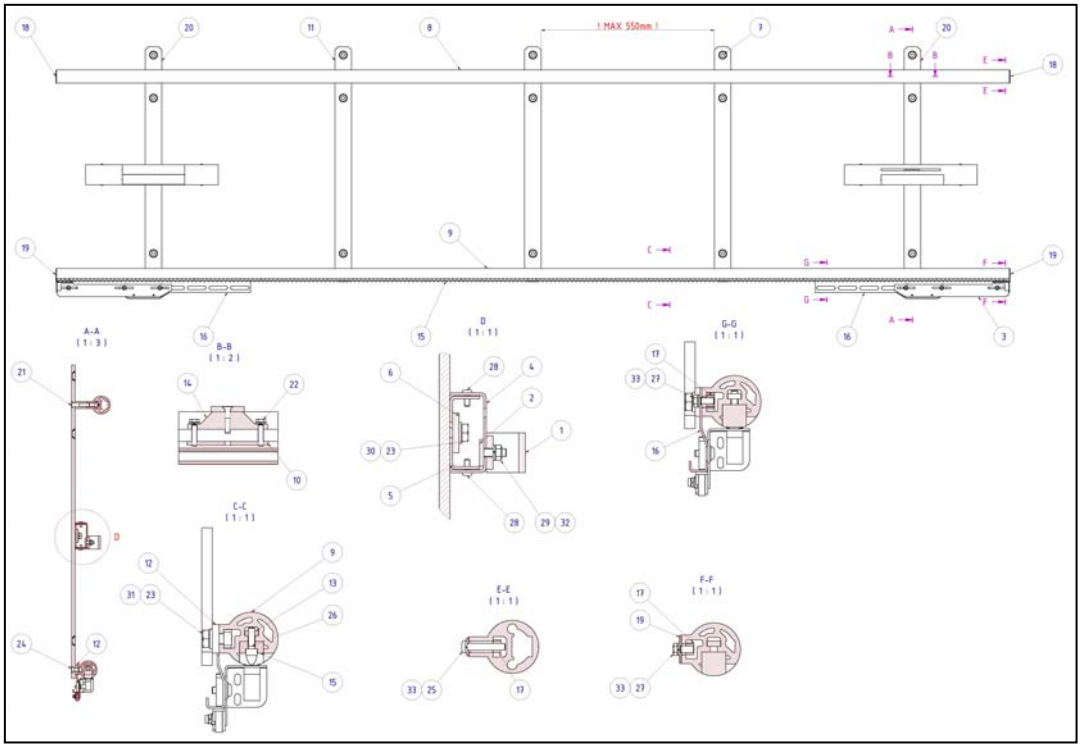
Installation of ALUMINIUM RAILS

On the following pages are only to follow in case you receive the aluminium.

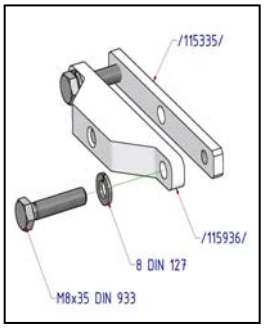
Separate parts of the rails:

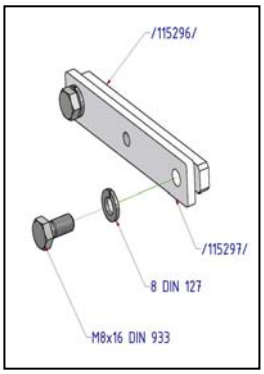


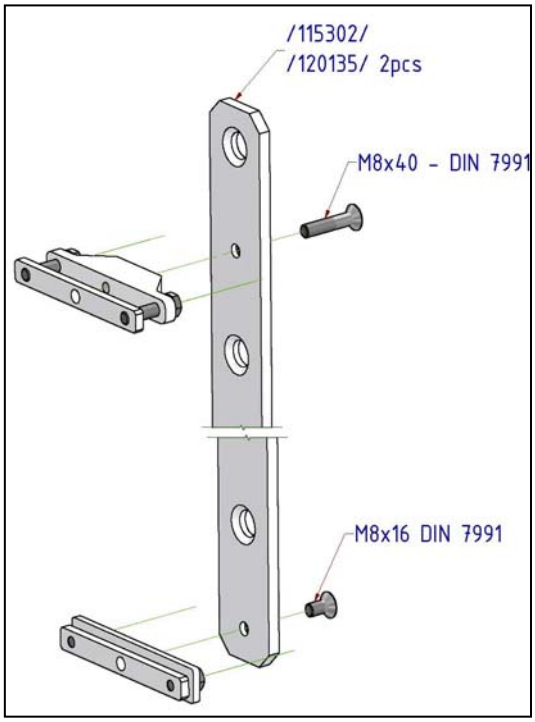
Rail assembled:

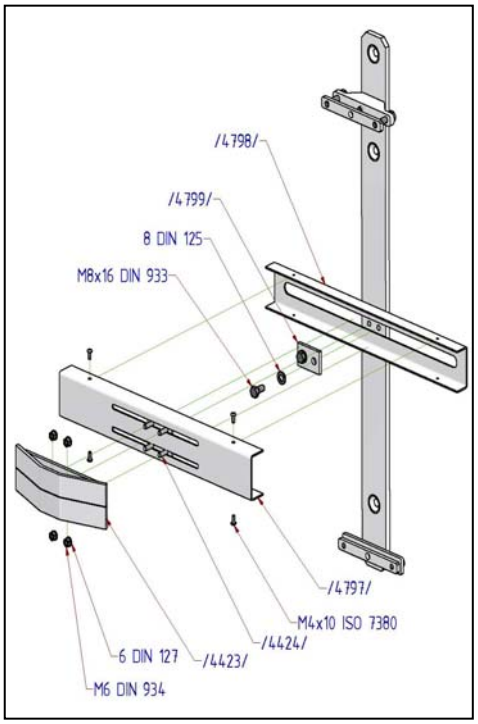


Details of assembly::

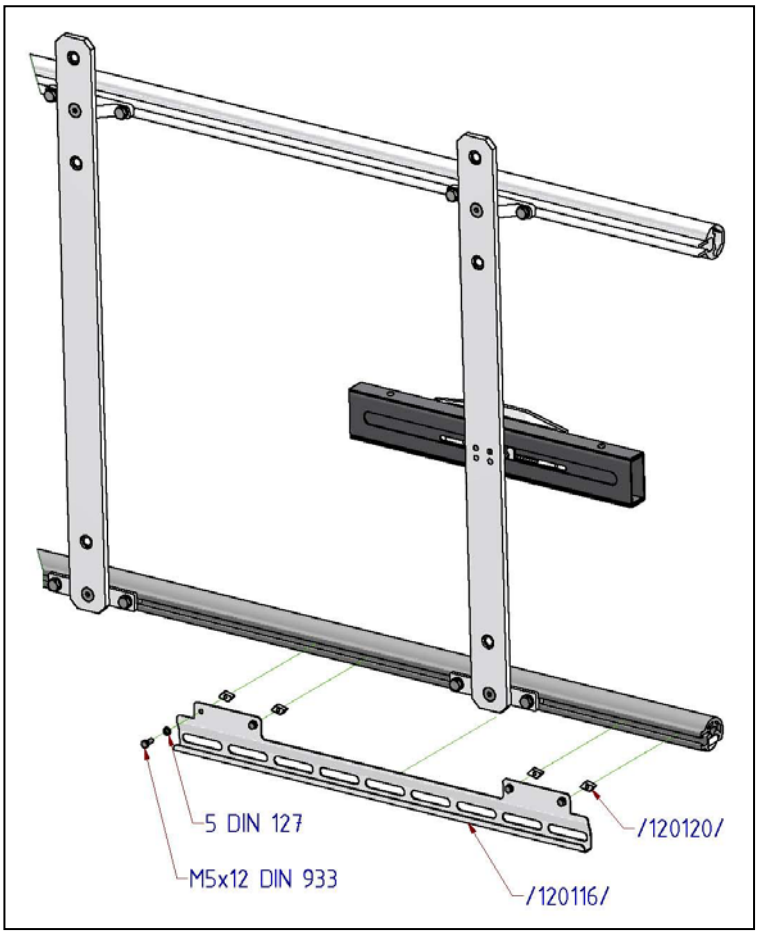


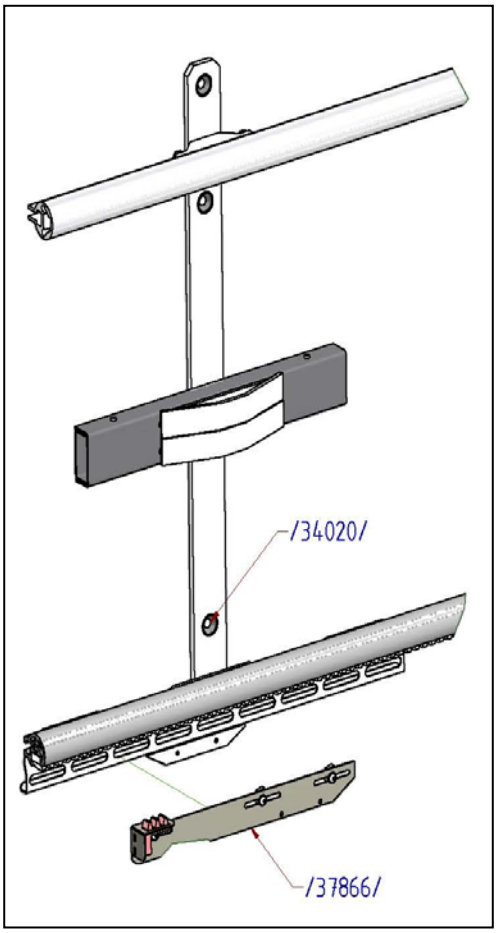




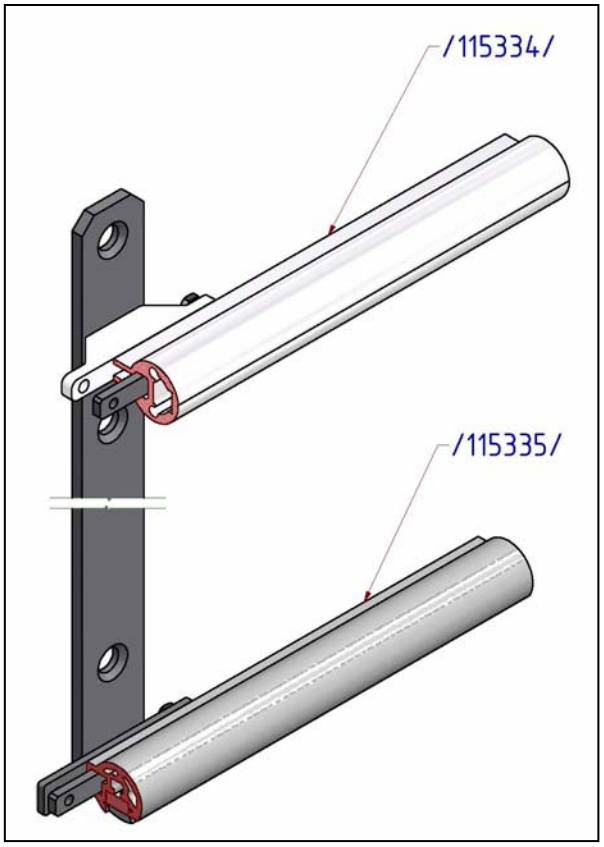


Verbindung von Bügeln und Schienenprofilen:

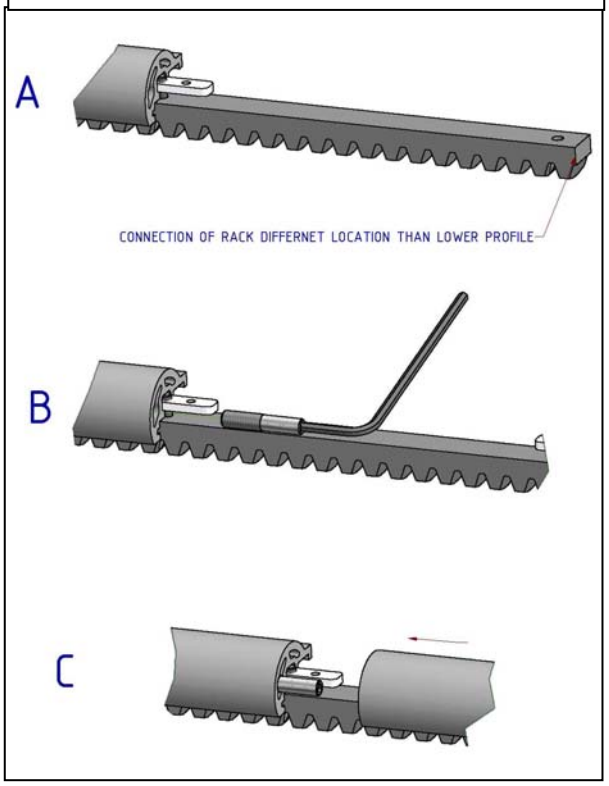


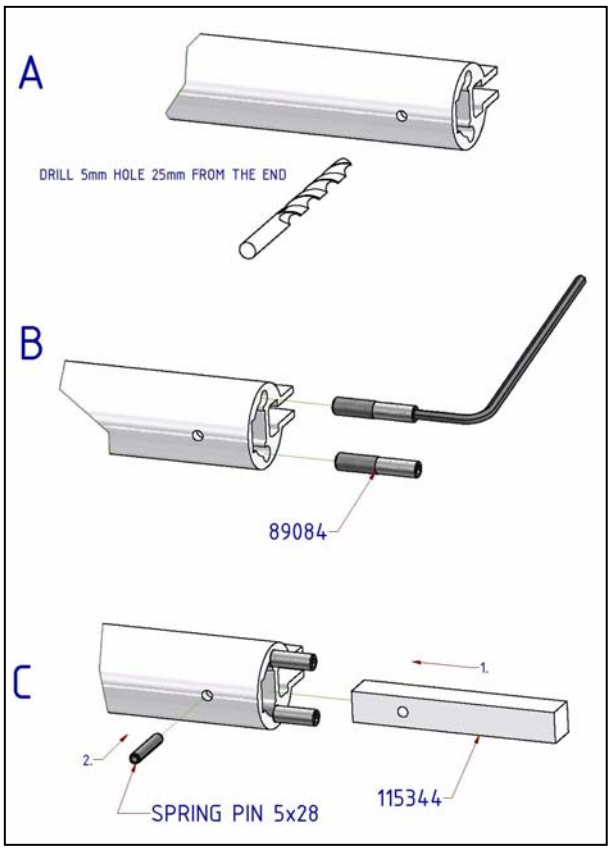


Connection between rail parts (in case you need to prolong rail):

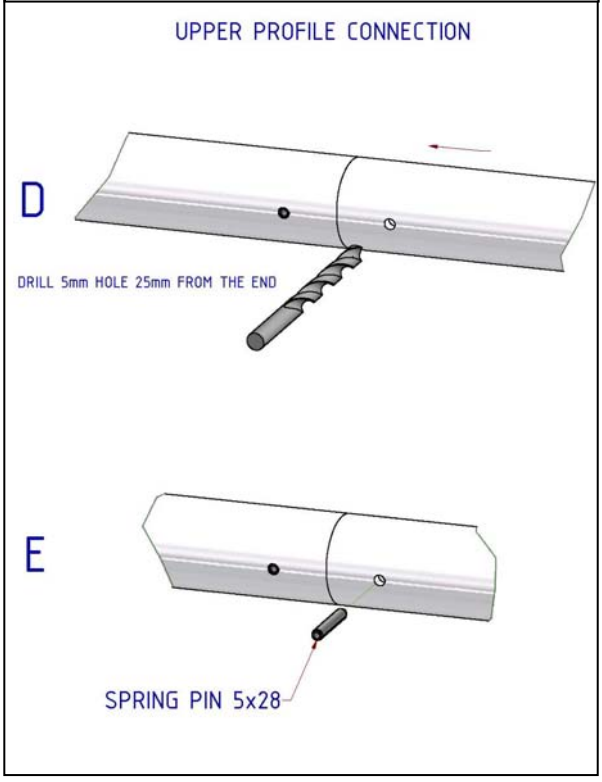


Untere Schienenverbindung:



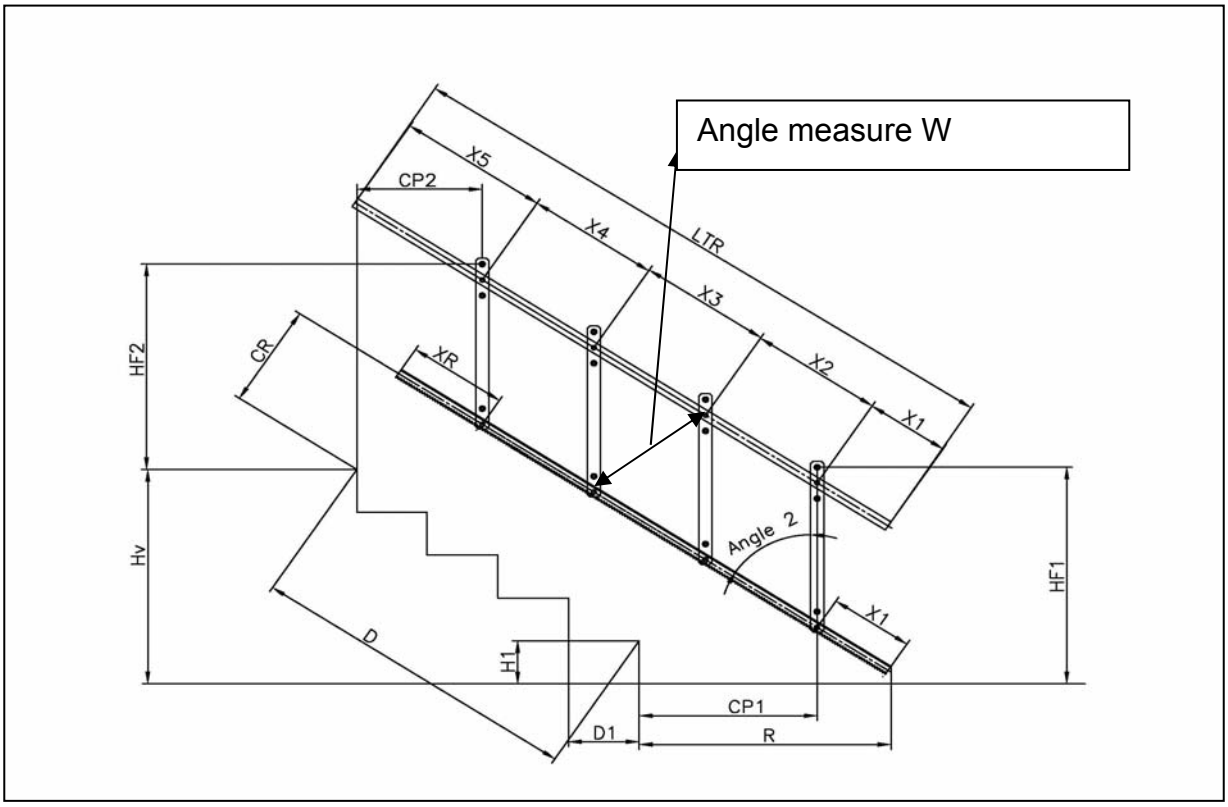


Obere Schienenverbindung:

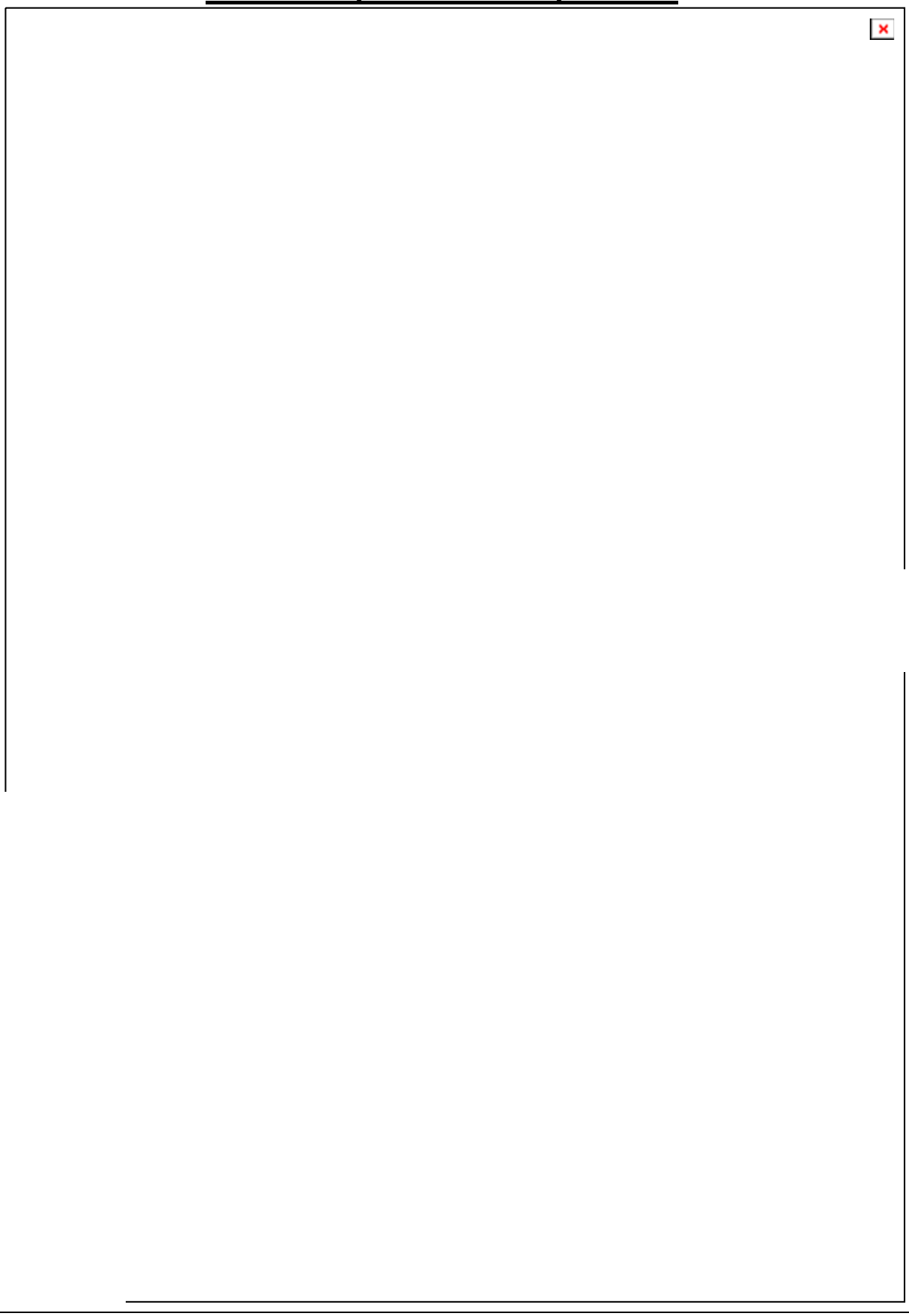


Assembly of the rail according to installation plan:

See you installation drawing of the exact distances between the brackets that connect the upper and lower rail. The angle of the rail can be adjusted by an angle setting tool or by taking the angel measure W between 2 opposite fixing points as indicated below. Once you have sent all brackets and the angle correctly please tighten all bolts on the rail.



Overview platform components



Installation material for fixing of the rail:

For concrete walls:

For concrete walls:

For concrete walls:

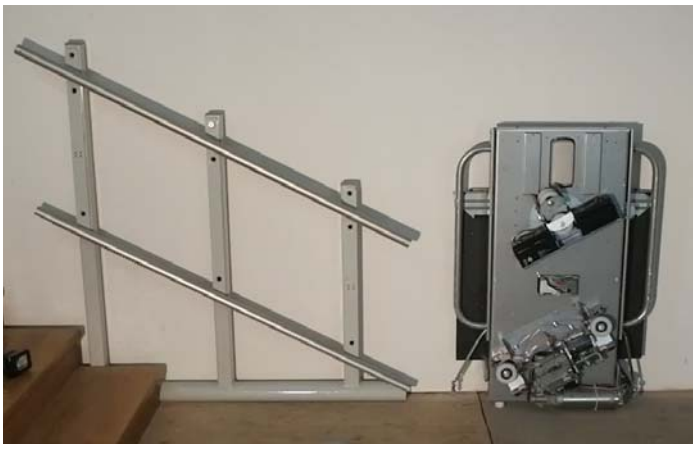
For brick walls:

For brick walls: Adhesive 2 components glue for brick wall installation – injection pistol and adhesive

Installing the platform onto the rail

There are 2 possibilities/options how to install the platform.
But first the following points have to be done:

- Turn on main powre switch on platform.
- Take off all covers on the backside of the platform.
- Connect the batteries and also the handset on spiral cable (if there is)
- Take off the charging stations and barrier cams from the platform (if premounted)



Option 1: Drive the rail into the platform carriages (platform standing on lower floor – no lifting of platform necessary)

- First install the rail according to installation drawing as described in the first chapters
- Place the platform vertically on the lower floor close to the lower stop position.
- Open the platform manually by releasing the cable fixing between the platform and the barrier arm.
- Now press platform close on the external radio controls. Fully close the platform in this way.

After you have isntallated the rail and checked the measures, please take oft he whole rail again and insert it into the carrages on the platform. See installation video for detailed description!
Insert the rails manually until the rack hits the pinion in the lower carriage. Now you can use the radio control to drive the rail into the carriage. Press the drive UP button.

ATTENTION: TAKE GREAT CARE THAT THE RAIL PASS WELL THROUGH THE NARROW PARTS OF THE LOWER CARRIAGE. IT MUST NOT HIT THE METAL PARTS INSIDE THE LOWER CARRIAGE.

Now bring the platform with the rail to the lower stop position. You can move the rail up and down by using the remote control (drive into and out of carriage) and by this way you can match the rail brackets fix screws on the brackets on the upper side. Then drive up the platform and fix the brackets also in the lower stop area.

Option 2: Drive the platform onto the installed rail (platform needs to be taken to upper stop and lifted onto the rail!)

If you wish to reduce the weight of the complete unit, you can dismantle the platform floor from the carriage. Please see chapter “Changing the platform floor” for the detailed explanation. If you can manage to lift the platform with 2 or more people continue as outlined here below:

Step 1: The upper charging station and the upper cam have to be removed from the rail

Step 2: Dismantle the covers from the upper and lower carriages. The backside of the sidewall should look as shown on the picture beside.

Step 3: Bring the closed platform to the upper stop. Now carefully lift the carriage with 2-3 people on upper rail end, guiding the upper carriage rollers onto the upper rail. Then the lower carriage will be approached carefully to the lower rail.

Step 4: Insert the hand wheel into the drive motor, loosen the break of the motor and turn the hand wheel into the downwards direction.

Note: Always watch the interference of the tooth wheels (drive wheel and overspeed governor) and the rack. Have a look at the illustration to the right – if it does not go smoothly dismantle the platform again and insert it new! Do not use the motor for riding the carriage onto the rails! The tooth wheels of the drive and the overspeed governor can be damaged!

Step 5: Open the platform by releasing the rope connection between the platform and the barrier arms. Check if the battery is connected correctly and switch on the main power switch. Open the platform carefully so that the barrier arms and platform floor are horizontal. Now you can drive the platform further down by using the handset on spiral cable.

Befestigung des oberen Fahrwerkes:

Step 6: Open the upper and lower frontal covers of the carriage. At delivery of the unit the upper carriage will be moveable (can rotate). This will facilitate the process of engaging the platform onto the rails. After engaging the platform the upper carriage has to be fastened – see below. Adjust the upper carriage to the same angle as the lower carriage and the rail.

Note: After adjusting the angle of the upper carriage, fix the four nuts of the upper carriage. This **must not** be forgotten!!!

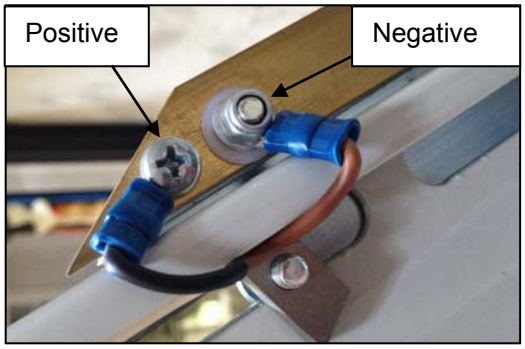
Step 7: Run the carriage once up and down on the railway and check if the overspeed governor is adjusted well. There should be a constant gap between the rack and the guide holes in the overspeed governor. If not adjust the overspeed governor by loosening the fixing screw.

Step 8: Reinstall the charging ramp and the clams for unblocking of the barrier arms to the upper end of the railway. Reinstall all covers on the carriages.

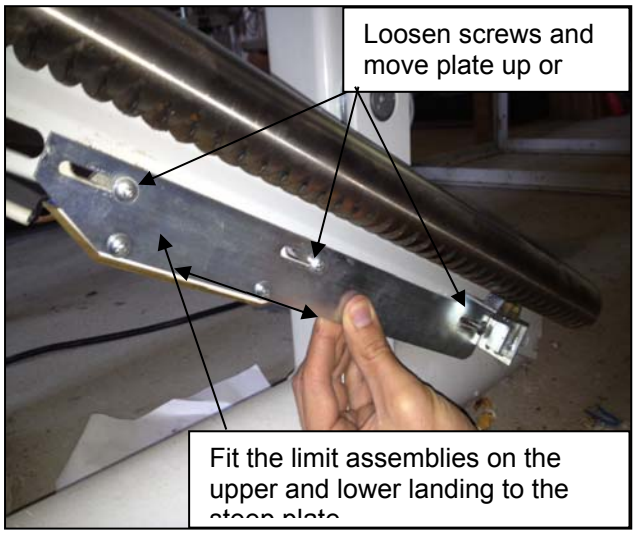
Installing of the charging station/limit assembly

The position of the charging stations/limit assembly has to be adjusted so the **limit switches** on the lower carriages are pressed by the **mechanical stop** at the correct spot.

Connect the stations according to the electric diagram. The **positive connection** goes to the charging ramps (copper material). The **negative connection** goes to the rail. Make sure there cannot be a short circuit between the copper and the rail. This could destroy the charger! Connect the upper and the lower copper charging ramp with a single phase cable. This cable can run behind the steel profile under the lower rail.



Fix the charging station with the limit assembly onto the steel profile in the upper and lower landing. Fine adjust limit switches S27 and S28 if necessary with the slot hole under the carriage covers.



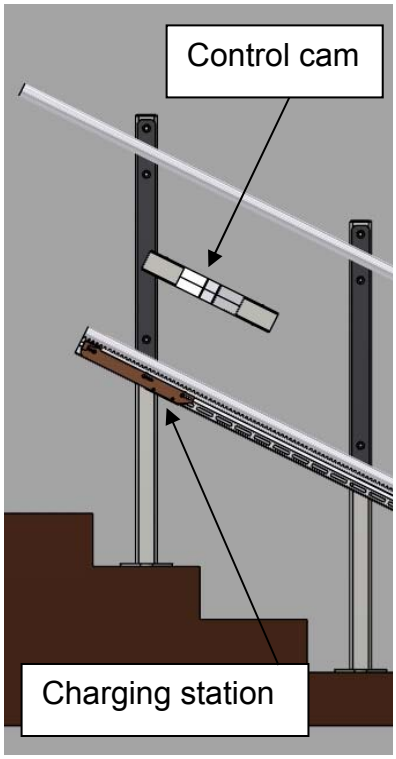
The plastic buffers on the lower end of the backside of the carriage should touch down slightly on the bottom in the **lower stop position**. The lower limit assembly should be placed accordingly!

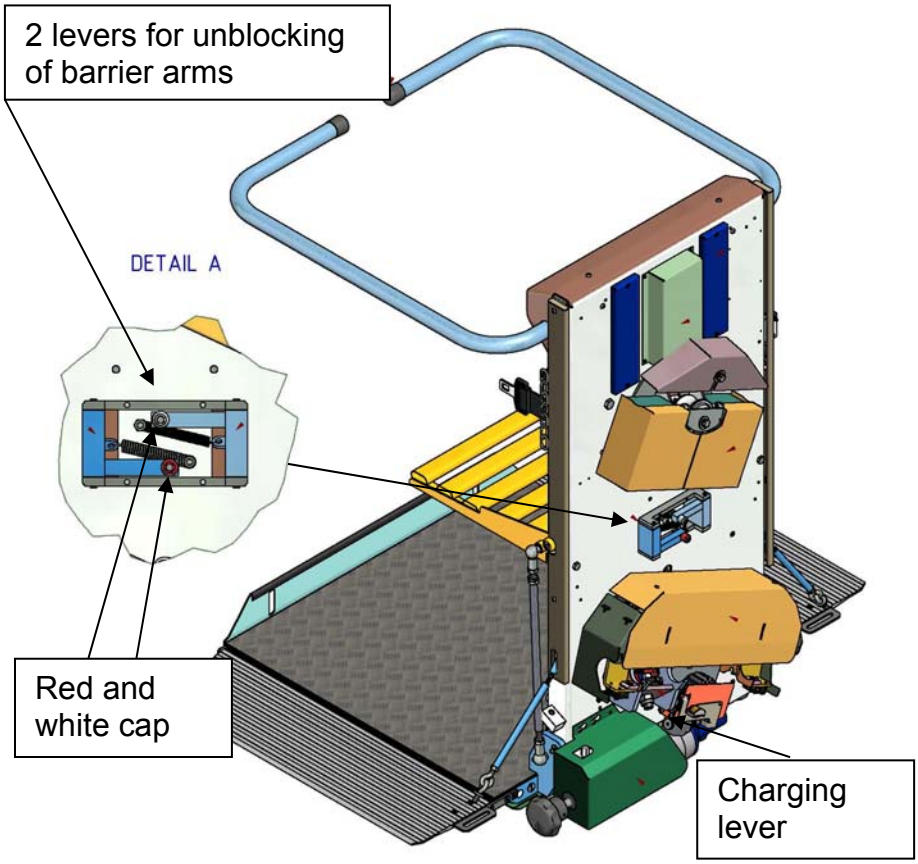
In the **upper stop position** the platform should be in one line with the landing height, so the wheelchair driver can leave the platform horizontally, without any ramp inclination!

Install the **battery charger** at any convenient place close to the upper or lower charging stations. Make sure there is no collision between the battery charger and the moving platform in case of wall fixing of the rail.

Adjusting of the control cams

Adjust the control cams - the levers for unblocking of the barrier must be in the middle of the control cams when the platform arrives in the stop position.





Important:

The **charging lever** must hit the charging station **before** the **lever for unblocking of the barrier arms** hit the control cams! Otherwise the lift would stop and can only be moved back by the hand wheel.

Caution: Do not mount two control cams in the upper stop position! Else the lower barrier can be opened and the user may fall out of the platform!!

Add the red coloured plastic cap on the lever for the upper barrier – this indicates for the emergency rescue of passengers, as described in the user manual!

The upper lever is responsible for the left barrier and, the lower lever is responsible for the right barrier!

Last checks before using the stairlift

Before going into operation, check again the correct measurements and fixings and make sure there can be no collision between the platform and the staircase or any other obstacle. Make sure that the travel clearances are correct and all strut fasteners tightened.

Caution: Do not ride on the unit until the fasteners are tightened.

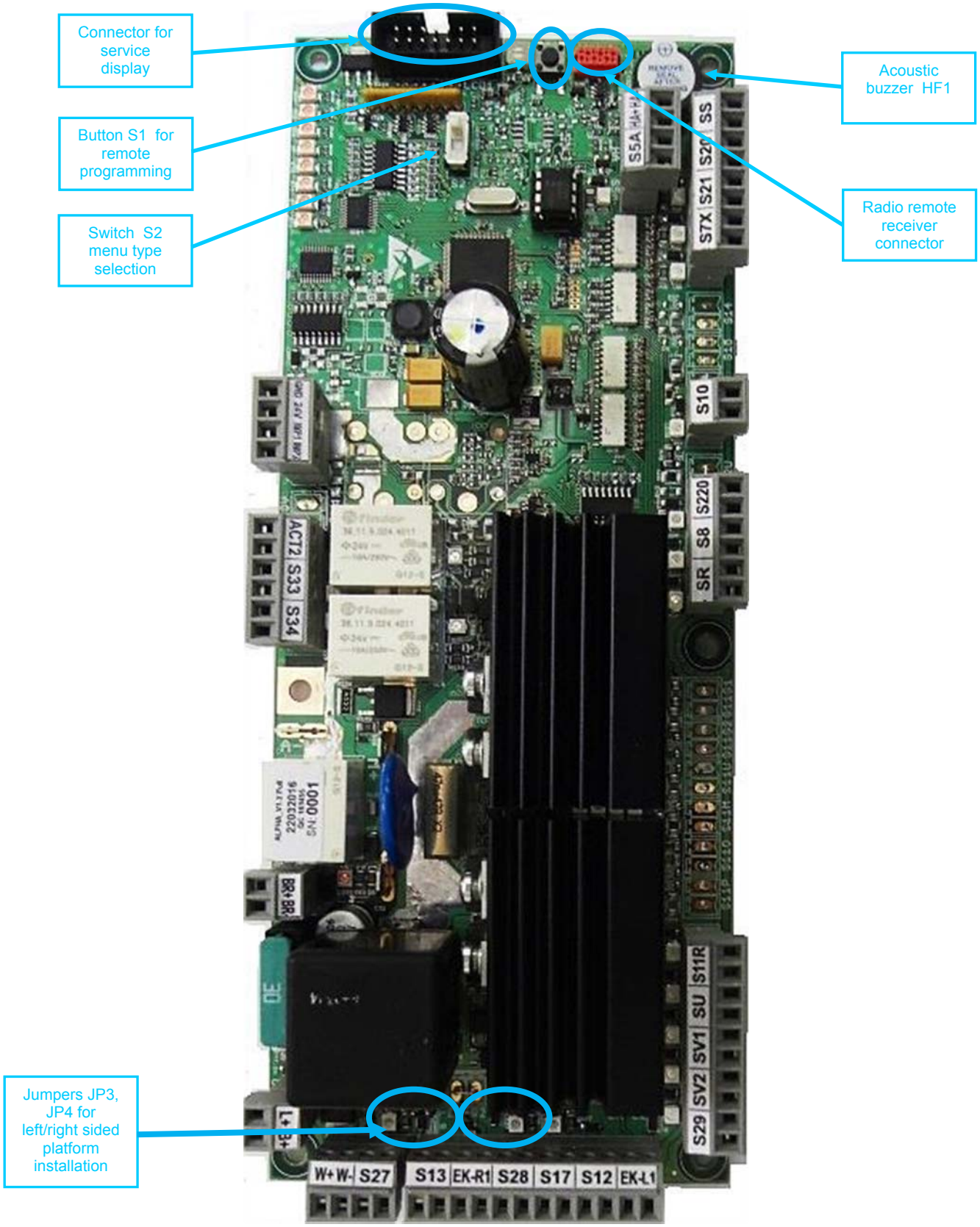
- With the charging station, the limit blocks and the control cams in place, run the carriage up to the top of the system and back while checking the travel clearances of the carriage.

- When the landing is uneven and the loading ramp does not rest properly on the floor, adjust the ramps on the platform once more.

Caution: The installation team is responsible for a proper carrying out of the installation. The unit has to be tested for secure working including its environment (structural influences)! Are there differences against the drawing, other influences or obvious defects which prevent a save working it is not allowed to set the lift into operation.

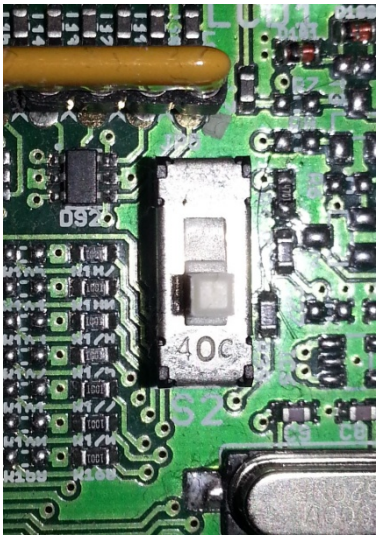
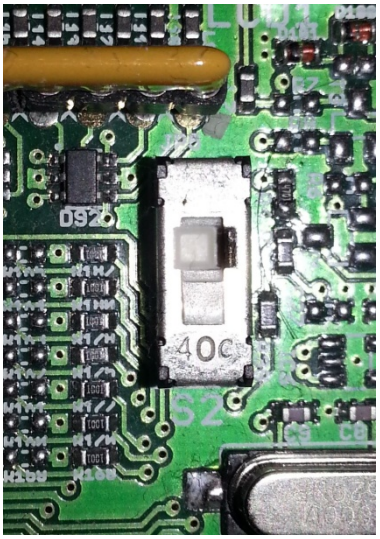
If any malfunctions are occurring or adjustments need to be made please refer to the following pages for more detailed information.

Switches and jumpers on the control unit



S2 switch

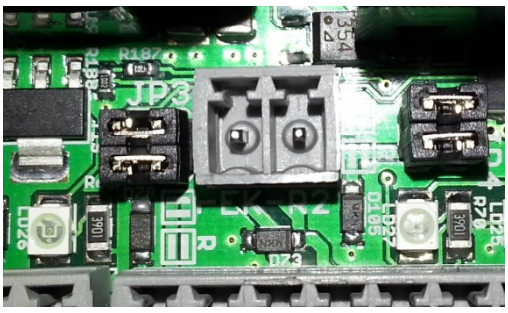
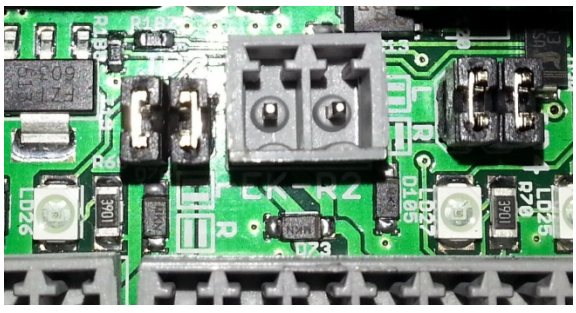
This switch selects between user/service menu types.

User mode	Service mode/menu
	

WARNING: After the platform installation and setting all service menu parameters, push the switch S2 to the position for user menu!!!

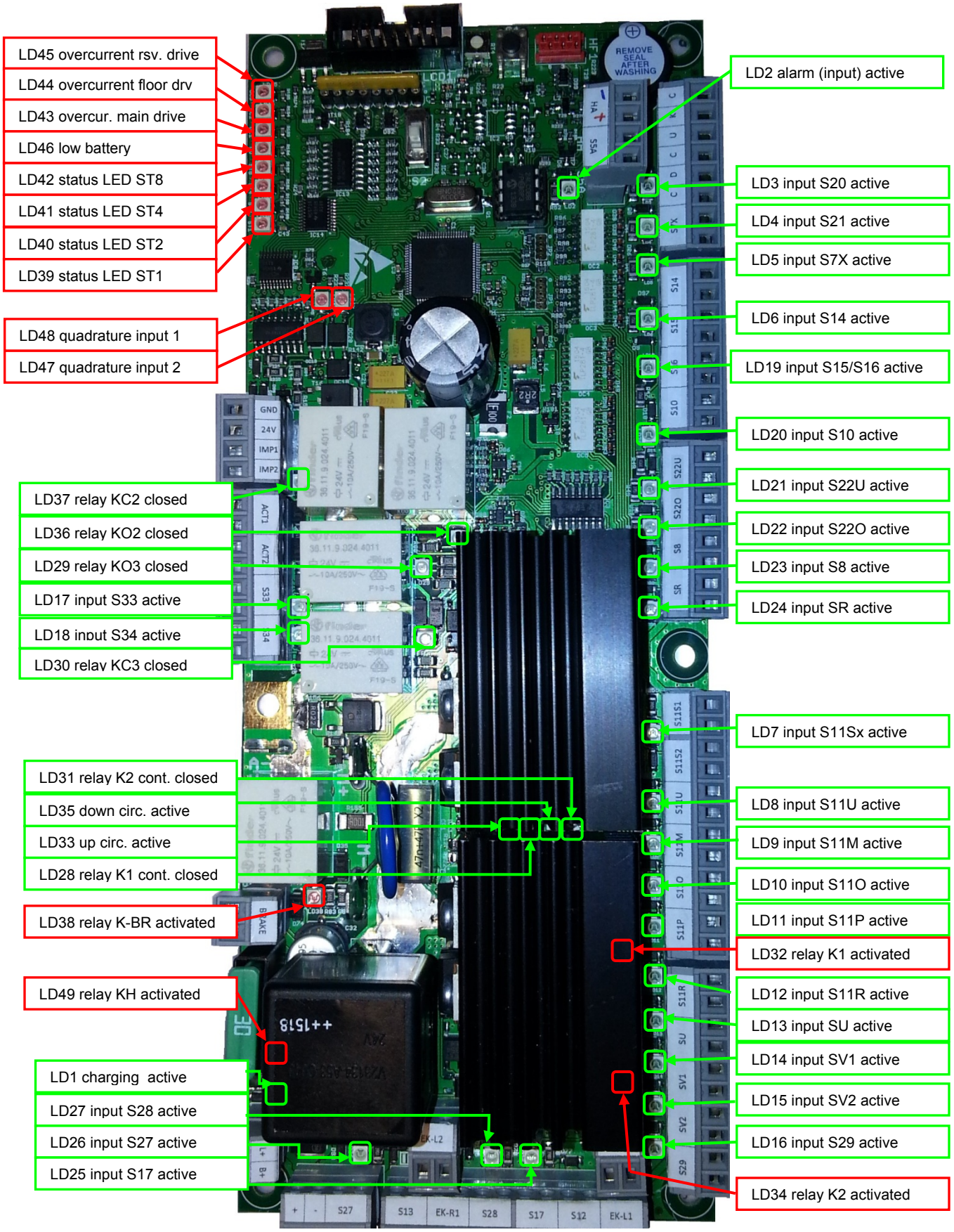
Jumpers JP3 and JP4

Jumpers JP3 and JP4 must be set properly according to left sided and right sided installation.

Left sided – left rail	Right sided – right rail
	

CAUTION: Proper jumper setting is absolutely necessary for the correct and safe function – safety elements in the drive direction.

LED signalization on platform's control unit



Name	Color		Function
LD1	green		Lights when battery charging is active
LD2	green		Lights when alarm input is activated
LD3	green		Lights when platform controller button UP is active
LD4	green		Lights when platform controller button DOWN is active
LD5	green		S7X; goes off after pushing the STOP-button
LD6	green		S14; goes off after left barrier unlocking
LD7	green		S11S1 + S11S2; On when both barriers are in horizontal position
LD8	green		S11U; Goes off when barriers are fully opened
LD9	green		S11M; Goes off when barriers get from opened position to horizontal while moving
LD10	green		S11O; Goes off when the floor is fully closed
LD11	green		S11P; Lights when the floor is fully opened i.e. horizontal position;
LD12	green		S11R; reserve
LD13	green		SU; Lights when the platform is overloaded
LD14	green		SV1; Goes off when platf. enters slowdown before stop
LD15	green		SV2; Goes off when platf. enters slowdown in curve (for straight-rail DELTA always lights)
LD16	green		S29; always on for DELTA rail without middle station
LD17	green		S33; reserve
LD18	green		S34; reserve
LD19	green		S15; goes off after right barrier unlocking while S16 switch is open
LD20	green		S10; Goes off when overspeed detected and safety gear activated
LD21	green		S22U; Goes off when lower safety limit switch opens
LD22	green		S22O; Goes off when upper safety limit switch opens
LD23	green		S8; Goes off while blocking manual emergency drive
LD24	green		SR; safety circuit reserve
LD25	green		S17; Goes off when safety bottom activates (press)
LD26	green		S27; Goes off when upper limit switch is activated
LD27	green		S28, S17; Goes off when lower limit switch or sensitive bottom is activated
LD28	green		Relay K1; Lights when relay K1 contact is closed (up direction)
LD29	green		Relay KO3; Lights when relay KO3 is activated
LD30	green		Relay KC3; Lights when relay KC3 is activated
LD31	green		Relay K2; Lights when relay K2 contact is closed (down direction)
LD32	red		Relay K1; Lights when relay K1 is activated (drive up)
LD33	green		Goes off when lateral contact or ramp switch in up direction is opened i.e. S12 or EK-L for right-sided rail is opened or S13

Name	Color		Function
LD34	red		Relay K2; Lights when relay K2 is activated (drive down)
LD35	green		Goes off when lateral contact or ramp switch in down direction is opened i.e. S12 or EK-L for left-sided rail is opened or S13 or EK-R for right-sided rail is opened
LD36	green		Relay KO2; Lights when the floor is opening, relay is activated
LD37	green		Relay KC2; Lights when the floor is closing, relay is activated
LD38	red		Relay K-BR; Lights when brake relay is activated (unbraked)
LD39	red		Status LED ST1; see the table in the following chapter
LD40	red		Status LED ST2; see the table in the following chapter
LD41	red		Status LED ST4; see the table in the following chapter
LD42	red		Status LED ST8; see the table in the following chapter
LD43	red		Lights when overcurrent is detected on the main drive 1
LD44	red		Lights when overcurrent is detected on the drive 2 – automatic floor actuator
LD45	red		Lights when overcurrent is detected on the drive 3 – reserve (not used for Delta)
LD46	red		Lights when battery voltage is low
LD47	red		Lights when quadrature input 2 is activated (not used for Delta)
LD48	red		Lights when quadrature input 1 is activated (not used for Delta)
LD49	red		Relay KH; Lights when main relay is activated

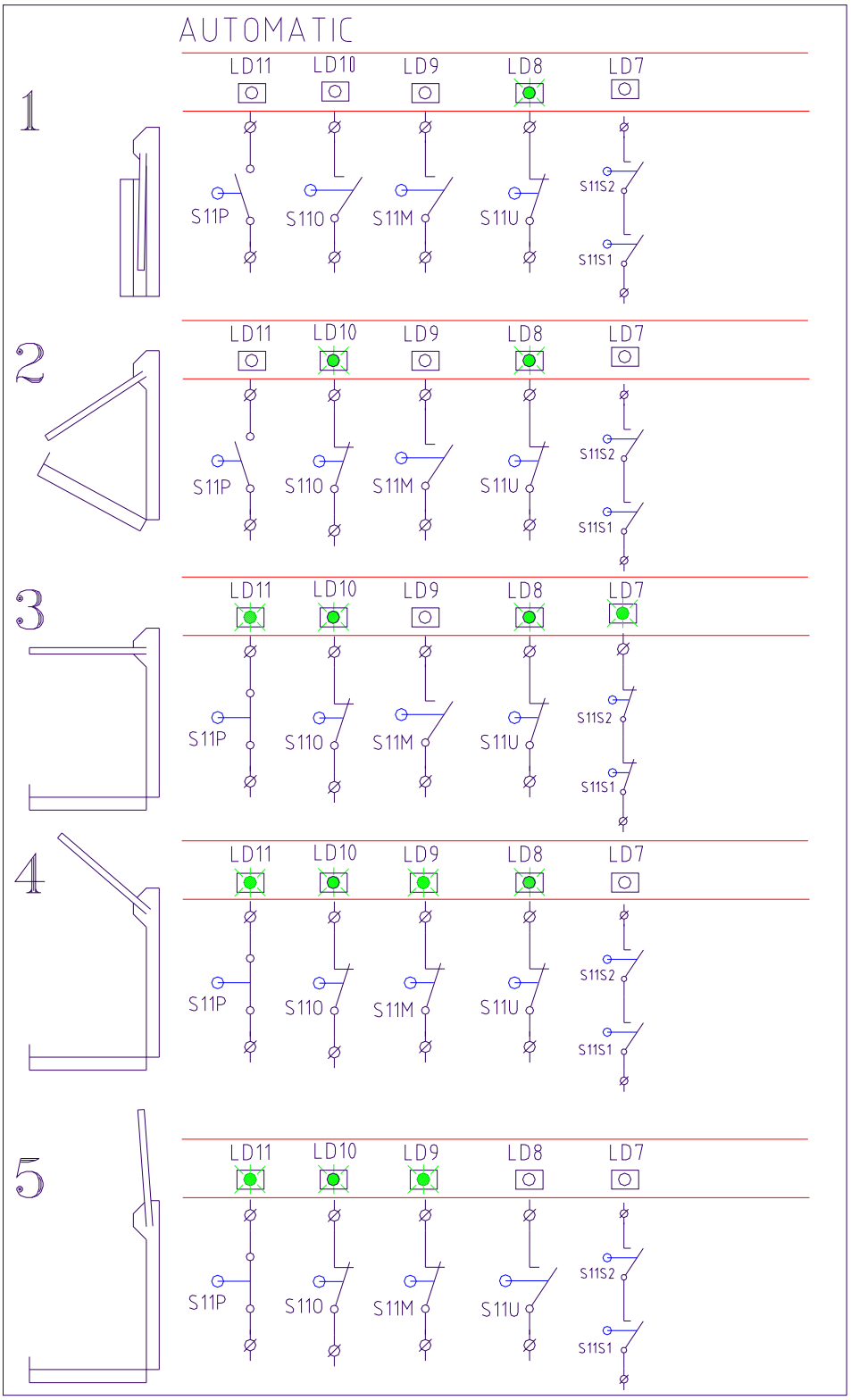
Status LED

In the following table there are all status LED combinations described. These LEDs and the table are useful especially when no display is available and the service worker needs to know the state of the control unit.

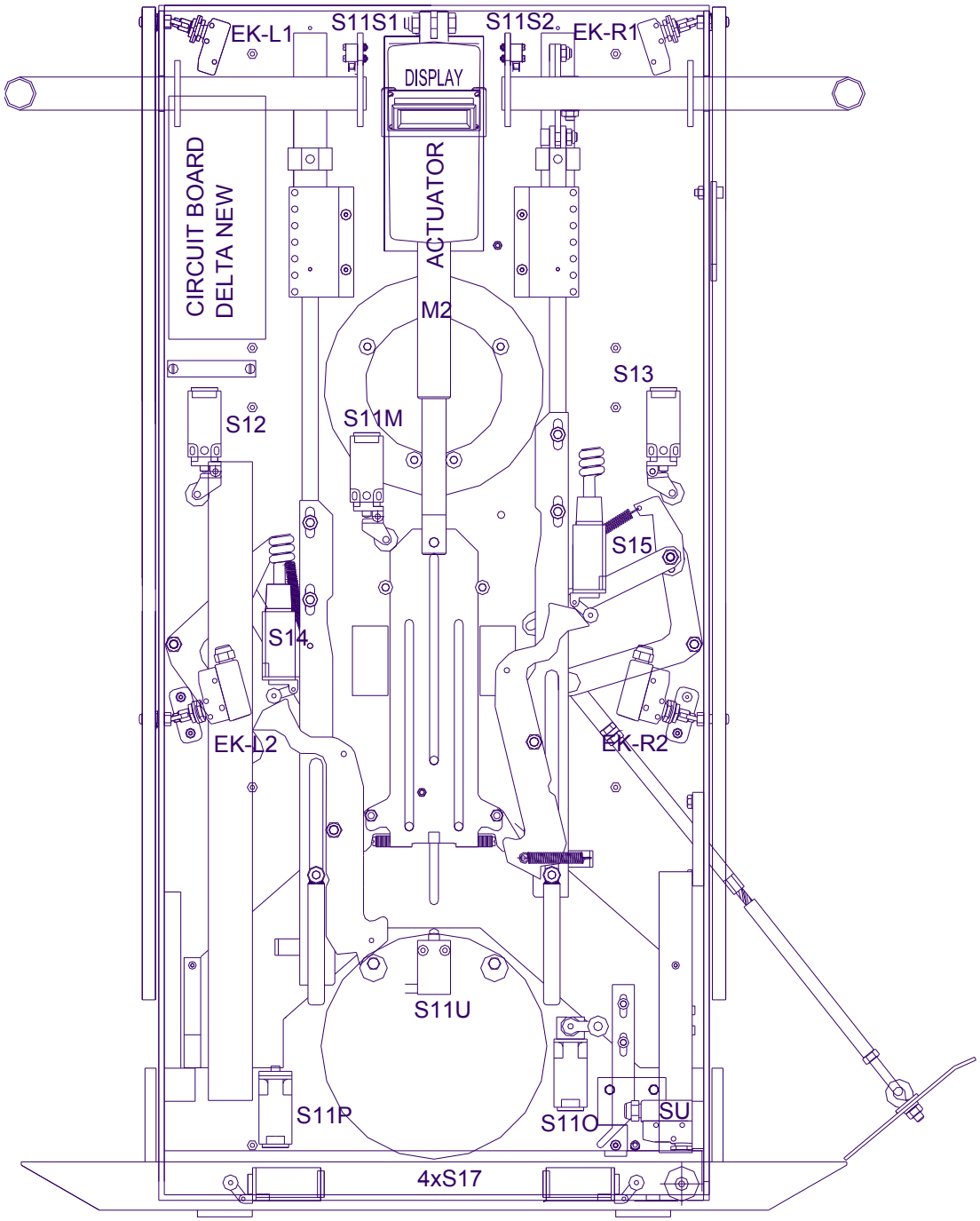
ST	1 (LD39)	2 (LD40)	4 (LD41)	8 (LD42)	Description
1	x				drive up by platform controller S20
2		X			drive down by platform controller S21
3			x		drive up by wall-mount RF controllers
4				x	drive down by wall-mount RF controllers
5	x		x		floor closing/barriers closing
6	x			x	floor opening/barriers opening
7	x	X			platform is in a station and being charged
8	x	X	x		platform out of station and not charged
9	x	X	x	x	error

Position switches on platform

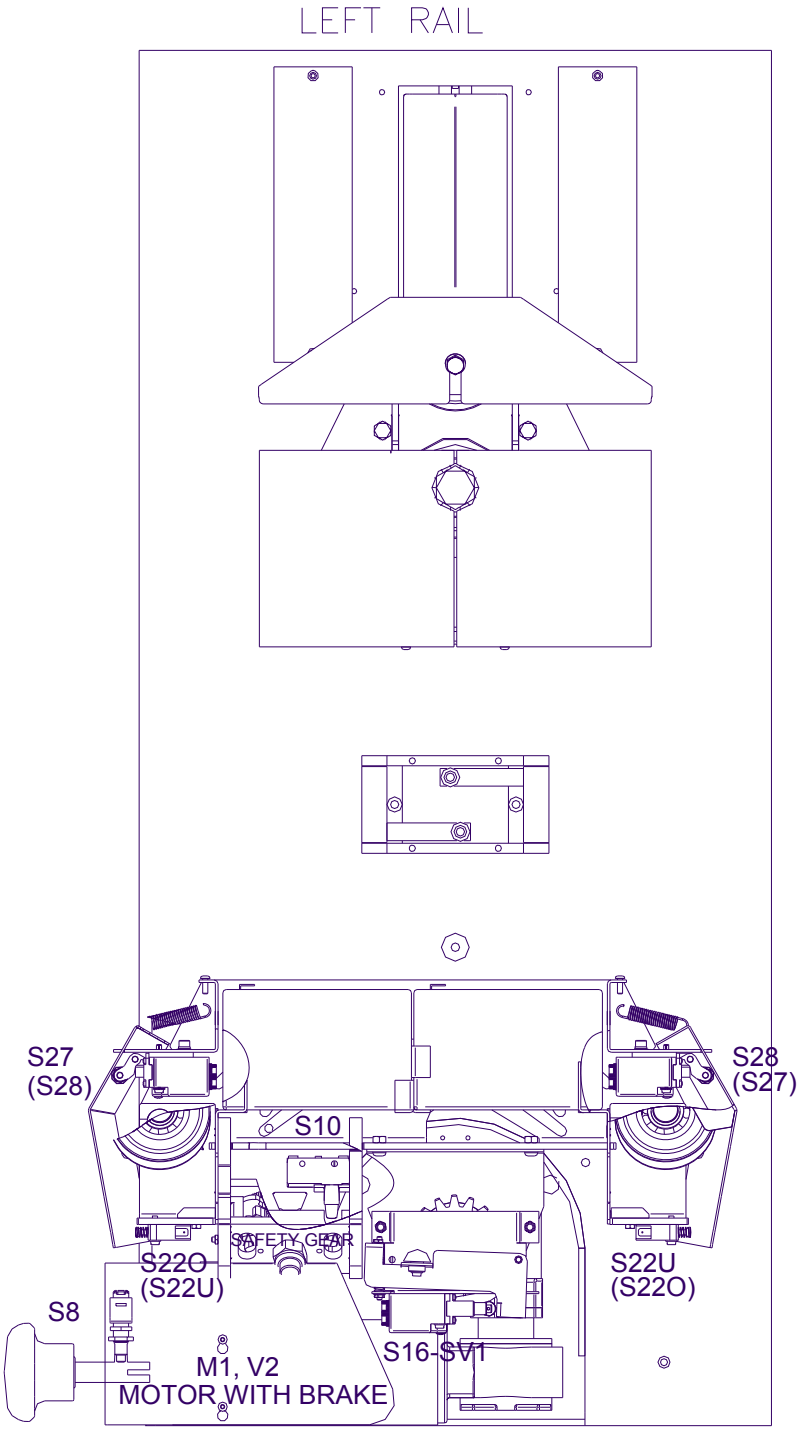
Following schematics show states of position switches (and related LEDs) in dependency on the position of the floor and the barriers.



Platform front view – switch position:



Platform backside view – switch position:



Display functions

The dispaly can be used to analyse errors and for system configuration.

Following chapters illustrate and describe functions individually.

A special service mode allows a technician to enter into a menu and change system configuration and read error messages.

Following pictures show information examples on the display in both USER and SERVICE mode.

USER mode when the floor is opened:

USER mode when floor is closed:

(AP) - special function only when „Auto-close" is activated
(OP) - special function only when "Call opened" is activated
The factory number is displayed on the lower line.

SERVICE mode with the information about the battery voltage and the current flowing into the motor/actuator:

If you want to enter the service mode you need to set switch S2 – see page 12 and 13.

Menu activation

Menu can be entered by pushing both direction buttons (Up AND down) on the platform controller for at least 5 second.

Another way is to activate emergency stop-button and simultaneously push any of direction buttons on the platform controller for at least 5 second (this way is suitable for platform controllers with joystick – no buttons which could be pressed simultaneously). After that it is necessary to deactivate this stop-button by rotating it (follow instructions directly on this button).

To navigate the menu the up direction button (or push the joystick) is used. To enter certain menu item press the down button (or push the joystick). **The edited parameter value can be changed via the up button, the confirmation via the down button**.

The active item in the menu is highlighted by the arrow on the right of the item (see picture below). To exit menu choose “Back” item (one in each menu level/sublevel, repeatedly as much as necessary to jump up from menu sublevels).

Note: Default display language is English; in menu item “Language” other languages can be selected.

Menu items

In the following table there are all menu items listed and briefly described for both user and service menu. There is also indication for each item whether it it available in user, service or both menus.

Menu item	User menu	Service menu	Description
Device info	X	X	This first item shows basic information about the device – version of HW, SW and serial number
Language	X	X	Display language can be set via this item
Factory number		X	This item can store custom factory number.
Error	X	X	Shows list of recorded errors, allows also to delete this list.
Ack. error		X	If activated, clears current error. This is possible only in a station.
Operation-time		X	This item shows operation time and also allows to clear it.
Factory default		X	Activation of this item restores all parameters to factory default.
Alert output		X	Allows setting of used warning elements and frequency of signalization.
Radio version		X	Allows radio module version setting.
Motor config.		X	Allows setting of all parameters for motor and actuators – current limits and speeds.
Options		X	Allows to set platform's special functions.

In the following paragraphs some of menu items will be described. Descriptions are structured as based in main menu.

Factory default settings are underlined in following lists. These settings can be restored by resetting system to factory default settings. See chapter 0 Menu items.

In the following paragraphs some of menu items will be described. Factory default settings are underlined in following lists. These settings can be restored by resetting system to factory default settings.

Device info

First row shows the type of device Alpha new and the version of HW and SW. Second row shows factory number – the number which is saved in menu as factory number.

Language

Menu item	Value	Name	Description
Language	CZE	Czech	One of these can be selected
	ENG	English	
	GER	German	
	ESP	Spanish	
	FRA	French	
	PL	Polish	

Factory number

A factory or identification number can be set by this menu item (5 digits). Command for the movement up can change current digit. The currently edited digit is highlighted. Command for the movement down can move onto the next digit.

Errors

Menu item	Value	Name	Description
Error list	Fxxx č/26 h:m:s	-	Shows list of stored errors. First row shows code number of error Fxxx. Second row shows current operation time when error appeared.
Clear errors	Sure? YES	-	By activation and selecting YES all stored errors will be purged from the list. CAUTION: List of errors can be deleted by the authorized technician only.

Acknowledge error

If the menu item is active, all errors that occurred are acknowledged. Errors which must be acknowledged by service men are mentioned in the table of errors.

Operation time

Menu item	Value	Name	Description
Show op-time	h:m:s	-	This item shows current operation time in hrs:min:sec format
Reset op-time	Sure? YES	-	By activation and selecting YES operation time counter is cleared.

Factory default

Activation of this item restores all parameters to factory default. Factory default settings are underlined in lists.

Movement signalization – signal output

Menu item	Value	Name	Description
Signal ON/OFF	OFF	Signalization off	This parameter enables/disables outside signalization (output on clips W+, W-) for example LED-signalization
	ON	Signalization on during movement on the rail	
Frequency	1…8	fast→slow	Sets signal frequency. Applies for both buzzer and WARN output. 1 → Fast blinking/beeping 8 → Slow blinking/beeping 9 → permanent light/tone
	9	Permanent tone	
Buzzer ON/OFF	OFF	Buzzer off	This parameter sets presence of buzzer tone during the platform movement.
	ON1	Buzzer always on	
	ON2	Buzzer on during movement only with RF controllers	

Radio controller version

Menu item	Value	Name	Description
Radio version	1	TX-OMDE-V-01 (Schmidiger)	Allows radio module version setting.
	2	Reserve for other (future) type of radio controller	

Motor configuration

Menu item	Value	Name	Description
Overcurrent threshold settings			
Main drive	15…40 30	A	Sets overcurrent threshold for the main motor. After exceeding this threshold motor stops, “DRIVE MOTOR CURRENT LIMIT” error is shown on the display and signalized by LEDs on CU board.
Actuator 1 (not shown)	2…7 3,4	A	Not used yet
Actuator 2 (reserve)	2…7 3,4	A	Sets overcurrent threshold for seat rotation.
PW/M speed settings:			
Full speed UP	50…100 100	% PWM	Sets maximum speed for drive up
Full speed DOWN	50…100 80	% PWM	Sets maximum speed for drive down
Slowdown UP	10…60 50	% PWM	Sets speed for drive up into station

Menu item		Value	Name	Description
	Slowdown DOWN	10…60 25	% PWM	Sets speed for drive down into station
	Curve UP	10…80 75	% PWM	Sets speed for drive up in curves (not in use for straight Delta)
	Curve DOWN	10…80 75	% PWM	Sets speed for drive down in curves (not in use for straight Delta)

Options

Menu item	Value	Name	Description
Auto-close (AP) symbol on the display when this function is activated	OFF	automatical closing OFF	When this option is ON and platform is with fully opened barriers standing (not operated) in any station, platform CU closes floor and barriers after timeout.
	ON	Automatical closing ON	
Auto-close time	20…120	seconds	Timeout value for automatical floor closing.
Call opened (OP) symbol on the display when this function is activated	OFF	RF controlled movement of the stairlift with the opened floor is FORBIDDEN	When this option is ON, the stairlift can be operated with the opened floor also with the wall-mounted RF controllers (e.g. freight platform).
	ON	RF controlled movement of the stairlift with the opened floor is ALLOWED	

Error and operation diagnostic on the display

Error ID	Shown on display	Description
F101-113	Errors in relay and contacts	Main board failure – replace board

Following errors are recorded in EEPROM but they don't block operation of chair stairlift – don't need acknowledgement.

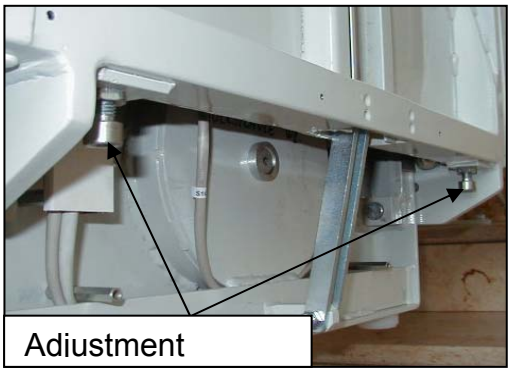
Error ID	Shown display text	Description
F201	EMERGENCY STOP SI: S7X	Emergency STOP-button
F202	Input S16 (and also S14 and S15) shorten	NOT IN USE
F203	OSG OVERSPEED SI: S10	Overspeed gear reacted during drive down, drive is now blocked mechanically
F204	Input S22U shorten	NOT IN USE
F205	DOWN/UP SAF.LIMIT SW SI: S22O	Down/up ultimate limit switch S22O is active – 1 switch for both directions –> drive unit out of landing station with handwheel
F206	EMERG DRIVE SW SI: S8	Blocking during the emergency manual drive -> Remove handwheel
F207	RESERVE SAF.C.SW SI: SR	Check jumper of this input at CU's terminals
F301	SENSITIVE BOTTOM SI: S17	Sensitive bottom has been pushed while the stairlift was moving down
F302	DOWN SENS. PAD SI: S12/13,EKL/R	Sensitive pads and edges hit an obstacle in the direction down
F303	UP SENS. PAD SI: S12/13,EKL/R	Sensitive pads and edges hit an obstacle in the direction up
F401	OVERLOAD LIFT SI: SU	Overload of the chair stairlift – SU=1 switch is closed – currently not installed
F402	CURRENT LIMIT DRIVE MOTOR	Overcurrent detected on main drive M
F403	CURRENT LIMIT ACT1 – FOOTREST	overload/overcurrent detected on actuator 1 - footrest
F404	CURRENT LIMIT ACT2 - SEAT	Overload/overcurrent detected on actuator 2 – seat rotation
F405	EMPTY BATTERY STOP UP	Battery voltage dropped below 19.4 V, further up direction movement is blocked

Following errors are not recorded in EEPROM and they also don't block further operation of stairlift – don't need acknowledgement. They're shown as long as the error is present and corresponding control buttons are activated.

Display message	Description
BARRIERS OPEN SI: S11U	Signalizes fully opened state of the floor and barriers
PLATFORM CLOSED SI: S11O	Signalizes fully closed state of the floor and barriers
PLATF.NOT CLOSED SI: S11x	The platform floor is not fully closed
PLATF/BAR F.POS SI: S11x	Floor is currently not fully opened and barriers are not in horizontal position
BARR. NOT CLOSED SI: S11x	barriers are not in horizontal position
IN LOWER STATION SI: S28, A-S11U	Shows after reaching lower station with open platform
IN UPPER STATION SI: S27, A-S11U	Shows after reaching upper station with open platform
IN LOWER STATION SI: S28	Shows after reaching lower station with closed platform
IN UPPER STATION SI: S27	Shows after reaching upper station with closed platform
STOP DRIVE UP SI: S27	sensitive pad hit an obstacle during driving up
STOP DRIVE DOWN SI: S28	sensitive pad hit an obstacle during driving down
PLATF. UNDEF.POS SI: S11x nedef.	Controller is not able to evaluate the position of the floor
MAN-UNABLE AUT-S11x nedef.	this is standard message for manual platform which is not able to electrically operate floor and barriers
UNDEF.STATION SW SI: S27,S28, S29	if both S27 and S28 switches are opened further stairlift movement is blocked for any controllers excluding opening or closing of floor
EXCEED RUN TIME INTO STATION	Slowdown before station timeout has expired

Adjustment of the platform inclination

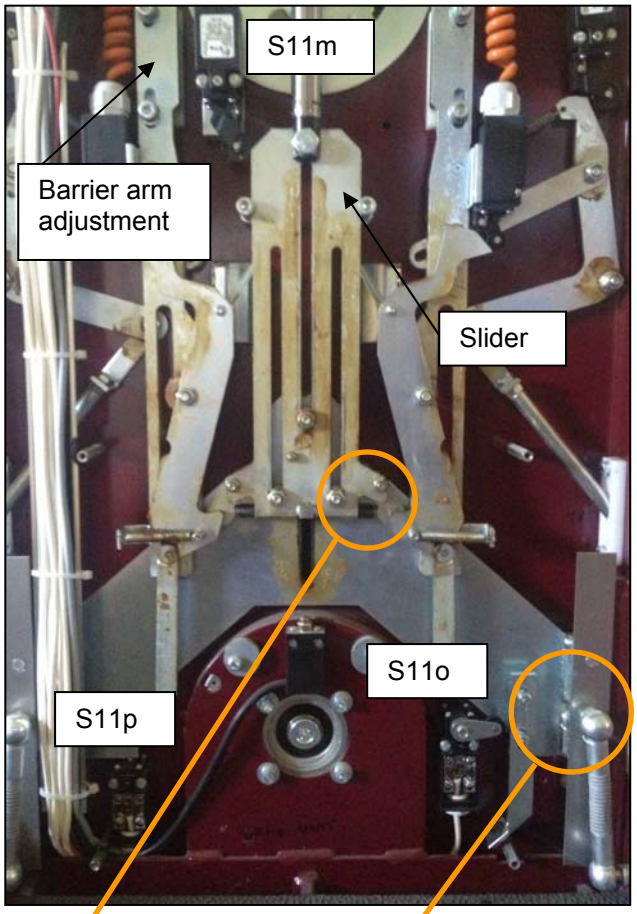
To adjust the platform horizontally, change the adjustment screws as shown in the picture. Check in loaded condition! Counter the adjusting screw with the counter nut after successful adjustment.

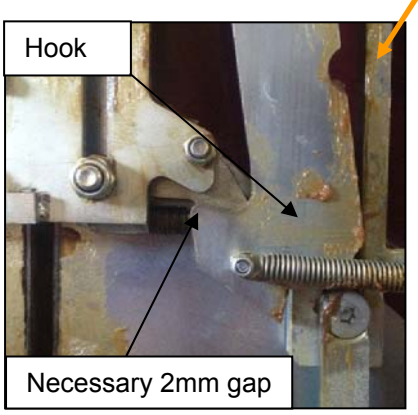


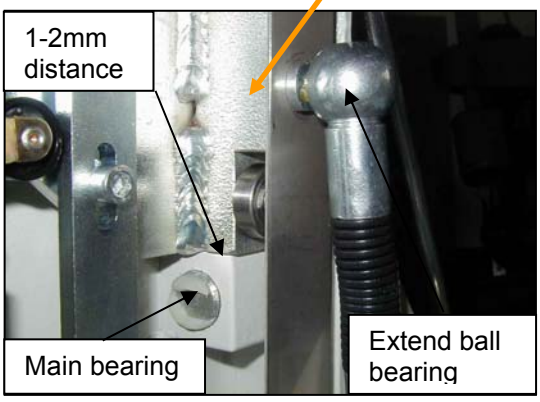
Caution: Check if **both** adjusting screws are supporting the platform!

After changing the platform inclination please check the platform mechanism:

- Between the hook and the slider should be around 2mm gap. This can be adjusted by moving switch S11m.
- S11p must be properly pressed when platform is open (it must click when pressed). Otherwise adjust.
- S11o must be pressed when platform is closed. Otherwise adjust.
- Between the main bearing and the platform sliding mechanism a minimum distance of 1-2mm must be given. This can be adjusted by changing the length of the ball bearing connection between the platform and the carriage. This is important so that mechanical force of the platform in an unfolded position is not directly carried forward to the mechanical parts inside the platform, but rather held by the adjusting screws!
- If barrier arms are not horizontal open the screw shown in the illustration, adjust the barrier and lock the adjustment with the screw again.



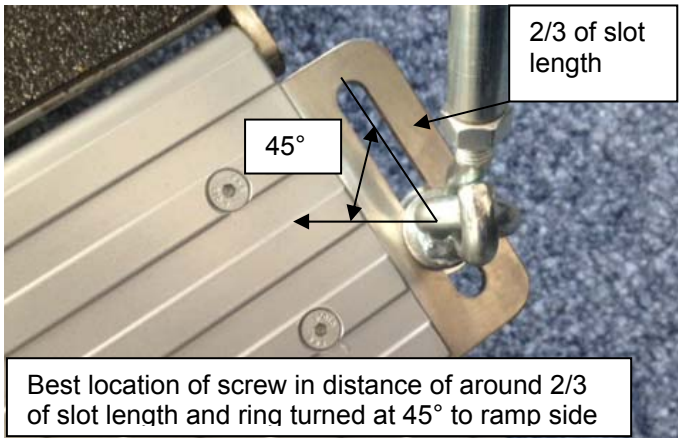




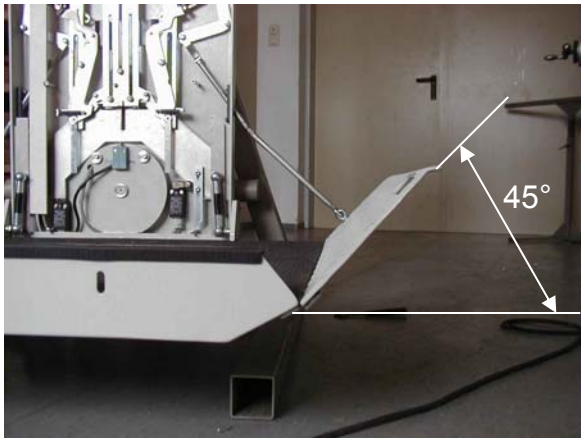
Adjustment of the loading ramps

Adjust the ramps to achieve a **45 ° angle** between the platform and ramp when the barrier is in horizontal position. When the barrier is open, the ramp has to fit to the bottom of the landing area. Also fix the ring at an **angle of around 45°** to the side of the ramp and at a distance of around 2/3 inside the slot. This ensures best operation.

Check the loading ramps for proper operation. In folded and unfolded position of the platform, the ramps are also used as safety pads. When fixing the ramp ensure that it still can be pushed in order to activate the safety switches S12 and S13.



Best location of screw in distance of around 2/3 of slot length and ring turned at 45° to ramp side

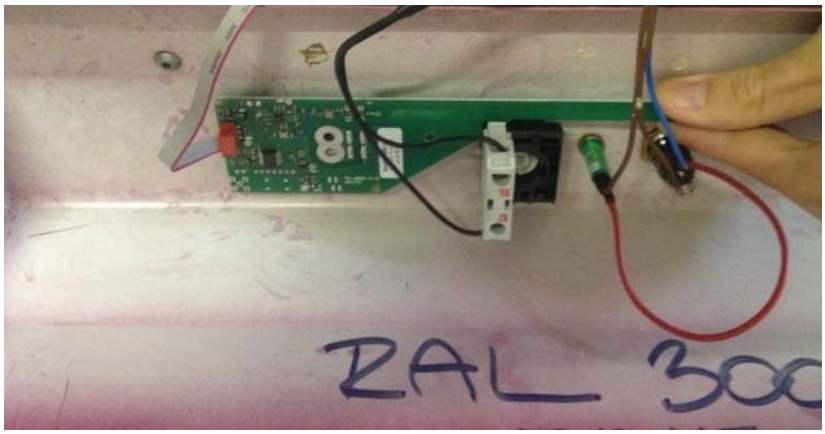


Configuration of the remote radio controls

To programme the remotes the button S1 on the control board where the receiver is connected to has to be pressed until the LED on the receiver start to blink. See page 12.

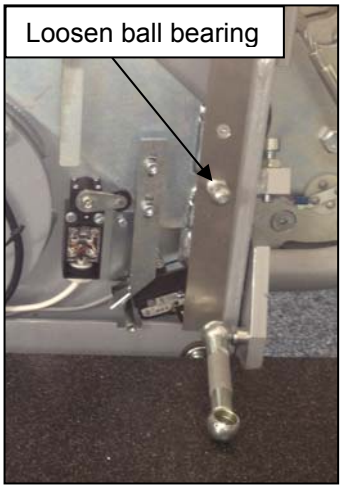
Now the senders can be programmed. To programme a sender the up and down button on the sender have to be pressed simultaneously. Then the LED on the sender start to blink in orange for 2,5 second and then remains on in an orange light and then green light. Now the sender is programmed. Now the next sender can be programmed in the same way by pressing the 2 buttons simultaneously. To stop the programming mode the button S1 has to be pressed again and the action will be confirmed by the receiver by fast blinking of the LED.
The remote radio controls have different LED status indications. The below status refers to the radio control model TX-OMDE-V-01:

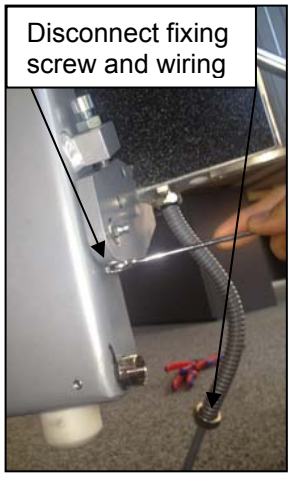
LED status	Description
Green light	Radio signal ok and drive command is active
Orange light	Radio signal ok and platform is not driving or folding A reason can be that the platform is driven from the platform control or that a safety circuit is open in the electrical system.
Red light	Radio signal is ok but the lift is not moved by the command.
Orange blinking	Radio signal is not ok – there is a disruption
Red blinking	The batteries of the sender a weak and should be changed
Green blinking	The sender was successfully connected to the receiver during programming

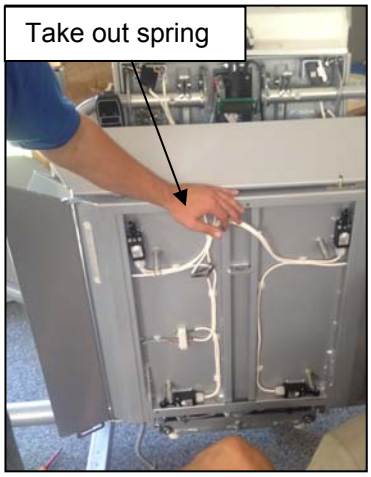


Dismantle the platform floor

- Dismantle the ball bearing connection between sliding mechanism and platform
- Disconnect platform rod connection for sidewall
- Dismantle safety under-pan of the platform
- Disconnect spring inside platform floor. You might need to manually compress the spring in order to uninstall the connection. Make sure that the connection between the spring and the bearing is correctly put together afterwards. The connection metal parts have a slight bend. It is important for reassembly that they are put back in the same way.
- Disconnect the electrical wiring between the platform floor and the sidewall
- Disconnect fixing screw from the treaded pinhole of main platform hinge bearing
- Remove the main bearing pin and take off the platform floor







Adjustment of the overload switch

If the unit is equipped with an overload device it is mounted at the lower right part of the sidewall. The platform with full load presses the spring washers and if the real load exceeds the rated load by around 25% then the switch is activates and departure from the landing stop position is blocked by the overload switch.

In case the switch needs adjustment on site it is necessary to load the platform with the rated load +25% and then adjust the switch with the adjustment screw so that it just activates under this load condition. See below illustration for explanation: